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The Back Bay/ South End Gateway Project

DRAFT ENVIRONMENTAL IMPACT REPORT/ DRAFT PROJECT IMPACT REPORT

VOLUME II

PREPARED BY

vhb

SUBMITTED TO
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Massachusetts Environmental Policy Act Office
Boston Planning & Development Agency

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Summary of Proposed Mitigation

In accordance with the Secretary's Certificate on the ENF and the BPDA Scoping Determination on the PNF, this chapter presents an overview of the Project's proposed measures to avoid, minimize, or mitigate environmental impacts associated with its development and the public benefits to be delivered with each Project Component.

The following sections summarize the planned mitigation measures being taken by the Proponent to avoid, minimize, or mitigate environmental impacts related to:

- Transportation;
- Public Realm Improvements;
- GHG Emissions;
- Stormwater management;
- Water and wastewater;
- Geotechnical/Groundwater; and
- Construction.

9.1 Transportation

As discussed in Chapter 4*, Transportation and Parking*, the proposed mitigation and TDM measures demonstrate that the Proponent is committed to preserving the favorable mode share balance that exists in the area today and also to providing additional improvements to manage the vehicle trip generation projected to result from the Project. As presented in the analyses, the Project will have limited impacts on the surrounding transportation infrastructure. The Proponent will work with all stakeholders, including MassDOT, the MBTA and the City, to establish a plan for mitigation and improvements to various transportation infrastructure. The following sections describe the proposed mitigation to be discussed in further detail with stakeholders.

9.1.1 Proposed Roadway Improvements

The Proponent has evaluated potential roadway improvements that will increase the overall performance of the mitigated intersections and improve the flow of vehicles in the network.

Based on the Vehicle Level of Service Analysis (VLOS) analysis presented in Chapter 4, *Transportation and Parking,* there are a few intersections that decline in operations as a result of the Project. To address these impacts, this analysis has considered

potential roadway improvements, including intersection signal timing modifications, as possible options for further evaluation in coordination with BTD. Please refer to Section 4.7 and Figure 4.19 for a detailed description of proposed mitigation at the following intersections:

Signal Timing

- Stuart Street and Clarendon Street (#11)
  - Signal timing adjustments will result in an overall intersection delay reduction of 16.7 seconds and an improvement of LOS D to LOS C in the morning peak hour.
- Stuart Street/Arlington Street (#13)
  - Signal timing adjustments will result in an overall intersection delay reduction of 8.4 seconds and an improvement of LOS E to LOS D in the morning peak hour, and an overall delay reduction of 33.4 seconds in the evening peak hour. The reduced LOS is a result of No-Build background traffic and while the Project does not have a substantial impact on this intersection, the Proponent is prepared to provide mitigation in an effort to reduce delay and improve intersection functionality within the area.
- Columbus Avenue/Dartmouth Street (#17)
  - Signal timing adjustments will result in an overall intersection delay reduction of 9.7 seconds in the morning peak hour, and an overall delay reduction of 43.3 seconds and an improvement of LOS F to LOS E in the evening peak hour.
  - The concurrent pedestrian time during the northeast/southwest phase will be eliminated to reduce left turn conflicts with pedestrians.
- Columbus Avenue/Clarendon Street (#18)
  - Signal timing adjustments will result in an overall intersection delay reduction of 29 seconds and an improvement of LOS D to LOS C in the morning peak hour, and an overall delay reduction of 6.7 seconds and an improvement of LOS D to LOS C in the evening peak hour.
  - The existing parking lane at the Clarendon Street southbound approach was removed to allow for the creation of a left turn only lane.
- Stuart Street/Trinity Place (Alternate Scheme Only) (#10)
  - Signal timing adjustments will result in an overall intersection delay reduction of 0.7 seconds in the morning peak hour, and an overall delay reduction of 18.4 seconds and an improvement of LOS D to LOS C in the evening peak hour.

Possible Signalization of Intersection

- St James Avenue/Trinity Place (#4)

- Further study signal implementation

› Clarendon Street/Stanhope Street (#15)
  - Further study signal implementation

Roadway Modifications

› Stuart Street from Dartmouth Street to Trinity Place
  - The Proponent is coordinating with other approved projects to develop a consistent Stuart street plan from Dartmouth Street to Clarendon Street. Refer to Section 4.7.3 for details on the proposed plan.

› Clarendon Street from Stanhope Street to Columbus Avenue
  - The Proponent proposes to convert the parking lane into a left turn only lane to help serve the vehicles approaching the Clarendon Street/Columbus Avenue intersection from the north.

Possible Roadway Modification

› Trinity Place One-way between St James Avenue and Stuart Street
  - Further study of the feasibility of converting circulation on Trinity Place to northbound only between Stuart Street and St. James Avenue, thereby allowing conversion of approximately 6 – 8ft. of roadway width to pedestrian uses or streetscape improvements.

BTD has also requested the Proponent investigate operations and curbside activities along St. James Street between Dartmouth Street and Clarendon Street. Potential improvements are currently being evaluated by the design team and are shown previously in Figure 4.24.

Phasing of Roadway Improvements

The Project has been designed to be phasable, and the sequence of construction for each individual Project Component is subject to market and other conditions. In turn, the implementation of improvements and mitigation will be similarly phased according to the sequence of buildings. The phasing of potential transportation improvements to be implemented in association with each parcel are summarized in Section 4.13.1 and in Table 9-1 below.

TABLE 9-1 PHASING OF POTENTIAL ROADWAY IMPROVEMENTS

Possible Mitigation	Project Parcel
Stuart Street/Arlington Street (#13)	Garage West
Columbus Avenue/Dartmouth Street (#17)	Garage West or Station East
Columbus Avenue/Clarendon Street (#18)	Garage East or Station East
St James Avenue/Trinity Place (#4)	Garage West
Clarendon Street/Stanhope Street (#15)	Garage East or Station East
Stuart Street/Clarendon Street (#11)	Garage West or Garage East
Stuart Street/Trinity Place (#10) – Alternate Scheme only	Garage West or Garage East
Stuart Street from Dartmouth Street to Trinity Place	Garage West
Clarendon Street from Stanhope Street to Columbus Avenue	Station East
Trinity Place One-way between St James Avenue and Stuart Street	Garage West

9.1.2 Transit Mitigation

The Project is conceived as a holistic and transformative transit-oriented redevelopment centered around the Station. Notably, as certain components of the Project are delivered, they will also create substantial improvements to the existing Station. The following section, and Figures 3.8a-f and Figure 4.23 describe the Station improvements associated with each Project Component:

- With the development of the Garage West Parcel, the Project will deliver a new Station Entrance from Stuart Street linked to the Station via a through-block connector, providing transit customers an accessible and weather-protected path.
- With the development of the Garage West Parcel, a dedicated bus pull-off area will be provided adjacent to the new Station entrance, making commuter connections safer and more convenient.
- With the development of the Station East Parcel, the Project will deliver a new Station Entrance from Clarendon Street linked to the Station via a through-block connector, providing transit customers an accessible and weather-protected path.
- With the development of the Station East Parcel, a new public plaza serving as a forecourt to the new Station entrance will be delivered, reinforcing the civic nature of the new Station entrance.
- With the development of the Station East Parcel, the Project will deliver a new redundant elevator to the Orange Line adjacent to the existing elevator, doubling the existing capacity and increasing reliability for transit customers. New redundant elevators will also be delivered to Tracks 1/3 and Track 2, if determined to be feasible.
- With the development of the Station West Parcel, the existing Dartmouth Street crosswalk will be relocated and expanded to align with the future Station entrance, improving commuter safety and access to the Station.

› With the development of the Station West Parcel, the existing open space on Dartmouth Street will be enhanced to create an inviting public plaza that welcomes transit customers and reinforces the civic nature of the existing Station entrance, enhancing the link between the Station and the Southwest Corridor Park.

9.1.3 Transportation Demand Management

The Proponent will support a program of Transportation Demand Management (TDM) actions to reduce the use of single occupant vehicles (SOVs) by encouraging carpooling and vanpooling, bicycling, walking, and increased use of the area's public transit system. Please refer to Section 4.13.2 for a full list of TDM measures that the Proponent will provide. These measures will be incorporated into one or more Transportation Access Plan Agreements (TAPAs) as discussed further in Section 9.1.5 below.

9.1.4 Transportation Monitoring Program

The Proponent will conduct an annual Transportation Monitoring Program, including an employee and resident survey, drive mode share survey and biennial driveway and parking counts. The monitoring effort will confirm that the post-development impacts of the Project are consistent with the forecast estimates and ensure that the mitigation measures are completed and/or maintained.

The monitoring program will commence six (6) months after full completion and occupancy of the first building and will continue for a period of five (5) years after occupancy of the full-build-out of the Project. Results of the monitoring program will be summarized in a technical memorandum and will be provided to the MassDOT and BTD. Please refer to Section 4.13.3 for a summary of monitoring program elements.

9.1.5 Construction Management Plan (CMP)

The Proponent will develop a detailed evaluation of potential short-term construction-related transportation impacts including construction vehicle traffic, parking supply and demand, and pedestrian access. Detailed Construction Management Plans (CMPs) will be developed at the appropriate time for each Project Component as the phasing plan develops. As discussed in Section 4.13.4, further clarity is needed on key elements such as start date, construction duration, and other active construction sites in the area at the time of each Project component's commencement. These plans will detail construction vehicle routing and staging.

9.1.6 Transportation Access Plan Agreement (TAPA)

The Proponent will enter into one or more TAPAs with the BTD for each Project Component in advance of its building permit issuance, which will formalize and

document all transportation mitigation and TDM commitments for that Project Component. The TAPA will assign TDM implementation to the appropriate responsible entity be they the building owner, an employer, or tenant for each Project Component.

9.2 Public Realm Improvements

As discussed in Section 3.5.1 and illustrated in Figures 3.8a-f, the Project includes significant improvements to the streetscape on the Project Site. Specific improvements proposed for each Air Rights Development Parcel are summarized below in Table 9.2.

Table 9-2: Pedestrian Realm Improvements by Project

Project Parcel	Improvement
Station West	› Relocated and enlarged Dartmouth Street crosswalk with tactile paving at curb ramps and bollards for pedestrian protection › Improved Station entry plaza › New concrete paving within pedestrian zone › New unit paving within furnishing zone that includes new street trees in raised planters, benches, street lights, and bicycle racks
Garage West	› New accessible Station entrance and through block connection from Stuart Street › Widened pedestrian zone with new concrete paving along Stuart Street › New unit paving within furnishing zone that includes new street trees (some in raised planters), benches, street lights and bicycle racks › Improved and reconfigured accessible ramp and stairs at retail entrance on Dartmouth Street › Continuous pedestrian walkway at vehicular crossing › Improved grade slope within pedestrian zone at corner of Dartmouth Street and Stuart Street › Reconfigured crosswalks at Stuart Street that improve accessibility › New accessible drop-off area and bus stop along Stuart Street

Garage East	› New concrete paving within pedestrian zone › New unit paving within furnishing zone that includes new street trees (some in raised planters), benches, street lights and bicycle racks. › Reconfigured crosswalk at Clarendon and Stanhope Streets that increase pedestrian safety and accessibility › The Garage drive width and has been reduced and realigned to Clarendon Street › Improved grade slope within pedestrian zone along Garage façade adjacent to Clarendon Street
Station East	› New accessible Station entrance and through block connection from Clarendon Street › New landscaped public plaza with trees in raised planters › New concrete paving within pedestrian zone › New proposed Hubway station › New unit paving within furnishing zone that includes new street trees in raised planters, benches, street lights, and bicycle racks › Reconfigured crosswalks that increase pedestrian safety and accessibility › New redundant elevator to Orange Line › Potential new redundant elevator to tracks 1/3 and 2 › New vehicular drop-off lane

9.3 Greenhouse Gas Emissions and Air Quality

As discussed in Chapter 5, *Sustainability and Greenhouse Gas Emissions Assessment*, the Project's sustainable design goals and operational measures demonstrate that the Proponent is committed to constructing and operating a sustainable and environmentally-sensitive development. The incorporation of these sustainable design and operational principles will result in an overall reduction in Project-related GHG stationary and mobile source emissions.

The GHG emissions assessment demonstrates that the Project meets the intent and requirements of the MEPA GHG Policy because it estimates the potential Project-related GHG emissions and evaluates and incorporates measures to reduce the GHG emissions to the extent practical and feasible.

9.3.1 Stationary Source GHG Emissions

The GHG emissions assessment is based upon the best information available at the current stage of design. The Project has been designed to meet the Stretch Energy Code, as applicable, (i.e., a minimum 10 percent energy savings over the ASHRAE 90.1-2013 standards) through the incorporation of building improvements.

As discussed in Chapter 5, *Sustainability and Greenhouse Gas Emissions Assessment*, of this DEIR/DPIR, the Project is targeting a LEED Gold rating for the Garage West commercial building and a LEED Silver rating for the Garage East and Station East Residential buildings and the Station West retail expansion. The Proponent will continue to evaluate and incorporate sustainable design and energy conservation strategies as the design process continues with the goal of increasing the LEED rating level. Sustainable and high-performance building strategies are at the core of the design for the Project in order to meet these targets. The preliminary LEED-NC Scorecards are presented in Figures 5.1a-d.

High-efficiency mechanical systems, LED lighting and daylight dimming controls, and high-performance building envelope design are anticipated measures to contribute substantially to energy savings. Coupled with other improvements in the design condition, these mitigation measures are expected to provide a 19.7 percent energy savings and 15.4 percent GHG emissions savings over the baseline condition for the combined Project. These savings are substantially greater than the minimum required by the Stretch Energy Code and exemplify the Proponent's commitment to building a successful and sustainable Project. Section 5.4.4 provides a comprehensive description of the proposed energy conservation measures assumed as part of the energy model as well as other beneficial measures that were not modeled due to limitations of the science used in energy models.

While not accounted for in the preliminary energy modeling, the Proponent will continue to consider and evaluate additional measures to further reduce stationary source GHG emissions such as operational measures (e.g., continuous building system optimization and energy tracking for the life of the Project). The Proponent will further consider the feasibility of cogeneration in the form of combined heat and power and roof PV as the design develops. Vertical, helix-shaped, roof-mounted wind turbines are deemed infeasible because average wind speeds in Boston are low and their inclusion would preempt other more cost-effective renewable measures from being implemented. At this time, vertical PV is also deemed infeasible due to its relatively low energy generation resulting in a lengthy payback period. If, in the future, PV integration with the façade can be achieved more cost effectively, façade PV may also be studied further at a later date.

Post-construction of each Project Component, the Proponent will submit a self-certification (Refer to Section 9.8.6), signed by an appropriate professional, to the MEPA Office that identifies the as-built energy conservation measures and documents the stationary source GHG emissions reductions from the baseline case for that Project Component, as required by the MEPA GHG Policy.

9.3.2 Mobile Source Greenhouse Gas and Air Quality Emissions

The mobile source mesoscale assessment calculated the GHG and Air Quality emissions for Project-related mobile sources. The Proponent is committed to implementing a comprehensive TDM program as detailed in Section 4.13.2. The TDM program is expected to improve air quality in the study area over the Build without Mitigation scenario by promoting the use of alternative forms of transportation over the use of single-occupant motor vehicle trips to the Project Site. Although not easily modeled, previous estimates of similar TDM programs in urban areas have been on the order of a two percent reduction in Vehicle Miles Travelled from Project-generated trips. The comprehensive TDM program proposed as part of this Project will result in reduced Project-related greenhouse gas emissions.

Additionally, the Proponent is proposing specific roadway improvements (see Section 9.1.2 above) to particular intersections in the study area. These improvements include signal timing optimization and capacity upgrades, which will meaningfully reduce idling time and thus, emissions, at these intersections in addition to improving their general operation. Furthermore, benefits from intersection signalization modifications will be considered in coordination with BTD. When coupling the proposed TDM measures and proposed roadway improvements, the Project is projected to reduce mobile source CO_2 emissions by approximately 60 to 65 percent in both the Base and Alternate Schemes.

9.4 Infrastructure

The Proponent will coordinate the design of the proposed utility connections with BWSC, MassDOT, MBTA and all applicable private utility providers. All utility connections will be designed to minimize adverse effects to the existing systems and surrounding areas. The Proponent will acquire the appropriate utility permits and approvals prior to construction.

As presented in Chapter 7, *Infrastructure*, the key findings and benefits relative to the utility systems include:

- Compliance with the MassDEP Stormwater Management Standards, in accordance with the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00) and Water Quality Certification Regulations (314 CMR 9.00);
- Implementation of a treatment train of BMPs to improve water quality, reduce runoff volumes, and reduce peak discharge rates of runoff in comparison to pre-development conditions;
- Provision for groundwater recharge by installing a recharge system designed to infiltrate clean stormwater runoff, in accordance with the standards articulated in the GCOD requirements;
- Provision of phosphorous removal for stormwater runoff from the Project Site, in accordance with BWSC design guidelines for projects that discharge to the Charles River Watershed; and

› Compliance with the requirements of the BWSC's 4:1 I/I mitigation program.

9.4.1 Stormwater Management

Proposed stormwater management controls will be established in compliance with the current BWSC standards and DEP Stormwater Management Policy. A thorough capacity analysis of the existing public infrastructure will be conducted as part of the BWSC Site Plan Review. Mitigation measures to be provided by the Proponent will also be decided at that time once the proposed design reaches an appropriate level of detail.

Proposed storm drain connections are anticipated to be provided as follows:

Garage West Parcel

› Stormwater runoff from the majority of the Garage West Parcel, which will be comprised of new roof areas for the Garage West building, will be directed to the MassDOT system located within I-90 that ultimately discharges to the Fort Point Channel. Prior to discharging to the MassDOT system:

- Stormwater runoff from the new roof areas of the Garage West building will first be directed to structural BMPs designed to improve water quality through trapping oil, floatables, and Total Suspended Solids ("TSS"), then
- Clean runoff will be directed to a recharge system designed to infiltrate stormwater runoff in order to replenish groundwater and provide phosphorous removal
- Overflow from the recharge system will discharge to the existing MassDOT system

› Surface runoff from the public way (sidewalks, driveway aprons, and street surfaces) along the Garage West Parcel frontages will discharge to existing BWSC storm drain systems within Dartmouth Street, Stuart Street, and Trinity Place. There will be no increase in surface runoff to the BWSC storm drain systems.

Garage East Parcel

› Stormwater runoff from the majority of the Garage East Parcel, which will be comprised of new roof areas for the Garage East building and existing Garage area to remain, will be directed to the MassDOT system located within I-90 that ultimately discharges to the Fort Point Channel. Prior to discharging to the MassDOT system:

- Stormwater runoff from the new roof areas of the Garage East building will first be directed to structural BMPs designed to improve water quality through trapping oil, floatables, and TSS, then
- Clean runoff will be directed to a recharge system designed to infiltrate stormwater runoff in order to replenish groundwater and provide phosphorous removal.

- Overflow from the proposed recharge system will discharge to the existing MassDOT system.

› Surface runoff from the public way (sidewalks, driveway aprons, and street surfaces) along the Garage East Parcel frontages will discharge to existing BWSC storm drain systems within Clarendon Street and the I-90 access road. There will be no increase in surface runoff to the BWSC storm drain systems.

Station East Parcel

› The Station East Parcel is entirely located over the Station track level. Stormwater runoff from the majority of the Station East Parcel, which will be comprised of new roof areas for the Station East building, will be directed to the existing MBTA system below the concrete deck that ultimately discharges to the Fort Point Channel. Prior to discharging to the existing MBTA system:

- Stormwater runoff from the new roof areas of the Station East building will first be directed to structural BMPs designed to improve water quality through trapping oil, floatables, and TSS, then
- Clean runoff will be directed to a recharge system, located to the south of the Station East Parcel, designed to infiltrate stormwater runoff in order to replenish groundwater and provide phosphorous removal.
- Overflow from the recharge system will discharge to the existing MBTA system.

› Surface runoff from the proposed pick-up/drop-off area and the public plaza off Clarendon Street for the Station East building will first be directed to structural BMPs designed to improve water quality through oil, floatables, and TSS removal. Then, clean runoff will likely be directed to the existing MBTA storm drain system below that ultimately discharges to the Fort Point Channel. There will be no increase in surface runoff to the MBTA storm drain systems.

› Surface runoff from the public way (sidewalks, driveway aprons, and street surfaces) along the Station East Parcel frontage will discharge to existing BWSC storm drain systems within Clarendon Street and Columbus Avenue. There will be no increase in surface runoff to the BWSC storm drain systems.

Station West Parcel

› Existing storm drain connections for the existing Station roof will remain.

› Stormwater runoff from the new roof area for the Station West Air Rights Development Parcel, which is entirely located over the Station track and concourse levels, will first be directed to structural BMPs designed to improve water quality through oil, floatables, and TSS removal. Then, clean runoff will likely be directed to the existing MBTA storm drain system below the existing Station that ultimately discharges to the Deer Island Waste Water Treatment Plant.

› Surface runoff from the entrance plaza for the Station and the public way (sidewalks and street surfaces) on Dartmouth Street along the Station West Parcel frontage will discharge to existing BWSC storm drain systems within Dartmouth

Street. There will be no increase in surface runoff to the BWSC storm drain systems.

9.4.2 Water and Wastewater

Water Conservation Measures

The Project will require approximately 177,650 gallons per day of domestic water. As part of the overall sustainability plan for the Project, the Proponent will be actively exploring means to reduce domestic water demand, including:

- Low flow water fixtures will be installed to meet, at a minimum, a 30 percent reduction in potable water use compared to baseline
- Energy Star appliances will be installed for the residential buildings at Garage East and Station East Parcels
- Water-efficient landscaping will be implemented through appropriate plant selection

Inflow/Infiltration

BWSC requires all new sewer connections or expansions of existing connections that exceed 15,000 gallons per day of wastewater to mitigate the impacts of the development by removing four (4) gallons of I/I for each new gallon of wastewater flow. The Proponent will comply with this requirement and develop an I/I mitigation plan in coordination with BWSC.

9.4.3 Groundwater Conservation Overlay District

Located within the Groundwater Conservation Overlay District (GCOD), the Project will include facilities to capture stormwater runoff and direct it to infiltration systems consistent with, the requirements of Article 32, with the goal of replenishing the groundwater table.

As discussed in Section 7.4.3, due to the nature of the Project Site, it may not be possible to infiltrate the first inch of runoff over the entire post-development impervious area. To provide groundwater recharge, to the maximum extent practicable, the proposed stormwater management system will include recharge chambers or wells designed to infiltrate runoff over a 72-hour period. In addition, the proposed recharge system will provide stormwater treatment in the form of phosphorous removal, in accordance with BWSC design guidelines.

The Proponent will provide the BPDA and Boston Groundwater Trust a letter stamped by a professional engineer registered in Massachusetts that details how each of the four parcels will meet the GCOD requirement for no reduction in groundwater levels on site or on adjoining lots.

9.5 Geotechnical/Groundwater

Mitigation measures will be incorporated into the design and construction of the Project to limit potential adverse impacts on buildings and utilities in the vicinity of the Project Site, as well as groundwater, including the following:

- The Project Team will conduct studies, prepare designs and specifications, and monitor the contractor's performance for conformance to the Project's contract documents with specific attention to protecting nearby structures and facilities, and reducing impacts to groundwater levels.
- The proposed foundation system will consist of Load Bearing Elements (LBE) which are installed within slurry-filled trenches; as well as drilled foundations consisting of drilled shafts and micropiles. Each of these foundation types will minimize vibrations, noise, and soil disturbances (compared to driven foundations).
- Performance criteria will be established in the Project specifications for the system with respect to movements, and the construction sequence of the foundations. The contractor will be required to plan, employ, and modify as necessary, construction methods and take all necessary steps during the work to protect nearby buildings and other facilities.
- Performance criteria will be established for maintenance of groundwater levels during construction in the vicinity of the Project. The contractor will be required to implement necessary steps during the work to not lower groundwater levels outside the limits of the Site. The feasibility of recharging temporary dewatering effluent into the ground will be investigated during the design of the Project.
- Geotechnical instrumentation will be installed and monitored before and during the foundation installation portion of the work to observe the performance of the adjacent buildings and structures.

9.6 Temporary Construction Impacts

Impacts associated with the Project's construction activities are temporary in nature and are typically related to air quality, stormwater runoff, solid waste, and truck traffic. The Proponent will provide measures to protect pedestrians and other visitors in the area of the Project Site throughout the duration of each construction phase. These control measures will maintain access around the Site and to the Station, and will provide pedestrians and other visitors safe access in the area during construction activities. During construction there may be periods when public access will be controlled to ensure public safety while performing certain construction activities.

As design progresses and in advance of construction commencement on any of the Project components, construction mitigation techniques will be reviewed by appropriate regulatory agencies through the development and submission of a Construction Management Plan (CMP). The CMP will identify and address the potential impacts to the community that may arise during construction and to

minimize these impacts where possible on the City, the public, and the on-site transportation infrastructure. The CMP will be developed when additional information is available with regard to the timing and phasing of construction, and will be coordinated with other area Projects. The overall duration of construction for the Project will be dependent on the sequencing of the various phases.

In accordance with the National Pollutant Discharge Elimination System ("NPDES") General Permit requirements, the Project will also develop a Stormwater Pollution Prevention Plan ("SWPPP") to control construction related impacts, including erosions, sedimentation and other pollutant sources during construction and land disturbance activities. Additionally, construction dewatering discharges will be controlled and discharged in accordance with the state and local dewatering standards.

Please refer to Section 6.11 for a description of the potential temporary impacts resulting from construction activities and proposed mitigation measures anticipated to reduce these impacts.

9.7 Proposed Mitigation Implementation Plan

As required by the Secretary's Certificate on the ENF, Table 9-3 below presents the proposed mitigation implementation plan associated with the anticipated phasing schedule for each Project Component. The Proponent (which term shall include each and every successor(s) in interest to the original Proponent) will be responsible for implementing all of the mitigation measures. Costs will be determined as the Project design is developed.

TABLE 9-3– SUMMARY OF MITIGATION MEASURES

Mitigation Measure	Garage West	Garage East	Station East	Station West
Transportation				
Roadway Improvements: The Project has evaluated potential roadway improvements, including signal timing modifications to certain intersections and roadway modifications in order to increase the overall performance of the mitigated intersections and improve the flow of vehicles in the network. Please refer to Section 4.7, Section 9.1.1 and Table 9-1 for a detailed description and phasing of proposed roadway improvements at each intersection.	X	X	X	
Transit Mitigation: As certain components of the Project are delivered; they will create substantial improvements to the existing Station. Improvements include:	X		X	X
› New entrance linked the Station via a new through-block connector	X		X	
› New dedicated bus pull-off area	X			
› New public plaza Serving as a forecourt to the new Station entrance on Clarendon Street			X	
› New redundant elevator to the Orange Line			X	
› New redundant elevators to Tracks 1/3 and track 2 (if determined to be feasible)			X	
› Relocated and expanded crosswalk to align with the future station entrance				X
› Enhanced open space and public plaza along Dartmouth Street at the existing Station entrance				X
Transportation Demand Management (TDM): The Project will implement a comprehensive Transport Demand Management (TDM) program to reduce the use of single occupant vehicles (SOVs) by encouraging carpooling and vanpooling, bicycling, walking, and increased use of the area's public transit system. Please refer to Section 4.13.2 for a full list of proposed TDM measures that the Proponent will provide.	X	X	X	X
Transportation Monitoring Program: The Project will conduct an annual Transportation Monitoring Program, including an employee and resident survey, drive mode share survey, and biennial driveway and parking counts. Please refer to Section 4.13.4 for a summary of monitoring program elements.	X	X	X	X
Construction Management Plan (CMP): The Project will develop a detailed CMP for each Project Component to address potential short-term construction-related impacts, including construction vehicle traffic, parking supply and demand, and pedestrian access. A CMP will be formalized at the appropriate time for each Project Component as the phasing plan develops; please refer to Section 4.13.3 for details.	X	X	X	X

Mitigation Measure	Garage West	Garage East	Station East	Station West
Transportation Access Plan Agreement (TAPA): The Project will enter into one or more TAPAs with the BTD which will formalize and document all transportation mitigation and TDM commitments. The TAPA will assign TDM implementation to the appropriate responsible entity be they the building owner, an employer, or tenant for each Project Component.	X	X	X	X
Public Realm Improvements				
As discussed in Section 3.5.1 and illustrated in Figures 3.8a-f, in addition to the transit-related public realm benefits listed above, the Project includes significant improvements to the streetscape on the Project Site. Specific improvements proposed for each Air Rights Development Parcel are summarized below:	X	X	X	X
› New sidewalks with concrete paving within pedestrian zone	X	X	X	X
› Widened sidewalks compared to existing condition	X	X		
› New unit paving within furnishing zone that includes new street trees (some in raised planters), benches, street lights, and bicycle racks	X	X	X	X
› New accessible vehicular drop-off zones	X	X	X	
› New proposed Hubway station			X	
› Reconfigured and improved crosswalks at intersections that increase pedestrian safety and accessibility	X	X	X	X
› Improved or new accessible ramps to buildings (where necessary)	X		X	
› Improved sidewalk grade slope to improve accessibility at existing non-compliant conditions	X	X		
Greenhouse Gas Emissions				
Energy Conservation Measures: The Project will incorporate key elements of sustainable and high performance building design to increase energy efficiency and reduce stationary source GHG emissions. Overall, the Project is expected to provide a 19.7 percent energy savings and 15.4 percent GHG emissions savings. Please refer to Section 5.4.4 for a comprehensive description of proposed energy conservation measures.	X	X	X	X
LEED Certification: The Project is targeting a LEED Gold rating for the Garage West commercial building and a LEED Silver rating for the Garage East and Station East Residential buildings and the Station West retail expansion.	X	X	X	X
Transportation Demand Management (TDM): The Proponent will implement a comprehensive TDM program as detailed in Section 4.13.13, that will reduce Project-related greenhouse gas emissions by promoting the use of alternative forms of transportation over the use of SOVs.	X	X	X	X

Mitigation Measure	Garage West	Garage East	Station East	Station West
Infrastructure				
Stormwater				
Stormwater Management and Treatment: The Project will install on-site stormwater management and treatment systems that will improve water quality, reduce runoff volume, and control peak rates of runoff in comparison to existing conditions, in compliance with current BWSC standards and MassDEP Stormwater Management Policy.	X	X	X	
Groundwater Recharge: The Project will install a recharge system designed to infiltrate clean stormwater runoff, in accordance with the standards articulated in the GCOD requirements.	X	X	X	
Water/Wastewater				
Water Conservation Measures: As part of the overall sustainability plan for the Project, the Proponent will be actively exploring means to reduce domestic water demand, including:				
› Install low flow water fixtures to meet, at a minimum, a 30 percent reduction in potable water use compared to baseline	X	X	X	X
› Install Energy Star appliances for the residential buildings at Garage East and Station East Parcel		X	X	
› Provide green roof areas, where feasible, to help reduce stormwater runoff	X	X	X	
› Implement water-efficient landscaping through appropriate plant selection	X	X	X	X
› To the extent excess recycled rainwater may be available after groundwater recharge obligations have been met, the Project will consider using it for cooling tower make up and/or irrigation	X	X	X	
Ground Water Conservation Overlay District: The Project will install a recharge system designed to infiltrate clean stormwater runoff, in accordance with the standards articulated in the GCOD requirements.	X	X	X	
Inflow and Infiltration (I/I): As the Project design advances, and in consultation with MassDEP and CDPW, the Project team will develop an Inflow and Infiltration (I/I) plan to mitigate for increased flows at the Project Site.	X	X	X	X
Geotechnical/Groundwater				
The Project will incorporate mitigation measures into the design and construction of the Project to limit potential adverse impacts on buildings and utilities in the vicinity of the Project Site, as well as groundwater.	X	X	X	X

Mitigation Measure	Garage West	Garage East	Station East	Station West
Temporary Construction Impacts				
Construction Management Plan (CMP): The Project will implement a comprehensive CMP for each Project Component to mitigate temporary construction-related impacts. Please refer to Section 4.13.3 for details.	X	X	X	X
Stormwater Pollution Prevention Plan ("SWPPP"): In accordance with the National Pollutant Discharge Elimination System ("NPDES") General Permit requirements, the Project will develop a SWPPP to control construction related impacts, including erosions, sedimentation and other pollutant sources during construction and land disturbance activities. Please refer to Section 7.4.4 for details.	X	X	X	X

9.8 Draft Section 61 Findings

As required by 301 CMR 11.07(6)(k) of MEPA, this chapter provides draft Section 61 Findings for each agency action to be taken on the Project.

MGL Chapter 30, Section 61, requires that "[a]ll authorities of the Commonwealth … review, evaluate, and determine the impact on the natural environment of all works, projects or activities conducted by them and … use all practicable means and measures to minimize [their] damage to the Environment. … Any determination made by an agency of the commonwealth shall include a finding describing the environmental impact, if any, of the project and a finding that all feasible measures have been taken to avoid or minimize said impact." The finding required by Section 61 "shall be limited to those matters which are within the scope of the environmental impact report, if any, required … [on a project]." MGL Chapter 30, Section 62A.

Each state agency that issues a permit for the Project shall issue a Section 61 Finding in connection with the permit issuance, identifying mitigation that is relied upon to satisfy the Section 61 requirement. Table 9-4 identifies the anticipated state actions/permits required for the Project.

TABLE 9-4 - LIST OF ANTICIPATED STATE PERMITS AND APPROVALS

Agency/Department	Permit/Approval/Action
Commonwealth of Massachusetts	
Department of Transportation ("MassDOT")	▪ Indirect/Direct Access Permit ▪ Permit for Construction in accordance with M.G.L. c. 40, Section 54A (if required) ▪ MBTA approvals and/or consent (if required) ▪ Finalization and execution of Air Rights Lease(s)
Executive Office of Administration and Finance	▪ Approval of Infrastructure Investment Incentive (I-Cued) Program funding (in coordination with Mass Development and the City of Boston, if requested) ▪ District Improvement Financing (in coordination with Mass Development and the City of Boston, if requested)
Department of Public Safety	▪ Building Permits or Approvals (as required)
Department of Environmental Protection	▪ Fossil Fuel Utilization Permit ▪ Pre-Construction Notice
Executive Office of Energy and Environmental Affairs (MEPA Office)	▪ Review under the Massachusetts Environmental Policy Act and Public Benefits Determination.
Massachusetts Historical Commission	▪ State Register Review, including Determination of No Adverse Effect or Memorandum of Agreement
Massachusetts Water Resources Authority	▪ Construction Dewatering Permit (if required) ▪ Temporary Construction Dewatering Permit (if required) ▪ Sewer Use Discharge Permit (if required)
Architectural Access Board	▪ Variances (as required)

The Proponent (which term shall include each and every successor(s) in interest to the original Proponent) will be responsible for implementing all of the mitigation measures. Costs will be determined as the Project design is developed.

Draft Section 61 findings for use by state agencies issuing permits for the Project are provided below to assist the agencies in meeting their obligations. Each Draft Section 61 finding incorporates the relevant proposed mitigation measures described above.

9.8.1 Massachusetts Department of Transportation (MassDOT) Draft Section 61 Findings

D R A F T O N L Y

J. Lionel Lucien, P.E.
Manager - Public/Private Development Unit
Massachusetts Department of Transportation, Highway Division - Boston
10 Park Plaza, Room 4150
Boston, MA 02116
(EEA No. 11502)

These findings for the Back Bay/South End Gateway Project (the "Project"), (EEA No. 11502), have been prepared in accordance with the provisions of M.G.L. c. 30, Section 61 and 301 CMR 11.00. On *XXX*, the Secretary of Energy and Environmental Affairs issued a decision stating that the Project's Final Environmental Impact Report ("FEIR"), dated *XXX*, adequately and properly complied with the Massachusetts Environmental Policy Act and its implementing regulations.

Project Description

The Project includes the mixed-use redevelopment of four distinct sites comprising up to approximately 1.26 million square feet, and consisting of a new office building with ground floor retail, two new residential buildings, a one-story vertical retail expansion of the existing Massachusetts Bay Transportation Authority's ("MBTA") Back Bay/South End Station (the "Station"). The Project will also result in the partial redevelopment of the existing 100 Clarendon Street Parking Garage (the "Garage"). The transformational development will deliver up to approximately 592,000 square feet of commercial office space, up to approximately 62,000 square feet of retail and restaurant space, and up to approximately 600 residential units in addition to project-related parking, loading and service uses.

The Proponent occupies and utilizes the Project Site pursuant to an existing ground and air rights lease with MassDOT, which authorizes future air rights development and subdivides the Project Site into four Air Rights Development Parcels, which will in turn be the subject of four distinct Air Rights Leases with MassDOT. These Air Rights Development Parcels include adjacent terra firma controlled by the Proponent, creating the following four parcels: Garage West, Garage East, Station East and Station West. Consistent with this parcelization, the Project has been planned and designed as four distinct and severable but interrelated components as described as follows:

› **Garage West Parcel**, located at the corner of Dartmouth and Stuart Streets, includes the demolition of the westernmost Garage entry drum and a portion of the existing Garage and the construction of a new 26-story building containing a new entrance and pedestrian connection to the Station from Stuart Street, up to

approximately 592,000 square feet[1] of commercial office space, up to approximately 26,500 square feet of ground floor retail fronting on Dartmouth and Stuart Streets, and the reconstruction of approximately 200,000 gross square feet of the Garage. The reconfigured Garage will contain parking spaces to serve all uses in the Project.

The potential closure of the westbound on-ramp to the I-90 Extension of the Massachusetts Turnpike (the "On-Ramp"), as described in the MEPA filings, primarily affects the Garage West Parcel and, therefore, two alternate development schemes have been prepared by the Proponent. The first assumes the On-Ramp will remain open and functioning as it does today (the "Garage West Base Scheme") and the second assumes, as an outcome of the MassDOT study, the On-Ramp will be closed (the "Garage West Alternate Scheme").

With the demolition of the existing Garage entry and exit drums, a replacement Garage exit will be necessary to avoid negative traffic impacts to the surrounding neighborhoods. The location of the new Garage exit is dependent on whether or not the On-Ramp remains open.

› **Garage East Parcel**, located on Clarendon Street, involves the demolition of the easternmost Garage exit drum and the construction of a new 28-story residential building containing up to approximately 240 units and up to approximately 222,000 square feet along the eastern end of the Garage, which will remain. Irrespective of the potential On-Ramp closure, it is anticipated that the existing vehicular access from Clarendon Street which passes under the Garage will remain, and therefore, only one scheme is presented for this parcel.

Station East Parcel, located on the existing bus drop-off along Clarendon Street, involves the relocation of the terminus of Bus 39 and the removal of the existing MBTA ventilation tower, subject to MBTA approval, in order to construct a new 35-story residential building a new entrance and pedestrian connection to the Station from Clarendon Street, up to approximately 360 units and up to approximately 382,000 square feet of residential space, and up to approximately 5,000 square feet of ground and second floor retail space. In addition, with the construction of the Station East Parcel, the Project includes the creation of a new approximately 11,000 square foot public plaza off Clarendon Street and the addition of a new redundant elevator to the Orange Line adjacent to the existing elevator within the Station. The possible reactivation of the Commuter Rail head house located on the south side of Columbus Avenue in order to provide redundant elevators to Tracks 1/3 and Track 2, if determined to be feasible, is also contemplated as part of the development of the Station East Parcel.

[1] Unless labeled otherwise, all areas provided herein are described in gross floor area as such term is used in the definition of "Floor Area Ratio" in the Code; therefore, such areas specifically exclude floor area devoted to garage use, whether or not in the basement of a building or serving residential uses, mechanical equipment, storage, service and loading areas, and areas serving as access to, egress from or use by public transit services, including pedestrian bridge connections providing access to such public transit services, whether directly or indirectly as part of the overall Project. Please note that given the fact that the majority of the Project Site is on and over air rights, it is not possible to reconstruct parking spaces beneath one or more of the buildings, and thus this filing and PDA No.2 as amended will expressly exclude the square footage allocated to such parking for the purposes of calculating FAR.

- Station West Parcel, located on Dartmouth Street above the existing Station Concourse, involves the vertical expansion of the Station, creating up to approximately 30,000 square feet of additional retail opportunities to serve both transit customers and the adjacent neighborhoods. In coordination with a separate Station Concourse Improvements project being managed by the Proponent, the Project adds a single level of retail space on either side of the Station's central hall connected to the Station Concourse below. In addition, with the construction of the Station West Parcel, the Project includes the relocation and expansion of the existing pedestrian crosswalk and the upgrading of the open space in front of the Station to create a welcoming an inviting public plaza at the terminus of the Southwest Corridor Park.
- Permits/Approvals

As the Project is currently described, it will require the execution of up to four distinct Air Rights Leases , an Indirect/Direct Access Permit, and may require a permit for construction in accordance with M.G.L. c. 40, Section 54A, and MBTA approvals and/or consent.

Mitigation

Proposed mitigation measures related to the Air Rights Leases, permits and approvals from the Department are described in the attached table.

Findings

MassDOT has reviewed and commented on the FEIR, EEA #11502 prepared for the Project. Pursuant to M.G.L. c. 30, Section 61, MassDOT hereby finds that all practicable means and measures will be taken to avoid or minimize adverse impacts to the environment as a result of the Project.

By	Date

Table 9-5 – Summary of Mitigation Measures (MassDOT)

Mitigation Measure	Garage West	Garage East	Station East	Station West
Transportation				
Roadway Improvements: The Project has evaluated potential roadway improvements, including signal timing modifications to certain intersections and roadway modifications in order to increase the overall performance of the mitigated intersections and improve the flow of vehicles in the network. Please refer to Section 4.7, Section 9.1.1 and Table 9-1 for a detailed description and phasing of proposed roadway improvements at each intersection.	X	X	X	
Transit Mitigation: As certain components of the Project are delivered; they will create substantial improvements to the existing Station. Improvements include:	X		X	X
› New entrance linked the Station via a new through-block connector	X		X	
› New dedicated bus pull-off area	X			
› New public plaza Serving as a forecourt to the new Station entrance on Clarendon Street			X	
› New redundant elevator to the Orange Line			X	
› New redundant elevators to Tracks 1/3 and track 2 (if determined to be feasible)			X	
› Relocated and expanded crosswalk to align with the future station entrance				X
› Enhanced open space and public plaza along Dartmouth Street at the existing Station entrance				X
Transportation Demand Management (TDM): The Project will implement a comprehensive Transport Demand Management (TDM) program to reduce the use of single occupant vehicles (SOVs) by encouraging carpooling and vanpooling, bicycling, walking, and increased use of the area's public transit system. Please refer to Section 4.13.2 for a full list of proposed TDM measures that the Proponent will provide.	X	X	X	X
Transportation Monitoring Program: The Project will conduct an annual Transportation Monitoring Program, including an employee and resident survey, drive mode share survey, and biennial driveway and parking counts. Please refer to Section 4.13.4 for a summary of monitoring program elements.	X	X	X	X
Construction Management Plan (CMP): The Project will develop a detailed CMP for each Project Component to address potential short-term construction-related impacts, including construction vehicle traffic, parking supply and demand, and pedestrian access. A CMP will be formalized at the appropriate time for each Project Component as the phasing plan develops; please refer to Section 4.13.3 for details.	X	X	X	X

Mitigation Measure	Garage West	Garage East	Station East	Station West
Transportation Access Plan Agreement (TAPA): The Project will enter into one or more TAPAs with the BTD which will formalize and document all transportation mitigation and TDM commitments. The TAPA will assign TDM implementation to the appropriate responsible entity be they the building owner, an employer, or tenant for each Project Component.	X	X	X	X
Public Realm Improvements				
As discussed in Section 3.5.1 and illustrated in Figures 3.8a-f, in addition to the transit-related public realm benefits listed above, the Project includes significant improvements to the streetscape on the Project Site. Specific improvements proposed for each Air Rights Development Parcel are summarized below:	X	X	X	X
› New sidewalks with concrete paving within pedestrian zone	X	X	X	X
› Widened sidewalks compared to existing condition	X	X		
› New unit paving within furnishing zone that includes new street trees (some in raised planters), benches, street lights, and bicycle racks	X	X	X	X
› New accessible vehicular drop-off zones	X	X	X	
› New proposed Hubway station			X	
› Reconfigured and improved crosswalks at intersections that increase pedestrian safety and accessibility	X	X	X	X
› Improved or new accessible ramps to buildings (where necessary)	X		X	
› Improved sidewalk grade slope to improve accessibility at existing non-compliant conditions	X	X		
Greenhouse Gas Emissions				
Energy Conservation Measures: The Project will incorporate key elements of sustainable and high performance building design to increase energy efficiency and reduce stationary source GHG emissions. Overall, the Project is expected to provide a 19.7 percent energy savings and 15.4 percent GHG emissions savings. Please refer to Section 5.4.4 for a comprehensive description of proposed energy conservation measures.	X	X	X	X
LEED Certification: The Project is targeting a LEED Gold rating for the Garage West commercial building and a LEED Silver rating for the Garage East and Station East Residential buildings and the Station West retail expansion.	X	X	X	X
Transportation Demand Management (TDM): The Proponent will implement a comprehensive TDM program as detailed in Section 4.13.13, that will reduce Project-related greenhouse gas emissions by promoting the use of alternative forms of transportation over the use of SOVs.	X	X	X	X

9.8.2 Massachusetts Department of Environmental Protection (DEP) Draft Section 61 Findings

DRAFT ONLY

Commissioner Martin Suuberg
Department of Environmental Protection
One Winter Street
Boston, Massachusetts 02108
(EEA No. 11502)

These findings for the Back Bay/South End Gateway Project (the "Project"), (EEA No. 11502), have been prepared in accordance with the provisions of M.G.L. c. 30, Section 61 and 301 CMR 11.00. On *XXX*, the Secretary of Energy and Environmental Affairs issued a decision stating that the Project's Final Environmental Impact Report ("FEIR"), dated *XXX*, adequately and properly complied with the Massachusetts Environmental Policy Act and its implementing regulations.

Project Description

The Project includes the mixed-use redevelopment of four distinct sites comprising up to approximately 1.26 million square feet, and consisting of a new office building with ground floor retail, two new residential buildings, a one-story vertical retail expansion of the existing Massachusetts Bay Transportation Authority's ("MBTA") Back Bay/South End Station (the "Station"). The Project will also result in the partial redevelopment of the existing 100 Clarendon Street Parking Garage (the "Garage"). The transformational development will deliver up to approximately 592,000 square feet of commercial office space, up to approximately 62,000 square feet of retail and restaurant space, and up to approximately 600 residential units in addition to project-related parking, loading and service uses.

The Proponent occupies and utilizes the Project Site pursuant to an existing ground and air rights lease with MassDOT, which authorizes future air rights development and subdivides the Project Site into four Air Rights Development Parcels, which will in turn be the subject of four distinct Air Rights Leases with MassDOT. These Air Rights Development Parcels include adjacent terra firma controlled by the Proponent, creating the following four parcels: Garage West, Garage East, Station East and Station West. Consistent with this parcelization, the Project has been planned and designed as four distinct and severable but interrelated components as described as follows:

› **Garage West Parcel**, located at the corner of Dartmouth and Stuart Streets, includes the demolition of the westernmost Garage entry drum and a portion of the existing Garage and the construction of a new 26-story building containing a new entrance and pedestrian connection to the Station from Stuart Street, up to

approximately 592,000 square feet[1] of commercial office space, up to approximately 26,500 square feet of ground floor retail fronting on Dartmouth and Stuart Streets, and the reconstruction of approximately 200,000 gross square feet of the Garage. The reconfigured Garage will contain parking spaces to serve all uses in the Project.

The potential closure of the westbound on-ramp to the I-90 Extension of the Massachusetts Turnpike (the "On-Ramp"), as described in the MEPA filings, primarily affects the Garage West Parcel and, therefore, two alternate development schemes have been prepared by the Proponent. The first assumes the On-Ramp will remain open and functioning as it does today (the "Garage West Base Scheme") and the second assumes, as an outcome of the MassDOT study, the On-Ramp will be closed (the "Garage West Alternate Scheme").

With the demolition of the existing Garage entry and exit drums, a replacement Garage exit will be necessary to avoid negative traffic impacts to the surrounding neighborhoods. The location of the new Garage exit is dependent on whether or not the On-Ramp remains open.

› **Garage East Parcel**, located on Clarendon Street, involves the demolition of the easternmost Garage exit drum and the construction of a new 28-story residential building containing up to approximately 240 units and up to approximately 222,000 square feet along the eastern end of the Garage, which will remain. Irrespective of the potential On-Ramp closure, it is anticipated that the existing vehicular access from Clarendon Street which passes under the Garage will remain, and therefore, only one scheme is presented for this parcel.

Station East Parcel, located on the existing bus drop-off along Clarendon Street, involves the relocation of the terminus of Bus 39 and the removal of the existing MBTA ventilation tower, subject to MBTA approval, in order to construct a new 35-story residential building a new entrance and pedestrian connection to the Station from Clarendon Street, up to approximately 360 units and up to approximately 382,000 square feet of residential space, and up to approximately 5,000 square feet of ground and second floor retail space. In addition, with the construction of the Station East Parcel, the Project includes the creation of a new approximately 11,000 square foot public plaza off Clarendon Street and the addition of a new redundant elevator to the Orange Line adjacent to the existing elevator within the Station. The possible reactivation of the Commuter Rail head house located on the south side of Columbus Avenue in order to provide redundant elevators to Tracks 1/3 and Track 2, if determined to be feasible, is also contemplated as part of the development of the Station East Parcel.

[1] Unless labeled otherwise, all areas provided herein are described in gross floor area as such term is used in the definition of "Floor Area Ratio" in the Code; therefore, such areas specifically exclude floor area devoted to garage use, whether or not in the basement of a building or serving residential uses, mechanical equipment, storage, service and loading areas, and areas serving as access to, egress from or use by public transit services, including pedestrian bridge connections providing access to such public transit services, whether directly or indirectly as part of the overall Project. Please note that given the fact that the majority of the Project Site is on and over air rights, it is not possible to reconstruct parking spaces beneath one or more of the buildings, and thus this filing and PDA No.2 as amended will expressly exclude the square footage allocated to such parking for the purposes of calculating FAR.

› Station West Parcel, located on Dartmouth Street above the existing Station Concourse, involves the vertical expansion of the Station, creating up to approximately 30,000 square feet of additional retail opportunities to serve both transit customers and the adjacent neighborhoods. In coordination with a separate Station Concourse Improvements project being managed by the Proponent, the Project adds a single level of retail space on either side of the Station's central hall connected to the Station Concourse below. In addition, with the construction of the Station West Parcel, the Project includes the relocation and expansion of the existing pedestrian crosswalk and the upgrading of the open space in front of the Station to create a welcoming an inviting public plaza at the terminus of the Southwest Corridor Park.

Permits/Approvals

As the Project is currently described, it requires a Fossil Fuel permit and will require submission of a Pre-Construction Notice under 310 CMR 7.09.

Mitigation

Proposed mitigation measures related to the permits and approvals from the Department are described in the attached table.

Findings

DEP has reviewed and commented on the FEIR, EEA #11502 prepared for the Project. Pursuant to M.G.L. c. 30, Section 61, DEP hereby finds that all practicable means and measures will be taken to avoid or minimize adverse impacts to the environment as a result of the Project.

By	Date

TABLE 9-6 – SUMMARY OF MITIGATION MEASURES (DEP)

Mitigation Measure	Garage West	Garage East	Station East	Station West
Greenhouse Gas Emissions				
Energy Conservation Measures: The Project will incorporate key elements of sustainable and high performance building design to increase energy efficiency and reduce stationary source GHG emissions. Please refer to Section 5.4.4 for a comprehensive description of proposed energy conservation measures.	X	X	X	X
LEED Certification: The Project is targeting a LEED Silver rating for the Garage East and Station East Residential buildings and the Station West retail expansion and a Gold rating for the Garage West commercial building.	X	X	X	X
*Transportation Demand Management (TDM)***:** The Proponent will implement a comprehensive TDM program as detailed in Section 4.13.13, that will reduce Project-related greenhouse gas emissions by promoting the use of alternative forms of transportation over the use of SOVs.	X	X	X	X
Infrastructure				
Stormwater				
Stormwater Management and Treatment: The Project will install on-site stormwater management and treatment systems that will improve water quality, reduce runoff volume, and control peak rates of runoff in comparison to existing conditions, in compliance with current BWSC standards and MassDEP Stormwater Management Policy.	X	X	X	
Groundwater Recharge: The Project will install a recharge system designed to infiltrate clean stormwater runoff, in accordance with the standards articulated in the GCOD requirements.	X	X	X	
Water/Wastewater				
Water Conservation Measures: As part of the overall sustainability plan for the Project, the Proponent will be actively exploring means to reduce domestic water demand, including:				
› Install low flow water fixtures to meet, at a minimum, a 30 percent reduction in potable water use compared to baseline	X	X	X	X
› Install Energy Star appliances for the residential buildings at Garage East and Station East Parcel		X	X	
› Provide green roof areas, where feasible, to help reduce stormwater runoff	X	X	X	
› Implement water-efficient landscaping through appropriate plant selection	X	X	X	X

Mitigation Measure	Garage West	Garage East	Station East	Station West
› To the extent excess recycled rainwater may be available after groundwater recharge obligations have been met, the Project will consider using it for cooling tower make up and/or irrigation	X	X	X	
Ground Water Conservation Overlay District: The Project will install a recharge system designed to infiltrate clean stormwater runoff, in accordance with the standards articulated in the GCOD requirements.	X	X	X	
Inflow and Infiltration (I/I): As the Project design advances, and in consultation with MassDEP and CDPW, the Project team will develop an Inflow and Infiltration (I/I) plan to mitigate for increased flows at the Project Site.	X	X	X	X
Geotechnical/Groundwater				
The Project will incorporate mitigation measures as described above into the design and construction of the Project to limit potential adverse impacts on buildings and utilities in the vicinity of the Project Site, as well as groundwater.	X	X	X	X
Temporary Construction Impacts				
Construction Management Plan (CMP): The Project will implement a comprehensive Construction Management Plan (CMP) to mitigate temporary construction-related impacts.	X	X	X	X
Stormwater Pollution Prevention Plan ("SWPPP"): In accordance with the National Pollutant Discharge Elimination System ("NPDES") General Permit requirements, the Project will develop a SWPPP to control construction related impacts, including erosions, sedimentation and other pollutant sources during construction and land disturbance activities. Please refer to Section 7.4.4 for details.	X	X	X	X

9.8.3 Massachusetts Executive Office of Energy and Environmental Affairs (EEA) Draft Section 61 Findings

DRAFT ONLY

Secretary Matthew Beaton
Executive Office of Energy and Environmental Affairs (EEA)
100 Cambridge Street, Suite 900
Boston, MA 02114
(EEA No. 11502)

These findings for the Back Bay/South End Gateway Project (the "Project"), (EEA No. 11502), have been prepared in accordance with the provisions of M.G.L. c. 30, Section 61 and 301 CMR 11.00. On *XXX*, the Secretary of Energy and Environmental Affairs issued a decision stating that the Project's Final Environmental Impact Report ("FEIR"), dated *XXX*, adequately and properly complied with the Massachusetts Environmental Policy Act and its implementing regulations.

Project Description

The Project includes the mixed-use redevelopment of four distinct sites comprising up to approximately 1.26 million square feet, and consisting of a new office building with ground floor retail, two new residential buildings, a one-story vertical retail expansion of the existing Massachusetts Bay Transportation Authority's ("MBTA") Back Bay/South End Station (the "Station"). The Project will also result in the partial redevelopment of the existing 100 Clarendon Street Parking Garage (the "Garage"). The transformational development will deliver up to approximately 592,000 square feet of commercial office space, up to approximately 62,000 square feet of retail and restaurant space, and up to approximately 600 residential units in addition to project-related parking, loading and service uses.

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approximately 592,000 square feet[1] of commercial office space, up to approximately 26,500 square feet of ground floor retail fronting on Dartmouth and Stuart Streets, and the reconstruction of approximately 200,000 gross square feet of the Garage. The reconfigured Garage will contain parking spaces to serve all uses in the Project.

The potential closure of the westbound on-ramp to the I-90 Extension of the Massachusetts Turnpike (the "On-Ramp"), as described in the MEPA filings, primarily affects the Garage West Parcel and, therefore, two alternate development schemes have been prepared by the Proponent. The first assumes the On-Ramp will remain open and functioning as it does today (the "Garage West Base Scheme") and the second assumes, as an outcome of the MassDOT study, the On-Ramp will be closed (the "Garage West Alternate Scheme").

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Station East Parcel, located on the existing bus drop-off along Clarendon Street, involves the relocation of the terminus of Bus 39 and the removal of the existing MBTA ventilation tower, subject to MBTA approval, in order to construct a new 35-story residential building a new entrance and pedestrian connection to the Station from Clarendon Street, up to approximately 360 units and up to approximately 382,000 square feet of residential space, and up to approximately 5,000 square feet of ground and second floor retail space. In addition, with the construction of the Station East Parcel, the Project includes the creation of a new approximately 11,000 square foot public plaza off Clarendon Street and the addition of a new redundant elevator to the Orange Line adjacent to the existing elevator within the Station. The possible reactivation of the Commuter Rail head house located on the south side of Columbus Avenue in order to provide redundant elevators to Tracks 1/3 and Track 2, if determined to be feasible, is also contemplated as part of the development of the Station East Parcel.

[1] Unless labeled otherwise, all areas provided herein are described in gross floor area as such term is used in the definition of "Floor Area Ratio" in the Code; therefore, such areas specifically exclude floor area devoted to garage use, whether or not in the basement of a building or serving residential uses, mechanical equipment, storage, service and loading areas, and areas serving as access to, egress from or use by public transit services, including pedestrian bridge connections providing access to such public transit services, whether directly or indirectly as part of the overall Project. Please note that given the fact that the majority of the Project Site is on and over air rights, it is not possible to reconstruct parking spaces beneath one or more of the buildings, and thus this filing and PDA No.2 as amended will expressly exclude the square footage allocated to such parking for the purposes of calculating FAR.

› Station West Parcel, located on Dartmouth Street above the existing Station Concourse, involves the vertical expansion of the Station, creating up to approximately 30,000 square feet of additional retail opportunities to serve both transit customers and the adjacent neighborhoods. In coordination with a separate Station Concourse Improvements project being managed by the Proponent, the Project adds a single level of retail space on either side of the Station's central hall connected to the Station Concourse below. In addition, with the construction of the Station West Parcel, the Project includes the relocation and expansion of the existing pedestrian crosswalk and the upgrading of the open space in front of the Station to create a welcoming an inviting public plaza at the terminus of the Southwest Corridor Park.

Chapter 91 Request for a Public Benefit Determination

The Project is subject to the jurisdiction of the 2007 statute "*An Act Relative to Licensing Requirements for Certain Tidelands*" (2007 Mass. Acts Ch. 168, sec 8) because it is entirely within filled tidelands. The act requires the Secretary to consider the following when making a Public Benefit Determination:

- Purpose and effect of the development;
- The impact on abutters and the surrounding community;
- Enhancement of the property;
- Benefits to the public trust rights in tidelands or other associated rights;
- Community activities on the development site;
- Environmental protection and preservation;
- Public health and safety; and
- General welfare.

The Secretary is also instructed by the Act to consider the differences between tidelands, landlocked tidelands and great ponds when assessing the public benefit and shall consider the practical impact of the public benefit on development. The Project Site is entirely within landlocked tidelands, and is therefore not subject to Chapter 91 licensing jurisdiction.

The following sections describe how the Project provides appropriate public benefits and is adequately protective of the Public Trust rights inherent in tidelands.

Purpose and Effect on the Development

The overall purpose of the Project is to construct a transformational transit-oriented redevelopment centered on the Station, rejuvenating an underutilized urban site, transforming the adjacent public realm, creating an attractive and appealing place worthy of its prominent location and becoming an asset to the vibrant Back Bay, South End and Bay Village neighborhoods and the City as a whole. The Project will deliver world-class architecture, significant improvements to existing on-site transit infrastructure, first class office space, improved retail vitality and high quality

residential space, contributing to the long term growth, and vitality of the City of Boston in an increasingly competitive national and international economic context.

Impact on Abutters and Community

The Project Site is uniquely situated in the heart of one of Boston's most significant cultural and mixed-use downtown areas. The Project offers a unique opportunity to animate and dramatically improve an existing important city block and to help connect the Back Bay, South End and Bay Village neighborhoods, to both the Project Site and each other, creating an inviting and seamless urban fabric.

By introducing a mix of uses in appropriate and carefully considered locations, the Project will reinforce the mixed-use character of the existing area, creating a sustainable development centered on an important transit node, and thereby encouraging the use of non-automotive means of transportation. In addition, the buildings at both the Garage West and Station East Parcels will offer new public entrances to the Station and pedestrian-friendly accessible through-block connectors from both Clarendon and Stuart Streets flanked by new retail improvements, thus increasing neighborhood connectivity and improving public safety within the district.

The Project will bring new and diverse retail opportunities to neighborhood residents, transit customers, and the public at large, as well new workplace opportunities for a variety of business types, and a variety of new high-quality housing opportunities, in compliance with the applicable Inclusionary Development Policy of the City of Boston. The Project will create approximately 2,500 construction jobs and 3,200 permanent jobs across all four Air Development Parcels, and generate approximately $15.3 million annually in new real estate tax revenue. Furthermore, the Project will contribute approximately $5.5 million in housing linkage and $1.1 million in jobs linkages payments.

Enhancements to the Property

The Project will enhance the Project Site by converting a deteriorating and underutilized site into a 21st century mixed-use development, focused on creating pedestrian-oriented streets and sidewalks and reimagining the Site as a multi-modal transit hub, offering convenient rail and bus access, as well as direct connections to bicycle accommodations, ride share and taxis. As described in Section 3.5, the public realm around the Site will be significantly upgraded to provide a number of conveniences and amenities including new sidewalks, street lighting, street trees and landscaping, street furniture and other public amenities along Dartmouth, Stuart and Clarendon Streets, consistent with the BTD's Complete Streets Guidelines. In addition, with the delivery of the Station East Parcel, the Project will create a new approximately 11,000 square foot public plaza off Clarendon Street, serving as a forecourt to the new Station entrance, reinforcing its civic presence. With the delivery of the Station West Parcel, the Project includes the relocation and expansion of an existing pedestrian crosswalk and the upgrading of the open space in front of

the Station to create a welcoming an inviting public plaza at the terminus of the Southwest Corridor Park.

As described above, two new public entrances to the existing Station will be provided through the development of the Garage West and Station East parcels. In addition, with the delivery of the Station East Parcel, a new redundant elevator to the Orange Line adjacent to the existing elevator within the Station will be provided, along with the possible reactivation of the Commuter Rail head house located on the south side of Columbus Avenue in order to provide redundant elevators to Tracks 1/3 and Track 2, if determined to be feasible,

Furthermore, as described in detail in Appendix E, in parallel with the Proponent's efforts to develop the Air Rights Development Parcels, the Proponent agreed to pre-pay the rent on the existing 99-year MassDOT Lease in order to make funding available now to complete necessary Station repairs and upgrades in coordination with the MBTA. A portion of the rent proceeds are to be used and were matched by the MBTA to complete a MBTA-led track-level ventilation system improvement project that will improve Station air quality and customer comfort. The remaining considerable funds are being used to complete a renovation of the Station Concourse, which is being managed and executed by the Proponent on behalf of the MBTA. In addition, as part of the MassDot Lease agreement, the Proponent agreed to assume property management responsibilities for the Station Concourse level for the duration of the lease term beginning in August 2015. These renovation projects represent significant enhancements to the existing Station property, owned in fee by the MBTA, and will dramatically improve not only the experience of transit customers, but also that of the surrounding neighborhoods, making the Station an asset for the City as a whole.

Benefits to the Public Trust Rights in Tidelands or Other Associated Rights

The Project will create new or enhanced public open space lined by a high-quality continuous street frontage activated by vibrant and engaging ground floor uses, such as retail and restaurant spaces, and residential and commercial building lobbies. Through the use of glass facades wherever possible, the Project will provide transparency and create an inviting, safe and accessible ground-level experience for pedestrians. In addition, public access and convenience will be improved through the creation of new Station entrances and through-block connectors as well as the addition of redundant elevators, improving accessibility for the public throughout the Project Site.

The traditional public trust rights in tidelands (e.g. the right to fish, fowl and navigate) have long been precluded at the Project Site by the historic filling and development of downtown Boston. However, the modern expression of these traditional public trust rights on filled land isolated from the existing water shed will be realized through enhanced access to and through the Site and the Station, a greatly improved street-level experience with inviting public open space, and enhanced public activation of the Site.

Community Activities on the Project Site

The Project will result in a substantial net improvement to community activities at the Project Site by introducing more active uses, including retail, residential, and office uses, and enhanced public open space, including the two public plazas at the Station entrances from Stuart and Clarendon Streets.

The Project will encourage the community's use of the Site in a manner that doesn't exist today through the introduction of approximately 1.26 million square feet of transit oriented development, including approximately 600 residential units, 592,000 square feet of commercial office space, and up to 62,000 square feet of retail and restaurant space. Two of the proposed buildings flanking the Station are designed to interconnect with it and provide new pedestrian-friendly accessible routes from both Clarendon and Stuart Streets, improving the transit customer experience and permeability through the Project Site for the surrounding neighborhoods and businesses.

Environmental Protection/Preservation

The overall goal of the Project is to develop the Project Site with a variety of new uses while avoiding or minimizing potential adverse environmental and community impacts to the greatest extent feasible. Impacts will be mitigated in accordance with all applicable local, state and federal environmental protection regulations.

The Project has evaluated the following potential environmental impacts and has taken or will take appropriate steps to mitigate them to the extent practicable as described in detail in the DEIR:

- Pedestrian Wind
- Shadow
- Daylight
- Solar Glare
- Air Quality
- Water Quality
- Noise
- Solid and Hazardous Waste
- Groundwater
- Geotechnical
- Construction

The Project-related impacts, which are to be expected in urban development of this scale, are counterbalanced by the significant benefits for the adjacent neighborhoods and the City, including the realization of many of the City's planning goals expressed in the recently enacted Stuart Street Zoning District.

Public Health and Safety

The Project will promote public health and safety through implementing a Site design that provides a safe and universally accessible facility from all directions. The Project will provide a significantly upgraded public realm, including enhanced furnishing and pedestrian zones with new paving, street trees, bike racks, trash

receptacles, benches and street lighting consistent with the BTD's Complete Streets guidelines.

The Project will also enhance accessibility throughout the Site by regrading sidewalk slopes where possible, providing adequate sidewalk widths, and delivering the fully enclosed, accessible through-block connections between Stuart and Clarendon Streets and the Station with the development of the Garage West and Station East Parcels, respectively. Additional improvements will include a new redundant elevator for the Orange Line inside the Station building and reconfigured crosswalks that will improve pedestrian safety and circulation from the Project Site to the surrounding neighborhood.

Through a variety of design strategies, the Project will promote health and wellness, assist in improving indoor air quality, and reduce the urban heat island effect. The Project will provide improved pedestrian facilities and bicycle accommodations to support heathy alternate modes of transport.

General Welfare

The Project will protect the general welfare by redeveloping the existing underutilized Site with modern and iconic buildings and thoughtfully designed and universally accessible public realm. The Project will comply with all applicable local, state and federal environmental protection standards and will be constructed in accordance with one or more Construction Management Plans subject to review and approval by the City of Boston to avoid or minimize potential impacts during construction.

Protection of Groundwater

The potential for groundwater impacts at the Site is limited by the small amount of terra firma affected and no impacts are anticipated due to the lack of substantive excavation proposed. The Project Site is located within the Groundwater Conservation Overlay District, and will therefore provide a recharge system designed to infiltrate clean runoff and replenish the groundwater table to the extent feasible.

Findings

EEA has reviewed and commented on the FEIR, EEA #11502 prepared for the Project. Pursuant to M.G.L. c. 30, Section 61, EEA hereby finds that consistent with the above referenced provisions of An Act Relative to Licensing Requirements for Certain Tidelands, the above referenced Project will have a public benefit.

_____ _____

By Date

9.8.4 Massachusetts Historical Commission (MHC) Draft Section 61 Findings

DRAFT ONLY

Brona Simon
State Historic Preservation Officer
Executive Director
Massachusetts Historical Commission
220 Morrissey Boulevard
Boston, Massachusetts 02125
(EEA No. 11502)

These findings for the Back Bay/South End Gateway Project (the "Project"), (EEA No. 11502), have been prepared in accordance with the provisions of M.G.L. c. 30, Section 61 and 301 CMR 11.00. On *XXX*, the Secretary of Energy and Environmental Affairs issued a decision stating that the Project's Final Environmental Impact Report ("FEIR"), dated *XXX*, adequately and properly complied with the Massachusetts Environmental Policy Act and its implementing regulations.

Project Description

The Project includes the mixed-use redevelopment of four distinct sites comprising up to approximately 1.26 million square feet, and consisting of a new office building with ground floor retail, two new residential buildings, a one-story vertical retail expansion of the existing Massachusetts Bay Transportation Authority's ("MBTA") Back Bay/South End Station (the "Station"). The Project will also result in the partial redevelopment of the existing 100 Clarendon Street Parking Garage (the "Garage"). The transformational development will deliver up to approximately 592,000 square feet of commercial office space, up to approximately 62,000 square feet of retail and restaurant space, and up to approximately 600 residential units in addition to project-related parking, loading and service uses.

The Proponent occupies and utilizes the Project Site pursuant to an existing ground and air rights lease with MassDOT, which authorizes future air rights development and subdivides the Project Site into four Air Rights Development Parcels, which will in turn be the subject of four distinct Air Rights Leases with MassDOT. These Air Rights Development Parcels include adjacent terra firma controlled by the Proponent, creating the following four parcels: Garage West, Garage East, Station East and Station West. Consistent with this parcelization, the Project has been planned and designed as four distinct and severable but interrelated components as described as follows:

› **Garage West Parcel**, located at the corner of Dartmouth and Stuart Streets, includes the demolition of the westernmost Garage entry drum and a portion of the existing Garage and the construction of a new 26-story building containing a new entrance and pedestrian connection to the Station from Stuart Street, up to

approximately 592,000 square feet[1] of commercial office space, up to approximately 26,500 square feet of ground floor retail fronting on Dartmouth and Stuart Streets, and the reconstruction of approximately 200,000 gross square feet of the Garage. The reconfigured Garage will contain parking spaces to serve all uses in the Project.

The potential closure of the westbound on-ramp to the I-90 Extension of the Massachusetts Turnpike (the "On-Ramp"), as described in the MEPA filings, primarily affects the Garage West Parcel and, therefore, two alternate development schemes have been prepared by the Proponent. The first assumes the On-Ramp will remain open and functioning as it does today (the "Garage West Base Scheme") and the second assumes, as an outcome of the MassDOT study, the On-Ramp will be closed (the "Garage West Alternate Scheme").

With the demolition of the existing Garage entry and exit drums, a replacement Garage exit will be necessary to avoid negative traffic impacts to the surrounding neighborhoods. The location of the new Garage exit is dependent on whether or not the On-Ramp remains open.

› **Garage East Parcel**, located on Clarendon Street, involves the demolition of the easternmost Garage exit drum and the construction of a new 28-story residential building containing up to approximately 240 units and up to approximately 222,000 square feet along the eastern end of the Garage, which will remain. Irrespective of the potential On-Ramp closure, it is anticipated that the existing vehicular access from Clarendon Street which passes under the Garage will remain, and therefore, only one scheme is presented for this parcel.

Station East Parcel, located on the existing bus drop-off along Clarendon Street, involves the relocation of the terminus of Bus 39 and the removal of the existing MBTA ventilation tower, subject to MBTA approval, in order to construct a new 35-story residential building a new entrance and pedestrian connection to the Station from Clarendon Street, up to approximately 360 units and up to approximately 382,000 square feet of residential space, and up to approximately 5,000 square feet of ground and second floor retail space. In addition, with the construction of the Station East Parcel, the Project includes the creation of a new approximately 11,000 square foot public plaza off Clarendon Street and the addition of a new redundant elevator to the Orange Line adjacent to the existing elevator within the Station. The possible reactivation of the Commuter Rail head house located on the south side of Columbus Avenue in order to provide redundant elevators to Tracks 1/3 and Track 2, if determined to be feasible, is also contemplated as part of the development of the Station East Parcel.

[1] Unless labeled otherwise, all areas provided herein are described in gross floor area as such term is used in the definition of "Floor Area Ratio" in the Code; therefore, such areas specifically exclude floor area devoted to garage use, whether or not in the basement of a building or serving residential uses, mechanical equipment, storage, service and loading areas, and areas serving as access to, egress from or use by public transit services, including pedestrian bridge connections providing access to such public transit services, whether directly or indirectly as part of the overall Project. Please note that given the fact that the majority of the Project Site is on and over air rights, it is not possible to reconstruct parking spaces beneath one or more of the buildings, and thus this filing and PDA No.2 as amended will expressly exclude the square footage allocated to such parking for the purposes of calculating FAR.

› Station West Parcel, located on Dartmouth Street above the existing Station Concourse, involves the vertical expansion of the Station, creating up to approximately 30,000 square feet of additional retail opportunities to serve both transit customers and the adjacent neighborhoods. In coordination with a separate Station Concourse Improvements project being managed by the Proponent, the Project adds a single level of retail space on either side of the Station's central hall connected to the Station Concourse below. In addition, with the construction of the Station West Parcel, the Project includes the relocation and expansion of the existing pedestrian crosswalk and the upgrading of the open space in front of the Station to create a welcoming an inviting public plaza at the terminus of the Southwest Corridor Park.

Permits/Approvals

As the Project is currently described, it requires a review by MHC.

Mitigation

Should the project result in a determination of adverse effect as defined under 950 CMR 71.05 and 71.07, a Memorandum of Agreement will be prepared, detailing mitigation measures as agreed upon by MassDOT, MHC, and the Project's Proponent.

Findings

MHC has reviewed and commented on the Final EIR, EEA #11502 prepared for the Project. Pursuant to M.G.L. c. 30, Section 61, MHC hereby finds that all practicable means and measures will be taken to avoid or minimize adverse impacts to the environment as a result of the Project.

By	Date

9.8.5 Massachusetts Water Resources Authority (MWRA) Draft Section 61 Findings

DRAFT ONLY

Director Frederick A. Laskey
Massachusetts Water Resources Authority
Charlestown Navy Yard
100 First Ave, Building 39
Boston, MA 02129
(EEA No. 11502)

These findings for the Back Bay/South End Gateway Project (the "Project"), (EEA No. 11502), have been prepared in accordance with the provisions of M.G.L. c. 30, Section 61 and 301 CMR 11.00. On *XXX*, the Secretary of Energy and Environmental Affairs issued a decision stating that the Project's Final Environmental Impact Report ("FEIR"), dated *XXX*, adequately and properly complied with the Massachusetts Environmental Policy Act and its implementing regulations.

Project Description
The Project includes the mixed-use redevelopment of four distinct sites comprising up to approximately 1.26 million square feet, and consisting of a new office building with ground floor retail, two new residential buildings, a one-story vertical retail expansion of the existing Massachusetts Bay Transportation Authority's ("MBTA") Back Bay/South End Station (the "Station"). The Project will also result in the partial redevelopment of the existing 100 Clarendon Street Parking Garage (the "Garage"). The transformational development will deliver up to approximately 592,000 square feet of commercial office space, up to approximately 62,000 square feet of retail and restaurant space, and up to approximately 600 residential units in addition to project-related parking, loading and service uses.

The Proponent occupies and utilizes the Project Site pursuant to an existing ground and air rights lease with MassDOT, which authorizes future air rights development and subdivides the Project Site into four Air Rights Development Parcels, which will in turn be the subject of four distinct Air Rights Leases with MassDOT. These Air Rights Development Parcels include adjacent terra firma controlled by the Proponent, creating the following four parcels: Garage West, Garage East, Station East and Station West. Consistent with this parcelization, the Project has been planned and designed as four distinct and severable but interrelated components as described as follows:

› **Garage West Parcel**, located at the corner of Dartmouth and Stuart Streets, includes the demolition of the westernmost Garage entry drum and a portion of the existing Garage and the construction of a new 26-story building containing a new entrance and pedestrian connection to the Station from Stuart Street, up to

approximately 592,000 square feet[1] of commercial office space, up to approximately 26,500 square feet of ground floor retail fronting on Dartmouth and Stuart Streets, and the reconstruction of approximately 200,000 gross square feet of the Garage. The reconfigured Garage will contain parking spaces to serve all uses in the Project.

The potential closure of the westbound on-ramp to the I-90 Extension of the Massachusetts Turnpike (the "On-Ramp"), as described in the MEPA filings, primarily affects the Garage West Parcel and, therefore, two alternate development schemes have been prepared by the Proponent. The first assumes the On-Ramp will remain open and functioning as it does today (the "Garage West Base Scheme") and the second assumes, as an outcome of the MassDOT study, the On-Ramp will be closed (the "Garage West Alternate Scheme").

With the demolition of the existing Garage entry and exit drums, a replacement Garage exit will be necessary to avoid negative traffic impacts to the surrounding neighborhoods. The location of the new Garage exit is dependent on whether or not the On-Ramp remains open.

› **Garage East Parcel**, located on Clarendon Street, involves the demolition of the easternmost Garage exit drum and the construction of a new 28-story residential building containing up to approximately 240 units and up to approximately 222,000 square feet along the eastern end of the Garage, which will remain. Irrespective of the potential On-Ramp closure, it is anticipated that the existing vehicular access from Clarendon Street which passes under the Garage will remain, and therefore, only one scheme is presented for this parcel.

Station East Parcel, located on the existing bus drop-off along Clarendon Street, involves the relocation of the terminus of Bus 39 and the removal of the existing MBTA ventilation tower, subject to MBTA approval, in order to construct a new 35-story residential building a new entrance and pedestrian connection to the Station from Clarendon Street, up to approximately 360 units and up to approximately 382,000 square feet of residential space, and up to approximately 5,000 square feet of ground and second floor retail space. In addition, with the construction of the Station East Parcel, the Project includes the creation of a new approximately 11,000 square foot public plaza off Clarendon Street and the addition of a new redundant elevator to the Orange Line adjacent to the existing elevator within the Station. The possible reactivation of the Commuter Rail head house located on the south side of Columbus Avenue in order to provide redundant elevators to Tracks 1/3 and Track 2, if determined to be feasible, is also contemplated as part of the development of the Station East Parcel.

[1] Unless labeled otherwise, all areas provided herein are described in gross floor area as such term is used in the definition of "Floor Area Ratio" in the Code; therefore, such areas specifically exclude floor area devoted to garage use, whether or not in the basement of a building or serving residential uses, mechanical equipment, storage, service and loading areas, and areas serving as access to, egress from or use by public transit services, including pedestrian bridge connections providing access to such public transit services, whether directly or indirectly as part of the overall Project. Please note that given the fact that the majority of the Project Site is on and over air rights, it is not possible to reconstruct parking spaces beneath one or more of the buildings, and thus this filing and PDA No.2 as amended will expressly exclude the square footage allocated to such parking for the purposes of calculating FAR.

› Station West Parcel, located on Dartmouth Street above the existing Station Concourse, involves the vertical expansion of the Station, creating up to approximately 30,000 square feet of additional retail opportunities to serve both transit customers and the adjacent neighborhoods. In coordination with a separate Station Concourse Improvements project being managed by the Proponent, the Project adds a single level of retail space on either side of the Station's central hall connected to the Station Concourse below. In addition, with the construction of the Station West Parcel, the Project includes the relocation and expansion of the existing pedestrian crosswalk and the upgrading of the open space in front of the Station to create a welcoming an inviting public plaza at the terminus of the Southwest Corridor Park.

Permits/Approvals

As the Project is currently described, it will require a Construction Dewatering Permit and possibly a temporary Construction Dewatering Permit and Sewer Use Discharge Permit.

Mitigation

Proposed mitigation measures related to the permits and reviews by the MWRA are described in the attached table.

Findings

MWRA has reviewed and commented on the FEIR, EEA #11502 prepared for the Project. Pursuant to M.G.L. c. 30, Section 61, MWRA hereby finds that all practicable means and measures will be taken to avoid or minimize adverse impacts to the environment as a result of the Project.

By	Date

TABLE 9-7– SUMMARY OF MITIGATION MEASURES (MWRA)

Mitigation Measure	Garage West	Garage East	Station East	Station West
Infrastructure				
Stormwater				
Stormwater Management and Treatment: The Project will install on-site stormwater management and treatment systems that will improve water quality, reduce runoff volume, and control peak rates of runoff in comparison to existing conditions, in compliance with current BWSC standards and MassDEP Stormwater Management Policy.	X	X	X	
Groundwater Recharge: The Project will install a recharge system designed to infiltrate clean stormwater runoff, in accordance with the standards articulated in the GCOD requirements.	X	X	X	
Water/Wastewater				
Water Conservation Measures: As part of the overall sustainability plan for the Project, the Proponent will be actively exploring means to reduce domestic water demand, including:				
› Install low flow water fixtures to meet, at a minimum, a 30 percent reduction in potable water use compared to baseline	X	X	X	X
› Install Energy Star appliances for the residential buildings at Garage East and Station East Parcel		X	X	
› Provide green roof areas, where feasible, to help reduce stormwater runoff	X	X	X	
› Implement water-efficient landscaping through appropriate plant selection	X	X	X	X
› To the extent excess recycled rainwater may be available after groundwater recharge obligations have been met, the Project will consider using it for cooling tower make up and/or irrigation	X	X	X	
Ground Water Conservation Overlay District: The Project will install a recharge system designed to infiltrate clean stormwater runoff, in accordance with the standards articulated in the GCOD requirements.	X	X	X	
Inflow and Infiltration (I/I): As the Project design advances, and in consultation with MassDEP and CDPW, the Project team will develop an Inflow and Infiltration (I/I) plan to mitigate for increased flows at the Project Site.	X	X	X	X
Geotechnical/Groundwater				
The Project will incorporate mitigation measures as described above into the design and construction of the Project to limit potential adverse impacts on buildings and utilities in the vicinity of the Project Site, as well as groundwater.	X	X	X	X

Mitigation Measure	Garage West	Garage East	Station East	Station West
Temporary Construction Impacts				
Construction Management Plan (CMP): The Project will implement a comprehensive Construction Management Plan (CMP) to mitigate temporary construction-related impacts.	X	X	X	X
Stormwater Pollution Prevention Plan ("SWPPP"): In accordance with the National Pollutant Discharge Elimination System ("NPDES") General Permit requirements, the Project will develop a SWPPP to control construction related impacts, including erosions, sedimentation and other pollutant sources during construction and land disturbance activities. Please refer to Section 7.4.4 for details.	X	X	X	X

9.8.6 Stationary Source GHG Emissions Self-Certification

DRAFT ONLY

[Insert anticipated filing date]

Secretary Matthew A. Beaton
Executive Office of Energy & Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

ATTN: Deirdre Buckley, Director, MEPA Office

Re: Letter of Commitment for Stationary Source Greenhouse Gas Emissions Self-Certification
Back Bay/South End Gateway Project
Boston, MA (EEA No. 11502)

Dear Secretary Beaton and Director Buckley:

On behalf of the BP Hancock LLC, through its affiliate, Boston Properties Limited Partnership (the "Proponent"), VHB has prepared a summary of the estimated reduction in overall energy use and stationary source Greenhouse Gas ("GHG") emissions for the Back Bay/South End Gateway Project in Boston (the "Project").

In accordance with the current Massachusetts Environmental Policy Act ("MEPA") Greenhouse Gas Emissions Policy and Protocol (the "GHG Policy") dated May 2010, the initial stationary source GHG assessment approach was outlined in the Environmental Notification Form ("ENF") filed on April 15, 2015. On June 24, 2016, a Certificate was issued by the Secretary of Energy and Environmental Affairs requiring an Environmental Impact Report for the Project. In accordance with the Secretary's Certificate on the ENF, as part of the Draft Environmental Impact Report ("DEIR") filed on 1/31/17, the Proponent completed the stationary source GHG assessment. On *XXX*, a Certificate stating that the Project's Final Environmental Impact Report ("FEIR"), dated *XXX,* adequately and properly complied with MEPA and its implementing regulations was issued by the Secretary of Energy and Environmental Affairs.

The energy conservation measures for the full build-out of the Project are estimated to reduce the possible overall energy use by 19.7 percent over the base code, resulting in a 15.4 percent reduction in stationary source CO_2 emissions when compared to the baseline case. The following table presents the estimated energy savings and CO_2 emissions reductions for each Project Component.

	Energy Consumption (MMBtu/yr.)			CO_2 Emissions (tons/yr.)[1]		
Air Rights Development Parcel	Base Case	Design Case	Percent Savings	Base Case	Design Case	Percent Reduction
Garage West Office	54,763	43,132	21.2%	4,728.4	3,894.3	17.6%
Garage East Residential	20,452	16,406	19.8%	1,625.8	1,398.3	14.0%
Station East Residential	34,439	27,627	19.8%	2,737.6	2,354.7	14.0%
Station West Retail	7,390	6,805	7.9%	535.0	495.9	7.3%
Total	**117,044**	**93,970**	**19.7%**	**9,626.8**	**8,143.2**	**15.4%**

1 The Base Case represents current Base Energy Code and ASHRAE 90.1-2013 standards.

The building energy model results/energy savings and estimated stationary source GHG emissions reductions are preliminary, as none of the proposed buildings have progressed past a conceptual level of design. Following completion of construction of each element, the Proponent will submit a self-certification to the MEPA Office, signed by an appropriate professional, which identifies the as-built energy conservation measures and documents the stationary source GHG emissions reductions from the baseline case.

If you have any questions, please contact me at (617) 607-2988 or via email at KGreaves@vhb.com.

Very truly yours,

VANASSE HANGEN BRUSTLIN, INC.

Kyle G. Greaves, AICP
Environmental Planner

cc: Michael Cantalupa, Boston Properties

Melissa Schrock, Boston Properties

10

ENF Response to Comments

In accordance with the MEPA Scope, this chapter directly responds to agency and public review comments within MEPA jurisdiction. Table 10-1 lists all of the persons and entities submitting comments on the ENF and Table 10-2 lists each of the substantive comments received, by letter, providing a written response to each. Where appropriate, reference is made to the corresponding section of the DEIR/DPIR for additional information. A copy of the MEPA Certificate is available in Appendix B. A copy of each comment letter received by the MEPA office during the public review period of the ENF is included in Appendix M.

Table 10-1 Comment Letters Received

Letter No.	Commenter
1	ENF Certificate of the Secretary of Energy and Environmental Affairs
2	Massachusetts Department of Environmental Protection
3	MassDEP Bureau of Air and Waste
4	Massachusetts Department of Transportation
5	Massachusetts Department of Energy Resources
6	Massachusetts Historical Commission
7	Massachusetts Water Resources Authority
8	Boston City Councilor District 8, Josh Zakim
9	Boston Water and Sewer Commission
10	Charles River Watershed Association
11	The Ellis South End Neighborhood Association
12	Neighborhood Association of the Back Bay
13	Bay Village Neighborhood Association – Dr. P. MacKenzie Bok
14	WalkBoston
15	Ann Beha
16	Tracy Pesanelli
17	Elliott Laffer
18	Pamela Humphrey
19	Kenneth Kruckemeyer
20	Shirley Kressel
21	Paula Griswold
22	Pam Lassiter

23	Ann Hershfang
24	Susan Prindle
25	Gerry Ives (Ives Architects)
26	Anne Swanson
27	Lynn Foster
28	Heyward Parker James
29	Jacquelin Yessian

Table 10-2 Responses to the ENF Comments

Comment No.	Comment	Response to Comment
Letter 1:	**ENF Certificate of the Secretary of Energy and Environmental Affairs**	
1.1	Pursuant to the Massachusetts Environmental Policy Act (M.G.L. c. 30, ss. 61-62I) and Section 11.03 of the MEPA Regulations (301 CMR 11.00), I hereby determine that this project requires the preparation of a mandatory Draft Environmental Impact Report (DEIR).	Comment noted.
1.2	A particular concern is the potential impact of the project and proposed vehicular access on transit operations and pedestrian access. To conform with the Commonwealth's and the City's urban design and development goals, the project must strive not only to preserve and improve operations and access but to increase capacity to the extent possible to support increased ridership that will be generated by this project. These concerns are similar to those that have been identified and addressed on other major redevelopment projects around transit hubs, including the Boston Garden project (EEA# 15052) at North Station and the South Station Air Rights project (EEA# 9131) at South Station.	Please refer to Section 3.5 for a discussion of site design and pedestrian access. Please also see 3.5s 3.8a-f and 3.9a-b for proposed public realm improvements and site circulation and access plans. Please refer to section 4.10 for an analysis of the current and future transit conditions at the Site. Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.
1.3	I received considerable public comment concerning the Proponent's proposed design for the station renovation. Commenters expressed concern about the lack of public input into the design, about vehicular and pedestrian access within and around the station, and whether the design would be able to support existing operations in addition to enhancing capacity of the station to accommodate increased ridership. I note that MassDOT is initiating a public process regarding station improvements which should afford opportunities to learn more about the project and goals and to provide input. The Scope for the DEIR requires more information regarding the station improvements, including identification of project goals, a detailed description of changes, and discussion of how changes address project goals.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Section 4.10 for a detailed transit capacity analysis. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.

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1.4	Because the Proponent is seeking a land transfer in the form of air-rights and ground leases from MassDOT, MEPA jurisdiction extends to those aspects of the project within the area subject to the land transfer that are likely, directly or indirectly, to cause Damage to the Environment. In addition, I note that the project may pursue State Financial Assistance in the form of Infrastructure, Investment and I (I-cubed) funding. Pursuant to 301 CMR 11.01(2)(a)(3), MEPA subject matter jurisdiction is functionally equivalent to full scope jurisdiction.	The Proponent intends to develop the four Project Components using private funds, but will explore the possibility of local, state and/or federal public financing sources, where appropriate. Please refer to Section 1.9.4 for a discussion of possible public funding sources.
1.5	The DEIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this scope. The DEIR should clearly demonstrate that the Proponent has sought to avoid, minimize and mitigate Damage to the Environment to the maximum extent feasible.	Please refer to Chapter 6 for details on environmental impact mitigation and strategies.
1.6	To provide a full and self-contained description and analysis of the project for the MEPA record, the DEIR should include the information contained in the PNF, updated as relevant, in addition to the additional analyses and information required in this Scope.	Comment noted. A combined DEIR/DPIR has been submitted.
1.7	The DEIR should include a detailed description of existing conditions. It should clearly identify ownership of the site and quantify areas that are on solid ground and areas over the I-90, subway, commuter rail, and Amtrak rights-of-way. The DEIR should describe the project and identify any changes to the project since the filing of the ENF.	Please refer to Sections 1.2 and 3.2 for detailed descriptions of existing conditions. Please see also Figures 1.4a-d and Figure 1.5. Please refer to Section 1.9.3 and Figures 1.7b-c for information regarding site ownership. See Section 1.4.2 for a summary of Project refinements since the ENF/PNF.
1.8	The DEIR should include updated site plans, if applicable, for existing and post-development conditions at a legible scale. Conceptual plans should be provided at a legible scale and clearly identify buildings, public areas, impervious areas, pedestrian and bicycle accommodations, transportation facilities managed by MassDOT, MBTA, and the City of Boston, and stormwater and utility infrastructure.	Please refer to Figures 1.6a-b for proposed site plans and Figures 3.8a-f for public realm improvements. Please also see Figure 4.22 for bicycle parking and accommodations and Figures 7.1a-7.3b for existing utility infrastructure.

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1.9	The DEIR should identify and describe State, federal and local permitting and review requirements associated with the project including requests for Financial Assistance and provide an update on the status of each of these pending actions. The DEIR should include a description and analysis of applicable statutory and regulatory standards and requirements, and a discussion of the project's consistency with those standards. It should describe the project's consistency with the existing Urban Renewal Plan and what modifications to the plan are proposed in accordance with M.G.L. c.121A to accommodate the proposed development program. It should identify permits and approvals required by the City of Boston and describe the status of these reviews and approvals, in particular, in regards to any implications to the project uses or design.	Please refer to Section 1.6 for a list of anticipated permits and approvals as well as the local planning and regulatory controls applicable to the Project. Please refer to Section 1.9.4 for a list of potential financial assistance programs and funding sources for the Project.
1.10	The DEIR should provide more information about the Proponent's obligations to manage and upgrade the station as part of the Ground and Air Rights Lease.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the MassDOT Lease agreements, the Station Concourse Improvements and the Proponent's management obligations. Please see also Appendix D for a copy of the Lease.
1.11a	The DEIR should provide a description of the proposed changes to the MBTA station, describe the design review process for the changes, including any public review, and respond to the issues and concerns identified in comment letters.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station renovations. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.
1.11b	It should assess the project's potential impact on capacity and describe how the changes will accommodate existing and future ridership at the station.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Section 4.10 for a detailed transit capacity analysis.

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1.12	The DEIR should identify and describe projects in the immediate project area which may be constructed concurrent with or prior to the proposed development (e.g. Copley Place, EEA# 14790) and describe related roadway, transit and pedestrian improvements and construction phasing.	Roadway, transit and pedestrian improvements related to the Copley Place and other Stuart Street corridor approved projects (40 Trinity and 380 Stuart Street) are assumed for the future year No-Build and Build conditions analyses. As described in Section 4.13.3, specific construction phasing for the projects will be coordinated and reflected in the Construction Management Plan for each Project phase.
1.13a	The DEIR should describe likely phasing scenarios based on site and structural constraints, interdependence of uses such as parking supply, mitigation commitments, and any other relevant factors. The DEIR should discuss how mitigation measures will be implemented in the phasing scenarios to ensure that project impacts are appropriately mitigated as development proceeds.	Please refer to Section 1.4.8 for a description of the Project phases and an evaluation of phasing scenarios.
1.13b	The DEIR should also address how the need for subsequent review by MEPA and/or the City of Boston will be addressed.	Please refer to Section 1.6 for a list of anticipated permits and approvals as well as the local planning and regulatory controls applicable to the Project.
1.14a	Many commenters noted the conflict between pedestrians and vehicles that would be created by a garage exit onto Dartmouth Street. The DEIR should include a modified version of the Garage West Base Scheme that eliminates the Dartmouth Street garage exit and either relies solely on the Clarendon Street entrance/exit and/or identifies a second exit into Trinity Place.	Please refer to Section 3.4.1 for details related to Garage West Parcel's building design concept and development, including an analysis of the requested alternate Garage exit. Please see also Figures 3.3s-u and note that this alternate exit location is considered inferior and compromising for the Project and is not being pursued.
1.14b	The DEIR must include at least one alternative that provides access to Trinity Place or provide a clear analysis of why that is infeasible if the I-90 ramp remains open.	Please refer to Section 3.4.1 for details related to Garage West Parcel's building design concept and development, including an analysis of the requested alternate Garage exit. Please see also Figures 3.3s-u and note that this alternate exit location is considered inferior from a public benefit's standpoint and compromising for the Project, and is not being pursued.
1.15	The DEIR should discuss how schedule and phasing may be affected by MassDOT's determination regarding the ramp and how timing of that decision relates to the development project.	Please refer to Section 1.4.8 for a description of the Project phases and an evaluation of phasing scenarios. The Proponent notes that MassDOT will be submitting an Interchange Modification Report (IMR) to FHWA in early 2017.

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1.16	According to the PNF, the project conforms closely to the Stuart Street District zoning requirements, but the Proponent will seek PDA approval from the BRA because of the complexity of the project and the underlying zoning. The DEIR should include an analysis of at least two alternatives, including but not limited to: • A third residential tower in place of the proposed office tower; and • A development that strictly conforms to Stuart Street District and Community Commercial Zoning Subdistrict zoning requirements.	Please refer to Chapter 2 for a detailed analysis of the requested alternatives.
1.17	The DEIR should provide a detailed comparison of the alternatives, including detailed descriptions and plans of each alternative. (1) The DEIR should compare the environmental impacts of each alternative, quantitatively to the extent practicable, with respect to trip generation, traffic operations, pedestrian and bicycle access, water use, wastewater generation, impervious area, shadow, wind, GHG emissions, and potential for renewable energy generation. (2) The DEIR should describe any impacts or opportunities for improved access to the MBTA station associated with the alternatives.	Please refer to Chapter 2 for a detailed analysis of the requested alternatives.
1.18	In recognition of the likely possibility that the phasing and development will change due to market conditions, I encourage the Proponent to think strategically about alternative development scenarios and structure them to facilitate subsequent MEPA review (e.g. Notice of Project Change (NPC)).	Please refer to Section 1.4.8 for a description of the Project phases and an evaluation of phasing scenarios.
1.19	…the Proponent has property management responsibilities for the MBTA Station concourse and has commenced a series of station upgrades. The site is also subject to easements for rail service, utilities, and other private parties that must be maintained as part of the site redevelopment.	Comment noted.

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1.20	The DEIR should include one or more graphics that clearly identifies the areas subject to the MassDOT lease. It should identify and quantify current ownership, proposed ownership/ development rights, and temporary and permanent easement areas, including any easements required by the project from the City of Boston.	Please refer to Section 1.9.3 and Figures 1.7a-d for more information regarding the MassDot lease area, current and proposed ownership, development rights and easements related to the Project Site.
1.21	[The DEIR should include] in an appendix, the Ground and Air Rights Lease and the Development Plan.	Please refer to the electronic copies of the Ground and Air Rights Lease and Development Plan, included in Appendix D.
1.22	The DEIR should describe any additional ownership or lease arrangements that would be required to implement project alternatives related to the closure of the I-90 ramp.	Please refer to Section 1.9.3 and Figures 1.7a-d for more information regarding the MassDot lease area, current and proposed ownership, development rights and easements related to the Project Site.
1.23	The DEIR should include a Traffic Impact Assessment (TIA)… and provide additional analysis regarding the project's impact and proposed mitigation measures related to vehicular traffic, pedestrian and bicycle facilities, and public transportation	Please refer to Chapter 4 for a detailed transportation and parking analysis.
1.24	A major focus of this section of the DEIR should be a detailed analysis of existing conditions and measures the project could implement to encourage and facilitate transit, bicycle and pedestrian access to the buildings and MBTA station and the surrounding area.	Please refer to Chapter 4 for a detailed transportation and parking analysis.
1.25	I expect that the DEIR will include an assessment of this potential conflict and identify alternatives to avoid, minimize and mitigate impacts to pedestrian flow along Dartmouth Street.	Please refer to Section 4.12 for details of the pedestrian impact analysis and to Section 3.5.1 for a detailed description of strategies that will be implemented to ensure pedestrian priority. See also figures 3.8a-f.
1.26	The DEIR [should] provide a detailed pedestrian impact analysis that will include an evaluation of the Garage West Base and Alternate Scheme.	Please refer to Section 4.12 for details of the pedestrian impact analysis.

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1.27a	The DEIR should include a Transportation Impact Assessment (TIA) consistent with the EEA/MassDOT Transportation Impact Assessment (TIA) Guidelines issued in March 2014 and the analyses and data requested in MassDOT's comment letter.	Please refer to Chapter 4 and the Figures therein for complete details of the Transportation Impact Study (TIA) performed for the Project.
1.27b	The traffic study should provide a comprehensive multimodal evaluation of transportation impacts and identify appropriate mitigation.	Please refer to Chapter 4 for a comprehensive multimodal transportation analysis and to Sections 4.2, 4.11, 4.12 and 4.13 for summaries of proposed mitigation, including transit improvements, streetscape improvements, bicycle accommodations, roadway modifications, signal timing and TDM measures. Please see also Section 3.5 and Figures 3.8a-f, 3.9a-b, 4.18a-b, 4.22 and 4.23,
1.27c	The Proponent should provide a clear commitment to implement integrated multimodal mitigation measures to improve vehicular traffic operations and accommodate walking, bicycling and transit use by employees, residents, and visitors to the site.	Please refer to Chapter 4 for a comprehensive multimodal transportation analysis and to Sections 4.2, 4.11, 4.12 and 4.13 for summaries of proposed mitigation, including transit improvements, streetscape improvements, bicycle accommodations, roadway modifications, signal timing and TDM measures. Please see also Section 3.5 and Figures 3.8a-f, 3.9a-b, 4.18a-b, 4.22 and 4.23,
1.27d	The TIA should describe the timing of impacts and mitigation measures, particularly with respect to any phasing of the project build-out.	Please refer to Section 4.13 and Section 9.1 for a description of proposed transportation mitigation measures, including the phasing of proposed physical and operational transportation improvements.
1.27e	The TIA should provide transit and capacity analyses and evaluate bicycle and pedestrian facilities for the existing conditions, future No-Build conditions, and future Build conditions.	Please refer to Section 4.10 for a detailed transit analysis and to Section 4.12 for a pedestrian analysis and description proposed sidewalk improvements. Please refer to Section 4.11 and Figure 4.22 for details on proposed bicycle parking and infrastructure improvements.
1.27f	The TIA should include an analysis of any intersections in the study area that have crash rates higher than the State and/or MassDOT District 6 average, and discuss causality and potential mitigation measures to be implemented by the Proponent.	Please refer to Section 4.3.7 for an analysis of vehicle crash data, including comparison with State and District 6 crash rates.

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1.28	In addition to the trip generation estimates included in the PNF, the DEIR should provide estimates for the average Saturday daily trips and Saturday peak period trips based on the ITE Trip Generation Manual (9th Edition). Adjustments of the trip generation estimates should be calculated using applicable methodologies for pass-by and/or internal capture trips from the most recent editions of the ITE Trip Generation Manual and Trip Generation Handbook. The DEIR should include a trip distribution for the project using a gravity model based on factors such as census data, origin-destination, travel time, and distance to determine trip characteristics for employees and residents of the project site. The model should also consider the impact of the potential closure of the I-90 on ramp to the transportation network and trip distribution. The Proponent should consult with MassDOT, the City of Boston, and the MBTA to develop travel demand and trip generation characteristics in light of the difficulty in adequately modeling the transit trip generation and trip assignments for the project. The City of Boston's mode split data for this section of the city should be compared to the ITE values to better estimate the share of trips accomplished by walking, bicycling, and transit use.	Please refer to Section 4.3.1 and Appendix F for a summary of average Saturday and weekday traffic volumes. Please refer to Section 4.5 for a summary of the Project generated vehicle trips methodology and results and for details of pass-by and internal capture trip reductions. Please refer to Section 4.5.9 for details of Project trip distribution methodology. Please refer to Sections 4.3.10, 4.4 and 4.6 for details of the traffic analysis under Existing, No Build and Build conditions, respectively, with the I-90 ramp closed as well as open for the future year conditions. Details of travel demand and trip generation were developed in coordination with MassDOT, BTD, and the MBTA. Please refer to Section 4.5.4 for details of mode splits, which were established in consultation with MassDOT and BTD.
1.29	The DEIR should fully document how the trip generation estimates and trip assignments were derived. If appropriate, the study area defined below should be modified on the basis of these results.	Please refer to Section 4.5 for a summary, and to Appendix F for detailed worksheets on trip generation methodology.

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1.30	The TIA study area should include the following 32 intersections and roadways: • Boylston Street at Clarendon Street; • Boylston Street at Berkeley Street; • St. James Avenue at Dartmouth Street; • St. James Avenue at Trinity Place; • St. James Avenue at Clarendon Street; • St. James Avenue at Berkeley Street; • St. James Avenue at Arlington Street; • Huntington Avenue at Exeter Street and Stuart Street; • Stuart Street at Dartmouth Street; • Stuart Street at Trinity Place; • Stuart Street at Clarendon Street; • Stuart Street at Berkeley Street; • Stuart Street at Arlington Street; • Clarendon Street at Stanhope Street; • Clarendon Street at Back Bay Station; • Clarendon Street at the I-90 westbound on-ramp • Columbus Avenue at Dartmouth Street; • Columbus Avenue at Clarendon Street; • Columbus Avenue at Cahners Place; • Columbus Avenue at Berkeley Street; • Arlington Street at Marginal Road and the I-90 on-ramp; • Arlington Street at Stuart Street/Columbus Avenue; • Arlington Street/Herald Street at Tremont Street; • Herald Street at Albany Street; • Albany Street at I-93 southbound on-ramp; • Albany Street at Traveler Street; • Berkeley Street at Storrow Drive on-ramps; • Storrow Drive eastbound off-ramp at Clarendon Street; • Stuart Street at I-90 westbound off-ramp; and • Huntington Avenue at Blagden Street/I-90 westbound on-ramp.	Please refer to Section 4.3.1 and Figure 4.1, for a description of the intersections included in the Project study area. The additional intersections MassDOT requested were incorporated.
1.31	The TIA should include operational analyses for the I-90 mainline, including the merge sections for the Arlington Street, Clarendon Street, and Huntington Avenue on-ramps. The TIA should provide comprehensive analyses for both the No-Build and Future Build scenarios in which the I-90 westbound ramp remains open or is permanently closed.	Please refer to Sections 4.3.10, 4.4.6 and 4.6.3 for details of the I-90 mainline under Existing, No-Build and Build conditions, respectively.

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1.32	The TIA should also include trips that will be generated by nearby planned and/or approved projects in establishing traffic volumes for the future No-Build and Build scenarios. In addition, an annual growth factor should be applied to existing traffic volumes prior to addition project-specific background growth. The planning horizon for the TIA should be seven years from the filing of the DEIR, with the exception of the analyses of the I-90 westbound on-ramp closure, which should use a 20-year planning horizon consistent with FHWA requirements. The Proponent should consult with MassDOT regarding the modeling of impacts to area traffic conditions associated with proposed I-90 westbound ramp closure.	Please refer to Sections 4.4.1 for details of background growth including both an annual growth factor and specific background projects as identified by BTD and BPDA. The planning horizon year for the TIA for the Project is based on a 7-year horizon (2023). The planning horizon for the potential ramp closure analysis in the IMR being prepared separately by MassDOT is based on a 20-year horizon. Please refer to Section 4.4.3 for a discussion of the impacts associated with the proposed I-90 westbound ramp closure under future (7-year) conditions. The Proponent has consulted with MassDOT on the modeling of the ramp closure impacts.
1.33	The DEIR should characterize existing and future traffic operations with capacity analyses for the weekday AM and PM and Saturday peak hour conditions for all intersections. The capacity analyses should be performed for the entire build-out including both the Garage West Base Scheme and Garage West Alternative Scheme which is based on the elimination of the I-90 westbound on-ramp.	Please refer to Chapter 4 for a detailed traffic analysis including both the Base Condition where the On-Ramp remains open and the Alternate Condition, where it is closed.
1.34	The DEIR should document the project's impacts to vehicular flow and bus headway at the station entrance and consider impacts due to the proposed signalized exits.	The Project does not propose to signalize the Garage exit on Clarendon Street. Please refer to Section 4.6 for analysis of the Project's impacts to traffic operations at the Station entrance on Clarendon Street. Please also refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
1.35	The DEIR should depict the peak hour 50th (average) and 95th percentile queue lengths for each lane group/turning movement at each study area intersection for all scenarios. The results of this analysis should be provided in a tabular format that identifies Existing, No Build, Future Build and Future Build with Mitigation scenarios for all peak hour conditions. The analysis should clearly identify any extended queues that would affect vehicle movements and identify appropriate mitigation. The level of service (LOS) for each lane group/turning movement should be clearly depicted for each scenario using color coded illustrations.	Please refer to Sections 4.3.8, 4.3.9, 4.4.5 and 4.6.2 for a summary of respective queue analyses under existing, no build and build conditions. Please refer to Figures 4.17a-d for Queue analysis illustrations under all analysis scenarios.

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1.36	The DEIR should include a traffic signal warrant study (TSWS) and document the need at any intersection where signalization is proposed. The DEIR should also identify any locations where a left turn lane is proposed and fully document the need for the turning lane.	Please refer to Section 4.7.1 for a description of potential signalization at the St. James Avenue/Trinity Place and Clarendon Street/Stanhope Street intersections. As noted, traffic signal warrants may not be satisfied at these locations, and further discussion with BTD is necessary to determine if the improvements should be considered.
1.37	The DEIR should include sufficiently detailed conceptual plans (preferably 80-scale) for proposed roadway improvements in order to verify the feasibility of constructing improvements. The plans should show proposed lane widths and offsets, layout lines and jurisdictions, and land uses adjacent to areas where improvements are proposed.	The proposed roadway improvements described in Section 4.7 include traffic signal and operational improvements which generally do not call for detailed conceptual plans at this stage. Additional information will be provided as the design develops further and as the Proponent continues to coordinate with the appropriate agencies.
1.38a	Any proposed mitigation within the state highway layout and all internal site circulation must be consistent with a Complete Streets design approach that provides adequate and safe accommodations for all roadway users, including bicyclists, pedestrians, and public transit riders. Guidance on Complete Streets design guidelines is included in the MassDOT Project Development and Design Guide.	Proposed roadway and pedestrian mitigation described in Chapter 3 and Chapter 4 are located on City of Boston Streets rather than within the state highway layout. Nonetheless, all improvements will be designed in accordance with Complete Streets design approaches. Please see Section 3.5 for a detailed discussion on site design, including the incorporation of BTD's Complete Streets Guidelines. Please see also Figures 3.8a-f for public realm plans. Note: the Alternative Scheme does propose a new ramp connection to Trinity Place, but it is assumed that the State Highway Layout on Trinity Place would be extinguished under that scenario.
1.38b	I expect the Proponent to consult with the City of Boston regarding its Complete Streets Initiative and opportunities for incorporating "green infrastructure" into the design of streets and sidewalks.	The Proponent has and will continue consult with the City of Boston and has incorporated Complete Streets design principles in the Project's street and sidewalk design. Please refer to Sections 3.5.1 and 3.5.2 and to Figures 3.8a-f for more detail.
1.39	The DEIR should discuss the rationale for determining the number of parking spaces to be provided. According to MassDOT, the most recent edition of ITE's Parking Generation document should be consulted, but it may not effectively predict parking rates for this mixed-use project.	Please refer to Section 4.9 for a summary of existing and proposed parking conditions and Project parking demand, including an ITE analysis.

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1.40a	The DEIR should include a summary of the parking need and supply for comparable facilities using multiple data sources, including consultation with the Boston Transportation Department (BTD).	Please refer to Section 4.9 for a summary of existing and proposed parking conditions.
1.40b	The DEIR should describe how occupancy of parking spaces at these facilities varies during the day and identify peak periods of use.	Please refer to Section 4.9 for a summary of existing and proposed parking conditions.
1.41	…the DEIR should include a detailed transit capacity analysis to determine the existing conditions and potential impacts of the project on the transit system. The analysis should be developed in consultation with the MBTA and the Central Transportation Planning Staff (CTPS). The analysis should be based on the existing Orange Line system and any planned service enhancements and include projected conditions upon completion of individual phases and the Full Build.	Please refer to Section 4.10 for a detailed analysis on the future capacity of transit services serving the Project Site. The Proponent has consulted with the MBTA and CTPS in developing this analysis.
1.42	The DEIR should address the expected additional ridership on the Orange Line and the impact of the additional ridership throughout the day, including peak periods. The DEIR should include tables showing the peak period headway and the MBTA's Policy Load and Crush Load Capacity for both inbound and outbound directions on the Orange Line. The data should be provided for future conditions upon completion of project phases and the full buildout. This information should be shown graphically to indicate the project's added ridership in comparison to base ridership and the load capacities.	Please refer to Section 4.10.1 for a detailed analysis of the future capacity of the MBTA Orange Line.
1.43	The DEIR should describe existing conditions at the station, describe how employees, visitors, and residents will access the station, identify any measures that may be necessary to improve conditions and capacity to address increased transit ridership.	Please refer to Section 3.5.1 for a detailed description of the Project's pedestrian realm improvements, to Figures 3.8a-f for pedestrian realm improvement plans and to Figures 3,9a-b for site circulation and access plans. See also Section 4.10 for an analysis of future transit capacity. Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.

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1.44	The DEIR should include a discussion of the ongoing improvements the Proponent is implementing at the station as part of its management responsibilities and how those improvements will accommodate growth in the volume of transit riders generated by the project and adjacent projects. I note that MassDOT intends to initiate public review of proposed improvements this year and expect this process will inform the DEIR.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Section 4.10 for a detailed transit capacity analysis. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.
1.45a	The DEIR should provide a detailed analysis of the project's impact to the MBTA bus network that serves the site, including Routes 10, 39, and 170. The DEIR should review the capacity of bus service to the site under existing conditions and upon completion of the project, taking into account other projects in the vicinity that are under construction or planned.	Please refer to Section 4.10.2 for a detailed analysis of the future capacity of MBTA bus service serving the Project Site.
1.45b	The DEIR should evaluate options for relocating the Route 39 terminus and identify the potential impacts to service.	Please refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
1.45c	The Proponent should provide the analysis of impacts to bus service requested in MassDOT's comment letter.	Please refer to Section 4.10.2 for a detailed analysis of the future capacity of MBTA bus service serving the Project Site.
1.46a	The DEIR should provide an inventory of pedestrian and bicycle facilities inventory of pedestrian and bicycle facilities in the study area and bicycle network in the vicinity of the project as requested in MassDOT's comment letter. The inventory should document the width and condition of sidewalks and crosswalks, bikeway types, bikeway widths, and number and speed of bicyclists. Travel routes of bicyclists through the area should be identified and evaluated in terms of safety and origin-destination of potential employees and residents of the project site.	Please refer to Section 4.3.3 for a summary of existing bicycle facilities near the Project Site, to Section 4.11 for a complete discussion of the Project's proposed bicycle accommodations and to Figure 4.22 for the proposed bicycle parking plan. Please refer to Section 4.12 for descriptions of existing sidewalk conditions and proposed improvements as a result of the Project. Please also refer to Section 3.5.1 and Figures 3.8a-f for a description of pedestrian realm improvements.

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1.46b	The DEIR should identify measures for improving deficient pedestrian and bicycle facilities in the area and expanding or adding new bicycle routes.	Please refer to Sections 3.5 and 4.12 and Figures 3.8a-f for a description proposed pedestrian realm improvements as a result of the Project. Please refer to Section 4.11 and Figure 4.22 for details on proposed bicycle parking and infrastructure improvements.
1.46c	The DEIR should quantify the capacity of sidewalks and bicycle facilities adjacent to the project site and identify any impacts or improvements on pedestrian and bicycle passage that are related to the project.	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of proposed sidewalk widths and to Figures 3.8a-f for public realm improvement plans. Please also refer to Figure 4.22 for proposed bicycle parking and infrastructure improvements.
1.47	The DEIR should discuss the pedestrian bridges in the context of overall pedestrian circulation in the area and provide more detail about potential locations and designs of the bridges.	Please refer to Section 3.4.1 for a discussion of the Trinity Place and Stuart Street bridges and to Figures 3.2h-i. The Proponent notes that there are three such bridges in the immediate vicinity of the Project, each providing an important weather-protected and accessible connection across the busy thoroughfare of Stuart Street.
1.48	The DEIR should include a pedestrian impact analysis to determine the quality of service provided to pedestrians at intersections and pedestrian facilities in the vicinity of the project site. The analysis should provide a pedestrian LOS for each intersection and crosswalk under the Existing, No Build, and Build conditions, for the Garage West Base Scheme, Garage West Alternative Scheme, and version of the Garage West Alternative Scheme that does not include a garage exit onto Dartmouth Street. The pedestrian impact analysis should be prepared using methodologies described in the most recent edition of the Highway Capacity Manual.	Please refer to Section 4.12 for details of the pedestrian impact and LOS analysis.
1.49	The TDM plan should seek to maximize the use of pedestrian and bicycle facilities, offer incentives for using public transportation, and encourage the use of low-emissions vehicles.	Please refer to Section 4.13.2 for a summary of proposed TDM measures.

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1.50	The Proponent should consider implementing the following measures: • Designation of a full-time on-site TDM coordinator; • Provision of commuter information for employees and visitors; • Bicycle and pedestrian improvements within the project site and connections to adjacent streets, public transportations, and other destinations; • Participation in programs providing alternative transportation; • Participation in available fixed-route transit services that are or will become available in the vicinity; • Subsidized passes for residents; • Support for ride-sharing matching/carpooling through the active promotion of NuRide, the Commonwealth's web-based trip planning and ride-matching system that allows users to earn rewards for taking greener trips; • Provide an appropriate number of parking spaces for a car-sharing program; • Provide preferential parking for low-emission vehicles; • Installing on-site electric vehicle (EV) and solar-powered EV charging stations; • Implement a five-year monitoring program to determine the effectiveness of the TDM program, on an iterative basis; • Organize carpools/vanpools to nearby employment, retail, and health care centers; • Provide indoor, secure bicycle parking; and • Consult with MassRIDES, the Commonwealth's Travel Options provider, to help implement the program.	Please refer to Section 4.13.2 for a summary of proposed TDM measures.
1.51	• The Proponent should consult with MassRIDES and A Better City Transportation Management Association (TMA) to discuss specific measures that have been successful in reducing trip generation for similar projects in Boston.	The Proponent has met with A Better City TMA and will meet with MassRIDES to discuss TDM measures and identify any additional measures which have been successful in limiting SOV trips. Please refer to Section 4.13.1 for a summary of proposed TDM measures.

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1.52	According to MassDOT, the Proponent will be required to conduct annual traffic monitoring for a period of five years. The goal of the monitoring program is to evaluate the transportation-related assumptions made in the DEIR, the adequacy of mitigation measures, and the effectiveness of the TDM program. The monitoring program will include: • Simultaneous automatic traffic recorder (ATR) counts at each garage entrance for a continuous 24-hour period on a typical weekday and Saturday; • Travel survey of employees, patrons, and residents of the site; • Weekday AM and PM peak hour turning movement counts (TMC) and operations analysis at mitigated intersections, including the garage entrances; and • An update on TDM effectiveness and transit ridership.	Please refer to Section 4.13.3 for a description of the proposed Transportation Monitoring Program for the Project, which will be developed in coordination with MassDOT and BTD.
1.53	The DEIR should include an analysis of GHG emissions and mitigation measures in accordance with the standard requirements of this Policy. The Policy requires Proponents to quantify carbon dioxide (CO2) emissions and identify measures to avoid, minimize or mitigate such emissions. The analysis should quantify the direct and indirect CO2 emissions of the project's energy use (stationary sources) and transportation-related emissions (mobile sources). Direct emissions include on-site stationary sources, which typically emit GHGs by burning fossil fuel for heat, hot water, steam and other processes. Indirect emissions result from the consumption of energy, such as electricity, that is generated off-site by burning of fossil fuels, and from emissions from vehicles used by employees, vendors, customers and others.	Please refer to Section 5.4 for a summary of energy and GHG modeling outputs, including mitigation measures. Please see also Appendix H for a preliminary energy model report for each Project Component. Please also refer to Section 9.3, for an overview of the proposed mitigation measures taken by the Project.

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1.54	The DEIR should identify and commit to mitigation measures to avoid and minimize GHG emissions. The Proponent should refer to the Policy for additional guidance on the GHG analysis. MEPA, MassDEP and the Department of Energy Resources (DOER) staff are available to assist with these efforts and the Proponent should consult with them regarding the analysis prior to submission of the DEIR.	Please refer to Section 5.4 for a summary of energy and GHG modeling outputs, including mitigation measures. Please see also Appendix H for a preliminary energy model report for each Project Component. Please also refer to Section 9.3, for an overview of the proposed mitigation measures taken by the Project.
1.55	I strongly encourage the Proponent to explore the availability of financial incentives offered by utility companies to help implement energy efficiency measures that would reduce GHG emissions. These incentives may be performance-based and tied to power and fuel avoided compared to a building designed to Building Code requirements. Incentives may also be available to offset design charrette and energy modeling costs.	Noted, please refer to Section 5.4.4 for a discussion of the Project's approach to incorporating utility and energy efficiency incentives and current status of energy efficiency assistance with the utility providers.
1.56	I note that the City of Boston is a designated Green Community. As such, the City has adopted the Commonwealth of Massachusetts' Stretch Energy Code (SC). Therefore, the project will be required to meet the applicable version of the Stretch Code in effect at the time of construction.	Noted, per Section 5.2.3, the Project will comply with the applicable Stretch Energy Code. Please refer to Section 5.4.1 for estimated EUIs and Stretch Code energy savings. Please see also Appendix H for a preliminary energy model report for each Project Component.
1.57	The DEIR should include a GHG emissions analysis that calculates and compares GHG emissions from: (1) a Base Case corresponding to the current Massachusetts Building Code and (2) a Preferred Alternative that achieves greater reductions in energy use and GHG emissions than required by the Building Code. The GHG analysis should model energy use, emissions, and mitigation measures associated with the project in accordance with the GHG Policy and the Department of Energy Resource's (DOER) comment letter.	Please refer to Section 5.4 for a summary of energy and GHG modeling outputs, including mitigation measures. Please see also Appendix H for a preliminary energy model report for each Project Component. Please also refer to Section 9.3, for an overview of the proposed mitigation measures taken by the Project.

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1.58a	The GHG analysis should clearly demonstrate consistency with the objectives of MEPA review, one of which is to document the means by which Damage to the Environment can be avoided, minimized and mitigated to the maximum extent feasible. The Proponent should identify the model used to analyze GHG emissions, clearly state modeling assumptions, explicitly note which GHG reduction measures have been modeled, and identify whether certain building design or operational GHG reduction measures will be mandated by the Proponent to future occupants or merely encouraged for adoption and implementation. The DEIR should include the modeling printout for each alternative and emission tables that compare base case emissions in tons per year (tpy) with the Preferred Alternative showing the anticipated reduction in tpy and percentage by emissions source (direct, indirect and transportation). Other tables and graphs may also be included to convey the GHG emissions and potential reductions associated with various mitigation measures as necessary.	Please refer to Section 5.4 and 9.3 for Greenhouse Gas Emissions Assessment methodology, results, and the mitigation measures that are being proposed. Modeling printouts of the energy analysis will be provided directly to DOER.
1.58b	The DEIR should provide the information and formatted tables requested in the DOER comment letter.	Please refer to Section 5.4 for all energy analysis and GHG results. Tables have been formatted to include the information requested by DOER.
1.59	The DEIR should present an evaluation of mitigation measures identified in the GHG Policy Appendix	Please refer to Section 5.4 for a summary of energy and GHG modeling outputs, including mitigation measures. Please see also Appendix H for a preliminary energy model report for each Project Component. Please also refer to Section 9.2 for an overview of the proposed mitigation measures taken by the Project.
1.60	The DEIR should explain, in reasonable detail, why certain measures, which could provide significant GHG reductions, were not selected – either because it is not applicable to the project or is considered technically or financially infeasible.	Please refer to Section 5.4 and 9.3 of the DPIR/DEIR for Greenhouse Gas Emissions Assessment and the mitigation measures that are being proposed and an explanation for those that were determined to be infeasible.

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1.61	The DEIR should assess the feasibility of the following mitigation measures: • Minimize energy use through building orientation and evaluate its impacts on energy usage, including solar gain, day-lighting and viability of solar photovoltaic (PV) systems; • Use of high-albedo roofing materials; • Install high-efficiency HVAC systems and adequate numbers of thermal zones to support temperature controls; • Reduce energy use through peak shaving or load shifting strategies; • Maximize interior day-lighting through floor-plates, increased building perimeter and use of skylights, clerestories and light wells; • Incorporate window glazing to balance and optimize daylighting, heat loss and solar heat gain performance; • Incorporate roof and wall insulation to minimize heat loss and minimize uncontrolled infiltration through the building envelope; • Incorporate lighting motion sensors, climate control and building energy management systems; • Install energy efficient LED lighting, both exterior and interior; • Evaluate additional measures to reduce project plug loads, including the use of more efficient equipment (such as Energy Star), consider energy consumption as a factor in the selection of special equipment, and consider power management techniques; • Use of combined heat and power (CHP) units for the residential component of the project; • Develop a tenant manual to encourage energy and water conservation, recycling, and use of Energy Star rated appliances to reduce plug loads; and • Consider the development of a "green lease" program whereby tenants agree to pay the landlord recovery costs for energy efficiency improvements based on predicted cost savings to the tenant.	Please refer to Section 5.4 for a summary of energy and GHG modeling outputs, including mitigation measures. Please see also Appendix H for a preliminary energy model report for each Project Component. Please also refer to Section 9.3 for an overview of the proposed mitigation measures taken by the Project.
1.62	The DEIR should include an analysis of at least three wall/fenestration scenarios, including the use of spandrels, which exceed minimum Building Code specifications.	Please refer to Section 5.4.2 for a discussion of alternative building envelopes. Please see also Appendix H for a preliminary energy model report and the alternative building envelope analysis for each Project Component.

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1.63	At a minimum, the DEIR should analyze the feasibility of employing solar photovoltaic (PV), solar hot water, CHP systems, and document the expected energy savings and reduction in GHG emissions from each generating technology. The Proponent should consider the use of one or more CHP systems for this project. Beyond providing efficient power for lighting and heating, CHP can also create greater reliability for electricity, greater control over uncertainties associated with energy prices, and produce off-grid power in the event of a black-out. I encourage the Proponent to consult with DOER regarding this analysis to ensure that the analysis accurately reflects the benefits of CHP.	Please refer to Section 5.4.3 for the On-Site Clean and Renewable Energy Analysis.
1.64	The solar feasibility analysis should consider solar PV for both a first-party and a third-party ownership structure. The Proponent should contact the MEPA office for recently updated data on solar installation costs and a solar financial modeling spreadsheet. The analysis should: • Estimate available roof area (excluding areas dedicated for mechanical equipment) or ground space for solar panel installation; • State the assumed panel efficiency; • Estimate electrical or thermal output of the potential system; and • Estimate annual GHG reductions due to the use of renewable energy versus electricity or natural gas.	Please refer to Section 5.4.3 for the On-Site Clean and Renewable Energy Analysis.

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1.65	For those projects that choose not to implement the use of solar in conjunction with the project, the analysis should include: • A commitment to construct the project as "solar-ready". At a minimum, this commitment should include design of a structure capable of supporting solar-related infrastructure. Such a commitment may also include provision of interconnection and inverter equipment, or other design features to facilitate future solar installations. • Completion of cost analysis to determine the overall financial feasibility of installation of solar, including potential payback periods for first-party and third-party ownership systems. • Discussion of potential environmental constraints (shading, presence of wetlands, etc.) limiting the application of solar on-site.	Please refer to Section 5.4.3 for the On-Site Clean and Renewable Energy Analysis.
1.66	I encourage the Proponent to consider design options that will allow for cost-effective integration of efficiency or renewable energy measures in the future when such measures may become more financially or technically feasible.	Please refer to Section 5.4.3 for the On-Site Clean and Renewable Energy Analysis and to Section 5.4.4 for a summary of building energy efficiency measures.
1.67	The Proponent should thoroughly explore means to improve traffic operations and minimize overall single occupancy vehicle trips.	Please refer to Section 4.7 for a description of potential traffic operations improvements, and to Section 4.13.2 for a summary of proposed TDM measures.
1.68	The DEIR should also review measures to promote the use of low-emissions vehicles, including installing EV charging stations and providing designated parking spaces for these vehicles. The Build with Mitigation model should incorporate roadway improvements and TDM measures to be implemented by the Proponent.	The LEED checklists provided for the Project indicate SS Credit 4.3 will be achieved which includes provision of electric vehicle charging stations and preferred parking for low-emitting and fuel efficient vehicles. Refer to Section 5.5 and the LEED narratives provided in Appendix G. Please also refer to Section 6.6.2 for results of the microscale air quality analysis and to Section 6.6.3 for results of the mesoscale air quality analysis. The Build with Mitigation conditions include all planned transportation improvements, including the TDM measures.

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1.69	The DEIR should include a commitment to provide a self-certification to the MEPA Office at the completion of the project. It should be signed by an appropriate professional (e.g. engineer, architect, transportation planner, general contractor) indicating that all of the GHG mitigation measures, or equivalent measures that are designed to collectively achieve identified reductions in stationary source GHG emission and transportation-related measures, have been incorporated into the project.	The Proponent confirms this commitment. Please refer to Section 9.8.6 for the Draft Stationary Source GHG Emissions Self-Certification.
1.70	In accordance with the State Implementation Plan (SIP) for ozone attainment, the proponent must conduct an indirect source review analysis. This analysis should be conducted in accordance with MassDEP Guidelines for Performing Mesoscale Analysis of Indirect Sources. The proponent should consult with MassDEP for guidance and for confirmation of the appropriate study areas.	Please refer to Section 6.6.3 for the mesoscale air quality analysis, including the planned transportation mitigation measures.
1.71	The analysis should model emissions under No Build and Build conditions. If VOC emissions are greater than the No Build scenario, the proponent must provide measures to mitigate this impact, including a TDM Program.	Please refer to Section 6.6.3 for the mesoscale air quality analysis, including the planned transportation mitigation measures.
1.72	I encourage the proponent to incorporate measures to enhance indoor air quality, including the installation of High-Efficiency Particulate Air (HEPA) filters into the heating, ventilating, and air conditioning (HVAC) system. Additionally, I recommend that the Proponent locate air intakes as far away as possible from sources of pollutants.	As described in Section 5.3.2 the Project will promote good indoor air quality through demand controlled ventilation and use of interior finish materials that are low-emitting and/or do not off-gas VOCs. The Project will balance air filtration with energy efficiency to find an optimal solution. Air intake locations will be evaluated to reduce occupant pollutant exposure.
1.73	The DEIR should provide an analysis of potential effects of climate change that could affect the project and identify and describe resiliency measures that will be incorporated into the project design, including any resiliency measures to be incorporated into the station upgrade.	Please refer to Section 5.5 and the Preparedness and Resiliency Checklist provided in Appendix J. Additionally, the Proponent has met with the MBTA's Climate Change Resiliency Specialist, Marybeth Riley-Gilbert, to discuss efforts the T is taking with regards to resilience at Back Bay Station, see Section 5.5.3.

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1.74	I urge the Proponent to consider any additional design features that may provide resiliency and support adaptation under future climate scenarios.	Please refer to Section 5.5 and the Preparedness and Resiliency Checklist provided in Appendix J. Additionally, the Proponent has met with the MBTA's Climate Change Resiliency Specialist, Marybeth Riley-Gilbert, to discuss efforts the T is taking with regards to resilience at Back Bay Station, see Section 5.5.3.
1.75	The DEIR should discuss sustainable design features of the project. Article 37 of the Boston Zoning Code requires that the project be certifiable by the U.S. Green Building Council's Leadership in Energy and Environmental Design program. The PNF included an outline of measures the project will implement that are creditable toward LEED certification. The DEIR should include a full evaluation of sustainable design elements for the buildings and exterior site areas, including measures identified in the LEED rating system. The DEIR should also describe how the project will use recycled building materials and incorporate recycling and source reduction.	Please refer to Section 5.3.2 for a detailed description of the Project's sustainability strategies and plan for compliance with Article 37. See also Section 5.4.4 for a description of ECMs incorporated into the energy models. As described in Section 5.3.3, Appendix G and Figures 5.1a-d, the Project will be LEED certified and incorporates a holistic approach to sustainability that promotes livability and economic development, while also mitigating the external impacts related to energy, emissions, water consumption, and waste production.
1.76	The project is located in the City of Boston's GCOD. The project must therefore undertake measures to infiltrate stormwater runoff to replenish groundwater.	Please refer to Section 7.4.3 for a summary of the Project's compliance with GCOD infiltration standards and requirements.
1.77	The DEIR should provide details about infiltration methods included in the stormwater management design and any necessary data and analysis to document the extent to which the project will meet the GCOD infiltration standard.	Please refer to Section 7.4 for details on the Project's intended stormwater management strategies, including compliance with the City's Groundwater Conservation Overlay District.
1.78a	The DEIR should identify stormwater modeling assumptions, detail the proposed stormwater management system, and provide supporting documentation or data to demonstrate that it will comply with the SMS and BWSC standards.	Please refer to Section 7.4.2 for a summary of the proposed stormwater and drainage conditions for each Project Component.
1.78b	The DEIR should describe the proposed management system and include calculations, plans at a readable scale, and design details for Best Management Practices (BMPs).	Please refer to Section 7.4.2 for a summary of the proposed stormwater and drainage conditions for each Project Component.

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1.78c	The DEIR should identify specific BMPs for the parking garage to mitigate stormwater runoff, in particular oil separators or similar BMPs.	Please refer to Section 7.4.2 for a summary of the proposed stormwater and drainage conditions for each Project Component.
1.79	The DEIR should identify BMPs and low impact development measures to maximize groundwater recharge.	Please refer to Section 7.4.2 for a summary of the proposed stormwater and drainage conditions for each Project Component and to Section 7.4.3 for a detailed description of the Project's intended compliance with the City's Groundwater Conservation Overlay District.
1.80	The DEIR should provide sufficient detail to demonstrate that the stormwater management system will meet the Charles River TMDLs requirements for phosphorous and pathogens.	The Proponent will submit a Stormwater Pollution Prevention Plan that includes a stormwater management plan in compliance with MassDEP Stormwater Management Standards. Please refer to Section 7.4.2 for a summary of the proposed stormwater and drainage conditions for each Project Component.
1.81	The DEIR should tabulate wastewater generation and water consumption by use, including estimates of peak and continuous maximum water demand for each proposed use and for landscape irrigation and air conditioning make-up water. The DEIR should include information provided in the PNF concerning the existing and proposed water and wastewater systems on site and in the BWSC system.	Please refer to Table 7-1 and 7-2 in Section 7.5.2 for a summary of existing and proposed wastewater generation rates.
1.82	The DEIR should analyze flow pressure and/or existing capacity of the BWSC water and sewer system that serve the site.	The Proponent has confirmed with BWSC that this will be addressed during the Site Plan approval process.
1.83	The DEIR should describe the location and size of infrastructure, connections to the BWSC water and sewer systems, and the path and ultimate disposal of wastewater from the site.	Please see Chapter 7 for an analysis of existing infrastructure and proposed connections. The Proponent has confirmed with BWSC that this will be reviewed in detail during the Site Plan approval process.
1.84	The DEIR should identify and describe water conservation measures that will be incorporated into design and operations.	Please refer to Section 5.3.2 for a description of the Project's water conservation strategies.

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1.85	At a minimum, the DEIR should review the feasibility of installing low-flow fixtures and using rainwater or gray water for irrigation and other purposes.	Please refer to Section 5.3.2 for a description of the Project's water conservation strategies.
1.86	The DEIR should include a commitment to I/I removal and identify any mitigation projects or monetary contribution by the Proponent. The Proponent should consult with BWSC to identify appropriate I/I mitigation in connection with this project.	As discussed in Section 7.5.4, the Proponent will comply with the MassDEP infiltration/inflow (I/I) removal policy and develop an I/I mitigation plan in coordination with BWSC.
1.87	As requested in MHC's letter, the DEIR should include a historic resources assessment of historic properties within a quarter-mile of the project site. The DEIR should include pedestrian-level perspectives of the project from nearby historic resources to assist MHC in evaluating the effect of the project's size, scale and massing will have in these resources. The DEIR should include the shadow impact analysis with illustrations of the shadows on the facades of historic buildings. The DEIR should include the results of a quantitative wind tunnel analysis, document the project's effect on pedestrian-level wind conditions, and identify any necessary mitigation measures.	Please refer to Sections 8.2.1 and 8.2.2 for a detailed historic resources assessment within and near the Project Site and to Figures 8.2a-j for pedestrian-level views from area historic resources. Please refer to Section 8.3 for analysis of the Project's urban design, and potential wind, shadow, and geotechnical impacts on historic resources. All shadow impacts have been minimized to the maximum extent practicable to avoid any noticeable effect on pedestrian use patterns, including no more than two hours of shadow on Copley Square between 8am to 2:30pm on any given day from March 21 to October 21, as specified in the Stuart Street Zoning District regulations. The results of the shadow analysis are provided in Section 6.3.
1.88	The DEIR should characterize the solid waste expected to be generated by the project.	Please refer to Sections 5.3.2 and 5.4.4 for a discussion of the Project's waste reduction strategies. The LEED checklists provided in Appendix G demonstrates a commitment to recycling and/or salvaging at least 75 percent of nonhazardous construction and demolition waste.
1.89	The DEIR should indicate whether any proposed uses may be subject to the waste ban and how it may dispose of its organic waste.	Future commercial tenants that produce one more tons of food waste per week will comply with the organic waste ban.
1.90	The DEIR should describe measures to reduce and recycle organic and other wastes through waste diversion and recycling programs.	Please refer to Sections 5.3.2 and 5.4.4 for a discussion of the Project's waste reduction strategies. The LEED checklists provided in Appendix G demonstrates a commitment to recycling and/or salvaging at least 75 percent of nonhazardous construction and demolition waste.

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1.91	The Proponent should refer to MassDEP's comment letter for additional information and links to web sites providing technical assistance.	Comment noted.
1.92	The DEIR should identify the schedule for construction of various elements and phases. It should identify construction-period impacts and mitigation relative to noise, air quality, water quality, and traffic, including pedestrians, bicyclists and transit riders.	Please refer to Section 1.4.8 for a description of the Project phases and an evaluation of phasing scenarios. Please refer to Section 6.11 for a discussion of temporary construction impacts and planned mitigation measures.
1.93	The DEIR should document any contaminated soil or groundwater regulated under the Massachusetts Contingency Plan (MCP) and describe remediation and mitigation measures if necessary.	As discussed in Section 6.9, the Proponent will be conducting testing to characterize and classify the soil to be generated from foundation spoils, for off-site removal to appropriate facilities. Materials excavated during construction of the Project will be managed in accordance with applicable regulatory requirements including, if necessary, a Release Abatement Measure ("RAM") Plan under the MCP. See also Section 6.10.1 through 6.10.3 for a discussion of soil material and groundwater management during construction.
1.94	The DEIR should confirm that the project will require its construction contractors to use Ultra Low Sulfur Diesel fuel, and discuss the use of after-engine emissions controls, such as oxidation catalysts or diesel particulate filters.	All equipment utilized on the Project Site will be Tier 4 compliant and required to use only Ultra Low Sulfur Diesel. Please refer to Section 6.11.7 for a summary of proposed temporary air quality mitigation measures to be implemented during construction activities.
1.95	The DEIR should provide drafts of the Construction Management Plan (CMP) and Transportation Access Plan Agreement (TAPA) and specifically identify construction period impacts to public access to transit, including bus routes and stops.	Please refer to Sections 4.13.4 and 4.13.5 for a discussion of the Project's CMP and TAPA. Drafts of these documents will be submitted to the appropriate agencies once more information is known regarding the Project's timing and phasing.
1.96	The DEIR should identify measures to be taken during the construction of each phase to ensure safe and convenient passage for transit riders between Orange Line and Amtrak facilities and the project site.	Detailed Construction Management Plans (CMP) will be developed at the appropriate time for each Project Component once the phasing plan is known. As discussed in Section 4.13.4, further clarity is needed on key elements such as start date, construction duration, and other active construction sites in the area at the time of each Project Component's commencement.

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1.97	The DEIR should review any additional coordination with the City of Boston, MBTA, MassDOT, and other project Proponents that may be warranted to coordinate construction schedules and develop mitigation measures necessary to minimize construction-period impacts.	Detailed Construction Management Plans (CMP) will be developed at the appropriate time for each Project Component once the phasing plan is known. As discussed in Section 4.13.4, further clarity is needed on key elements such as start date, construction duration, and other active construction sites in the area at the time of each Project Component's commencement.
1.98	The DEIR should provide more information regarding the project's generation, handling, recycling, and disposal of construction and demolition debris (C&D) and identify measures to reduce solid waste generated by the project. I strongly encourage the Proponent to commit to C&D recycling activities as a sustainable measure for the project.	Please refer to Sections 5.3.2 and 5.4.4 for a discussion of the Project's C&D waste reduction strategies. A Construction Waste Management Plan (CWMP) will be developed and implemented by the construction manager with the goal to divert as much demolition debris and construction waste from area landfills as possible, with a targeted minimum diversion rate of 75 percent.
1.99	The Proponent should consult the MassDEP comment letter with regard to regulatory requirements and potential mitigation measures for the removal, handling, and disposal of asbestos containing material (ACM) and other demolition debris during the construction period. The Proponent is reminded that any contaminated material encountered during construction must be managed in accordance with the MCP and with prior notification to MassDEP.	Noted, all code and applicable laws and regulations will be followed and MassDEP will be notified as necessary. A licensed asbestos abatement contractor will be hired if abatement is required. Please refer to section 6.9 for additional information on hazardous material handling.
1.100	The DEIR should describe potential construction period dewatering requirements, discuss how dewatering will be conducted in a manner consistent with MWRA, MassDEP and/or BWSC regulations/guidelines, and identify any necessary permits. The draft CMP should include appropriate erosion and sedimentation control BMPs. I encourage the Proponent to adopt erosion and sedimentation controls consistent with a Stormwater Pollution Prevention Plan prepared in accordance with the NPDES Construction General Permit requirements.	All code and applicable laws and regulations will be followed and permits obtained as necessary. Please refer to Section 6.10.1 through 6.10.2 of potential dewatering during construction. Please refer to Section 1.6.4 and Table 1-3 for a list of anticipated permits and approvals for the Project.

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1.101	The DEIR should include detailed information describing the nature of the tidelands affected by the project and the public benefit of the project.	Please see Section 1.5 for a summary of public benefits the Project will deliver, Chapter 3 for a detailed discussion of the public realm improvements, Chapter 4 for Transportation and Parking impacts, Chapter 5 for Sustainability and GHG assessment, Chapter 6 for Environmental impacts, Chapter 7 for Infrastructure impacts and Chapter 8 for impacts to Historic Resources.
1.102	The DEIR should discuss the impact of the project on abutters and the surrounding community, including effects of wind and shadow, enhancement to the property, and benefits to the public trust rights in tidelands and other rights.	Please refer to Chapter 6 which provides details on the Project-related impacts and discusses steps that will be taken to avoid, minimize, and/or mitigate adverse effects. Please see Section 1.5 for a summary of the Project's public benefits.
1.103	The DEIR should identify benefits of the project provided through municipal permits, community activities on the site, environmental protection and preservation, public health and safety, and the general welfare.	Please refer to Section 1.5 for a detailed summary of the Project's public benefits.
1.104	The DEIR should include a separate chapter summarizing proposed mitigation measures. This chapter should also include draft Section 61 Findings for each permit to be issued by State Agencies. The DEIR should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and a schedule for implementation. The DEIR should clearly indicate which mitigation measures will be constructed or implemented based upon project phasing, either tying mitigation commitments to overall project square footage/phase or environmental impact thresholds, to ensure that measures are in place to mitigate the anticipated impact associated with each development phase.	Please refer to Chapter 9 for a summary of proposed mitigation by Project Component and Draft Section 61 Findings. Please note, project-related impacts, proposed mitigation and anticipated phasing is discussed throughout the document.

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1.105	The DEIR should contain a copy of this Certificate and a copy of each comment letter received. In order to ensure that the issues raised by commenters are addressed, the DEIR should include direct responses to comments to the extent that they are within MEPA jurisdiction. This directive is not intended to, and shall not be construed to, enlarge the Scope of the DEIR beyond what has been expressly identified in this certificate.	Please refer to Chapter 10 (ENF Response to Comments) and Chapter 11 (PNF Response to Comments), as well as Appendices M and N for a copy of each comment letter received on the ENF and PNF.
1.106	The Proponent should circulate the DEIR to those parties who commented on the ENF, to any State Agencies from which the Proponent will seek permits or approvals, and to any parties specified in section 11.16 of the MEPA regulations. Per 301 CMR 11.16(5), the Proponent may circulate copies of the EIR to commenters in CD-ROM format or by directing commenters to a project website address. However, the Proponent must make a reasonable number of hard copies available to accommodate those without convenient access to a computer and distribute these upon request on a first-come, first-served basis. The Proponent should send correspondence accompanying the CD-ROM or website address indicating that hard copies are available upon request, noting relevant comment deadlines, and appropriate addresses for submission of comments. The DEIR submitted to the MEPA office should include a digital copy of the complete document. A copy of the DEIR should be made available for review at the Boston Public Library.	Noted. Please refer to Appendix A for a copy of the DEIR/DPIR Distribution List.

Comment No.	Comment	Response to Comment
Letter 2	**Massachusetts Department of Environmental Protection**	
2.1	Under the terms of the new regulations at 314 CMR 12.04(2)(d), MassDEP requires sewer authorities with permitted combined sewer overflows, including the Boston Water & Sewer Commission, to require removal of four gallons of infiltration and inflow (I/I) for each gallon of new wastewater flows generated for any new connection where greater than 15,000 gallons per day of new wastewater flows will be generated. The EIR should describe the sewer system for the project and identify any sewer system deficiencies within the combined sanitary sewer system serving the project site.	Please refer to Section 7.5.3 for more information related to the Project's sewer connections. Also, as discussed in Section 7.5.4, the Proponent will comply with the MassDEP infiltration/inflow (I/I) removal policy and develop an I/I mitigation plan in coordination with BWSC.
2.2	…the stormwater checklist associated with the MassDEP stormwater management standards in Section 6.4.3 of the PNF, indicates that the stormwater management system will be comprised of deep sump catch basins, and/or proprietary particle separators, and a subsurface infiltration system. This more conventional stormwater management system would not be as effective as the system described in the sustainability section of the PNF. The EIR should explain the stormwater management system in greater detail and expand on the information in the PNF by providing stormwater management plans to demonstrate that the project achieves the sustainability goals as well as the applicable stormwater management standards.	Please refer to Section 7.4 for more information regarding the Project's stormwater management system.
2.3	Stormwater discharges to the Charles River need to be consistent with the established water quality standards and goals for phosphorus and pathogen removal in the Final Total Maximum Daily Load for Nutrients in the Lower Charles River Basin (June, 2007) and the Total Maximum Daily Loads for Pathogens within the Charles River Watershed (January 2007). Accordingly, the EIR should provide sufficient information to demonstrate that the stormwater management system would be designed to address the water quality impairments covered by the applicable TMDLs.	Please refer to Section 7.4 for more information regarding the Project's stormwater management system.

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2.4	MEPA project reviews such as this one are projected to contribute towards the reduction of about 100,000 Metric Tons of CO2 equivalent emissions by 2020, in the Massachusetts Clean Energy and Climate Plan 2020. The GHG analysis must consider and provide details on commitments to measures that will reduce the CO2 emissions to the greatest extent practicable.	Please refer to Section 5.4 for a summary of the Greenhouse Gas Emissions Assessment and proposed mitigation strategies.
2.5	A general overview of the modeling assumptions for HVAC and lighting systems in the office, retail/restaurant space, and the residential space also was provided in the PNF. Overall, it is estimated that stationary source CO2 emissions would be reduced by 18.2 percent. The preliminary study showed that the retail space had a much smaller emission reduction at 6.8 percent (34 tons/year) than either the office or the residential space. If the energy demand cannot be reduced to a greater extent, the EIR should provide a reasonable explanation.	The Station West retail addition is less than 100,000 sf, and hence the new Stretch Code does not apply. However, since the building glazing percentage exceeds the ASHRAE 90.1-2013 prescriptive requirement of 40%, the building will need to follow the Energy Cost Budget (ECB) performance path outlined in ASHRAE 90.1-2013 Chapter 11 to meet the energy code. The proposed retail expansion is hence compared to an ECB Baseline, which also has heat pumps and energy recovery. This reduces HVAC energy savings. Additionally, no lighting savings were claimed in the proposed design since any improved lighting efficiency is assumed to be part of the fit-out. These factors contribute to the retail building showing a much smaller emissions reduction than the rest of the project. Please refer to section 5.4 for additional information.
2.6	The PNF indicates that renewable energy will be incorporated into the development to the extent feasible. A feasibility study of photovoltaics, wind turbines, and combined heat and power should be included in the GHG analysis for the potential of renewable energy sources on site to reduce the project's carbon footprint.	Please refer to Section 5.4.3 for a summary of on-site clean and renewable energy sources that were evaluated for the Project.
2.7	Even though the ENF indicates that C&D waste will be recycled to the greatest extent feasible, the ENF has not made a specific commitment. MassDEP encourages the project proponent to make a significant commitment in the EIR to C&D recycling activities as a sustainable measure for the project. In addition, the proponent is advised that demolition activities must comply with both Solid Waste and Air Pollution Control regulations, pursuant to M.G.L. Chapter 40, Section 54.	Please refer to Sections 5.3.2 and 5.4.4 for a discussion of the Project's C&D waste reduction strategies. A Construction Waste Management Plan (CWMP) will be developed and implemented by the construction manager with the goal to divert as much demolition debris and construction waste from area landfills as possible, with a targeted minimum diversion rate of 75 percent.

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2.8	Pursuant to the requirements of 310 CMR 7.02 of the Air Pollution Control regulations, if the ABC crushing activities are projected to result in the emission of one ton or more of particulate matter to the ambient air per year, and/or if the crushing equipment employs a diesel oil fired engine with an energy input capacity of three million or more British thermal units per hour for either mechanical or electrical power which will remain on-site for twelve or more months, then a plan application must be submitted to MassDEP for written approval prior to installation and operation of the crushing equipment.	If ABC crushing activity results in one ton or more of PM emissions or if crushing equipment of 3 MMBTu or more are expected on-site for 12 or more months, the appropriate permit will be obtained.
2.9	Asbestos removal notification on permit form ANF 001 and building demolition notification on permit form AQ06 must be submitted to MassDEP at least 10 working days prior to initiating work. Except for vinyl asbestos tile (VAT) and asphaltic-asbestos felt and shingles, the disposal of asbestos containing materials within the Commonwealth must be at a facility specifically approved by MassDEP, (310 CMR 19.061). No asbestos containing material including VAT, and/or asphaltic-asbestos felts or shingles may be disposed at a facility operating as a recycling facility, (310 CMR 16.05).	Noted, all code and applicable laws and regulations will be followed and MassDEP will be notified as necessary. A licensed asbestos abatement contractor will be hired if abatement is required. Please refer to section 6.9 for additional information on hazardous material handling.
2.10	In addition, the demolition project contain asbestos, the project proponent is advised that asbestos and asbestos-containing waste material are a special waste as defined in the Solid Waste Management regulations, (310 CMR 19.061). The disposal of the asbestos containing materials outside the jurisdictional boundaries of the Commonwealth must comply with all the applicable laws and regulations of the state receiving the material.	Noted, all code and applicable laws and regulations will be followed and MassDEP will be notified as necessary. A licensed asbestos abatement contractor will be hired if abatement is required. Please refer to section 6.9 for additional information on hazardous material handling.
2.11	The demolition activity also must conform to current Massachusetts Air Pollution Control regulations governing nuisance conditions at 310 CMR 7.01, 7.09 and 7.10. As such, the proponent should propose measures to alleviate dust, noise, and odor nuisance conditions, which may occur during the demolition.	All construction activity will comply with the appropriate regulations at 310 CMR 7.01, 7.09 and 7.10. Best management practices for construction noise and air quality mitigation will be employed. See Section 6.10 for proposed mitigation measures anticipated to reduce impacts from construction activities.

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2.12	MassDEP must be notified in writing, at least 10 days in advance of removing any asbestos, and at least 10 days prior to any demolition work. The removal of asbestos from the buildings must adhere to the special safeguards defined in the Air Pollution Control regulations, (310 CMR 7.15 (2)).	Noted, all code and applicable laws and regulations will be followed and MassDEP will be notified as necessary. A licensed asbestos abatement contractor will be hired if abatement is required. Please refer to section 6.9 for additional information on hazardous material handling.
2.13	As the lead state agencies responsible for helping the Commonwealth achieve its waste diversion goals, MassDEP and EEA have strongly supported voluntary initiatives by the private sector to institutionalize source reduction and recycling into their operations. Adapting the design, infrastructure, and contractual requirements necessary to incorporate reduction, recycling and recycled products into existing large-scale developments has presented significant challenges to recycling proponents. Integrating those components into developments such as The Back Bay/South End Gateway project at the planning and design stage enable the project's management and occupants to establish and maintain effective waste diversion programs.	Please refer to Sections 5.3.2 and 5.4.4 for a summary of the Proponent's on-site waste diversion and recycling program goals. The Project will be designed to enable the Proponent's property management team to implement waste diversion programs.
2.14	The ENF indicates that the project has not been regulated under the MCP/MGL c21E. Even so, the PNF acknowledges that the urban fill on site is the source of low levels of contamination. Accordingly, the proponent is reminded that excavating, removing and/or disposing of contaminated soil, pumping of contaminated groundwater, or working in contaminated media must be done under the provisions of MGL c.21E (and, potentially, c.21C) and OSHA.	All applicable laws and regulations will be followed if this type of material is encountered. Please refer to section 6.9 for additional information.
2.15	All relevant site data, such as contaminant concentrations in soil and groundwater, depth to groundwater, and soil gas concentrations should be evaluated to determine the potential for indoor air impacts to existing or proposed building structures. Particular attention should be paid to the vapor intrusion pathway for sites with elevated levels of chlorinated volatile organic compounds such as tetrachloroethylene (PCE) and trichloroethylene (TCE).	As discussed in Section 6.9, the Proponent will conduct testing to characterize and classify the soil to be generated from foundation spoils for off-site removal to appropriate facilities. Materials excavated during construction of the Project will be managed in accordance with applicable regulatory requirements including, if necessary, a Release Abatement Measure ("RAM") Plan under the MCP.

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2.16	Construction of structures at a contaminated site may be conducted as a Release Abatement Measure if assessment and remedial activities prescribed at 310 CMR 40.0442(3) are completed within and adjacent to the footprint of the proposed structure prior to or concurrent with the construction activities. Excavation of contaminated soils to construct clean utility corridors should be conducted for all new utility installations.	As discussed in Section 6.9, the Proponent will conduct testing to characterize and classify the soil to be generated from foundation spoils for off-site removal to appropriate facilities. Materials excavated during construction of the Project will be managed in accordance with applicable regulatory requirements including, if necessary, a Release Abatement Measure ("RAM") Plan under the MCP.
2.17	Pre-installation approval from MassDEP, pursuant to regulation 310 CMR 7.02, is required if the project will include any boiler regulated under 310 CMR 7.26(30) -(37), inclusive. Natural gas or distillate fuel oil-fired boilers with an energy input capacity less than 10,000,000 British thermal units per hour (Btu/hr.) are exempt from the above listed regulations. In addition, if the project will be equipped with emergency generators equal to or greater than 37 kW, then each of those emission units must comply with the regulatory requirements in 310 CMR 7.26(42).	Specific boiler and generator sizes and models are not yet finalized and may change as the Project design progresses. Any boiler or generator that exceeds the thresholds of MassDEP's Environmental Results Program will submit the appropriate Self-Certification before installation for boilers and within 60 days of startup for emergency generators.
Letter 3	**MassDEP Bureau of Air and Waste**	
3.1	In view of the number of projected vehicle trips, the proponent must conduct an air quality mesoscale analysis of project-related emissions, as required by MassDEP. The purpose of the mesoscale analysis is to determine to what extent the proposed project vehicle trips will increase the amount of volatile organic compounds (VOCs) and nitrogen oxides (NOx) emitted in the project area.	Please refer to Section 6.6.2 for the results of the microscale air quality analysis and Sections 5.4.5 and 6.6.3 for the results of the mesoscale air quality analysis. Appendix H also provides additional supporting documentation related to air quality.
3.2	The proposed project is also subject to the MEPA Greenhouse Gas Emissions Policy and Protocol, as amended on May 5, 2010. This policy requires the project proponent to quantify project-related carbon dioxide (CO2) emissions and identify measures to avoid, minimize, and mitigate these emissions. The mesoscale analysis should also be used to quantify the CO2.	Please refer to Section 5.4.5 results of the mesoscale analysis.

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3.3	The mesoscale analysis must quantify and compare the indirect emissions of VOCs, NOx and CO2 from transportation sources under the project's future No Build, Build, and Build with Mitigation conditions.	Please refer to Sections 5.4.5 and 6.6.3 for the results of the mesoscale air quality analysis. Appendix H also provides additional supporting documentation related to air quality. The Project will not cause or contribute to an exceedance of the National Ambient Air Quality Standards.
3.4	The Build with Mitigation condition should reflect the local roadway improvements and transportation demand management (TDM) measures to be implemented by the proponent.	Please refer to Section 4.7 for the Build with mitigation analysis and to 4.13.2 for a summary of proposed TDM measures designed to reduce ride-along trips and single occupancy vehicles.
3.5	The proponent should use the latest version of the MOVES emissions model approved by the U.S. Environmental Protection Agency to conduct the mesoscale analysis and generate motor vehicle emission factors for VOC, NOx and CO2 for the roadway network in the project area. The subsequent environment filing should contain the results and a discussion of the results of the mesoscale analysis under the three conditions.	Please refer to Sections 5.4.5 and 6.6.3 for the results of the mesoscale air quality analysis. Appendix H also provides additional supporting documentation related to air quality. The Project will not cause or contribute to an exceedance of the National Ambient Air Quality Standards.
3.6	MassDEP requests that the proponent specifically use construction equipment with engines manufactured to Tier 4 federal emission standards, which are the most stringent emission standards currently available for off-road engines. If a piece of equipment is not available in the Tier 4 configuration, then MassDEP requests that the proponent use construction equipment that has been retrofitted with the best available after-engine emission control technology, such as diesel oxidation catalysts (DOCs) or diesel particulate filters (DPFs), to reduce exhaust emissions during the construction period of the project.	All equipment utilized on the Project Site will be Tier 4 compliant and required to use only Ultra Low Sulfur Diesel. Please refer to Section 6.11.7 for a summary of proposed temporary air quality mitigation measures to be implemented during construction activities.
3.7	The subsequent environmental filing should contain a list of the construction engines to be used at the project, their emission tiers, and, if applicable, the retrofit technology installed on their engines.	The construction engines to be used at the Project Site will not be determined until design is finalized and specific subcontractors are selected. As the Project design advances, the Proponent can provide details on specific engines and equipment types. All contractors will be required to comply with applicable regulations mitigating emissions and noise impacts.

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Letter 4	**Massachusetts Department of Transportation**	
4.1	MassDOT appreciates the level of coordination, interaction, and involvement demonstrated by the Proponent, and fully anticipates that this level of cooperation will continue throughout the environmental review process	The Proponent thanks you for your support, and fully intends to continue to work with MassDOT and other agencies throughout the review process.
4.2	The Draft Environmental Impact Report (DEIR) should include a Transportation Impact Assessment (TIA) prepared in conformance with the current MassDOT/EOEEA Transportation Impact Assessment Guidelines. The study should include a comprehensive multimodal assessment of the transportation impacts of the project. The TIA should provide transit and capacities analyses, and evaluate bicycle and pedestrian facilities for the existing conditions, future No-Build conditions, and future Build conditions within the study area. The future Build conditions should include an analysis of operations both with and without any improvements suggested to mitigate project impacts. The study should propose an integrated multimodal mitigation package intended to improve vehicular traffic operations while supporting increased use of walking, bicycling, and transit by employees, patrons, and residents. Items listed below should be accounted for in preparing the TIA.	Please refer to Chapter 4 and the Figures therein for complete details of the Transportation Impact Study (TIA) performed for the Project.
4.3	The DEIR should include estimates for the average Saturday, the weekday AM Peak, and weekday PM Peak hours, and the Saturday peak hour for the full-build project. The trip rates should be obtained from the ITE Trip Generation Manual (9th edition).	Please refer to Section 4.3.1 and Appendix F for a summary of average Saturday and weekday traffic volumes. Please refer to Section 4.5 for a summary of the Project generated vehicle trips methodology and results.
4.4	Trip reduction estimates resulting from pass-by and/or internal capture trips should be determined using applicable methodologies from the most recent editions of ITE's Trip Generation Manual and Trip Generation Handbook.	Please refer to Section 4.5 for details of pass-by and internal capture trip reductions.

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4.5	The DEIR should provide a trip distribution for the project based on a gravity model or similar model that uses factors such as census data, origin-destination, travel time, and distance to determine trip characteristics for employees and residents of the project.	Please refer to Section 4.5.9 for a summary of Project trip distribution and assignment methodology.
4.6	The DEIR should provide all appropriate back up documentation to verify how the different percentages are calculated and assigned to the roadway network and the transit system. In addition, the model should be able to consider a potential I-90 on-ramp closure impact to the transportation network trip distribution.	Please refer to Section 4.5.9 for a summary of Project trip distribution and assignment methodology, and to Section 4.4.3 for a summary of the impacts of the potential I-90 on-ramp closure.
4.7	The DEIR should contain an analysis of what additional demand will be generated by the project and document its impacts on the Back Bay station.	Please refer to Section 4.10 for a detailed analysis on the future capacity of transit services serving the Project Site.
4.8	The Proponent should work closely with the MassDOT Office of Transportation Planning, the City of Boston, and the MBTA Service Planning Department to develop appropriate and reasonable travel demand and trip generation characteristics.	Please refer to Section 4.5 for a summary of the Project-generated vehicle trips methodology, which was developed in coordination with the MassDOT Office of Transportation Planning, the City of Boston, and the MBTA Service Planning Department.
4.9	The DEIR should then present not just the result of that analysis but a full and complete presentation on how the multimodal trip generation estimates and trip assignment rates were developed and what research was done to support these rates. The DEIR should include all back up data used to arrive at any trip generation estimates to corroborate any assumptions included in the analyses.	Please refer to Section 4.5 and Appendix F for a summary of the Project-generated trips methodology, which was developed in coordination with the MassDOT Office of Transportation Planning, the City of Boston, and the MBTA Service Planning Department.
4.10	Once the trip generation, the modal split, and the trip distribution and assignment estimates are developed, the study area should be used and updated as defined below to create network maps for the different peak-hour analysis and the different modes.	Please refer to Section 4.5 and Figures 4.11a - 4.14b for a summary and network maps of the Project-generated peak hour vehicle trips.

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4.11a	MassDOT recommends that the following locations be added to the study area:	Please refer to Section 4.3.1 and Figure 4.1, for a description of the intersections included in the Project study area. The additional intersections MassDOT requested were incorporated.
4.11b	• Clarendon Street at the I-90 westbound on-ramp;	Please refer to Section 4.3.1 and Figure 4.1, for a description of the intersections included in the Project study area.
4.11c	• Arlington Street at Marginal Road/I-90 westbound on-ramp;	Please refer to Section 4.3.1 and Figure 4.1, for a description of the intersections included in the Project study area.
4.11d	• Arlington Street at Stuart Street/Columbus Avenue;	Please refer to Section 4.3.1 and Figure 4.1, for a description of the intersections included in the Project study area.
4.11e	• Arlington Street/Herald Street at Tremont Street;	Please refer to Section 4.3.1 and Figure 4.1, for a description of the intersections included in the Project study area.
4.11f	• Herald Street at Albany Street;	Please refer to Section 4.3.1 and Figure 4.1, for a description of the intersections included in the Project study area.
4.11g	• Albany Street at I-93 southbound on-ramp;	Please refer to Section 4.3.1 and Figure 4.1, for a description of the intersections included in the Project study area.
4.11h	• Albany Street at Traveler Street;	Please refer to Section 4.3.1 and Figure 4.1, for a description of the intersections included in the Project study area.
4.11i	• Traveler Street at I-93 northbound on-ramp/ I-90 westbound on-ramp;	Please refer to Section 4.3.1 and Figure 4.1, for a description of the intersections included in the Project study area.
4.11j	• Berkeley Street at Storrow Drive on-ramps;	Please refer to Section 4.3.1 and Figure 4.1, for a description of the intersections included in the Project study area.
4.11k	• Storrow Drive eastbound off-ramp at Clarendon Street;	Please refer to Section 4.3.1 and Figure 4.1, for a description of the intersections included in the Project study area.

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4.11l	• Stuart Street at I-90 westbound off-ramp; and	Please refer to Section 4.3.1 and Figure 4.1, for a description of the intersections included in the Project study area.
4.11m	• Huntington Avenue at Blagden Street/I-90 westbound on-ramp	Please refer to Section 4.3.1 and Figure 4.1, for a description of the intersections included in the Project study area.
4.12	The most immediate impacts to state highways include the portion of I-90 located under the project site as well as the I-90 westbound on-ramp. Therefore, the study area should include operational analyses for the I-90 mainline including the merge sections for the Arlington Street, Clarendon Street, and Huntington Avenue on-ramps.	Please refer to Sections 4.3.10, 4.4.6 and 4.6.3 for details of the I-90 mainline under Existing, No-Build and Build conditions, respectively. Please note a separate study is being done on the I-90 ramp by MassDOT as part of the IMR.
4.13	The DEIR transportation study should provide a comprehensive traffic analysis of the study area network with two alternatives: one that assumes the ramp remains opened and the other with the ramp permanently closed. This analysis should be provided for both No-Build and Future Build conditions.	Please refer to Sections 4.3.10, 4.4 and 4.6 for details of the traffic analysis under Existing, No Build and Build conditions, respectively, with the I-90 ramp open (Base Condition) and closed (Alternative Condition). Please note a separate study on the I-90 ramp is being done by MassDOT as part of the IMR.
4.14	The TIA should include trips generated by other nearby planned and/or approved projects as part of the background growth in developing future No-Build and Build traffic volumes. ITE trip rates should be used to estimate the vehicle trip generation of un-built and/or yet to be occupied space. In addition, an annual growth factor should be superimposed on existing traffic volumes prior to the addition of the volumes associated with background project-specific growth.	Please refer to Sections 4.4.1 for details of background growth including both an annual growth factor and specific background projects as identified by BTD and BPDA.
4.15	The planning horizon year for the TIA should be seven years from the time of submittal of the DEIR. It is expected that this will allow a reasonable planning horizon "time window" when the project reaches the design stage for improvements. The alternative analysis for the potential ramp closure should be based on 20-year planning horizon for consistency with FHWA requirements for the preparation of an IMR.	The planning horizon year for the TIA for the Project presented in Chapter 4.0 is based on a 7-year horizon (2023). The planning horizon for the potential ramp closure analysis in the IMR being prepared separately by MassDOT is based on a 20-year horizon.

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4.16	The Proponent should provide additional information to MassDOT on this model as to how it would be calibrated to match the DEIR transportation analysis methodology, which is based on a 7-year horizon.	Please refer to Section 4.4.3 for a discussion of the use and calibration of the CRB model to evaluate the effects of the potential closure of the I-90 ramp under future (7-year) conditions.
4.17	The Proponent should also address the compatibility of the CRB model with the Central Transportation Planning Staff model to be used by MassDOT for the preparation of the IMR.	Please refer to Section 4.4.3 (2023 No-Build Alternative Condition) for a discussion of the compatibility of the CRB model with the CTPS model used by MassDOT for the preparation of the IMR.
4.18	Vehicle crash data was not included in the ENF but should be included in the DEIR.	Please refer to Section 4.3.7 for an analysis of vehicle crash data.
4.19	Specifically, the DEIR should conduct analysis for any study area intersections having crash rates higher than the State and/or District 6 average. The analysis should include a discussion of causality, suggestions for mitigation, and commitment to implementing this mitigation.	Please refer to Section 4.3.7 for an analysis of vehicle crash data, including comparison with State and District 6 crash rates.
4.20	Capacity analyses should be conducted for the weekday AM, PM, and Saturday peak hours for both existing and future conditions for each development alternative considered. In addition, capacity analyses for Build with mitigation conditions should be provided for all intersections, particularly those with impacts to the state highway system. Of particular concern are the areas where Boston Transportation Department jurisdictional roadways interact with MassDOT-controlled locations.	Please refer to Section 4.3.1 and Appendix F for an evaluation of average Saturday and weekday peak traffic volumes and Project trip generation. Please also refer to Sections 4.3, 4.4, 4.6 and 4.7 for capacity analysis at all study intersections under Existing, No-Build, Build and Build with Mitigation conditions, respectively.
4.21	The DEIR should also clearly document the project's impacts to vehicular flow and bus headway at the station entrance due to the changes in location, number, and capacity of entrances to the garage and should include impacts due to the proposed signalization of the garage exits onto Clarendon Street.	The Project does not propose to signalize the Garage exit on Clarendon Street. Please refer to Section 4.6 for analysis of the Project's impacts to traffic operations at the Station entrance on Clarendon Street. Please also refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.

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4.22	The DEIR should provide illustrations depicting the peak hour 50th (average) and 95th percentile queue lengths for each lane group/turning movement at each study area intersection, for all analysis scenarios. The information contained in these illustrations should clearly demonstrate that the project would not result in any extended queues that would block vehicle movements to/from study area intersections, particularly those involving state highways. Appropriate mitigation should be identified at any locations where queue blockages occur. Color-coded illustrations should also be prepared depicting the level of service (LOS) for each lane group/turning movement for each case.	Please refer to Sections 4.3.8, 4.3.9, 4.4.5 and 4.6.2 for a summary of respective queue analyses under existing, no build and build conditions. Please refer to figures 4.17a-d for queue analysis illustrations under all analysis scenarios.
4.23	A traffic signal warrant study (TSWS) should be performed and the need documented for any locations where signalization is being proposed, including site driveway intersections with the public roadway system. A left-turn lane warrant analysis should be conducted and the need documented for any locations where the addition of such a lane is being proposed, including at site driveways.	Please refer to Section 4.7.1 for a description of potential signalization at the St. James Avenue/Trinity Place and Clarendon Street/Stanhope Street intersections. As noted, traffic signal warrants may not be satisfied at these locations, and further discussion with BTD is necessary to determine if the improvements should be considered.
4.24	The DEIR should include sufficiently detailed conceptual plans (minimum of 80-scale) for proposed roadway improvements in order to verify the feasibility of constructing such improvements. These plans should clearly show proposed lane widths and offsets, layout lines and jurisdictions, and land uses adjacent to areas where improvements are proposed.	The proposed roadway improvements described in Section 4.7 include traffic signal and operational improvements, which generally do not call for detailed conceptual plans at this stage. Additional information will be provided as the design develops further and as the Proponent continues to coordinate with the appropriate agencies.
4.25	The DEIR should contain an analysis of what additional demand will be generated by the project.	Please refer to Chapter 4 for a detailed transportation and parking analysis.
4.26	The DEIR should contain an assessment of how riders, particularly during the MBTA peak periods, are expected to access the facility via transit. The DEIR should estimate what additional new ridership on the Orange Line can be anticipated and what time of day those impacts will occur.	Please refer to Section 4.10 for a detailed analysis on the transit demand created by the Project and the future capacity of transit services serving the Project Site.

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4.27	The Proponent should work with the MBTA Service Planning Department to ensure that it has access to the most recent and most relevant ridership and operational statistics for the Orange Line.	As described in Section 4.10.1, the Proponent has worked closely with MBTA Service Planning and CTPS to determine ridership and operational statistics for the Orange Line.
4.28	The DEIR should also provide information demonstrating how employees, residents, and customers who choose to use the Orange Line will get from the site to the rapid transit station. Of particular importance to the MBTA are all codes and standards related to the Americans with Disabilities Act (ADA), the Massachusetts Architectural Access Board (MAAB) along with Federal Transit Administration (FTA) regulations and guidance.	Please refer to Section 3.5 and Figures 3.8a-f for a description of public realm improvements, as well as Figures 3.9a-b, circulation and access plan and to Appendix J. The Proponent intends to fully comply with all applicable codes and regulations.
4.29	The Proponent should present the existing conditions and how those conditions should be upgraded/improved so as to ensure a fully accessible path of travel for all of the customers.	Please refer to Section 1.2 and Figures 1.3a-d and Figure 1.5 for a description of existing Site conditions. Please refer to Section 3.5 and Figures 3.8a-f for a description of pedestrian realm improvements, including accessibility improvements.
4.30	As part of the DEIR, the Proponent should provide a detailed presentation of the impact to the MBTA bus network. Specifically, the DEIR should identify the future Build Demand for the #39, #10, and #170 buses and its comparison to the Future No Build Demand for local bus services. Based on this assessment, the DEIR should present the anticipated demand in terms of MBTA Service Standards for bus volumes, capacity, etc. to determine what the impacts to the MBTA bus network will be. The DEIR should determine what if any additional service would need to be added to the bus network in order to ensure that the MBTA bus routes would meet existing MBTA service standards.	Please refer to Section 4.10.2 for a detailed analysis of the future capacity of MBTA bus service serving the Project Site.

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4.31	The DEIR should show how residents, customers or employees using the bus network will get from the stop to the site with an emphasis on how pedestrians will cross Clarendon Street and Dartmouth Street to access bus stops. The DEIR should, as part of its traffic analysis, show how pedestrian crossings and bus stops can be coordinated to ensure safe, accessible travel for bus customers.	Please refer to Section 3.5.1 and Figures 3.8a-f for a description of pedestrian realm improvements and to Figures 3.9a-b for site circulation and access plans.
4.32	The DEIR should provide an inventory of existing sidewalks and crosswalks within the study area, and should address the quality and condition of those facilities.	Please refer to Section 4.12 for descriptions of existing sidewalk conditions and proposed improvements as a result of the Project. Please also refer to Section 3.5.1 and Figures 3.8a-f for a description of pedestrian realm improvements.
4.33	The DEIR should include a commitment to improvements in any areas that are structurally deficient or not meeting current codes for accessibility.	Please refer to Sections 3.1 and 3.5 and to Appendix J for a detailed description of the public realm and accessibility improvements proposed by the Project.
4.34	Special attention should be given to linking the proposed development to adjacent complementary land uses and to transit facilities.	Please refer to Section 3.5.1 for a detailed description of the Project's pedestrian realm improvements, and to Figures 3.8a-f for pedestrian realm improvement plans. Please also refer to Sections 3.4.4 and 4.2 and to Figure 4.23 for a description of transit improvements the Project is providing and its integration with the Station renovations.
4.35	Any proposed mitigation within the state highway layout and all internal site circulation must be consistent with a Complete Streets design approach that provides adequate and safe accommodation for all roadway users, including pedestrians, bicyclists, and public transit riders. Complete Streets design guidelines are included in the MassDOT Project Development and Design Guide. Where these criteria cannot be met, the Proponent should provide justification, and should work with the MassDOT Highway Division to obtain a design waiver.	Proposed roadway and pedestrian mitigation described in Chapter 3 and Chapter 4 are located on City of Boston Streets rather than within the state highway layout. Nonetheless, all improvements will be designed in accordance with Complete Streets design approaches. Please see Section 3.5 for a detailed discussion on site design, including the incorporation of BTD's Complete Streets Guidelines. Please see also Figures 3.8a-f for public realm plans. Note: the Alternative Scheme does propose a new ramp connection to Trinity Place, but it is assumed that the State Highway Layout on Trinity Place would be extinguished under that scenario.

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4.36	The DEIR should include a detailed inventory of the bicycle network to include bikeway types, bikeway widths, and bicycle number and speeds. The Proponent should identify the likely travel routes for bicyclists within the study area. The degree to which these routes can safely support bicycle travel should also be examined. The DEIR should reevaluate these routes based on the origin-destination of potential employees and residents. Based on this analysis, the Proponent should consider the feasibility of expanding some of these existing routes or consider new routes to encourage bicycle travel in and around the site.	Please refer to Section 4.3.3 for a summary of existing bicycle facilities near the Project Site, to Section 4.11 for a complete discussion of the Project's proposed bicycle accommodations and to Figure 4.22 for details on proposed bicycle parking and infrastructure improvements.
4.37	Similarly, for pedestrian access, the project should work closely with MassDOT and the City of Boston to provide a seamless connection between the existing and planned bicycle facilities in the study area.	Please refer to Section 4.11 and Figure 4.22 for details on proposed bicycle parking and infrastructure improvements.
4.38	According to the ENF, the project at full build would include the provision of a parking garage to accommodate up to 2,013 vehicles. The DEIR should clarify how the parking needs of the project were determined and explain the methodology used to determine the total parking required. The Institute of Transportation Engineers' Parking Generation generally provides a reasonable basis for comparison to parking requirements under local zoning, but this reference does not present parking rates for this type of mixed-use. The DEIR should include a summary of parking need and supply for comparable facilities based on multiple data sources. It should also determine the number of parking spaces occupied at various times of the day and identify the periods of peak use.	Please refer to Section 4.9 for a summary of existing and proposed parking conditions and Project parking demand and supply.
4.39	The DEIR should include a comprehensive Travel Demand Management (TDM) program that would implement measures aimed at reducing site trip generation.	Please refer to Section 4.13.1 for a summary of proposed TDM measures.

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4.40	We urge the Proponent to meet with MassRIDES and A Better City Transportation Management Association to discuss TDM measures that have been successful in limiting single occupant vehicle trips at similar projects within the urban core of Boston.	The Proponent has met with A Better City TMA and will meet with MassRIDES to discuss TDM measures and identify any additional measures which have been successful in limiting SOV trips. Please refer to Section 4.13.1 for a summary of proposed TDM measures.
4.41	The Proponent should also promote ridesharing through NuRide, the Commonwealth's web-based trip planning and ride matching service that enables participants to earn rewards for taking "green" trips. The Proponent should provide information on the substance and outcomes of its consultations in the DEIR.	The Proponent will explore ways to best take advantage of the NuRides program.
4.42	The Proponent will be required to conduct an annual traffic monitoring program for a period of five years, beginning six months after occupancy of the full-build project. It would include: • Simultaneous automatic traffic recorder (ATR) counts at each garage entrance for a continuous 24-hour period on a typical weekday and Saturday; • Travel survey of employees and patrons at the site (to be administered by the Transportation Coordinator); • Weekday AM and PM and Saturday peak hour turning movement counts (TM Cs) and operations analysis at "mitigated" intersections, including those involving garage entrances; and • An update on TDM effectiveness and transit ridership.	Please refer to Section 4.13.3 for a description of the proposed Transportation Monitoring Program for the Project, which will be developed in coordination with MassDOT and BTD.
4.43	The Proponent should continue consultation with MassDOT PPDU, OREAD, the MBTA, and the District 6 office during the preparation of the DEIR.	The Proponent has continued to consult with the appropriate agencies and departments, including MassDOT during the preparation of the DEIR.
Letter 5	**Massachusetts Department of Energy Resources**	
5.1	In general, the [GHG Policy and Stretch Code] requires that: • GHG emissions be identified and quantified; • The proposed design incorporate ways to avoid, minimize, or mitigate GHG emissions	Please refer to Section 5.4 for a summary of energy and GHG modeling outputs, including mitigation measures. Please see also Appendix H for a preliminary energy model report for each Project Component. Please also refer to Section 9.3, for an overview of the proposed mitigation measures taken by the Project.

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5.2	With respect to stationary sources of GHG, the next future submission should demonstrate that the project is taking all feasible measures to avoid, minimize and mitigate GHG emissions.	Please refer to Section 5.4 for a summary of energy and GHG modeling outputs, including mitigation measures. Please see also Appendix H for a preliminary energy model report for each Project Component. Please also refer to Section 9.3, for an overview of the proposed mitigation measures taken by the Project.
5.3	We recommend reaching out to the local utilities and analyzing how incentives can help advance requirements to avoid, minimize and mitigate GHG emissions. Incentives are also available for offsetting design charrette and energy modeling costs.	Noted, please refer to Section 5.4.4 for a discussion of the Project's approach to incorporating utility and energy efficiency incentives and current status of energy efficiency assistance with the utility providers.
5.4	We anticipate building envelop (wall, roof, and fenestration) improvements will be a key GHG reduction strategy. We recommend at least three above-code wall/fenestration scenarios be investigated, including scenarios using spandrels.	Please refer to Section 5.4.2 for a discussion of alternative building envelopes. Please see also Appendix H for a preliminary energy model report and the alternative building envelope analysis for each Project Component.
5.5	We were pleased to see many HVAC systems improvements described in the Project Notification Form. The DOER encourages the proponent to continue to use HVAC and domestic water heating mitigation as a key GHG reduction strategy.	Please refer to Section 5.4 for more details on the Project's GHG reduction strategy as well as identified HVAC and domestic water heating efficiency measures.
5.6	CHP: The residential portion of the project is well-suited for use of combined heat and power, which can also qualify for generous incentives. MEPA allows the use of a source energy path compliance with the stretch energy code.	Please refer to Section 5.4.3 for the On-Site Clean and Renewable Energy Analysis.
5.7	Solar: The residential portion of the project is well-suited for use of combined heat and power, which can also qualify for generous incentives. MEPA allows the use of a source energy path compliance with the stretch energy code.	Please refer to Section 5.4.3 for the On-Site Clean and Renewable Energy Analysis.

Comment No.	Comment	Response to Comment
5.8	Energy Star Appliances: MEPA allows proponents to reduce internal plug loads by 10% if the proponents commit to using only Energy Star appliances and devices. If the space is to be leased, the proponents must commit to having leases which require tenants to use Energy Star appliances and devices.	As stated in Section 5.3.2, the Proponent intends to use Energy Star appliances and devices and will require tenants to do the same wherever possible. See also Section 5.4 for details about other beneficial measures the Proponent is considering.
5.9	LED Lighting: Interior and exterior LED lighting can also contribute to GHG reduction.	Noted, please refer to Sections 5.3.2 and 5.4.4 for details regarding interior and exterior lighting efficiency measures the Project is considering.
5.10	Electric Vehicle Charging Stations: Consider electric vehicle charging stations. Grants are potentially available.	Please refer to Section 4.9.3 and Appendix G. The Proponent will maintain the existing six EV stations in the Garage and outfit additional spaces for future stations, as needed. An assessment of EV demand will be conducted and the appropriate number of stations will be installed when demand exceeds current supply.
5.11	A table similar to the example below should be included (see table Referenced in Comment letter on page 3)	Comment noted. Tables have been formatted to include the information requested by DOER.
5.12	A description of the proposed building envelop assembly: report both component R-values and whole assembly U-factor. Utilize the pre-calculated relationships between R-Value and U-factor contained in Appendix A of the applicable code (Appendix A is the applicable appendix in both ASHRAE and IECC).	Please refer to Section 5.4 for a summary of energy and GHG modeling inputs and to Section 5.4.2 for a discussion of alternative building envelopes. Please see also Appendix H for a preliminary energy model report and the alternative building envelope analysis for each Project Component.
5.13	A description of the building energy simulation model and procedures utilized.	Please refer to section 5.4.1.1 for a description of the energy simulation methodology and the procedures utilized. The energy analysis procedure combines multiple eQuest models with excel spreadsheets for pre- and post-processing. Through this custom set of tools, benchmarking data is integrated from the Commercial Buildings Energy Consumption Survey (CBECS) and Boston's Building Energy Reporting and Disclosure Ordinance (BERDO), as well as from an in-house benchmarking database to enhance the real-world accuracy of the results.
5.14	A detailed and complete table of modeling inputs showing the item and the input value for both the base and as-designed scenarios. The area of the buildings should be included.	Please refer to Section 5.4 for a summary of energy and GHG modeling inputs. Please see also Appendix H for a preliminary energy model report for each Project Component.

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5.15	The output of the model showing the monthly and annual energy consumption, totalized and by major end use system.	Please refer to Section 5.4 for a summary of energy and GHG modeling outputs. Please see also Appendix H for a preliminary energy model report for each Project Component.
5.16	Code energy use intensity and proposed mitigated building energy use intensity, demonstrating compliance with Stretch Code requirements.	Noted, per Section 5.2.3, the Project will comply with the applicable Stretch Energy Code. Please refer to Section 5.4.1 for estimated EUIs and Stretch Code energy savings. Please see also Appendix H for a preliminary energy model report for each Project Component.
5.17	Project modeling files are to be submitted to the DOER with the submittal on a flash drive or may be transmitted via electronic file transfer to paul.ormond@massmail.state.ma.us.	The energy analysis procedure combines multiple eQuest models with excel spreadsheets for pre- and post-processing. Therefore, it is not a traditional single energy model file that can be shared. Please refer to Section 5.4 and Appendix H for specific information and analyses.
5.18	Separate "side calcs" may be required for non-building energy consuming site improvements which are not included in the building energy modeling software (e.g. parking lot lighting and parking garage ventilation).	Non-building energy consuming site improvements such as parking lot lighting and parking garage ventilation have been captured in the custom energy analysis tool that incorporates multiple eQuest models with Excel spreadsheets for pre- and post-processing. Please refer to Section 5.4 and Appendix H for specific information and analyses.
5.19	Estimate area of roof potentially usable for solar development (e.g. 'Usable Roof Area" (URA)). Estimate resulting power production and associated GHG reduction. Estimate total project GHG reduction both with and without solar PV.	Please refer to Section 5.4.3 for the On-Site Clean and Renewable Energy Analysis.
5.20	A description of the proposed project building usage and size, including a site plan and elevation views, should be included. In order to expedite the review, a table similar to the example below should be included for each proposed building (see tab Figures)	Please see Section 1.4 and Table 1-1 for a program and dimensional summary of each Project Component. Please refer also to Figures 1.6a-b for site plans, to Figures 3.2a-m for perspective views, to Figures 3.5a-c for elevations and to Figures 3.3a-r for floor plans.
5.21	Consider comparing modeled baseline and mitigation EUIs to prototype code buildings developed by Pacific Northwest National Labs.	The energy analysis procedure and quality control process includes comparing all our results to publicly available benchmarking data. Please refer to section 5.4.1.1 for further information on the methodology used for energy modeling.

Comment No.	Comment	Response to Comment
Letter 6	**Massachusetts Historical Commission**	
6.1	The ENF only listed the Hancock Garage (BOS.2366) as a historic resource in the area of project impacts. It is included the Inventory of Historic and Archaeological Assets of the Commonwealth. The ENF did not identify on a map or a list the historic resources within the vicinity of the proposed project site. The scope of the Environmental Impact Report should include a historic resources assessment of historic properties within a ¼ mile of the project site.	Please refer to Section 8.2.2 and Table 8-1 for a complete assessment of historic resources near the Project Site. See also Figure 8-1.
6.2	MHC is also concerned that the size, scale, and massing of the three proposed towers appears to be inappropriate for the surrounding area. The ENF submitted does not contain adequate visual studies to determine the potential effect of size, scale, and massing of the new buildings on the character and setting of the State and National Register listed properties. MHC requests pedestrian-level perspectives of the new construction from the above referenced historic properties and districts in order to assist the MHC in determining what effect the size, scale, and massing will have on the nearby historic properties.	The Proponent has designed the Project to be respectful of the height and density guidelines in the recently enacted Stuart Street District. Please refer to Figure 8.1 and Figures 8.2a-j for views from nearby historic resources.
6.3	MHC requests that the proponent conduct shadow studies in order to assist in determining the effects of shadows on the historic properties and districts noted above. The shadow studies should provide façade illustrations of the shadows on the facades of historic buildings.	Please refer to Figures 8.3a-f for a Historic Resources Façade Shadow Study.
6.4	The EMF states that the Preferred Alternative "also considers two different development plans for the Garage West Parcel in response to the potential closure of the On-Ramp." If the Garage West Alternate Scheme is proposed, the closure of the On-Ramp to I-90 will then trigger the review of the entire project under Section 106 of the National Historic Preservation Act of 1966 (36 CFR 800).	The proposed closure of the I-90 On-Ramp is a separate project being proposed and studied by MassDOT, not the Proponent. Therefore, review of the Project under Section 106 is not required. Please refer to Section 8.4 and Appendix L.

Comment No.	Comment	Response to Comment
Letter 7	**Massachusetts Water Resources Authority**	
7.1	To avoid increasing system surcharging and contributing to greater CSO discharges, which could compromise the environmental benefits of MWRA's $898 million CSO control program, the Proponent should offset the Project's new wastewater flows with 4:1 I/I removal, in accordance with MassDEP I/I regulations and BWSC policy. To assure that potential impacts are mitigated, for each gallon of new wastewater flow, the Proponent should remove 4 gallons of I/I from a hydraulically related sewer system. In the Draft Environmental Impact Report, the Proponent should describe its proposed connections to BWSC's sewer and storm drain systems and its 4:1 I/I removal plan.	Please refer to Section 7.5 for more information regarding the existing and proposed sanitary sewage infrastructure for the Project, as well as proposed mitigation.
7.2	It appears that this project will require a MWRA Construction Site Dewatering Discharge Permit during the construction phase, pursuant to 360 C.M.R. 10.091-10.094. The Proponent and Contractor will need this permit before they may discharge groundwater into the sanitary sewer system.	Noted, all code and applicable laws and regulations will be followed and MassDEP will be notified as necessary. Please refer to Section 6.10.2 for a summary of temporary impacts to groundwater during construction.
7.3	The Proponent shall ensure that groundwater and stormwater collecting in tunnels found in at the site are not discharged to the sanitary sewer system.	Please refer to Section 7.4 for a discussion of the Project's stormwater management and groundwater recharge plans and compliance with MassDEP Stormwater Management Standards.
7.4	The Proponent must also comply with 360 C.M.R. 10.016, if it intends to install gas/oil separator(s) in the garages that are planned for the site.	The proposed garage to be constructed as part of the Garage West Parcel development will comply with 360 CMR 10.016. Any runoff within the covered portions of the proposed garage will be collected in area drains, directed to oil/gas separators, and ultimately discharged to the existing BWSC sanitary sewer system. Refer to section 7.4.2 for further detail and explanation.
7.5	In addition to complying with 360 C.M.R 10.000, the Proponent shall conform to the regulations of the Board of State Examiners of Plumbers and Gas Fitters, 248 C.M.R. 2.00 (State Plumbing Code), and all other applicable laws.	Noted, all code and applicable laws and regulations will be followed.

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7.6	Please note that the installation of proposed gas/oil separator(s) will require MWRA approval and may not be back filled until inspected and approved by MWRA and the Local Plumbing Inspector.	Noted, all code and applicable laws and regulations will be followed and the MWRA will be consulted as necessary.
Letter 8	**Boston City Councilor District 8, Josh Zakim**	
8.1	I want to begin by saying that Boston Properties has done a good job of recognizing the importance of Back Bay Station as an entry point into the city, and as a connector of historic neighborhoods. Their design reflects a desire to treat the station as the important transportation hub that it is, and as a space for potential growth in our city. They have taken positive preliminary steps to address some of the management and safety concerns that have been an issue at the station up until now, and are moving forward with cosmetic changes that are much needed.	The Proponent appreciates your support.
8.2	My primary concern about this proposal is that it falls in the center of several large projects that are either underway or slated to begin in the very near future. These developments will have tremendous impacts on the neighborhood, both immediately and several years down the line. There will be significant repercussions for the neighborhood from the construction, and I want to make sure that proper steps are taken to minimize the effects on current residents.	Please refer to Section 1.4.8 for a description of the Project phases and an evaluation of phasing scenarios. Please refer to Chapter 6 for a detailed analysis of Project-related environmental impacts. The Project has included all other approved Stuart Street corridor projects in its traffic, transportation and other environmental impact studies, in an effort to provide the public a holistic view of development in the corridor.
8.3	…the sum of all of this development in the area will significantly change the flow of traffic, increase pedestrian movement, and impact the capacity of the MBTA. Boston Properties has touched on how the Back Bay/South End Gateway project will contribute to these factors, but I would like to see it addressed from a more holistic perspective, examining this project in the context of all the others in the surrounding area.	The Project has included all other approved Stuart Street corridor projects in its traffic, transportation and other environmental impact studies, in an effort to provide the public a holistic view of development in the corridor. Please refer to Chapters 4 and 6 for a complete analysis. In addition, the Project team has been closely coordinating with the 40 Trinity and Copley Tower projects and has included their streetscape improvement plans and TAPA commitments as future existing conditions for the Project.

Comment No.	Comment	Response to Comment
8.4	As the Back Bay Station renovation moves forward, I also want to make sure that Boston Properties addresses concerns with respect to wind and shadow studies, and how they impact Copley Square and the front of the Public Library. These are two issues that my office hears about regularly, and I think the neighbors would appreciate more in-depth analysis.	Please refer to Section 6.2 for a summary of the Project's pedestrian-level wind impacts, to Section 6.3 for a plan view of shadow impacts, including on adjacent public spaces, and to Section 8.3.2 for a shadow impact analysis on area historic resources.
Letter 9	**Boston Water and Sewer Commission**	
9.1	Prior to demolition of any buildings, all water, sewer and storm drain connections to the buildings must be cut and capped at the main pipe in accordance with the Commission's requirements. The proponent must then complete a Termination Verification Approval Form for a Demolition Permit, available from the Commission and submit the completed form to the City of Boston's inspectional Services Department before a demolition permit will be issued.	All approved projects in the Stuart Street corridor have been included in the analyses as per BPDA, BTD and other agency direction. The Proponent has coordinated the Project's Stuart Street alignment and proposed improvements with the adjacent approved Copley Tower and 40 Trinity projects and has coordinated with the commitments and improvements documented in their respective TAPAs. Please refer to Chapter 4 for more detail and see Figures 3.8a-f for public realm plans.
9.2	All new or relocated water mains, sewers and storm drains must be designed and constructed at BP Hancock LLC's expense. They must be designed and constructed in conformance with the Commission's design standards, Water Distribution System and Sewer Use Regulations, and Requirements for Site Plans.	Noted, please refer to Section 7.1 for more details related to the Project's Site Plan Approval process which will be coordinated with BWSC for each Project Component prior to construction commencement.
9.3	To assure compliance with the Commission's requirements, the proponent must submit a site plan and a General Service Application to the Commission's Engineering Customer Service Department for review and approval when the design of the new water and wastewater systems and the proposed service connections to those systems are 50 percent complete. The site plan should include the locations of new, relocated and existing water mains, sewers and drains which serve the site, proposed service connections as well as water meter locations.	Noted, please refer to Section 7.1 for more details related to the Project's Site Plan Approval process which will be coordinated with BWSC for each Project Component prior to construction commencement.

Comment No.	Comment	Response to Comment
9.4	The Commission supports the policy, and will require proponent to develop a consistent inflow reduction plan. The 4: 1 requirement should be addressed at least 90 days prior to activation of water service and will be based on the estimated sewage generation provided on the project site plan.	As described in Section 7.5.4, the Proponent will comply with this requirement and develop an I/I mitigation plan in coordination with BWSC.
9.5	The proponent must develop a maintenance plan for the proposed green infrastructure.	Please refer to Section 7.4 for a discussion of the Project's stormwater management and groundwater recharge plans and compliance with MassDEP Stormwater Management Standards. An Operations and Maintenance Plan (O&M Plan), including long-term BMP operation requirements, will be prepared for the Project to ensure proper maintenance and functioning of the proposed stormwater management system.
9.6	A copy of the description and any related site plans must be provided to the Commission's Engineering Customer Service Department for review before masonry repair and cleaning commences. BP Hancock LLC is advised that the Commission may impose additional conditions and requirements before permitting the discharge of the treated wash water to enter the sewer or drainage system.	Noted, please refer to Section 7.1 for more details related to the Project's Site Plan Approval process which will be coordinated with BWSC for each Project Component prior to construction commencement.
9.7	BP Hancock LLC should be aware that the US Environmental Protection Agency issued the Remediation General Permit (RGP) for Groundwater Remediation, Contaminated Construction Dewatering, and Miscellaneous Surface Water Discharges. If groundwater contaminated with petroleum products, for example, is encountered, BP Hancock LLC will be required to apply for a RGP to cover these discharges.	Noted. Please refer to Section 6.10.2.
9.8	The project sites are located within Boston's Groundwater Conservation Overlay District (GCOD). The district is intended to promote the restoration of groundwater and reduce the impact of surface runoff. Projects constructed within the GCOD are required to include provisions for retaining stormwater and directing the stormwater to the groundwater table for recharge.	Please refer to Section 7.4.3 for a detailed description of the Project's intended compliance with the City's Groundwater Conservation Overlay District.

Comment No.	Comment	Response to Comment
9.9	BP Hancock LLC is advised that the Commission will not allow buildings to be constructed over any of its water lines. Also, any plans to build over Commission sewer facilities are subject to review and approval by the Commission. The project must be designed so that access, including vehicular access, to the Commission's water and sewer lines for the purpose of operation and maintenance is not inhibited.	Noted. Please refer to Section 7.4.1 and 7.5.1 for a description of existing water, sewer and storm drain systems serving the Project Site.
9.10	It is BP Hancock LLC's responsibility to evaluate the capacity of the water, sewer and storm drain systems serving the project site to determine if the systems are adequate to meet future project demands. With the site plan, BP Hancock LLC must include a detailed capacity analysis for the water, sewer and storm drain systems serving the project site, as well as an analysis of the impacts the proposed project will have on the Commission's water, sewer and storm drainage systems.	Noted, please refer to Section 7.4.1 and 7.5.1 for a description of existing water, sewer and storm drain systems serving the Project Site. A detailed capacity analysis will be provided as the Project's design advances.
9.11	BP Hancock LLC must provide separate estimates of peak and continuous maximum water demand for residential, commercial, industrial, irrigation of landscaped areas, and air-conditioning make-up water for the project with the site plan. Estimates should be based on full-site build-out of the proposed project. BP Hancock LLC should also provide the methodology used to estimate water demand for the proposed project.	Please refer to Section 7.6.2 for a summary of proposed water demand.
9.12	BP Hancock LLC should explore opportunities for implementing water conservation measures in addition to those required by the State Plumbing Code. In particular, BP Hancock LLC should consider outdoor landscaping which requires minimal use of water to maintain. If BP Hancock LLC plans to install in-ground sprinkler systems, the Commission recommends that timers, soil moisture indicators and rainfall sensors be installed. The use of sensor-operated faucets and toilets in common areas of buildings should be considered.	Please refer to Section 7.6.4 for a summary of proposed conservation measures. In particular, the Proponent will consider outdoor landscaping which requires minimal use of water to maintain.

Comment No.	Comment	Response to Comment
9.13	BP Hancock LLC is required to obtain a Hydrant Permit for use of any hydrant during the construction phase of this project. The water used from the hydrant must be metered. BP Hancock LLC should contact the Commission's Meter Department for information on and to obtain a Hydrant Permit.	Noted, the Proponent will obtain a Hydrant Permit for use of any hydrant during the construction phase of the Project.
9.14	The Commission is utilizing a Fixed Radio Meter Reading System to obtain water meter readings. For new water meters, the Commission will provide a Meter Transmitter Unit (MTU) and connect the device to the meter. For information regarding the installation of MTUs, BP Hancock LLC should contact the Commission's Meter Department.	The Proponent will contact the Commission's Meter Department as recommended, and coordinate approvals and agency review as the Project moves into the site plan approval phase.
9.15	To accomplish the necessary reductions in phosphorus, the Commission is requiring developers in the lower Charles River watershed to infiltrate stormwater discharging from impervious areas in compliance with MassDEP. BP Hancock LLC will be required to submit with the site plan a phosphorus reduction plan for the proposed development. BP Hancock LLC must fully investigate methods for retaining stormwater on-site before the Commission will consider a request to discharge stormwater to the Commission's system. The site plan should indicate how storm drainage from roof drains will be handled and the feasibility of retaining their stormwater discharge on-site. Under no circumstances will stormwater be allowed to discharge to a sanitary sewer.	As detailed in Section 7.1, The Proponent will submit with the Site Plan a phosphorus reduction plan for the proposed development. The Site Plan will indicate how storm drainage from roof drains will be handled and the feasibility of retaining stormwater discharge on-site. No stormwater will be discharged to a sanitary sewer system.
9.16	In conjunction with the Site Plan and the General Service Application BP Hancock LLC will be required to submit a Stormwater Pollution Prevention Plan. The plan must: • Identify best management practices for controlling erosion and for preventing the discharge of sediment and contaminated groundwater or stormwater runoff to the Commission's drainage system when the construction is underway.	As described in Section 7.4, the Proponent will submit a Stormwater Pollution Prevention Plan that includes a stormwater management plan in compliance with MassDEP Stormwater Management Standards.

Comment No.	Comment	Response to Comment
9.17	*In conjunction with the Site Plan and the General Service Application BP Hancock LLC will be required to submit a Stormwater Pollution Prevention Plan. The plan must: (cont.)* • Include a site map which shows, at a minimum, existing drainage patterns and areas used for storage or treatment of contaminated soils, groundwater or stormwater, and the location of major control or treatment structures to be utilized during construction.	Please refer to Section 7.4 for a discussion of the Project's stormwater management and groundwater recharge plans. As described in Section 7.4, the Proponent will submit a Stormwater Pollution Prevention Plan that includes a stormwater management plan in compliance with MassDEP Stormwater Management Standards.
9.18	*In conjunction with the Site Plan and the General Service Application BP Hancock LLC will be required to submit a Stormwater Pollution Prevention Plan. The plan must: (cont.)* • Provide a stormwater management plan in compliance with the DEP standards mentioned above. The plan should include a description of the measures to control pollutants after construction is completed.	As described in Section 7.4, the Proponent will submit a Stormwater Pollution Prevention Plan that includes a stormwater management plan in compliance with MassDEP Stormwater Management Standards.
9.19	Developers of projects involving disturbances of land of one acre or more will be required to obtain an NPDES General Permit for Construction from the Environmental Protection Agency and the Massachusetts Department of Environmental Protection. BP Hancock LLC is responsible for determining if such a permit is required and for obtaining the permit. If such a permit is required, it is required that a copy of the permit and any pollution prevention plan prepared pursuant to the permit be provided to the Commission's Engineering Services Department, prior to the commencement of construction. The pollution prevention plan submitted pursuant to a NPDES Permit may be submitted in place of the pollution prevention plan required by the Commission provided the Plan addresses the same components identified in item 1 above.	Prior to the commencement of construction, the Project will obtain a NPDES General Permit for Construction from the EPA and MassDEP and submit a Stormwater Pollution Prevention Plan that includes a stormwater management plan in compliance with MassDEP Stormwater Management Standards. Please refer to Section 7.4.4 for additional details.

Comment No.	Comment	Response to Comment
9.20	The Commission encourages BP Hancock LLC to explore additional opportunities for protecting stormwater quality on site by minimizing sanding and the use of deicing chemicals, pesticides, and fertilizers.	Comment noted. The Proponent currently engages in green operational practices related to protecting stormwater quality, some examples of which are listed below: • Organic treatments for landscaping and pest control • No or low-levels of sodium based deicers for snow/ice removal – Calcium Magnesium Acetate (CMA), an alternative to sodium chloride (aka rock salt), is non-tracking, safer to handle, and less harmful to vegetation, lobby flooring, metals, leather footwear and animal paws. • Regular Inspection, cleaning and maintenance of storm water infrastructure, catch basins, outlets, rip wrap structures, detention ponds, swales, and water quality inlets • Frequent sweeping and removal of sand and debris from sites • Restrictions related to storage of sand on sites and location of snow piles • Recordkeeping and reporting
9.21	The discharge of dewatering drainage to a sanitary sewer is prohibited by the Commission. BP Hancock LLC is advised that the discharge of any dewatering drainage to the storm drainage system requires a Drainage Discharge Permit from the Commission. If the dewatering drainage is contaminated with petroleum products, BP Hancock LLC will be required to obtain a Remediation General Permit from the Environmental Protection Agency (EPA) for the discharge.	Noted, all code and applicable laws and regulations will be followed and permits obtained as necessary. Please refer to Section 6.10.1 through 6.10.2 of potential dewatering during construction.
9.22	BP Hancock LLC must fully investigate methods for retaining stormwater on-site before the Commission will consider a request to discharge storm water to the Commission's system. The site plan should indicate how storm drainage from roof drains will be handled and the feasibility of retaining their stormwater discharge on-site. Under no circumstances will stormwater be allowed to discharge to a sanitary sewer.	Please refer to Section 7.1 for more details related to the Project's Site Plan Approval process which will be coordinated with BWSC for each Project Component prior to construction commencement. The Site Plan will indicate how storm drainage from roof drains will be handled and the feasibility of retaining stormwater discharge on-site. No stormwater will be discharged to a sanitary sewer system.
9.23	In addition to Commission standards BP Hancock LLC will be required to meet MassDEP Stormwater Management Standards.	As described in Section 7.4, the Proponent will submit a Stormwater Pollution Prevention Plan that includes a stormwater management plan in compliance with MassDEP Stormwater Management Standards.

Comment No.	Comment	Response to Comment
9.24	Sanitary sewage must be kept separate from stormwater and separate sanitary sewer and storm drain service connections must be provided. The Commission requires that existing stormwater and sanitary sewer service connections, which are to be re-used by the proposed project, be dye tested to confirm they are connected to the appropriate system.	The Proponent will submit a Site Plan and a General Service Application to the BWSC Engineering Customer Service Department for review and approval. The Site Plan will indicate how storm drainage from roof drains will be handled and the feasibility of retaining stormwater discharge on-site. No stormwater will be discharged to the sanitary sewer system. Please refer to Chapter 7 for more details related to the proposed infrastructure systems that will support the Project.
9.25	BP Hancock LLC should contact the Commission's Operations Division for information regarding the purchase of the castings.	Comment noted. The Proponent will contact the Commission's Operations Division as requested as the Project's design develops further.
9.26	If a cafeteria or food service facility is built as part of this project, grease traps will be required in accordance with the Commission's Sewer Use Regulations. BP Hancock LLC is advised to consult with the Commission's operations Department with regards to grease traps.	Noted, all code and applicable laws and regulations will be followed and the Commission will be consulted as necessary.
9.27	The enclosed floors of a parking garage must drain through oil separators into the sewer system in accordance with the Commission's Sewer Use Regulations.	Noted, all code and applicable laws and regulations will be followed and the Commission will be consulted as necessary.
Letter 10	**Charles River Watershed Association**	
10.1	CRWA is deeply concerned that the proponent has not even mentioned the requirements of the Total Maximum Daily Load (TMDL) for Nutrients in the Lower Charles River Basin that the proposed project is subject to, let alone providing information on the strategies being adopted to comply with the requirement. In addition to the above the project is expected to meet the 1-inch infiltration requirement as per Boston Water and Sewer Commission (BWSC) standards. The proponent therefore should quantifiably demonstrate in the Draft Environmental Impact Report (DEIR) how the project will comply with the TMDL as well as the BWSC standards.	The Proponent will submit a Stormwater Pollution Prevention Plan that includes a stormwater management plan in compliance with MassDEP Stormwater Management Standards. Please refer to Section 7.4.2 for a summary of the proposed stormwater and drainage conditions for each Project Component and to Section 7.4.4 for details on the Project's compliance with MassDEP Stormwater Management Standards.

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10.2	The Secretary should therefore require the proponent to use stormwater treatment technologies that would be expected to achieve >65% reduction in total phosphorus loads exported from the proposed development site.	As detailed in Section 7.1, along with the Site Plan submitted to BWSC, the Proponent will submit a phosphorus reduction plan for the proposed development. As described in Section 7.4, the Proponent will submit a Stormwater Pollution Prevention Plan that includes a stormwater management plan in compliance with MassDEP Stormwater Management Standards.
10.3	The proponent notes that the project site is within the Groundwater Conservation Overlay District (GCOD), which would require the project to infiltrate the 1st inch of runoff from the site. Instead of granting a relief from this requirement, the Secretary should require the proponent undertake an extensive analysis in the DEIR to show how the projects would meet the requirement.	Please refer to Section 7.4.3 for a detailed description of the Project's intended compliance with the City's Groundwater Conservation Overlay District.
10.4	It would behoove the project proponent to design impervious areas on the site where snow could be stored in winter months and be filtered through the ground to recharge the local groundwater table when it melts in spring. The Secretary should require the project proponent to account for winter weather management in all calculations of the service capacity of the building, roadways, and parking areas on site.	The Proponent has extensive property management experience in the region, recognizes the need for proper winter weather procedures, and believes that the streetscape design and service plan as currently proposed adequately addresses those needs. Please note that given the urban nature of the site and the almost complete lack of terra firma that on-site snow storage and filtering through the ground are not considered viable strategies at this Site.
10.5	CRWA would like to see the project proponent provide inflow/infiltration mitigation in the project neighborhood instead of paying a fee in lieu.	The Proponent will comply with the MassDEP infiltration/inflow (I/I) removal policy and develop an I/I mitigation plan in coordination with BWSC, per their direction. Please refer to Chapter 7 for more details.
10.6	The Secretary should require the project proponent to provide written justification if it is felt that local mitigation measures are not feasible.	Comment noted.
10.7	The DEIR should therefore provide further details on the historic tidelands delineation as well as what the proponent would offer as public benefits as part of the Chapter 91 license.	Please refer to Section 9.8.3 for details on the Chapter 91 request for a Public Benefit Determination.

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10.8	In particular, we urge the Proponent to collaboratively determine with BWSC the precipitation range of the 10-year and 100-year/24-hour design storm, as it will help in sizing BMPs throughout the project area.	Please refer to Section 5.5 and the BPDA Climate Change Preparedness and Resiliency Checklist in Appendix J for a summary of how climate change and precipitation range have been considered in the Project's design.
10.9	The Proponent should therefore look beyond site specific adaptation strategies and address flood resiliency more broadly.	Please refer to Appendix J for a description of how climate change, including floor risk, has been considered in the Project's Design. Please also refer to Sections 5.3.2 and 5.5.3 for a summary of flood risk and resiliency strategies being considered.
10.10	Since the adjoining streets- Dartmouth, Stuart and Clarendon might be impacted by the proposed project, there is an opportunity to incorporate various "greenscape" elements of Boston's Complete Street Guidelines into the public right of way design. The DEIR should examine these opportunities in greater detail.	Please see Section 3.5 for a detailed discussion on site design, including the incorporation of BTD's Complete Streets Guidelines. Please note the vast majority of the site is not on terra firma, but rather on concrete decks spanning transportation infrastructure below. Please see also Figures 3.2a-m and Figures 3.8a-f for renderings and public realm/landscaping plans.
Letter 11	**The Ellis South End Neighborhood Association**	
11.1	It should be noted that the public involvement has only occurred over the past six weeks – a relatively short time for the public to consider all of the ramifications for a project of such size and location.	The Proponent notes that a Project Notification Form, not an Expanded PNF, was submitted on March 29, 2016. The regulated 30-day public comment period was extended twice to end on June 17, 2016. The submission of this DEIR/DPIR will initial a new 75-day public comment period, ensuring that there will be adequate time for public review of the Project.
11.2	It is also important to note that the next meeting of the Citizens Advisory Committee ("CAC") scheduled to discuss the critical issues of parking, traffic and streetscape is June 15th – only two days before the comments are due – which provides little time for the public to offer any substantive comments.	The Proponent notes that a Project Notification Form, not an Expanded PNF, was submitted on March 29, 2016. The regulated 30-day public comment period was extended twice to end on June 17, 2016. The submission of this DEIR/DPIR will initial a new 75-day public comment period, ensuring that there will be adequate time for public review of the Project.
11.3	We appreciate, however, that Boston Properties and the BRA will continue to respond to comments as the project review process continues.	Comment noted.

Comment No.	Comment	Response to Comment
11.4	We appreciate the commitment made by Secretary of Transportation Pollack to conduct public meetings beginning this summer to allow public involvement and, most importantly, for the questions and concerns raised by the public to be addressed. There have been concerns raised, however, by several residents that the two initiatives need to be made one. Can a realistic argument be made that the impact on the interior of the station to accommodate the construction project and the needs of the developer are separate? It would appear to be a difficult argument.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station renovations. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016. Please refer to Section 3.4.4 for a discussion of the Project's integration with the Station Concourse Improvements project.
11.5	While the development of a traffic plan remains to be discussed, it is critical for the Boston Transportation Department ("BTD") to be a participant at every meeting of the CAC and those with the public.	Comment noted. Please refer to Chapter 4 for details on the traffic plan and study conducted for the Project. The Proponent has continued to work closely with BTD throughout the project review process.
11.6	Some have suggested that the area around the proposed project already suffers gridlock throughout the day. Would it not only be worsened without a clear and thoughtful traffic control plan discussed from the start of the review? BTD's expertise is needed throughout the project review phase.	Please refer to Section 4.7 for results of the traffic study with proposed mitigation measures and to Section 4.13 for a description of potential traffic control improvements and additional TDM measures. Proposed improvements will be reviewed by the BTD and further refined as appropriate by the Proponent in consultation with BTD.
11.7	Boston Properties has indicated it will work with the MBTA to find a new #39 bus staging area "nearby" once the bus turnaround is closed off for construction. With all of the other development projects expected to be underway, is there any other location other than some part of Columbus Avenue that would be available "nearby"?	Please refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
11.8	Increasing the number of passengers with luggage crossing Columbus Avenue to access the station or hotels in the area as vehicles leave the garage is of concern.	Please refer to Chapter 4.12 for an analysis of existing and future pedestrian conditions and infrastructure in the study area.

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11.9	The preliminary internal wind study may suggest minimal changes to the surrounding streets. Many, especially those who have avoided Clarendon Street near the former "new" John Hancock Building for years, have expressed doubts about the preliminary findings.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report. Please note the Project improves pedestrian-level wind conditions in many locations.
11.10	How will access and egress work for the Orange Line, Commuter Rail and Amtrak? Will there be input from the riding public?	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.
11.11	As each piece of the project proceeds with more and more people coming to the station and buildings, where will the drop-offs be located? Will there be a need for more surface buses and not just Bus #39? It is unclear where a new turnaround for Bus #39 could be located anywhere in the vicinity of the station. The answer to the location of the new turnaround needs to be provided now – not after the project is underway.	Please refer to Section 3.5.1 and Figures 4.18a-b for details on proposed drop-off locations and curbside uses. Please also refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
11.12	What assurances are there that station facilities can grow to meet state and city's goals to increase transit mode-share, reduce air pollution and lower energy consumption?	Please refer to Section 4.10 for an analysis of the Project's impact on transit facilities. The Proponent has worked with MassDOT and the MBTA in developing the methodology for studying the Station's capacity and growth potential. Please also refer to Sections 5.3.2 and 5.4 for a discussion of the Project's energy conservation and GHG reduction strategies.
11.13	How will the station be able to accommodate future security or ticketing procedures (especially for commuter rail and AMTRAK)?	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.

Comment No.	Comment	Response to Comment
11.14	How will retail-related activities in the station impact transportation-related circulation and operations?	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Section 4.10 for a detailed transit capacity analysis.
11.15	In what way would the reduction of public circulation space impact the ability of the station to handle emergency and special event surges?	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.
11.16	What are provisions for improved sidewalk access to the station along Dartmouth Street, Clarendon Street? If the developer moves the shop facades out to the street line, what will be the impact on pedestrians?	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, and to Figures 3.8a-f for public realm improvement plans.
11.17	How does the increased use of curb and sidewalk space to serve the new development detract from existing or increased public transportation use?	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans. See also Section 4.12 for a pedestrian analysis.
11.18	Boston Properties needs to address their commitment to affordable housing. The commitment should clearly state the inclusion of the units on-site rather than at some other location.	The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.
11.19	We need a station than preserves the legacy of the citizens in the 1970's and 1980's who stopped the South End Bypass and the Southwest Expressway and who put countless hours into the creation of the Southwest Corridor Park and, especially, Back Bay Station.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which are designed to preserve the architectural integrity of the original structure. Please also refer to Figures E.1-E.5 and Figures E.7-E.10.

Comment No.	Comment	Response to Comment
11.20	The narrower sidewalks, the new curb cuts, the lack of provision for buses, elimination of the railroad waiting room and a darkened concourse crowded with retail stores, seem more like a Penn Station demolition than the creation of, in their words, a first-class, "airport quality" transit hub.	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans. Please refer also to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.
11.21	The Stuart Street Zoning rules would emphasize retail along Stuart Street – Boston Properties has not done so. The lobby of an office building is not retail and is not a location that is welcoming outside of normal business hours.	Please refer to Section 3.3 through 3.5 for a detailed description of the Project's design, including street frontage. See also Figures 3.2a-m. The Proponent has made every effort to create a high-quality continuous street frontage activated by vibrant and engaging ground floor uses, such as retail and restaurant spaces, and residential and commercial building lobbies, despite the substantial constraints of the Project Site. Through the use of glass facades wherever possible, the Project will provide transparency and create an inviting, safe and accessible ground-level experience for pedestrians. Section 3.4.1 describes the Garage West building design and includes details related to the ground floor space along Stuart Street.
11.22	Will there be 24-hour public access to the station?	The determination of Station hours is related to the hours of train operations and is determined by the MBTA.
11.23	Will the proposed station layout result in a reduction in available public space that would be sufficient to serve the needs of the projected increase in passengers, especially in high-volume periods?	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.
11.24	Has Boston Properties considered the use of overhead walkways to the station to minimize the impact on pedestrians?	Yes. Please refer to Section 3.4.1 for a discussion of the Trinity Place and Stuart Street bridges and to Figures 3.2h-i. The Proponent notes that there are three such bridges in the immediate vicinity of the Project, each providing an important weather-protected and accessible connection across the busy thoroughfare of Stuart Street.

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11.25	The idea of creating a new garage exit onto Dartmouth Street should be abandoned – it is much too dangerous.	As described in Section 3.4.1, a new Garage exit on Dartmouth Street is necessary under the Base Scheme, where the On-Ramp remains open. The Proponent has provided pedestrian and vehicle mitigation measures at the proposed exit.
11.26	Can a project of this magnitude really proceed without the addition of any new parking spaces? With 3000 to 4000 persons coming to the site won't there be a need for more parking spaces?	Please refer to Section 4.9 for a summary of existing and proposed parking conditions and Project parking demand.
11.27	Are the additions to the sidewalk and within the station of retail-oriented activities really benefits to the public or will they simply result in less space for pedestrians and commuters?	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans. Please refer also to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating.
11.28	If the developer adds a second (and perhaps a third) story with retail activities to the station, can the developer really improve natural light and air?	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements. See also Section 3.4.4 for a discussion of the Project's integration with the Station. The additional level of retail will have skylights so as to preserve the clerestory windows' access to natural light.
11.29	Isn't the elimination of the exit drum simply a benefit to the developer to allow for more retail space?	As described in Sections 1.4 and 3.4.2, the elimination of the exit drum is necessary to allow the construction of the structural core of Garage East building, which houses only residential uses and no retail. The existing full service Garage driveway on Clarendon Street will remain, providing a right-in, right-out connection to Clarendon Street.
Letter 12	**Neighborhood Association of the Back Bay**	
12.1	We are deeply concerned about the likely cumulative effects of 380 Stuart Street, 40 Trinity Place, Neiman Marcus Tower, and the three towers and one additional structure of the Back Bay /South End Gateway Project on three major areas: traffic, infrastructure and the environment [as outlined below].	Please refer to Chapter 4 for Transportation and Parking impacts, Chapter 5 for Sustainability and GHG assessment, Chapter 6 for Environmental impacts, Chapter 7 for Infrastructure impacts and Chapter 8 for impacts to Historic Resources. Please note all other approved projects in the Stuart Street Corridor have been included in these analyses.

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12.2	We would request that the Boston Traffic Department estimate how additional vehicular traffic would affect, in particular the cross streets in the Back Bay.	Please refer to Sections 4.5 and 4.6 for a detailed analysis of Project-related traffic impacts in the study area and to Section 4.7 for results of the traffic study with proposed mitigation measures.
12.3	What would further gridlock mean for emergency vehicles including fire equipment and ambulances seeking to access areas of the Back Bay during rush hours or trying to take Storrow Drive to Massachusetts General Hospital?	Please refer to Sections 4.5 and 4.6 for a detailed analysis of Project-related traffic impacts in the study area and to Section 4.7 for results of the traffic study with proposed mitigation measures.
12.4	Given the current gridlock, what other alternatives are being explored?	As described in Chapter 4, the Project enjoys an exceptional transit-oriented location, and benefits from excellent access to alternative modes including transit, bicycling and walking.
12.5	Is a congestion tax a possibility?	Please refer to Sections 4.10 and 4.132 for a discussion of the Project's Parking and Transportation Demand Management strategies designed to reduce Single Occupancy Vehicle Trips.
12.6	Can we limit driving into the city on weekdays to alternating days of even/odd license plates? Will taxis or ride sharing vehicles be more regulated and limited?	The Proponent is unaware of any plans by the City of Boston to implement such measures. Please refer to Section 4.13.2 for a summary of proposed TDM measures designed to reduce Project-generated ride-along trips and single occupancy vehicles.
12.7	Is the city and/or developers willing to contribute major funds to the MBTA to increase its carrying capacity? Are there other alternatives?	Please refer to Section 4.10 for a detailed analysis of Existing, Future No-Build and Future Build transit capacity.
12.8	Are there plans to expand the Commuter Rail trains into Back Bay? Are there plans being discussed for commuters arriving at North Station to access the Back Bay when the Orange and Green lines are packed?	The Proponent is not aware of any plans to expand Commuter Rail trains into Back Bay or North Station. Please refer to the MBTA for status of any such plans independent of the Project.
12.9	Without designated bus lanes would buses be able to move through gridlock?	The Proponent is not aware of proposals by the City of Boston or the MBTA for designated bus lanes, and such analysis is not included in the DEIR. Please refer to Chapter 4 for a detailed traffic and transportation analysis.

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12.10	Given the increase in cycling in the City and the fact that it may be the fastest way to get around, are there designated safe cycling lanes into and around the Stuart Street development area?	Please refer to Section 4.3.3 for a summary of existing bicycle facilities near the Project Site, to Section 4.11 for a complete discussion of the Project's proposed bicycle accommodations and to Figure 4.22 for details on proposed bicycle parking and infrastructure improvements.
12.11	Is there bike storage?	Please refer to Section 4.11 for a complete discussion of the Project's proposed bicycle accommodations and to Figure 4.22 for details on proposed bicycle parking and infrastructure improvements.
12.12	Are there plans to make sidewalks wide enough to allow for an increased number of commuters as well as travelers with luggage going to and from Back Bay Station?	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans.
12.13	What are the plans to provide the additional electricity, natural gas, sewer lines, internet, telecommunications and trash collection that the new residents and businesses will require?	Please refer to Sections 7.2 through 7.5 for descriptions of existing utilities and proposed future connections. No capacity issues are anticipated.
12.14	Who will pay for those improvements?	Please refer to Sections 7.2 through 7.5 for descriptions of existing utilities and proposed future connections. No capacity issues are anticipated.
12.15	Wind is already creating a dangerous situation around much of Stuart Street and Copley Square. Can we have additional measurements of the wind as it is now in all four seasons and as construction proceeds?	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.
12.16	Given the Farmers Market as well as numerous holiday activities in Copley Square can we measure the center of the Square as well as all four corners?	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.
12.17	We would request studies to show the combined effect of all towers on year-round light in Trinity Church, the Commonwealth Avenue Mall, Copley Square and the interior courtyard of the Boston Public Library	Please refer to Section 6.3 for a summary of the Project's shadow impacts. See also Section 8.3.2 for shadow impacts on area historic resources.

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12.18	This neighborhood is appreciated daily not just by residents and commuters, but also by thousands of visitors from all over the world. It's important we keep it accessible, safe, and workable for everyone.	The Proponent appreciates the prominent nature of the site and has designed the Project accordingly. Please refer to Sections 3.1 and 3.5 for a detailed description of the public realm and accessibility improvements proposed by the Project. Please also see Appendix J for specific details of the pedestrian accessibility improvements proposed by the Project.
Letter 13	**Bay Village Neighborhood Association – Dr. P. MacKenzie Bok**	
13.1	We're actively concerned about the potential traffic that would result from the Clarendon St on-ramp closure and the re-routing of traffic out of the large garage between Clarendon and Dartmouth. So we're very interested in seeing an extensive traffic study as part of the EIR/DPIR.	Please refer to Sections 4.3 - 4.6 for a detailed traffic study which includes analysis of Existing, Future No-Build, and Future Build conditions both with and without the On-Ramp closure. The Proponent notes that MassDOT will be submitting an Interchange Modification Report (IMR) to the Federal Highway Authority (FHWA) in early 2017.
13.2	A turn down the Isabella side-street would become the most direct route to I-90 from the garage's Clarendon Street exit if the on-ramp were closed. We already have serious concerns about the unsafe crosswalk at the corner of Isabella and Arlington, and additional through-traffic would be unwelcome on Isabella St., so we need a model of how much the traffic there would increase.	Please refer to Section 4.4.3 and to Figures 4.8a-c for analysis of trip diversions to the Arlington Street ramp associated with closure of the On-Ramp under Future No-Build conditions. The distribution of Project-generated vehicle trips presented in Section 4.5.9 assigns 8 and 30 trips in the AM and PM peak hours, respectively, to the Columbus Avenue/Arlington Street intersection to provide a conservative (worst case) impact analysis at that location. Some of these trips may, in practice, use Isabella Street to reach Arlington Street, but it is expected that the majority will use Columbus Avenue. No additional Project-generated trips are projected to use the Arlington Street ramp under the Alternate Condition, where the On-Ramp is closed, then under the Base Condition, where the On-Ramp remains open. The crosswalk on Arlington Street at Isabella Street is a long crossing for pedestrians due to the multiple lanes and higher speeds on Arlington Street. BTD may consider improvements to this crosswalk if it is deemed to be unsafe.

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13.3	The Proponent mentions that it expects the development to have little effect on area groundwater, given that so much of it will be over decking rather than terra firma. Nevertheless, they do briefly allude to constructing a stormwater infiltration system to help recharge groundwater levels in the vicinity. We are very interested in ensuring this is done, as any diminishment of groundwater levels remains of significant concern to all property-owners in the area.	Please refer to Section 7.4 for details on the Project's intended stormwater management strategies, including compliance with the City's Groundwater Conservation Overlay District.
13.4	The ventilation system for Back Bay Station is, notoriously, broken. While the MBTA is pursuing a plan to fix it as a separate project, with financial support from the Proponent, we think that air quality levels at all levels of the site should be subjected to particular scrutiny by the Office of Energy and Environmental Affairs.	Please see Sections 5.4 and 6.6 for a discussion of Project-related air quality impacts and mitigation. The Project is proposing to provide enhanced indoor air quality for all Project components, refer to Section 5.4 as well as specific LEED narratives provided in Section 5.3.3. Filtration will be balanced with energy efficiency to find an optimal solution and consideration will be taken for location of air intakes.
13.5	New residential or office towers in such close vicinity to the highway as those in this project should be required to install effective air filtration systems, for the health of their occupants.	As described in Section 5.3.2 the Project will promote good indoor air quality through demand controlled ventilation and use of interior finish materials that are low-emitting and/or do not off-gas VOCs. The Project will balance air filtration with energy efficiency to find an optimal solution. Air intake locations will be evaluated to reduce occupant pollutant exposure.
13.6	The Proponent should be asked to rigorously demonstrate that further parking will not be required.	Please refer to Section 4.9 for a summary of existing and proposed parking conditions and Project parking demand.
13.7	The planned garage exit onto Dartmouth Street, in the event of no on-ramp closure, would be dangerous to pedestrians and an intolerable disruption to an accessible streetscape around the station.	As described in Section 3.4.1, a new Garage exit on Dartmouth Street is necessary under the Base Scheme, where the On-Ramp remains open. The Proponent has provided pedestrian and vehicle mitigation measures at the proposed exit.

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13.8	Shadow on historic resources (the Boston Public Library courtyard and front steps, the Trinity Church windows) should be specifically considered.	All shadow impacts have been minimized to the maximum extent practicable to avoid any noticeable effect on pedestrian use patterns, including no more than two hours of shadow on Copley Square between 8am to 2:30pm on any given day from March 21 to October 21, as specified in the Stuart Street Zoning District regulations. Please refer to Section 6.3 for a plan view of shadow impacts to adjacent public spaces. Please refer to Section 8.3.2 for a summary of shadow impacts on the façades of adjacent historic resources and buildings.
13.9	Wind studies should also be done for each of the three individual towers proposed, in addition to the whole fully-developed scheme, as neither phasing nor a full build-out is guaranteed.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.
13.10	The station layout should be planned for growing public transit capacity.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Section 4.10 for a detailed transit capacity analysis.
13.11	[The DEIR should include] a firm plan for relocating Bus 39 should be a requirement for moving forward with permissions for the Station East portion of the parcel.	Please refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.

Comment No.	Comment	Response to Comment
Letter 14	**WalkBoston**	
14.1	We are very interested in this project, which is superbly located to be served by public transportation, walking and biking. However, we have concerns about pedestrian access into, through and around the site which we would like to see addressed in the next project submissions.	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Figures 3.8a-f for public realm improvement plans and to Figures 3.9a-b for site circulation and access plans. Please see also Section 4.12 for an analysis of pedestrian access and circulation.
14.2	This bus route #39 is too important to the MBTA system and its many riders to shift the layover site to another location which could lead to a major change in the frequency of bus service. A layover location must be found nearby.	Please refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
14.3	The MassDOT Design Guide calls for sidewalks in busy downtown areas of cities to be between 12 and 20 feet in width. These guidelines should be generously incorporated into the planning for this project. The City's Complete Streets Guideline Manual suggests that 8 feet is a minimum but prefers a width of ten feet.	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, and to Figures 3.8a-f for public realm improvement plans. As described in Section 3.5.4, throughout the Project Site, the proposed pedestrian realm improvements meet or exceed BTD's Complete Streets Guidelines for Downtown Commercial Zone minimum streetscape dimensions.
14.4	The plan calls for a portion of the Dartmouth Street frontage to be as narrow as 8 feet at one point, and 13 feet otherwise. The 8' foot width, which appears along a planned ADA ramp into the first-floor retail area, is not adequate for this location. Perhaps this width could be expanded by moving the ADA ramp into the retail area of the building or by selectively eliminating portions of the drop-off/taxi lane which extends from the station entrance to Stuart Street. Alternatively, perhaps a thoughtful reduction of the number of trees and their placement might be appropriate to widen the clear width of the walkway.	The Project's sidewalk dimensions have been revised in the DEIR/DPIR. Please refer to Section 3.5.1 and Figures 3.8a-f for a specific description of the pedestrian realm and circulation improvements and to Section 3.5.5 for a summary of pedestrian accessibility improvements. As described in Section 3.5.4, throughout the Project Site, the proposed pedestrian realm improvements meet or exceed BTD's Complete Streets Guidelines for Downtown Commercial Zone minimum streetscape dimensions.

Comment No.	Comment	Response to Comment
14.5	The proposed exit ramp onto Dartmouth Street is deeply consequential for pedestrian traffic. It is difficult to imagine a more inappropriate design than the insertion of a major vehicular exit from the garage onto the Dartmouth Street sidewalk, the primary pedestrian access route to and from Back Bay Station. Certainly there must be a better place to provide a garage exit than this, possibly by retaining one of the drums could be retained for exiting traffic directly onto Trinity Place.	As described in Section 3.4.1, a new Garage exit on Dartmouth Street is necessary under the Base Scheme, where the On-Ramp remains open. The Proponent has provided pedestrian and vehicle mitigation measures at the proposed exit. Please refer to Section 3.4.1 for a discussion of an alternative internal exit ramp and to Figures 3.3s-u for plans. Please note this alternative is not being pursued as it eliminates the possibility for a through-block connector from Stuart Street, the retail space at the corner of Stuart Street and Trinity Place and compromises the Garage West building's loading dock.
14.6	The relocation or shrinking of the passenger concourses and repurposing the space occupied by the old ones raises a concern as to whether the new routes are sufficiently wide to handle projected growth in passenger volumes. Although it is uncertain what projections of passenger volumes might show, according to the project proponent, the station already handles 30,000 passengers per day. The MBTA currently maintains there are 36,000 Orange Line passengers here, plus 17,000 commuter rail passengers. Amtrak may constitute an additional 2000 passengers. New projections of traffic should be undertaken to determine likely future volumes of people using the station.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Section 4.10 for a detailed transit capacity analysis.

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14.7	With the knowledge of the likely future traffic of patrons of the Orange Line, the commuter rail lines and Amtrak, the plan must provide good access to and egress from the following locations: • The Dartmouth Street entrance • The Orange Line station (two stairways, escalators, one elevator) • The underpass beneath Dartmouth Street to the Copley Place mall (one stairway) • The commuter and Amtrak rail lines west toward Worcester and ultimately Chicago (two stairways, one elevator) serving 15 stations and communities • The commuter and Amtrak rail lines that generally go south and follow the east coast to Providence, New York and Washington D.C. (two stairways, two escalators, one elevator) serving 47 stations and communities • The proposed new passageway to Stuart Street and into the Garage West office structure • Ticket machines for passes and Charlie cards for the subway lines. • Amtrak ticket offices • Commuter rail ticket offices • Restrooms for the entire station concourse area • Food and retail outlets proposed for the concourse level • Food and retail proposed for the second level • Food and retail outlets proposed for the third level • Waiting areas including seating for passengers traveling by rail • The existing and new parking garages in the Garage West/East areas • The new residential building in the Station East area at the Clarendon Street end of the project	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, and to Figures 3.8a-f for public realm improvement plans. Please see also Figures 3.9a-b for site circulation and access and Figures 4.22 and 4.23 for bicycle parking and infrastructure and transit improvements, respectively. Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.

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14.8	The proposal significantly diminishes this portion of the existing concourse, serving the movements listed above and lowering the space of the waiting area from 9,225 square feet (41 bays each roughly 15 feet square) to 6,075 square feet (27 bays, each roughly 15 feet square. It calls for eliminating the principal existing waiting area and replacing it with a large food service facility. All waiting passengers will be moved to backless benches located in busy pedestrian passageways, including the major entrance to the building. The proposal also calls for diminishing the size of the concourse by narrowing the existing passageways between Dartmouth and Clarendon Street and replacing them with retail space. It calls for new entrances to the proposed second and third levels in the midst of the existing waiting area. The proposal moves the ticketing area away from the waiting area and into new space along the proposed new passageway, where queuing to purchase tickets (now possible in the waiting area) will compete with pedestrian movement. It is hard to imagine that all these activities can be accommodated in the space planned.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Section 4.10 for a detailed transit capacity analysis.
14.9	A new design should be undertaken to accommodate the growing number of pedestrians and waiting passengers as well as patrons of food and retail outlets who may choose to sit in this busy space. The existing waiting area should not be removed but instead enlarged to accommodate anticipated future use. Ticketing space should be provided close to passenger access areas. Access to and from the second and third levels should be moved away from the waiting area and into the space that is gained by closing the existing concourse passageways. Retail areas adjacent to the passenger waiting area should be scaled back to remove potential blockage of clear and very visible access to and from the stairways leading to transportation facilities below the concourse. Benches for rail passengers should not be relegated to busy portions of the concourse, especially where they might interfere with pedestrian traffic through the concourse.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.

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14.10	Designs should be carefully integrated with existing obstructions such as columns to minimize interference with passenger traffic flow.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.
Letter 15	**Ann Beha**	
15.1a	Would private management propose the removal of original art, or bill boarding the facades for South Station, or MBTA and commuter stations? Clarity about the standards and obligations for this station is essential.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, including a discussion of public art.
15.1b	Has MASS DOT approved these renovations? How will they be maintained, and how will the projects impact future transportation systems?	Please refer to Section 1.1.1 and Appendix E of the DEIR/DPIR for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10. Please see Section 4.10 for a detailed analysis of Existing, Future No-Build and Future Build transit capacity.
15.1c	How will the station and the systems accommodate new riders with inevitable increased demand?	Please refer to Section 4.10 for a detailed analysis of existing, Future No-Build and Future Build transit capacity. Please also refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.
15.1d	Because the CAC does not address the Back Bay station renovation, an integrated, confirmed and responsive public process to assess the State and MASS DOT issues as well as the city wide issues, is essential.	A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.
15.2	Two residential towers on Clarendon Street have been generally outlined; a presentation on their grounds cape, or landscape, is forthcoming. Already the developers have said the site is "too tight" for an appreciable amount of outdoor green space. <u>What is the plan for a humane and welcome presentation and urban setting for these large buildings?</u>	The Proponent has made considerable efforts to include the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel and the upgrading of the existing open space on Dartmouth Street with the delivery of the Station West Parcel. Please refer to Section 1.5 for a summary of the Project's benefits to the public realm, as well as to Section 3.5 for a detailed discussion on site design. Please see also Figures 3.2a-m and Figures 3.8a-f for renderings and pedestrian realm improvement plans respectively.

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15.3	Issues I believe the CAC and community need addressed with more clarity, include: • The MASS DOT approved plan for the station, its timetable, its balance of community-serving retail and public space, and its design.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.
15.4	*Issues I believe the CAC and community need addressed with more clarity, include (cont.)* • The specific management of auto transit routes, to create less impact on Copley Square, and neighborhoods and the already dense traffic.	Please refer to Chapter 4 for a discussion of transit routes and detailed analysis of traffic impacts.
15.5	*Issues I believe the CAC and community need addressed with more clarity, include (cont.)* • More about the design, and its intentions and expression	Please refer to Chapter 3 and the Figures therein for a full discussion of the Project's design.
15.6	*Issues I believe the CAC and community need addressed with more clarity, include (cont.*) • The ground level, particularly the amount and vitality of the landscape and green buggers that are essential to a humane and welcoming residential and commercial environment. Upper level terraces, which have been presented as amenities, are not urban settings for everyday use, not a substitute for ground level landscape and sitting areas.	The Proponent has made considerable efforts to include the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel and the upgrading of the existing open space on Dartmouth Street with the delivery of the Station West Parcel. Please refer to Section 1.5 for a summary of the Project's benefits to the public realm, as well as to Section 3.5 for a detailed discussion on site design. Please see also Figures 3.2a-m and Figures 3.8a-f for renderings and pedestrian realm improvement plans respectively.
15.7	*Issues I believe the CAC and community need addressed with more clarity, include (cont.)* • How does this project improve the Orange and commuter rail lines not further overcrowd them? How does this project ensure that new modes of transport are not precluded, but instead, enhanced? Will the complex structural gymnastics that the developer notes are needed for this project inhibit the viability of future infrastructure upgrades?	Please refer to Section 4.10 for a detailed evaluation of potential transit impacts and to Section 4.2 for a description of transit improvements that are being delivered with the Project.
15.8	*Issues I believe the CAC and community need addressed with more clarity, include (cont.)* • An approach to improving the civic realm, in lieu of just conforming with the letter of the law.	Please refer to Section 3.5 for a detailed description of the Project's pedestrian realm improvements, and to Figures 3.8a-f for pedestrian realm improvement plans.

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15.9	More comparable information about how this setting will change the wind should be offered. The BRA has offered no comparisons between the early wind calculations for this site and wind elsewhere in the city—such comparable are needed.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.
15.10	Adding more shadow to Copley Square may be legal, but it never could be described as civic, considerate, or beneficial. "As of right" does not mean it IS right.	As discussed in Section 6.3, shadow impacts have been minimized to the extent practicable to avoid noticeable pedestrian impacts, and are in compliance with the specific requirements of the Stuart Street Zoning District, including the 2-hour shadow limitation on Copley Square.
15.11	What are the more convincing public benefits of this project? I welcome responsible new development with opportunities for housing and public benefits, and seek to promote projects characterized by responsible planning, sustainability, service to the greater good, embracing good business practices, creating jobs: a balance of benefit and burden. A revised station, once confirmed, can be one, but beyond the station, more benefits need application to the immediate affected environment and community.	Please refer to Section 1.5 for a detailed summary of the Project's public benefits.
15.12	I encourage more specificity, emphasis on greater civic contributions, and improvements, as essential to this projects progress. The BRA and the state agencies are our voice to require the BEST design, the best environmental performance, not just the "conforming" compliances.	Please refer to Section 1.5 for a summary of the Project's public benefits, to Section 3.5.1 for a detailed description of the Project's public realm improvements, and to Figures 3.8a-f for public realm improvement plans.
15.13	I urge leadership from the agencies to push design and quality standards beyond the merely legal and feasible to the platform of its setting—a city region long distinguished for its scale, architectural quality, and its enduring value to the entire community.	Please refer to Section 3.4 for a description of each Project Component's design, height and massing, character and exterior materials and signage. Please refer to Figures 3.2a-m for renderings and Figures 3.6a-p for skyline and bird's eye views.
Letter 16	**Tracy Pesanelli**	
16.1	Where are all the additional cars that will be created by these new buildings going to park?	Please refer to Section 4.9 for a summary of existing and proposed parking conditions and Project parking demand.

Comment No.	Comment	Response to Comment
16.2	…both Clarendon and Dartmouth are saturated with traffic, is it reasonable to assume that either of these streets will be able to handle the additional volume of traffic that will surely be generated by these new towers….never mind the already approved projects at Copley Place and Trinity Place?	Please refer to Chapter 4 for a detailed traffic analysis including impacts to volumes on Clarendon and Dartmouth Streets. The analysis includes neighboring approved projects.
Letter 17	**Elliott Laffer**	
17.1	This is a project that, I believe, has the potential to have an important positive impact on a key site at the junction of the Back Bay and the South End. However, the planned site has many physical drawbacks that can make it difficult to construct without causing unacceptable negative impacts. Below I list a series of issues that I hope can be answered in the MEPA and concurrent BRA processes in ways that can mitigate these impacts.	The Proponent thanks you for your support. Please see responses to your following comments below.
17.2	While it is likely that the users of the new towers will be accommodated, what happens to vehicles that are now parking at the 100 Clarendon St and Copley Place garages?	Please refer to Section 4.9 for a summary of existing and proposed parking conditions and Project parking demand.
17.3	How are conflicts between the exiting traffic and pedestrians to be handled? In this transit oriented development, will the edge go to those on foot?	Please refer to Section 3.5 for a detailed description of the Project's site design and to Figures 3.8a-f for pedestrian realm improvement plans, including techniques that will be employed to ensure pedestrian priority.
17.4	What is the shadow impact, if any, on the courtyard of the nearby Boston Public Library?	Please refer to Section 6.3 for the Project's shadow impacts. There is no impact to the courtyard of the BPL.
17.5	Because there is a high likelihood that not all phases will be built simultaneously, and there may in fact be extended period when only part of the project is completed, what is the impact of the project at each interim phase? This is also important to study since the proponent is unsure of the order in which the phases will be constructed.	The Proponent has designed each Project Component to be independent of the others, and therefore phaseable. Please refer to Section 1.4.8 for a description of the Project phases and an evaluation of phasing scenarios.

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17.6	Will there be transit capacity to handle this project along with the other approved projects in the area?	Yes, please refer to Section 4.10 for a complete Transit analysis.
17.7	How will the Bus 39 operations be handled both during and after construction? It is unlikely that holding the buses on Clarendon Street will be an acceptable solution.	Please refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
Letter 18	**Pamela Humphrey**	
18.1	Pedestrian traffic: critical times of the day the foot traffic in the area (and with the added traffic of the other new buildings in the block) is, and will be more so and significant. Dartmouth Street and Clarendon Streets are narrow. Particularly on Clarendon Street, individuals walk in the street to get around the crowds on the way to the BB station during rush hours. The residential buildings are being built in a way that, given this issue (Dartmouth has wider sidewalks-will they stay that way?) will become an even bigger problem. How do you plan to handle that?	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans.
18.2	Drop off capability at both the Back Bay Station and the residential buildings: The way that the drawings are currently drawn for this project - there is no, or extremely limited, drop off space for both the station and residential building locations. Current plans suggest limited curb indent to accommodate some. It is extremely tight on that street and what little might be provided currently won't be nearly enough given the increased traffic and gridlock on Clarendon and Dartmouth-particularly during rush hour. What is being done? Will you consider internal drop off/turn around at the residential buildings rather than street curb drop off? Same at the Station along with bus entry/turnaround?	Please refer to Section 3.5.1 for a detailed description of the Project's pedestrian realm improvements, and to Figures 3.8a-f for pedestrian realm improvement plans. Please refer to Section 3.5.3 and Figures 4.18a-b for details on proposed drop-off locations and curbside uses.

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18.3	Bus 39 entry and drop off at Back Bay Station: as currently designed there is no drop off/waiting space for this double length bus. Currently there is NO turn off or turn around space the way it is currently designed. Will there never be the need for additional busses using the Back Bay station for pick up/drop off in the future? Should we plan for that given limited bus stop capability in the area (current bus stops add to gridlock) and need to increase/encourage public transportation use?	Please refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
18.4	Entry and Exit into/out of garage: Current exit onto Clarendon stays? or does that become an entrance only? - We now have heavily increased foot traffic. Exit onto Dartmouth would be - I don't want to even think about it. The least objectionable would be to exit onto Stuart Street, which provides several directional egresses to Mass Pike and Storrow Drive and is a wider street. What is the thinking about this and does anything work effectively that is currently not considered?	The full-service entry/exit on Clarendon Street will remain. As described in Section 3.4.1, a new Garage exit on Dartmouth Street is necessary under the Base Scheme, where the On-Ramp remains open. The Proponent has provided pedestrian and vehicle mitigation measures at the proposed exit. Please refer to Section 3.4.1 for a discussion of an alternative internal exit ramp and to Figures 3.3s-u for plans. Please note this alternative is not being pursued as it eliminates the possibility for a through-block connector from Stuart Street, the retail space at the corner of Stuart Street and Trinity Place and compromises the Garage West building's loading dock.
18.5	There was public art in the Back Bay station. It was, apparently in poor repair and is now stored. The city paid for this art for the Station. Whether one likes it or not it is by a well-known artist whose work is in Moma and many other museums. What are we going to do about it? We are a city of the arts.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, including a discussion of public art.
18.6	Those "pesky" Green spaces and public benefits: Where are they in this - or in fact the other two developments? As mentioned in my preamble - the City has tended to accept interior spaces, or spaces above ground, as "public good benefits" and Therefore, they are of limited benefit in fact. The project developers are committed to taking on the renovation of the Back Bay station - saving the City a lot of money in the process. HOWEVER, it is nice to be grateful but another to sell our soul for it by giving up important "humanizing" assets to counter this colossal density of development in a VERY small area in Copley Square. What are the plans?	The Proponent has made considerable efforts to include the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel and the upgrading of the existing open space on Dartmouth Street with the delivery of the Station West Parcel. Please refer to Section 1.5 for a summary of the Project's benefits to the public realm, as well as to Section 3.5 for a detailed discussion on site design. Please see also Figures 3.2a-m and Figures 3.8a-f for renderings and public realm/landscaping plans.

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18.7	Shadows - Copley Place is a wonderful place of sunshine and open air. Already, although, apparently within allowable limits, the Neiman Building is already creating shadows. Now what with these other two immense projects adding to it?	As discussed in Section 6.3, shadow impacts have been minimized to the extent practicable to avoid noticeable pedestrian impacts, and are in compliance with the specific requirements of the Stuart Street Zoning District, including the 2-hour shadow limitation on Copley Square.
18.8	Flexibility in the renovation of the Back Bay Station: what is being planned for future improvements and expansion of public transportation needs in the future? Will it be designed in a way that accommodates future expansion/upgrade so desperately needed and for sure will be needed in the future with the massive increase of population in this compact space.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Section 4.10 for a detailed transit capacity analysis.
18.9	Density created by these large buildings: Clarity on the impact of the addition of huge numbers of people in this small area and future increased traffic that they will bring. It seems naive to believe that this won't be a huge problem.	Please refer to Chapter 4 for a detailed analysis of potential transportation impacts and proposed mitigation.
18.10	Public transportation infrastructure: It is short sighted to believe that any attempt to limit parking without proper public transportation infrastructure and increased capability will mitigate the impact of these dense building will have. Boston has a desperate need for upgrading of its infrastructure and has limited or no current funds to expand it to accommodate this influx of traffic and people. Do taxes from these projects cover what is needed in addition to other services? What is the thinking to mitigate - which at the moment seems quite impossible. (The Orange Line, during rush hour has a hard time handling what currently exists).	Please refer to Section 4.10 for a detailed analysis of Existing, Future No-Build and Future Build transit capacity.
18.11	If the exit to this new development turns out to be onto Stuart, and partially onto this side street to get to the Mass Pike, that will increase traffic on this side street and Stuart multiple fold. How, during rush hour, and moving onto St. James is this possibly going to be handled?	Please refer to the traffic analysis presented in Chapter 4 for a detailed analysis of traffic impacts in the study area, including Trinity Place, Stuart Street and St. James Avenue.

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18.12	With this additional density how do you see handling the gridlock with this increased traffic caused by the density created by this and other buildings?	Please refer to Chapter 4 for a detailed analysis of potential transportation impacts and proposed mitigation.
18.13	The current process for approvals, community input, coordination of departments appears to be extremely disorganized and cumbersome. To what extent does the BRA, DOT, MBTA, Zoning and other agencies which review/approve/negotiate/decide set asides, uphold and create zoning laws on these projects coordinate?	Please refer to Section 1.6, Regulatory Context, for a summary of anticipated permits and approvals as well as the local planning and regulatory controls applicable to the Project.
18.14	Would very much like to be informed about your processes as a collective when dealing with development.	Please contact the BPDA Project Manager to be added to the distribution list for this Project.
18.15	So, given all this, where are we on the vision for development and growth for the City which does not create large future issues and problems? On the issues related to this particular development? AND, just for consideration, does anyone have the courage to reboot the thinking on development before the very fabric of this special City - known for its size, livability, and character -is turned upside down?	Please refer to Section 3.3 for a summary of the Project's planning principles and design goals. The Project will reinforce Boston's "high spine" planning strategy, which was developed to preserve the character of the City's historic neighborhoods by concentrating growth between them and using new development to stitch disconnected neighborhoods together into a continuous urban fabric.
Letter 19	**Kenneth Kruckemeyer**	
19.1	The Secretary should require these internal and external changes to the Station and its immediate environment be analyzed and approved as an integral part of this MEPA filing. Only by doing so can the Commonwealth's extraordinary investment over many years in the transportation network centered around Back Bay Station be preserved and enhanced over the 99-year term of the lease.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Section 4.10 for a detailed transit capacity analysis. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.

Comment No.	Comment	Response to Comment
19.2	Will the proposed station layout, currently shown to eliminate the Commuter Rail/Amtrak Waiting Room as well as both primary circulation corridors, be able to serve Orange Line, commuter rail, Amtrak and bus patrons?	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Section 4.10 for a detailed transit capacity analysis.
19.3	Will the retail draw of shoppers to the station further compromise the station's ability to serve the region's transportation riders?	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.
19.4	Will the revised station be able to handle a doubling or quintupling of ridership that is likely on each of the seven tracks below, and is the developer prepared to make changes to the station, as required, to serve these new riders?	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Section 4.10 for a detailed transit capacity analysis.
19.5	Will income from the new retail provide sufficient financing to maintain and continuously update the station for the entire 99-year lease?	Please refer to Section 1.1.1 and Appendix E for a detailed description of the MassDOT Lease agreements, the Station Concourse Improvements and the Proponent's management obligations.
19.6	How does the developer propose to deliver on its promise to improve natural light and air movement in the station if it adds a second, and possibly third, level of retail that will fully enclose the concourse?	Please see Section 1.4.2 for a discussion of Project refinements. in response to agency and community feedback, the Proponent has elected to abandon the Station West Alternate Scheme presented in the PNF and ENF, which added a third level of retail above the Station. The remaining single-story addition has been reduced in height by 4 feet and will have skylights so as to preserve the clerestory windows' access to natural light.
19.7	How will the multitude of drop-offs, pick-ups and especially bus connections to the station be improved? Particularly what will happen to the #39 bus if the existing turnaround is eliminated?	Please refer to Section 3.5.3 and Figures 4.18a-b for details on proposed drop-off locations and curbside uses. Please also refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
19.8	When the developer moves the shop facades all the way out to the street line how will the sidewalks be able to handle the increased flow of pedestrians, cyclists, cabs, vans, cars and buses that will result from this Gateway project and from anticipated Back Bay development?	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of proposed sidewalk widths and to Figures 3.8a-f for public realm improvement plans

Comment No.	Comment	Response to Comment
Letter 20	**Shirley Kressel**	
20.1	The proponent states that the project will seek tax and zoning relief under MGL Ch. 121A and 121B, as well as I-Cubed funding. These tax and regulatory waivers have very significant and long-lasting impacts on the city and the state. They are mentioned in the MEPA filing (screenshots attached) only by name, without any explanation of how the project would qualify for them, how they would be structured, and what would be the financial cost to the city and the state taxpayers. Without such full explanations of these waivers and their impacts, the BRA, state, City of Boston, CAC and public reviews of this project cannot be diligent and complete. I ask that MEPA mandate these disclosures at the outset, for public consideration as an integral part of the project review.	The Proponent intends to develop the four Project Components using private funds, but will explore the possibility of local, state and/or federal public financing sources, where appropriate. Please refer to Section 1.9.4 for a discussion of possible public funding sources.
20.2	I request that the proponent be mandated to provide: -- detailed calculations demonstrating the need for, and amount of, each granted and contemplated city and state tax subsidy (including MassDOT lease and other financial terms)	The Proponent intends to develop the four Project Components using private funds, but will explore the possibility of local, state and/or federal public financing sources, where appropriate. Please refer to Section 1.9.4 for a discussion of possible public funding sources.
20.3	*I request that the proponent be mandated to provide (cont.)* — information detailing the specific regulatory changes to be sought via Chapter 121B Urban Renewal Plan modifications,	Please refer to Section 1.2.2 for information regarding challenges to redevelopment of the Site and a discussion of the potential use of Chapter 121B for title clearing purposes.
20.4	*I request that the proponent be mandated to provide (cont.)* — details of the contemplated Ch. 121B Section 46(f) Demonstration Project, which would evidently involve eminent domain takings for what the proponent calls "title clearance."	Please refer to Section 1.2.2 for information regarding challenges to redevelopment of the Site and a discussion of the potential use of Chapter 121B for title clearing purposes.

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20.5	I also note that, although the MEPA ENF was filed on April 14, the CAC members did not receive it from the BRA until May 27, mid-day Friday of the long Memorial Day weekend, the day after their most recent BRA-scheduled meeting; and today's May 31 deadline comes long before the next CAC meeting, scheduled for June 15. Thus, the CAC has had virtually no time to review the ENF before today's comment deadline. This timing, no doubt inadvertently, precluded the opportunity for a public CAC discussion of the ENF.	The initial PNF and ENF public comment periods were extended twice by the Proponent and did not close until June 17, 2016. The DEIR/DPIR will be circulated to members of the CAC after the document is filed and during the comment period.
Letter 21	**Paula Griswold**	
21.1	How will the planned design and uses enhance the use of public transit for the residents, and employees and customers of businesses/offices that are part of the proposed project, as well as residents of the surrounding neighborhoods, and employees and customers of other businesses/offices that are in the area?	Please refer to Section 4.10 for a detailed evaluation of potential transit impacts and to Section 4.2 for a description of transit improvements that are being delivered with the Project.
21.2	How will the project coordinate with MassDOT and the MBTA regarding the Back Bay Station design, especially given the schedules of planning, design, and approvals of each?	Please see Section 3.4.4 and Figures 3.7c-f for a discussion and images of the Project's integration with the Station Concourse Improvements. Please also see Appendix E for a detailed presentation of the Station Concourse Improvements project.
21.3	How will the project affect traffic through the Back Bay neighborhood (Newbury to Beacon, Arlington to Charlesgate) --both in the short term with construction and long term with ongoing use - as residents, employees, visitors/customers try to reach other major routes in and out of the city?	Please refer to Section 4.6 for a summary of the Project's long term traffic impacts and to Section 4.7 for a summary of the Project's long term traffic impacts after mitigation measures have been incorporated. Please also refer to Section 4.13.3 for a discussion of short term traffic impacts. Detailed Construction Management Plans (CMP) will be developed at the appropriate time for each Project Component once the phasing plan is known.
21.4	What will be the total amount and flow of traffic, including the currently approved projects along Stuart Street?	Please refer to Section 4.6 for a summary of the Project's long term traffic impacts and to Section 4.7 for a summary of the Project's long term traffic impacts after mitigation measures have been incorporated. The traffic analysis includes all currently approved projects in the Project area.

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21.5	How can traffic be managed/modified to avoid impact on the residential streets of the Back Bay if the actual volume and flow does not match the assumptions during the planning process?	Please refer to Chapter 4 for details of potential traffic impacts and mitigation. The underlying assumptions during the planning process have been thoroughly reviewed and approved by both MassDOT and the Boston Transportation Department based on widely recognized analysis methodologies.
21.6	How can public transit use be enhanced if the actual use does not match the assumption during the planning process?	Please refer to Section 4.10 for a detailed analysis on the future capacity of transit services serving the Project Site.
21.7	What zoning relief has been requested or is being considered, including amendments to the PDA, and variances from the Stuart Street Zoning Requirements?	The Project will achieve zoning compliance through a PDA amendment. Please refer to Section 1.6.1.
21.8	Thank you for including the community in the planning process for this project, given the significant and potentially permanent impact on our city and our neighborhood.	Comment noted. The Proponent thanks you for your support.
Letter 22	**Pam Lassiter**	
22.1	Most of the time was spent on the Back Bay Station and the conversion of the garage next to it. What was not discussed was the impact of the two giant buildings behind them, a tower and an office building, the elephants in the room. My guess is that they will create much more impact on our lives than the first two buildings re number of people coming in and out, traffic, weight on our Back Bay pilings, etc. (Trinity Church still is reacting to the John Hancock tower.)	Please refer to Section 1.4 for a Project summary and to Section 3.4 for a detailed description of each Project Component. Please refer to Chapters 4-8 for a discussion of Project impacts.
22.2	They were proud that one of their towers will only cast one hour and 54 minutes more of extra shade across the city, overlapping with the shade cast by the Hancock tower for some of that time. That's still a big deal given the finite sun we have in Boston in general and during the previous summer time in particular.	As discussed in Section 6.3, shadow impacts have been minimized to the extent practicable to avoid noticeable pedestrian impacts, and are in compliance with the specific requirements of the Stuart Street Zoning District, including the 2-hour shadow limitation on Copley Square.

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22.3	Shutting down the Clarendon St entrance to the Turnpike sounded like their preference. They showed maps showing other ways people could exit from their buildings casually referring to use of Berkeley St, Newbury St, etc. These streets are already messes at rush hour.	As described in Section 1.2.3, independent of the Project proposed by the Proponent, MassDOT is studying the safety and utility of the On-Ramp at Clarendon Street and is considering its potential closure. The Proponent notes that MassDOT will be submitting an Interchange Modification Report (IMR) to Federal Highway Authority (FHWA) in early 2017.
22.4	The Boston Globe and other publications have recently reported occupancy is down at the Hancock Tower. This may not be the time to over-build on the commercial side so I can't support residential and office towers that are as large as they're proposing.	The Proponent has designed the Sites to be independent of each other, and therefore phaseable. Construction will proceed only under favorable market conditions. Please refer to Section 1.4.8 for a description of the Project phases and an evaluation of phasing scenarios.
Letter 23	**Ann Hershfang**	
23.1	the plans for changes to the station, apparently under the aegis of MassDOT, MBTA and BRA, should not be allowed to proceed without public involvement, as was apparently stated by MassDOT's Director of Development at an early meeting	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station renovations. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.
23.2	I also support the matters raised in letters from Ken Kruckemeyer and WalkBoston.	Comment noted.
23.3	Issues raised by changes proposed inside the station: --the decrease of waiting space (and comfort) inside the BB/SE Station due to elimination of the commuter rail waiting area,	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.
23.4	*Issues raised by changes proposed inside the station (cont.)* --a careful analysis as to whether the proposed public waiting areas will be adequate and comfortable enough to pleasantly accommodate rail users, transit riders, retail and food outlet shoppers, and through traffic,	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.

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23.5	*Issues raised by changes proposed inside the station (cont.)* -- circulation through the station,	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.
23.6	*Issues raised by changes proposed inside the station (cont.)* --data about the number of current rail and transit users inside and outside, -- projected increases in transit and rail users resulting from new construction,	Please refer to Section 4.10 for a detailed analysis of Existing, Future No-Build and Future Build transit capacity.
23.7	*Issues raised by changes proposed inside the station (cont.)* --increased parking demand and facilities to accommodate the growth,	Please refer to Section 4.9 for a summary of existing and proposed parking conditions and Project parking demand. Increased parking to accommodate changes inside the station is not proposed in light of the "non destination" characteristics of the uses.
23.8	*Issues raised by changes proposed inside the station (cont.)* --access through the station between Dartmouth and Clarendon Streets,	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.
23.9	*Issues raised by changes proposed inside the station (cont.)* --location of and impacts of building support posts on station platforms,	Please refer Section 4.10.4 for discussion of the impact of the Station East building's structure to the Station platforms.
23.10	*Issues raised by changes proposed inside the station (cont.)* --plans to replace the neon artwork formerly at the entrances to the station.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, including a discussion of public art.
23.11	Issues raised by changes outside the station: --data about current traffic and pedestrian numbers on the sidewalks and roads, --projections for traffic and pedestrian growth from the increased transit and rail passengers, and the many new buildings in the area,	Please refer to Chapter 4 for a detailed traffic analysis, including Existing, Future No-Build and Future Build conditions. Please see Section 4.12 for a pedestrian analysis and to Section 3.5 and Figures 3.8a-f for proposed public realm improvements to facilitate pedestrian movement around the Project Site.

Comment No.	Comment	Response to Comment
23.12	*Issues raised by changes outside the station (cont.)* --the Dartmouth Street sidewalk narrowed to 8 feet from its current generous width cannot possibly handle the pedestrian traffic,	The Project's sidewalk dimensions have been revised in the DEIR/DPIR. Please refer to Section 3.5.1 and Figures 3.8a-f for a specific description of the pedestrian realm and circulation improvements and to Section 3.5.5 for a summary of pedestrian accessibility improvements. As described in Section 3.5.4, throughout the Project Site, the proposed pedestrian realm improvements meet or exceed BTD's Complete Streets Guidelines for Downtown Commercial Zone minimum streetscape dimensions.
23.13	*Issues raised by changes outside the station (cont.)* --trees in planters at the sidewalk edge will only worsen the problem,	Please refer to Section 3.5 for a discussion of site design and pedestrian access. Please also see Figures 3.8a-f and 3.9a-b for proposed public realm improvements and site circulation and access plans.
23.14	*Issues raised by changes outside the station (cont.)* --removal of the protective overhang on Dartmouth St.,	In lieu of dark and dreary arcades, the Project offers new weather-protected through block connectors from both Stuart and Clarendon Streets into the Station. Please refer to Section 3.4 for a detailed description of these public goods and their phasing.
23.15	*Issues raised by changes outside the station (cont.)* --impacts of eliminating the Clarendon Street ramp into the MassPike,	Please refer to Sections 4.3 - 4.6 for a detailed traffic study which includes analysis of Existing, Future No-Build, and Future Build conditions both with and without the On-Ramp closure. The Proponent notes that MassDOT will be submitting an Interchange Modification Report (IMR) to the Federal Highway Authority (FHWA) in early 2017.
23.16	*Issues raised by changes outside the station (cont.)* --cars exiting from the garage across the Dartmouth St. sidewalk in conflict with pedestrians, --capacity of Clarendon, Dartmouth and Stuart Streets to serve future traffic,	As described in Section 3.4.1, a new Garage exit on Dartmouth Street is necessary under the Base Scheme, where the On-Ramp remains open. The Proponent has provided pedestrian and vehicle mitigation measures at the proposed exit. Please refer to the traffic analysis presented in Chapter 4 and Section 4.7 for a future conditions assessment of Clarendon, Dartmouth and Stuart Streets.
23.17	*Issues raised by changes outside the station (cont.)* --ability of existing roads and intersections around and near the station to accommodate the growth, as well as in Copley Square in general, --vehicle circulation patterns from changes in garage entrances and exits and elimination of the Clarendon Street Turnpike on-ramp,	Please refer to Chapter 4 which includes an Existing, Future No-Build and Future Build analysis of roads and intersections around and near the station, and impacts associated with changes in circulation patterns due to Garage access changes and the potential elimination of the Clarendon Street On-Ramp.

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23.18	*Issues raised by changes outside the station (cont.)* --impacts on Columbus Avenue and adjacent residential districts,	Please refer to Chapter 4, which includes analysis of potential impacts to Columbus Avenue and adjacent residential districts.
23.19	*Issues raised by changes outside the station (cont.)* --location of the layover for the #39 bus, with its high ridership and long route,	Please refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
23.20	*Issues raised by changes outside the station (cont.)* --assurance that the fix of the ventilation problem will not spew the smoke out of the vent stacks at West Newton Streets onto Titus Sparrow Park and the Southwest Corridor Park.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, including the MBTA track-level ventilation improvement project.
23.21	Changes to this station should not be made without serious conversations with its users and the residents of adjacent communities.	A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.
Letter 24	**Susan Prindle**	
24.1	While I appreciate the fact that Boston Properties is respecting the Stuart Street Guidelines regarding Copley shadow, I hope that they will be asked to consider whether the loss of sunshine could be ameliorated by changes in the massing of the proposed structures. Once the sunshine is gone, the loss cannot be mitigated. Reduction in shadows on the Public Library Courtyard should also be carefully considered.	As discussed in Section 6.3, shadow impacts have been minimized to the extent practicable to avoid noticeable pedestrian impacts, and are in compliance with the specific requirements of the Stuart Street Zoning District, including the 2-hour shadow limitation on Copley Square. There is no impact to the courtyard of the BPL.
24.2	Any wind study should include intersections on Clarendon at Boylston and Newbury Streets, as well as intersections into the South End.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.
24.3	It is unclear how the wind studies will be managed if the project is built piecemeal. Will additional wind studies be required if the residential buildings are built before the office building or vice versa?	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.

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24.4	Copley Square is especially sensitive to high winds. Multiple points should be studied in the park. Areas that are comfortable for sitting should be maximized. Existing conditions should be verified here and in the Stuart Street area by real-world testing.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.
24.5	I believe that overhead pedestrian walkways are not the answer to moving people and cars simultaneously. Rather, the proponent could help Simon Properties improve the lighting and signage in the existing tunnel under Dartmouth. Widening the Dartmouth Street sidewalk and improving pedestrian safety and access should also be considered.	Please refer to Section 3.4.1 for a discussion of the Trinity Place and Stuart Street bridges and to Figures 3.2h-i. The Proponent notes that there are three such bridges in the immediate vicinity of the Project, each providing an important weather-protected and accessible connection across the busy thoroughfare of Stuart Street. Please note that the Dartmouth tunnel is being renovated by Simon Properties as part of their previously approved project.
24.6	I applaud the proponent's efforts to create permeability at the site.	The Proponent appreciates your support.
24.7	The Stuart Street Zoning requires the creation of 2.5% more affordable units than is required by the applicable Mayor's Executive Order on Inclusionary Development. Given the crying need for low and moderate income housing in the city, Will Boston Properties be asked to comply with this requirement?	The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.
24.8	Given the amount of new construction in the Stuart Street area, it would seem prudent to require more detailed proposals from the gas, electric, and water and sewer providers as to how they plan to upgrade their systems to accommodate the new demand. I believe this should be done before approving the project.	Please refer to Sections 7.2 through 7.5 for descriptions of existing utilities and proposed future connections. No capacity issues are anticipated.
24.9	The Stuart Street Guidelines ask that traffic be studied along Clarendon and Berkeley Streets all the way to the Storrow Drive intersection. Since 1/3 of the automobiles coming to the Gateway site are projected to come from this direction, it is important that this commitment be fulfilled.	Please refer to Section 4.3.1 and Figure 4.1, for a description of the intersections included in the Project study area, per BTD and MassDOT requests.

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24.10	Use changes in the proposed buildings (from residential to office, for example) would impact traffic counts; should such a change be proposed, amended traffic studies will be critical.	The Proponent does not intend to change the proposed uses for the Project. If a change were proposed in the future, a Notice of Project Change would have to be filed and new impact analyses performed.
24.11	It is important to have real data on the existing garage use and its capacity, as well as those of surrounding garages. If adjacent garages are already full, how will existing parkers be accommodated?	Please refer to Section 4.9 for a summary of existing and proposed parking conditions and Project parking demand.
24.12	Will the T be required to develop a plan to cope with the increased ridership? It is critical that the proposed station renovations be designed so that they do not impede vital improvements to mass transit.	Please refer to Section 4.10 for a detailed analysis of existing, Future No-Build and Future Build transit capacity. Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.
Letter 25	**Gerry Ives (Ives Architects)**	
25.1	The public and civic streetscape is either ignored, or there is even a private taking of public space and benefits.	The Proponent has made considerable efforts to include the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel and the upgrading of the existing open space on Dartmouth Street with the delivery of the Station West Parcel. Please refer to Section 1.5 for a summary of the Project's benefits to the public realm, as well as to Section 3.5 for a detailed discussion on site design. Please see also Figures 3.2a-m and Figures 3.8a-f for renderings and public realm/landscaping plans.
25.2	Let's look at this project from three aspects: A. Problems in urban design. Lost opportunities. B. Assets of the existing context. C. Real solutions for a prosperous future… for the public, for the developers, and for our city.	Please refer to Chapter 3 for a full discussion of the Project's urban design and to Section 1.5 for a summary of the Project's public benefits.

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25.3	The BRA's Copley Place tower project (now underway) will take away the horse sculptures and the open space. It will also cast a long shadow over the surrounding area and even Copley Square (as seen in the recent presentations for the Gateway Project).	Please note the Proponent is not involved in that project.
25.4	The intersection of Stewart and Dartmouth is the intersection from hell. Pedestrian injuries are just waiting to happen…. cars barrel out of the turnpike ramp and roar past this pedestrian crossing.	Please refer to Section 4.3.7 for an analysis of vehicle crash data.
25.5	The ultimate irony… the plan proposes to tear down the West Hancock garage to build the new tower, and then rebuild a new West Hancock Garage for cars again… this is outdated zoning. Even DOT should know by now: more parking = more cars on the street, more air pollution, a degraded pedestrian environment.	Please refer to Section 1.4.6. The Project will require the partial demolition and reconstruction of the westernmost portion of the Garage in order to accommodate the development of the Garage West Parcel and minor modifications will be made to accommodate structural components of the Garage East Parcel. In its reconstructed state, there will be no net increase in the amount of parking provided, as the Project-related parking needs can be accommodated within the Garage's existing capacity.
25.6	And what is with the crazy angles of the West Hancock Garage Tower? Across Stewart Street is the Copley Plaza block… a traditional four square dignified and tradition urban form.	The urban context, including relationship with adjacent buildings, is a well-respected and integral part of the proposed design. At the same time, the Project proposes to create iconic, world-class architecture and to add to the varied skyline of Boston. Please refer to Section 3.3 for details regarding the Project's design intent.
25.7	The tests show no wind problems for a 40 story tower! Sensors everywhere on the model divert attention from the critical intersection of Dartmouth and Stewart.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report. Please note the Project improves pedestrian-level wind conditions in many locations.
25.8	The Copley Plaza block is a dignified neighbor whose context should not be ignored.	Please refer to Section 3.2 for a discussion of neighborhood context and to Section 3.3 for a discussion on the Projects Planning and Design Goals. Please also refer to Section 3.5.1 for a detailed description of the Project's pedestrian realm improvements, and to Figures 3.8a-f for pedestrian realm improvement plans.

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25.9	Preserve the SOUTHWEST CORRIDOR LOWLINE… and extend it across to the Back Bay Station.	Please refer to Section 3.5.1 for a detailed description of the Project's pedestrian realm improvements, and to Figures 3.8a-f for pedestrian realm improvement plans. With the delivery of the Station West Parcel, the existing open space on Dartmouth Street in front of the Station will be upgraded to create an inviting public plaza at the terminus of the Southwest Corridor Park. The existing Dartmouth Street crosswalk will be relocated to align with the Station's central hall and enlarged to 60 feet wide in order to better serve pedestrian between the Park and the Station.
25.10	Preserve the station porch and the THREE PENNY OPERA representing all walks of life in Boston.	Comment noted.
25.11	Preserve sidewalks…make these wider. Preserve cover and expand cover… two story arcades provide cover with adequate daylight.	Please refer to Section 3.5.1 for a detailed description of the Project's pedestrian realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for pedestrian realm improvement plans. In lieu of dark and dreary arcades, the Project offers new weather-protected through block connectors from both Stuart and Clarendon Streets into the Station. Please refer to Section 3.4 for a detailed description of these public goods and their phasing.
25.12	Bring life back to Dartmouth Street…place the developer's mall (now buried inside the parcel) on the street edge in a restored arcade and above the arcade. Recess the West Hancock Garage inside the parcel to allow for retail and/or office space on the edge opening to the sidewalk arcade. Even better don't restore this outdated garage function.	Please refer to Sections 3.3 through 3.5 for a detailed description of the Project's design, including street frontage. See also Figures 3.2a-m. The Proponent has made every effort to create a high-quality continuous street frontage activated by vibrant and engaging ground floor uses, such as retail and restaurant spaces, and residential and commercial building lobbies, despite the substantial constraints of the Project Site. Through the use of glass facades wherever possible, the Project will provide transparency and create an inviting, safe and accessible ground-level experience for pedestrians. Section 3.4.1 describes the Garage West building design and includes details related to the ground floor space along Stuart Street.
25.13	Add value, create a prosperous environment…attract visitors, tourists, shoppers, lunch time office workers, residents, and yes pan-handlers. Add real value to adjacent developments.	Please refer to Section 1.5 for a summary of the Project's public benefits.

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25.14	Extend the Dartmouth Mall/Greenway to Copley Square and even to the Esplanade (at least long term). Instead of zero vision, apply Vision Zero to the intersection from hell at Dartmouth and Stewart Streets. Slow traffic. Divert traffic. Study depressing Stewart Street below the new Dartmouth Mall/ Greenway to allow for a pedestrian mall overpass.	Please refer to Sections 4.7 and 4.13 for proposed roadway improvements to mitigate Project-related impacts. Please see also Section 3.5 and Figures 3.8a-f and 3.9a-b for site design, pedestrian realm improvements and site circulation and access plans.
25.15	Imagine the unfolding view as you walk north on the Dartmouth Mall. This would preserve and enhance those civic values inherent in Boston's development history.	Please refer to Section 3.5.1 for a detailed description of the Project's pedestrian realm improvements, and to Figures 3.8a-f for pedestrian realm improvement plans.
25.16	Use this Dartmouth Mall to more elegantly integrate the eight modes of transit present.	Please refer to Section 3.5.1 for a detailed description of the Project's pedestrian realm improvements, and to Figures 3.8a-f for pedestrian realm improvement plans.
25.17	Save the Copley Place horses…… bring them out to the Dartmouth Mall open space.	The Proponent does not control this artwork or the open space within which it sits.
25.18	And of course do not mindlessly dump vehicles onto Dartmouth with a new ramp from a (needlessly) restored West Hancock Garage.!	As described in Section 3.4.1, a new Garage exit on Dartmouth Street is necessary under the Base Scheme, where the On-Ramp remains open. The Proponent has provided pedestrian and vehicle mitigation measures at the proposed exit
25.19	Do a valid wind tunnel test… especially of the pedestrian zone at Dartmouth and Stewart Streets…and scale up the model to say 1 to 40 for a meaningful result. Test for northwest winds which are the most brutal in the winter.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.
25.20	Build a turnpike deck to the east of Clarendon onto which some of the proposed retail can be relocated.	The Columbus Center air rights parcels are not part of the Project.
25.21	Keep the Back Bay Station "basilica" form with its side aisles - at least at the entrance area. Preserve the clerestory daylighting at the second and third floors.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which is designed to preserve the original architectural intent.

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25.22	Find more retail area east of the old station core. Renegotiate with the developers to encourage retail further east and perhaps over a new deck east of Clarendon Street (it is wasted now).	The Columbus Center air rights parcels are not part of the Project.
25.23	And keep a curved arch over the Clarendon Street station entrance to reflect the West end of the station (at a smaller scale).	As described in Section 3.4 with the development of the Station East Parcel, a new Station entrance with a public plaza will be delivered, ensuring the civic presence of the Station on Clarendon Street.
25.24	Ventilation of the station is welcome. Of course the ultimate answer is Electrification. Note how everything in interconnected.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, including the MBTA track-level ventilation improvement project.

Comment No.	Comment	Response to Comment
Letter 26	**Anne Swanson**	
26.1	Why is Mass/DOT not yet prepared to review the Boston Properties proposal for renovation of Back Bay Station in light of current and future MBTA needs, plans, and capacity?	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station renovations. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.
26.2	Why is such a massive project even under consideration for this site?	The Proponent has designed the Project to be respectful of the height and density guidelines in the recently enacted Stuart Street District. Please refer to Section 1.5 for a summary of Project Benefits.
26.3	What will be the combined effect of shadows of all the proposed High Spine high-rise structures on fragile little historic Copley Square, which has a crumbling infrastructure that can hardly support the current environmental conditions and level of use by the public?	As discussed in Section 6.3, shadow impacts have been minimized to the extent practicable to avoid noticeable pedestrian impacts, and are in compliance with the specific requirements of the Stuart Street Zoning District, including the 2-hour shadow limitation on Copley Square. The shadow impact analysis was done all other approved Stuart Street corridor projects in place.
26.4	Will the water and sewer infrastructure support the increased population density resulting from three more high-rise buildings for residential and office space?	Please refer to Sections 7.2 through 7.5 for descriptions of existing utilities and proposed future connections. No capacity issues are anticipated.
26.5	Will the water table be affected by the construction, which in turn protects the woodpile foundations of three National Historic Landmarks and a luxury hotel in Copley Square: Boston Public Library, Old South Church, Trinity Church, and the Copley Plaza Hotel?	Please refer to Section 7.4.3 for a detailed description of the Project's intended compliance with the City's Groundwater Conservation Overlay District.
26.6	Will the High Spine of tall buildings actually divide and threaten our historic neighborhoods rather than connect them?	Boston's "high spine" planning strategy was developed to preserve the character of the City's historic neighborhoods by concentrating growth between them and using new development to stitch disconnected neighborhoods together into a continuous urban fabric. Please see Chapters 3 and 8 for a discussion of the Project's design, integration with surrounding neighborhoods and limited impacts to area historic resources.

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26.7	Will any public open green space be incorporated into the design?	Yes, the Proponent has made considerable efforts to include the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel and the upgrading of the existing open space on Dartmouth Street with the delivery of the Station West Parcel. Please refer to Section 1.5 for a summary of the Project's benefits to the public realm, as well as to Section 3.5 for a detailed discussion on site design. Please see also Figures 3.2a-m and Figures 3.8a-f for renderings and public realm/landscaping plans.
26.8	Why were two neon sculptures by a distinguished artist removed from the MBTA station without any public process?	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, including a discussion of public art.
Letter 27	**Lynn Foster**	
27.1	The project plans to eliminate the current entrances to the station as well as the waiting room and pathways to the subway, all of which create serious questions about the efficient functioning of the station from the riders' perspective and its accessibility from surrounding streets.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.
27.2	The Gateway plan also indicates that piers will be driven along parts of the train platforms, squeezing passengers into less space.	Please refer Section 4.10.4 for discussion of the impact of the Station East building's structure to the Station platforms.
27.3	And finally, the bus turn-around is eliminated with no provision for the popular # 39 bus.	Please refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
27.4	I urge you to carefully review the Back Bay/South End Gateway Project to guarantee that the Back Bay Station with continue to serve the needs of the public.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.

Comment No.	Comment	Response to Comment
Letter 28	**Heyward Parker James**	
28.1	The Back Bay Station should be designed to function as a transit hub, not converted to a retail concourse.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.
28.2	The Station needs to be redesigned in a manner that can accommodate much larger numbers of future.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.
28.3	The public service area of the Back Bay Station should be expanded and improved both in terms of functionality and appearance.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.
28.4	Boston Properties plans to privatize some 10,000 square feet of public service area should not be allowed to happen.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.
28.5	Much attention should be paid to improve the station's breathing environment. The diesel particulates in the air there are both unpleasant unhealthful. Improved ventilation is essential.	Please refer to Appendix E for information on the MBTA's track-level ventilation improvement project at the Station.
28.6	No garage entrance or exit ramps should be allowed on Dartmouth St.	As described in Section 3.4.1, a new Garage exit on Dartmouth Street is necessary under the Base Scheme, where the On-Ramp remains open. The Proponent has provided pedestrian and vehicle mitigation measures at the proposed exit

Comment No.	Comment	Response to Comment
28.7	The Clarendon St. side of the development should be redesigned in a more thoughtful manner. -The Clarendon St. entrance to the Mass. Turnpike should be eliminated. - The Clarendon St. façade of the parking garage should have some sort of architectural screening.	As described in Section 1.2.3, independent of the Project proposed by the Proponent, MassDOT is studying the safety and utility of the On-Ramp at Clarendon Street and is considering its potential closure. The Proponent notes that MassDOT will be submitting an Interchange Modification Report (IMR) to the Federal Highway Authority (FHWA) in early 2017. The Proponent has made considerable efforts to include the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel, creating a forecourt to the new Station entrance and reinforcing its civic nature. Please refer to Figures 3.2j-m for images of the Clarendon Street side. The Project does not include the screening of the Clarendon Street Garage facade.
Letter 29	**Jacquelin Yessian**	
29.1	Coordination among the multiple agencies controlling aspects of the site and operations on the site is imperative. To date, we have had little or no contact with the MBTA, MassDOT, BTD, Mass Pike, Amtrak, Federal Highways, for example. Such coordination is important for the station design, as well as the analysis of the traffic around and through the site.	Please refer to Section 1.7 for details on Agency Coordination/Community Outreach to date. The Proponent is in regular coordination with MassDOT, the MBTA, BPDA, and BTD, among other agencies.
29.2	Detailed environmental studies should be required and thoroughly examined with the CAC.	Comment noted. Please see Section 1.5 for a summary of public benefits the Project will deliver, Chapter 3 for a detailed discussion of the public realm improvements, Chapter 4 for Transportation and Parking impacts, Chapter 5 for Sustainability and GHG assessment, Chapter 6 for Environmental impacts, Chapter 7 for Infrastructure impacts and Chapter 8 for impacts to Historic Resources.
29.3	Wind impacts should be studied along Dartmouth and Clarendon Streets to the river, and to the north side of Boylston Street. How does the wind data relate to our perception of the conditions around the site?	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.
29.4	Traffic impacts should be studied to the river to the north, east to Arlington and west to Mass Ave, and into the South End as appropriate.	Please refer to Section 4.3.1 and Figure 4.1, for a description of the intersections included in the Project study area, per BTD and MassDOT requests.

Comment No.	Comment	Response to Comment
29.5	Illustrate any shadow on nationally recognized historic buildings and public spaces, including shadows on the building facades, including the BPL Courtyard facade.	Please refer to Section 6.3 for the Project's shadow impacts. There is no impact to the courtyard of the BPL. Please refer to Section 8.3.2 for a summary of shadow impacts on the façades of area historic resources.
29.6	Alternative studies to relieve the crowding should be discussed with the CAC. A garage outlet or inlet onto Dartmouth Street should be abandoned at this point and a base scheme proposed without it.	As described in Section 3.4.1, a new Garage exit on Dartmouth Street is necessary under the Base Scheme, where the On-Ramp remains open. The Proponent has provided pedestrian and vehicle mitigation measures at the proposed exit. Please refer to Section 3.4.1 for a discussion of an alternative internal exit ramp and to Figures 3.3s-u for plans. Please note this alternative is not being pursued as it eliminates the possibility for a through-block connector from Stuart Street, the retail space at the corner of Stuart Street and Trinity Place and compromises the Garage West building's loading dock.
29.7	Air quality, particularly at intersections and between streetlights should be studied and reviewed with the Board of Health.	Please refer to Section 6.6.2 for the results of the microscale air quality analysis and Sections 5.4.5 and 6.6.3 for the results of the mesoscale air quality analysis. Appendix H also provides additional supporting documentation related to air quality. The Project will not cause or contribute to an exceedance of the National Ambient Air Quality Standards.
29.8	During Article 80 reviews, we consistently ask for data on the capacity of public transportation and have been disappointed in the responses. Since so much constriction has been approved in this small area of the Back Bay, the State should provide this information to the developer and the public.	Please refer to Section 4.10 for a detailed analysis of Existing, Future No-Build and Future Build transit capacity.
29.9	Likewise, the capacity of public utilities, water, sewer, and power, as well as cable for TV and wifi, should be made public and analyzed in the next submission with respect to the proposed building uses. If additional capacity will be required, this should be identified in the next phase of the project and planned.	Please refer to Sections 7.2 through 7.5 for descriptions of existing utilities and proposed future connections. No capacity issues are anticipated.
29.10	Improvements to the public realm, such as comfortable sidewalks and adequate outdoor spaces, will be essential to the success of this block.	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for pedestrian realm improvement plans.

Comment No.	Comment	Response to Comment
29.11	[...since the No. 39 bus already has a home on Clarendon,] it is appropriate to study design alternatives to use the space between the residential towers and Clarendon Street.	The Project includes the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel. Please refer to Section 3.5.1 for a detailed description of the Project's pedestrian realm improvements, and to Figures 3.8a-f for pedestrian realm improvement plans.
29.12	The suggested bridges above the adjacent streets were discussed at BCDC, whose guidelines discourage them. High quality, safe on-grade crossings should be developed instead to engage life on the street, which is most appropriate for this urban center.	Please refer to Section 3.4.1 for a discussion of the Trinity Place and Stuart Street bridges and to Figures 3.2h-i. The Proponent notes that there are three such bridges in the immediate vicinity of the Project, each providing an important weather-protected and accessible connection across the busy thoroughfare of Stuart Street.
29.13	The architecture of the proposed residential buildings is very sketchy. Suggest proposing elevation designs that are clearly residential, providing operable windows and individual outdoor balconies.	Please refer to Figures 3.2a-m and Figures 3.6a-p for Project Views, and Figures 3.5a-c for Project Elevations.
29.14	Recommend providing additional drawings to show the whole buildings from the Back Bay, Dartmouth, and Clarendon Streets. The drawing for the corner of Stuart and Dartmouth misses the top half of the building.	Please refer to Figures 3.2a-m and Figures 3.6a-p for Project Views, and Figures 3.5a-c for Project Elevations.
29.15	A proposal to include all of the affordable housing on site, and including the required funds from 40 Trinity's payment to the Housing Trust, should be developed and presented.	The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.
29.16	Excellent publically accessible open space would a welcome public benefit, as would desirable improvements to Back Bay Station. To determine what would be desirable, please engage the CAC and the public very early in the decision-making, as soon as possible. This has been discussed although not scheduled.	The Project includes the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel and the upgrading of the existing open space on Dartmouth Street with the delivery of the Station West Parcel. Please refer to Section 1.5 for a summary of the Project benefits to the public realm, as well as Section 3.5.1 for the specific description of the pedestrian realm improvements to be delivered with the Project. See also Section 1.7 for details regarding the Proponent's outreach efforts with various stakeholders including the CAC, state and city officials, community representatives and abutters.

Comment No.	Comment	Response to Comment
29.17	Please prepare a detailed list comparing the project with the Stuart Street Zoning and Guidelines and detailed explanation of all requested zoning relief, i.e. amend the PDA. A PDA amendment should not be used for relief from Stuart Street Zoning requirements.	Although the Project will achieve zoning compliance through a PDA amendment, as described in the BPDA Scoping Determination, the Project is, in fact, "exemplary in its strong adherence to the Stuart Street Design Guidelines." Please refer to Sections 3.3 and 3.4 for more detail about the Project's responsiveness to the vision and planning goals established in the Stuart Street District, particularly the height and density guidelines. Please also see Section 2.2.1 for an analysis of an alternative that is strictly compliant with the dimensional guidelines of the Stuart Street District.
29.18	Please provide a list of any potential tax relief for the project.	The Proponent intends to develop the four Project Components using private funds, but will explore the possibility of local, state and/or federal public financing sources, where appropriate. Please refer to Section 1.9.4 for a discussion of possible public funding sources.
29.19	How can we be assured that adequate coordination will take place between the different agencies involved with the project? In particular, when will the public get an opportunity to review MassDOT plans for the MBTA station and the Mass Pike plans for the Clarendon Street exit?	A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016. Additionally, the Proponent notes that MassDOT has coordinated with BTD and will be submitting an Interchange Modification Report (IMR) to the Federal Highway Authority (FHWA) in early 2017.
29.20	Will detailed, state-of-the art studies be conducted on wind, traffic, and shadow impacts in and around Copley Square that include all of the requested points?	Yes, please refer to Chapter 6 for details on Project-related environmental impacts and steps that will be taken through design and management to avoid, minimize, and/or mitigate adverse effects. Please refer to Chapter 4 for a summary of the transportation and parking aspects of the Project, including proposed mitigation and improvements the Project will make to help reduce the impacts to the surrounding neighborhoods.
29.21	Will wind impacts be studied along Dartmouth and Clarendon Streets to the river and on the north side of Boylston Street? Will wind impacts on Copley Square Park be studied, particularly where the Farmer's Markets place tents and around the fountain?	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.

Comment No.	Comment	Response to Comment
29.22	Will traffic impacts be studied to the river to the north, east to Arlington and west to Mass Ave, and into the South End as appropriate?	Please refer to Section 4.3.1 and Figure 4.1, for a description of the intersections included in the Project study area, per BTD and MassDOT requests.
29.23	Will any shadow impacts on nationally recognized historic buildings and public spaces be presented, including shadows on building facades, including the BPL Courtyard facade?	Please refer to Section 6.3 for the Project's shadow impacts. There is no impact to the courtyard of the BPL. Please refer to Section 8.3.2 for a summary of shadow impacts on the façades of area historic resources.
29.24	Will the developer study shaping the buildings to completely eliminate new shadow on Copley Square?	As discussed in Section 6.3, shadow impacts have been minimized to the extent practicable to avoid noticeable pedestrian impacts, and are in compliance with the specific requirements of the Stuart Street Zoning District, including the 2-hour shadow limitation on Copley Square.
29.25	Will quantitative and qualitative analyses of pedestrian circulation to and from, in and around the project be provided?	Please refer to Section 4.12 for details of the pedestrian impact analysis and to Section 3.5.1 for a detailed description of strategies that will be implemented to ensure pedestrian priority. See also figures 3.8a-f.
29.26	Will the pedestrian analysis be correlated with the traffic analyses?	Please refer to Section 4.12 for details of the pedestrian impact analysis and to Section 3.5.1 for a detailed description of strategies that will be implemented to ensure pedestrian priority. See also figures 3.8a-f.
29.27	Will air quality, particularly at intersections and between streetlights be studied?	Please refer to Section 6.6.2 for the results of the microscale air quality analysis and Sections 5.4.5 and 6.6.3 for the results of the mesoscale air quality analysis. Appendix H also provides additional supporting documentation related to air quality. The Project will not cause or contribute to an exceedance of the National Ambient Air Quality Standards.
29.28	Will we be provided with data on the capacity of public transportation to handle all the additional usage expected in the area?	Please refer to Section 4.10 for a detailed analysis of existing, Future No-Build and Future Build transit capacity.
29.29	Similarly, how about the capacity of public utilities, water, sewer, and power as well as for cable for to and wifi?	Please refer to Sections 7.2 through 7.5 for descriptions of existing utilities and proposed future connections. No capacity issues are anticipated.

Comment No.	Comment	Response to Comment
29.30	Will the CAC be invited to evaluate proposed improvements for the public realm, such as comfortable sidewalks and adequate outdoor spaces to serve the uses on the site?	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans. These elements will be discussed at a CAC meeting following the DEIR/DPIR filing.
29.31	Will design alternatives be discussed with the public and the CAC for the 39 bus? Could one of these include the use of the space between the residential towers and Clarendon Street?	Please refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
29.32	Will information be provided on producing safe, on-grade street crossings to engage life on the street, as appropriate in a vibrant urban environment?	Please refer to Section 3.5.1 for a detailed description of the Project's pedestrian realm improvements, and to Figures 3.8a-f for pedestrian realm improvement plans. Please see also Figures 3.9a-b.
29.33	Will additional information be provided to show all elevations for residential buildings?	See Figures 3.5a-c for Project elevations.
29.34	Can additional drawings be provided that show the whole buildings from the Back Bay, Dartmouth, and Clarendon Streets? The current drawing for the corner of Stuart and Dartmouth misses the top half of the building.	Please refer to Figures 3.2a-m, Figures 3.6a-p, and Figures 8.2a-j.
29.35	Can additional drawings be provided that show the view corridor both ways on Dartmouth Street, where the Stuart Street Zoning requires a setback.	Please refer to Figures 3.2a-m, Figures 3.6a-p, and Figures 8.2a-j.
29.36	Can a proposal be offered that includes all of the affordable housing on site and that includes the funds required from the 40 Trinity, as well?	The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.

Comment No.	Comment	Response to Comment
29.37	Will the public be engaged early in the process on plans concerning the publically accessible open space and the improvements to the Back Bay station?	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans. See Section 1.7 for details regarding the Proponent's outreach efforts with various stakeholders including state and city officials, community representatives and abutters. Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station renovations. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.
29.38	Can you prepare a detailed list comparing the project with Stuart Street zoning and Stuart Street guidelines and offering a detailed explanation of all requested zoning relief?	Although the Project will achieve zoning compliance through a PDA amendment, as described in the BPDA Scoping Determination, the Project is, in fact, "exemplary in its strong adherence to the Stuart Street Design Guidelines." Please refer to Sections 3.3 and 3.4 for more detail about the Project's responsiveness to the vision and planning goals established in the Stuart Street District, particularly the height and density guidelines. Please also see Section 2.2.1 for an analysis of an alternative that is strictly compliant with the dimensional guidelines of the Stuart Street District.
29.39	Can you list any potential tax relief that might be requested for the project?	The Proponent intends to develop the four Project Components using private funds, but will explore the possibility of local, state and/or federal public financing sources, where appropriate. Please refer to Section 1.9.4 for a discussion of possible public funding sources.

11

PNF Response to Comments

This chapter directly responds to BPDA Scoping Determination and public comment letters received on the PNF. Table 11-1 lists all of the persons and entities submitting comments on the PNF and Table 11-2 lists each of the substantive comments received, by letter, providing a written response to each. Where appropriate, reference is made to the corresponding section of the DEIR/DPIR for additional information. A copy of the Scoping Determination is available in Appendix C. A copy of each comment letter received by the BPDA during the public review period of the PNF is included in Appendix N.

Table 11-1 Comment Letters Received

Letter No.	Commenter
1	BPDA Scoping Determination
2	State Representatives (Byron Rushing, Aaron Michlewitz, Jay Livingstone) and Boston City Councilors (Bill Linehan, Josh Zakim)
3	Boston City Councilor District 8 – Josh Zakim
4	Boston Department of Transportation
5	Boston Disability Commission
6	Boston Water and Sewer Commission
7	Boston Department of Public Works
8	Boston Planning and Development Agency – Katie Pedersen
9	Boston Planning and Development Agency – Tim Davis
10	Boston Groundwater Trust
11	LivableStreets Alliance
12	WalkBoston
13	Hill House, Inc.
14	Bay Village Neighborhood Association – Dr. P. MacKenzie Bok
15	Bay Village Neighborhood Association – Sarah Herlihy
16	Neighborhood Association of the Back Bay
17	Ellis South End Neighborhood Association
18	Ann Beha
19	Ann Hershfang
20	Anne Devereaux
21	Anne Swanson
22	Barry Solar

23	Carla Nelson
24	Carol Card
25	Chris Hale
26	Deborah Hubert
27	Ed Tiffany
28	Elliot Guerrero
29	Elliott Laffer
30	Gerry Ives (Ives Architects)
31	Heyward Parker James
32	Jacquelin Yessian
33	John Corey
34	John Forbes-deWinter
35	Joseph Gertner
36	Kenneth Kruckemeyer
37	Lisa Newell
38	Lynn Foster
39	Martyn Roetter
40	Ned Flaherty
41	Nina Garfinkle
42	Pamela Humphrey
43	Pamela Humphrey
44	Paul Johnson
45	Paula Griswold
46	Shirley Kressel
47	Susan Gilmore
48	Susan Prindle
49	Tracy Pesanelli
50	William Clendaniel
51	Yan Medice
52	Yuri Ostrovsky
53	Robert Timmerman
54	Arts Boston
55	Boston Planning and Development Agency (BPDA) Urban Design – David Carlson
56	Interagency Green Building Committee

Table 11-2 Responses to the PNF Comments

Comment No.	Comment	Response to Comment
Letter 1	**BPDA Scoping Determination**	
1.1	An updated listing of all anticipated permits or approvals required from other municipal state or federal agencies, including a proposed application schedule shall be included in the DPIR.	Please refer to Table 1.3 in Section 1.6.4. for a list of required permits and approvals, and to Section 1.4.8 for an anticipated application schedule.
1.2	A statement on the applicability of the Massachusetts Environmental Policy Act (MEPA) should be provided. If the Proposed Project is subject to MEP A, all required documentation should be provided to the BRA including, but not limited to, a copy of the Environmental Notification Form, decisions of the secretary of Environmental Affairs, and the proposed schedule for coordination with BRA procedure.	Please refer to Section 1.6.3 for a summary of the applicability of MEPA. The ENF was previously provided during the PNF comment period. The Secretary's Certificate is attached as Appendix B. It is anticipated that the Article 80 and MEPA reviews will proceed concurrently.
1.3	The following overarching considerations inform the Boston Transportation Department's (BTD) review of the project: • Need for coordination with development projects proposed in the Stuart Street corridor which are in varying stages of design and construction.	All approved projects in the Stuart Street corridor have been included in the analyses as per BPDA, BTD and other agency direction. The Proponent has coordinated the Project's Stuart Street alignment and proposed improvements with the adjacent approved Copley Tower and 40 Trinity projects and has coordinated with the commitments and improvements documented in their respective TAPAs. Please refer to Chapter 4 for more detail and see Figures 3.8a-f for public realm plans.
1.4	• Traffic impacts on local streets generated by the ramp closure alternative.	Please refer to Sections 4.4 and 4.6 for discussion and analysis of the estimated traffic impact associated with the On-Ramp closure alternative. It should be noted that MassDOT is performing a separate analysis, an Interchange Modification Report (IMR), which further evaluates the ramp closure over a 20 year time horizon.
1.5	• Recognition of excellent transit-access to the site and consideration of "shared" traveling options.	Please refer to Section 4.3.2 for discussion of the excellent transit services at the Site, to Section 4.5.4 for the resulting mode share and to Section 4.10 for the complete transit analysis.

Comment No.	Comment	Response to Comment
1.6	• The creation of a public realm that is friendly for people walking or riding bicycles.	Please refer to Section 3.5 for a detailed description of the Project's public realm improvements and to Figures 3.8a-f for public realm improvement plans and Figures 3.9a-b for site access and circulation plans.
1.7	BTD recommend the DPIR includes: • A proposal to work with an inter-agency group, including BTD and MassDOT, to conduct a detailed "ramp alternatives" study. In addition to traffic analysis the study should include a conceptual constructability analysis, given the need to keep I-90 open and that the project will be phased.	The Proponent has and will continue to coordinate with MassDOT and BTD on the potential On-Ramp closure. Please refer to Sections 4.4 and 4.6 for discussion and analysis of the estimated traffic impact associated with the On-Ramp closure alternative. It should be noted that MassDOT is performing a separate analysis, an Interchange Modification Report (IMR), which further evaluates the ramp closure over a 20 year time horizon.
1.8	• An analysis of the impacts of traffic generated from other proposed projects in the Stuart Street corridor if the on-ramp is closed.	Please refer to Chapter 4, Transportation and Parking for discussion and analysis of current and future estimated No-Build traffic conditions associated with the On-Ramp closure. All approved projects in the Stuart Street corridor have been included in the analyses as per BPDA, MDOT, and other agency direction.
1.9	• A public realm plan for Trinity Place and St. James Avenue (between Clarendon and Dartmouth Streets) that shows how pedestrian flow, on-street parking, shuttle and tour bus parking, hotel pick-up drop-off, and Copley Square event-staging can be managed with the expected additional traffic generated by the Garage West Alternative Scheme.	Please refer to Figure 4.24 for this plan. The Proponent looks forward to discussing this further with BTD.
1.10	The Proponent has stated that Proposed Project will four buildings, the tallest of which be approximately 388 feet in height and accordingly the Proponent shall be required to conduct a quantitative (wind tunnel) analysis for both existing (no-build) and build conditions.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.

Comment No.	Comment	Response to Comment
1.11	The analysis shall determine potential pedestrian level winds adjacent to and in the vicinity of the Proposed Project site and shall identify any areas where wind velocities are expected to exceed acceptable levels, including the Boston Redevelopment Authority's guideline of an effective gust velocity of 31 miles per hour (mph) not to be exceeded more than I% of the time. The analysis also shall determine the suitability of particular locations for various activities (e.g., walking, sitting, eating, etc.) as appropriate.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.
1.12	The Proponent shall be required to pay particular attention to public and other areas of pedestrian use, including, but not limited to, entrances to the Proposed Project and adjacent buildings, sidewalks adjacent to and in the vicinity of the Proposed Project buildings as well as parks, including but not limited to the Copley Squai·e, the Southwest Corridor Park and Frieda Garcia Park, plazas and other open spaces and pedestrian areas near the Proposed Project. The Proponent shall be cognizant of the planning objectives emphasized in the Stuart Street Zoning District and in particular, in designing the buildings to be sensitive to the wind and shadow impacts on sidewalks and nearby public open spaces	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts and to Appendix I for a copy of the full pedestrian wind report. Please refer to Section 6.3 for shadow impacts on adjacent public spaces. See also Section 8.3.2 for a shadow analysis on area historic resources.
1.13	Wind speeds shall be measured in miles per hour and for areas where wind speeds are projected to be dangerous or to exceed acceptable levels, measures to reduce wind speeds and to mitigate potential adverse impact(s) shall be identified and, if appropriate, tested.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.

Comment No.	Comment	Response to Comment
1.14	With regard to the Back Bay I South End Gateway project, this significant project will have impacts to open space in an area of the City already challenged by high density and limited open space resources. BPRD respectfully requests the consideration of a community contribution to mitigate impacts to open space in the neighborhood, such as capital improvements or maintenance for Copley Square.	The Project includes the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel and the upgrading of the existing open space on Dartmouth Street with the delivery of the Station West Parcel. Please refer to Section 1.5 of the DEIR/DPIR for a summary of the Project benefits to the public realm, as well as Section 3.5.1 for the specific description of the pedestrian realm improvements to be delivered with the Project.
1.15	Moreover, the Proposed Project should meet the 'performance standard' of generally having the same or a lesser degree of environmental impacts than either the full' as-of-right' build-out or existing conditions, whichever are most impactful. That is to say, criteria such as daylight, shadows, and wind should be at least neutral or improved on average, recognizing that some elements or points may be worse, but proving that the whole is better as a Project. We will expect in fact that mitigations or positive urban benefits will result from this Project and in balance far outweigh any negative impact.	Please refer to Chapter 6, Environmental Protection of the DEIR/DPIR, which provides details on the Project-related environmental improvements and impacts as well as mitigation measures that will be taken to avoid, minimize, and/or mitigate adverse effects.
1.16	Specific shadow and wind investigations will be requested - a separate category in this scoping - to determine what the impacts are regarding Copley Square and the Southwest Corridor Park, among others. We will expect that the Proposed Project as represented in the DPIR will have taken into account any necessary mitigating factors, for scenarios with densities and heights beyond those alternatives, discovered as a result of environmental and other studies by the Proponent.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts and to Appendix I for a copy of the full pedestrian wind report. Please refer to Section 6.3 for shadow impacts on adjacent public spaces.

Comment No.	Comment	Response to Comment
1.17	DPIR design alternatives or development should bring a high degree of innovation and achieve LEED Gold at a minimum, preferably Platinum. This Project should set the bar very high for projects in the Stuart Street Study Area, and incorporate bold energy, recycling, daylight/ quality of environment, green roofs and plantings, innovative connections to the water, and transportation initiatives.	Please refer to Chapter 5 for a complete discussion on sustainable and resiliency strategies for the Project. See also Section 5.3.3 for LEED checklists and detailed narratives for each parcel. While currently at a conceptual design level, the Project expects the Garage West Parcel to achieve Gold certification and the remaining parcels to achieve Silver certification at a minimum. The Proponent is committed to improving those certification levels wherever possible. The Project will comply with Article 37 requirements by committing to certifying each parcel with the USGBC.
1.18	Before GCOD zoning approval can be put in place, the proponent must provide the Authority and the Trust a letter stamped by a professional engineer registered in Massachusetts that details how each of the four parcels will accomplish what is stated in the PNF and meets the GCOD requirement for no reduction in groundwater levels on site or on adjoining lots.	Please refer to Section 7.4.3 for a detailed description of the Project's intended compliance with the City's Groundwater Conservation Overlay District. An engineering certification will be submitted at the appropriate time.
1.19	Based on the square footage and uses outlined in the Project Notification Form, the Proposed Project will be subject to and be required to enter into a Development Impact Project ("DIP or Linkage") agreement assuming the proposed project requires zoning relief. A full analysis of square footage and uses should be submitted in the DPIR.	Comment noted. Please refer to Table 1-1 for a summary of the development program and to Section 1.5 for a summary of the public benefits provided by the Project.
1.20	The Proponent will be responsible for preparing and publishing in one more newspapers of general circulation in the City of Boston a Public Notice of the submission: of the DPIR to the BRA as required by Section 80A-2. This Public Notice shall be published within five (5) days after the receipt of the DPIR by the BRA. Therefore, public comments shall be transmitted to the BRA within seventy five (75) days of the publication of this Public Notice. Sample forms of the Public Notice are attached as Appendix D.	The Proponent will publish a public notice in one or more newspapers within 5 days of submission of the DPIR per Article 80A-2.

Comment No.	Comment	Response to Comment
1.21	Following publication of the Public Notice, the Proponent shall submit to the BRA a copy of the published Public Notice together with the date of publication.	The Proponent will submit a copy of the public notice to the BPDA.
Letter 2	**State Representatives (Byron Rushing, Aaron Michlewitz, Jay Livingstone) and Boston City Councilors (Bill Linehan, Josh Zakim)**	
2.1	As you know the station renovation and ventilation repair are not part of the Boston Redevelopment Authority's CAC process. We want to thank you for a agreeing to have the Massachusetts Department of Transportation lead a public process for the Back Bay Station redevelopment for both the interior station redesign and the repair of the ventilation system.	The Proponent thanks you for your support. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback.
2.2	Boston Properties has begun the design process for the station renovation. The designs presented are a thoughtful start to reviving the architecturally significant station. These designs will be improved with the input of the main users of the station, the daily commuters and the station's neighbors. Furthermore, many residents in the neighborhood had been involved with the 1987 development of the station, and have much to add to the design process.	The Proponent appreciates your support. Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station renovations. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback.
2.3	As we understand it, the ventilation repair design has not yet begun. It would be best to engage with the community before embarking on the design process. The adjacent neighborhoods -especially those who live along the Southwest Corridor Park -- will be directly affected by environmental impacts of the project.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station renovations. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback.

Comment No.	Comment	Response to Comment
Letter 3	**Boston City Councilor District 8 – Josh Zakim**	
3.1	I want to begin by saying that Boston Properties has done a good job of recognizing the importance of Back Bay Station as an entry point into the city, and as a connector of historic neighborhoods. Their design reflects a desire to treat the station as the important transportation hub that it is, and as a space for potential growth in our city. They have taken positive preliminary steps to address some of the management and safety concerns that have been an issue at the station up until now, and are moving forward with cosmetic changes that are much needed.	The Proponent appreciates your support.
3.2	My primary concern about this proposal is that it falls in the center of several large projects that are either underway or slated to begin in the very near future. These developments will have tremendous impacts on the neighborhood, both immediately and several years down the line. There will be significant repercussions for the neighborhood from the construction, and I want to make sure that proper steps are taken to minimize the effects on current residents.	Please refer to Section 1.4.8 for a description of the Project phases and an evaluation of phasing scenarios. Please refer to Chapter 6 for a detailed analysis of Project-related environmental impacts. The Project has included all other approved Stuart Street corridor projects in its traffic, transportation and other environmental impact studies, in an effort to provide the public a holistic view of development in the corridor.
3.3	…the sum of all of this development in the area will significantly change the flow of traffic, increase pedestrian movement, and impact the capacity of the MBTA. Boston Properties has touched on how the Back Bay/South End Gateway project will contribute to these factors, but I would like to see it addressed from a more holistic perspective, examining this project in the context of all the others in the surrounding area.	The Project has included all other approved Stuart Street corridor projects in its traffic, transportation and other environmental impact studies, in an effort to provide the public a holistic view of development in the corridor. Please refer to Chapters 4 and 6 for a complete analysis. In addition, the Project team has been closely coordinating with the 40 Trinity and Copley Tower projects and has included their streetscape improvement plans and TAPA commitments as future existing conditions for the Project.

Comment No.	Comment	Response to Comment
3.4	As the Back Bay Station renovation moves forward, I also want to make sure that Boston Properties addresses concerns with respect to wind and shadow studies, and how they impact Copley Square and the front of the Public Library. These are two issues that my office hears about regularly, and I think the neighbors would appreciate more in-depth analysis.	Please refer to Section 6.2 for a summary of the Project's pedestrian-level wind impacts, to Section 6.3 for a plan view of shadow impacts, including on adjacent public spaces, and to Section 8.3.2 for a shadow impact analysis on area historic resources.
Letter 4	**Boston Department of Transportation**	
4.1	The following overarching considerations inform the Boston Transportation Department's (BTD) review of the project: • Need for coordination with development projects proposed in the Stuart Street corridor which are in varying stages of design and construction.	All approved projects in the Stuart Street corridor have been included in the analyses as per BPDA, BTD and other agency direction. The Proponent has coordinated the Project's Stuart Street alignment and proposed improvements with the adjacent approved Copley Tower and 40 Trinity projects and has coordinated with the commitments and improvements documented in their respective TAPAs. Please refer to Chapter 4 for more detail and see Figures 3.8a-f for public realm plans.
4.2	• Traffic impacts on local streets generated by the ramp closure alternative.	Please refer to Sections 4.4 and 4.6 for discussion and analysis of the estimated traffic impact associated with the On-Ramp closure alternative. It should be noted that MassDOT is performing a separate analysis, an Interchange Modification Report (IMR), which further evaluates the ramp closure over a 20 year time horizon.
4.3	• Recognition of excellent transit-access to the site and consideration of "shared" traveling options.	Please refer to Section 4.3.2 for discussion of the excellent transit services at the Site, to Section 4.5.4 for the resulting mode share and to Section 4.10 for the complete transit analysis.
4.4	• The creation of a public realm that is friendly for people walking or riding bicycles.	Please refer to Section 3.5 for a detailed description of the Project's public realm improvements and to Figures 3.8a-f for public realm improvement plans and Figures 3.9a-b for site access and circulation plans.

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4.5	BTD recommends that the DPIR includes: • A proposal to work with an inter-agency group, including BTD and MassDOT, to conduct a detailed "ramp alternatives" study. In addition to traffic analysis the study should include a conceptual constructability analysis, given the need to keep 1-90 open and that the project will be phased.	Please refer to Sections 4.4 and 4.6 for discussion and analysis of the estimated traffic impact associated with the On-Ramp closure alternative. It should be noted that MassDOT is performing a separate analysis, an Interchange Modification Report (IMR), which further evaluates the ramp closure over a 20 year time horizon. The Proponent has and will continue to coordinate with MassDOT and BTD on the potential On-Ramp closure.
4.6	• An analysis of the impacts of traffic generated from other proposed projects in the Stuart Street corridor if the on-ramp is closed.	Please refer to Chapter 4, Transportation and Parking for discussion and analysis of current and future estimated No-Build traffic conditions associated with the On-Ramp closure. All approved projects in the Stuart Street corridor have been included in the analyses as per BPDA, MDOT, and other agency direction.
4.7	• A public realm plan for Trinity Place and St. James Avenue {between Clarendon and Dartmouth Streets) that shows how pedestrian flow, on-street parking, shuttle and tour bus parking, hotel pickup drop-off, and Copley Square event-staging can be managed with the expected additional traffic generated by the Garage West Alternative Scheme.	Please refer to Figure 4.24' for this plan. The Proponent looks forward to discussing this further with BTD.
4.8	BTD recommends that the DPIR includes: • Analysis of the impact of additional transit trips generated by the project on Orange Line capacity relative to anticipated improvements in headways for the line. The analysis should include passenger-related platform occupancy and ingress I egress load factors.	Please refer to Section 4.10.1 for a detailed analysis of the impact of Project-generated transit trips relative to the anticipated improvement in Orange Line headways and to Section 4.10.4 for an analysis of platform occupancy.
4.9	An analysis of the proposed relocation of the Route 39 bus terminus. How will transfers to the Orange Line be impacted? Where will Route 39 buses be staged to accommodate schedule adjustments?	Please refer to Section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
4.10	• A proposal to directly connect building tenants with Massport's Back Bay- Logan Airport service.	Please refer to Section 4.8.1 which included a discussion of connections with Massport's Back Bay Logan Airport Service.

Comment No.	Comment	Response to Comment
4.11	The proponent should develop a new section in the DPIR that details their strategy to: • Increase the provision of garage parking spaces for car-share service providers such as Zip Car.	Please refer to Section 4.9 for a discussion on current and future parking utilization.
4.12	• Increase the number of bike-share Hubway stations, locating new docks along Clarendon and Stuart Streets.	The Project proposes a new Hubway station on Clarendon Street with the development of the Station East Parcel. Please refer to Section 4.11 for a complete discussion of the Project's proposed bicycle accommodations and to Figure 4.22 for the proposed bicycle parking plan.
4.13	• Install an independent sheltered, secure and managed bike-parking facility for at least 350 bicycles.	Please refer to Section 4.11 for a complete discussion of the Project's proposed bicycle accommodations and to Figure 4.22 for the proposed bicycle parking plan.
4.14	• Provide dedicated pick-up/ drop-off space for taxis, shuttles, and Transportation Network Companies {TNCs) such as Uber and Lyft.	Please refer to section 3.5.3 for a discussion of On-Street Parking/Curb-Side uses, and to Figures 4.18a-b.
4.15	• Install "transit screens" that provide real-time information on the availability of the full spectrum of transportation options servicing the buildings.	Please refer to Section 4.13.2 which discusses the Proponent's commitment to provide "transit screens" at new office and residential lobbies in the Project.
4.16	To add to the proposed features the DPIR should include: • Details on the width of the pedestrian zone on crosswalks around the site. A minimum unobstructed width of 12 feet is preferred. Note that this width is in addition to the width of furniture and frontage zones.	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans.
4.17	• A design for a continuous sidewalk along Clarendon Street. Note that the garage ingress/egress curb cuts and the pull-in to the Back Bay Station should be designed to allow pedestrians on Clarendon Street to be able to continue walking safely without any diversions.	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans.

Comment No.	Comment	Response to Comment
4.18	• Designs improving pedestrian access to Stanhope Street and Frieda Garcia Park from the site.	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans.
4.19	• Detailed configuration of the Columbus Avenue - Clarendon Street intersection to provide safer and more comfortable pedestrian crossings particularly for the pedestrian desire line to Back Bay Station from the South End and Bay Village.	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans.
4.20	• A proposal to work on a joint Stuart Street streetscape plan with the other developers in the corridor.	The Proponent has coordinated the Project's Stuart Street alignment and proposed improvements with the adjacent approved Copley Tower and 40 Trinity projects and has coordinated with the commitments and improvements documented in their respective TAPAs. Please refer to Figures 3.8a-f for public realm plans.
4.21	The DPIR should include details on the following: • 5% of the total number of parking spaces should be fitted for electric vehicle charging	Please refer to Section 4.9 for a discussion on current and future parking utilization.
4.22	• Spaces set aside for car-share and vanpools should be located conveniently.	Please refer to Section 4.9 for a discussion on current and future parking utilization.
4.23	• Transit and Hubway pass subsidies should be institutionalized so that future managers of the development sites are aware of their commitments.	These commitments will be documented in one or more TAPA agreements with BTD and will encumber any potential successor or assign of the Proponent.
4.24	• Details on the expected turnover or utilization of parking spaces on an average day compared to garage utilization today.	Please refer to Section 4.9.4 for a discussion of parking occupancy and a comparison of existing and future parking space turnover.
4.25	• Description of how parking supply will vary as each phase of the project is built.	Please refer to Section 4.9 for a discussion of parking supply for office, retail and residential components of the Project. The parking supply for each phase of the Project will be based on the corresponding uses in the building associated with each phase.

Comment No.	Comment	Response to Comment
4.26	[In addition] the DPIR should include a strategy of how urban packages delivery, which has seen a huge increase in small truck trips, will be accommodated. Will companies like Amazon or grocery stores be locating local pick-up "warehouses" in the development?	Please refer to Section 4.8.2 for discussion on urban package delivery accommodations. At this time the Project does not anticipate any local pick-up "warehouses" in the development.
4.27	The DPIR should include a description of how: • The construction of the project will be coordinated with the other proposed projects in the surrounding area.	Refer to Section 4.13.4 and 6.10 for discussion on construction mitigation strategies. These will be further refined when Project timing and phasing are known with more certainty.
4.28	Analysis performed in the DPIR will lead to a Transportation Access Plan Agreement (TAPA) for the Gateway Project, which will codify the project's transportation-related elements, including mitigation items. It is expected that the proponents will enter a project wide TAPA that sets an overall framework and individual TAPAs for developments on each parcel as and when they are phased in.	The Proponent will enter into one or more TAPAs for each Project Component as required in advance of receiving a building permit. Please refer to Section 4.13.5 for more detail.
4.29	The proponents need to submit an engineered site plan within the context of the surrounding roadways at 1:20 scale depicting: - Vehicular Access and Circulation - Parking Layout and Circulation - Pedestrian Access and Circulation - Bicycle Access and Circulation - Shuttle/Van Pool Pickup and Drop-off-Transit Stops and Connections - Parking Spaces for Car Sharing services - Electric Vehicle Charging Stations - Service and Loading* - Roadways and Sidewalks - Building Layout - Bicycle Parking Locations and Types (covered, indoor, bike share, etc.) * Trash compactors/dumpsters need to be depicted as well.	Comment noted. The Proponent will submit an engineered site plan to BTD at the appropriate moment as the Project's design progresses and before receiving a building permit.

Comment No.	Comment	Response to Comment
Letter 5	**Boston Disability Commission**	
5.1	Since the proposed project is planned to be a vibrant destination area with multiple uses, including retail, commercial, housing and as a major transportation access point, I would like to encourage a scheme that allows full and equal participation of persons with disabilities through ideal design which meets as well as exceeds compliance with accessibility building code requirements. It is crucial that the site layout, buildings, open spaces, parking, and circulation routes be developed with access in mind.	Accessibility is a major design consideration in the Project. Please refer to Sections 3.1 and 3.5.5 and to Appendix J for specific details of the pedestrian accessibility improvements proposed by the Project.
5.2	We would like to request more information on accessible units within the Project, including details about the amount, location, types and floor plans.	Please refer to Section 3.5.5. It is anticipated that 5% of the units in the Garage East Parcel and Station East Parcel residential buildings will be designed to be accessible, in compliance with 521 CMR. The location of units and floor plans have not yet been determined at this early stage of design.
5.3	Will any of the accessible unit be deemed affordable? If not, please explain.	Yes, it is anticipated that some of the accessible units will be affordable.
5.4	Will the inclusionary Development Program residential units be provided on-site? If not, please indicate the location of the off-site IDP units.	The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.
5.5	Please provide more details on the proposed accessible drop-off area, including details on proposed layouts, widths, slopes, materials, areas of replacement or existing-to-remain.	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements and to Figures 3.8a-f for public realm improvement plans. As described in Section 3.5.5, the Project will significantly improve accessibility around the Project Site. Please also refer to the Accessibility checklist and plans provided in Appendix J.
5.6	How many accessible parking spaces will be provided in the remaining portion of the Garage? Please provide details on location and accessible route.	Please refer to Section 4.9 for a discussion on current and future parking utilization.

Comment No.	Comment	Response to Comment
5.7	Is there a difference in allocation of parking in terms of visitor, residential, retail and commercial {office) parking spaces? If so, please explain and provide details on amount, location and accessible route.	Please refer to Section 4.9 for a discussion on current and future parking utilization. Please also refer to the Accessibility checklist and plans provided in Appendix J.
5.8	Are roof deck entrances from the residential units flush to grade?	All thresholds within residential dwelling units will be designed to be MAAB compliant.
5.9	We support the proposed improvements to the running slopes at the Dartmouth Street/Stuart Street intersection and westerly-side of Clarendon Street, which would provide these heavily travelled portions of the Back Bay/South End more accessibility to persons of all abilities.	The Proponent appreciates your support. Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements and to Figures 3.8a-f for public realm improvement plans. As described in Section 3.5.5, the Project will significantly improve accessibility around the Project Site. Please also refer to the Accessibility checklist and plans provided in Appendix J.
5.10	We support widening the sidewalks as much as possible if sidewalk cafes are likely to be proposed in the future.	Please refer to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans.
5.11	Please confirm that the proposed realigned crosswalk through Dartmouth Street to Copley Place will be accessibly signalized with Accessible Pedestrian Signal (APS) devices.	The crosswalk will be designed to be accessible, including its signalization.
5.12	Please confirm that reconstructed pedestrian ramps will feature yellow composite tactile warning panels cast in concrete, per City of Boston Complete Street Standards.	Reconstructed pedestrian ramps will be designed to meet City standards.
5.13	What is the timeline for the improvements proposed within the Project Scope?	Please refer to Section 1.4.8 for a description of the Project phases and an evaluation of phasing scenarios.
5.14	What is the timeline for the separate Dartmouth Street Station Entrance Project and the associated proposed hardscape and streetscape improvements?	Please refer to Section 1.4.8 for a description of the Project phases and an evaluation of phasing scenarios. Please also refer to Section 3.5.1 for a description of public realm improvements by Project Component and to Figures 3.8a-f for public realm improvement plans by Project Component.

Comment No.	Comment	Response to Comment
5.15	Do you anticipate any portion of the Project going through the Public Improvement Commission? If so, please identify and provide details.	Yes, please refer to Table 1.3 in Section 1.6.4. for a summary of anticipated permits and approvals.
5.16	Accessibility extends past compliance through building code requirements. For example, by providing employment opportunities and an overall scheme that allows full and equal participation of persons with disabilities, makes the development an asset to the surrounding community. What opportunities (ex. employment, community support, social) will the development provide for persons with disabilities?	Accessibility is a major design consideration in the Project. The Proponent is open to discussing other strategies related to participation of persons with disabilities.
5.17	Do you have a Wayfinding Package to better understand wayfinding strategies within the scope of the proposed project?	Wayfinding throughout the Project Site will be incorporated as the Project's design progresses with the goal of being accessible and legible. Please refer to Appendix E for details on wayfinding for the separate Station Concourse Improvements Project.
5.18	Do you anticipate filing for any variances with the Massachusetts Architectural Access Board? If so, please identify and explain.	Please refer to Table 1.3 in Section 1.6.4 for a summary of anticipated permits and approvals. The Project is too early in its design to list specific MAAB variances that may be sought at this time.
5.19	The Mayor's Commission for Persons with Disabilities supports barrier-free design and construction in all buildings throughout Boston, including renovation projects as well as new structures. We work with City departments and developers to ensure compliance with local, state, and federal building codes including Boston Complete Streets, Massachusetts Architectural Access Board (MGL, 521 CMR) and the Americans with Disabilities Act (ADAAG, 28 CFR). Designing or constructing structures that are non-compliant with these requirements is a violation of the law unless it can be demonstrated that it would be structurally infeasible to do so.	Accessibility is a major design consideration in the Project. Please refer to Sections 3.1 and 3.5.5 and to Appendix J for specific details of the pedestrian accessibility improvements proposed by the Project. The Proponent intends to comply with all applicable codes as required.

Comment No.	Comment	Response to Comment
Letter 6	**Boston Water and Sewer Commission**	
6.1	Prior to demolition of any buildings, all water, sewer and storm drain connections to the buildings must be cut and capped at the main pipe in accordance with the Commission's requirements. The proponent must then complete a Termination Verification Approval Form for a Demolition Permit, available from the Commission and submit the completed form to the City of Boston's inspectional Services Department before a demolition permit will be issued.	Noted, please refer to Section 7.1 for more details related to the Project's Site Plan Approval process which will be coordinated with BWSC for each Project Component prior to construction commencement.
6.2	All new or relocated water mains, sewers and storm drains must be designed and constructed at BP Hancock LLC's expense. They must be designed and constructed in conformance with the Commission's design standards, Water Distribution System and Sewer Use Regulations, and Requirements for Site Plans.	Noted, please refer to Section 7.1 for more details related to the Project's Site Plan Approval process which will be coordinated with BWSC for each Project Component prior to construction commencement.
6.3	To assure compliance with the Commission's requirements, the proponent must submit a site plan and a General Service Application to the Commission's Engineering Customer Service Department for review and approval when the design of the new water and wastewater systems and the proposed service connections to those systems are 50 percent complete. The site plan should include the locations of new, relocated and existing water mains, sewers and drains which serve the site, proposed service connections as well as water meter locations.	Noted, please refer to Section 7.1 for more details related to the Project's Site Plan Approval process which will be coordinated with BWSC for each Project Component prior to construction commencement.
6.4	The Commission supports the policy, and will require proponent to develop a consistent inflow reduction plan. The 4: 1 requirement should be addressed at least 90 days prior to activation of water service and will be based on the estimated sewage generation provided on the project site plan.	As described in Section 7.5.4, the Proponent will comply with this requirement and develop an I/I mitigation plan in coordination with BWSC.

Comment No.	Comment	Response to Comment
6.5	The proponent must develop a maintenance plan for the proposed green infrastructure.	Please refer to Section 7.4 for a discussion of the Project's stormwater management and groundwater recharge plans and compliance with MassDEP Stormwater Management Standards. An Operations and Maintenance Plan (O&M Plan), including long-term BMP operation requirements, will be prepared for the Project to ensure proper maintenance and functioning of the proposed stormwater management system.
6.6	A copy of the description and any related site plans must be provided to the Commission's Engineering Customer Service Department for review before masonry repair and cleaning commences. BP Hancock LLC is advised that the Commission may impose additional conditions and requirements before permitting the discharge of the treated wash water to enter the sewer or drainage system.	Noted, please refer to Section 7.1 for more details related to the Project's Site Plan Approval process which will be coordinated with BWSC for each Project Component prior to construction commencement.
6.7	BP Hancock LLC should be aware that the US Environmental Protection Agency issued the Remediation General Permit (RGP) for Groundwater Remediation, Contaminated Construction Dewatering, and Miscellaneous Surface Water Discharges. If groundwater contaminated with petroleum products, for example, is encountered, BP Hancock LLC will be required to apply for a RGP to cover these discharges.	Noted. Please refer to Section 6.10.2.
6.8	The project sites are located within Boston's Groundwater Conservation Overlay District (GCOD). The district is intended to promote the restoration of groundwater and reduce the impact of surface runoff. Projects constructed within the GCOD are required to include provisions for retaining storm water and directing the storm water to the groundwater table for recharge.	Please refer to Section 7.4.3 for a detailed description of the Project's intended compliance with the City's Groundwater Conservation Overlay District.

Comment No.	Comment	Response to Comment
6.9	BP Hancock LLC is advised that the Commission will not allow buildings to be constructed over any of its water lines. Also, any plans to build over Commission sewer facilities are subject to review and approval by the Commission. The project must be designed so that access, including vehicular access, to the Commission's water and sewer lines for the purpose of operation and maintenance is not inhibited.	Noted. Please refer to Section 7.4.1 and 7.5.1 for a description of existing water, sewer and storm drain systems serving the Project Site.
6.10	It is BP Hancock LLC's responsibility to evaluate the capacity of the water, sewer and storm drain systems serving the project site to determine if the systems are adequate to meet future project demands. With the site plan, BP Hancock LLC must include a detailed capacity analysis for the water, sewer and storm drain systems serving the project site, as well as an analysis of the impacts the proposed project will have on the Commission's water, sewer and storm drainage systems.	Noted, please refer to Section 7.4.1 and 7.5.1 for a description of existing water, sewer and storm drain systems serving the Project Site. A detailed capacity analysis will be provided as the Project's design advances.
6.11	BP Hancock LLC must provide separate estimates of peak and continuous maximum water demand for residential, commercial, industrial, irrigation of landscaped areas, and air-conditioning make-up water for the project with the site plan. Estimates should be based on full-site build-out of the proposed project. BP Hancock LLC should also provide the methodology used to estimate water demand for the proposed project.	Please refer to Section 7.6.2 for a summary of proposed water demand.
6.12	BP Hancock LLC should explore opportunities for implementing water conservation measures in addition to those required by the State Plumbing Code. In particular, BP Hancock LLC should consider outdoor landscaping which requires minimal use of water to maintain. If BP Hancock LLC plans to install in-ground sprinkler systems, the Commission recommends that timers, soil moisture indicators and rainfall sensors be installed. The use of sensor-operated faucets and toilets in common areas of buildings should be considered.	Please refer to Section 7.6.4 for a summary of proposed conservation measures. In particular, the Proponent will consider outdoor landscaping which requires minimal use of water to maintain.

Comment No.	Comment	Response to Comment
6.13	BP Hancock LLC is required to obtain a Hydrant Permit for use of any hydrant during the construction phase of this project. The water used from the hydrant must be metered. BP Hancock LLC should contact the Commission's Meter Department for information on and to obtain a Hydrant Permit.	Noted, the Proponent will obtain a Hydrant Permit for use of any hydrant during the construction phase of the Project.
6.14	The Commission is utilizing a Fixed Radio Meter Reading System to obtain water meter readings. For new water meters, the Commission will provide a Meter Transmitter Unit (MTU) and connect the device to the meter. For information regarding the installation of MTUs, BP Hancock LLC should contact the Commission's Meter Department.	The Proponent will contact the Commission's Meter Department as recommended, and coordinate approvals and agency review as the Project moves into the site plan approval phase.
6.15	To accomplish the necessary reductions in phosphorus, the Commission is requiring developers in the lower Charles River watershed to infiltrate storm water discharging from impervious areas in compliance with MassDEP. BP Hancock LLC will be required to submit with the site plan a phosphorus reduction plan for the proposed development. BP Hancock LLC must fully investigate methods for retaining storm water on-site before the Commission will consider a request to discharge storm water to the Commission's system. The site plan should indicate how storm drainage from roof drains will be handled and the feasibility of retaining their storm water discharge on-site. Under no circumstances will storm water be allowed to discharge to a sanitary sewer.	As detailed in Section 7.1, The Proponent will submit with the Site Plan a phosphorus reduction plan for the proposed development. The Site Plan will indicate how storm drainage from roof drains will be handled and the feasibility of retaining stormwater discharge on-site. No stormwater will be discharged to a sanitary sewer system.

Comment No.	Comment	Response to Comment
6.16	In conjunction with the Site Plan and the General Service Application BP Hancock LLC will be required to submit a Stormwater Pollution Prevention Plan. The plan must: • Identify best management practices for controlling erosion and for preventing the discharge of sediment and contaminated groundwater or storm water runoff to the Commission's drainage system when the construction is underway.	As described in Section 7.4, the Proponent will submit a Stormwater Pollution Prevention Plan that includes a stormwater management plan in compliance with MassDEP Stormwater Management Standards.
6.17	*In conjunction with the Site Plan and the General Service Application BP Hancock LLC will be required to submit a Stormwater Pollution Prevention Plan. The plan must: (cont.)* • Include a site map which shows, at a minimum, existing drainage patterns and areas used for storage or treatment of contaminated soils, groundwater or storm water, and the location of major control or treatment structures to be utilized during construction.	Please refer to Section 7.4 for a discussion of the Project's stormwater management and groundwater recharge plans. As described in Section 7.4, the Proponent will submit a Stormwater Pollution Prevention Plan that includes a stormwater management plan in compliance with MassDEP Stormwater Management Standards.
6.18	*In conjunction with the Site Plan and the General Service Application BP Hancock LLC will be required to submit a Stormwater Pollution Prevention Plan. The plan must: (cont.)* • Provide a storm water management plan in compliance with the DEP standards mentioned above. The plan should include a description of the measures to control pollutants after construction is completed.	As described in Section 7.4, the Proponent will submit a Stormwater Pollution Prevention Plan that includes a stormwater management plan in compliance with MassDEP Stormwater Management Standards.

Comment No.	Comment	Response to Comment
6.19	Developers of projects involving disturbances of land of one acre or more will be required to obtain an NPDES General Permit for Construction from the Environmental Protection Agency and the Massachusetts Department of Environmental Protection. BP Hancock LLC is responsible for determining if such a permit is required and for obtaining the permit. If such a permit is required, it is required that a copy of the permit and any pollution prevention plan prepared pursuant to the permit be provided to the Commission's Engineering Services Department, prior to the commencement of construction. The pollution prevention plan submitted pursuant to a NPDES Permit may be submitted in place of the pollution prevention plan required by the Commission provided the Plan addresses the same components identified in item 1 above.	Prior to the commencement of construction, the Project will obtain a NPDES General Permit for Construction from the EPA and MassDEP and submit a Stormwater Pollution Prevention Plan that includes a stormwater management plan in compliance with MassDEP Stormwater Management Standards. Please refer to Section 7.4.4 for additional details.
6.20	The Commission encourages BP Hancock LLC to explore additional opportunities for protecting storm water quality on site by minimizing sanding and the use of deicing chemicals, pesticides, and fertilizers.	Comment noted. The Proponent currently engages in green operational practices related to protecting stormwater quality, some examples of which are listed below: • Organic treatments for landscaping and pest control • No or low-levels of sodium based deicers for snow/ice removal – Calcium Magnesium Acetate (CMA), an alternative to sodium chloride (aka rock salt), is non-tracking, safer to handle, and less harmful to vegetation, lobby flooring, metals, leather footwear and animal paws. • Regular Inspection, cleaning and maintenance of storm water infrastructure, catch basins, outlets, rip wrap structures, detention ponds, swales, and water quality inlets • Frequent sweeping and removal of sand and debris from sites • Restrictions related to storage of sand on sites and location of snow piles • Recordkeeping and reporting

Comment No.	Comment	Response to Comment
6.21	The discharge of dewatering drainage to a sanitary sewer is prohibited by the Commission. BP Hancock LLC is advised that the discharge of any dewatering drainage to the storm drainage system requires a Drainage Discharge Permit from the Commission. If the dewatering drainage is contaminated with petroleum products, BP Hancock LLC will be required to obtain a Remediation General Permit from the Environmental Protection Agency (EPA) for the discharge.	Noted, all code and applicable laws and regulations will be followed and permits obtained as necessary. Please refer to Section 6.10.1 through 6.10.2 of potential dewatering during construction.
6.22	BP Hancock LLC must fully investigate methods for retaining storm water on-site before the Commission will consider a request to discharge storm water to the Commission's system. The site plan should indicate how storm drainage from roof drains will be handled and the feasibility of retaining their storm water discharge on-site. Under no circumstances will storm water be allowed to discharge to a sanitary sewer.	Please refer to Section 7.1 for more details related to the Project's Site Plan Approval process which will be coordinated with BWSC for each Project Component prior to construction commencement. The Site Plan will indicate how storm drainage from roof drains will be handled and the feasibility of retaining stormwater discharge on-site. No stormwater will be discharged to a sanitary sewer system.
6.23	In addition to Commission standards BP Hancock LLC will be required to meet MassDEP Stormwater Management Standards.	As described in Section 7.4, the Proponent will submit a Stormwater Pollution Prevention Plan that includes a stormwater management plan in compliance with MassDEP Stormwater Management Standards.
6.24	Sanitary sewage must be kept separate from storm water and separate sanitary sewer and storm drain service connections must be provided. The Commission requires that existing storm water and sanitary sewer service connections, which are to be re-used by the proposed project, be dye tested to confirm they are connected to the appropriate system.	The Proponent will submit a Site Plan and a General Service Application to the BWSC Engineering Customer Service Department for review and approval. The Site Plan will indicate how storm drainage from roof drains will be handled and the feasibility of retaining stormwater discharge on-site. No stormwater will be discharged to the sanitary sewer system. Please refer to Chapter 7 for more details related to the proposed infrastructure systems that will support the Project.
6.25	BP Hancock LLC should contact the Commission's Operations Division for information regarding the purchase of the castings.	Comment noted. The Proponent will contact the Commission's Operations Division as requested as the Project's design develops further.

Comment No.	Comment	Response to Comment
6.26	If a cafeteria or food service facility is built as part of this project, grease traps will be required in accordance with the Commission's Sewer Use Regulations. BP Hancock LLC is advised to consult with the Commission's operations Department with regards to grease traps.	Noted, all code and applicable laws and regulations will be followed and the Commission will be consulted as necessary.
6.27	The enclosed floors of a parking garage must drain through oil separators into the sewer system in accordance with the Commission's Sewer Use Regulations.	Noted, all code and applicable laws and regulations will be followed and the Commission will be consulted as necessary.
Letter 7	**Boston Department of Public Works**	
7.1	…they may need to grant pedestrian easements to comply with our required 5' minimum path of travel. All non-standard sidewalk installations, such as landscaping and specialty pavement, will require a license, maintenance, & indemnification (LMI) agreement. This specifies that they're responsible for these materials. I think the rest of what they're doing is pretty typical from Pl C's perspective.	Please refer to Table 1.3 in Section 1.6.4 for a summary of anticipated permits and approvals. The Proponent does anticipate PIC approval will be sought and that related easements and agreements will be executed.
Letter 8	**Boston Planning and Development Agency – Katie Pedersen**	
8.1	The Proponent has stated that Proposed Project will four buildings, the tallest of which be approximately 388 feet in height and accordingly the Proponent shall be required to conduct a quantitative (wind tunnel) analysis for both existing (no-build) and build conditions.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.
8.2	The analysis shall determine potential pedestrian level winds adjacent to and in the vicinity of the Proposed Project site and shall identify any areas where wind velocities are expected to exceed acceptable levels, including the Boston Redevelopment Authority's guideline of an effective gust velocity of 31 miles per hour (mph) not to be exceeded more than 1 % of the time.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.

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8.3	The analysis also shall determine the suitability of particular locations for various activities (e.g., walking, sitting, eating, etc.) as appropriate.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.
8.4	The Proponent shall be required to pay particular attention to public and other areas of pedestrian use, including, but not limited to, entrances to the Proposed Project and adjacent buildings, sidewalks adjacent to and in the vicinity of the Proposed Project buildings as well as parks, including but not limited to the Copley Square, the Southwest Corridor Park and Frieda Garcia Park, plazas and other open spaces and pedestrian areas near the Proposed Project.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.
8.5	The Proponent shall be cognizant of the planning objectives emphasized in the Stuart Street Zoning District and in particular, in designing the buildings to be sensitive to the wind and shadow impacts on sidewalks and nearby public open spaces	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts and to Appendix I for a copy of the full pedestrian wind report. Please refer to Section 6.3 for shadow impacts on adjacent public spaces.
8.6	Wind speeds shall be measured in miles per hour and for areas where wind speeds are projected to be dangerous or to exceed acceptable levels, measures to reduce wind speeds and to mitigate potential adverse impact(s) shall be identified and, if appropriate, tested.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.
8.7	The Proponent shall be required to conduct a solar glare analysis. The analysis shall measure potential reflective glare from the Proposed Project onto potentially affected streets and public open spaces and sidewalk areas in order to determine the likelihood of visual impairment or discomfort due to reflective spot glare. Mitigation measures to eliminate any adverse reflective glare shall be identified.	Please refer to Section 6.5 for the results of the Solar Glare analysis. A total of thirteen (13) locations were examined.

Comment No.	Comment	Response to Comment
8.8	The Proponent shall be required to conduct an evaluation of the Proposed Project's impact on local and regional air quality from a significant stationary and perform a microscale analysis, which shall predict localized carbon monoxide concentrations, including identification of any locations projected to exceed the National or Massachusetts Ambient Air Quality Standards.	Please refer to Sections 5.4 and 6.6 for GHG and Air Quality analyses, respectively. Appendix H also provides additional supporting documentation related to air quality.
8.9	The Proponent shall be required to perform a mesoscale analysis, which shall predict the change in regional emissions of volatile organic compounds ("VO Cs") and nitrogen oxides ("NOx") should be performed for projects that generate more than 10,000 vehicle trips per day. The above analyses shall be conducted in accordance with the modeling protocols established by the Massachusetts Department of Environmental Protection ("DEP") and the U.S. Environmental Protection Agency ("EPA").	Please refer to Section 6.6.2 for the results of the microscale air quality analysis and Sections 5.4.5 and 6.6.3 for the results of the mesoscale air quality analysis. Appendix H also provides additional supporting documentation related to air quality.
8.10	In addition, carbon monoxide monitors shall be installed in all enclosed parking facilities and a description of the proposed ventilation system must be provided. Building/garage air intake and exhaust systems and specifications and an analysis of the impact of exhausts on pedestrians and any sensitive receptors must be identified and described.	Please refer to Section 6.6.2 for the results of the microscale air quality analysis and Sections 5.4.5 and 6.6.3 for the results of the mesoscale air quality analysis. Appendix H also provides additional supporting documentation related to air quality. The Project will not cause or contribute to an exceedance of the National Ambient Air Quality Standards. Carbon monoxide monitors will be installed in all enclosed parking facilities.
8.11	Finally, mitigation measures required to minimize or avoid any violation of state or federal ambient air quality standards must be described.	Please refer to Section 6.6.2 for the results of the microscale air quality analysis and Sections 5.4.5 and 6.6.3 for the results of the mesoscale air quality analysis. Appendix H also provides additional supporting documentation related to air quality. The Project will not cause or contribute to an exceedance of the National Ambient Air Quality Standards.

Comment No.	Comment	Response to Comment
8.12	Noise impacts from the Proposed Project must be analyzed, including rooftop mechanical equipment and other noise sources (e.g., emergency generators), and a determination made of compliance with City of Boston noise regulations and applicable state and federal regulations and guidelines.	Please refer to Section 6.7 for results of the noise analysis.
8.13	Proponent shall be required to evaluate to determine conformance with the Interior Design Noise Level (not to exceed day night average sound level of 45 decibels) established by the U.S. Department of Housing and Urban Development (24 CFR Part 51, Subpart B). If deemed necessary, mitigation measures to reduce excessive noise levels to acceptable limits must be described.	Please refer to Section 6.7 for results of the noise analysis.
Letter 9	**Boston Planning and Development Agency – Katie Pedersen**	
9.1	[The proponent] makes a very broad statement about providing affordable housing and does not clearly indicate whether the units at the site will be rental, homeownership, or a combination. I would like to see the proponent flesh out what they are proposing, given that our preference, especially for rentals, is that the IDP units are placed on site (in this case, 78).	The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.
9.2	For a rental property, both the contribution and off-site options would require approval from the BRA Board, only after a feasibility analysis is completed, with an eye towards providing a similar or superior affordable housing outcome as on-site. Homeownership projects in this neighborhood have more flexibility in terms of what they can do "as of right" to meet their IDP obligations. In either case, it is important that the developer more fully explains its housing and IDP plans, not only for appropriate review by BRA staff and board, but for review by the South End, Back Bay, and Bay Village neighborhoods.	The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.

Comment No.	Comment	Response to Comment
Letter 10	**Boston Groundwater Trust**	
10.1	Before the GCOD zoning approval can be put in place, the proponent must provide the Authority and the Trust a letter stamped by a professional engineer registered in Massachusetts that details how each of the four parcels will accomplish what is stated in the PNF and meets the GCOD requirement for no reduction in groundwater levels on site or on adjoining lots.	Please refer to Section 7.4.3 for a detailed description of the Project's intended compliance with the City's Groundwater Conservation Overlay District. An engineering certification will be submitted at the appropriate time.
10.2	The groundwater level data should be furnished to the Trust and the Authority on a weekly basis.	The Proponent will prepare and submit for approval a Groundwater Monitoring Plan which will outline frequency and reporting of groundwater levels prior to, during, and post-construction, at the appropriate time before the Project commences.
10.3	In the event that groundwater levels drop below the observed preconstruction baseline levels during construction, provisions must be in place to halt construction and dewatering until the cause is found and remedied.	The Proponent will prepare and submit for approval a Groundwater Monitoring Plan which will outline frequency and reporting of groundwater levels prior to, during, and post-construction, at the appropriate time before the Project commences.
10.4	Reporting of the groundwater level data and provisions to halt construction and dewatering if groundwater levels outside the project site drop below baseline levels should mirror the plan developed by the projects Engineer for the 888 Boylston Street project.	The Proponent will prepare and submit for approval a Groundwater Monitoring Plan which will outline frequency and reporting of groundwater levels prior to, during, and post-construction, at the appropriate time before the Project commences.
Letter 11	**LivableStreets Alliance**	
11.1	We appreciate that the developer is looking to create a people-oriented place both inside and outside.	The Proponent thanks you for your support.

Comment No.	Comment	Response to Comment
11.2	Back Bay Station renovations must properly serve current and future volumes of riders and visitors. T ridership has been going up and will continue to do so, especially as the T and Amtrak add additional service. The proposed station design gives up a lot of public space to retail, and also lacks clear open lanes of travel for people heading to and from the various points within the station. We are very concerned that people using the station will be squeezed into spaces that are too small or too obstructed, creating bottlenecks and commuter frustration.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Section 4.10 for a detailed transit capacity analysis.
11.3	In particular, we are concerned that riders entering and exiting the station through the main entrance will be in conflict with those patrons waiting in the new waiting area in the main hall.	Please refer to Section 1.1.1 and Appendix E of the DEIR/DPIR for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.
11.4	We are also concerned that the proposed configuration of the fare gates to the Orange Line will not function well, particularly the ones adjacent to elevator access. Please ensure that there is no reduction in space for passengers waiting in the main level of the station and that as little impact as possible is made to the train platforms themselves.	Please refer to Section 1.1.1 and Appendix E of the DEIR/DPIR for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.
11.5	All public entry doors into the station should be converted to motion sensing hinge or slider doors. These types of doors will best serve people in wheelchairs, with strollers, with luggage, etc.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements.
11.6	The developer should install one additional elevator to each platform {Orange Line, Commuter Rail #2, Commuter Rail #1 & #3, Commuter Rail #5 & #7) prior to or during the initial tower development as requested by the community and the MBT A. These are very important for providing redundant access for when one of the existing elevators breaks down.	The Project will add a redundant elevator to the Orange Line with the delivery of the Station East Parcel and is studying the feasibility of adding redundant elevators to Tracks 1/3 and 2 at the head house on the south side of Columbus Avenue with the delivery of the Station East Parcel.

Comment No.	Comment	Response to Comment
11.7	Add wayfinding signage inside and outside the station to help guide passengers to the various transportation connections and other major destinations in the area.	Please refer to Section 1.1.1 and Appendix E of the DEIR/DPIR for a detailed description of the Station Concourse Improvements, including wayfinding.
11.8	Please consider providing a subsidized space for a bicycle repair shop connected to the larger planned bicycle parking area.	The Proponent will consider this suggestion as the Project design develops. Please refer to section 4.11 for details on proposed bicycle infrastructure to be provided.
11.9	Given Boston's renewed efforts to promote public artwork, the developer should provide a comprehensive public artwork plan that protects existing historical panels, plaques, and sculptures within Back Bay Station and commissions either the replacement of the lost neon artwork or other visual sculptural artwork to adorn the station arches and entries. We are significantly discouraged by the developers' removal and disposal of all of the neon artwork inside and outside of Back Bay Station instead of restoring the artwork.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, including a description of the public art strategy to be implemented.
11.10	Sidewalk widths around the station must be generous enough to properly serve the large and increasing numbers of people who access the station, retail, or future development.	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans.
11.11	In addition, planters should be very carefully located as to not block access for people getting into and out of vehicles at the curbside.	Please refer to Section 3.5.1 for a detailed description of the Project's public realm and streetscape improvements, and to Figures 3.8a-f for public realm improvement plans. Please refer to section 3.5.3 for a discussion of On-Street Parking/Curb-Side uses, and to Figures 4.18a-b.
11.12	There should be no garage exit on Dartmouth St., Dartmouth St is the main pedestrian gateway to the station.	The Proponent has provided a Base and Alternate Scheme for the Garage West Parcel to address the potential On-Ramp closure by MassDOT, which impacts the new Garage exit location. Please refer to Section 3.4.1 for a detailed description of the two alternatives.

Comment No.	Comment	Response to Comment
11.13	Make the crosswalk across Dartmouth St between the station entrance and Southwest Corridor Park as wide as possible. This is a very heavy desire line and a very heavily used crossing, and currently pedestrians and bicyclists must often squeeze between the break in the median or step over it. If necessary, install a bollard or two in the median break to prevent illegal vehicular U-turns. Also please ensure that the walk signal is automatic and that the wait for the walk signal is short (no more than 30 seconds.)	The Proponent is proposing a significantly larger crosswalk at this location with the delivery of the Station West Parcel. Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements and to Figures 3.8a-f for pedestrian realm improvement plans.
11.14	A replacement pedestrian overhang should be added to the project. Currently, the overhang along Dartmouth St between Stuart St and the main station entrance as well as along part of Stuart St serves as a way for pedestrians to escape rain and snow. That overhang will be eliminated in the current plans. Please add some kind of overhang or architectural element that would serve the same function as the current one.	In lieu of dark and dreary arcades, the Project offers new weather-protected through block connectors from both Stuart and Clarendon Streets into the Station. Please refer to Section 3.4 for a detailed description of these public goods and their phasing.
11.15	Look for ways to minimize the impact of the pull-out for cars on Clarendon St. For example, please design it to be flush with the sidewalk using the same material as the sidewalk. Use bollards instead of curbs to keep cars out of areas they should be not in. This is another heavily used entrance to the station, and pedestrians must have priority here. Please be very respectful of pedestrian desire lines, and do not put obstacles or cars in the way of these lines.	Pedestrians are given priority in the streetscape design of the Project Site. Flush curbs, bollards and tactile paving's are employed in appropriate locations. Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements and to Figures 3.8a-f for pedestrian realm improvement plans.
11.16	MBTA bus stops must be carefully located as to be convenient for riders and should not hinder bus operations. In particular, the Route 39 bus currently uses the bus turnaround to store extra buses during much of the day to help keep on schedule. Space for bus layovers must be found since this turnaround is going away.	Please refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.

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11.17	To keep sidewalk widths wide, to create room for bus shelters, and to make it easier for buses to maneuver, it may be desirable to have some bus stops not include bus pull-outs, and instead have buses stop in the travel lane.	Please refer to section 3.5.3 for a discussion of On-Street Parking/Curb-Side uses, and to Figures 4.18a-b.
11.18	All streets affected by this project should have bike facilities added, as specified in the 30 Year Boston Bike Network Plan, including protected lanes on Dartmouth St and a striped bike lane on Stuart St. Clarendon St should also receive at minimum a striped bike lane. This project could also set the stage for two-way bike traffic on Dartmouth St between the Charles River Esplanade and the Southwest Corridor, a highly desirable route which the City has expressed interest in making two-way for bikes.	Please refer to Section 4.11 for a complete discussion of the Project's proposed bicycle accommodations and to Figure 4.22 for details on proposed bicycle parking and infrastructure improvements.
11.19	Coordinate with the City of Boston to find a good location for the food trucks that currently locate at Trinity Pl and Stuart St, whether it is the same location or one nearby. Perhaps it would be possible to find a space where adjacent outdoor seating can be provided as well.	The Proponent looks forward to working with the City of Boston to find an appropriate location for food trucks. Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements and to Figures 3.8a-f for public realm improvement plans.
11.20	Carefully plan and sign curbside regulations for taxi/Uber/Lyft, private car drop-offs, and bus stops on all affected streets. Currently, many people double park on Dartmouth St in the northbound direction, and illegally park along the curb in the southbound direction. Also, please ensure that any new planting boxes and street furniture do not inhibit loading and unloading activities.	Please refer to Section 3.5.3 for a discussion of On-Street Parking/Curb-Side uses, and to Figures 4.18a-b.
11.21	The BRA should work with both Boston Properties and Copley Simon to provide elevator access from the Dartmouth Street underpass up to the main Copley Mall level.	This property is owned by the Simon Property Group and not within the Proponent's control. To improve accessibility across Dartmouth Street, the Proponent is proposing an enlarged at grade crosswalk in front of the existing Station entrance with the delivery of the Station West Parcel. Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements and to Figures 3.8a-f for pedestrian realm improvement plans.

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11.22	Please require the developer to provide affordable housing on-site, so that people of many income levels will be able to afford to live there.	The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.
11.23	Finally, we thank you for the elements of the design which appear to be well on the right track, including: • Using low parking ratios when determining how much parking is needed, so that new car trips generated by the project are minimized • Preserving and expanding indoor bike parking in the station • Creating an additional entrance to the station from Stuart St/Trinity Pl • Introducing new trees and plantings along the streets where there are very little today	The Proponent thanks you for your support.
Letter 12	**WalkBoston**	
12.1	We are very interested in this project, which is superbly located to be served by public transportation, walking and biking. However, we have concerns about pedestrian access into, through and around the site which we would like to see addressed in the next project submissions.	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Figures 3.8a-f for public realm improvement plans and to Figures 3.9a-b for site circulation and access plans. Please see also Section 4.12 for an analysis of pedestrian access and circulation.
12.2	This bus route [#39] is too important to the MBTA system and its many riders to shift the layover site to another location which could lead to a major change in the frequency of bus service. A layover location must be found nearby.	Please refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
12.3	The MassDOT Design Guide calls for sidewalks in busy downtown areas of cities to be between 12 and 20 feet in width. These guidelines should be generously incorporated into the planning for this project. The City's Complete Streets Guideline Manual suggests that 8 feet is a minimum but prefers a width of ten feet.	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, and to Figures 3.8a-f for public realm improvement plans. As described in Section 3.5.4, throughout the Project Site, the proposed pedestrian realm improvements meet or exceed BTD's Complete Streets Guidelines for Downtown Commercial Zone minimum streetscape dimensions.

Comment No.	Comment	Response to Comment
12.4	The plan calls for a portion of the Dartmouth Street frontage to be as narrow as 8 feet at one point, and 13 feet otherwise. The 8′ foot width, which appears along a planned ADA ramp into the first-floor retail area, is not adequate for this location. Perhaps this width could be expanded by moving the ADA ramp into the retail area of the building or by selectively eliminating portions of the drop-off/taxi lane which extends from the station entrance to Stuart Street. Alternatively, perhaps a thoughtful reduction of the number of trees and their placement might be appropriate to widen the clear width of the walkway.	The Project's sidewalk dimensions have been revised in the DEIR/DPIR. Please refer to Section 3.5.1 and Figures 3.8a-f for a specific description of the pedestrian realm and circulation improvements and to Section 3.5.5 for a summary of pedestrian accessibility improvements. As described in Section 3.5.4, throughout the Project Site, the proposed pedestrian realm improvements meet or exceed BTD's Complete Streets Guidelines for Downtown Commercial Zone minimum streetscape dimensions.
12.5	The proposed exit ramp onto Dartmouth Street is deeply consequential for pedestrian traffic. It is difficult to imagine a more inappropriate design than the insertion of a major vehicular exit from the garage onto the Dartmouth Street sidewalk, the primary pedestrian access route to and from Back Bay Station. Certainly there must be a better place to provide a garage exit than this, possibly by retaining one of the drums could be retained for exiting traffic directly onto Trinity Place.	As described in Section 3.4.1, a new Garage exit on Dartmouth Street is necessary under the Base Scheme, where the On-Ramp remains open. The Proponent has provided pedestrian and vehicle mitigation measures at the proposed exit. Please refer to Section 3.4.1 for a discussion of an alternative internal exit ramp and to Figures 3.3s-u for plans. Please note this alternative is not being pursued as it eliminates the possibility for a through-block connector from Stuart Street, the retail space at the corner of Stuart Street and Trinity Place and compromises the Garage West building's loading dock.
12.6	The relocation or shrinking of the passenger concourses and repurposing the space occupied by the old ones raises a concern as to whether the new routes are sufficiently wide to handle projected growth in passenger volumes. Although it is uncertain what projections of passenger volumes might show, according to the project proponent, the station already handles 30,000 passengers per day. The MBTA currently maintains there are 36,000 Orange Line passengers here, plus 17,000 commuter rail passengers. Amtrak may constitute an additional 2000 passengers. <u>New projections of traffic should be undertaken to determine likely future volumes of people using the station.</u>	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Section 4.10 for a detailed transit capacity analysis.

Comment No.	Comment	Response to Comment
12.7	With the knowledge of the likely future traffic of patrons of the Orange Line, the commuter rail lines and Amtrak, the plan must provide good access to and egress from the following locations: • The Dartmouth Street entrance • The Orange Line station (two stairways, escalators, one elevator) • The underpass beneath Dartmouth Street to the Copley Place mall (one stairway) • The commuter and Amtrak rail lines west toward Worcester and ultimately Chicago (two stairways, one elevator) serving 15 stations and communities • The commuter and Amtrak rail lines that generally go south and follow the east coast to Providence, New York and Washington D.C. (two stairways, two escalators, one elevator) serving 47 stations and communities • The proposed new passageway to Stuart Street and into the Garage West office structure • Ticket machines for passes and Charlie cards for the subway lines. • Amtrak ticket offices • Commuter rail ticket offices • Restrooms for the entire station concourse area • Food and retail outlets proposed for the concourse level • Food and retail proposed for the second level • Food and retail outlets proposed for the third level • Waiting areas including seating for passengers traveling by rail • The existing and new parking garages in the Garage West/East areas • The new residential building in the Station East area at the Clarendon Street end of the project	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, and to Figures 3.8a-f for public realm improvement plans. Please see also Figures 3.9a-b for site circulation and access and Figures 4.22 and 4.23 for bicycle parking and infrastructure and transit improvements, respectively. Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.

Comment No.	Comment	Response to Comment
12.8	The proposal significantly diminishes this portion of the existing concourse, serving the movements listed above and lowering the space of the waiting area from 9,225 square feet (41 bays each roughly 15 feet square) to 6,075 square feet (27 bays, each roughly 15 feet square. It calls for eliminating the principal existing waiting area and replacing it with a large food service facility. All waiting passengers will be moved to backless benches located in busy pedestrian passageways, including the major entrance to the building. The proposal also calls for diminishing the size of the concourse by narrowing the existing passageways between Dartmouth and Clarendon Street and replacing them with retail space. It calls for new entrances to the proposed second and third levels in the midst of the existing waiting area. The proposal moves the ticketing area away from the waiting area and into new space along the proposed new passageway, where queuing to purchase tickets (now possible in the waiting area) will compete with pedestrian movement. It is hard to imagine that all these activities can be accommodated in the space planned.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Section 4.10 for a detailed transit capacity analysis.
12.9	A new design should be undertaken to accommodate the growing number of pedestrians and waiting passengers as well as patrons of food and retail outlets who may choose to sit in this busy space. The existing waiting area should not be removed but instead enlarged to accommodate anticipated future use. Ticketing space should be provided close to passenger access areas. Access to and from the second and third levels should be moved away from the waiting area and into the space that is gained by closing the existing concourse passageways. Retail areas adjacent to the passenger waiting area should be scaled back to remove potential blockage of clear and very visible access to and from the stairways leading to transportation facilities below the concourse. Benches for rail passengers should not be relegated to busy portions of the concourse, especially where they	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.

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	might interfere with pedestrian traffic through the concourse.	
12.10	Designs should be carefully integrated with existing obstructions such as columns to minimize interference with passenger traffic flow.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.
Letter 13	**Hill House, Inc.**	
13.1	[we] would like to be considered as part of the process, in that we are still actively looking for long-term indoor recreational space. As such, here is our official statement for consideration: One of the major obstacles for families remaining in the city is access to recreational space-particularly in the colder winter months.	The Proponent regrets that no large indoor recreational space is available in the Project, although the Proponent has made considerable efforts to include an approximately 11,000 square foot public plaza with the development of the Station East Parcel along with many other public realm improvements as detailed in Section 3.5.1. Please refer to Section 1.5 for a summary of public benefits to be delivered with Project.
13.2	Hill House proposes that part of the Back Bay South End Gateway is transformed into 30,000 square feet of indoor athletic space that can be used throughout the year-similar to the Chelsea Piers model in NYC. Hill House not only would run its current indoor athletic leagues and programs, but also expand its offerings to include programs such as volleyball, track & field, and others. Additionally, space could be utilized during the school hours for many of the downtown public and private schools that do not have access to large athletic space. Groups and business also could permit the space during low usage hours-providing additional revenue streams to the facility.	The Proponent regrets that no large indoor recreational space is available in the Project, although the Proponent has made considerable efforts to include an approximately 11,000 square foot public plaza with the development of the Station East Parcel along with many other public realm improvements as detailed in Section 3.5.1. Please refer to Section 1.5 for a summary of public benefits to be delivered with Project.

Comment No.	Comment	Response to Comment
13.3	Currently, there are no large-scale public recreational facilities in the city, unlike most other major cities in the United States. In thinking in terms of how part of the space could be used for recreational purposes, Hill House envisions a year-round athletic facility that could provide space for many different types of private and public groups. The interior field house would be designed in that a variety of different types of athletics could be enjoyed, including soccer, basketball, volleyball, baseball, track & field, and football-just to name a few.	The Proponent regrets that no large indoor recreational space is available in the Project, although the Proponent has made considerable efforts to include an approximately 11,000 square foot public plaza with the development of the Station East Parcel along with many other public realm improvements as detailed in Section 3.5.1. Please refer to Section 1.5 for a summary of public benefits to be delivered with Project.
Letter 14	**Bay Village Neighborhood Association – Dr. P. MacKenzie Bok**	
14.1	I would like to echo BVNA's dismay at the fact that the Stuart Street Planning Guidelines are not more firmly shaping the project proposal.	As described in the BPDA Scoping Determination, the Project is, in fact, "exemplary in its strong adherence to the Stuart Street Design Guidelines." Please refer to Sections 3.3 and 3.4 for more detail about the Project's responsiveness to the vision and planning goals established in the Stuart Street District, particularly the height and density guidelines.
14.2	While I realize the Proponent's Letter of Intent was filed before the Boston Zoning Commission formally adopted the new Stuart Street zoning this spring, the BRA Board did adopt the Stuart Street Guidelines back on October 15, 2015, so I'd urge you to hold the project to those guidelines in every respect possible.	As described in the BPDA Scoping Determination, the Project is, in fact, "exemplary in its strong adherence to the Stuart Street Design Guidelines." Please refer to Sections 3.3 and 3.4 for more detail about the Project's responsiveness to the vision and planning goals established in the Stuart Street District, particularly the height and density guidelines.
14.3	The Proponent has mentioned respects in which the project is adhering to the Stuart Street Guidelines (such as the number of hours of shadow on Copley Square); it has not, however, complied with various other requirements, such as: 25-foot massing set-backs, maximum floor plate size, percentages of retail frontage, LEED Gold certification, inclusion of daycare facilities, etc. These standards should be adhered to wherever possible, and the Proponent should certainly adhere to the 15.5% affordable housing ratio in the Stuart Street Zoning, rather than the citywide IDP ratio of 13%.	Please refer to Section 1.6 for the regulatory context of the Project. See also Chapter 2 for an alternatives analysis, including an alternative which is fully compliant with the dimensional requirements of the Stuart Street District. The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.

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14.4	...I'd like to note that this has the unfortunate effect of not placing all public benefits and subsidies on the table for the CAC to weigh side-by-side as it deliberates.	Please refer to Section 1.5 for a summary of the considerable public benefits to be delivered with Project.
14.5	In a similar vein, like many CAC members, I'm concerned that the station renovation process has been hived off as separate from the Gateway Project. While I understand the issue of MassDOT jurisdiction, and have been cheered at the assurances that a public process-on both the station renovations (MassDOT) and the replacement of the ventilation system (MBTA)-will be forthcoming, I'd urge the city to ensure that these processes truly run in parallel. They are at the heart of this whole project, and of the public's experience of the area.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station renovations. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.
14.6	Indeed, the broken ventilation system in Back Bay Station is probably the public's most pressing concern about the site. I'd advocate strongly for its ongoing consideration as an element of the CAC's overall process, including contingency planning for if it requires further remedy. This is a public space and its air quality is a serious public health issue. A world in which this air-rights project goes forward, but the pledged $10 million ($5 million from MassDOT, $5 million from ·the Proponent) proves inadequate to get the station's ventilation system up to a high standard, would simply be unacceptable from a 'public benefit' perspective.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station renovations. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.

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14.7	Finally; on the process front, I'd like to note that the work of the CAC thus far has felt rushed, and the remainder should be conducted with deliberate consideration. Any decisions taken and applied through re-zoning of the PDA will give the Proponent a reliable degree of certainty about what it can build, enabling it to secure project financing etc. But it will launch a period of uncertainty for the public-about what order the four parcels will be developed in, whether they will all be developed, etc. Intermediate states could easily persist for a decade or more, and conditions could change such that we later regret authorizing one structure or another. So it is imperative that we think about each building in isolation and assess it as though it were the only thing being built on the site.	The Proponent has designed each Project Component to be independent of the others, and therefore phaseable. Please refer to Section 1.4.8 for a description of the Project phases and an evaluation of phasing scenarios.
14.8	I'd like to see some more of the planned ground floor retail space instead reserved for waiting and circulating.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.
14.9	I'm also anxious that any pedestrian flow projections be done on the basis of anticipated increases in mass-transit and foot traffic over time. A comparison of the public, non-retail floor space in the present station concourse with that in the proposed design would be helpful in this regard.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.
14.10	My second set of concerns is about the architectural integrity of the historic station building. I'm concerned that we haven't seen sketches of the footbridges connecting the two sides of the proposed second-floor retail; I suspect that, seen from below, they will compromise the effect of looking down the line of arches that form the station ceiling.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, and to Section 3.4.4 and Figures 3.7a-d for a description and renderings of the Station West Parcel development and its integration with the existing Station architecture.

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14.11	I'd like to see a design that first and foremost considers what would make the station an excellent civic space, and that only builds retail back in around that image, rather than keeping such a consistent eye on maximizing retail.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.
14.12	I'd like to ensure that there is adequate seating outside of retail options, and I think it's important that there be some guarantee that retail options will cater to an array of price ranges. I also don't see, despite assurances, where businesses like Eastern Bank or Harvard Vanguard are going to fit in this imagined retail scheme, so I'd like more clarity on that.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5. The Proponent is discussing opportunities for both short- and long-term relocation with all existing Garage tenants and will continue to explore options as the Project advances.
14.13	The potential Station East building is the closest to Bay Village. First, the positive: I'm enthusiastic both about an Orange Line head-house on that side of the station and about elevators up from the Commuter Rail platforms at the Columbus Ave exit. Those would be notable benefits for those of us who live on the Clarendon St. side of the Station.	The Proponent thanks you for your support.
14.14	So far the Proponent has only stated that it has an obligation to find an alternate site in the event of developing that parcel. Many Bostonians, including many Bay Villagers, use that bus, so we would want to know that the alternative location was safe and convenient. And we would be concerned about the potential traffic ramifications of its relocation to an on-street site with less space. The set of possible options need to be presented in the DPIR.	Please refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
14.15	I'll also note that we've received very little elaboration on the architectural detail of this building; it's the tallest of the three, yet most of the attention has been focused on the Garage West design. If a building that tall is going to loom over the area, it ought to be distinguished. But I think its height should be up for discussion.	Please refer to Section 3.4 for a detailed description of each Project Component's building design including, height and massing, character and exterior materials and signage. Please also see Figures 3.2a-m.

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14.16	As I've made abundantly clear in our CAC meetings, I'm also concerned that Clarendon Street still feel like a proper entrance, rather than a back door to the station. It's a pity to permanently lose any ability to see the arc of the historic station from the Clarendon Street side; to compensate, the station entrance through the new tower would need to be architecturally distinguished, not merely well-signed. A two-floor element, and perhaps an echo of the arch, could both possibly serve that purpose. If all signage were removed, the design should still prompt a passer-by to wonder why the entrance looked grand, like it served a public purpose. As the PNF itself states, it should be a "new civic entrance." (2-7)	The Proponent has made considerable efforts to include a public plaza with the Station East Parcel to serve as a forecourt to the new Station Entrance off Clarendon Street. In addition, the building's architecture is designed to create a civic presence for the new Station Entrance. Please see Figures 3.2l-m.
14.17	Through the entrance, the passage taking one into the station should be as wide as possible, so that it doesn't become a bottleneck, and not overwhelmed with retail. And while I understand the Proponent's thinking in bringing the building out towards Clarendon Street, I wonder if it would not be better to leave greater landscaped, outdoor space in front of the tower. That area is described as a "plaza" but is really just a drop-off lane; most of the landscaping is in a traffic island where people will not linger.	The Clarendon Street connector is designed to be as wide as possible while accommodating other required ground floor uses. The Proponent has made considerable efforts to include a public plaza with the Station East Parcel to serve as a forecourt to the new Station Entrance off Clarendon Street. In addition, the building's architecture is designed to create a civic presence for the new Station Entrance. Please see Figures 3.2l-m.
14.18	So for the development of a tower on the Station East site to be at all compelling, I think we would need to be convinced of its substantial public benefit—such as, for instance, its provision of a significant amount of affordable housing.	Please refer to Section 1.5 for a summary of the considerable public benefits to be delivered with Project.
14.19	Garage West has certainly had the most attention, from a design perspective. I think the staggered stacking is attractive, and I appreciate the effects it has on wind mitigation and the terraces it makes possible for some floors of occupants. I also appreciate that it was somewhat shortened due to shadow, in order to comply with the spirit of the Stuart Street Zoning.	The Proponent appreciates your support.

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14.20	I should also note, however, that concerns remain about its shadow over certain local historic resources. I would appreciate if the DPIR provided greater detail about how long that patch of new shadow--which directly covers the (newly restored!) front windows of Trinity Church--lasts in the winter months.	Please refer to Section 6.3 for a detailed shadow analysis and to Section 8.3.2 and Figures 8.3a-f for a shadow analysis on area historic resources.
14.21	The base scheme for Garage West contemplates a new managed garage exit onto Dartmouth Street. This would be a disaster for pedestrian traffic on Dartmouth Street and should be abandoned as a proposal. I recognize that the Proponent's view that it offers another argument for closing the on-ramp.	The Proponent has provided a Base and Alternate Scheme for the Garage West Parcel to address the potential On-Ramp closure by MassDOT, which impacts the new Garage exit location. Please refer to Section 3.4.1 for a detailed description of the two alternatives.
14.22	[...the Proponent] should be required to construct an internal exit drum running down inside the garage to Trinity Place-and then to build a few more levels of parking into the Garage West building to compensate for the lost spaces-rather than the City permitting such an actively-managed exit onto Dartmouth Street. I have contended with the Clarendon Street one on numerous occasions; no matter how well managed, it makes for a street-level environment that's hostile to pedestrian strolling.	Please refer to Section 3.4.1 for a discussion of an alternative internal exit ramp and to Figures 3.3s-u for plans. Please note this alternative is not being pursued as it eliminates the possibility for a through-block connector from Stuart Street, the retail space at the corner of Stuart Street and Trinity Place and compromises the Garage West building's loading dock.
14.23	In light of the need to have garage traffic exit on Trinity Place, I could countenance a second floor sky-bridge between 40 Trinity and the new indoor retail walkway into the station. Such a bridge would cut down on people trying to make that quick crossing at ground level. In general, however, I'll express concerns about sky-bridges below.	Please refer to Section 3.4.1 for a discussion of the Trinity Place and Stuart Street bridges and to Figures 3.2h-i. The Proponent notes that there are three such bridges in the immediate vicinity of the Project, each providing an important weather-protected and accessible connection across the busy thoroughfare of Stuart Street.

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14.24	Finally, I want to echo the concern that the Stuart St. and Dartmouth St. corner, such a prime street-level retail opportunity, is instead dedicated to an office lobby. I wonder if a second office lobby couldn't be placed up the steps, at the level that connects with the station concourse, where some of the retail is currently sited. The PNF trumpets the 'permeability' of the highly transparent double-level glass that will encase the office lobbies, but an office space most pedestrians will never enter isn't really 'permeable'. I think this point is particularly worth making because I don't believe the massing set-backs prescribed by the Stuart Street Zoning for buildings over 155 feet on Dartmouth St. have been followed here.	Please refer to Section 3.4 for a detailed description of each Project Component's building design including, height and massing, character and exterior materials and signage. Please also see Figures 3.2a-m.
14.25	I have relatively little specific to say about this building [Garage East]; I do appreciate the Proponent's decision to shorten its height in order to prevent it from overshadowing Copley Square.	The Proponent appreciates your support.
14.26	I will reiterate my firm view that it should have at least 15.5% in on-site affordable housing, in line with the Stuart Street Zoning.	The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.
14.27	Both the CAC and the BRA should demand that each of these towers be a well-designed, signature structure, as we would if they'd each been proposed separately.	Please refer to Section 3.3 and 3.4 for a description of the Project's planning and design goals, and design concepts. Please also see Figures 3.2a-m.
14.28	Although Bay Village agrees that, of the three on-ramps in the area, the one off Clarendon Street is the least utilized, we're actively concerned about the potential traffic that would result from its closure. So we're very interested in seeing an extensive traffic study as part of the DPIR.	Please refer to Sections 4.3 through 4.7 for a detailed analysis of existing, Future No-Build and Future Build traffic, including alternatives for if the On-Ramp remains or is closed.

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14.29	We already have serious concerns about the unsafe crosswalk at the corner of Isabella and Arlington, and additional through-traffic would be unwelcome on Isabella St., so we need a model of how much the traffic there would increase.	Please refer to Section 4.4.3 and to Figures 4.8a-c for analysis of trip diversions to the Arlington Street ramp associated with closure of the On-Ramp under Future No-Build conditions. The distribution of Project-generated vehicle trips presented in Section 4.5.9 assigns 8 and 30 trips in the AM and PM peak hours, respectively, to the Columbus Avenue/Arlington Street intersection to provide a conservative (worst case) impact analysis at that location. Some of these trips may, in practice, use Isabella Street to reach Arlington Street, but it is expected that the majority will use Columbus Avenue. No additional Project-generated trips are projected to use the Arlington Street ramp under the Alternate Condition, where the On-Ramp is closed, than under the Base Condition, where the On-Ramp remains open. The crosswalk on Arlington Street at Isabella Street is a long crossing for pedestrians due to the multiple lanes and higher speeds on Arlington Street. BTD may consider improvements to this crosswalk if it is deemed to be unsafe.
14.30	I'd also note that the traffic signal at Columbus Ave. & Arlington St., not just the one at Stuart St. & Arlington St. (although they're the same intersection) should be specifically studied.	Please refer to Section 4.7. for an analysis of a mitigated Arlington St./Stuart St./Columbus St. intersection.
14.31	On the parking front: I'm sympathetic to low parking ratios for transit-oriented development. But the Proponents seem to be saying that they'll satisfy their project's parking requirements partly by displacing current use of the garage by off-site users. Where will those people go? Our low parking ratio assumptions need to be grounded in data, not optimism. I'd also note that individuals with high net worth are particularly likely to keep a car in the city, despite transit options, and that further affordable housing (and housing attainable by young non-car-owners) could actually be one way of making the proposed parking ratios more realistic.	Please refer to Section 4.9 for a full analysis of parking supply and demand.
14.32	Both the proposed residential towers should be urged to accommodate, at minimum, 15.5% on-site affordable housing.	The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.

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14.33	New residential or office towers in such close vicinity to the highway as those in this project should be required to install effective air filtration systems, for the health of their occupants. Though no expert myself, I believe such systems extend beyond the on-demand ventilation systems proposed in the PNF. And while thorough filtration may be difficult to install in the station itself, given the openness of the platforms to the outside air, partial mitigation through filtration at the concourse level would still be appropriate, as a public health measure.	As described in Section 5.3.2, the Project will promote good indoor air quality through demand controlled ventilation and use of interior finish materials that are low-emitting and/or do not off-gas VOCs. The Project will balance air filtration with energy efficiency to find an optimal solution. Air intake locations will be evaluated to reduce occupant pollutant exposure.
14.34	…these towers could be built in any order, and some not at all, so we need some assessment in the DPIR of the wind effects of partial-build scenarios.	Please refer to Section 1.4.8 for a description of the Project phases and an evaluation of phasing scenarios. The Project's environmental impacts have been analyzed for the worst-case scenario, Full Build.
14.35	Despite the disclaimers about the viability of catching all storm water on the project site, this needs to be done to the greatest degree possible, as any diminishment of groundwater levels remains of significant concern to all property-owners in the area.	Please refer to Section 7.4.3 for a detailed description of the Project's intended compliance with the City's Groundwater Conservation Overlay District.
14.36	This may seem unnecessarily alarmist, but so long as the PNF is discussing long-term flooding risks, it would be good to know how the proposed buildings would do under minor to middling seismic activity.	The design of the new buildings will be in accordance with the pertinent building codes which includes provisions for seismic design.
14.37	I think it is important, going forward, that the CAC understand to what extent the station will be under the purview of private security; how 'public' the indoor walkways will be (as presumably they are not proper right-of-ways), etc.	While privately owned, the through block connectors are intended to provide public access to the Station during Station operating hours. They will be maintained, managed and secured by the Proponent. As to the Station, as part of the management agreement with the MBTA, the Proponent provides supplementary security personal for the Concourse level only. The MBTA Police continue to have jurisdiction throughout the entire Station.

Comment No.	Comment	Response to Comment
14.38	I am very much against the sky-bridge from Garage West/40 Trinity to 200 Clarendon, for the same reason that others in Bay Village opposed the Liberty Mutual sky-bridge. Exclusive walkways, that can be seen from the ground but only accessed within private offices, fracture the sense of a public realm. And they diminish private investment and interest in streetscape, exterior-facing retail offerings, etc. One has only to try to walk, as an outdoor pedestrian, along the section of street that is crossed by the two sky-bridges from Copley Place to see that this is so. While I understand how it is a boon to private retail to have pedestrians traverse the city as a captive audience to an indoor retail environment, I don't think it's in our best civic interests.	Please refer to Section 3.4.1 for a discussion of the Stuart Street bridge. It is intended to be a publicly accessible connection to the Station. There are three such bridges in the immediate vicinity of the Project today, each providing an important weather-protected and accessible connection across the busy thoroughfare of Stuart Street. This new bridge would provide a connection at a critical point where the pedestrian volumes support the need for alternative routes.
14.39	…Bay Village shares the Ellis Neighborhood's concerns about extended traffic and pedestrian disruptions due to construction work on all these parcels. The CAC process should result in a guarantee of suitable mitigation plans that will function well for the surrounding neighborhoods regardless of the order in which the parcels are developed.	Refer to Section 6.10 for a description of construction mitigation measures and to Section 4.13.4 for a description of the Construction Management Plans that will be implemented by the Project.
Letter 15	**Bay Village Neighborhood Association – Sarah Herlihy**	
15.1	The Gateway Project will require significant variance from the Guidelines recently adopted following the Stuart Street Study. The BVNA is concerned with the fact that the recently-adopted Guidelines are apparently being largely ignored with respect to the Gateway Project.	As described in the BPDA Scoping Determination, the Project is, in fact, "exemplary in its strong adherence to the Stuart Street Design Guidelines." Please refer to Sections 3.3 and 3.4 for more detail about the Project's responsiveness to the vision and planning goals established in the Stuart Street District, particularly the height and density guidelines.
15.2	While the BVNA understands that quality projects can occasionally require zoning relief, it is concerned that the recently adopted Guidelines are apparently being cast aside with respect to this project. The BVNA urges the BRA to hold the Gateway Project to the recently adopted Stuart Street Study Guidelines in every respect possible.	As described in the BPDA Scoping Determination, the Project is, in fact, "exemplary in its strong adherence to the Stuart Street Design Guidelines." Please refer to Sections 3.3 and 3.4 for more detail about the Project's responsiveness to the vision and planning goals established in the Stuart Street District, particularly the height and density guidelines.

Comment No.	Comment	Response to Comment
15.3	…the project proponent should be required to present a thorough assessment of the impact on area traffic of a ramp closing.	Please refer to Section 4.4.3 and Figures 4.8a-c for analysis of trip diversions to the Arlington Street ramp associated with closure of the On-Ramp. Please also see Section 4.6 for an analysis of Project-generated traffic impacts in both the Base and Alternate Conditions, where the On-Ramp is open and closed, respectively. The Proponent notes that MassDOT will be submitting an Interchange Modification Report (IMR) to the Federal Highway Authority (FHWA) in early 2017.
15.4	Bay Village does not want to lose the Arlington Street on-ramp to the Massachusetts Turnpike, but it is clear to residents that this on-ramp has no capacity for additional traffic. The portion of Arlington Street (between Park Square and Cortes Street) that provides access to the Arlington Street on-ramp is already dangerous, congested and noisy.	Please refer to Section 4.4.3 and to Figures 4.8a-c for analysis of trip diversions to the Arlington Street ramp associated with closure of the On-Ramp under Future No-Build conditions. The Proponent notes that MassDOT will be submitting an Interchange Modification Report (IMR) to the Federal Highway Authority (FHWA) in early 2017.
15.5	Bay Village would request not only that an extensive traffic study be required of the proponent	Please refer to Chapter 4 and Figures therein for details of the Transportation Impact Study (TIA) performed for the Project.
15.6	…several specific issues relevant to Bay Village be addressed in that study, including: i) Traffic coming down Arlington Street to the on ramp. Cars coming down Arlington Street to the on-ramp frequently speed and there is currently no effective traffic calming mechanisms on Arlington Street. Traffic has increased significantly in the past few years with the addition of several large residential developments in the area. Clearly, if the Clarendon on-ramp were closed, traffic would divert to Arlington Street. The likely impact of that diversion and necessary mitigation should be studied.	Please refer to Section 4.4.3 and to Figures 4.8a-c for analysis of trip diversions to the Arlington Street ramp associated with closure of the On-Ramp under Future No-Build conditions. The Proponent notes that MassDOT will be submitting an Interchange Modification Report (IMR) to the Federal Highway Authority (FHWA) in early 2017.

Comment No.	Comment	Response to Comment
15.7	ii) Impact on Isabella Street. Isabella Street is a primarily residential street not designed to handle large traffic volumes or speeding vehicles. The impact that a ramp closing would have on Isabella Street should be included in a required traffic study.	Please refer to Section 4.4.3 and to Figures 4.8a-c for analysis of trip diversions to the Arlington Street ramp associated with closure of the On-Ramp under Future No-Build conditions. The distribution of Project-generated vehicle trips presented in Section 4.5.9 assigns 8 and 30 trips in the AM and PM peak hours, respectively, to the Columbus Avenue/Arlington Street intersection to provide a conservative (worst case) impact analysis at that location. Some of these trips may, in practice, use Isabella Street to reach Arlington Street, but it is expected that the majority will use Columbus Avenue. No additional Project-generated trips are projected to use the Arlington Street ramp under the Alternate Condition, where the On-Ramp is closed, than under the Base Condition, where the On-Ramp remains open.
15.8	iii) A well-designed park here would mitigate the impact and provide a tangible benefit to all Boston residents.	The Proponent has made considerable efforts to include the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel and the upgrading of the existing open space on Dartmouth Street with the delivery of the Station West Parcel. Please refer to Section 1.5 for a summary of the Project's benefits to the public realm, as well as to Section 3.5 for a detailed discussion on site design. Please see also Figures 3.2a-m and Figures 3.8a-f for renderings and public realm/landscaping plans.
15.9	The proponent should be required to submit a concrete plan for an appropriate replacement site for this critical bus line before the project advances further.	Please refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
15.10	In the BVNA's experience, services that are important for residents, such as the location for the Route 39 bus, are often deliberately left for negotiation at a later date and then conveniently be given short shrift at that later date. That should not happen with the site for this critical transportation line for downtown residents.	Please refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.

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15.11	…we are concerned that the current design does not dedicate enough resources, space or attention to providing quality public space for residents and visitors who use the station for bus, subway, commuter rail and Amtrak service. Commercial space should enhance, not limit, the quality of the public space. In particular, the BVNA is concerned that the current design sacrifices light and air in the station area in favor of commercial space.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.
15.12	A significant improvement in the air quality of Back Bay Station must be a required outcome of this project, irrespective of the ultimate cost or complexity of the-solution. -Simply put, failing to make this a requirement would ignore the basic need of the commuting public for quality air. This project is likely the only opportunity to fix this critical issue health issue and should be a non-negotiable requirement.	Please refer to Appendix E for information on the MBTA's track-level ventilation improvement project at the Station.
15.13	The project proponent should satisfy the entirety of any affordable housing obligation with on-site affordable housing in the two proposed residential towers.	The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.
Letter 16	**Neighborhood Association of the Back Bay**	
16.1	We are deeply concerned about the likely cumulative effects of 380 Stuart Street, 40 Trinity Place, Neiman Marcus Tower, and the three towers and one additional structure of the Back Bay /South End Gateway Project on three major areas: traffic, infrastructure and the environment [as outlined below].	Please refer to Chapter 4 for Transportation and Parking impacts, Chapter 5 for Sustainability and GHG assessment, Chapter 6 for Environmental impacts, Chapter 7 for Infrastructure impacts and Chapter 8 for impacts to Historic Resources. Please note all other approved projects in the Stuart Street Corridor have been included in these analyses.
16.2	We would request that the Boston Traffic Department estimate how additional vehicular traffic would affect, in particular the cross streets in the Back Bay.	Please refer to Sections 4.5 and 4.6 for a detailed analysis of Project-related traffic impacts in the study area and to Section 4.7 for results of the traffic study with proposed mitigation measures.

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16.3	What would further gridlock mean for emergency vehicles including fire equipment and ambulances seeking to access areas of the Back Bay during rush hours or trying to take Storrow Drive to Massachusetts General Hospital?	Please refer to Sections 4.5 and 4.6 for a detailed analysis of Project-related traffic impacts in the study area and to Section 4.7 for results of the traffic study with proposed mitigation measures.
16.4	Given the current gridlock, what other alternatives are being explored?	As described in Chapter 4, the Project enjoys an exceptional transit-oriented location, and benefits from excellent access to alternative modes including transit, bicycling and walking.
16.5	Is a congestion tax a possibility?	Please refer to Sections 4.10 and 4.132 for a discussion of the Project's Parking and Transportation Demand Management strategies designed to reduce Single Occupancy Vehicle Trips.
16.6	Can we limit driving into the city on weekdays to alternating days of even/odd license plates? Will taxis or ride sharing vehicles be more regulated and limited?	The Proponent is unaware of any plans by the City of Boston to implement such measures. Please refer to Section 4.13.2 for a summary of proposed TDM measures designed to reduce Project-generated ride-along trips and single occupancy vehicles.
16.7	Is the city and/or developers willing to contribute major funds to the MBTA to increase its carrying capacity? Are there other alternatives?	Please refer to Section 4.10 for a detailed analysis of existing, Future No-Build and Future Build transit capacity.
16.8	Are there plans to expand the Commuter Rail trains into Back Bay? Are there plans being discussed for commuters arriving at North Station to access the Back Bay when the Orange and Green lines are packed?	The Proponent is not aware of any plans to expand Commuter Rail trains into Back Bay or North Station. Please refer to the MBTA for status of any such plans independent of the Project.
16.9	Without designated bus lanes would buses be able to move through gridlock?	The Proponent is not aware of proposals by the City of Boston or the MBTA for designated bus lanes, and such analysis is not included in the DEIR. Please refer to Chapter 4 for a detailed traffic and transportation analysis.
16.10	Given the increase in cycling in the City and the fact that it may be the fastest way to get around, are there designated safe cycling lanes into and around the Stuart Street development area?	Please refer to Section 4.3.3 for a summary of existing bicycle facilities near the Project Site, to Section 4.11 for a complete discussion of the Project's proposed bicycle accommodations and to Figure 4.22 for the proposed bicycle parking plan.
16.11	Is there bike storage?	Please refer to Section 4.11 for a complete discussion of the Project's proposed bicycle accommodations and to Figure 4.22 for details on proposed bicycle parking and infrastructure improvements.

Comment No.	Comment	Response to Comment
16.12	Are there plans to make sidewalks wide enough to allow for an increased number of commuters as well as travelers with luggage going to and from Back Bay Station?	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans.
16.13	What are the plans to provide the additional electricity, natural gas, sewer lines, internet, telecommunications and trash collection that the new residents and businesses will require?	Please refer to Sections 7.2 through 7.5 for descriptions of existing utilities and proposed future connections. No capacity issues are anticipated.
16.14	Who will pay for those improvements?	Please refer to Sections 7.2 through 7.5 for descriptions of existing utilities and proposed future connections. No capacity issues are anticipated.
16.15	Wind is already creating a dangerous situation around much of Stuart Street and Copley Square. Can we have additional measurements of the wind as it is now in all four seasons and as construction proceeds?	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.
16.16	Given the Farmers Market as well as numerous holiday activities in Copley Square can we measure the center of the Square as well as all four corners?	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.
16.17	We would request studies to show the combined effect of all towers on year-round light in Trinity Church, the Commonwealth Avenue Mall, Copley Square and the interior courtyard of the Boston Public Library	Please refer to Section 6.3 for a summary of the Project's shadow impacts. See also Section 8.3.2 for shadow impacts on area historic resources.
16.18	This neighborhood is appreciated daily not just by residents and commuters, but also by thousands of visitors from all over the world. It's important we keep it accessible, safe, and workable for everyone.	The Proponent appreciates the prominent nature of the site and has designed the Project accordingly. Please refer to Sections 3.1 and 3.5 for a detailed description of the public realm and accessibility improvements proposed by the Project. Please also see Appendix J for specific details of the pedestrian accessibility improvements proposed by the Project.
Letter 17	**Ellis South End Neighborhood Association**	

Comment No.	Comment	Response to Comment
17.1	It should be noted that the public involvement has only occurred over the past six weeks – a relatively short time for the public to consider all of the ramifications for a project of such size and location.	The Proponent notes that a Project Notification Form, not an Expanded PNF, was submitted on March 29, 2016. The regulated 30-day public comment period was extended twice to end on June 17, 2016. The submission of this DEIR/DPIR will initial a new 75-day public comment period, ensuring that there will be adequate time for public review of the Project.
17.2	It is also important to note that the next meeting of the Citizens Advisory Committee ("CAC") scheduled to discuss the critical issues of parking, traffic and streetscape is June 15th – only two days before the comments are due – which provides little time for the public to offer any substantive comments.	The Proponent notes that a Project Notification Form, not an Expanded PNF, was submitted on March 29, 2016. The regulated 30-day public comment period was extended twice to end on June 17, 2016. The submission of this DEIR/DPIR will initial a new 75-day public comment period, ensuring that there will be adequate time for public review of the Project.
17.3	We appreciate, however, that Boston Properties and the BRA will continue to respond to comments as the project review process continues.	Comment noted.
17.4	We appreciate the commitment made by Secretary of Transportation Pollack to conduct public meetings beginning this summer to allow public involvement and, most importantly, for the questions and concerns raised by the public to be addressed. There have been concerns raised, however, by several residents that the two initiatives need to be made one. Can a realistic argument be made that the impact on the interior of the station to accommodate the construction project and the needs of the developer are separate? It would appear to be a difficult argument.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station renovations. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016. Please refer to Section 3.4.4 for a discussion of the Project's integration with the Station Concourse Improvements project.
17.5	While the development of a traffic plan remains to be discussed, it is critical for the Boston Transportation Department ("BTD") to be a participant at every meeting of the CAC and those with the public.	Comment noted. Please refer to Chapter 4 for details on the traffic plan and study conducted for the Project. The Proponent has continued to work closely with BTD throughout the project review process.

Comment No.	Comment	Response to Comment
17.6	Some have suggested that the area around the proposed project already suffers gridlock throughout the day. Would it not only be worsened without a clear and thoughtful traffic control plan discussed from the start of the review? BTD's expertise is needed throughout the project review phase.	Please refer to Section 4.7 for results of the traffic study with proposed mitigation measures and to Section 4.13 for a description of potential traffic control improvements and additional TDM measures. Proposed improvements will be reviewed by the BTD and further refined as appropriate by the Proponent in consultation with BTD.
17.7	Boston Properties has indicated it will work with the MBTA to find a new #39 bus staging area "nearby" once the bus turnaround is closed off for construction. With all of the other development projects expected to be underway, is there any other location other than some part of Columbus Avenue that would be available "nearby"?	Please refer to Section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
17.8	Increasing the number of passengers with luggage crossing Columbus Avenue to access the station or hotels in the area as vehicles leave the garage is of concern.	Please refer to Chapter 4.12 for an analysis of existing and future pedestrian conditions and infrastructure in the study area.
17.9	The preliminary internal wind study may suggest minimal changes to the surrounding streets. Many, especially those who have avoided Clarendon Street near the former "new" John Hancock Building for years, have expressed doubts about the preliminary findings.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report. Please note the Project improves pedestrian-level wind conditions in many locations.
17.10	How will access and egress work for the Orange Line, Commuter Rail and Amtrak? Will there be input from the riding public?	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.

Comment No.	Comment	Response to Comment
17.11	As each piece of the project proceeds with more and more people coming to the station and buildings, where will the drop-offs be located? Will there be a need for more surface buses and not just Bus #39? It is unclear where a new turnaround for Bus #39 could be located anywhere in the vicinity of the station. The answer to the location of the new turnaround needs to be provided now – not after the project is underway.	Please refer to Section 3.5.1 and Figures 4.18a-b for details on proposed drop-off locations and curbside uses. Please also refer to Section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
17.12	What assurances are there that station facilities can grow to meet state and city's goals to increase transit mode-share, reduce air pollution and lower energy consumption?	Please refer to Section 4.10 for an analysis of the Project's impact on transit facilities. The Proponent has worked with MassDOT and the MBTA in developing the methodology for studying the Station's capacity and growth potential. Please also refer to Sections 5.3.2 and 5.4 for a discussion of the Project's energy conservation and GHG reduction strategies.
17.13	How will the station be able to accommodate future security or ticketing procedures (especially for commuter rail and AMTRAK)?	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.
17.14	How will retail-related activities in the station impact transportation-related circulation and operations?	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Section 4.10 for a detailed transit capacity analysis.
17.15	In what way would the reduction of public circulation space impact the ability of the station to handle emergency and special event surges?	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.
17.16	What are provisions for improved sidewalk access to the station along Dartmouth Street, Clarendon Street? If the developer moves the shop facades out to the street line, what will be the impact on pedestrians?	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, and to Figures 3.8a-f for public realm improvement plans.
17.17	How does the increased use of curb and sidewalk space to serve the new development detract from existing or increased public transportation use?	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans. See also Section 4.12 for a pedestrian analysis.

Comment No.	Comment	Response to Comment
17.18	Boston Properties needs to address their commitment to affordable housing. The commitment should clearly state the inclusion of the units on-site rather than at some other location.	The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.
17.19	We need a station than preserves the legacy of the citizens in the 1970's and 1980's who stopped the South End Bypass and the Southwest Expressway and who put countless hours into the creation of the Southwest Corridor Park and, especially, Back Bay Station.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which are designed to preserve the architectural integrity of the original structure. Please see also Figures E.1-E.5 and Figures E.7-E.10.
17.20	The narrower sidewalks, the new curb cuts, the lack of provision for buses, elimination of the railroad waiting room and a darkened concourse crowded with retail stores, seem more like a Penn Station demolition than the creation of, in their words, a first-class, "airport quality" transit hub.	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans. Please refer also to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.
17.21	The Stuart Street Zoning rules would emphasize retail along Stuart Street – Boston Properties has not done so. The lobby of an office building is not retail and is not a location that is welcoming outside of normal business hours.	Please refer to Section 3.3 through 3.5 for a detailed description of the Project's design, including street frontage. See also Figures 3.2a-m. The Proponent has made every effort to create a high-quality continuous street frontage activated by vibrant and engaging ground floor uses, such as retail and restaurant spaces, and residential and commercial building lobbies, despite the substantial constraints of the Project Site. Through the use of glass facades wherever possible, the Project will provide transparency and create an inviting, safe and accessible ground-level experience for pedestrians. Section 3.4.1 describes the Garage West building design and includes details related to the ground floor space along Stuart Street.
17.22	Will there be 24-hour public access to the station?	The determination of Station hours is related to the hours of train operations and is determined by the MBTA.
17.23	Will the proposed station layout result in a reduction in available public space that would be sufficient to serve the needs of the projected increase in passengers, especially in high-volume periods?	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.

Comment No.	Comment	Response to Comment
17.24	Has Boston Properties considered the use of overhead walkways to the station to minimize the impact on pedestrians?	Yes. Please refer to Section 3.4.1 for a discussion of the Trinity Place and Stuart Street bridges and to Figures 3.2h-i. The Proponent notes that there are three such bridges in the immediate vicinity of the Project, each providing an important weather-protected and accessible connection across the busy thoroughfare of Stuart Street.
17.25	The idea of creating a new garage exit onto Dartmouth Street should be abandoned – it is much too dangerous.	As described in Section 3.4.1, a new Garage exit on Dartmouth Street is necessary under the Base Scheme, where the On-Ramp remains open. The Proponent has provided pedestrian and vehicle mitigation measures at the proposed exit.
17.26	Can a project of this magnitude really proceed without the addition of any new parking spaces? With 3000 to 4000 persons coming to the site won't there be a need for more parking spaces?	Please refer to Section 4.9 for a summary of existing and proposed parking conditions and Project parking demand.
17.27	Are the additions to the sidewalk and within the station of retail-oriented activities really benefits to the public or will they simply result in less space for pedestrians and commuters?	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans. Please refer also to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating.
17.28	If the developer adds a second (and perhaps a third) story with retail activities to the station, can the developer really improve natural light and air?	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements. See also Section 3.4.4 for a discussion of the Project's integration with the Station. The additional level of retail will have skylights so as to preserve the clerestory windows' access to natural light.
17.29	Isn't the elimination of the exit drum simply a benefit to the developer to allow for more retail space?	As described in Sections 1.4 and 3.4.2, the elimination of the exit drum is necessary to allow the construction of the structural core of Garage East building, which houses only residential uses and no retail. The existing full service Garage driveway on Clarendon Street will remain, providing a right-in, right-out connection to Clarendon Street.
Letter 18	**Ann Beha**	

Comment No.	Comment	Response to Comment
18.1a	Would private management propose the removal of original art, or bill boarding the facades for South Station, or MBTA and commuter stations? Clarity about the standards and obligations for this station is essential.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, including a discussion of public art.
18.1b	Has MASS DOT approved these renovations? How will they be maintained, and how will the projects impact future transportation systems?	Please refer to Section 1.1.1 and Appendix E of the DEIR/DPIR for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10. Please see Section 4.10 for a detailed analysis of Existing, Future No-Build and Future Build transit capacity.
18.1c	How will the station and the systems accommodate new riders with inevitable increased demand?	Please refer to Section 4.10 for a detailed analysis of existing, Future No-Build and Future Build transit capacity. Please also refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.
18.1d	Because the CAC does not address the Back Bay station renovation, an integrated, confirmed and responsive public process to assess the State and MASS DOT issues as well as the city wide issues, is essential.	A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.
18.1e	Because the CAC does not address the Back Bay station renovation, an integrated, confirmed and responsive public process to assess the State and MASS DOT issues as well as the city wide issues, is essential.	A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.
18.2	Two residential towers on Clarendon Street have been generally outlined; a presentation on their grounds cape, or landscape, is forthcoming. Already the developers have said the site is "too tight" for an appreciable amount of outdoor green space. What is the plan for a humane and welcome presentation and urban setting for these large buildings?	The Proponent has made considerable efforts to include the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel and the upgrading of the existing open space on Dartmouth Street with the delivery of the Station West Parcel. Please refer to Section 1.5 for a summary of the Project's benefits to the public realm, as well as to Section 3.5 for a detailed discussion on site design. Please see also Figures 3.2a-m and Figures 3.8a-f for renderings and public realm/landscaping plans.

Comment No.	Comment	Response to Comment
18.3	Issues I believe the CAC and community need addressed with more clarity, include: • The MASS DOT approved plan for the station, its timetable, its balance of community-serving retail and public space, and its design.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.
18.4	*Issues I believe the CAC and community need addressed with more clarity, include (cont.)* • The specific management of auto transit routes, to create less impact on Copley Square, and neighborhoods and the already dense traffic.	Please refer to Chapter 4 for a discussion of transit routes and detailed analysis of traffic impacts.
18.5	*Issues I believe the CAC and community need addressed with more clarity, include (cont.)* • More about the design, and its intentions and expression	Please refer to Chapter 3 and the Figures therein for a full discussion of the Project's design.
18.6	*Issues I believe the CAC and community need addressed with more clarity, include (cont.*) • The ground level, particularly the amount and vitality of the landscape and green buggers that are essential to a humane and welcoming residential and commercial environment. Upper level terraces, which have been presented as amenities, are not urban settings for everyday use, not a substitute for ground level landscape and sitting areas.	The Proponent has made considerable efforts to include the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel and the upgrading of the existing open space on Dartmouth Street with the delivery of the Station West Parcel. Please refer to Section 1.5 for a summary of the Project's benefits to the public realm, as well as to Section 3.5 for a detailed discussion on site design. Please see also Figures 3.2a-m and Figures 3.8a-f for renderings and public realm/landscaping plans.

Comment No.	Comment	Response to Comment
18.7	*Issues I believe the CAC and community need addressed with more clarity, include (cont.)* • How does this project improve the Orange and commuter rail lines not further overcrowd them? How does this project ensure that new modes of transport are not precluded, but instead, enhanced? Will the complex structural gymnastics that the developer notes are needed for this project inhibit the viability of future infrastructure upgrades?	Please refer to Section 4.10 for a detailed evaluation of potential transit impacts and to Section 4.2 for a description of transit improvements that are being delivered with the Project.
18.8	*Issues I believe the CAC and community need addressed with more clarity, include (cont.)* • An approach to improving the civic realm, in lieu of just conforming with the letter of the law.	Please refer to Section 3.5 for a detailed description of the Project's pedestrian realm improvements, and to Figures 3.8a-f for pedestrian realm improvement plans.
18.9	More comparable information about how this setting will change the wind should be offered. The BRA has offered no comparisons between the early wind calculations for this site and wind elsewhere in the city—such comparable are needed.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.
18.10	Adding more shadow to Copley Square may be legal, but it never could be described as civic, considerate, or beneficial. "As of right" does not mean it IS right.	As discussed in Section 6.3, shadow impacts have been minimized to the extent practicable to avoid noticeable pedestrian impacts, and are in compliance with the specific requirements of the Stuart Street Zoning District, including the 2-hour shadow limitation on Copley Square.

Comment No.	Comment	Response to Comment
18.11	What are the more convincing public benefits of this project? I welcome responsible new development with opportunities for housing and public benefits, and seek to promote projects characterized by responsible planning, sustainability, service to the greater good, embracing good business practices, creating jobs: a balance of benefit and burden. A revised station, once confirmed, can be one, but beyond the station, more benefits need application to the immediate affected environment and community.	Please refer to Section 1.5 for a detailed summary of the Project's public benefits.
18.12	I encourage more specificity, emphasis on greater civic contributions, and improvements, as essential to this projects progress. The BRA and the state agencies are our voice to require the BEST design, the best environmental performance, not just the "conforming" compliances.	Please refer to Section 1.5 for a summary of the Project's public benefits, to Section 3.5.1 for a detailed description of the Project's public realm improvements, and to Figures 3.8a-f for public realm improvement plans.
18.13	I urge leadership from the agencies to push design and quality standards beyond the merely legal and feasible to the platform of its setting—a city region long distinguished for its scale, architectural quality, and its enduring value to the entire community.	Please refer to Section 3.4 for a description of each Project Component's design, height and massing, character and exterior materials and signage. Please refer to Figures 3.2a-m for renderings and Figures 3.6a-p for skyline and bird's eye views.
Letter 19	**Ann Hershfang**	
19.1	the plans for changes to the station, apparently under the aegis of MassDOT, MBTA and BRA, should not be allowed to proceed without public involvement, as was apparently stated by MassDOT's Director of Development at an early meeting	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station renovations. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.
19.2	I also support the matters raised in letters from Ken Kruckemeyer and WalkBoston.	Comment noted.

Comment No.	Comment	Response to Comment
19.3	Issues raised by changes proposed inside the station: --the decrease of waiting space (and comfort) inside the BB/SE Station due to elimination of the commuter rail waiting area,	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.
19.4	*Issues raised by changes proposed inside the station (cont.)* --a careful analysis as to whether the proposed public waiting areas will be adequate and comfortable enough to pleasantly accommodate rail users, transit riders, retail and food outlet shoppers, and through traffic,	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.
19.5	*Issues raised by changes proposed inside the station (cont.)* -- circulation through the station,	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.
19.6	*Issues raised by changes proposed inside the station (cont.)* --data about the number of current rail and transit users inside and outside, -- projected increases in transit and rail users resulting from new construction,	Please refer to Section 4.10 for a detailed analysis of existing, Future No-Build and Future Build transit capacity.
19.7	*Issues raised by changes proposed inside the station (cont.)* --increased parking demand and facilities to accommodate the growth,	Please refer to Section 4.9 for a summary of existing and proposed parking conditions and Project parking demand. Increased parking to accommodate changes inside the station is not proposed in light of the "non destination" characteristics of the uses.
19.8	*Issues raised by changes proposed inside the station (cont.)* --access through the station between Dartmouth and Clarendon Streets,	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.
19.9	*Issues raised by changes proposed inside the station (cont.)* --location of and impacts of building support posts on station platforms,	Please refer Section 4.10.4 for discussion of the impact of the Station East building's structure to the Station platforms.

Comment No.	Comment	Response to Comment
19.10	*Issues raised by changes proposed inside the station (cont.)* --plans to replace the neon artwork formerly at the entrances to the station.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, including a discussion of public art.
19.11	Issues raised by changes outside the station: --data about current traffic and pedestrian numbers on the sidewalks and roads, --projections for traffic and pedestrian growth from the increased transit and rail passengers, and the many new buildings in the area,	Please refer to Chapter 4 for a detailed traffic analysis, including Existing, Future No-Build and Future Build conditions. Please see Section 4.12 for a pedestrian analysis and to Section 3.5 and Figures 3.8a-f for proposed public realm improvements to facilitate pedestrian movement around the Project Site.
19.12	*Issues raised by changes outside the station (cont.)* --the Dartmouth Street sidewalk narrowed to 8 feet from its current generous width cannot possibly handle the pedestrian traffic,	The Project's sidewalk dimensions have been revised in the DEIR/DPIR. Please refer to Section 3.5.1 and Figures 3.8a-f for a specific description of the pedestrian realm and circulation improvements and to Section 3.5.5 for a summary of pedestrian accessibility improvements. As described in Section 3.5.4, throughout the Project Site, the proposed pedestrian realm improvements meet or exceed BTD's Complete Streets Guidelines for Downtown Commercial Zone minimum streetscape dimensions.
19.13	*Issues raised by changes outside the station (cont.)* --trees in planters at the sidewalk edge will only worsen the problem,	Please refer to Section 3.5 for a discussion of site design and pedestrian access. Please also see Figures 3.8a-f and 3.9a-b for proposed public realm improvements and site circulation and access plans.
19.14	*Issues raised by changes outside the station (cont.)* --removal of the protective overhang on Dartmouth St.,	In lieu of dark and dreary arcades, the Project offers new weather-protected through block connectors from both Stuart and Clarendon Streets into the Station. Please refer to Section 3.4 for a detailed description of these public goods and their phasing.
19.15	*Issues raised by changes outside the station (cont.)* --impacts of eliminating the Clarendon Street ramp into the MassPike,	Please refer to Sections 4.3 - 4.6 for a detailed traffic study which includes analysis of Existing, Future No-Build, and Future Build conditions both with and without the On-Ramp closure. The Proponent notes that MassDOT will be submitting an Interchange Modification Report (IMR) to the Federal Highway Authority (FHWA) in early 2017.

Comment No.	Comment	Response to Comment
19.16	*Issues raised by changes outside the station (cont.)* --cars exiting from the garage across the Dartmouth St. sidewalk in conflict with pedestrians, --capacity of Clarendon, Dartmouth and Stuart Streets to serve future traffic,	As described in Section 3.4.1, a new Garage exit on Dartmouth Street is necessary under the Base Scheme, where the On-Ramp remains open. The Proponent has provided pedestrian and vehicle mitigation measures at the proposed exit. Please refer to the traffic analysis presented in Chapter 4 and Section 4.7 for a future conditions assessment of Clarendon, Dartmouth and Stuart Streets.
19.17	*Issues raised by changes outside the station (cont.)* --ability of existing roads and intersections around and near the station to accommodate the growth, as well as in Copley Square in general, --vehicle circulation patterns from changes in garage entrances and exits and elimination of the Clarendon Street Turnpike on-ramp,	Please refer to Chapter 4 which includes an Existing, Future No-Build and Future Build analysis of roads and intersections around and near the station, and impacts associated with changes in circulation patterns due to Garage access changes and the potential elimination of the Clarendon Street On-Ramp.
19.18	*Issues raised by changes outside the station (cont.)* --impacts on Columbus Avenue and adjacent residential districts,	Please refer to Chapter 4, which includes analysis of potential impacts to Columbus Avenue and adjacent residential districts.
19.19	*Issues raised by changes outside the station (cont.)* --location of the layover for the #39 bus, with its high ridership and long route,	Please refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
19.20	*Issues raised by changes outside the station (cont.)* --assurance that the fix of the ventilation problem will not spew the smoke out of the vent stacks at West Newton Streets onto Titus Sparrow Park and the Southwest Corridor Park.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, including the MBTA track-level ventilation improvement project.
19.21	Changes to this station should not be made without serious conversations with its users and the residents of adjacent communities.	A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.

Comment No.	Comment	Response to Comment
Letter 20	**Anne Devereaux**	
20.1	Is there really a place for all the added tall, high density residential buildings, traffic and places for cars (?) in this already congested neighborhood? And especially considering all the other nearby projects which are planned? I think not.	Concentrating development in central areas with access to transportation infrastructure is a highly sustainable development strategy. Please refer to Section 3.3 for a summary of the Project's planning principles and design goals. The Project will reinforce Boston's "high spine" planning strategy, which was developed to preserve the character of the City's historic neighborhoods by concentrating growth between them and using new development to stitch disconnected neighborhoods together into a continuous urban fabric. Please also note the Project has included all other approved projects in the Stuart Street corridor in its environmental impact analyses.
20.2	I might add that their priorities for improvements at Back Bay Station are not what they should be. The very first problem that should have been addressed is the ventilation at track level, certainly before power washing, etc.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station renovations. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback.
Letter 21	**Anne Swanson**	
21.1	Why is Mass/DOT not yet prepared to review the Boston Properties proposal for renovation of Back Bay Station in light of current and future MBTA needs, plans, and capacity?	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station renovations. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.
21.2	Why is such a massive project even under consideration for this site?	The Proponent has designed the Project to be respectful of the height and density guidelines in the recently enacted Stuart Street District. Please refer to Section 1.5 for a summary of Project Benefits.
21.3	What will be the combined effect of shadows of all the proposed High Spine high-rise structures on fragile little historic Copley Square, which has a crumbling infrastructure that can hardly support the current environmental conditions and level of use by the public?	As discussed in Section 6.3, shadow impacts have been minimized to the extent practicable to avoid noticeable pedestrian impacts, and are in compliance with the specific requirements of the Stuart Street Zoning District, including the 2-hour shadow limitation on Copley Square. The shadow impact analysis was done all other approved Stuart Street corridor projects in place.

Comment No.	Comment	Response to Comment
21.4	Will the water and sewer infrastructure support the increased population density resulting from three more high-rise buildings for residential and office space?	Please refer to Sections 7.2 through 7.5 for descriptions of existing utilities and proposed future connections. No capacity issues are anticipated.
21.5	Will the water table be affected by the construction, which in turn protects the woodpile foundations of three National Historic Landmarks and a luxury hotel in Copley Square: Boston Public Library, Old South Church, Trinity Church, and the Copley Plaza Hotel ?	Please refer to Section 7.4.3 for a detailed description of the Project's intended compliance with the City's Groundwater Conservation Overlay District.
21.6	Will the High Spine of tall buildings actually divide and threaten our historic neighborhoods rather than connect them?	Boston's "high spine" planning strategy was developed to preserve the character of the City's historic neighborhoods by concentrating growth between them and using new development to stitch disconnected neighborhoods together into a continuous urban fabric. Please see Chapters 3 and 8 for a discussion of the Project's design, integration with surrounding neighborhoods and limited impacts to area historic resources.
21.7	Will any public open green space be incorporated into the design?	Yes, the Proponent has made considerable efforts to include the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel and the upgrading of the existing open space on Dartmouth Street with the delivery of the Station West Parcel. Please refer to Section 1.5 for a summary of the Project's benefits to the public realm, as well as to Section 3.5 for a detailed discussion on site design. Please see also Figures 3.2a-m and Figures 3.8a-f for renderings and public realm/landscaping plans.
21.8	Why were two neon sculptures by a distinguished artist removed from the MBTA station without any public process?	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, including a discussion of public art.
Letter 22	**Barry Solar**	
22.1	For myself, and on behalf of NABB, I want to express strong opposition to the inclusion of any pedestrian bridges in the above project.	Please refer to Section 3.4.1 for a discussion of the Trinity Place and Stuart Street bridges and to Figures 3.2h-i. The Proponent notes that there are three such bridges in the immediate vicinity of the Project, each providing an important weather-protected and accessible connection across the busy thoroughfare of Stuart Street.

Comment No.	Comment	Response to Comment
22.2	Such bridges violate all tenets of good urban planning. They destroy view corridors which are becoming especially precious in the area because of the number of major projects planned and permitted for this so-called "high spine" area.	Please refer to Section 3.4.1 for a discussion of the Trinity Place and Stuart Street bridges and to Figures 3.2h-i. The Proponent notes that there are three such bridges in the immediate vicinity of the Project, each providing an important weather-protected and accessible connection across the busy thoroughfare of Stuart Street.
22.3	The BCDC guidelines set forth other reasons why such bridges are not acceptable.	Please refer to Section 3.4.1 for a discussion of the Trinity Place and Stuart Street bridges and to Figures 3.2h-i. The Proponent notes that there are three such bridges in the immediate vicinity of the Project, each providing an important weather-protected and accessible connection across the busy thoroughfare of Stuart Street.
Letter 23	**Carla Nelson**	
23.1	My concerns are about keeping Boston a livable city so I am concerned about the effects of wind and shadow which impact walking and having sunny areas.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts and to Section 6.3 for a summary of the Project's shadow impacts. See Appendix I for a copy of the full pedestrian wind report.
23.2	I am under the impression that the studies done on the Dartmouth Project do not take into account the Simon Project over Neiman-Marcus. It is not yet built yet but appears will be a negative effect on the wind and shadow issues.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report. Please refer to Section 6.3 for shadow impacts on adjacent public spaces. Please note all the environmental impact analyses, including the wind analysis include all other approved area projects, including the Copley Tower.
23.3	The wind around Trinity Church can be dangerous and sunlight is limited on the North Side of the church. I hope the Dartmouth Project will not add to the wind and shadow problems.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts and to Section 6.3 for a summary of the Project's shadow impacts. See Appendix I for a copy of the full pedestrian wind report. See also Section 8.3.2 for a shadow analysis on area historic resources.
Letter 24	**Carol Card**	
24.1	Just wondering about the back bay project proposed phase order. Which buildings will be first, etc.	The Proponent has designed each Project Component to be independent of the others, and therefore phaseable. Please refer to Section 1.4.8 for a description of the Project phases and an evaluation of phasing scenarios.

Comment No.	Comment	Response to Comment
24.2	I'm especially interested in the time line for the east side building that will be next to our building where the current cents are. Will there be any protection for the adjacent buildings from the dirt etc.	Please refer to Section 1.4.8 for a description of the Project phases and an evaluation of phasing scenarios. Please also refer to Section 6.10 for a description of potential temporary impacts resulting from construction activities and proposed mitigation measures anticipated to reduce these impacts.
24.3	Power washing at back bay station; I live at 285 Columbus and in our association meeting we were told that power washing in the bus turnaround is being done weekly. I've seen it twice in 6 weeks?! Is there a schedule for the whole turn around area for cleaning?	Please note that cleaning of the bus turnaround is currently managed by the MBTA.
Letter 25	**Chris Hale**	
25.1	Updates to Back Bay station look appropriate and are welcome.	The Proponent appreciates your support.
25.2	The "stark useless forecourt" (as the proponents called it) of the Clarendon side of the site could be turned into a beautiful and inviting park, instead of a 350+ foot residential tower. [But that probably makes the whole project nonviable to the developers.	The Proponent has made considerable efforts to include the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel. Please refer to Section 1.5 for a summary of the Project's benefits to the public realm, as well as to Section 3.5 for a detailed discussion on site design. Please see also Figures 3.2a-m and Figures 3.8a-f for renderings and public realm/landscaping plans.
25.3	This project, coupled with what seemed like two others in the same area (tower going in front of Copley Place; and another on top of Trinity place?) gives one pause on the TOTAL impact on the neighborhood.	The Project has included all other approved Stuart Street corridor projects in its traffic, transportation and other environmental impact studies, in an effort to provide the public a holistic view of development in the corridor. Please refer to Chapters 4 and 6 for a complete analysis. In addition, the Project team has been closely coordinating with the 40 Trinity and Copley Tower projects.
25.4	Are we really expecting to gain that many residents? Copley Square is getting more and more shadowed and windier and windier - and the southern landscape view is being extinguished.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts and to Section 6.3 for a summary of the Project's shadow impacts. See Appendix I for a copy of the full pedestrian wind report. Please note the Project is fully compliant with the 2 hour shadow restriction on Copley Square and improves pedestrian-level wind conditions in many locations.

Comment No.	Comment	Response to Comment
25.5	a. new tax revenue i. What is the source of this? Private residence (condo) ownership? ii. What tax incentives are being provided. iii. When is that full amount (16 million sticks in my mind) kick in relative to the completion dates of each sub-project,	The new tax revenue stated in the PNF reflects real estate taxes generated from all four components of the Project upon stabilization. It does not take into account indirect tax revenues generated from sales and income as a result of new job creation, retail activity, etc. The Proponent intends to develop the four Project Components using private funds, but will explore the possibility of local, state and/or federal public financing sources, where appropriate. Please refer to Section 1.9.4 for a discussion of possible public funding sources.
25.6	b. new jobs i. New - as in filling in actual new business - new retail, new restaurant, new cleaning services ii. Or is that counting all the desk that will be in the office space, which could be a company relocating jobs, which may or may not be actual new positions.	The permanent jobs calculation is based on an estimate of employees that the Project could support given its size and proposed uses.
25.7	c. construction jobs. i. How do these spread out over the lifespan of the projects.	The 2500 estimated construction jobs are anticipated to be broken down as follows: Garage West: 900 jobs; Garage East: 700 jobs; Station East: 800 jobs; Station West: 100 jobs.
Letter 26	**Deborah Hubert**	
26.1	I am interested in receiving information on how I can potentially become a CAC board member for this project. Additionally, if possible, I would like to attend your next scheduled board meeting.	Please contact the Boston Planning and Development Authority for more information.
Letter 27	**Ed Tiffany**	

Comment No.	Comment	Response to Comment
27.1	What are the benefits for the use of this public land for the general public? The land could be used for mixed, middle or low income housing similar to Tent City across the street or Meth Union a few blocks away on Columbus Avenue. The lease of this public land has been granted with no public process. The use of it should include public benefit.	Please refer to Section 1.5 for a summary of the considerable public benefits to be delivered with Project.
27.2	Building on space East of Back Bay Station, now used as a bus turn around, will limit increased access to the train tracks below. The presentations have not given how the next 99 years of increased train and T traffic are to be handled.	As described in Section 3.4, the development of the Station East Parcel, will deliver a new Station entrance and through-block connector in addition to a new stair and elevator connection to the Orange Line. Please also refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Section 4.10 for a detailed transit capacity analysis.
27.3	If there is private residential building on public land, it should include affordable housing within the structure. Linkage funds, as I understand the BRA summary, are for Commercial buildings. Residential space on public land should include at least 25% affordable housing throughout the structure. This should be agreed upon prior to any BRA approvals.	The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.
27.4	Thank you for presenting to the public answers to the many concerns. You mentioned at a meeting that the project would meet the Mayor1s housing guidelines. Before approvals the public should know how those guidelines are going to be met.	The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.

Comment No.	Comment	Response to Comment
Letter 28	**Elliot Guerrero**	
28.1	Weak Design Concept for Office Tower Massing. Was expecting to hear more significant reasoning for tower massing but Rafael basically said it was shaped by wind study, is that how we should design buildings. Given the importance and prominence of the site and location, the public expects an architectural design that is equally important/ prominent for the location. Personally, I do not find the massing and materiality of office tower very interesting but if the design 'concept' was significant I might have been more open but as I've mentioned the design concept did not seem to have much depth beyond just offset glass.	Please refer to Section 3.4 for a description of each Project component's building design concept and development, height and massing, character and exterior materials and signage.
28.2	Too much glass on glass tower	Please refer to Section 3.4 for a description of each Project component's building design concept and development, height and massing, character and exterior materials and signage.
28.3	Street panoramic view seems weak in comparison to existing garage massing.	Please refer to Section 3.4 for a detailed description of each Project Component's building design including, height and massing, character and exterior materials and signage. Please also see Figures 3.2a-m.
28.4	Do not think it's a good idea to exit vehicles from garage onto Dartmouth Street	As described in Section 3.4.1, a new Garage exit on Dartmouth Street is necessary under the Base Scheme, where the On-Ramp remains open. The Proponent has provided pedestrian and vehicle mitigation measures at the proposed exit
28.5	Existing ramp to I-90 should remain although I would guess it is underutilized	As described in Section 1.2.3, independent of the Project proposed by the Proponent, MassDOT is studying the safety and utility of the On-Ramp at Clarendon Street and is considering its potential closure. The Proponent notes that MassDOT will be submitting an Interchange Modification Report (IMR) to the Federal Highway Authority (FHWA) in early 2017. Please refer to Sections 4.3 - 4.6 for a detailed traffic study which includes analysis of Existing, Future No-Build, and Future Build conditions both with and without the On-Ramp closure.

Comment No.	Comment	Response to Comment
28.6	Considering that the existing structure over train station can only carry 1 or 2 additional stories it does not seem feasible to sacrifice original design features of station for retail space that is not ground floor.	As described in Section 1.4.2, the Proponent has abandoned the Station West Alternate Scheme which contemplated the addition of two floors of retail. The proposed one-story addition is designed to preserve the primary architectural intent of the Kallman, McKinnel and Wood Structure.
28.7	There was a good graphic plan that shows amount of existing site dedicated to vehicles and I thought it would be followed up with graphic plan of proposed site areas dedicated to public spaces. Would like to see before and after of site areas illustrating area available for public at various and all times.	Please refer to Section 3.5 for a detailed description of the Project's public realm improvements and to Figures 3.8a-f for public realm improvement plans.
28.8	Would have liked to hear more of the breakdown of market-rate housing, affordable housing, linkage payment and total budget.	Please refer to Section 1.5 for a description of linkage payments and the other substantial public benefits to be delivered with the Project. The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.
Letter 29	**Elliott Laffer**	
29.1	This is a project that, I believe, has the potential to have an important positive impact on a key site at the junction of the Back Bay and the South End. However, the planned site has many physical drawbacks that can make it difficult to construct without causing unacceptable negative impacts. Below I list a series of issues that I hope can be answered in the MEPA and concurrent BRA processes in ways that can mitigate these impacts.	The Proponent thanks you for your support. Please see responses to your following comments below.
29.2	While it is likely that the users of the new towers will be accommodated, what happens to vehicles that are now parking at the 100 Clarendon St and Copley Place garages?	Please refer to Section 4.9 for a summary of existing and proposed parking conditions and Project parking demand.

Comment No.	Comment	Response to Comment
29.3	How are conflicts between the exiting traffic and pedestrians to be handled? In this transit oriented development, will the edge go to those on foot?	Please refer to Section 3.5 for a detailed description of the Project's site design and to Figures 3.8a-f for pedestrian realm improvement plans, including techniques that will be employed to ensure pedestrian priority.
29.4	What is the shadow impact, if any, on the courtyard of the nearby Boston Public Library?	Please refer to Section 6.3 for the Project's shadow impacts. There is no impact to the courtyard of the BPL.
29.5	Because there is a high likelihood that not all phases will be built simultaneously, and there may in fact be extended period when only part of the project is completed, what is the impact of the project at each interim phase? This is also important to study since the proponent is unsure of the order in which the phases will be constructed.	The Proponent has designed each Project Component to be independent of the others, and therefore phaseable. Please refer to Section 1.4.8 for a description of the Project phases and an evaluation of phasing scenarios.
29.6	Will there be transit capacity to handle this project along with the other approved projects in the area?	Yes, please refer to Section 4.10 for a complete Transit analysis.
29.7	How will the Bus 39 operations be handled both during and after construction? It is unlikely that holding the buses on Clarendon Street will be an acceptable solution.	Please refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
Letter 30	**Gerry Ives (Ives Architects)**	
30.1	The public and civic streetscape is either ignored, or there is even a private taking of public space and benefits.	The Proponent has made considerable efforts to include the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel and the upgrading of the existing open space on Dartmouth Street with the delivery of the Station West Parcel. Please refer to Section 1.5 for a summary of the Project's benefits to the public realm, as well as to Section 3.5 for a detailed discussion on site design. Please see also Figures 3.2a-m and Figures 3.8a-f for renderings and public realm/landscaping plans.

Comment No.	Comment	Response to Comment
30.2	Let's look at this project from three aspects: A. Problems in urban design. Lost opportunities. B. Assets of the existing context. C. Real solutions for a prosperous future… for the public, for the developers, and for our city.	Please refer to Chapter 3 for a full discussion of the Project's urban design and to Section 1.5 for a summary of the Project's public benefits.
30.3	The BRA's Copley Place tower project (now underway) will take away the horse sculptures and the open space. It will also cast a long shadow over the surrounding area and even Copley Square (as seen in the recent presentations for the Gateway Project).	Please note the Proponent is not involved in that project.
30.4	The intersection of Stewart and Dartmouth is the intersection from hell. Pedestrian injuries are just waiting to happen…. cars barrel out of the turnpike ramp and roar past this pedestrian crossing.	Please refer to Section 4.3.7 for an analysis of vehicle crash data.
30.5	The ultimate irony… the plan proposes to tear down the West Hancock garage to build the new tower, and then rebuild a new West Hancock Garage for cars again… this is outdated zoning. Even DOT should know by now: more parking = more cars on the street, more air pollution, a degraded pedestrian environment.	Please refer to Section 1.4.6. The Project will require the partial demolition and reconstruction of the westernmost portion of the Garage in order to accommodate the development of the Garage West Parcel and minor modifications will be made to accommodate structural components of the Garage East Parcel. In its reconstructed state, there will be no net increase in the amount of parking provided, as the Project-related parking needs can be accommodated within the Garage's existing capacity.
30.6	And what is with the crazy angles of the West Hancock Garage Tower? Across Stewart Street is the Copley Plaza block… a traditional four square dignified and tradition urban form.	The urban context, including relationship with adjacent buildings, is a well-respected and integral part of the proposed design. At the same time, the Project proposes to create iconic, world-class architecture and to add to the varied skyline of Boston. Please refer to Section 3.3 for details regarding the Project's design intent.
30.7	The tests show no wind problems for a 40 story tower! Sensors everywhere on the model divert attention from the critical intersection of Dartmouth and Stewart.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report. Please note the Project improves pedestrian-level wind conditions in many locations.

Comment No.	Comment	Response to Comment
30.8	The Copley Plaza block is a dignified neighbor whose context should not be ignored.	Please refer to Section 3.2 for a discussion of neighborhood context and to Section 3.3 for a discussion on the Projects Planning and Design Goals. Please also refer to Section 3.5.1 for a detailed description of the Project's pedestrian realm improvements, and to Figures 3.8a-f for pedestrian realm improvement plans.
30.9	Preserve the SOUTHWEST CORRIDOR LOWLINE… and extend it across to the Back Bay Station.	Please refer to Section 3.5.1 for a detailed description of the Project's pedestrian realm improvements, and to Figures 3.8a-f for pedestrian realm improvement plans. With the delivery of the Station West Parcel, the existing open space on Dartmouth Street in front of the Station will be upgraded to create an inviting public plaza at the terminus of the Southwest Corridor Park. The existing Dartmouth Street crosswalk will be relocated to align with the Station's central hall and enlarged to 60 feet wide in order to better serve pedestrian between the Park and the Station.
30.10	Preserve the station porch and the THREE PENNY OPERA representing all walks of life in Boston.	Comment noted.
30.11	Preserve sidewalks…make these wider. Preserve cover and expand cover… two story arcades provide cover with adequate daylight.	Please refer to Section 3.5.1 for a detailed description of the Project's pedestrian realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for pedestrian realm improvement plans. In lieu of dark and dreary arcades, the Project offers new weather-protected through block connectors from both Stuart and Clarendon Streets into the Station. Please refer to Section 3.4 for a detailed description of these public goods and their phasing.
30.12	Bring life back to Dartmouth Street…place the developer's mall (now buried inside the parcel) on the street edge in a restored arcade and above the arcade. Recess the West Hancock Garage inside the parcel to allow for retail and/or office space on the edge opening to the sidewalk arcade. Even better don't restore this outdated garage function.	Please refer to Section 3.3 through 3.5 for a detailed description of the Project's design, including street frontage. See also Figures 3.2a-m. The Proponent has made every effort to create a high-quality continuous street frontage activated by vibrant and engaging ground floor uses, such as retail and restaurant spaces, and residential and commercial building lobbies, despite the substantial constraints of the Project Site. Through the use of glass facades wherever possible, the Project will provide transparency and create an inviting, safe and accessible ground-level experience for pedestrians. Section 3.4.1 describes the Garage West building design and includes details related to the ground floor space along Stuart Street.

Comment No.	Comment	Response to Comment
30.13	Add value, create a prosperous environment…attract visitors, tourists, shoppers, lunch time office workers, residents, and yes pan-handlers. Add real value to adjacent developments.	Please refer to Section 1.5 for a summary of the Project's public benefits.
30.14	Extend the Dartmouth Mall/Greenway to Copley Square and even to the Esplanade (at least long term). Instead of zero vision, apply Vision Zero to the intersection from hell at Dartmouth and Stewart Streets. Slow traffic. Divert traffic. Study depressing Stewart Street below the new Dartmouth Mall/ Greenway to allow for a pedestrian mall overpass.	Please refer to Sections 4.7 and 4.13 for proposed roadway improvements to mitigate Project-related impacts. Please see also Section 3.5 and Figures 3.8a-f and 3.9a-b for site design, pedestrian realm improvements and site circulation and access plans.
30.15	Imagine the unfolding view as you walk north on the Dartmouth Mall. This would preserve and enhance those civic values inherent in Boston's development history.	Please refer to Section 3.5.1 for a detailed description of the Project's pedestrian realm improvements, and to Figures 3.8a-f for pedestrian realm improvement plans.
30.16	Use this Dartmouth Mall to more elegantly integrate the eight modes of transit present.	Please refer to Section 3.5.1 for a detailed description of the Project's pedestrian realm improvements, and to Figures 3.8a-f for pedestrian realm improvement plans.
30.17	Save the Copley Place horses…… bring them out to the Dartmouth Mall open space.	The Proponent does not control this artwork or the open space within which it sits.
30.18	And of course do not mindlessly dump vehicles onto dart with a new ramp from a (needlessly) restored West Hancock Garage.!	As described in Section 3.4.1, a new Garage exit on Dartmouth Street is necessary under the Base Scheme, where the On-Ramp remains open. The Proponent has provided pedestrian and vehicle mitigation measures at the proposed exit
30.19	Do a valid wind tunnel test… especially of the pedestrian zone at Dartmouth and Stewart Streets…and scale up the model to say 1 to 40 for a meaningful result. Test for northwest winds which are the most brutal in the winter.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.
30.20	Build a turnpike deck to the east of Clarendon onto which some of the proposed retail can be relocated.	The Columbus Center air rights parcels are not part of the Project.

Comment No.	Comment	Response to Comment
30.21	Keep the Back Bay Station "basilica" form with its side aisles - at least at the entrance area. Preserve the clerestory daylighting at the second and third floors.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which is designed to preserve the original architectural intent.
30.22	Find more retail area east of the old station core. Renegotiate with the developers to encourage retail further east and perhaps over a new deck east of Clarendon Street (it is wasted now).	The Columbus Center air rights parcels are not part of the Project.
30.23	And keep a curved arch over the Clarendon Street station entrance to reflect the West end of the station (at a smaller scale).	As described in Section 3.4 with the development of the Station East Parcel, a new Station entrance with a public plaza will be delivered, ensuring the civic presence of the Station on Clarendon Street.
30.24	Ventilation of the station is welcome. Of course the ultimate answer is Electrification. Note how everything in interconnected.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, including the MBTA track-level ventilation improvement project.
Letter 31	**Heyward Parker James**	
31.1	The Back Bay Station should be designed to function as a transit hub, not converted to a retail concourse.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.
31.2	The Station needs to be redesigned in a manner that can accommodate much larger numbers of future.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.
31.3	The public service area of the Back Bay Station should be expanded and improved both in terms of functionality and appearance.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.

Comment No.	Comment	Response to Comment
31.4	Boston Properties plans to privatize some 10,000 square feet of public service area should not be allowed to happen.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.
31.5	Much attention should be paid to improve the station's breathing environment. The diesel particulates in the air there are both unpleasant unhealthful. Improved ventilation is essential.	Please refer to Appendix E for information on the MBTA's track-level ventilation improvement project at the Station.
31.6	No garage entrance or exit ramps should be allowed on Dartmouth St.	As described in Section 3.4.1, a new Garage exit on Dartmouth Street is necessary under the Base Scheme, where the On-Ramp remains open. The Proponent has provided pedestrian and vehicle mitigation measures at the proposed exit
31.7	The Clarendon St. side of the development should be redesigned in a more thoughtful manner. -The Clarendon St. entrance to the Mass. Turnpike should be eliminated. - The Clarendon St. façade of the parking garage should have some sort of architectural screening.	As described in Section 1.2.3, independent of the Project proposed by the Proponent, MassDOT is studying the safety and utility of the On-Ramp at Clarendon Street and is considering its potential closure. The Proponent notes that MassDOT will be submitting an Interchange Modification Report (IMR) to the Federal Highway Authority (FHWA) in early 2017. The Proponent has made considerable efforts to include the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel, creating a forecourt to the new Station entrance and reinforcing its civic nature. Please refer to Figures 3.2j-m for images of the Clarendon Street side. The Project does not include the screening of the Clarendon Street Garage facade.
Letter 32	**Jacquelin Yessian**	
32.1	Coordination among the multiple agencies controlling aspects of the site and operations on the site is imperative. To date, we have had little or no contact with the MBTA, MassDOT, BTD, Mass Pike, Amtrak, Federal Highways, for example. Such coordination is important for the station design, as well as the analysis of the traffic around and through the site.	Please refer to Section 1.7 for details on Agency Coordination/Community Outreach to date. The Proponent is in regular coordination with MassDOT, the MBTA, BPDA, and BTD, among other agencies.

Comment No.	Comment	Response to Comment
32.2	Detailed environmental studies should be required and thoroughly examined with the CAC.	Comment noted. Please see Section 1.5 for a summary of public benefits the Project will deliver, Chapter 3 for a detailed discussion of the public realm improvements, Chapter 4 for Transportation and Parking impacts, Chapter 5 for Sustainability and GHG assessment, Chapter 6 for Environmental impacts, Chapter 7 for Infrastructure impacts and Chapter 8 for impacts to Historic Resources.
32.3	Wind impacts should be studied along Dartmouth and Clarendon Streets to the river, and to the north side of Boylston Street. How does the wind data relate to our perception of the conditions around the site?	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.
32.4	Traffic impacts should be studied to the river to the north, east to Arlington and west to Mass Ave, and into the South End as appropriate.	Please refer to Section 4.3.1 and Figure 4.1, for a description of the intersections included in the Project study area, per BTD and MassDOT requests.
32.5	Illustrate any shadow on nationally recognized historic buildings and public spaces, including shadows on the building facades, including the BPL Courtyard facade.	Please refer to Section 6.3 for the Project's shadow impacts. There is no impact to the courtyard of the BPL. Please refer to Section 8.3.2 for a summary of shadow impacts on the façades of area historic resources.
32.6	Alternative studies to relieve the crowding should be discussed with the CAC. A garage outlet or inlet onto Dartmouth Street should be abandoned at this point and a base scheme proposed without it.	As described in Section 3.4.1, a new Garage exit on Dartmouth Street is necessary under the Base Scheme, where the On-Ramp remains open. The Proponent has provided pedestrian and vehicle mitigation measures at the proposed exit. Please refer to Section 3.4.1 for a discussion of an alternative internal exit ramp and to Figures 3.3s-u for plans. Please note this alternative is not being pursued as it eliminates the possibility for a through-block connector from Stuart Street, the retail space at the corner of Stuart Street and Trinity Place and compromises the Garage West building's loading dock.
32.7	Air quality, particularly at intersections and between streetlights should be studied and reviewed with the Board of Health.	Please refer to Section 6.6.2 for the results of the microscale air quality analysis and Sections 5.4.5 and 6.6.3 for the results of the mesoscale air quality analysis. Appendix H also provides additional supporting documentation related to air quality. The Project will not cause or contribute to an exceedance of the National Ambient Air Quality Standards.

Comment No.	Comment	Response to Comment
32.8	During Article 80 reviews, we consistently ask for data on the capacity of public transportation and have been disappointed in the responses. Since so much constriction has been approved in this small area of the Back Bay, the State should provide this information to the developer and the public.	Please refer to Section 4.10 for a detailed analysis of existing, Future No-Build and Future Build transit capacity.
32.9	Likewise, the capacity of public utilities, water, sewer, and power, as well as cable for TV and Wi-Fi, should be made public and analyzed in the next submission with respect to the proposed building uses. If additional capacity will be required, this should be identified in the next phase of the project and planned.	Please refer to Sections 7.2 through 7.5 for descriptions of existing utilities and proposed future connections. No capacity issues are anticipated.
32.10	Improvements to the public realm, such as comfortable sidewalks and adequate outdoor spaces, will be essential to the success of this block.	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans.
32.11	[...since the No. 39 bus already has a home on Clarendon,] it is appropriate to study design alternatives to use the space between the residential towers and Clarendon Street.	The Project includes the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel. Please refer to Section 3.5.1 for a detailed description of the Project's pedestrian realm improvements, and to Figures 3.8a-f for pedestrian realm improvement plans.
32.12	The suggested bridges above the adjacent streets were discussed at BCDC, whose guidelines discourage them. High quality, safe on-grade crossings should be developed instead to engage life on the street, which is most appropriate for this urban center.	Please refer to Section 3.4.1 for a discussion of the Trinity Place and Stuart Street bridges and to Figures 3.2h-i. The Proponent notes that there are three such bridges in the immediate vicinity of the Project, each providing an important weather-protected and accessible connection across the busy thoroughfare of Stuart Street.
32.13	The architecture of the proposed residential buildings is very sketchy. Suggest proposing elevation designs that are clearly residential, providing operable windows and individual outdoor balconies.	Please refer to Figures 3.2a-m and Figures 3.6a-p for Project Views, and Figures 3.5a-c for Project Elevations.

Comment No.	Comment	Response to Comment
32.14	Recommend providing additional drawings to show the whole buildings from the Back Bay, Dartmouth, and Clarendon Streets. The drawing for the corner of Stuart and Dartmouth misses the top half of the building.	Please refer to Figures 3.2a-m and Figures 3.6a-p for Project Views, and Figures 3.5a-c for Project Elevations.
32.15	A proposal to include all of the affordable housing on site, and including the required funds from 40 Trinity's payment to the Housing Trust, should be developed and presented.	The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.
32.16	Excellent publically accessible open space would a welcome public benefit, as would desirable improvements to Back Bay Station. To determine what would be desirable, please engage the CAC and the public very early in the decision-making, as soon as possible. This has been discussed although not scheduled.	The Project includes the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel and the upgrading of the existing open space on Dartmouth Street with the delivery of the Station West Parcel. Please refer to Section 1.5 for a summary of the Project benefits to the public realm, as well as Section 3.5.1 for the specific description of the pedestrian realm improvements to be delivered with the Project. See also Section 1.7 for details regarding the Proponent's outreach efforts with various stakeholders including the CAC, state and city officials, community representatives and abutters.
32.17	Please prepare a detailed list comparing the project with the Stuart Street Zoning and Guidelines and detailed explanation of all requested zoning relief, i.e. amend the PDA. A PDA amendment should not be used for relief from Stuart Street Zoning requirements.	Although the Project will achieve zoning compliance through a PDA amendment, as described in the BPDA Scoping Determination, the Project is, in fact, "exemplary in its strong adherence to the Stuart Street Design Guidelines." Please refer to Sections 3.3 and 3.4 for more detail about the Project's responsiveness to the vision and planning goals established in the Stuart Street District, particularly the height and density guidelines. Please also see Section 2.2.1 for an analysis of an alternative that is strictly compliant with the dimensional guidelines of the Stuart Street District.
32.18	Please provide a list of any potential tax relief for the project.	The Proponent intends to develop the four Project Components using private funds, but will explore the possibility of local, state and/or federal public financing sources, where appropriate. Please refer to Section 1.9.4 for a discussion of possible public funding sources.

Comment No.	Comment	Response to Comment
32.19	How can we be assured that adequate coordination will take place between the different agencies involved with the project? In particular, when will the public get an opportunity to review MassDOT plans for the MBTA station and the Mass Pike plans for the Clarendon Street exit?	A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016. Additionally, the Proponent notes that MassDOT has coordinated with BTD and will be submitting an Interchange Modification Report (IMR) to the Federal Highway Authority (FHWA) in early 2017.
32.20	Will detailed, state-of-the art studies be conducted on wind, traffic, and shadow impacts in and around Copley Square that include all of the requested points?	Yes, please refer to Chapter 6 for details on Project-related environmental impacts and steps that will be taken through design and management to avoid, minimize, and/or mitigate adverse effects. Please refer to Chapter 4 for a summary of the transportation and parking aspects of the Project, including proposed mitigation and improvements the Project will make to help reduce the impacts to the surrounding neighborhoods.
32.21	Will wind impacts be studied along Dartmouth and Clarendon Streets to the river and on the north side of Boylston Street? Will wind impacts on Copley Square Park be studied, particularly where the Farmer's Markets place tents and around the fountain?	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report.
32.22	Will traffic impacts be studied to the river to the north, east to Arlington and west to Mass Ave, and into the South End as appropriate?	Please refer to Section 4.3.1 and Figure 4.1, for a description of the intersections included in the Project study area, per BTD and MassDOT requests.
32.23	Will any shadow impacts on nationally recognized historic buildings and public spaces be presented, including shadows on building facades, including the BPL Courtyard facade?	Please refer to Section 6.3 for the Project's shadow impacts. There is no impact to the courtyard of the BPL. Please refer to Section 8.3.2 for a summary of shadow impacts on the façades of area historic resources.
32.24	Will the developer study shaping the buildings to completely eliminate new shadow on Copley Square?	As discussed in Section 6.3, shadow impacts have been minimized to the extent practicable to avoid noticeable pedestrian impacts, and are in compliance with the specific requirements of the Stuart Street Zoning District, including the 2-hour shadow limitation on Copley Square.

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32.25	Will quantitative and qualitative analyses of pedestrian circulation to and from, in and around the project be provided?	Please refer to Section 4.12 for details of the pedestrian analysis and to Section 3.5 for a detailed description of site design, including strategies that will be implemented to ensure pedestrian priority. See also figures 3.8a-f.
32.26	Will the pedestrian analysis be correlated with the traffic analyses?	Please refer to Section 4.12 for details of the pedestrian analysis and to Section 3.5 for a detailed description of site design, including strategies that will be implemented to ensure pedestrian priority. See also figures 3.8a-f.
32.27	Will air quality, particularly at intersections and between streetlights be studied?	Please refer to Section 6.6.2 for the results of the microscale air quality analysis and Sections 5.4.5 and 6.6.3 for the results of the mesoscale air quality analysis. Appendix H also provides additional supporting documentation related to air quality. The Project will not cause or contribute to an exceedance of the National Ambient Air Quality Standards.
32.28	Will we be provided with data on the capacity of public transportation to handle all the additional usage expected in the area?	Please refer to Section 4.10 for a detailed analysis of existing, Future No-Build and Future Build transit capacity.
32.29	Similarly, how about the capacity of public utilities, water, sewer, and power as well as for cable for tv and Wi-Fi?	Please refer to Sections 7.2 through 7.5 for descriptions of existing utilities and proposed future connections. No capacity issues are anticipated.
32.30	Will the CAC be invited to evaluate proposed improvements for the public realm, such as comfortable sidewalks and adequate outdoor spaces to serve the uses on the site?	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans. These elements will be discussed at a CAC meeting following the DEIR/DPIR filing.
32.31	Will design alternatives be discussed with the public and the CAC for the 39 bus? Could one of these include the use of the space between the residential towers and Clarendon Street?	Please refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
32.32	Will information be provided on producing safe, on-grade street crossings to engage life on the street, as appropriate in a vibrant urban environment?	Please refer to Section 3.5 for a discussion of site design and pedestrian access. Please also see Figures 3.8a-f and 3.9a-b for proposed public realm improvements and site circulation and access plans.

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32.33	Will additional information be provided to show all elevations for residential buildings?	See Figures 3.5a-c for Project elevations.
32.34	Can additional drawings be provided that show the whole buildings from the Back Bay, Dartmouth, and Clarendon Streets? The current drawing for the corner of Stuart and Dartmouth misses the top half of the building.	Please refer to Figures 3.2a-m, Figures 3.6a-p, and Figures 8.2a-j.
32.35	Can additional drawings be provided that show the view corridor both ways on Dartmouth Street, where the Stuart Street Zoning requires a setback.	Please refer to Figures 3.2a-m, Figures 3.6a-p, and Figures 8.2a-j.
32.36	Can a proposal be offered that includes all of the affordable housing on site and that includes the funds required from the 40 Trinity, as well?	The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.
32.37	Will the public be engaged early in the process on plans concerning the publically accessible open space and the improvements to the Back Bay station?	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans. See Section 1.7 for details regarding the Proponent's outreach efforts with various stakeholders including state and city officials, community representatives and abutters. Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station renovations. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.
32.38	Can you prepare a detailed list comparing the project with Stuart Street zoning and Stuart Street guidelines and offering a detailed explanation of all requested zoning relief?	Although the Project will achieve zoning compliance through a PDA amendment, as described in the BPDA Scoping Determination, the Project is, in fact, "exemplary in its strong adherence to the Stuart Street Design Guidelines." Please refer to Sections 3.3 and 3.4 for more detail about the Project's responsiveness to the vision and planning goals established in the Stuart Street District, particularly the height and density guidelines. Please also see Section 2.2.1 for an analysis of an alternative that is strictly compliant with the dimensional guidelines of the Stuart Street District.

Comment No.	Comment	Response to Comment
32.39	Can you list any potential tax relief that might be requested for the project?	The Proponent intends to develop the four Project Components using private funds, but will explore the possibility of local, state and/or federal public financing sources, where appropriate. Please refer to Section 1.9.4 for a discussion of possible public funding sources.
Letter 33	**John Corey**	
33.1	285 was constructed in 1924, and has had a rich history. Although the building has been renovated and modernized over the years, we are extremely concerned that our building, and its 92-year-old foundation, may be irreparably damaged by the close proximity to the specific challenges of the Station East site. We feel the BRA should require Boston Properties to undertake further study that would alleviate our concern for the structural integrity of our beautiful and historic building.	Please refer to Section 8.4 for an analysis of the potential impacts on neighboring historical resources. The Proponent intends to implement best management practices to protect neighboring properties during the construction period. Please see Sections 6.10 and 8.3.4 for a summary.
33.2	Furthermore, if approved, we are concerned that the substantial construction will have great impact on our quality of life. We would like to know what procedures Boston Properties will put in place to mitigate noise, dirt, dust, and debris that this project will create for our residential community. In addition, we want to be assured that Boston Properties minimizes disruptions to our community and does its' utmost to insure our safety.	Refer to Section 6.10 for a description of construction mitigation measures and to Section 4.13.4 for a description of the Construction Management Plans that will be implemented by the Project.
33.3	As abutters, and neighbors, we are enthusiastic about potential updates and modernization, but we have concerns that the scope and scale may be excessive when considered in context of the other approved projects in our immediate neighborhood.	The Proponent has designed the Project to be respectful of the height and density guidelines in the recently enacted Stuart Street District.

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33.4	We are concerned that the population density will increase to levels that will become unbalanced in relation to the amount of public, and green space available to the area.	Please refer to Section 3.3 and 3.4 for the massing and heights of the proposed buildings, and a description of the design concept. Please also see Section 3.5 for description of the Project's public realm improvements, including open space creation. The data presented in Chapter 4 discusses the impact on cars, pedestrians, and transit due to additional density on the Site.
33.5	As a major transportation hub we strongly urge the BRA to heavily weigh both green space, and public space into the Back Bay Station Proposal.	The Proponent has made considerable efforts to include the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel and the upgrading of the existing open space on Dartmouth Street with the delivery of the Station West Parcel. Please refer to Section 1.5 for a summary of the Project's benefits to the public realm, as well as to Section 3.5 for a detailed discussion on site design. Please see also Figures 3.2a-m and Figures 3.8a-f for renderings and public realm/landscaping plans.
33.6	We think the remaining space in the rear of Back Bay station should be dedicated to green space for the public to use in various capacities. This would also help reduce noise and pollution. An additional added benefit would be the arched roof architecture being visible from the street, which is a hallmark of the station.	The Proponent has made considerable efforts to include the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel. Please refer to Section 1.5 for a summary of the Project's benefits to the public realm, as well as to Section 3.5 for a detailed discussion on site design. Please see also Figures 3.2a-m and Figures 3.8a-f for renderings and public realm/landscaping plans.
33.7	Property lines need to be closely examined regarding the shared alley/driveway enabling loading dock access to 285, and the rules and regulations that would govern this alley/driveway. The current proposal eliminates a safe pedestrian path to and from one side of our building.	Please refer to Figure 1.5 for an existing conditions plan with property line information.
33.8	Building a residential tower directly behind 285 in such close proximity will also cause significant loss of light. We have tremendous privacy concerns with the windows of the new tower directly facing our residential windows. Views from the upper floors will also be negatively impacted, if not lost all together. Light trespass from the Station East Tower into the residential windows of our building is also a concern.	As the Project Site is located to the north of the 285 Columbus building, it should not experience any loss of direct sunlight. Please refer to Section 3.4 for a description of view corridors through the Site, as well as Section 6.3 and Figures 6.2a-e for shadow analysis. See also Section 6.4 and Figures 6.3a-c for daylight analysis.

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33.9	We understand that Boston Properties is seeking Blight Status for the Back Bay South End Gateway Project. While we agree that the station is experiencing normal issues associated with aging and evolving user needs, it is not structurally unsound; therefore, it does not qualify the project for blight status.	Please refer to Section 1.2.2 for an explanation of the application of the term "blighted open area" and why it is appropriate in the redevelopment of the Project Site.
Letter 34	**John Forbes-deWinter**	
34.1	I read with interest the proposal for the Back Bay/ South End Gateway Project. Great idea! Great Proposal!	The Proponent appreciates your support.
34.2	I'm 100% for the project, except for one flaw, that overwhelming orange "T" logo. The buildings are crisp and clean; that T sign detracts from the façade and the entire project. When you look at the buildings, your attention is not drawn to the building, but your attention is immediately drawn to that T sign.	The Proponent appreciates your support. Please note that the orange "T" logo is only an artist's interpretation and meant to be evocative of future signage. Actual Station signage will be integrated with the building's façade and designed to MBTA standards.

Comment No.	Comment	Response to Comment
Letter 35	**Joseph Gertner**	
35.1	My question is: for how long does Boston Properties intend to keep running the station if no residential or commercial development work is started by the target date.	Under the conditions of the existing lease with MassDOT, the Proponent assumed management responsibilities for the Station Concourse for the term of the lease, which is 99 years.
Letter 36	**Kenneth Kruckemeyer**	
36.1	The success of this project, additional development in the Stuart Street Corridor, and ultimately the prosperity of the City of Boston will rely heavily upon the ability of Back Bay Station to serve the growing transportation needs of the district. But, the modifications to the station currently proposed by Boston Properties appear to reduce its functionality and to inhibit its ability to serve anticipated demand.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Section 4.10 for a detailed transit capacity analysis.
36.2	Neither the BRA, nor the Commonwealth should grant approval of the Back Bay /South End Gateway project until the public is assured that Back Bay Station will serve the growth of public transportation to this district. Segmentation of these two interlinked projects should not be allowed. If the Gateway project were to be built first, the public function of the station could be severely limited. Similarly, if the station modifications were to proceed as currently drawn, development of the Gateway and the district will be highly constrained.	Please refer to Section 4.10 for a detailed analysis of Existing, Future No-Build, and Future Build transit capacity. Please also refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.
36.3	Some additional floor area is gained in the central space by filling in the openings around the stairs and escalators which, in turn, diminishes security, wayfinding, light and air to the platform. The net result would be a highly constrained station with reduced flexibility and redundancy, and less ability to adapt to increased ridership, new ticketing, or improved security.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.

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36.4	The Boston Properties lease with MassDOT for control and maintenance of the station and for air rights above and adjacent is for 99 years. The modifications to the station and the Gateway buildings must not only be privately successful, but must serve the public's transportation needs as they grow and change for all of those 99 years.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Section 4.10 for a detailed transit capacity analysis. The Station Concourse Improvements have been designed with future flexibility and capacity growth in mind, working directly with the MBTA.
36.5	The developer has already provided two schemes for the entire site, dependent upon whether the Clarendon Street entrance to the MassPike is eliminated. The BRA and MEPA Scopes should also require the developer to provide additional schemes, developed via a public process, to achieve the developer's air-rights objectives while fully preserving and improving the functionality of Back Bay Station.	Please refer to Section 2.2 for a description of the alternatives requested by MEPA.
Letter 37	**Lisa Newell**	
37.1	I am interested in knowing about upcoming Lotteries (residential) so that I may apply for any in the near future. I am handicapped with a spinal cord injury and I am having difficulties finding an apartment that attends to a disable persons needs ex: Elevator and disability apparatuses that I require in order to be safe in my apartment.	Please contact the BPDA for information on housing lotteries. It is anticipated that 5% of the units in the Garage East Parcel and Station East Parcel residential buildings will be designed to be accessible, in compliance with 521 CMR.
Letter 38	**Lynn Foster**	
38.1	The project plans to eliminate the current entrances to the station as well as the waiting room and pathways to the subway, all of which create serious questions about the efficient functioning of the station from the riders' perspective and its accessibility from surrounding streets.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.

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38.2	The Gateway plan also indicates that piers will be driven along parts of the train platforms, squeezing passengers into less space.	Please refer Section 4.10.4 for discussion of the impact of the Station East building's structure to the Station platforms.
38.3	And finally, the bus turn-around is eliminated with no provision for the popular # 39 bus.	Please refer to Section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
38.4	I urge you to carefully review the Back Bay/South End Gateway Project to guarantee that the Back Bay Station with continue to serve the needs of the public.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Figures E.7-E.10.
Letter 39	**Martyn Roetter**	
39.1	I hope it will be possible to develop and implement some useful and practical ideas in appreciation of the potential for improvements that can be implemented in the short term to enhance the external and internal environment of the Back Bay Station and visitors', regular travelers' and others' experiences within and while entering and leaving it. Improvements might be directed at waiting, such as places to sit and even work or find amusement (Internet access), as well as the availability and clarity of the information travelers need, the ease of their passage to and from the trains, ticketing, "ambiance" etc. I note in particular that the future of the 39 bus, i.e. where it will stop to deliver passengers to and pick them up from the station is an important, and still to my knowledge open question.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5. Please refer to Section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
39.2	MassDOT (MBTA and MTA) as well as BTD should participate actively throughout the process.	Refer to Section 1.7 for a summary of agency coordination and public outreach. The Proponent coordinates regularly with MassDOT and the MBTA.

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39.3	A public process for the improvements to the station, including the ventilation, should be undertaken by the State. Successful examples of train stations with housing, retail, and office uses, such as St. Pancras in London, should be explored for lessons learned. For example, the importance of cultural experiences to enhance the travel experience should not be under-appreciated. While the train station is not formally part of the project it would be reprehensible for the impact of this project on passengers and the transport experience not to be given serious consideration.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station renovations. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.
39.4	One specific concern is the residential housing about which there is little visibility at the moment regarding its configuration (e.g. types and numbers of units, affordable housing etc.).	The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston. The mix of unit types and locations is still under development at this time.
39.5	Parking is always an issue in Boston, which raises the question of the advisability of planning no additional parking, given the great increase in residents and workers on this site. Granting neighborhood parking permits to residents would be undesirable since it would exacerbate an already heavily oversubscribed situation. Also a new exit from the parking garage onto Dartmouth Street could exacerbate already difficult interactions between vehicles and pedestrians.	Please refer to Section 4.9 for a summary of existing and proposed parking conditions and Project parking demand.
39.6	The multiple potential bridges envisaged in the project should be vetted early in the process, since urban bridges harm street life. In particular there should be no new bridge cross Stuart Street. The existing bridge is one too many.	Please refer to Section 3.4.1 for a discussion of the Trinity Place and Stuart Street bridges and to Figures 3.2h-i. The Proponent notes that there are three such bridges in the immediate vicinity of the Project, each providing an important weather-protected and accessible connection across the busy thoroughfare of Stuart Street.
39.7	There should be further detailed study of the shadow impacts, not only on Copley Square Park and the Commonwealth Avenue Mall, but also on the façade of our historic buildings, such as the Boston Public Library on Dartmouth Street and the Courtyard, Trinity Church, etc.	Please refer to Section 6.3 for a detailed shadow analysis and to Section 8.3.2 and Figures 8.3a-f for a shadow analysis on area historic resources.

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39.8	The eventual mix of retail and office is market-dependent, and market conditions change. Nevertheless it is important to shed as much light as possible on this issue at the outset to avoid changes to the PDA in the near future. One point in particular is that the Harvard Vanguard facility on this site should be retained given its very convenient location.	The Proponent is discussing opportunities for both short- and long-term relocation with all existing Garage tenants and will continue to explore options as the Project advances.
39.9	The criteria for affordable housing for this site, the goal for which is greater for a Stuart Street site than the Mayor's initiative, should be a subject for early discussion. Since this is public land there is precedence for increasing the number of affordable units. One question is whether the offsite affordable housing units from 40 Trinity could be located within one of the two new residential buildings proposed for this site.	The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.
39.10	A question I have heard raised by others is whether a school could be included on this site, in order to establish an elementary school in the Back Bay. Constructing purpose-built space for the Snowden School on the site might allow the existing Snowden High School to be repurposed for an elementary school.	The Proponent regrets that no large interior space is available for public educational purposes. The Site constraints include minimal terra firma for landing foundation elements for each building, and the density of each building is needed to ensure the Project is economically viable. Please refer to Section 1.5 for an overall summary of public benefits.
39.11	The consequences of the potential loss of the Stuart Street access to the Mass Pike should be carefully considered. Traffic along Berkeley Street going to Storrow Drive and eventually Route 93 and the Mass Pike is already problematic for long periods during the day, e.g. especially at the intersections with Beacon Street and Back Street. These problems might be exacerbated further if vehicles that now use the Stuart Street access to the Mass Pike westbound are directed towards Storrow Drive (see also 4 above in which a path to the Mass Pike via Dartmouth Street is envisaged).	As described in Section 1.2.3, independent of the Project proposed by the Proponent, MassDOT is studying the safety and utility of the On-Ramp at Clarendon Street and is considering its potential closure. The Proponent notes that MassDOT will be submitting an Interchange Modification Report (IMR) to FHWA in early 2017. Sections 4.4 through 4.6 present the traffic analysis of Future No-Build and Future Build conditions both with and without the On-Ramp closure.

Comment No.	Comment	Response to Comment
39.12	Wind impacts are a perennial concern in this area. Wind monitoring throughout the district should be implemented to inform assessment of the realism or level of accuracy of the findings of the wind study modeling that has been undertaken and to design mitigation solutions, if relevant. Clarendon Street is already impassible for some people under certain conditions. This project should be designed to improve the situation. Wind studies need to show how project phasing would affect the wind impacts, taking account of the other large projects that will be undertaken in the area.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report. Please note the Project improves pedestrian-level wind conditions in many locations. Please note all the environmental impact analyses, including the wind analysis include all other approved area projects.
39.13	It would also be helpful if information regarding all financial considerations, including requests for tax abatements and public expenditures, were made public in a timely way so that it is possible to understand the cost benefit tradeoffs of this ambitious and complicated project.	The Proponent intends to develop the four Project Components using private funds, but will explore the possibility of local, state and/or federal public financing sources, where appropriate. Please refer to Section 1.9.4 for a discussion of possible public funding sources.
Letter 40	**Ned Flaherty**	
40.1	Despite staffer promises that TPC had been added to the scope, all of the enormous public costs—tax breaks, tax waivers, grants, loans, bail-outs, etc. –are still totally missing.	The Proponent intends to develop the four Project Components using private funds, but will explore the possibility of local, state and/or federal public financing sources, where appropriate. Please refer to Section 1.9.4 for a discussion of possible public funding sources.
40.2	This proposal would be built upon public property, and built in public air space, and paid for with public dollars, so for taxpayers, enormous—and secret—public costs are inexcusable—and intolerable.	The Proponent intends to develop the four Project Components using private funds, but will explore the possibility of local, state and/or federal public financing sources, where appropriate. Please refer to Section 1.9.4 for a discussion of possible public funding sources.
40.3	I urge Governor Baker and Mayor Walsh to: 1. Immediately add financial disclosure (expenses, revenue, profit, Total Public Cost) to the scope, as promised. 2. Immediately explain how much these 6 skyscrapers will cost taxpayers after the 99 year lease ends.	The Proponent intends to develop the four Project Components using private funds, but will explore the possibility of local, state and/or federal public financing sources, where appropriate. Please refer to Section 1.9.4 for a discussion of possible public funding sources.

Comment No.	Comment	Response to Comment
Letter 41	**Nina Garfinkle**	
41.1	I'm happy management of the station will improve. Based on the current plans, I'm very concerned there is not enough room for circulation and waiting-for the current number of users and nor for the projected numbers. I understand the desire to make retail support it, but if there isn't enough room for people, the retail will fail as well.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.
41.2	There were some very smart things built into the original design [heated seats since you can't close off the cold weather, protective areas to guard against rain and wind for people, beautiful sculpture that was a beacon/landmark to help direct people to and delight others. I suggest you reach out to Ken Kruckemeyer who could share some of the thinking that many may not know of. It could make the difference between a great space and debacle.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements. Please see also Figures E.6-12 for planned thermal comfort features and renderings.
41.3	Station signage and usage: - Bring back old light sculpture-great landmark and easy to direct people to. Helped create a "great public space" - Use icons for "tickets" and "$" so foreigners can understand - Need a T sign perpendicular to station that sticks out so people can see it from Stuart and Dartmouth - Clearly visible track numbers/signage - Waiting area vs Circulation area [these cannot be shared areas] - Easier doors to open [properly balanced] not two to go through making it hard for people [cold and birds will come in through the tracks regardless] - Intermodal connections/ease of transfers	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, including Wayfinding and Signage. Please also refer to Figures E.8 and E.9.

Comment No.	Comment	Response to Comment
41.4	Crossings - How does it align with SWCP - Curb cuts and cuts in medians should be WAY wider [put a bollard if worried about U-turns]. Walkers are always having to line up to cross the street. Need room for bikes to come through from SWCP, will help get peds across faster leaving more time for cars. Also a great place for people to perch if needed while waiting for the light [elderly, handicapped, etc.] - Narrow Stuart Street so traffic flows better [equal to block in from of John Hancock] the block below and crossing distance is shorter. - Car exit on Stuart Street -OK to inconvenience 550 drivers in a TOD/ ped environment - When there is a driveway, not only should the sidewalk be level across it, but the paving should continue the sidewalk so the drivers realize they are crossing a pedestrian area. Great visual cue.	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements and to Figures 3.8a-f for public realm improvement plans.
41.5	Where will the following be: - Newsstand guy - free news boxes - taxis - buses - Hubway - trash cans - food trucks and how/where will people be able to interact and gather to use all these services without disturbing circulation	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements and to Figures 3.8a-f for public realm improvement plans.

Comment No.	Comment	Response to Comment
Letter 42	**Pamela Humphrey**	
42.1	Pedestrian traffic: critical times of the day the foot traffic in the area (and with the added traffic of the other new buildings in the block) is, and will be more so and significant. Dartmouth Street and Clarendon Streets are narrow. Particularly on Clarendon Street, individuals walk in the street to get around the crowds on the way to the BB station during rush hours. The residential buildings are being built in a way that, given this issue (Dartmouth has wider sidewalks-will they stay that way?) will become an even bigger problem. How do you plan to handle that?	Please refer to Section 3.5.1 for a detailed description of the Project's pedestrian realm improvements, and to Figures 3.8a-f for pedestrian realm improvement plans. Please also see Section 4.12 for a pedestrian analysis.
42.2	Drop off capability at both the Back Bay Station and the residential buildings: The way that the drawings are currently drawn for this project - there is no, or extremely limited, drop off space for both the station and residential building l locations. Current plans suggest limited curb indent to accommodate some. It is extremely tight on that street and what little might be provided currently won't be nearly enough given the increased traffic and gridlock on Clarendon and Dartmouth-particularly during rush hour. What is being done? Will you consider internal drop off/turn around at the residential buildings rather than street curb drop off? Same at the Station along with bus entry/turnaround?	Please refer to Section 3.5.1 for a detailed description of the Project's pedestrian realm improvements, and to Figures 3.8a-f for pedestrian realm improvement plans. Please refer to Section 3.5.3 and Figures 4.18a-b for details on proposed drop-off locations and curbside uses.

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42.3	Bus 39 entry and drop off at Back Bay Station: as currently designed there is no drop off/waiting space for this double length bus. Currently there is NO turn off or turn around space the way it is currently designed. Will there never be the need for additional busses using the Back Bay station for pick up/drop off in the future? Should we plan for that given limited bus stop capability in the area (current bus stops add to gridlock) and need to increase/encourage public transportation use?	Please refer to Section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.
42.4	Entry and Exit into/out of garage: Current exit onto Clarendon stays? or does that become an entrance only? - We now have heavily increased foot traffic. Exit onto Dartmouth would be - I don't want to even think about it. The least objectionable would be to exit onto Stuart Street, which provides several directional egresses to Mass Pike and Storrow Drive and is a wider street. What is the thinking about this and does anything work effectively that is currently not considered?	The full-service entry/exit on Clarendon Street will remain. As described in Section 3.4.1, a new Garage exit on Dartmouth Street is necessary under the Base Scheme, where the On-Ramp remains open. The Proponent has provided pedestrian and vehicle mitigation measures at the proposed exit. Please refer to Section 3.4.1 for a discussion of an alternative internal exit ramp and to Figures 3.3s-u for plans. Please note this alternative is not being pursued as it eliminates the possibility for a through-block connector from Stuart Street, the retail space at the corner of Stuart Street and Trinity Place and compromises the Garage West building's loading dock.
42.5	There was public art in the Back Bay station. It was, apparently in poor repair and is now stored. The city paid for this art for the Station. Whether one likes it or not it is by a well-known artist whose work is in Moma and many other museums. What are we going to do about it? We are a city of the arts.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, including a discussion of public art.
42.6	It is generally accepted by most knowledgeable urban planning and environmental professionals, as well as most rational people that, by and large, the reduction of fossil fuel based vehicles is urgently required for the good of humankind and planet earth. We are curious to know if your firm agrees with this near universal conclusion?	The Proponent has made considerable efforts to include the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel and the upgrading of the existing open space on Dartmouth Street with the delivery of the Station West Parcel. Please refer to Section 1.5 for a summary of the Project's benefits to the public realm, as well as to Section 3.5 for a detailed discussion on site design. Please see also Figures 3.2a-m and Figures 3.8a-f for renderings and public realm/landscaping plans.

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42.7	Shadows - Copley Place is a wonderful place of sunshine and open air. Already, although, apparently within allowable limits, the Neiman Building is already creating shadows. Now what with these other two immense projects adding to it?	As discussed in Section 6.3, shadow impacts have been minimized to the extent practicable to avoid noticeable pedestrian impacts, and are in compliance with the specific requirements of the Stuart Street Zoning District, including the 2-hour shadow limitation on Copley Square.
42.8	Flexibility in the renovation of the Back Bay Station: what is being planned for future improvements and expansion of public transportation needs in the future? Will it be designed in a way that accommodates future expansion/upgrade so desperately needed and for sure will be needed in the future with the massive increase of population in this compact space.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5 and Section 4.10 for a detailed transit capacity analysis.
42.9	Density created by these large buildings: Clarity on the impact of the addition of huge numbers of people in this small area and future increased traffic that they will bring. It seems naive to believe that this won't be a huge problem.	Please refer to Chapter 4 for a detailed analysis of potential transportation impacts and proposed mitigation.
42.10	Public transportation infrastructure: It is short sighted to believe that any attempt to limit parking without proper public transportation infrastructure and increased capability will mitigate the impact of these dense building will have. Boston has a desperate need for upgrading of its infrastructure and has limited or no current funds to expand it to accommodate this influx of traffic and people. Do taxes from these projects cover what is needed in addition to other services? What is the thinking to mitigate - which at the moment seems quite impossible. (The Orange Line, during rush hour has a hard time handling what currently exists).	Please refer to Section 4.10 for a detailed analysis of Existing, Future No-Build and Future Build transit capacity.

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42.11	If the exit to this new development turns out to be onto Stuart, and partially onto this side street to get to the Mass Pike, that will increase traffic on this side street and Stuart multiple fold. How, during rush hour, and moving onto St. James is this possibly going to be handled?	Please refer to the traffic analysis presented in Chapter 4 for a detailed analysis of traffic impacts in the study area, including Trinity Place, Stuart Street and St. James Avenue.
42.12	With this additional density how do you see handling the gridlock with this increased traffic caused by the density created by this and other buildings?	Please refer to Chapter 4 for a detailed analysis of potential transportation impacts and proposed mitigation.
42.13	The current process for approvals, community input, coordination of departments appears to be extremely disorganized and cumbersome. To what extent does the BRA, DOT, MBTA, Zoning and other agencies which review/approve/negotiate/decide set asides, uphold and create zoning laws on these projects coordinate?	Please refer to Section 1.6, Regulatory Context, for a summary of anticipated permits and approvals as well as the local planning and regulatory controls applicable to the Project.
42.14	Would very much like to be informed about your processes as a collective when dealing with development.	Please contact the BPDA Project Manager to be added to the distribution list for this Project.
42.15	So, given all this, where are we on the vision for development and growth for the City which does not create large future issues and problems? On the issues related to this particular development? AND, just for consideration, does anyone have the courage to reboot the thinking on development before the very fabric of this special City - known for its size, livability, and character -is turned upside down?	Please refer to Section 3.3 for a summary of the Project's planning principles and design goals. The Project will reinforce Boston's "high spine" planning strategy, which was developed to preserve the character of the City's historic neighborhoods by concentrating growth between them and using new development to stitch disconnected neighborhoods together into a continuous urban fabric.

Comment No.	Comment	Response to Comment
Letter 43	**Pamela Petri-Humphrey**	
43.1	The set asides that the BRA and zoning allow to increase space and heights of buildings in Boston to get away from restrictions (the Seaport a great example) are beyond disturbing for a city such as ours. There is so little outdoor space, much of the "public benefit" space is indoors!	The Proponent has made considerable efforts to include the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel and the upgrading of the existing open space on Dartmouth Street with the delivery of the Station West Parcel. Please refer to Section 1.5 for a summary of the Project's benefits to the public realm, as well as to Section 3.5 for a detailed discussion on site design. Please see also Figures 3.2a-m and Figures 3.8a-f for renderings and public realm/landscaping plans.
43.2	The lack of any kind of landscaped area as a buffer and benefit to the public for these buildings is another example of overreaching in my book. Indoor space, no matter how anyone wants to justify it at "benefit to the public" is hardly that… this is a city known for its outdoor spaces and the feeling of being walkable and livable. Indoor space does not answer to that and surrounds us further with concrete, steel and glass, squeezing our neighborhoods with walls and towers.	The Proponent has made considerable efforts to include the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel and the upgrading of the existing open space on Dartmouth Street with the delivery of the Station West Parcel. Please refer to Section 1.5 for a summary of the Project's benefits to the public realm, as well as to Section 3.5 for a detailed discussion on site design. Please see also Figures 3.2a-m and Figures 3.8a-f for renderings and public realm/landscaping plans.
43.3	I get development. What I can't accept is the lack of planning. This city is growing like topsy and will look like it, with all its accompany traffic and destruction of neighborhood character with no overarching plan. AND what restrictions that there are for height and mass are being set aside and maneuvered around, if not plain being ignored. It leaves reaction time of neighbors and citizens to a very narrow window to plans that have been in the works for months/years. We are most often left with a "done deal" and then scramble to mitigate impact.	Please refer to Section 3.3 for a summary of the Project's planning principles and design goals. The Proponent has designed the Project to be respectful of the height and density guidelines in the recently enacted Stuart Street District, which was the product of a lengthy City-led public planning process.

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43.4	What is going on here in the City? Does anyone have the where-with-all to have some kind of coherent process, between and among agencies, that leaves us protecting what we have while planning for the future? What am I missing? Or is this just government, tunnel vision (my tuf) bureaucracies as usual?	See refer to Section 1.7 for a summary of the Project's agency coordination and public outreach.
Letter 44	**Paul Johnson**	
44.1	We are requesting and expecting your firm to produce, within the near future, the following: A) ONE, full scope, comprehensive Transportation Impact Study: This study should include an analysis of the transportation impact from ALL proposed and approved new structures to potentially be built proximate to Back Bay Station. In other words, the study should include your proposal, of (3) new structures and any approved additional new structures yet to be built by other firms.	Please refer to Chapter 4 and all Figures therein for a detailed analysis of potential transportation impacts and mitigation. It includes other approved projects in the Stuart Street corridor.
44.2	[This study] should include a realistic; empirical data driven analysis regarding the increased influx of people and vehicles, into and out of the Back Bay Station Transit Hub. (We consider the relative information provided thus far by your firm to be greatly uninformed and or disingenuous).	Please refer to Section 4.10 for a detailed analysis of Existing, Future No-Build and Future Build transit capacity.

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44.3	[This study] should include meaningful, applicable data which will outline the following impacts: Vehicles: - Pedestrian safety - Cyclist safety - Carbon emissions - Passenger vehicle traffic congestion - Passenger vehicle parking - Construction worker vehicle traffic congestion - Construction worker vehicle parking - Heavy equipment vehicle traffic congestion - Heavy equipment vehicle parking - Delivery Vehicle traffic congestion - Delivery vehicle parking - Livery vehicle traffic congestion - Livery vehicle parking - Overall increased vehicle traffic impact, over the potential decade of disruptive construction, on the people who currently live and work in the surrounding neighborhoods from an environmental, congestion and quality of life perspective - Permanent increased vehicle traffic and environmental implications.	Please refer to Chapter 4 and all Figures therein for a detailed analysis of potential transportation impacts and mitigation.
44.4	It is generally accepted by most knowledgeable urban planning and environmental professionals, as well as most rational people that, by and large, the reduction of fossil fuel based vehicles is urgently required for the good of humankind and planet earth. We are curious to know if your firm agrees with this near universal conclusion?	The Proponent is a strong supporter of Transportation Demand Management strategies and continues to make concerted efforts across its real estate portfolio to take measures to reduce GHG emissions generally. According to Boston's Climate Action Plan, transportation accounts for 26.9% of the City's GHG emissions. Accordingly, the Project has proposed a reduced parking ratio of 0.4 spaces per 1,000 SF and .4 spaces per residential unit. In addition, preferred parking will be provided for fuel efficient vehicles as well as electric vehicle charging Stations. The Project is also optimally located to multiple means of public transportation, ten (10) bus lines, Orange Line, commuter rail and Amtrak.

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44.5	Subway Usage: - Realistic, competently informed metrics relative to additional subway passengers during the hours of 7 am - 9:30 am and 4:30 pm - 6:00 pm, Monday through Friday, 52 weeks per year. - Usage impacts on MBTA capital equipment based on large scale, ongoing increases in passenger trips, growing exponentially during the construction and completion of each new structure. - Increase in usage of power to operate MBTA equipment. - Increase in costs to MBTA, absorbed by fare paying passengers and tax payers who do not live or work in the area proximate to Back Bay Station.	Please refer to Section 4.10 for a detailed analysis of Existing, Future No-Build and Future Build transit capacity.
44.6	Amtrak and MBTA Commuter Rail Impact studies : (see " Subway Usage ")	Please refer to Section 4.10 for a detailed analysis of Existing, Future No-Build and Future Build transit capacity.
44.7	Environmental Impact : - Massive potential increase in Carbon Emissions to the Back Bay and South End ... - Increased refuse due to increase in transit users and customers for fast food and drink, such as, but not limited to Styrofoam cups which take over 500 years to decompose.	Please refer to Section 5.4 for a summary of the Greenhouse Gas Emissions Assessment and proposed mitigation strategies. Please refer to Section 5.3.2 for details on proposed waste reduction and recycling strategies.
44.8	B) Detailed Affordable Housing Disclosure: A clear accounting of the number of housing units affordable to Boston Citizens, based on their income levels, the location of said units and proximity to a subway stop for the following House Hold Sizes: - Individual: That earns 0 - 30% of the Boston AMI, 30 - 60% of Boston AMI, 60 - 100% of Boston AMI. - Household of four: That earns 0 - 30% of the Boston AMI, 30 - 60% of Boston AMI, 60 - 100% of Boston AMI. - Household of six: That earns 0 - 30% of the Boston AMI, 30 - 60% of Boston AMI, 60 - 100% of Boston AMI.	The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.

Comment No.	Comment	Response to Comment
Letter 45	**Paula Griswold**	
45.1	How will the planned design and uses enhance the use of public transit for the residents, and employees and customers of businesses/offices that are part of the proposed project, as well as residents of the surrounding neighborhoods, and employees and customers of other businesses/offices that are in the area?	Please refer to Section 4.10 for a detailed evaluation of potential transit impacts and to Section 4.2 for a description of transit improvements that are being delivered with the Project.
45.2	How will the project coordinate with MassDOT and the MBTA regarding the Back Bay Station design, especially given the schedules of the planning, design, and approvals of each	Please see Section 3.4.4 and Figures 3.7c-f for a discussion and images of the Project's integration with the Station Concourse Improvements. Please also see Appendix E for a detailed presentation of the Station Concourse Improvements project.
45.3	How will the project affect traffic through the Back Bay neighborhood (Newbury to Beacon, Arlington to Charlesgate) - both in the short term with construction and long term with ongoing use - as residents, employees, visitors/customers try to reach other major routes in and out of the city?	Please refer to Sections 4.5 and 4.6 for a summary of the Project-generated traffic and to Section 4.7 the for a summary of the Project-generated traffic with mitigation. Please also refer to Section 4.13.3 for a discussion of short term traffic impacts during construction. Detailed Construction Management Plans (CMP) will be developed at the appropriate time for each Project Component as the Project advances.
45.4	What will be the total amount and flow of traffic including the currently approved projects along Stuart Street?	Please refer to Sections 4.5 and 4.6 for a summary of the Project-generated traffic and to Section 4.7 the for a summary of the Project-generated traffic with mitigation. Please note the analysis includes other approved projects in the Stuart Street corridor.
45.5	How can traffic be managed/modified to avoid impact on the residential streets of the Back Bay if the actual volume and flow does not match the assumptions during the planning process?	Please refer to Sections 4.5 and 4.6 for a summary of the Project-generated traffic and to Section 4.7 the for a summary of the Project-generated traffic with mitigation. The underlying assumptions during the planning process have been thoroughly reviewed and approved by both MassDOT and the Boston Transportation Department based on widely recognized analysis methodologies. Please refer to Section 4.13.3 for information on the Transportation Monitoring Program to be implemented with the Project.
45.6	How can public transit use be enhanced if the actual use does not match the assumptions during the planning process?	Please refer to Section 4.10 for a detailed analysis on the future capacity of transit services serving the Project Site.

Comment No.	Comment	Response to Comment
45.7	What zoning relief has been requested or is being considered, including amendments to the PDA, and variances from the Stuart Street Zoning Requirements?	The Project will achieve zoning compliance through a PDA amendment. Please refer to Section 1.6.1.
45.8	Thank you for including the community in the planning process for this project, given the significant and potentially permanent impact on our city and our neighborhood.	Comment noted. The Proponent thanks you for your support.
Letter 46	**Shirley Kressel**	
46.1	The proponent states that the project will seek tax and zoning relief under MGL Ch. 121A and 121B, as well as I-Cubed funding. These tax and regulatory waivers have very significant and long-lasting impacts on the city and the state. They are mentioned in the MEPA filing (screenshots attached) only by name, without any explanation of how the project would qualify for them, how they would be structured, and what would be the financial cost to the city and the state taxpayers. Without such full explanations of these waivers and their impacts, the BRA, state, City of Boston, CAC and public reviews of this project cannot be diligent and complete. I ask that MEPA mandate these disclosures at the outset, for public consideration as an integral part of the project review.	The Proponent intends to develop the four Project Components using private funds, but will explore the possibility of local, state and/or federal public financing sources, where appropriate. Please refer to Section 1.9.4 for a discussion of possible public funding sources.
46.2	I request that the proponent be mandated to provide: -- detailed calculations demonstrating the need for, and amount of, each granted and contemplated city and state tax subsidy (including MassDOT lease and other financial terms)	The Proponent intends to develop the four Project Components using private funds, but will explore the possibility of local, state and/or federal public financing sources, where appropriate. Please refer to Section 1.9.4 for a discussion of possible public funding sources.

Comment No.	Comment	Response to Comment
46.3	*I request that the proponent be mandated to provide (cont.)* — information detailing the specific regulatory changes to be sought via Chapter 121B Urban Renewal Plan modifications,	Please refer to Section 1.2.2 for information regarding challenges to redevelopment of the site and a discussion of the potential use of Chapter 121B for title clearing purposes.
46.4	*I request that the proponent be mandated to provide (cont.)* — details of the contemplated Ch. 121B Section 46(f) Demonstration Project, which would evidently involve eminent domain takings for what the proponent calls "title clearance."	Please refer to Section 1.2.2 for information regarding challenges to redevelopment of the site and a discussion of the potential use of Chapter 121B for title clearing purposes.
46.5	I also note that, although the MEPA ENF was filed on April 14, the CAC members did not receive it from the BRA until May 27, mid-day Friday of the long Memorial Day weekend, the day after their most recent BRA-scheduled meeting; and today's May 31 deadline comes long before the next CAC meeting, scheduled for June 15. Thus, the CAC has had virtually no time to review the ENF before today's comment deadline. This timing, no doubt inadvertently, precluded the opportunity for a public CAC discussion of the ENF.	The initial PNF and ENF public comment periods were extended twice by the Proponent and did not close until June 17, 2016. The DEIR/DPIR will be circulated to members of the CAC after the document is filed and during the comment period.
Letter 47	**Susan Gilmore**	
47.1	This project is yet another step in improving the area around the train station and creating a sense of arrival for daily commuters and travelers to the city.	The Proponent appreciates your support.
47.2	As we think about the project and its impact, we need to incorporate the impact of the other projects including Copley Place, 380 Stuart and 40 Trinity. We also need to understand not only the end state impact but the impacts during the long-term construction period.	The Project has included all other approved Stuart Street corridor projects in its traffic, transportation and other environmental impact studies, in an effort to provide the public a holistic view of development in the corridor. Please refer to Chapters 4 and 6 for a complete analysis. Refer to Section 6.10 for a description of construction mitigation measures and to Section 4.13.4 for a description of the Construction Management Plans that will be implemented by the Project.

Comment No.	Comment	Response to Comment
47.3	I am interested in understanding fully the parking and traffic impacts. There are some critical decisions that need to be made to include the handling of the ramp, parking, the future of the drums and the traffic flow and the impacts to the neighborhoods. The city currently has quite a bit of traffic and I think we need to understand how changes from this project will impact the future traffic, parking and safety.	Please refer to Section 4.9 for a summary of existing and proposed parking conditions and to Sections 4.5 through 4,7 for a summary of the Project-generated traffic and proposed mitigation to minimize impacts.
47.4	We need to understand the wind impacts. It was very encouraging to hear that the construction of these buildings can have a positive impact - I think we would benefit from further discussion and insight on this topic.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report. Please note the Project improves pedestrian-level wind conditions in many locations.
47.5	The discussion of parking is also important - with all the projects planned, it seems we should expect more people in the area with a possible need for more parking, at least in the short term - I think we need to be mindful of the neighborhood impact. We need to understand the current and future supply and demand.	Please refer to Section 4.9 for a summary of existing and proposed parking conditions.
47.6	I think we need to understand what public transportation enhancements will be made and if they are sufficient to accommodate increased demand.	Please refer to Section 4.2 and Figure 4.23 for a summary of transit improvements proposed by the Project and to Section 4.10 for a detailed transit capacity analysis. Please see also Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.
47.7	I am interested in knowing more about the office building on the corner of Stuart and Dartmouth and its relationship to the train station and the other development parcels.	Please refer to Sections 1.4 and 3.4.1 for a detailed description of the Garage West Parcel office building. Please also see Figures 3.2a-c, 3.2f-i for renderings, Figures 3.3a-r for plans and Figures 3.5a-c for elevations.

Comment No.	Comment	Response to Comment
Letter 48	**Susan Prindle**	
48.1	While I appreciate the fact that Boston Properties is respecting the Stuart Street Guidelines regarding Copley shadow, I hope that they will be asked to consider whether the loss of sunshine could be ameliorated by changes in the massing of the proposed structures. Once the sunshine is gone, the loss cannot be mitigated. Reduction in shadows on the Public Library Courtyard should also be carefully considered.	As discussed in Section 6.3, shadow impacts have been minimized to the extent practicable to avoid noticeable pedestrian impacts, and are in compliance with the specific requirements of the Stuart Street Zoning District, including the 2-hour shadow limitation on Copley Square. The shadow impact analysis included all other approved Stuart Street corridor projects in place. There is no impact to the courtyard of the BPL.
48.2	Any wind study should include intersections on Clarendon at Boylston and Newbury Streets, as well as intersections into the South End.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report. Please note the Project improves pedestrian-level wind conditions in many locations.
48.3	It is unclear how the wind studies will be managed if the project is built piecemeal. Will additional wind studies be required if the residential buildings are built before the office building or vice versa?	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report. Please note the Project improves pedestrian-level wind conditions in many locations.
48.4	Copley Square is especially sensitive to high winds. Multiple points should be studied in the park. Areas that are comfortable for sitting should be maximized. Existing conditions should be verified here and in the Stuart Street area by real-world testing.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report. Please note the Project improves pedestrian-level wind conditions in many locations.
48.5	I believe that overhead pedestrian walkways are not the answer to moving people and cars simultaneously. Rather, the proponent could help Simon Properties improve the lighting and signage in the existing tunnel under Dartmouth. Widening the Dartmouth Street sidewalk and improving pedestrian safety and access should also be considered.	Please refer to Section 3.4.1 for a discussion of the Trinity Place and Stuart Street bridges and to Figures 3.2h-i. The Proponent notes that there are three such bridges in the immediate vicinity of the Project, each providing an important weather-protected and accessible connection across the busy thoroughfare of Stuart Street. Please note that the Dartmouth tunnel is being renovated by Simon Properties as part of their previously approved project.
48.6	I applaud the proponent's efforts to create permeability at the site.	The Proponent appreciates your support.

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48.7	The Stuart Street Zoning requires the creation of 2.5% more affordable units than is required by the applicable Mayor's Executive Order on Inclusionary Development. Given the crying need for low and moderate income housing in the city, Will Boston Properties be asked to comply with this requirement?	The Project will provide a variety of new high-quality housing opportunities in compliance with the applicable Inclusionary Development Policy of the City of Boston.
48.8	Given the amount of new construction in the Stuart Street area, it would seem prudent to require more detailed proposals from the gas, electric, and water and sewer providers as to how they plan to upgrade their systems to accommodate the new demand. I believe this should be done before approving the project.	Please refer to Sections 7.2 through 7.5 for descriptions of existing utilities and proposed future connections. No capacity issues are anticipated.
48.9	The Stuart Street Guidelines ask that traffic be studied along Clarendon and Berkeley Streets all the way to the Storrow Drive intersection. Since 1/3 of the automobiles coming to the Gateway site are projected to come from this direction, it is important that this commitment be fulfilled.	Please refer to Section 4.3.1 and Figure 4.1, for a description of the intersections included in the Project study area, per BTD and MassDOT requests.
48.10	Use changes in the proposed buildings (from residential to office, for example) would impact traffic counts; should such a change be proposed, amended traffic studies will be critical.	The Proponent does not intend to change the proposed uses for the Project. If a change were proposed in the future, a Notice of Project Change would have to be filed and new impact analyses performed.
48.11	It is important to have real data on the existing garage use and its capacity, as well as those of surrounding garages. If adjacent garages are already full, how will existing parkers be accommodated?	Please refer to Section 4.9 for a summary of existing and proposed parking conditions and Project parking demand.
48.12	Will the T be required to develop a plan to cope with the increased ridership? It is critical that the proposed station renovations be designed so that they do not impede vital improvements to mass transit.	Please refer to Section 4.2 and Figure 4.23 for a summary of transit improvements proposed by the Project and to Section 4.10 for a detailed transit capacity analysis. Please see also Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.

Comment No.	Comment	Response to Comment
Letter 49	**Tracy Pesanelli**	
49.1	I understand the present garage will be redeveloped but I did not hear anything about adding any additional spots? This does not seem practical, where are all the additional cars that will be created by these new buildings going to park?	Please refer to Section 4.9 for a summary of existing and proposed parking conditions and Project parking demand.
49.2	Also, along these lines, today both Clarendon and Dartmouth are saturated with traffic, is it reasonable to assume that either of these streets will be able to handle the additional volume of traffic that will surely be generated by these new towers…never mind the already approved projects at Copley Place and Trinity Place?	Please refer to Chapter 4 for a detailed traffic analysis including impacts to volumes on Clarendon and Dartmouth Streets. The analysis includes neighboring approved projects.
Letter 50	**William Clendaniel**	
50.1	Many of us were upset to learn that there appears to be no public process for commenting on the proposed changes to the station. I find many of them attractive, but clearly what happens there greatly impacts the Boston Properties (BP) gateway project next door to say nothing of the neighborhood. The two projects need to be reviewed by the public together.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station renovations. A public meeting was held on September 26, 2016 to present the Station Concourse Improvements and MBTA track-level ventilation project and to receive community feedback. This same information was also presented to the CAC on October 6, 2016.
50.2	The station's streetscape/ landscaping needs to relate to the gateway project. The users of the BP buildings, either office or residential, are going to use the station and thus impact its design. The two projects really can't be separated from an urban design point of view.	Please refer to Section 4.10 for a detailed analysis of existing, Future No-Build and Future Build transit capacity. Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.
50.3	MassDOT should provide the BRA and the CAC with information about how the MBTA will handle this influx of customers.	Please refer to Section 4.10 for a detailed analysis on the future capacity of transit services serving the Project Site. The Proponent has consulted with the MBTA and CTPS in developing this analysis.

Comment No.	Comment	Response to Comment
Letter 51	**Yan Medice**	
51.1	I'm writing to ask about Community Benefits associated with the Back Bay/ South End Gateway project and whether Women's Lunch Place may be considered for funding, and if there is an application process.	Please refer to Section 1.5 for a detailed summary of the Project benefits to the public realm.
Letter 52	**Yuri Ostrovsky**	
52.1	As a resident of the building immediately adjacent and looking upon the planned tower construction in the current bus turn-around behind Back Bay station (285 Columbus Ave), I and my fellow residents have grave concerns about the impact of several aspects of the construction project: 1. The impact on natural lighting for units facing the construction. 2. The privacy implications, with windows facing our windows in very close proximity. 3. The impact of loud construction literally a few dozen feet or less from our units, potentially lasting for years. 4. The impact of construction pounding on the structural integrity of our building, a somewhat historical building with an old foundation, which already shakes from train movement. 5. The impact on our access to our rear loading dock, which currently has an easement with the MBTA property. Having attended the public comment meeting recently, these concerns did not seem to have been considered.	Refer to Section 6.10 for a description of construction mitigation measures and to Section 4.13.4 for a description of the Construction Management Plans that will be implemented by the Project.
52.2	At the very least, there should be talk of mitigation alternatives. The lack of this acknowledgment brings up grave concerns, and I can speak for at least several of my co-residents.	Refer to Section 6.10 for a description of construction mitigation measures and to Section 4.13.4 for a description of the Construction Management Plans that will be implemented by the Project.

Comment No.	Comment	Response to Comment
Letter 53	**Robert Tillerman**	
53.1	Philosophical: how much continued development is desirable: development is driving out the middle class, leaving the rich, who can afford the rents; and the poor, who cannot afford to move. The middle class has to live in less expensive housing outside Boston, adding to passengers on the MBTA. Does Boston need the development over Back Bay Station?	Comment noted.
53.2	Communication: The BRA's communication with the public is poor. This author was not able to get the time and place for the first public meeting on this project from the BRA office. All the person answering the phone could suggest was to go on the Web. Whatever happened to being able to call up an agency and get an answer?	CAC and public meetings for the Project are regularly communicated by the BPDA to members of the public who have provided their email addresses for notification.
53.3	Is this area really a blighted area, with a bank and a medical office building on the site, and Copley Place across Dartmouth Street?	Please refer to Section 1.2.2 for an explanation of the application of the term "blighted open area" and why it is appropriate in the redevelopment of the Project Site.
53.4	When are they going to fix sidewall in front of station? It is a hazard to walk on now.	The rehabilitation of the sidewalk in front of the Station's Dartmouth Street entrance will be delivered with the development of the Station West Parcel.
53.5	Traffic and parking: The front of Back Bay Station is congested now. What will happen when more offices, residential and commercial development is added? The area is very hazardous for bicycles-what will be done to make it safer for bicycles?	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans. Please refer to Section 4.11 for a complete discussion of the Project's proposed bicycle accommodations and to Figure 4.22 for the proposed bicycle parking plan.

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53.6	What will happen to Harvard Vanguard offices? This office moved from New England Power Building to its present location when the New England Power Building was redeveloped. Moving the office any distance from its present location will inconvenience a lot of patients and staff. Harvard Vanguard should not have to pick up the tab for the move. It should be scheduled so as not to inconvenience staff or patients.	The Proponent is discussing opportunities for both short- and long-term relocation with all existing Garage tenants and will continue to explore options as the Project advances.
53.7	Water and Sewer: are present water and sewer lines adequate for additional loading? This area is at the top of a rise, sewage might flow out of the building adequately, but additional loading may create flooding downstream at changes in grade. If sewers are not adequate, what will developer do about them? Are present water mains adequate, both for normal water supply, and for fire protection? If not, what will developer do about them?	Please refer to Sections 7.2 through 7.5 for descriptions of existing utilities and proposed future connections. No capacity issues are anticipated.
53.8	Gas: is the present gas supply adequate to provide heat, or fuel for a potential co-generation plant. If not, what will developer do about it?	Please refer to Sections 7.2 through 7.5 for descriptions of existing utilities and proposed future connections. No capacity issues are anticipated.
53.9	Is the electric power supply adequate? If not, what will the developer do about it?	Please refer to Sections 7.2 through 7.5 for descriptions of existing utilities and proposed future connections. No capacity issues are anticipated.
53.10	This project will be energy-intensive. What steps will the developer take, over and above what is shown on their website, to reduce energy use.	Please refer to Section 5.4.1.2 for preliminary energy model results and to Section 5.4.4 for a summary of proposed building energy efficiency measures. Please see also Appendix H for a preliminary energy model report for each Project Component.
53.11	What steps will the developer take to reduce electric power use, especially utility power used for electric heating?	Please refer to Section 5.4.1.2 for preliminary energy model results and to Section 5.4.4 for a summary of proposed building energy efficiency measures. Please see also Appendix H for a preliminary energy model report for each Project Component. The Project does not anticipate using electricity for heating.
53.12	What additional innovations in energy technology does Boston Properties propose to employ in this development?	Please refer to Section 5.4.4 for a summary of proposed building energy efficiency measures.

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Letter 54	**Arts Boston**	
54.1	On behalf of ArtsBoston's 175 arts member groups, tens of thousands of audience members, and community partners who realize that a vibrant cultural life is essential to Boston's position as a world-class city, we are honored to ask for an investment of $75,000 from the SRA's community benefit funds relating to the Back Bay/South End Gateway Project.	The Proponent will consider your request in consultation with the BPDA.
54.2	This support will enable ArtsBoston to complete and launch a facilities improvement and programming plan for ArtsBoston's iconic Copley Square cultural information and ticketing booth. It would leverage a planning investment from the Massachusetts cultural Facilities und, a s well as $50,000 in community benefit funds from the BRA'sJ ohn Hancock building project at 380 Stuart Street. As a longstanding neighbor of Back Bay Station, ArtsBoston and its Copley Square booth represent an important resource for residents, workers, and visitors, and a high profile partner in efforts to transform this critical welcoming point for two of Boston's most dynamic areas.	The Proponent will consider your request in consultation with the BPDA.
Letter 55	**BPDA Urban Design – David Carleson**	
55.1	The Proponent's intent to renovate and restore the Station is laudable and represents a significant public benefit resulting from this project.	The Proponent appreciates your support.
55.2	The Proposed Project should meet the 'performance standard' of generally having the same or a lesser degree of environmental impacts than either the full 'as-of-right' build-out or existing conditions, whichever are most impactful.	Please refer to Chapter 2 for a description of the no build and as-of-right alternatives. Please also refer to Chapters 4-8 which provide details on the Project-related impacts and discuss steps that will be taken to avoid, minimize, and/or mitigate adverse effects.

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55.3	That is to say, criteria such as daylight, shadows, and wind should be at least neutral or improved on average, recognizing that some elements or points may be worse, but proving that the whole is better as a Project.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts, to Section 6.3 for a summary of the shadow analysis, and to Section 6.4 for a summary of the Project's daylight analysis. See Appendix I for a copy of the full pedestrian wind report.
55.4	We will expect in fact that mitigations or positive urban benefits will result from this Project and in balance far outweigh any negative impact.	Please refer to Section 1.5 for a summary of Project Benefits. Please also refer to Chapters 4-8 which provide details on the Project-related impacts and discuss steps that will be taken to avoid, minimize, and/or mitigate adverse effects.
55.5	We will expect that the Proposed Project as represented in the DPIR will have taken into account any necessary mitigating factors, for scenarios with densities and heights beyond those alternatives, discovered as a result of environmental and other studies by the Proponent.	Please refer to Chapters 4-8 which provide details on the Project-related impacts and discuss steps that will be taken to avoid, minimize, and/or mitigate adverse effects.
55.6	DPIR design alternatives or development should bring a high degree of innovation and achieve LEED Gold at a minimum, preferably Platinum. This Project should set the bar very high for projects in the Stuart Street Study Area, and incorporate bold energy, recycling, daylight/quality of environment, green roofs and plantings, innovative connections to the water, and transportation initiatives.	Please refer to Chapter 5 for a complete discussion on sustainable and resiliency strategies for the Project. See also Section 5.3.3 for LEED checklists and detailed narratives for each parcel. While currently at a conceptual design level, the Project expects the Garage West Parcel to achieve Gold certification and the remaining parcels to achieve Silver certification at a minimum. The Proponent is committed to improving those certification levels wherever possible. The Project will comply with Article 37 requirements by committing to certifying each parcel with the USGBC.
55.7	When sufficient progress in preparation of a Preferred Alternative in the DPIR in response to the Scoping Document has been made on the design pursuant to preliminary BCDC, CAC, and BRA staff comments, BCDC Design Committee meetings should be scheduled by contacting David Carlson, Executive Director of the BCDC.	Comment noted.
55.8	It should be noted that we will expect a design, rather than a conceptual diagram, however well conceived, which will allow more in-depth comment at the DPIR stage.	Please refer to Chapter 3 and associated Figures therein.

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55.9	In general, we will ask for studies related to any and all requested alternatives, with certain modifications, as well as comparisons to both existing conditions and an 'as-of-right' alternative.	Please refer to Chapter 2 for a qualitative and quantitative comparison of Project Alternatives.
55.10	The project is exemplary in its strong adherence to the Stuart Street Design Guidelines, which includes "Creating a vibrant street level pedestrian experience" as a core objective. To that end, the BRA recommends that resources be focused on the design of at-grade crossings for pedestrians around the entire perimeter of the project and for enhancement to the existing underground tunnel connecting Back Bay Station to Copley Place.	The Proponent appreciates your recognition and has made concerted efforts to ensure the Project will have a lively streetscape. Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements and to Figures 3.8a-f for public realm improvement plans. Please note the Station tunnel is being renovated by Simon Properties as part of their previously approved project.
55.11	Similarly, a key urban design objective for the project as defined in the PNF is the following: "Design multiple ground level pedestrian through-block connections to create permeability through the Site, and connectivity to surrounding Back Bay and South End and Bay Village neighborhoods." This should be accomplished through exterior enhancements and through ground level interior building porosity, where possible.	Please refer to Section 3.4 for a discussion of the proposed through block connectors to be delivered with the Garage West and Station East Parcels. Please see Figures 3.2h-iand 3.7d for renderings of the connectors and Figures 3.9a-b for circulation and access plans. Please refer to Section 3.5 and Figures 3.8a-f for a detailed description of the Project's pedestrian realm improvements.
55.12	While Dartmouth Street is the recognized "front door," there should still be a celebrated civic entrance to the Station from Clarendon Street. A recessed "door" must still have a perceptual presence directly on Clarendon Street, using innovative design strategies, public art, landscaping, and/or other public realm improvements.	The Proponent has made considerable efforts to include a public plaza with the Station East Parcel to serve as a forecourt to the new Station Entrance off Clarendon Street. In addition, the building's architecture is designed to create a civic presence for the new Station Entrance. Please see Figures 3.2l-m and 3.8e.

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55.13	Greater consideration to the Clarendon Street entrance must be made going forward, in combination with an improved streetscape design for Clarendon Street. Opportunities for additional open space and the relationship to the immediate context should inform design strategies on the Clarendon side.	The Proponent has made considerable efforts to include a public plaza with the Station East Parcel to serve as a forecourt to the new Station Entrance off Clarendon Street. In addition, the building's architecture is designed to create a civic presence for the new Station Entrance. Please see Figures 3.2l-m and 3.8e.
55.14	...the drop-off zone in front of the new Station entrance should only supply the amount of space needed for the residences. The proposed additional drop-off lane for the Station would be better repurposed as either landscaped space or a shared space, in line with the other goals of the project.	The drop-off lane serves as both Station and residential lobby drop-off but also as a necessary service access for the Station East Parcel. The Proponent has made great efforts to include the creation of a new 11,000 square foot public plaza with the delivery of the Station East Parcel and to create a pedestrian friendly environment. Please refer to Section 3.5 and Figures 3.8a-3.9b for a specific description of the pedestrian realm and pedestrian circulation and access plans.
55.15	While the Dartmouth Street Entrance is being respectfully refurbished, additional enhancements to the surrounding streetscape are warranted. As a terminus to the Southwest Corridor Park, the project is to carry the spirit of well-designed open space and pedestrian primacy across the street and into the Station.	Please refer to Sections 3.1 and 3.5 and Figures 3.8a-f for a detailed description of the Project's pedestrian realm improvements. The Project proposes to upgrade the open space, creating a plaza, and to substantially increase the width and relocate the Dartmouth Street crosswalk at the Station entrance with delivery of the Station West Parcel, creating a fitting terminus for the Southwest Corridor Park.
55.16	The Proposed Project repeatedly champions building porosity and neighborhood connectivity. This is already demonstrated with two crossings in place at street level and below grade to assist with station traffic across Dartmouth Street into Copley Place and the Southwest Corridor. For this reason, we are concerned that an additional connection that is elevated would take away from the street life on Dartmouth Street. We do not see this as a necessary connection, as it would diminish the goal of activating the corridor. If an elevated pedestrian bridge across Dartmouth Street is to be pursued, further evidence needs to be presented showing how this would have a positive impact on the public realm.	The Proponent has eliminated the Dartmouth Street pedestrian bridge. Please refer to Section 3.4.1 for a discussion of the Trinity Place and Stuart Street bridges and to Figures 3.2h-i. The Proponent notes that there are three such bridges in the immediate vicinity of the Project, each providing an important weather-protected and accessible connection across the busy thoroughfare of Stuart Street.

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55.17	The safety and security of pedestrians are better served by improved crosswalk design, which may include tabled intersections and other enhanced crossings (see Boston's Complete Street Guidelines).	Please refer to Sections 3.1 and 3.5 and Figures 3.8a-f for a detailed description of the Project's pedestrian realm improvements, including crosswalks. Please refer to Figure 3.9a-b for circulation and access plans. Please also see Section 4.12 for a detailed pedestrian facilities analysis.
55.18	The existing underground connection is a latent design opportunity that should be enhanced in tandem with the refurbishment of the Station. This tunnel is rightfully designed to privilege transit riders whose volumes far exceed users of the garage and whose numbers are projected to grow. As Boston's recent planning efforts (Go Boston 2030 and Imagine Boston 2030) plan for growth, it is increasingly important that the space of the street be multimodal to accommodate various users.	Please note the Station tunnel is being renovated by Simon Properties as part of their previously approved project. The tunnel is surrounded by rail lines on either side and cannot be enlarged.
55.19	To facilitate improved at-grade crossings and pedestrian mobility generally, BRA Urban Design supports the closure of the 1-90 ramp should the Commonwealth deem it acceptable, as it will allow for vehicles to exit from Trinity Place rather than Dartmouth Street.	The Proponent notes your support of MassDOT's potential On-Ramp closure.
55.20	Though an engineering challenge, structure must be threaded with minimal impacts to the already constrained rail platform below. We recommend that any impacts to the platform should be counterbalanced by improvements to the platform seating and design configuration, as well as improvements to the underground tunnel connecting the platform across Dartmouth Street to Copley Place.	Structure locations are being carefully coordinated with the MBTA. Please refer to Section 4.10.4 for an analysis on platform impacts. Please note that the tunnel connecting the platform to Dartmouth street is being improved by a different previously approved Project.

Comment No.	Comment	Response to Comment
55.21	The corner of the Garage West parcel (at the intersection of Stuart and Dartmouth Streets) is the dominant and most visible corner of the project and will need further design refinement. The impacts of the garage plinth can and should be ameliorated through facade strategies, but the design of the retail and streetscape is most important. Large pedestrian volumes make the design of ample sidewalk widths and high quality public realm improvements paramount. Moreover, it is crucial that the design works with the proposed reconfigured intersection design.	Please refer to Section 3.5.1 for a detailed description of the Project's public realm improvements, to Section 3.5.2 for an analysis of sidewalk widths and to Figures 3.8a-f for public realm improvement plans.
55.22	Tremendous work has been done to remove some major elements/interfaces of the existing garage. The amount of parking, in general, should be minimized. Submit information which justifies the scale and amount of parking proposed by analyzing both current levels of use and projected future levels with an expectation of expanded alternative modes of transit.	Please refer to Section 4.9 for an in-depth parking analysis.
55.23	The BRA expects that all revised transportation elements will be designed in harmony with the architectural treatments and integrated into the design.	Noted.
55.24	Since retention of the above-grade garage floors cannot be avoided, garage uses are ideally completely covered, with active program uses, if possible, on all sides fronting primary streets. Treatment of any remaining directly visible portions of the garage will be presumed to be transformative, and should be of a high architectural character with robustly convincing detail.	Please refer to Figures 3.2b-c for renderings showing treatment of the garage façade on Dartmouth and Stuart Streets, which is captured within the Garage West office building's footprint. Figures 3.2j-k show the proposed condition of the garage façade on Clarendon Street. The Proponent is not proposing to alter the Clarendon Street side.

Comment No.	Comment	Response to Comment
55.25	The architectural expression of the tower elements should be clarified. They should be sufficiently differentiated, and shaped as part of the skyline, but not necessarily read as one 'complex'. Consider the view studies requested in the list of materials later to achieve a massing and orientation, which begins to break the scale of the towers and podium elements down to that of the appropriate scale-giving datum elements in the area. This effect will be most noticeable from the intermediate range of direct views, including views from nearby neighborhoods, the Southwest Corridor, Columbus Avenue, and Clarendon and Dartmouth Streets. The grouping of towers will act as a signifier of Back Bay Station in the Boston cityscape.	Please refer to Section 3.4 for a detailed description of each Project Component's building design including, height and massing, character and exterior materials and signage. Please also see Figures 3.2a-m and Figures 3.6a-p.
55.26	Special attention should be paid to public art, both indoor and outdoor. The Proposed Project presents an opportunity to connect interior and exterior space, and we encourage the Proponent to consult with local artists during the design period to allow for an integrated aesthetic effect.	Please refer to Section 3.5.1 for a summary of pedestrian realm improvements, including areas with public art opportunities.
55.27	To reiterate comments from the Boston Transportation Department, the relocation and accordant redesign of the MBTA Bus No. 39 stop must be clarified. The design of this stop must include adequate space for passenger queuing and general pedestrian circulation.	Please refer to section 4.10.2 for a description of the Route 39 Bus terminus relocation, and to Figure 4.21 for a plan.

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55.28	It is critical that wind impacts to public spaces be minimized using trees and other windbreak strategies, including the formal shaping of the building(s) and public spaces themselves. Regarding potential future studies, all wind tunnel test points shall be approved by BRA staff before conduction of testing. Wind analysis may be requested at points within several blocks of the property(ies) in question; where contiguous or proximate to open space, analysis may extend to likely bounds of no impact. Depending upon results of the wind tunnel testing, the BRA reserves the right to request further study, including further tunnel work, or a delta analysis if results are unclear.	Please refer to Section 6.2 for a summary of the Project's pedestrian level wind impacts. See Appendix I for a copy of the full pedestrian wind report. The number and location of study points was reviewed and approved by the BPDA.
55.29	Project shadows appear to be in compliance with the Stuart Street Design Guidelines, but will continue to be studied as part of standard design review processes. All shadow analysis should be provided in electronic rather than paper form, except as conclusion discussions, using continuous dawn-to-dusk shadow animations. Do not duplicate studies for months in which the information is identical (i.e., a single animation for November/January, or May/July). All net new shadows, in general, shall be defined as outlined elsewhere either by a contrasting tone or different color and shall be clearly shown to their full plan extent, whether on street, park, or rooftop. A specific shadow analysis should assess the time range of any new impacts on the Southwest Corridor Park, defining rough extent and duration in terms of hours and time of year. Particular attention should be given to the period from March 21st to October 21st. If overall duration is greater than one hour, provide an overlap study, which defines any area impacted by shadows for a period greater than one hour.	Please refer to Section 6.3 for an analysis of the Project's shadow impacts, including to adjacent public spaces. Please refer to Section 8.3.2 for a summary of shadow impacts on the façades of area historic resources.

Comment No.	Comment	Response to Comment
55.30	Certain project elements deviate from the zoning, primarily at the Garage West parcel: - Service and parking areas must be set back a minimum of 20' from the building face; because of the garage dimensions, this will only be between 1 and 4'. Our recommendation to abate this will be to continue to explore creative options for screening the garage.	The Project will achieve zoning compliance through a PDA amendment. Please refer to Figures 3.2b-c for renderings of the Garage façade on Dartmouth and Stuart Streets. Figures 3.2j-k show the Clarendon Street side, which the Proponent is not proposing to alter.
55.31	(Certain project elements deviate from the zoning, primarily at the Garage West parcel) - The maximum floor plate for commercial uses is 30,000-SF; the project proposes two floors above the garage that are approximately 36,000-SF and 38,000-SF, respectively. The remaining commercial floors are in compliance, with an average square footage ranging from approximately 22,000-SF to 26,000-SF.	The Project will achieve zoning compliance through a PDA amendment.
55.32	(Certain project elements deviate from the zoning, primarily at the Garage West parcel) - The project exceeds the recommended 25' setback on Dartmouth Street; the massing of the building varies from 15-27'. We urge the proponent to prioritize the pedestrian experience in the design of the streetscape, as noted elsewhere in this comment letter.	The Project will achieve zoning compliance through a PDA amendment. The Proponent is committed to creating an active and pedestrian friendly streetscape. Please refer to Section 3.5 for a discussion of the Project's site design.
55.33	(Certain project elements deviate from the zoning, primarily at the Garage West parcel) - The LEED target of Gold is instead projected to be Silver for the Garage East, Station East, and Station West parcels. The commercial tower (Garage West) is projected to achieve LEED Gold equivalence.	The Project will achieve zoning compliance through a PDA amendment. Please refer to Chapter 5 for a complete discussion on sustainable and resiliency strategies for the Project. See also Section 5.3.3 for LEED checklists and detailed narratives for each parcel. While currently at a conceptual design level, the Project expects the Garage West Parcel to achieve Gold certification and the remaining parcels to achieve Silver certification at a minimum. The Proponent is committed to improving those certification levels wherever possible. The Project will comply with Article 37 requirements by committing to certifying each parcel with the USGBC.

Comment No.	Comment	Response to Comment
55.34	The BRA recognizes that the zoning for this project will be pursued through an amendment to the existing PDA for the garage, as envisioned during the Stuart Street Planning Study.	Comment noted.
55.35	Though Back Bay Station proper is not under the express purview of BRA Planning and Urban Design staff, we nevertheless include the following comments: • Improved connectivity and porosity to/from the Station is desirable. In particular, the new station entrance on the Stuart Street side should be designed with visibility and accessibility in mind.	Please refer to Section 3.4.1 for a summary of the proposed public through-block connector to the Station at the corner of Stuart Street and Trinity Place. See also Figures 3.7a-b.
55.36	• The strong pedestrian connection and axial procession through the Station should be continued strongly through to the Clarendon Street side.	A strong connection is proposed, through use of floor materials and entrance designs that emphasize the axial relationship of the Clarendon and Dartmouth street entrances. Please refer to Section 3.4 for a discussion of the proposed through block connectors to be delivered with the Garage West and Station East Parcels. Please see Figures 3.2h-i and 3.7a-b for renderings of the connectors and Figures 3.9a-b for circulation and access plans. Please refer to Section 3.5 and Figures 3.8a-f for a detailed description of the Project's pedestrian realm improvements.
55.37	• Minimizing clutter (ticketing machines, signage, retail kiosks) in the Station should be a primary design driver, particularly in the central hall.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements. Removing clutter, clarifying wayfinding and revealing the civic nature of the Central Hall are major goals of the Station Concourse Improvements project.
55.38	• Any proposed additional retail should not interrupt the sense of space from a connective standpoint. Additionally, the proposed retail should not reduce the effective daylighting produced by the upper hall and clerestory areas. Neither should the simplicity and purity of the restored station's space be compromised by upper encroachments or penetrations.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements. See also Section 3.4.4 for a discussion of the Project's integration with the Station. The additional level of retail will have skylights so as to preserve the clerestory windows' access to natural light.

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55.39	Embracing new technology to facilitate expedited ticketing and gating is desirable insofar as the resultant space should allow for improved circulation and well-placed and numerous accommodations for seating.	Please refer to Section 1.1.1 and Appendix E for a detailed description of the Station Concourse Improvements, which increase capacity in ingress/egress, platform access, waiting area and seating. Please see also Figures E.1-E.5.
55.40	The following urban design materials for the Proposed Project's schematic design must be submitted for the DPIR: 1. Written description of program elements and space allocation (in square feet) for each element, as well as Project totals.	Please refer to Table 1-1 in Section 1.4.1 for a detailed description of the program and dimensional information of each Project Component.
55.41	2. Neighborhood plan, elevations and sections at an appropriate scale (1"=100' or larger as determined by the BRA) showing relationships of the proposed project to the neighborhood context: a. Massing b. Building height c. Scaling elements d. Open space e. Major topographic features f. Pedestrian and vehicular circulation g. Land use	Please refer to Chapter 3, Urban Design and all associated figures.
55.42	3. Color, or black and white 8"x1 O" photographs of the site and neighborhood.	Please refer to Figures 1.4a-d for existing conditions photographs.
55.43	4. Sketches and diagrams to clarify design issues and massing options.	Please refer to Section 3.4 for massing and height descriptions of each Project Component, as well as to Figures 3.6a-p.

Comment No.	Comment	Response to Comment
55.44	5. Eye-level perspective (reproducible line or other approved drawings) showing the proposal (including main entries and public areas) in the context of the surrounding area. Views should display a particular emphasis on important viewing areas such as key intersections, pathways, or public parks/attractions. Some of these viewpoints have already been suggested and used in presentations to the public. Long-ranged (distanced) views of the proposed project must also be studied to assess the impact on the skyline or other view lines. At least one bird's-eye perspective should also be included. All perspectives should show (in separate comparative sketches) at least both the build and no-build conditions; any alternatives proposed should be compared as well. The BRA should approve the view locations before analysis is begun. View studies should be cognizant of light and shadow, massing and bulk.	Please refer to Figures 3.2a-m for eye level perspectives, to Figures 3.6a-j for long range views, and Figures 3.6k-p for additional birds-eye perspectives. Please see also Figures 8.2a-j for views from area historic resources.
55.45	6. Additional aerial or skyline views of the project, if and as requested.	Please see Figures 3.6a-j for skyline views and Figures 3.6k-p for aerial views.
55.46	7. Site sections at 1"=20' or larger (or other scale approved by the BRA) showing relationships to adjacent buildings and spaces.	Please refer to Figures 3.4a-f for Site sections.

Comment No.	Comment	Response to Comment
55.47	8. Site plan(s) at an appropriate scale (1 "=20' or larger, or as approved by the BRA) showing: a. General relationships of proposed and existing adjacent buildings and open spaces b. Open spaces defined by buildings on adjacent parcels and across streets c. General location of pedestrian ways, driveways, parking, service areas, streets, and major landscape features d. Pedestrian, handicapped, vehicular and service access and flow through the parcel and to adjacent areas e. Survey information, such as existing elevations, benchmarks, and utilities f. Phasing possibilities g. Construction limits	Please refer to Figures 1.5 and 1.6a-b for existing conditions survey and Projct Site plans, respectively. Please also see Figures 3.8a-f for public realm plans and 3.9a-b for site circulation and access plans.
55.48	9. Massing model (ultimately in basswood) at 1 ":40'0" for use in the Authority's Downtown Model.	The Proponent understands this is not part of the DPIR submission, and will be happy to provide it at a later date.
55.49	10. Study model(s) at 1" = 16' or 1" = 20' showing preliminary concept of setbacks, cornice lines, fenestration, facade composition, etc. are recommended.	The Proponent understands this is not part of the DPIR submission, and will be happy to provide it at a later date.
55.50	11. Drawings at an appropriate scale (e.g., 1":16'0", or as determined by BRA) describing architectural massing, facade design and proposed materials including: a. Building and site improvement plans b. Neighborhood elevations, sections, and/or plans showing the c. Development in the context of the surrounding area d. Sections showing organization of functions and spaces, and relationships to adjacent spaces and structures e. Preliminary building plans showing ground floor and typical upper floor(s). f. Phasing, if any, of the Proposed Project	Please refer to Chapter 3, Urban Design and all associated figures.

Comment No.	Comment	Response to Comment
55.51	12. A written and/or graphic description of the building materials and its texture, color, and general fenestration patterns is required for the proposed development.	Please refer to Section 3.4 for a summary of building character and exterior materials and to Figures 3.2a-m. The Proponent notes that more detailed information will be made available for review by the BPDA as the Project design develops.
55.52	13. Electronic files describing the site and Proposed Project.	An electronic copy of this submission will be provided by the Proponent as requested.
55.53	14. Full responses, which may be in the formats listed above (and more), to any urban design related issues raised in preliminary reviews or specifically included in the BRA scoping determination, preliminary adequacy determination, or other document requesting additional information leading up to BRA Board action, inclusive of material required for Boston Civic Design Commission review.	Please refer to Chapter 3 for a full discussion of the Project's urban design. All urban design related issues will be addressed through appropriate documentation during the Article 80 process.
55.54	15. Proposed schedule for submission of all design or development-related materials.	The Proponent notes that design-related materials will be submitted to the BPDA for review as the Project design develops and there is more visibility on the execution schedule.
55.55	16. Diagrammatic sections through the neighborhood (to the extent not covered in item #2 above) cutting north-south and east-west at the scale and distance indicated above.	Please refer to Figures 3.4a-f for Site Section diagrams.
55.56	17. True-scale three-dimensional graphic representations of the area indicated above either as aerial perspective or isometric views showing all buildings, streets, parks, and natural features.	Please refer to Figures 3.2a-m for Project renderings and 3.6k-p for Ariel perspective views.

Comment No.	Comment	Response to Comment
55.57	If not defined elsewhere, a daylight analysis for both build and no-build conditions shall be conducted by measuring the percentage of sky dome that is obstructed by the Proposed Project building(s) and evaluating the net change in obstruction. If alternative massing studies are requested or result as part of the Article 80 development review process, daylight analysis of such alternatives shall also be conducted for comparison. The study should treat three elements as controls for data comparisons: existing conditions, the 'as-of-right' (defined in this case as the recent Stuart Street zoning), and context examples. The areas of interest include Dartmouth, Stuart, and Clarendon Street, and Trinity Place. Daylight analyses should be taken for each major building facade fronting these public ways. The midpoint of each public accessway or roadway should be taken as the study point. The BRADA program must be used for this analysis.	Please refer to Section 6.4 for a summary of the Daylight analysis.
55.58	If a Proponent wishes to substitute a more contemporary computer program for the 1985 BRADA program, its equivalency must first be demonstrated to the satisfaction of BRA staff before it is utilized for inclusion in the DPIR, and it must be commonly available to Boston development team users.	Please refer to Section 6.4 for a summary of the Daylight analysis.
55.59	The discussion of Proposed Project impacts on infrastructure systems should be organized system-by-system as suggested below. The applicant's submission must include an evaluation of the Proposed Project's impact on the capacity and adequacy of existing water, sewerage, energy (including gas and steam), and electrical communications (including telephone, fire alarm, computer, cable, etc.) utility systems, and the need reasonably attributable to the proposed project for additional systems facilities.	Noted. Please refer to Chapter 7 for a complete infrastructure analysis.

Comment No.	Comment	Response to Comment
55.60	Any system upgrading or connection requiring a significant public or utility investment, creating a significant disruption in vehicular or pedestrian circulation, or affecting any public or neighborhood park or streetscape improvements, comprises an impact which must be mitigated. The DPIR must describe anticipated impacts in this regard, including specific mitigation measures, and must include nearby Proposed Project (i.e. 40 Trinity, 380 Stuart, Copley Expansion, et al.) build-out figures in the analysis.	The Proponent confirms that all Stuart Street corridor approved projects were included in the environmental analyses of the Project. Please refer to Chapters 4-8 which provide details on the Project-related impacts and discuss steps that will be taken to avoid, minimize, and/or mitigate adverse effects.
55.61	Utility Systems and Water Quality: a. Estimated water consumption and sewage generation from the Proposed Project and the basis for each estimate. Include separate calculations for air conditioning system make-up water	Please refer to Sections 7.5 and 7.6.
55.62	b. Description of the capacity and adequacy of water and sewer systems and an evaluation of the impacts of the Proposed Project on those systems; sewer and storm drain systems should include a tributary flow analysis as part of this description	Please refer to Sections 7.2-7.5 for descriptions of the existing utilities, proposed future connections, and mitigation measures as applicable. The Proponent will comply with sewer and storm drain regulations as mandated by BWSC, and will be subject to the Site Plan review and approval process.
55.63	c. Identification of measures to conserve resources, including any provisions for recycling or 'green' strategies, including green roofs	Please refer to Section 5.3.2 for a summary of proposed resource conservation measures.
55.64	d. Description of the Proposed Project's impacts on the water quality of Boston Harbor or other water bodies that could be affected by the Project, if applicable	No impacts are anticipated.
55.65	e. Description of mitigation measures to reduce or eliminate impacts on water quality	Please refer to Sections 7.2 and 7.4 for information on the Project's efforts to reduce or eliminate water quality impacts.
55.66	f. Description of impact of on-site storm drainage on water quality	Please refer to Section 7.4 for a summary of existing and proposed storm water management infrastructure systems for the Project

Comment No.	Comment	Response to Comment
55.67	g. Information on how the Proposed Project will conform to requirements of the Ground Water Trust under Article 32, if applicable, by providing additional recharge opportunities	Please refer to Section 7.4.3 for a detailed description of the Project's intended compliance with the City's Groundwater Conservation Overlay District.
55.68	h. Detail methods of protection proposed for infrastructure conduits and other artifacts, including the MBT A tunnels and station structures, and BSWC sewer lines and water mains, during construction	Please refer to Sections 7.2-7.5 for descriptions of the existing utilities, proposed future connections, and mitigation measures as applicable. The Proponent is and will be coordinating extensively with MassDOT and the MBTA on temporary impacts and protection of transportation infrastructure during construction.
55.69	i. Detail the energy source of the interior space heating; how obtained, and, if applicable, plans for reuse of condensate.	Please refer to Section 5.4.1.2 for preliminary energy model results and to Section 5.4.4 for a summary of proposed building energy efficiency measures. Please see also Appendix H for a preliminary energy model report for each Project Component.
55.70	Thorough consultation with the planners and engineers of the utilities will be required, and should be referenced in the Infrastructure Component section.	Please refer to Sections 7.2-7.5 for descriptions of the existing utilities, proposed future connections, and mitigation measures as applicable. The Proponent will comply with sewer and storm drain regulations as mandated by BWSC, and will be subject to the Site Plan review and approval process. The Proponent has continuously consulted with the various utilities and related agencies throughout the permitting and conceptual design process, and will continue to do so to ensure a proper design is delivered for approval.
55.71	Energy Systems: a. Description of energy requirements of the project and evaluation of project impacts on resources and supply	Please refer to Section 5.4.1.2 for preliminary energy model results, Section 5.4.4 for a summary of proposed building energy efficiency measures and Section 5.4.3 for the On-Site Clean and Renewable Energy Analysis. Please see also Appendix H for a preliminary energy model report for each Project Component.
55.72	b. Description of measures to conserve energy usage and consideration of the feasibility of including solar energy provisions or other on-site energy provisions, including wind, geothermal, and cogeneration.	Please refer to Section 5.4.1.2 for preliminary energy model results, Section 5.4.4 for a summary of proposed building energy efficiency measures and Section 5.4.3 for the On-Site Clean and Renewable Energy Analysis. Please see also Appendix H for a preliminary energy model report for each Project Component.

Comment No.	Comment	Response to Comment
55.73	Additional constraints or information required are described below. Any other system (emergency systems, gas, steam, optic fiber, cable, etc.) impacted by this development should also be described in brief.	Please refer to Sections 7.2 through 7.5 for descriptions of existing utilities and proposed future connections. No capacity issues are anticipated.
55.74	The location of transformer and other vaults required for electrical distribution or ventilation must be chosen to minimize disruption to pedestrian paths and public improvements both when operating normally and when being serviced, and must be described. If necessary, storm drain and sewage systems should be separated or separations provided for in the design of connections.	Utility company network transformer vaults will be located within building footprints. See Sections 7.4 and 7.5 for discussion on stormwater management and sanitary sewage.
55.75	This proposal calls for the radical modification of older air rights Projects that were basically the reconstruction and repair of railroad and highway infrastructure. The balance of the notion of 'embedded energy' as balanced with the long-term energy savings proposed by this Project should be discussed. The Proponent should investigate energy strategies that take advantage of this scale of construction, including those that incorporate green roof strategies as well as solar orientation and materials/systems that maximize efficiencies, daylighting strategies, wind, solar, and geothermal systems, and cogeneration.	Please refer to Section 5.3 for a summary of the Project's multiple sustainability strategies.
Letter 56	**Interagency Green Building Committee**	
56.1	The IGBC accepts the rating system selections and encourages the project team to continue to pursue additional LEED credits, including but not limited to the feasibility of implementing features of the WELL Building Standard.	The Proponent is committed to pursuing additional LEED credits related to a variety of sustainability goals.

Comment No.	Comment	Response to Comment
56.2	In support of the City of Boston's Greenhouse (GHG) emissions reduction goals, the IGBC requests that the project make full use of utility and state-funded energy efficiency and clean/renewable energy programs designed to minimize energy use, GHG emissions and adverse environmental impacts.	Noted, please refer to Section 5.4.4 for a discussion of the Project's approach to incorporating utility and energy efficiency incentives.
56.3	Please note that prior to the Inspectional Services Department's (ISD) issuance of a building permit, all projects must demonstrate compliance with Article 37 and have obtained approval of the requisite submissions from the IGBC. In order to demonstrate compliance, the IGBC requires that you provide an updated submission including a Design Green Building Report (Design Report). The Design Report shall provide a comprehensive narrative describing in detail proposed strategies and paths that will be used to meet LEED prerequisites and achieve the selected credits.	Noted, the Project will comply with Article 37 and file the required submissions in advance of obtaining a building permit. Please refer to Section 5.3 for discussion of the Project's sustainability measures and Figures 5.1a-d for preliminary LEED checklists. See also Appendix J for the Climate Change Preparedness and Resiliency Checklist.

APPENDIX A: DEIR Distribution List

Appendix A: DEIR Distribution List

In accordance with the MEPA regulations at 301 CMR 11.16, the Proponent is circulating this Draft Environmental Notification Form (DEIR) for the mixed-use redevelopment of four Air Rights Development Parcels above and adjacent to Back Bay Station to the public agencies and interested stakeholders listed below.

It is anticipated that notice of availability of this DEIR will be published in the February 8th edition of the *Environmental Monitor*, initiating a 30-day public comment period that will end on **March 10, 2017**. The Secretary is scheduled to issue a determination on March 17, 2017.

Federal

US Environmental Protection Agency
New England, Region 1
Attention: NPDES Permit Division
5 Post Office Square, Suite 100
Boston, MA 02109

Federal Aviation Administration
Attn: Richard Doucette
New England Region
1200 District Avenue
Burlington, MA 01803-5299

Commonwealth of Massachusetts

Executive Office of Energy and
Environmental Affairs (EEA)
Attn: Matthew A. Beaton
100 Cambridge Street, Suite 900
Boston, MA 02114

Department of Environmental Protection
Bureau of Air and Waste
Air and Climate Program
Attn: Christine Kirby
One Winter Street
Boston, MA 02108

DEP/Northeast Regional Office
Attn: John D. Viola
205B Lowell Street
Wilmington, MA 01887

Massachusetts Department of Environmental Protection
Waterways/Chapter 91 Program
Attn: Ben Lynch
One Winter Street
Boston, MA 02108

Massachusetts Department of Transportation
Public/Private Development Unit
Attn: J. Lionel Lucien
10 Park Plaza, Suite 4160
Boston, MA 02116

MassDOT - District #6
Attn: Linda Smith
185 Kneeland Street
Boston, MA 02111

Massachusetts Department of Energy Resources
Attn: Paul Ormond
100 Cambridge St. Suite 1020
Boston, MA 02114

The Massachusetts Historical Commission
Attn: Brona Simon
The MA Archives Building
220 Morrissey Boulevard
Boston, MA 02125

Metropolitan Area Planning Council
Attn: MEPA Coordinator
60 Temple Place, 6th floor
Boston, MA 02111

Massachusetts Bay Transit Authority
Attn: MEPA Coordinator
10 Park Plaza, Suite 3910
Boston, MA 02116

Massachusetts Water Resource Authority
Attn: Marianne Connolly
100 First Avenue
Charlestown Navy Yard
Boston, MA 02129

Executive Office for Administration & Finance
State House, Room 373
Boston MA, 02133

MassDevelopment
Attn: David Bancroft
99 High Street
Boston, MA 02110

Massachusetts Architectural Access Board
Attn: MEPA Coordinator
One Ashburton Place, Room 1310
Boston, MA 02108

Massachusetts House of Representatives
Representative Byron Rushing
Massachusetts State House, Room 481
Boston, MA 02133

Massachusetts House of Representatives
Representative Aaron Michlewitz
Massachusetts State House, Room 254
Boston, MA 02133

Massachusetts House of Representatives
Representative Jay Livingstone
Massachusetts State House, Room 186
Boston, MA 02133

Massachusetts Senate
Senator William Brownsberger
Massachusetts State House, Room 504
Boston, MA 02133

City of Boston

Boston Planning and Development Agency
Attn: Brian P. Golden, Director
One City Hall Square, 9th Floor
Boston, MA 02201

Office of Environment, Energy & Open Space (City of Boston)
Attn: Austin Blackmon, Chief
One City Hall Square, Room 709
Boston, MA 02201

Boston Transportation Department
One City Hall Square, Room 721
Boston, MA 02201

Boston Conservation Commission
One City Hall Square, Room 709
Boston, MA 02201

Boston Landmarks Commission
One City Hall Square, Room 709
Boston, MA 02201

Boston Commission for Persons with Disabilities
One City Hall Square, Room 967
Boston, MA 02201

Boston Public Works Department
One City Hall Square, Room 710
Boston, MA 02201

Boston Parks and Recreation
Commissioner Chris Cook
1010 Massachusetts Avenue, 3rd Floor
Boston, MA 02118

Boston Water and Sewer Commission
Attn: John P. Sullivan, P.E.
980 Harrison Avenue
Boston, MA 02119

Boston Groundwater Trust
Attn: Christian S. Simonelli
229 Berkeley St.
Boston, MA 02116

Boston City Council
Josh Zakim
1 City Hall Square, 5th Floor
Boston, MA 02201-2043

Boston City Council
Bill Linehan
1 City Hall Square,5thFloor
Boston, MA 02201-2043

Boston Public Library
Central Library
700 Boylston St.
Boston, MA 02116

Boston Public Library
South End Branch
685 Tremont St,
Boston, MA 02118

Other Interested Parties

Charles River Watershed Association
Attn: Margaret Van Deusen
190 Park Road
Weston, MA 02493

Ellis South End Neighborhood Association
Betsy Hall
P.O Box 170731
Boston, MA 02116

Neighborhood Association of
The Back Bay
Vicki Smith/Barry Solar
160 Commonwealth Avenue, #L-8,
Boston, MA 02116-2749

Bay Village Neighborhood Association
Dr. P. MacKenzie Bok and Sarah Herlihy
Planning Co-Chair
35 Melrose St.,
Boston, MA 02116

St. Botolphe Neighborhood Association
Attn: Scott Mustard
10 Durham Street
Boston, MA 02115

WalkBoston
Wendy Landman
Old City Hall
45 School Street
Boston, MA 02108

Residents:
Tracy Pesanelli
Pamela Humphrey
Kenneth E. Kruckemeyer
Shirley Kressel
Paula Griswold
Pamela Lassiter
Ann Hershfang
Susan Prindle
Gerry Ives
Anne Swanson
Lynn Foster
Heyward Parker James
Jacquelin S. Yessian

Community Advisory Committee Members:
Brendan Ahern
Ann Beha
Kenzie Bok
Damien Chaviano
Jim Cochener
Jackie Cox Crite
Cathy Doran
Jack Fitzgerald
Susan Gilmore
Elliot Laffer
Meg Mainzer Cohen
Mayra Negron Rivera
Ted Pietras
Russ Preston
Patrick Sarkis
Jackie Yessian
Scott Mustard

APPENDIX B: EEA Secretary's Certificate on the Environmental Notification Form

The Commonwealth of Massachusetts

Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Charles D. Baker
GOVERNOR

Karyn E. Polito
LIEUTENANT GOVERNOR

Matthew A. Beaton
SECRETARY

Tel: (617) 626-1000
Fax: (617) 626-1081
http://www.mass.gov/eea

June 24, 2016

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME	: The Back Bay/South End Gateway Project
PROJECT MUNICIPALITY	: Boston
PROJECT WATERSHED	: Boston Harbor/Charles River
EEA NUMBER	: 15502
PROJECT PROPONENT	: BP Hancock LLC
DATE NOTICED IN MONITOR	: April 20, 2016

Pursuant to the Massachusetts Environmental Policy Act (M.G.L. c. 30, ss. 61-62I) and Section 11.03 of the MEPA Regulations (301 CMR 11.00), I hereby determine that this project **requires** the preparation of a mandatory Draft Environmental Impact Report (DEIR).

The project proposes a major air rights development in the Back Bay and South End of Boston. It will include up to 1.2 million square feet (msf) of commercial, residential and retail space built over and around the Massachusetts Bay Transportation Authority's (MBTA) Back Bay/South End Station, Interstate-90/Massachusetts Turnpike (I-90) and the 100 Clarendon Street Parking Garage (Garage).

This transit-oriented development provides an opportunity to enhance the public realm and vital transportation resources while providing economic development and new housing consistent with the Commonwealth's economic, environmental and transportation goals. It will develop high-density office, residential uses and retail adjacent to the MBTA Station. It is intended to revitalize the area and create a better connection between the Back Bay and South End neighborhoods by integrating the site and its uses with the neighborhood and street-level activity. Underutilized ground level areas along Stuart Street and the bus turn-around on Clarendon Street will be replaced with more active uses.

A common theme of comment letters is ensuring that the project provides a balanced development that places an appropriate emphasis on preserving and improving the public realm.

Comment letters express concern with the impact of the project on the urban environment and historic resources, including the effects of wind and shadow. A particular concern is the potential impact of the project and proposed vehicular access on transit operations and pedestrian access. To conform with the Commonwealth's and the City's urban design and development goals, the project must strive not only to preserve and improve operations and access but to increase capacity to the extent possible to support increased ridership that will be generated by this project. These concerns are similar to those that have been identified and addressed on other major redevelopment projects around transit hubs, including the Boston Garden project (EEA# 15052) at North Station and the South Station Air Rights project (EEA# 9131) at South Station.

As described in the Environmental Notification Form (ENF), the project consists of the construction of approximately 1.2 msf of mixed use development, including 575,000 sf of commercial office space, 100,000 sf of retail/restaurant space, and 600 residential units. It will include parking, loading and service areas. It includes the demolition of an existing parking garage and construction over ground and air rights covering the MBTA station. The project is comprised of four severable components that may be undertaken in phases by individual owners or developers:

1. Garage West Parcel: The existing western garage drum and a portion of the garage will be demolished. A new 26-story building with 575,000 sf of commercial office space, up to 27,000 sf ground floor retail/restaurant uses, and approximately 200,000 sf of parking (up to 2,013 spaces) will be constructed. Most of this project component will be constructed over I-90. The Proponent has developed design alternatives for the development of this parcel with and without closure of the existing on-ramp that connects Clarendon Street and I-90 westbound. The garage exit will be located either on Dartmouth Street or on Trinity Place depending on whether the I-90 ramp is eliminated or not.

2. Garage East Parcel: The existing eastern garage drum will be demolished. A 28-story, approximately 215,000 sf residential building with 240 units will be constructed. Most of this project component will be constructed over I-90. A parking garage entrance/exit will be located on Clarendon Street.

3. Station East Parcel: The existing MBTA bus drop-off will be relocated and an existing ventilation tower demolished. A 34-story, 377,000-sf building will be constructed with 360 residential units, 8,500-sf of retail space, and a new entrance to the MBTA station. This component of the project may also include reactivation of the Commuter Rail head house on the south side of Columbus Ave. Most of this project component will be constructed over the MBTA station and/or subway and railroad tracks.

4. Station West Parcel: The project includes a one- or two-story vertical expansion of the MBTA station to provide 30,000 to 65,000 sf of retail.

Portions of the site are owned by the Massachusetts Department of Transportation (MassDOT), the MBTA, and the Proponent. Pursuant to the Proponent's ground and air rights development agreement with the Massachusetts Department of Transportation (MassDOT), and its property management responsibilities, the Proponent will renovate Back Bay Station. The

station improvements include the following elements to improve customer experience and access:

- Restore the station architecture to its original condition;
- Create new and expanded waiting areas;
- Add lighting and temperature controls;
- Clarify signage and wayfinding components;
- Improve access and egress into the station;
- Renovate the public restrooms;
- Add retail opportunities to serve MBTA riders and the community; and
- Provide a monetary contribution that may be used to improve the track-level ventilation system.

The location of this project with direct access to transit offers the most important opportunity to minimize the long-term traffic and air quality impacts of the project. I received considerable public comment concerning the Proponent's proposed design for the station renovation. Commenters expressed concern about the lack of public input into the design, about vehicular and pedestrian access within and around the station, and whether the design would be able to support existing operations in addition to enhancing capacity of the station to accommodate increased ridership. I note that MassDOT is initiating a public process regarding station improvements which should afford opportunities to learn more about the project and goals and to provide input. The Scope for the DEIR requires more information regarding the station improvements, including identification of project goals, a detailed description of changes, and discussion of how changes address project goals.

Project Site

The 5.2-acre project site is bounded by Dartmouth Street to the west, Stuart Street and Trinity Place to the north, Clarendon Street to the east, and abutting properties along Columbus Avenue to the south. The site is located between the dense commercial development in Copley Square and Back Bay and the residential neighborhood of the South End.

Approximately three-quarters of the site is located on and over the MBTA station and I-90. A small portion of the site is located at ground level along Stuart Street between Trinity Place and Dartmouth Street. The MBTA station and tracks occupy the southern half of the site. The station serves the MBTA's Orange Line subway and Commuter Rail, and Amtrak passenger rail which provides service between Boston and New York. The station concourse occupies the southwest quadrant of the site and its main entrance is located at the street level on Dartmouth Street. The southeast quadrant consists of a second entrance to the station from Clarendon Street. The parcel includes a surface driveway with a bus turnaround and drop-off/pick-up area, sidewalks, and a plaza. Two ventilation stacks are also located on this parcel. A 2,013-space parking garage occupies the northern half of the site, most of which spans I-90 between Dartmouth and Clarendon Streets. A ramp from Clarendon Street to the westbound lanes of I-90 is located on the northeast quadrant of the site along the northern edge of the parcel below the parking garage.

The portions of the site over I-90 and the subway and railroad tracks are constructed on a structural deck supported by pilings. The pilings are installed on either side of I-90 and in the subway and rail platform. The elevation of the deck along the northeast corner of the site is higher than the surrounding streets. The approximately six-foot difference in elevation between Dartmouth Street and the first floor of the garage building requires stairs and ramps to provide pedestrian access to the site. Along Stuart Street, the deck elevation is up to 13 feet higher than the street. This side of the site is dominated by a concrete wall at the rear of the sidewalk that makes up the difference in elevation and separates the site from pedestrian and street-level activity. Redevelopment of the site is constrained by the deck, existing pilings, cost and complexity of constructing the foundation systems, and the need to maintain operations of the transportation infrastructure and vehicular and pedestrian corridors.

The site is located in several zoning areas designated by the Boston Redevelopment Authority (BRA). The majority of the site is located within Area 4 of the Stuart Street District established by Article 48 of the Boston Zoning Code in an area designated as Planned Development Area (PDA) No. 2. A small part of the site near the intersection of Clarendon Street and Columbus Avenue is located in the Community Commercial Zoning Subdistrict established in accordance with Article 64 of the Boston Zoning Code. The site is also located in the Groundwater Conservation Overlay District (GCOD) and Restricted Parking Overlay District (RPOD).

The site contains one property, the parking garage at 100 Clarendon Street, that is listed in the Massachusetts Historical Commission's (MHC) Inventory of Historic and Archaeological Assets of the Commonwealth. The site is within one-quarter mile of five historic districts listed or eligible to be listed on the State and National Registers, including the Back Bay Historic District (BOS.BT)/Back Bay Architectural District (BOS.BW), South End District (BOS.AB)/South End Landmark District (BOS.AC), Saint Botolph Architectural Conservation District (BOS.BV), Bay Village Historic District (BOS.BQ), and Park Square-Stuart Street Historic District. Sixteen individually designated or inventoried properties are located within these districts. Among the significant buildings in proximity to the site are the YWCA Building (BOS.2368) adjacent to the site on Stuart Street, the Boston Public Library- McKim Building (BOS.2624), Trinity Church (BOS.2623), New Old South Church (BOS.2653), Trinity Rectory (BOS.2371), Youth's Companion Building, and the Armory of the First Corp of Cadets (BOS.2371). The site is also within landlocked tidelands approximately one-half mile from the Charles River. The site does not include any wetland resource areas.

Environmental Impacts and Mitigation

The new office, retail, and residential uses will generate 12,980 new average daily trips (adt), but the Proponent expects the actual number of new vehicular trips to be considerably lower when adjusted to reflect the use of alternate modes of transportation, such as transit and walking, to access the site. No new parking spaces will be added to the existing 2,013 spaces. The project will consume 176,574 gallons per day (gpd) of water and generate 160,522 gpd of wastewater. The project will not significantly alter the site's impervious area. Emissions of Greenhouse Gasses (GHG) and other air pollutants are associated with the burning of fossil fuels for on-site energy use and automobile travel by residents and visitors to the site. The height of the proposed buildings may cast shadows and caused changes to wind patterns that affect adjacent historic resources.

The project will minimize and mitigate transportation-related impacts through the use of Transportation Demand Management (TDM) measures such as encouraging use of public transit and other alternate modes of travel. The project will employ measures to conserve water and contribute to Infiltration/Inflow (I/I) reduction to preserve sewer capacity. The project will employ stormwater Best Management Practices (BMPs) to improve the water quality and flow rate of stormwater discharged from the site, including infiltrating stormwater to the ground. As indicated in the PNF, the project will mitigate GHG emissions by incorporating energy efficiency measures into the building design and potentially generating renewable energy on-site.

Permitting and Jurisdiction

The project is undergoing MEPA review and subject to preparation of a mandatory Environmental Impact Report (EIR) pursuant to Section 11.03 (6)(a)(6) because it requires State Agency Permits and will generate 3,000 or more new average daily trips (adt) on roadways providing access to a single location. The project requires approvals for construction in the ground and air rights on and above the MBTA station, subway and rail tracks, and I-90 and it requires a Vehicular Access Permit from MassDOT. The project may require a Construction Site Dewatering Discharge Permit from the Massachusetts Water Resource Authority (MWRA). It will require review by the Massachusetts Historical Commission (MHC) in connection with the project's potential impacts on historic properties. The project includes modification to an urban renewal plan in accordance with M.G.L. c.121A. It is also subject to the MEPA GHG Emissions Policy and Protocol and will require a Public Benefit Determination.

The project requires a National Pollutant Discharge Elimination System (NPDES) construction permit from the U.S. Environmental Protection Agency (EPA) and a Determination of No Hazard to Air Navigation from the Federal Aviation Administration (FAA).

The project will require multiple permits and approvals from the City of Boston, including Large Project Review pursuant to Article 80B of the Boston Zoning Code, PDA approval, a Construction Management Plan (CMP) and approval of a Transportation Access Plan Agreement (TAPA). The Proponent filed a Letter of Intent to the BRA on December 30, 2015. A Project Notification Form (PNF) was filed in March and is undergoing review. The Proponent is seeking a Planned Development Area from the BRA. PDA3 Review, as required pursuant to Article 80C of the Zoning Code.

Because the Proponent is seeking a land transfer in the form of air-rights and ground leases from MassDOT, MEPA jurisdiction extends to those aspects of the project within the area subject to the land transfer that are likely, directly or indirectly, to cause Damage to the Environment. In addition, I note that the project may pursue State Financial Assistance in the form of Infrastructure, Investment and I (I-cubed) funding. Pursuant to 301 CMR 11.01(2)(a)(3), MEPA subject matter jurisdiction is functionally equivalent to full scope jurisdiction.

SCOPE

General

The DEIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this scope. The DEIR should clearly demonstrate that the Proponent has sought to avoid, minimize and mitigate Damage to the Environment to the maximum extent feasible.

Project Description and Permitting

The ENF described the existing site conditions and provided a basic project description and conceptual plans. It identified the project's impacts on transportation, water and sewer use, stormwater management, and historic properties and the short-term impacts anticipated during the constriction period, and acknowledged the need to mitigate these impacts. A brief list of alternatives was provided. The ENF included a copy of the PNF submitted to the BRA that contained a significantly more detailed project description and analysis of the project and its impacts and mitigation measures. The PNF provided important context for the project, including a discussion of relevant zoning, urban design and planning goals and site constraints, which are critical to evaluation of the Preferred Alternative in comparison to other alternatives. Much of the review of the project reflected in this Certificate, including its impacts, and potential mitigation measures, is based on information provided in the PNF. To provide a full and self-contained description and analysis of the project for the MEPA record, the DEIR should include the information contained in the PNF, updated as relevant, in addition to the additional analyses and information required in this Scope.

The DEIR should include a detailed description of existing conditions. It should clearly identify ownership of the site and quantify areas that are on solid ground and areas over the I-90, subway, commuter rail, and Amtrak rights-of-way. The DEIR should describe the project and identify any changes to the project since the filing of the ENF. The DEIR should include updated site plans, if applicable, for existing and post-development conditions at a legible scale. Conceptual plans should be provided at a legible scale and clearly identify buildings, public areas, impervious areas, pedestrian and bicycle accommodations, transportation facilities managed by MassDOT, MBTA, and the City of Boston, and stormwater and utility infrastructure.

The DEIR should identify and describe State, federal and local permitting and review requirements associated with the project including requests for Financial Assistance and provide an update on the status of each of these pending actions. The DEIR should include a description and analysis of applicable statutory and regulatory standards and requirements, and a discussion of the project's consistency with those standards. It should describe the project's consistency with the existing Urban Renewal Plan and what modifications to the plan are proposed in accordance with M.G.L. c.121A to accommodate the proposed development program. It should identify permits and approvals required by the City of Boston and describe the status of these reviews and approvals, in particular, in regards to any implications to the project uses or design.

The DEIR should provide more information about the Proponent's obligations to manage and upgrade the station as part of the Ground and Air Rights Lease. The DEIR should provide a

description of the proposed changes to the MBTA station, describe the design review process for the changes, including any public review, and respond to the issues and concerns identified in comment letters. It should assess the project's potential impact on capacity and describe how the changes will accommodate existing and future ridership at the station.

The DEIR should identify and describe projects in the immediate project area which may be constructed concurrent with or prior to the proposed development (e.g. Copley Place, EEA# 14790) and describe related roadway, transit and pedestrian improvements and construction phasing.

Project Phasing

According to the PNF, the development of each of the four parcels is severable from the others and therefore the project may be constructed in phases by the Proponent or successor(s) in interest based on future market conditions. The DEIR should describe likely phasing scenarios based on site and structural constraints, interdependence of uses such as parking supply, mitigation commitments, and any other relevant factors. The DEIR should discuss how mitigation measures will be implemented in the phasing scenarios to ensure that project impacts are appropriately mitigated as development proceeds. It should also address how the need for subsequent review by MEPA and/or the City of Boston will be addressed.

Alternatives Analysis

The ENF included a brief description of alternative designs and relatively minor changes in programming. The alternatives include the following designs:

- No-Build;
- Reduced Build; and
- Increased Build.

The No-Build Alternative would maintain the existing configuration of the garage and station property and continue routine maintenance of the station. The Reduced Build Alternative would involve the construction of a significantly smaller building on one or more of the parcels compared to the towers proposed in the Preferred Alternative. According to the ENF, this alternative is not feasible because the high costs related to the foundation and structural systems required for construction over the transportation infrastructure present at the site would render a smaller development infeasible based on cost. The Increased Build Alternative would include a taller building on the Station West parcel in place of the one- or two-story vertical addition proposed in the Preferred Alternative. The Proponent indicates that this alternative would require additional foundation and support systems that are costly and not technically feasible because of the existing configuration of the station and the need to maintain access to it during construction. The Garage West Parcel Bridge Alternative would involve the reorientation of the office building proposed for this parcel from an east-west orientation to a north-south orientation. The Proponent has determined this alternative is infeasible and cost-prohibitive because of the impacts to space and circulation within the station associated with additional foundation elements. These elements would be required through the station concourse and track level to bridge I-90 with a structural deck.

MassDOT's comments indicate that it has considered closure of the I-90 westbound on-ramp from Clarendon Street independent of the proposed project and that it intends to prepare an Interchange Modification Report (IMR) to evaluate the effects of the closure and make a final determination. As requested by MassDOT, the ENF described an alternate design for the Garage West Preferred Alternative that could be implemented if the I-90 westbound on-ramp were to be closed. The proposed development program is essentially the same in both alternatives, but the closure of the ramp (Garage West Alternate Scheme) would allow traffic to exit the garage onto Trinity Place rather than onto Dartmouth Street, as proposed in the Garage West Base Scheme. According to the ENF, the Garage West Alternate Scheme is advantageous because it will avoid conflicts with the high level of pedestrian activity on Dartmouth Street, allow a through-block pedestrian connection from Stuart Street and Trinity Place to the station, and will make a retail space at the corner of Trinity Place and Stuart Street viable.

Should MassDOT determine that the closure would be beneficial, it will consult with the City of Boston and submit the IMR to the Federal Highway Administration (FHWA) for approval. Many commenters noted the conflict between pedestrians and vehicles that would be created by a garage exit onto Dartmouth Street. The DEIR should include a modified version of the Garage West Base Scheme that eliminates the Dartmouth Street garage exit and either relies solely on the Clarendon Street entrance/exit and/or identifies a second exit into Trinity Place. The DEIR must include at least one alternative that provides access to Trinity Place or provide a clear analysis of why that is infeasible if the I-90 ramp remains open.

MassDOT's and FHWA's determination regarding the I-90 ramp may have a significant impact on traffic flow and operations in the project area. Closure of the ramp would benefit the development, primarily, by facilitating an alternate exit on Trinity Street and, secondarily, through a relatively small increase in development potential. MassDOT did not provide a schedule for completion of the IMR. The DEIR should discuss how schedule and phasing may be affected by MassDOT's determination regarding the ramp and how timing of that decision relates to the development project.

According to the PNF, the project conforms closely to the Stuart Street District zoning requirements, but the Proponent will seek PDA approval from the BRA because of the complexity of the project and the underlying zoning. The DEIR should include an analysis of at least two alternatives, including but not limited to:

- A third residential tower in place of the proposed office tower; and
- A development that strictly conforms to Stuart Street District and Community Commercial Zoning Subdistrict zoning requirements.

The DEIR should provide a detailed comparison of the alternatives, including detailed descriptions and plans of each alternative. The DEIR should compare the environmental impacts of each alternative, quantitatively to the extent practicable, with respect to trip generation, traffic operations, pedestrian and bicycle access, water use, wastewater generation, impervious area, shadow, wind, GHG emissions, and potential for renewable energy generation. The DEIR should describe any impacts or opportunities for improved access to the MBTA station associated with the alternatives.

In recognition of the likely possibility that the phasing and development will change due to market conditions, I encourage the Proponent to think strategically about alternative development scenarios and structure them to facilitate subsequent MEPA review (e.g. Notice of Project Change (NPC)).

Land

The project site has complex patterns of ownerships and easements. Portions of the site are owned by MassDOT, the MBTA, and the Proponent. When the Proponent purchased its property in 1990, 54 years remained on the lease of the Garage and its air rights from the Massachusetts Turnpike Authority (MTA) (which has been incorporated into MassDOT). On January 5, 2015, the Proponent entered into a Ground and Air Rights Lease with MassDOT which extended the timeframe of the lease to 99 years and expanded the air rights to include Back Bay Station. The lease includes provisions (Section 15.8 and 15.9 of the Ground and Air Rights Lease) that may authorize air rights development of up to four parcels; these provisions are referred to by MassDOT as the Development Agreement. The Ground and Air Rights Lease includes a requirement that air rights development undergo MEPA review and other "Governmental Approvals." A Form of Air Rights Development Project Lease was entered into on August 1, 2015.

On February 2, 2016, the Proponent filed a Proposed Air Rights Development Project Development Plan (Development Plan) with MassDOT. It describes new development of up to 1.7 million gross sf (equivalent to approximately 1.3 million Floor to Area Ratio (FAR) sf) in the aggregate on the four development parcels described in the Ground and Air Rights Lease, and includes conceptual plans, massing diagrams, and other materials that describe and illustrate the project. Full execution of the lease will not occur until completion of MEPA review and other required reviews, approvals and conditions.

The Proponent occupies the majority of the site pursuant to the Ground and Air Rights Lease with MassDOT, which authorizes the ground and air rights development on the four parcels. As noted above, the Proponent has property management responsibilities for the MBTA Station concourse and has commenced a series of station upgrades. The site is also subject to easements for rail service, utilities, and other private parties that must be maintained as part of the site redevelopment.

The DEIR should include one or more graphics that clearly identifies the areas subject to the MassDOT lease. It should identify and quantify current ownership, proposed ownership/ development rights, and temporary and permanent easement areas, including any easements required by the project from the City of Boston. It should include, in an appendix, the Ground and Air Rights Lease and the Development Plan. The DEIR should describe any additional ownership or lease arrangements that would be required to implement project alternatives related to the closure of the I-90 ramp.

Traffic and Transportation

The PNF provided a description of existing traffic patterns, on-site parking capacity, and public transportation service to the site. It included trip generation estimates and likely travel routes for vehicles arriving to and departing from the site. The DEIR should include a Traffic

Impact Assessment (TIA) as described below and provide additional analysis regarding the project's impact and proposed mitigation measures related to vehicular traffic, pedestrian and bicycle facilities, and public transportation. MassDOT comments stress that the TIA should include a comprehensive multimodal assessment of transportation impacts including vehicular, transit and pedestrian capacity analysis. A major focus of this section of the DEIR should be a detailed analysis of existing conditions and measures the project could implement to encourage and facilitate transit, bicycle and pedestrian access to the buildings and MBTA station and the surrounding area.

Existing Conditions

Vehicles currently enter the parking garage through the entrance on Clarendon Street or, for pass-holders only, the entrance drum on the Garage West Parcel accessible from Stuart Street via Trinity Place. Vehicles may exit the garage on either Clarendon Street or pass-holders may use the exit drum on the Garage East parcel. Vehicles leaving through the exit drum have access to the I-90 westbound ramp and Trinity Place/Stuart Street via a MassDOT service road. Because Clarendon Street is a one way street with traffic flowing south, vehicles using this entrance must come from the direction of Stuart Street or Stanhope Street and make a right turn into the garage; exiting vehicles must turn right toward Columbus Avenue. A police officer or garage employee typically controls traffic entering or exiting the garage during peak periods because of the high volume of pedestrians crossing the garage driveway to access or leave the nearby MBTA station entrance.

The site is served by multiple transit options. The Back Bay Station provides access to the MBTA's Orange Line subway; the Franklin, Needham, Providence/Stoughton, and Framingham/Worcester commuter rail lines; and Amtrak service to points south. The Copley Square Station provides access to four branches on the Green Line. The MBTA operates nine bus routes in the vicinity of the project site, including Routes 10, 39, and 170 that stop or terminate at the station. The Route 39 bus terminates in the drop-off area on the Station East parcel. According to the PNF, the Proponent is working with the MBTA to determine a suitable new terminus for the Route 39 bus prior to construction of the proposed residential building on the Station East parcel.

Proposed Parking Garage Ingress and Egress

The project will not increase the number of parking spaces at the site. Parking will be provided on the Garage West and Garage East parcels but the entry and exit drums will be demolished. Under the Garage West Base Scheme, the connections between Stuart Street/Trinity Place and the garage would be eliminated. Direct access from the garage to the I-90 westbound on-ramp would also be eliminated, but the ramp would remain accessible from Clarendon Street. A new exit would be provided onto Dartmouth Street and the Clarendon Street driveway would be maintained. Under the Garage West Alternate Scheme, the I-90 westbound on-ramp would be removed, allowing for an exit from the garage to Stuart Street. The only entrance to the garage would be through the Clarendon Street driveway, which would continue to serve as an exit from the driveway.

As noted above, the Garage West Base Scheme could create a significant conflict between pedestrians and vehicles. The sidewalk along Dartmouth Street is heavily used and

provides direct access to the MBTA station from Copley Square. Many comment letters expressed concern with this exit. I expect that the DEIR will include an assessment of this potential conflict and identify alternatives to avoid, minimize and mitigate impacts to pedestrian flow along Dartmouth Street. The DEIR requires analysis of an alternative Garage West Base Scheme that does not include a garage exit in this location. As described below, the DEIR will also provide a detailed pedestrian impact analysis that will include an evaluation of the Garage West Base and Alternate Scheme.

Traffic Operations

According to the PNF, the project will generate 12,980 adt based on the Institute of Transportation Engineers (ITE) Land Use Codes (LUC) 220 (Apartment), 710 (Office) and 820 (Shopping Center). The project will generate 1,261 trips during the AM peak period and 1,458 during the PM peak period. The Garage West Alternate Scheme would result in higher trip generation, with a total of 14,620 adt, 1,302 trips during the AM peak, and 1,602 trips during the PM peak. Most of the site's visitors and residents are expected to use alternate modes of transportation such as transit, walking, biking, or ridesharing. Adjusting for the anticipated high level of non-single occupant vehicle (SOV) trips, the project is expected to generate 4,180 adt under the base scheme and 4,974 adt under full build conditions with the Garage West Alternate Scheme.

The DEIR should include a Transportation Impact Assessment (TIA) consistent with the EEA/MassDOT *Transportation Impact Assessment (TIA) Guidelines* issued in March 2014 and the analyses and data requested in MassDOT's comment letter. The traffic study should provide a comprehensive multimodal evaluation of transportation impacts and identify appropriate mitigation. The TIA should provide transit and capacity analyses and evaluate bicycle and pedestrian facilities for the existing conditions, future No-Build conditions, and future Build conditions. The Proponent should provide a clear commitment to implement integrated multimodal mitigation measures to improve vehicular traffic operations and accommodate walking, bicycling and transit use by employees, residents, and visitors to the site. The TIA should describe the timing of impacts and mitigation measures, particularly with respect to any phasing of the project build-out. The TIA should include an analysis of any intersections in the study area that have crash rates higher than the State and/or MassDOT District 6 average, and discuss causality and potential mitigation measures to be implemented by the Proponent.

In addition to the trip generation estimates included in the PNF, the DEIR should provide estimates for the average Saturday daily trips and Saturday peak period trips based on the ITE *Trip Generation Manual* (9th Edition). Adjustments of the trip generation estimates should be calculated using applicable methodologies for pass-by and/or internal capture trips from the most recent editions of the ITE *Trip Generation Manual* and *Trip Generation Handbook*. The DEIR should include a trip distribution for the project using a gravity model based on factors such as census data, origin-destination, travel time, and distance to determine trip characteristics for employees and residents of the project site. The model should also consider the impact of the potential closure of the I-90 on ramp to the transportation network and trip distribution. The Proponent should consult with MassDOT, the City of Boston, and the MBTA to develop travel demand and trip generation characteristics in light of the difficulty in adequately modeling the transit trip generation and trip assignments for the project. The City of Boston's mode split data for this section of the city should be compared to the ITE values to better estimate the share of

trips accomplished by walking, bicycling, and transit use. The DEIR should fully document how the trip generation estimates and trip assignments were derived. If appropriate, the study area defined below should be modified on the basis of these results.

MassDOT has requested that additional locations be added to the study area proposed in the PNF. The TIA study area should include the following 32 intersections and roadways:

- Boylston Street at Clarendon Street;
- Boylston Street at Berkeley Street;
- St. James Avenue at Dartmouth Street;
- St. James Avenue at Trinity Place;
- St. James Avenue at Clarendon Street;
- St. James Avenue at Berkeley Street;
- St. James Avenue at Arlington Street;
- Huntington Avenue at Exeter Street and Stuart Street;
- Stuart Street at Dartmouth Street;
- Stuart Street at Trinity Place;
- Stuart Street at Clarendon Street;
- Stuart Street at Berkeley Street;
- Stuart Street at Arlington Street;
- Clarendon Street at Stanhope Street;
- Clarendon Street at Back Bay Station;
- Clarendon Street at the I-90 westbound on-ramp
- Columbus Avenue at Dartmouth Street;
- Columbus Avenue at Clarendon Street;
- Columbus Avenue at Cahners Place;
- Columbus Avenue at Berkeley Street;
- Arlington Street at Marginal Road and the I-90 on-ramp;
- Arlington Street at Stuart Street/Columbus Avenue;
- Arlington Street/Herald Street at Tremont Street;
- Herald Street at Albany Street;
- Albany Street at I-93 southbound on-ramp;
- Albany Street at Traveler Street;
- Berkeley Street at Storrow Drive on-ramps;
- Storrow Drive eastbound off-ramp at Clarendon Street;
- Stuart Street at I-90 westbound off-ramp; and
- Huntington Avenue at Blagden Street/I-90 westbound on-ramp.

The TIA should include operational analyses for the I-90 mainline, including the merge sections for the Arlington Street, Clarendon Street, and Huntington Avenue on-ramps. The TIA should provide comprehensive analyses for both the No-Build and Future Build scenarios in which the I-90 westbound ramp remains open or is permanently closed.

The TIA should also include trips that will be generated by nearby planned and/or approved projects in establishing traffic volumes for the future No-Build and Build scenarios. In addition, an annual growth factor should be applied to existing traffic volumes prior to addition

project-specific background growth. The planning horizon for the TIA should be seven years from the filing of the DEIR, with the exception of the analyses of the I-90 westbound on-ramp closure, which should use a 20-year planning horizon consistent with FHWA requirements. The Proponent should consult with MassDOT regarding the modeling of impacts to area traffic conditions associated with proposed I-90 westbound ramp closure.

The DEIR should characterize existing and future traffic operations with capacity analyses for the weekday AM and PM and Saturday peak hour conditions for all intersections. The capacity analyses should be performed for the entire build-out including both the Garage West Base Scheme and Garage West Alternative Scheme which is based on the elimination of the I-90 westbound on-ramp. The DEIR should document the project's impacts to vehicular flow and bus headway at the station entrance and consider impacts due to the proposed signalized exits. The DEIR should depict the peak hour 50^{th} (average) and 95^{th} percentile queue lengths for each lane group/turning movement at each study area intersection for all scenarios. The results of this analysis should be provided in a tabular format that identifies Existing, No Build, Future Build and Future Build with Mitigation scenarios for all peak hour conditions. The analysis should clearly identify any extended queues that would affect vehicle movements and identify appropriate mitigation. The level of service (LOS) for each lane group/turning movement should be clearly depicted for each scenario using color coded illustrations. The DEIR should include a traffic signal warrant study (TSWS) and document the need at any intersection where signalization is proposed. The DEIR should also identify any locations where a left turn lane is proposed and fully document the need for the turning lane. The DEIR should include sufficiently detailed conceptual plans (preferably 80-scale) for proposed roadway improvements in order to verify the feasibility of constructing improvements. The plans should show proposed lane widths and offsets, layout lines and jurisdictions, and land uses adjacent to areas where improvements are proposed.

Any proposed mitigation within the state highway layout and all internal site circulation must be consistent with a Complete Streets design approach that provides adequate and safe accommodations for all roadway users, including bicyclists, pedestrians, and public transit riders. Guidance on Complete Streets design guidelines is included in the *MassDOT Project Development and Design Guide*. I expect the Proponent to consult with the City of Boston regarding its Complete Streets Initiative and opportunities for incorporating "green infrastructure into the design of streets and sidewalks.

Parking

The project will include up to 2,013 parking spaces. The DEIR should discuss the rationale for determining the number of parking spaces to be provided. According to MassDOT, the most recent edition of ITE's *Parking Generation* document should be consulted, but it may not effectively predict parking rates for this mixed-use project. The DEIR should include a summary of the parking need and supply for comparable facilities using multiple data sources, including consultation with the Boston Transportation Department (BTD). The DEIR should describe how occupancy of parking spaces at these facilities varies during the day and identify peak periods of use.

Public Transportation

As achieving a high transit mode share for this project is predicated on the project's proximity to transit, the DEIR should include a detailed transit capacity analysis to determine the existing conditions and potential impacts of the project on the transit system. The analysis should be developed in consultation with the MBTA and the Central Transportation Planning Staff (CTPS). The analysis should be based on the existing Orange Line system and any planned service enhancements and include projected conditions upon completion of individual phases and the Full Build. The DEIR should evaluate the additional demand the project will place on public transportation facilities and services. The DEIR should address the expected additional ridership on the Orange Line and the impact of the additional ridership throughout the day, including peak periods. The DEIR should include tables showing the peak period headway and the MBTA's Policy Load and Crush Load Capacity for both inbound and outbound directions on the Orange Line. The data should be provided for future conditions upon completion of project phases and the full buildout. This information should be shown graphically to indicate the project's added ridership in comparison to base ridership and the load capacities.

The DEIR should describe existing conditions at the station, describe how employees, visitors, and residents will access the station, identify any measures that may be necessary to improve conditions and capacity to address increased transit ridership. The DEIR should include a discussion of the ongoing improvements the Proponent is implementing at the station as part of its management responsibilities and how those improvements will accommodate growth in the volume of transit riders generated by the project and adjacent projects. I note that MassDOT intends to initiate public review of proposed improvements this year and expect this process will inform the DEIR.

The DEIR should provide a detailed analysis of the project's impact to the MBTA bus network that serves the site, including Routes 10, 39, and 170. The DEIR should review the capacity of bus service to the site under existing conditions and upon completion of the project, taking into account other projects in the vicinity that are under construction or planned. The DEIR should evaluate options for relocating the Route 39 terminus and identify the potential impacts to service. The Proponent should provide the analysis of impacts to bus service requested in MassDOT's comment letter.

Pedestrian and Bicycle Access

The DEIR should provide an inventory of pedestrian and bicycle facilities in the study area and bicycle network in the vicinity of the project as requested in MassDOT's comment letter. The inventory should document the width and condition of sidewalks and crosswalks, bikeway types, bikeway widths, and number and speed of bicyclists. Travel routes of bicyclists through the area should be identified and evaluated in terms of safety and origin-destination of potential employees and residents of the project site. The DEIR should identify measures for improving deficient pedestrian and bicycle facilities in the area and expanding or adding new bicycle routes. The DEIR should quantify the capacity of sidewalks and bicycle facilities adjacent to the project site and identify any impacts or improvements on pedestrian and bicycle passage that are related to the project. Plans included in the PNF showed potential locations of a pedestrian bridge spanning Dartmouth Street and another that would connect the Proponent's property at 40 Trinity Place to 200 Clarendon Street. The DEIR should discuss the pedestrian

bridges in the context of overall pedestrian circulation in the area and provide more detail about potential locations and designs of the bridges.

The DEIR should include a pedestrian impact analysis to determine the quality of service provided to pedestrians at intersections and pedestrian facilities in the vicinity of the project site. The analysis should provide a pedestrian LOS for each intersection and crosswalk under the Existing, No Build, and Build conditions, for the Garage West Base Scheme, Garage West Alternative Scheme, and version of the Garage West Alternative Scheme that does not include a garage exit onto Dartmouth Street. The pedestrian impact analysis should be prepared using methodologies described in the most recent edition of the *Highway Capacity Manual*.

Transportation Demand Management

The PNF indicated that the Proponent will develop and implement a robust Transportation Demand Management (TDM) Program to provide incentives for using alternative transportation and discourage SOV trips. The TDM program should evaluate all feasible measures to reduce trip generation associated with the project. The TDM plan should seek to maximize the use of pedestrian and bicycle facilities, offer incentives for using public transportation, and encourage the use of low-emissions vehicles. The Proponent should consider implementing the following measures:

- Designation of a full-time on-site TDM coordinator;
- Provision of commuter information for employees and visitors;
- Bicycle and pedestrian improvements within the project site and connections to adjacent streets, public transportations, and other destinations;
- Participation in programs providing alternative transportation;
- Participation in available fixed-route transit services that are or will become available in the vicinity;
- Subsidized passes for residents;
- Support for ride-sharing matching/carpooling through the active promotion of NuRide, the Commonwealth's web-based trip planning and ride-matching system that allows users to earn rewards for taking greener trips;
- Provide an appropriate number of parking spaces for a car-sharing program;
- Provide preferential parking for low-emission vehicles;
- Installing on-site electric vehicle (EV) and solar-powered EV charging stations;
- Implement a five-year monitoring program to determine the effectiveness of the TDM program, on an iterative basis;
- Organize carpools/vanpools to nearby employment, retail, and health care centers;
- Provide indoor, secure bicycle parking; and
- Consult with MassRIDES, the Commonwealth's Travel Options provider, to help implement the program.

The Proponent should consult with MassRIDES and A Better City Transportation Management Association (TMA) to discuss specific measures that have been successful in reducing trip generation for similar projects in Boston.

Transportation Monitoring Program

According to MassDOT, the Proponent will be required to conduct annual traffic monitoring for a period of five years. The goal of the monitoring program is to evaluate the transportation-related assumptions made in the DEIR, the adequacy of mitigation measures, and the effectiveness of the TDM program. The monitoring program will include:

- Simultaneous automatic traffic recorder (ATR) counts at each garage entrance for a continuous 24-hour period on a typical weekday and Saturday;
- Travel survey of employees, patrons, and residents of the site;
- Weekday AM and PM peak hour turning movement counts (TMC) and operations analysis at mitigated intersections, including the garage entrances; and
- An update on TDM effectiveness and transit ridership.

Greenhouse Gas (GHG) Emissions

This project is subject to review under the May 5, 2010 MEPA GHG Policy. The DEIR should include an analysis of GHG emissions and mitigation measures in accordance with the standard requirements of this Policy. The Policy requires Proponents to quantify carbon dioxide (CO_2) emissions and identify measures to avoid, minimize or mitigate such emissions. The analysis should quantify the direct and indirect CO_2 emissions of the project's energy use (stationary sources) and transportation-related emissions (mobile sources). Direct emissions include on-site stationary sources, which typically emit GHGs by burning fossil fuel for heat, hot water, steam and other processes. Indirect emissions result from the consumption of energy, such as electricity, that is generated off-site by burning of fossil fuels, and from emissions from vehicles used by employees, vendors, customers and others. The DEIR should identify and commit to mitigation measures to avoid and minimize GHG emissions. The Proponent should refer to the Policy for additional guidance on the GHG analysis. MEPA, MassDEP and the Department of Energy Resources (DOER) staff are available to assist with these efforts and the I Proponent should consult with them regarding the analysis prior to submission of the DEIR.

I strongly encourage the Proponent to explore the availability of financial incentives offered by utility companies to help implement energy efficiency measures that would reduce GHG emissions. These incentives may be performance-based and tied to power and fuel avoided compared to a building designed to Building Code requirements. Incentives may also be available to offset design charette and energy modeling costs. For gas, more information is available on National Grid's website and in National Grid's New Construction Guide.[1] For electricity, more information can be obtained by contacting newconstructionMA@eversource.com. The GHG analysis should report on financial incentives that may be available from utility companies to help offset the cost of energy efficiency measures of this project.

[1] National Grid Commercial and Industrial Construction Services: https://www.nationalgridus.com/Trade/EE-Programs-Solutions/CI-New-Construction-Services?gclid=Cj0KEQjwrte4BRD-oYi3y5_AhZ4BEiQAzIFxn_VdWabqesqI52YlID4qJ0nC6a4rTuojTUh33NDqAeoaAmeb8P8HAQ

New Construction Guide: https://www.nationalgridus.com/media/trade/NewConstruction_Guide_Digital_Update.pdf

Stationary Sources

I note that the City of Boston is a designated Green Community. As such, the City has adopted the Commonwealth of Massachusetts' Stretch Energy Code (SC). Therefore, the project will be required to meet the applicable version of the Stretch Code in effect at the time of construction. The Stretch Code increases the energy efficiency code requirements for new construction (both residential and commercial) and for major residential renovations or additions in municipalities that adopt it. A revised Stretch Code (SCII) is pending review and approval by the Board of Building Regulations and Standards (BBRS). According to the PNF, the SCII is anticipated to require energy use in new large buildings to be approximately 10 percent below the baseline of standard established by the Building Code, which will be based on standards of the 2015 International Energy Conservation Code (IECC 2015) which references standards established by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE 90.1-2013).

According to the PNF, the project has been designed to incorporate energy efficiency measures to meet the anticipated requirements of SCII. The PNF included a discussion of the preliminary energy efficiency design measures and modeling results for the proposed buildings. The buildings will use approximately 20 percent less energy than the IECC 2015 standard, resulting in a reduction in GHG emissions of approximately 18 percent. Energy efficiency measures incorporated into the design of the project include:

- High efficiency condensing boilers to meet space heating demands and hot water demands;
- High-efficiency vertical stacked water source heat pumps connected to condensing boilers and cooling towers;
- Dedicated outside air system with energy recovery;
- Floor-by-floor variable air volume (VAV) reheat units serving chilled beams;
- Premium efficiency water-cooled chiller plant with variable frequency drives;
- Low lighting power densities to be achieved by using LED lighting;
- Forty-six percent window to wall ratio with insulated shadow box or spandrel in the Station West retail units;
- Low U-value wall and roof insulation; and
- Fifteen percent skylight to roof ratio in the Station West retail units.

The DEIR should include a GHG emissions analysis that calculates and compares GHG emissions from: 1) a Base Case corresponding to the current Massachusetts Building Code and 2) a Preferred Alternative that achieves greater reductions in energy use and GHG emissions than required by the Building Code. The GHG analysis should model energy use, emissions, and mitigation measures associated with the project in accordance with the GHG Policy and the Department of Energy Resource's (DOER) comment letter.

The GHG analysis should clearly demonstrate consistency with the objectives of MEPA review, one of which is to document the means by which Damage to the Environment can be avoided, minimized and mitigated to the maximum extent feasible. The Proponent should identify the model used to analyze GHG emissions, clearly state modeling assumptions, explicitly note which GHG reduction measures have been modeled, and identify whether certain

building design or operational GHG reduction measures will be mandated by the Proponent to future occupants or merely encouraged for adoption and implementation. The DEIR should include the modeling printout for each alternative and emission tables that compare base case emissions in tons per year (tpy) with the Preferred Alternative showing the anticipated reduction in tpy and percentage by emissions source (direct, indirect and transportation). Other tables and graphs may also be included to convey the GHG emissions and potential reductions associated with various mitigation measures as necessary. The DEIR should provide the information and formatted tables requested in the DOER comment letter.

The DEIR should present an evaluation of mitigation measures identified in the GHG Policy Appendix. In particular, the feasibility of each of the mitigation measures outlined below should be assessed for each of the major project elements, and if feasible, GHG emissions reduction potential associated with major mitigation elements should be evaluated to assess the relative benefits of each measure. The DEIR should explain, in reasonable detail, why certain measures, which could provide significant GHG reductions, were not selected – either because it is not applicable to the project or is considered technically or financially infeasible. The DEIR should assess the feasibility of the following mitigation measures:

- Minimize energy use through building orientation and evaluate its impacts on energy usage, including solar gain, day-lighting and viability of solar photovoltaic (PV) systems;
- Use of high-albedo roofing materials;
- Install high-efficiency HVAC systems and adequate numbers of thermal zones to support temperature controls;
- Reduce energy use through peak shaving or load shifting strategies;
- Maximize interior day-lighting through floor-plates, increased building perimeter and use of skylights, clerestories and light wells;
- Incorporate window glazing to balance and optimize daylighting, heat loss and solar heat gain performance;
- Incorporate roof and wall insulation to minimize heat loss and minimize uncontrolled infiltration through the building envelope;
- Incorporate lighting motion sensors, climate control and building energy management systems;
- Install energy efficient LED lighting, both exterior and interior;
- Evaluate additional measures to reduce project plug loads, including the use of more efficient equipment (such as Energy Star), consider energy consumption as a factor in the selection of special equipment, and consider power management techniques;
- Use of combined heat and power (CHP) units for the residential component of the project;
- Develop a tenant manual to encourage energy and water conservation, recycling, and use of Energy Star rated appliances to reduce plug loads; and
- Consider the development of a “green lease” program whereby tenants agree to pay the landlord recovery costs for energy efficiency improvements based on predicted cost savings to the tenant.

The DEIR should include an analysis of at least three wall/fenestration scenarios, including the use of spandrels, which exceed minimum Building Code specifications. It should analyze the feasibility and benefits of incorporating on-site generation and renewable energy

sources thoroughly in the DEIR. At a minimum, the DEIR should analyze the feasibility of employing solar photovoltaic (PV), solar hot water, CHP systems, and document the expected energy savings and reduction in GHG emissions from each generating technology. The Proponent should consider the use of one or more CHP systems for this project. Beyond providing efficient power for lighting and heating, CHP can also create greater reliability for electricity, greater control over uncertainties associated with energy prices, and produce off-grid power in the event of a black-out. I encourage the Proponent to consult with DOER regarding this analysis to ensure that the analysis accurately reflects the benefits of CHP.

The solar feasibility analysis should consider solar PV for both a first-party and a third-party ownership structure. The Proponent should contact the MEPA office for recently updated data on solar installation costs and a solar financial modeling spreadsheet. The analysis should:

- Estimate available roof area (excluding areas dedicated for mechanical equipment) or ground space for solar panel installation;
- State the assumed panel efficiency;
- Estimate electrical or thermal output of the potential system; and
- Estimate annual GHG reductions due to the use of renewable energy versus electricity or natural gas.

The analysis should include a narrative and data to support the Proponent's adoption (or dismissal) of solar PV or solar thermal systems as a feasible measure to avoid, minimize or mitigate project-related GHG emissions and Damage to the Environment. For those projects that choose not to implement the use of solar in conjunction with the project, the analysis should include:

- A commitment to construct the project as "solar-ready". At a minimum, this commitment should include design of a structure capable of supporting solar-related infrastructure. Such a commitment may also include provision of interconnection and inverter equipment, or other design features to facilitate future solar installations.
- Completion of cost analysis to determine the overall financial feasibility of installation of solar, including potential payback periods for first-party and third-party ownership systems.
- Discussion of potential environmental constraints (shading, presence of wetlands, etc.) limiting the application of solar on-site.

I encourage the Proponent to consider design options that will allow for cost-effective integration of efficiency or renewable energy measures in the future when such measures may become more financially or technically feasible.

Mobile sources

The GHG analysis should include an evaluation of potential GHG emissions from mobile emissions sources. The DEIR should follow the guidance provided in the Policy for *Indirect Emissions from Transportation* to determine mobile emissions for Existing Conditions, Build Conditions, and Build Conditions with Mitigation. The Proponent should thoroughly explore means to improve traffic operations and minimize overall single occupancy vehicle trips.

Improvements in traffic operations that minimize idling time can minimize overall project-related mobile source emissions. The DEIR should also review measures to promote the use of low-emissions vehicles, including installing EV charging stations and providing designated parking spaces for these vehicles. The Build with Mitigation model should incorporate roadway improvements and TDM measures to be implemented by the Proponent.

Mitigation

The DEIR should include a commitment to provide a self-certification to the MEPA Office at the completion of the project. It should be signed by an appropriate professional (e.g. engineer, architect, transportation planner, general contractor) indicating that all of the GHG mitigation measures, or equivalent measures that are designed to collectively achieve identified reductions in stationary source GHG emission and transportation-related measures, have been incorporated into the project.

Air Quality

In accordance with the State Implementation Plan (SIP) for ozone attainment, the proponent must conduct an indirect source review analysis. This analysis should be conducted in accordance with MassDEP *Guidelines for Performing Mesoscale Analysis of Indirect Sources.* The proponent should consult with MassDEP for guidance and for confirmation of the appropriate study areas. The purpose of the analysis is to determine whether and to what extent the project will increase the amount of volatile organic compounds (VOC) and nitrogen oxides (NO_x) emitted in the project area and to determine consistency with the SIP. The analysis should model emissions under No Build and Build conditions. If VOC emissions are greater than the No Build scenario, the proponent must provide measures to mitigate this impact, including a TDM Program.

Commenters have noted the potential impacts of locating residential development adjacent or proximate to a source of ultra fine particulate matter (UFP) such as vehicle emissions from I-90. I encourage the proponent to incorporate measures to enhance indoor air quality, including the installation of High-Efficiency Particulate Air (HEPA) filters into the heating, ventilating, and air conditioning (HVAC) system. Additionally, I recommend that the Proponent locate air intakes as far away as possible from sources of pollutants.

Climate Change and Sustainability

The DEIR should provide an analysis of potential effects of climate change that could affect the project and identify and describe resiliency measures that will be incorporated into the project design, including any resiliency measures to be incorporated into the station upgrade. The PNF included an evaluation of the project's climate change preparedness and a copy of the BRA Climate Change Resiliency and Preparedness Checklist. According to the PNF, the site is not located within a flood hazard area as delineated on the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map for the area. The PNF also included inundation probability maps published in the *MassDOT-FHWA Pilot Project Report: Climate Change and Extreme Weather, Vulnerability Assessments and Adaptation Options for the Central Artery/Tunnel ((June 2015).* According to this report, the site is located in an area of minimal flood risk on the projected 2070 inundation probability map under the high emissions scenario.

The Proponent is considering incorporating the following features into the project design to increase resiliency from climate change-induced flooding, sea level rise, and more frequent and intense storms and extreme heat events:

- Energy-efficient equipment;
- Back-up generators for critical systems;
- On-site renewable energy;
- Rainwater harvesting;
- Fortification of buildings and utilities against extreme storm events;
- Locating critical equipment above grade;
- Implementing flood barriers in the future, if necessary;
- Operable windows in residential buildings to provide natural ventilation;
- Capacity for water storage; and,
- Low-carbon building design.

I urge the Proponent to consider any additional design features that may provide resiliency and support adaptation under future climate scenarios.

The DEIR should discuss sustainable design features of the project. Article 37 of the Boston Zoning Code requires that the project be certifiable by the U.S. Green Building Council's Leadership in Energy and Environmental Design program. The PNF included an outline of measures the project will implement that are creditable toward LEED certification. The DEIR should include a full evaluation of ustainable design elements for the buildings and exterior site areas, including measures identified in the LEED rating system. The DEIR should also describe how the project will use recycled building materials and incorporate recycling and source reduction.

Stormwater and Groundwater

The PNF described existing stormwater facilities on each parcel and traced the flow of stormwater through the BWSC system to the ultimate discharge points. The PNF described the preliminary design of the project's stormwater management facilities, including infiltration systems and components to improve water quality, including removal of Total Suspended Solids (TSS) and phosphorous. The stormwater management system will be designed to comply with the SMS, including requirements for maintaining pre-development peak discharge stormwater flow rates and volumes. The project is considered a Land Use with Higher Potential Pollutant Loads (LUHPPL) and the stormwater management system will be designed to treat the one-inch water quality volume to the maximum extent practicable.

The project is located in the City of Boston's GCOD. The project must therefore undertake measures to infiltrate stormwater runoff to replenish groundwater. According to the PNF, observation wells in the vicinity of the site have reported the groundwater elevation to vary from elevation 2 feet to elevation 7 feet Boston City Base (BCB) between 1999 and 2015. According to the PNF, approximately three-quarters of the site is located above transportation infrastructure, including I-90 travel lanes and subway and railroad tracks, that are at an elevation below the desired groundwater recharge elevation. Because of this, it may not be possible to meet the standard of recharging the first inch of runoff over the entire post-development

impervious area. The stormwater management system will be designed to include recharge chambers designed to infiltrate runoff over a 72-hour period to maximize recharge to groundwater. The DEIR should provide details about infiltration methods included in the stormwater management design and any necessary data and analysis to document the extent to which the project will meet the GCOD infiltration standard.

The DEIR should include the information and plans provided in the PNF describing the existing stormwater management infrastructure, including connections to the Boston Water and Sewer Commission (BWSC) system, and ultimate discharge points. The DEIR should identify stormwater modeling assumptions, detail the proposed stormwater management system, and provide supporting documentation or data to demonstrate that it will comply with the SMS and BWSC standards. The DEIR should describe the proposed management system and include calculations, plans at a readable scale, and design details for Best Management Practices (BMPs). It should identify specific BMPs for the parking garage to mitigate stormwater runoff, in particular oil separators or similar BMPs.

Stormwater runoff from the site will be directed to the Charles River. MassDEP has established Total Maximum Daily Loads (TMDL) for the Charles River for phosphorous and pathogens. The DEIR should identify BMPs and low impact development measures to maximize groundwater recharge. The DEIR should provide sufficient detail to demonstrate that the stormwater management system will meet the Charles River TMDLs requirements for phosphorous and pathogens.

Water and Wastewater

The project will consume 176,574 gpd and generate 160,522 gpd of wastewater. The DEIR should tabulate wastewater generation and water consumption by use, including estimates of peak and continuous maximum water demand for each proposed use and for landscape irrigation and air conditioning make-up water. The DEIR should include information provided in the PNF concerning the existing and proposed water and wastewater systems on site and in the BWSC system. The DEIR should analyze flow pressure and/or existing capacity of the BWSC water and sewer system that serve the site. The DEIR should describe the location and size of infrastructure, connections to the BWSC water and sewer systems, and the path and ultimate disposal of wastewater from the site. The DEIR should identify and describe water conservation measures that will be incorporated into design and operations. At a minimum, the DEIR should review the feasibility of installing low-flow fixtures and using rainwater or gray water for irrigation and other purposes.

It should identify any combined sewers along the project's wastewater flow path, discuss potential impacts to system capacity during dry and wet weather conditions, and identify opportunities to minimize combined sewer overflow (CSO) events within the system. The project will be required to mitigate its contribution of flow into the BWSC sanitary system. MassDEP regulations at 314 CMR 12.04(2)(d) specify that communities with combined sewer overflows (CSOs), such as Boston, must require projects generating 15,000 gpd or more of new wastewater flow to remove four gallons of infiltration and inflow (I/I) for each gallon of wastewater. The DEIR should include a commitment to I/I removal and identify any mitigation projects or monetary contribution by the Proponent. The Proponent should consult with BWSC to identify appropriate I/I mitigation in connection with this project.

Historic Resources

The PNF provided a description of the historic resources within and adjacent to the project site, including a map of historic districts and properties listed in MHC's Inventory of Historic and Archaeological Assets of the Commonwealth located within a quarter-mile of the site. The PNF included a summary of a shadow impact analysis that concludes that shadow impacts of the project have been minimized to the extent practicable.

As requested in MHC's letter, the DEIR should include a historic resources assessment of historic properties within a quarter-mile of the project site. The DEIR should include pedestrian-level perspectives of the project from nearby historic resources to assist MHC in evaluating the effect of the project's size, scale and massing will have in these resources. The DEIR should include the shadow impact analysis with illustrations of the shadows on the facades of historic buildings. The DEIR should include the results of a quantitative wind tunnel analysis, document the project's effect on pedestrian-level wind conditions, and identify any necessary mitigation measures.

Solid Waste

The DEIR should characterize the solid waste expected to be generated by the project. In 2014, Massachusetts banned the disposal of commercial organic wastes by businesses and institutions that generate a ton or more of organic materials per week. Business subject to the ban must use composting, conversion (such as anaerobic digestion), recycling or reuse of organic waste. The DEIR should indicate whether any proposed uses may be subject to the waste ban and how it may dispose of its organic waste.

The DEIR should describe measures to reduce and recycle organic and other wastes through waste diversion and recycling programs. As noted by MassDEP, incorporating the design, infrastructure, and contractual components of the project's solid waste facilities at this stage will help ensure the success of future waste reduction and recycling efforts. The Proponent should refer to MassDEP's comment letter for additional information and links to web sites providing technical assistance.

Construction Period

The DEIR should identify the schedule for construction of various elements and phases. It should identify construction-period impacts and mitigation relative to noise, air quality, water quality, and traffic, including pedestrians, bicyclists and transit riders. The DEIR should document any contaminated soil or groundwater regulated under the Massachusetts Contingency Plan (MCP) and describe remediation and mitigation measures if necessary. The DEIR should confirm that the project will require its construction contractors to use Ultra Low Sulfur Diesel fuel, and discuss the use of after-engine emissions controls, such as oxidation catalysts or diesel particulate filters. More information regarding construction-period diesel emission mitigation may be found on MassDEP's web site at http://www.mass.gov/dep/air/diesel/conretro.pdf.

The DEIR should provide drafts of the Construction Management Plan (CMP) and Transportation Access Plan Agreement (TAPA) and specifically identify construction period

impacts to public access to transit, including bus routes and stops. The DEIR should identify measures to be taken during the construction of each phase to ensure safe and convenient passage for transit riders between Orange Line and Amtrak facilities and the project site. Several commenters noted that this will be one among several large projects to be under construction concurrently. The DEIR should review any additional coordination with the City of Boston, MBTA, MassDOT, and other project Proponents that may be warranted to coordinate construction schedules and develop mitigation measures necessary to minimize construction-period impacts.

The DEIR should provide more information regarding the project's generation, handling, recycling, and disposal of construction and demolition debris (C&D) and identify measures to reduce solid waste generated by the project. I strongly encourage the Proponent to commit to C&D recycling activities as a sustainable measure for the project. Demolition of any structures must comply with the MassDEP Asbestos Regulations (310 CMR 7.15) that became effective on June 20, 2014. These regulations require a pre-demolition and post-abatement surveys and inspections by a licensed asbestos monitor. The Proponent should consult the MassDEP comment letter with regard to regulatory requirements and potential mitigation measures for the removal, handling, and disposal of asbestos containing material (ACM) and other demolition debris during the construction period. The Proponent is reminded that any contaminated material encountered during construction must be managed in accordance with the MCP and with prior notification to MassDEP.

The DEIR should describe potential construction period dewatering requirements, discuss how dewatering will be conducted in a manner consistent with MWRA, MassDEP and/or BWSC regulations/guidelines, and identify any necessary permits. The draft CMP should include appropriate erosion and sedimentation control BMPs. I encourage the Proponent to adopt erosion and sedimentation controls consistent with a Stormwater Pollution Prevention Plan prepared in accordance with the NPDES Construction General Permit requirements.

Public Benefit Determination

This project is subject to a mandatory Public Benefit review pursuant to 301 CMR 13.00. The DEIR should include detailed information describing the nature of the tidelands affected by the project and the public benefit of the project. The DEIR should discuss the impact of the project on abutters and the surrounding community, including effects of wind and shadow, enhancement to the property, and benefits to the public trust rights in tidelands and other rights. The DEIR should identify benefits of the project provided through municipal permits, community activities on the site, environmental protection and preservation, public health and safety, and the general welfare.

Mitigation

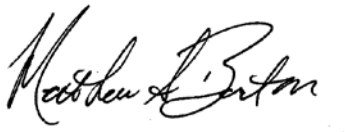
The DEIR should include a separate chapter summarizing proposed mitigation measures. This chapter should also include draft Section 61 Findings for each permit to be issued by State Agencies. The DEIR should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and a schedule for implementation. The DEIR should clearly indicate which mitigation measures will be constructed or implemented based upon project phasing, either tying mitigation commitments to overall project square footage/phase or environmental impact thresholds, to ensure that measures are in place to mitigate the anticipated impact associated with each development phase.

Responses to Comments

The DEIR should contain a copy of this Certificate and a copy of each comment letter received. In order to ensure that the issues raised by commenters are addressed, the DEIR should include direct responses to comments to the extent that they are within MEPA jurisdiction. This directive is not intended to, and shall not be construed to, enlarge the Scope of the DEIR beyond what has been expressly identified in this certificate.

Circulation

The Proponent should circulate the DEIR to those parties who commented on the ENF, to any State Agencies from which the Proponent will seek permits or approvals, and to any parties specified in section 11.16 of the MEPA regulations. Per 301 CMR 11.16(5), the Proponent may circulate copies of the EIR to commenters in CD-ROM format or by directing commenters to a project website address. However, the Proponent must make a reasonable number of hard copies available to accommodate those without convenient access to a computer and distribute these upon request on a first-come, first-served basis. The Proponent should send correspondence accompanying the CD-ROM or website address indicating that hard copies are available upon request, noting relevant comment deadlines, and appropriate addresses for submission of comments. The DEIR submitted to the MEPA office should include a digital copy of the complete document. A copy of the DEIR should be made available for review at the Boston Public Library.



June 24, 2016
Date

Matthew A. Beaton

Comments received:

05/05/2016 Boston Water and Sewer Commission (BWSC)
05/06/2016 Massachusetts Water Resources Authority (MWRA)

05/10/2016	Massachusetts Department of Environmental Protection (MassDEP)/Northeast Regional Office (NERO)
05/18/2016	Gerry Ives
05/23/2016	Charles River Watershed Association (CRWA)
05/30/2016	Elliott Laffer
05/31/2016	Massachusetts Department of Environmental Protection (MassDEP)/ Bureau of Air and Waste
05/31/2016	Department of Energy Resources (DOER)
05/31/2016	Kenneth E. Kruckemeyer
05/31/2016	Shirley Kressel
06/13/2016	Lynn V. Foster
06/15/2016	Massachusetts Historical Commission (MHC)
06/16/2016	Kenneth E. Kruckemeyer
06/16/2016	Tracy Pesanelli
06/16/2016	Susan D. Prindle
06/16/2017	Vicki C. Smith, Neighborhood Association of the Back Bay (NABB)
06/16/2016	Barry L. Solar, Neighborhood Association of the Back Bay (NABB)
06/16/2016	Anne Swanson
06/16/2016	Ann Hershfang
06/16/2016	Betsy Hall, Ellis South End Neighborhood Association
06/17/2016	Massachusetts Department of Transportation (MassDOT)
06/17/2016	Dr. P MacKenzie Bok, Bay Village Neighborhood Association
06/17/2016	Paula Griswold
06/17/2015	Heyward Parker James
06/17/2016	Jacquelin S. Yessian
06/17/2016	City Councilor Josh Zakim, District 8
06/17/2016	Pamela Humphrey
06/17/2016	Ann Beha
06/24/2016	Pam Lassiter

MAB/AJS/ajs

APPENDIX C: Boston Planning and Development Agency's Scoping Determination

BOSTON REDEVELOPMENT AUTHORITY

SCOPING DETERMINATION
BACK BAY SOUTH END GATEWAY PROJECT

SUBMISSION REQUIREMENTS
FOR DRAFT PROJECT IMPACT REPORT (DPIR)

PROPOSED PROJECT:	BACK BAY SOUTH END GATEWAY PROJECT
PROJECT SITE:	LOCATED PRIMARILY OVER ACTIVE TRANSPORTATION INFRASTRUCTURE, INCLUDING THE I-90 EXTENSION OF THE MASSACHUSETTS TURNPIKE (the "I-90") AND THE TRACK AND CONCOURSE LEVELS OF THE STATION, THE PROJECT IS ROUGHLY BOUNDED BY DARTMOUTH STREET TO THE WEST, STUART STREET AND TRINITY PLACE TO THE NORTH, TRINITY PLACE AND CLARENDON STREET TO THE EAST, AND THE SOUTHERN PROPERTY LINE OF THE STATION TO THE SOUTH
PROPONENT:	BP HANCOCK, LLC
DATE:	AUGUST 30, 2016

The Boston Redevelopment Authority ("BRA") is issuing this Scoping Determination pursuant to Section 80B-5 of the Boston Zoning Code ("Code"), in response to a Project Notification Form ("PNF") which BP Hancock, LLC (the "Proponent"), filed for the Back Bay South End Gateway project on March 29, 2016. Notice of the receipt by the BRA of the PNF was published in the Boston Herald on April 1, 2016, which initiated a public comment period with a closing date of May 31, 2016; the public comment period was subsequently extended until June 17, 2016. Comments received since then have subsequently been added as well.

On December 29, 2015, the Proponent filed a Letter of Intent in accordance with the Executive Order regarding Provision of Mitigation by Development Projects in Boston. On March 29, 2015 the Proponent filed a Project Notification Form (PNF) pursuant of Article 80 Large Project Review for a proposal, which includes the redevelopment of four distinct air rights development parcels situated above and adjacent to the MBTA's Back Bay Station. The Project is comprised of up to approximately 1.26 million square feet of mixed-use redevelopment, consisting of a new office building with ground floor retail, two new residential buildings, a one- and two-story vertical retail expansion of the existing Station building, and the partial redevelopment of the existing 100 Clarendon Street Parking Garage. This transformational development will deliver approximately 575,000 square feet of commercial office space, up to

approximately 100,000 square feet of retail and restaurant space and up to approximately 600 residential units, in addition to Project-related parking, loading and service uses, as well as improved access to the existing on-site public transit services.

Pursuant to Section 80B-5.3 of the Code, a Scoping Session was held on May 11, 2016 with the City's public agencies, where the proposal was reviewed and discussed. The PNF was sent to the City's public agencies pursuant to Section 80A-2 of the Code.

On March 14, 2016, letters soliciting nominations to the Citizens Advisory Committee (CAC) for the proposed project were delivered to City Councilor Josh Zakim, City Councilor Bill Linehan, City Council Michael Flaherty, City Councilor Ayanna Pressley, City Councilor Michelle Wu, City Councilor Annissa Essaibi-George, State Senator Scott Brownsberger, State Representative Byron Rushing, State Representative Jay Livingstone, and State Representative Aaron Michlewitz. Additional letters seeking recommendations were delivered to local stakeholders including: Tent City Apartments, Boston Society of Architects, Back Bay Association, Urban Land Institute Boston, South End Business Alliance, American Planning Association-Massachusetts Chapter, Bay Village Neighborhood Association, The Ellis South End Neighborhood Association, Boston Public Library, and the Neighborhood Association of the Back Bay.

The letters sought nominations or recommendations to the CAC by March 28, 2016.
BRA staff conferred with Mayor Walsh's Office of Neighborhood Services to finalize the nominees and the Mayor's Office approved the final list of members.

The Citizens Advisory Committee (CAC) members are:

-Brendan Ahern- South End Business Alliance
-Ann Beha – Boson Society of Architects
-MacKenzie Bok- Bay Village Neighborhood Association
-Damian Chaviano- Urban Land Institute
-James Cochener- Salty Pig Restaurant
-Jacquelyn Cox-Crite- Tent City Resident
-Cathy Doran- Greater Boston Convention and Visitors Bureau
-Jack Fitzgerald- Ellis South End Neighborhood Association
-Susan Gilmore- Back bay Resident
-Elliott Laffer (co-chair) - Neighborhood Association of the Back Bay
-Meg Mainzer Cohen- Back Bay Association
- Scott Mustard- St. Boltoph Neighborhood Association
- Mayra Negron-Rivera- IBA
- Ted Pietras (co-chair) – South End Business Alliance
- Russ Preston- Congress for New Urbanism
-Patrick Sarkis- Back Bay Association
-Jacqueline Yessian- Neighborhood Association of the Back Bay

The ex-officio members are:

- State Senator Scott Brownsberger

- State Representative Byron Rushing
- State Representative Aaron Michlewitz
- State Representative Jay Livingstone
- City Councilor Bill Linehan
- City Councilor Josh Zakim
- City Councilor Michelle Wu
- City Councilor Annissa Essaibi-George
- City Council Michael Flaherty
- City Councilor Ayanna Pressley

All CAC members were notified of and invited to the scoping session held on May 11, 2016.

A total of five CAC meetings and one CAC site walk, all of which were advertised via the BRA website and standard email notifications, have been held while under Article 80 Large Project review. The site walk was held at Back Bay Station and the surrounding area on May 12, 2016. The five CAC meetings were at held at the Boston Common Hotel and Conference Center at 40 Trinity Place and took place on:

-April 28, 2016
-May 26, 2016
-June 15, 2016
-June 29, 2016
-July 13, 2016

After the PNF was filed, the BRA hosted two public meetings while under Article 80 Large Project review. A Back Bay meeting was held on May 11, 2016 at the Boston Common Hotel and Conference Center at 40 Trinity Place. A South End meeting was held on May 18, 2016 at the Blackstone Community Center, 50 West Brookline St. Both meetings were advertised in the *Boston Guardian, Bay State Banner, South End News* as well as through the BRA website and Twitter handle.

Written comments in response to the PNF received by the BRA from agencies of the City of Boston and elected officials are included in **Appendix A** and must be answered in their entirety. Written comments in response to the PNF received by the BRA from the public are included in **Appendix B** and must be answered in their entirety. Written comments in response to the PNF received by the BRA from the Citizens Advisory Committee ("CAC") are included in **Appendix C** and must be answered in their entirety. The DPIR should include complete responses to all comments included in **Appendices A, B and C** within the framework of the criteria outlined in the Scoping Determination.

Comments received by the BRA from agencies and departments of the City of Boston are included in **Appendix A** and must be answered in their entirety.

Specifically, they are from:

- John Sullivan, Boston Water and Sewer Commission
- Josh Zakim, Boston City Council, District 8

- Todd Liming, Public Improvement Commission
- Tim Davis, BRA Housing Policy Manager
- Kristen McCosh, Mayor's Commission for Persons with Disabilities
- Byron Rushing, State Representative
- Katie Pederson, BRA Environmental Review/IGBC
- Christian Simonelli, Boston Groundwater Trust
- Vineet Gupta, Boston Transportation Department
- David Carlson/Corey Zehngebot/Lauren Shurtleff, BRA Planning and Urban Design
- Carrie Marsh, Boston Parks and Recreation Department

Public comments received by the BRA during the comment period are included in **Appendix B** and must be answered in their entirety.

The following public comments are included in **Appendix B**, among many others:

- The Ellis South End Neighborhood Association
- WalkBoston
- The Neighborhood Association of the Back Bay
- Bay Village Neighborhood Association, Inc
- LivableStreets Alliance
- 285 Columbus Lofts
- Hill House, Inc
- Parkland Management Advisory Council/Southwest Corridor Park

Citizens Advisory Committee member comments received by the BRA during the comment period are included in **Appendix C** and must be answered in their entirety.

Specifically, they are from:

- Elliott Laffer, Citizens Advisory Committee Member
- Jacqueline Yessian, Citizens Advisory Committee Member
- Ann Beha, Citizens Advisory Committee Member
- Susan Gilmore, Citizens Advisory Committee Member
- MacKenzie Bok, Citizens Advisory Committee Member

The Scoping Determination requests information that the BRA requires for its review of the Proposed Project in connection with Article 80 of the Code, Development Review and Approval and other applicable sections of the Code.

I. PROJECT DESCRIPTION

The proposal includes the redevelopment of four distinct air rights development parcels situated above and adjacent to the MBTA's Back Bay Station. The Project is comprised of up to approximately 1.26 million square feet of mixed-use redevelopment, consisting of a new office

building with ground floor retail, two new residential buildings, a one- and two-story vertical retail expansion of the existing Station building and the partial redevelopment of the existing 100 Clarendon Street Parking Garage. This transformational development will deliver approximately 575,000 square feet of commercial office space, up to approximately 100,000 square feet of retail and restaurant space and up to approximately 600 residential units, in addition to Project-related parking, loading and service uses, as well as improved access to the existing on-site public transit services (the "Proposed Project").

Located primarily over active transportation infrastructure, including the I-90 Extension of the Massachusetts Turnpike (the "I-90") and the track and concourse levels of the Station, the Project is roughly bounded by Dartmouth Street to the west, Stuart Street and Trinity Place to the north, Trinity Place and Clarendon Street to the east, and the southern property line of the Station to the south ("Project Site").

II. PREAMBLE

The Proposed Project is being reviewed pursuant to Article 80, Development Review and Approval, which sets forth a comprehensive procedure for project review of the following components: transportation, environmental protection, urban design, historic resources, infrastructure systems, site plan, tidelands, and Development Impact Project, if any. The Proponent is required to prepare and submit to the BRA a Draft Project Impact Report ("DPIR") that meets the requirements of the Scoping Determination by detailing the Proposed Project's impacts and proposed measures to mitigate, limit or minimize such impacts. The DPIR shall contain the information necessary to meet the specifications of Section 80B-3 (Scope of Large Project Review; Content of Reports) and Section 80B-4 (Standards for Large Project Review Approval), as required by the Scoping Determination. After submitting the DPIR, the Proponent shall publish notice of such submittal as required by Section 80A-2. Pursuant to Section 80B-4(c) (i) (3), the BRA shall issue a written Preliminary Adequacy Determination ("PAD") within ninety (90) days. Public comments, including the comments of public agencies, shall be transmitted in writing to the BRA no later than fifteen (15) days prior to the date by which the BRA must issue its PAD. The PAD shall indicate the additional steps, if any, necessary for the Proponent to satisfy the requirements of the Scoping Determination. If the BRA determines that the DPIR adequately describes the Proposed Project's impacts and, if appropriate, proposed measures to mitigate, limit or minimize such impacts, the PAD will announce such a determination and that the requirements of further review are waived pursuant to Section 80B-5.4(c) (iv). Section 80B-6 requires the Director of the BRA to issue a Certification of Compliance indicating the successful completion of the Article 80 development review requirements before the Commissioner of Inspectional Services can issue any building permit for the Proposed Project.

III. REVIEW/SUBMISSION REQUIREMENTS

In addition to full-size scale drawings, 15 copies of a bound booklet and an electronic copy (PDF format) containing all submission materials reduced to size 8-1/2" x 11", except where otherwise specified are required. The electronic copy should be submitted to the BRA via the following website: https://attachments.bostonredevelopmentauthority.org/. The booklet should be printed on both sides of the page. In addition, an adequate number of copies must be

available for community review. A copy of this Scoping Determination should be included in the booklet for reference.

A. General Information

1. Applicant/Proponent Information
   a. Development Team
      (1) Names
         (a) Proponent (including description of development entity and type of corporation, and the principals thereof)
         (b) Attorney
         (c) Project consultants and architects
      (2) Business address, telephone number, FAX number and e-mail, where available for each
      (3) Designated contact for each
   b. Legal Information
      (1) Legal judgments or actions pending concerning the Proposed Project
      (2) History of tax arrears on property owned in Boston by Applicant
      (3) Evidence of site control over Project Site, including current ownership and purchase options, if any, for all parcels in the Proposed Project, all restrictive covenants and contractual restrictions affecting the Proponent's right or ability to accomplish the Proposed Project, and the nature of the agreements for securing parcels not owned by the Applicant.
      (4) Nature and extent of any and all public easements into, through, or surrounding the site.
2. Project Site
   a. An area map identifying the location of the Proposed Project
   b. Description of metes and bounds of Project Site or certified survey of the Project Site.
   c. Current zoning

3. Project Description and Alternatives

   a. The DPIR shall contain a full description of the Proposed Project and its components, including, its size, physical characteristics, development schedule, costs, and proposed uses. This section of the DPIR shall also present analysis of the development context of the Proposed Project. Appropriate site and building plans to illustrate clearly the Proposed Project shall be required.
   b. A description of alternatives to the Proposed Project that were considered shall be presented and primary differences among the alternatives, particularly as they may affect environmental and traffic/transportation conditions, shall be discussed.

4. Public Benefits

   a. Anticipated employment levels including the following:
      (1) Estimated number of construction jobs
      (2) Estimated number of permanent jobs
   b. Current and/or future activities and program which benefit adjacent neighborhoods of Boston and the city at large, such as, child care programs, scholarships, internships, elderly services, education and job training programs, etc.
   c. Other public benefits, if any, to be provided.

5. Community Process

   a. A list of meetings held and proposed with interested parties, including public agencies, abutters, and business and community groups.
   b. Names and addresses of project area owners, abutters, and any community or business groups which, in the opinion of the applicant, may be substantially interested in or affected by the Proposed Project.

B. REGULATORY CONTROLS AND PERMITS

An updated listing of all anticipated permits or approvals required from other municipal, state or federal agencies, including a proposed application schedule shall be included in the DPIR.

A statement on the applicability of the Massachusetts Environmental Policy Act (MEPA) should be provided. If the Proposed Project is subject to MEPA, all required documentation should be provided to the BRA, including, but not limited to, a copy of the Environmental Notification Form, decisions of the secretary of Environmental Affairs, and the proposed schedule for coordination with BRA procedure.

C. TRANSPORTATION COMPONENT

*The analysis included in the DPIR must utilize as its framework the scope as outlined in the comments of the Boston Transportation Department ("BTD"), dated June 17, 2016 and included in **Appendix A.***

The following overarching considerations inform the Boston Transportation Department's (BTD) review of the project:
- Need for coordination with development projects proposed in the Stuart Street corridor which are in varying stages of design and construction.
- Traffic impacts on local streets generated by the ramp closure alternative.
- Recognition of excellent transit-access to the site and consideration of "shared" traveling options.
- The creation of a public realm that is friendly for people walking or riding bicycles.

Given the complexity of the project and its potential long term impacts, BTD recommends that the proponent prepare a Draft Project Impact Report (DPIR) and provide new information and analysis below.

Ramp Access and Traffic Analysis
The PNF notes that the proponent is considering elimination of the existing I-90 ramp located below the Garage West parcel. In general, ramps to the highway system remove regional traffic away from local streets. In addition, multiple on-ramps distribute traffic accessing I-90 across local street reducing concentrated congestion, though they also have negative impact on the pedestrian and bicycling environment. The closing of the I-90 on-ramp will have far reaching impacts on trips generated by all proposed projects in the Stuart Street corridor and surrounding areas. BTD recommend the DPIR includes:
- A proposal to work with an inter-agency group, including BTD and MassDOT, to conduct a detailed "ramp alternatives" study. In addition to traffic analysis the study should include a conceptual constructability analysis, given the need to keep I-90 open and that the project will be phased.
- An analysis of the impacts of traffic generated from other proposed projects in the Stuart Street corridor if the on-ramp is closed.
- A public realm plan for Trinity Place and St. James Avenue (between Clarendon and Dartmouth Streets) that shows how pedestrian flow, on-street parking, shuttle and tour bus parking, hotel pick-up drop-off, and Copley Square event-staging can be managed with the expected additional traffic generated by the Garage West Alternative Scheme.

*The full text of the BTD Comments can be viewed in **Appendix A.***

D. ENVIRONMENTAL PROTECTION COMPONENT

*The DPIR must address the comments of the BRA Environmental Review/IGBC, dated June 14, 2016, included in **Appendix A** and must include the most up to date Article 37/Interagency Green Building Committee documents.*

Wind

The Proponent has stated that Proposed Project will four buildings, the tallest of which be approximately 388 feet in height and accordingly the Proponent shall be required to conduct a quantitative (wind tunnel) analysis for both existing (no-build) and build conditions.

The analysis shall determine potential pedestrian level winds adjacent to and in the vicinity of the Proposed Project site and shall identify any areas where wind velocities are expected to exceed acceptable levels, including the Boston Redevelopment Authority's guideline of an effective gust velocity of 31 miles per hour (mph) not to be exceeded more than 1% of the time. The analysis also shall determine the suitability of particular locations for various activities (e.g., walking, sitting, eating, etc.) as appropriate.

The Proponent shall be required to pay particular attention to public and other areas of pedestrian use, including, but not limited to, entrances to the Proposed Project and adjacent buildings, sidewalks adjacent to and in the vicinity of the Proposed Project buildings as well as parks, including but not limited to the Copley Square, the Southwest Corridor Park and Frieda Garcia Park, plazas and other open spaces and pedestrian areas near the Proposed Project. The Proponent shall be cognizant of the planning objectives emphasized in the Stuart Street Zoning District and in particular, in designing the buildings to be sensitive to the wind and shadow impacts on sidewalks and nearby public open spaces

Wind speeds shall be measured in miles per hour and for areas where wind speeds are projected to be dangerous or to exceed acceptable levels, measures to reduce wind speeds and to mitigate potential adverse impact(s) shall be identified and, if appropriate, tested.

Shadow

The Proponent conducted and included the results of a shadow analysis for the existing (no-build) and build conditions for the hours of 9:00 a.m., 12:00 noon, and 3:00 p.m. for the vernal equinox, summer solstice, autumnal equinox, and winter solstice and for 6:00 p.m. in the summer and fall, in the PNF.

The shadow impact analysis examined the existing shadows and illustrated the incremental effects of the Proposed Project on existing and proposed public open spaces, including but not limited to Copley Square Park (bounded by Boylston Street, Clarendon Street, St. James Avenue and Dartmouth Street, excluding land occupied by Trinity Church), the Southwest Corridor Park and Frieda Garcia Park, and pedestrian areas (including transit stops), sidewalks and pedestrian walkways adjacent to and in the vicinity of the Proposed Project.

The results indicate that the Proposed Project is not anticipated to create a significant net new shadow and in particular, the net new shadows are anticipated to be cast onto Copley Square Park for approximately one hour and 54 minutes, thus demonstrating compliance.

The full text of the BRA Environmental Review/IGBC Comments can be viewed in ***Appendix A.***

The DPIR must address the comments of the Boston Parks and Recreation Department, dated August 22, 2016 and included in ***Appendix A***

With regard to the Back Bay / South End Gateway project, this significant project will have impacts to open space in an area of the City already challenged by high density and limited open space resources. BPRD respectfully requests the consideration of a community contribution to mitigate impacts to open space in the neighborhood, such as capital improvements or maintenance for Copley Square.

The full text of the Boston Parks and Recreation Department Comments can be viewed in ***Appendix A.***

E. URBAN DESIGN/PLANNING COMPONENT

The DPIR must address the comments of the BRA's Urban Design and Planning Department, dated August 19, 2016 included in ***Appendix A****. In addition to this, the standard list of urban design materials should be included in the DPIR for the Proposed Project, included in* ***Appendix A****.*

Boston Properties proposes the redevelopment of the John Hancock Garage and Back Bay Station air rights, which lies toward the north of the block bounded by Columbus Avenue and Dartmouth, Stuart, and Clarendon Streets. This Project aims to create new, defined, and activated passages from Dartmouth to Stuart to Clarendon Streets. Green roofs lie atop several tower and podium components. The mix of active uses would enhance the mix of uses (office, residential, hotel, retail) already extant in the area. The architect is Pelli Clarke Pelli.

BRA Planning and Urban Design have appreciated working thus far with Boston Properties on the refurbishment of Back Bay Station and redevelopment of associated air rights parcels on what is poised to be a transformative development impacting the Back Bay, South End, and Bay Village neighborhoods. This is a project that requires considerable capital, vision, and persistence, and we recognize the hard work already expended by the development team, architects, consultants, and our colleagues at MassDOT and the MBTA. The Proponent's intent to renovate and restore the Station is laudable and represents a significant public benefit resulting from this project. The scoping comments below reflect some of the most salient issues at this moment in the design and development timeline. Due to the protracted and phased nature of this project, the BRA will continue to provide feedback throughout what is sure to be an iterative and collaborative process.

Moreover, the Proposed Project should meet the 'performance standard' of generally having the same or a lesser degree of environmental impacts than either the full 'as-of-right' build-out or existing conditions, whichever are most impactful. That is to say, criteria such as daylight, shadows, and wind should be at least neutral or improved on average, recognizing that some elements or points may be worse, but proving that the whole is better as a Project. We will expect in fact that mitigations or positive urban benefits will result from this Project and in balance far outweigh any negative impact. Specific shadow and wind investigations will be

requested - a separate category in this scoping - to determine what the impacts are regarding Copley Square and the Southwest Corridor Park, among others. We will expect that the Proposed Project as represented in the DPIR will have taken into account any necessary mitigating factors, for scenarios with densities and heights beyond those alternatives, discovered as a result of environmental and other studies by the Proponent.

DPIR design alternatives or development should bring a high degree of innovation and achieve LEED Gold at a minimum, preferably Platinum. This Project should set the bar very high for projects in the Stuart Street Study Area, and incorporate bold energy, recycling, daylight/quality of environment, green roofs and plantings, innovative connections to the water, and transportation initiatives.

*The full text of the BRA's Urban Design and Planning Department Comments can be viewed in **Appendix A**.*

F. INFRASTRUCTURE SYSTEMS COMPONENT

*The DPIR must address the comments of the Boston Groundwater Trust, dated June 15, 2016 and included in **Appendix A**.*

As confirmed in a preliminary meeting and at the scoping session the GCOD requires both the installation of a recharge system and a demonstration that the project cannot cause a reduction in groundwater levels on site or on adjoining lots. In the case of the Back Bay/South End Gateway Project four separate parcels designated Garage West, Garage East, Station East, and Station West will all need to be addressed individually. As stated in the PNF, the proposed construction of the four separate parcels is anticipated to require various foundation types with construction of the four parcels occurring in different phases. Before GCOD zoning approval can be put in place, the proponent must provide the Authority and the Trust a letter stamped by a professional engineer registered in Massachusetts that details how each of the four parcels will accomplish what is stated in the PNF and meets the GCOD requirement for no reduction in groundwater levels on site or on adjoining lots.

*The full text of Boston Groundwater Trust Comments can be viewed in **Appendix A**.*

*The DPIR must address the comments of the Boston Water and Sewer Commission, dated October 1, 2015 and included in **Appendix A**.*

According to the ENP/PNF, the proposed water demand is 176,574 gallons per day (gpd). The Commission owns and maintains a 10-ince Southern High water main in Stuart Street, a 12-inch Southern High water main in Trinity Place, a 12-inch Southern High water main in a Commission easement through the property between Trinity Place and Clarendon Street, a 12-inch Southern High water main in Clarendon Street and 12-inch Southern Low water main in Dartmouth Street.

According to the ENF/PNF, the proposed sewage generation is 160,522 gpd. For sewage and storm drainage service, the site is served by a 10-inch sanitary sewer and a 15-inch storm drain in Stuart Street, a 18-inch by 33-inch sanitary sewer and an 18-inch by 18-inch storm drain in Trinity Place, an 18-inch by 18-inch sanitary sewer and 15-inch storm drain in Clarendon Street, and a 10-inch and 12- inch sanitary sewer and a 12-inch and a 15-inch storm drain in Dartmouth Street.

The full text of BWSC Comments can be viewed in ***Appendix A.***

G. DEVELOPMENT IMPACT PROJECT COMPONENT

Based on the square footage and uses outlined in the Project Notification Form, the Proposed Project will be subject to and be required to enter into a Development Impact Project ("DIP or Linkage") agreement, assuming the proposed project requires zoning relief. A full analysis of square footage and uses should be submitted in the DPIR.

H. PUBLIC NOTICE

The Proponent will be responsible for preparing and publishing in one more newspapers of general circulation in the City of Boston a Public Notice of the submission of the DPIR to the BRA as required by Section 80A-2. This Public Notice shall be published within five (5) days after the receipt of the DPIR by the BRA. Therefore, public comments shall be transmitted to the BRA within seventy five (75) days of the publication of this Public Notice. Sample forms of the Public Notice are attached as **Appendix D.**

Following publication of the Public Notice, the Proponent shall submit to the BRA a copy of the published Public Notice together with the date of publication.

APPENDIX D: Ground and Air Rights Lease and Development Plan

Materials are provided on the enclosed CD-ROM. These documents are provided for informational purposes only.

Ground and Air Rights Lease
Development Plan

APPENDIX E: Station Concourse Improvements

Renovation of the Back Bay/South End Station Concourse

The renovation of the Station Concourse is an important project for the MBTA and its customers, as well as for the adjacent Back Bay, South End, and Bay Village neighborhoods and the City of Boston. The Station is a major transit hub, the third most-frequented commuter rail station in the City and offers access to MBTA Commuter Rail, Orange Line, local bus routes, and AMTRAK trains. Despite its iconic and thoughtful design by Kallman McKinnel and Wood, the Station has suffered from years of deferred maintenance since it first opened in 1987 as part of the Southwest Corridor project.

In response, and in parallel with the Proponent's efforts to develop the Air Rights Development Parcels, the Proponent agreed to pre-pay the rent on the existing 99-year MassDOT Lease in order make funding available now to complete necessary Station repairs and upgrades in coordination with the MBTA. A portion of the rent proceeds are to be used and were matched by the MBTA to complete a MBTA-led track-level ventilation system improvement project that will improve Station air quality and customer comfort. The remaining considerable funds are being used to complete a renovation of the Station Concourse, which is being managed and executed by the Proponent on behalf of the MBTA. In addition, as part of the MassDot Lease agreement, the Proponent agreed to assume property management responsibilities for the Station Concourse level for the duration of the lease term beginning in August 2015. These substantial and exceptional agreements are the product of a unique opportunity and represent a creative and successful strategy to form a public private partnership around an important civic and infrastructure asset.

Currently being designed by the Proponent and a consultant team in consultation with the MBTA and other rail services serving the Station, the Station Concourse renovation is anticipated to begin in 2018 in conjunction with the MBTA-led track-level ventilation project. Overall, the combined projects will dramatically improve the customer experience and improve site operation and efficiency. Major goals for the Station Concourse Improvements

There are four major goals guiding the Station Concourse Improvements:

1. Create a first-class transit hub - Given the importance of the Station, both in terms of its pedigree and the population it serves, it is only appropriate that any intervention be thoughtful and well planned. The renovation will preserve the original architecture and character of the building, while utilizing the latest in building technologies and materials to ensure that the renovated Station functions efficiently, and will result in an environment that is inviting and modern. In addition, as described above, the Proponent has assumed property management responsibility for the Station Concourse and has increased the presence of security, cleaning and maintenance personnel.

2. Improve customer experience and access – The renovation prioritizes improvements that will enhance circulation and egress, accessibility, wayfinding, safety, thermal comfort and provide additional amenities for the Station's users. It is critical that users be able to move through the Station and quickly locate transit information or access ancillary services. Increased numbers of entry doors and fare gates and improvements to the Orange Line enclosure are designed to enhance the transit user's experience and will increase the Station's capacity.
3. Generate revenue to support Station operations – Under the terms of the public-private partnership between the MBTA and the Proponent, revenue generated within the Station (including retail and advertising revenue, but excluding fare collection) will be used to support the operation of the Station. The revenue generated from the increased retail operations created by the renovation is intended to improve the level of service of cleaning and maintenance of the renovated concourse and to fund a capital improvements reserve to pay for future projects.
4. Allow the MBTA to focus on transit operations – This public-private partnership allows both parties to focus on their respective core businesses. By assuming responsibility of the concourse management, the Proponent employs its property management expertise on behalf of the MBTA, while allowing the transit agency to focus on the operation and improvement of transit functions.

1.1 Existing Concourse Conditions

The current Station Concourse layout and conditions are not user-friendly and are negatively impacted by outdated programming/space requirements. See Figure E.1 for the existing plan. Despite the grandeur of the 50-foot-tall Central Hall, the Station entrances are hidden under dimly lit exterior arcades. The interior circulation inside the Station Concourse is equally difficult, resulting in confusing and crowded paths to key transit access points. The Central Hall is inefficiently utilized, most notably by an oversized Orange Line enclosure that occupies over half its floor space. Many of the areas outside the enclosure are congested by food and merchandise vendors, ticket machines, ATM machines, and large floor openings around stairs. Signage and wayfinding is scattered, often obstructed, and not intuitively located.

The existing waiting area is convenient to only two of the three Commuter Rail/AMTRAK platforms, offers limited seating relative to its footprint and is undersized to accommodate future growth in transit ridership. It has been the subject of unsympathetic renovations, poor maintenance and deficient ventilation, which have rendered it unfriendly and uncomfortable for customers. In addition, the AMTRAK and Keolis ticketing windows are not centrally located and are hard to locate for the unfamiliar user.

1.1.1 Station Concourse Improvements Underway

The Proponent has already assumed responsibility for daily Concourse cleaning, maintenance, and supplementary security. The exterior concrete and masonry has been powerwashed and the restoration of the exterior arches has begun. The expansion and renovation of the restrooms began in January 2017 and is expected to be complete by mid-2017. The new restrooms will provide a high quality customer experience with durable, clean, and modern materials and fixtures (see Figures E.11 & E.12).

1.2 Future Proposed Station Concourse Improvements

The renovation of the Station Concourse will respect and restore the original architecture and increase the Concourse capacity, while improving the overall customer experience. The renovation will also activate the Central Hall as a destination and a civic space for the adjacent neighborhoods. See Figure E.2 for the proposed plan and Figures E.7 – E.10 for renderings. Proposed design improvements include:

- Relocated Station entrances will facilitate direct access to the renovated Central Hall, the Orange Line and primary Commuter Rail and AMTRAK waiting areas.
- Key transit functions will be better served by increases in capacity of: entry/egress doors, Orange Line access, Commuter Rail and AMTRAK waiting areas, and public seating distributed in key locations throughout the Station Concourse.
- The Orange Line enclosure will be reduced in size and divided into two parts to improve circulation through and across the Concourse. This will also make circulation from Clarendon Street to the Orange Line more direct and reduce congestion at fare gates.
- The new configuration of fare gates at the Orange Line elevator will increase accessibility and shorten travel distance to and from Clarendon Street.
- The existing waiting area will be reconfigured and expanded to provide seating and market hall style vendors. This design enables the area to continue to function as a waiting area with a significant amount of public seating.
- Commuter Rail and AMTRAK ticketing functions will be relocated to a central and visible location.
- MBTA functions such as MBTA Police, Operations Control Center, Customer Service Agent, and Bus Operations will be positioned in appropriate locations and provided with modern and functional offices or booths.
- New and rehabilitated finishes and new lighting will brighten the Concourse, improving passenger comfort and safety.
- The new Concourse layout will reduce the clutter of signage pylons, kiosks and ticket machines and facilitate access to ticketing, passenger information, and train platforms.

- New wayfinding and passenger notification systems will provide visible, convenient information on train departures and arrivals.
- The Pedal & Park facility will be expanded and relocated for ease of access by users.

1.2.1 Increased Station Concourse Capacity

The proposed renovations will significantly increase the capacity of the Station Concourse and better serve transit users now and in the future. See Figures E.3 - E.5. The following are key metrics that demonstrate Station Concourse capacity increases:

1. Doubling of entry doors (from 8 to 16 doors).
2. 67 percent increase in the number of Orange Line fare gates (from 9 to 15 gates).
3. Rationalization of circulation space.
4. Approximately 70 percent increase in public waiting area space.
5. Approximately 50 percent increase in seating area, plus approximately 100 additional seats in the redesigned former waiting area.
6. Approximately 290 percent increase in conditioned (heated/cooled) space accessible for Station users.
7. Approximately 50 percent increase in bicycle parking.

A computer-based pedestrian circulation model was created to observe and analyze the flow of pedestrians in the existing and the proposed Station Concourse. The baseline for the pedestrian model was the careful collection of actual pedestrian peak hour flows on a typical day[1]. Data on how people enter the Concourse, where they go once inside and how they leave the Concourse was collected and modelled in order to compare the existing with the new proposed pedestrian flows. This process produced a qualitative assessment, which demonstrated that the proposed renovation will improve pedestrian movement throughout the Concourse. There will be less congestion at the Orange Line fare gates and smoother flow between Commuter Rail and Orange Line platforms. The model included analysis of impacts from proposed new retail uses on pedestrian movement.

Increased MBTA Orange Line Capacity

It is also anticipated that new Orange Line cars will be added to the rolling stock in 2019. With additional rolling stock it is anticipated that peak hour headways will be reduced from the existing 6 minutes to 4.5 minutes, substantially decreasing transit users' wait time for trains and increasing Orange Line capacity. Please refer to Section 4.10 for additional details on the transit analysis.

[1] Count data was collected at 23 different Concourse locations during morning and evening peak hours on September 10, 2015 and was further calibrated with security camera video footage from the same time periods.

1.2.2 Enhanced Waiting Areas

The Concourse Improvements will improve access to transit services and retail amenities by moving the primary waiting area from the periphery of the Concourse into the Central Hall fronting on Dartmouth Street. See Figure E.8. Additional seating will be distributed throughout the Concourse and be located in convenient areas near track access points. See Figure E.10. In response to public feedback and concerns over the amount of waiting area, the Proponent has modified the proposed renovation plan. Rather than becoming a new enclosed retail space, the existing waiting area will remain open and permeable and be transformed into a secondary waiting area with market hall-style vendors. This will create a dynamic atmosphere while also providing a significant amount of additional seating. See Figure E.4. As discussed below in Section 1.3.6, the renovation will also improve thermal comfort for transit users in the waiting areas.

1.2.3 Exterior Streetscape Renovations

Renovations at the exterior of the Station Concourse will enliven the adjacent streetscape, improve public safety by eliminating dark arcades, and strengthen the vitality of the expanded Station Concourse retail program, by ensuring visibility from the street. The Proponent is conscious of the importance of a quality streetscape and adequate pedestrian circulation and sidewalk widths in front of the Station will exceed BTD's Complete Streets Guidelines. See Figure E.7.

1.2.4 Wayfinding and Station Signage

Current wayfinding, transit signage and train arrival/departure information is poorly located and inconsistent, and is being re-evaluated with the Concourse Improvements. The Proponent is working with the MBTA on a full review of wayfinding signage, developing new ways to orient and provide direction for station users, both with respect to Station services and to neighborhood destinations. Multiple train arrival/departure boards will be provided at convenient locations throughout the Station Concourse, allowing passengers quick, clear access to train information. See Figures E.8 andE.9.

1.2.5 Public Art

Public art is an important consideration in the Station. The Station Concourse renovation includes the relocation of the iconic A. Philip Randolph statue by artist Tina Allen to a more prominent location in the center of the Central Hall waiting area. See Figure E.8. The associated historic plaques will also be relocated. Unfortunately, the Stephen Antonakos neon sculpture did not fare well in the harsh Station environment and is significantly deteriorated, including many broken and corroded components. It has been demounted and permanently stored. As part of the Station Concourse Improvements, the Proponent will explore a new public art program that may include a rotating program of interactive public art. An initial installation was completed at the Station in Fall 2015 with the "Inside/Out" project

from the artist JR. The project involved photographing and posting the faces of dozens of Station users, creating an ephemeral visual record of the Station's constantly-evolving community.

1.2.6 Improved Thermal Comfort

Design features under consideration will improve thermal comfort in the waiting areas of the Station Concourse. Because the Station Concourse is open to the exterior at the track level, and was not constructed with a fully enclosed and insulated building envelope, the Station Concourse level tends to be uncomfortably cold in winter and hot in summer. Station Concourse Improvements include design features intended to help mitigate temperature extremes, including overhead, high-volume low speed fans for increased comfort in the summer and localized radiant heating in waiting areas in the winter.

The passive and active features designed to improve thermal comfort in the Concourse are illustrated in Figure E.6. These features are designed with the scope of the Station West Parcel retail expansion in mind as described in Section 3.4.4.

1.2.7 Improved Station Ventilation and Air Quality

In a parallel to the Proponent's work on the Station Concourse Improvements, the MBTA is undertaking a track-level ventilation improvement project that will improve air quality throughout the Station. Proposed improvements include adding doors and pressurizing the stair/escalator connections from the Station Concourse to Tracks 1/3 and 2 in order to restrict the movement of diesel exhaust from the commuter rail trains at platform level up into the Station Concourse. In addition, the ventilation project will include the rehabilitation and reactivation of existing system components as well as the introduction of tunnel jet fans.

1.3 Community Outreach

On September 26, 2016, the MBTA held a public meeting to discuss the Station Concourse and ventilation improvement projects. The presentation and the meeting minutes from the September 26th meeting can be viewed on the MBTA website. At the time of the meeting, the Concourse renovation was at the 30 percent design level and the ventilation project was at the 15 percent design level. In collaboration with the Proponent, this information was also presented at the October 6, 2016 Community Advisory Committee meeting. Both meetings offered opportunity for public comment on the current condition and future improvements of the Station.

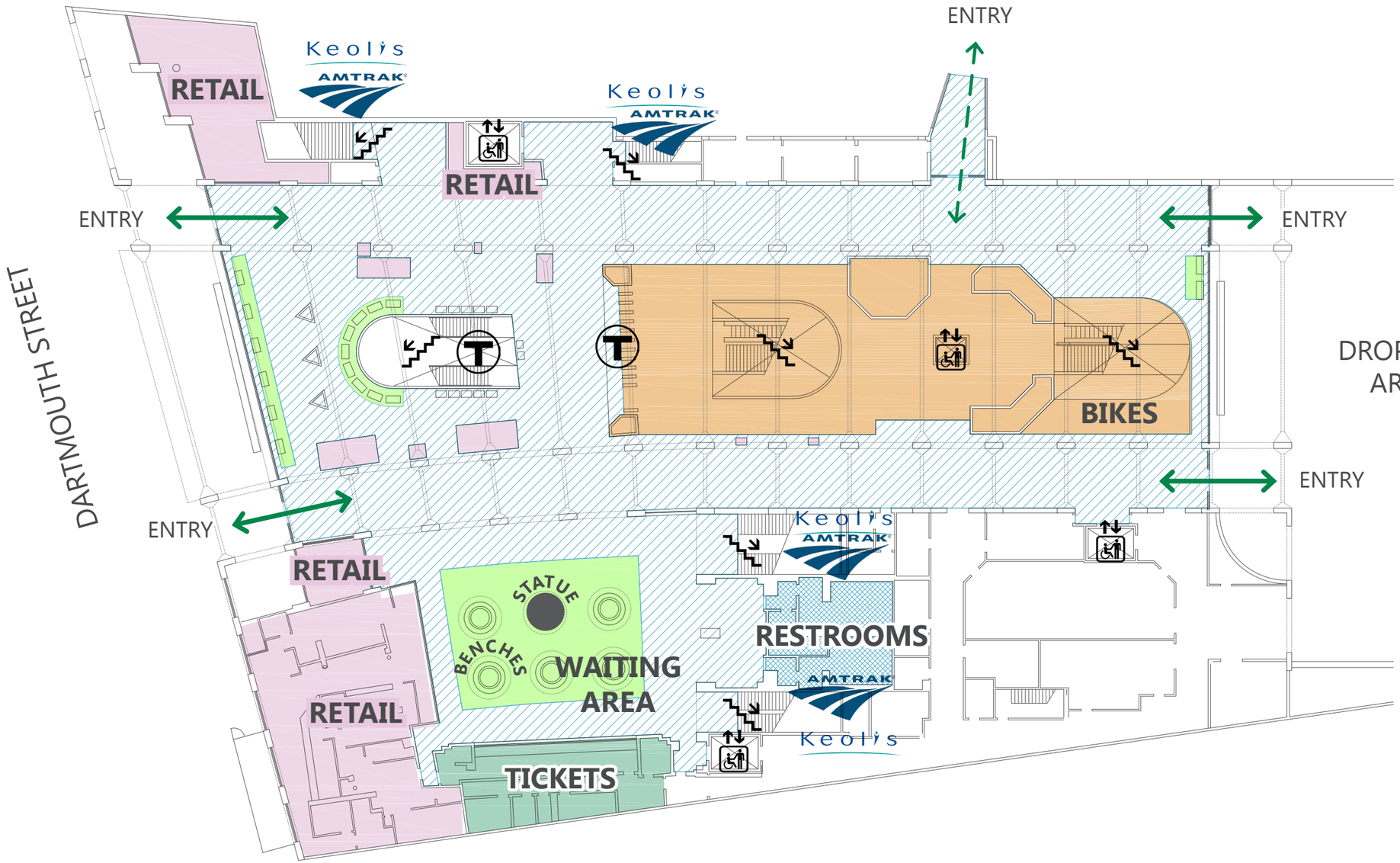
BACK BAY / SOUTH END STATION TODAY

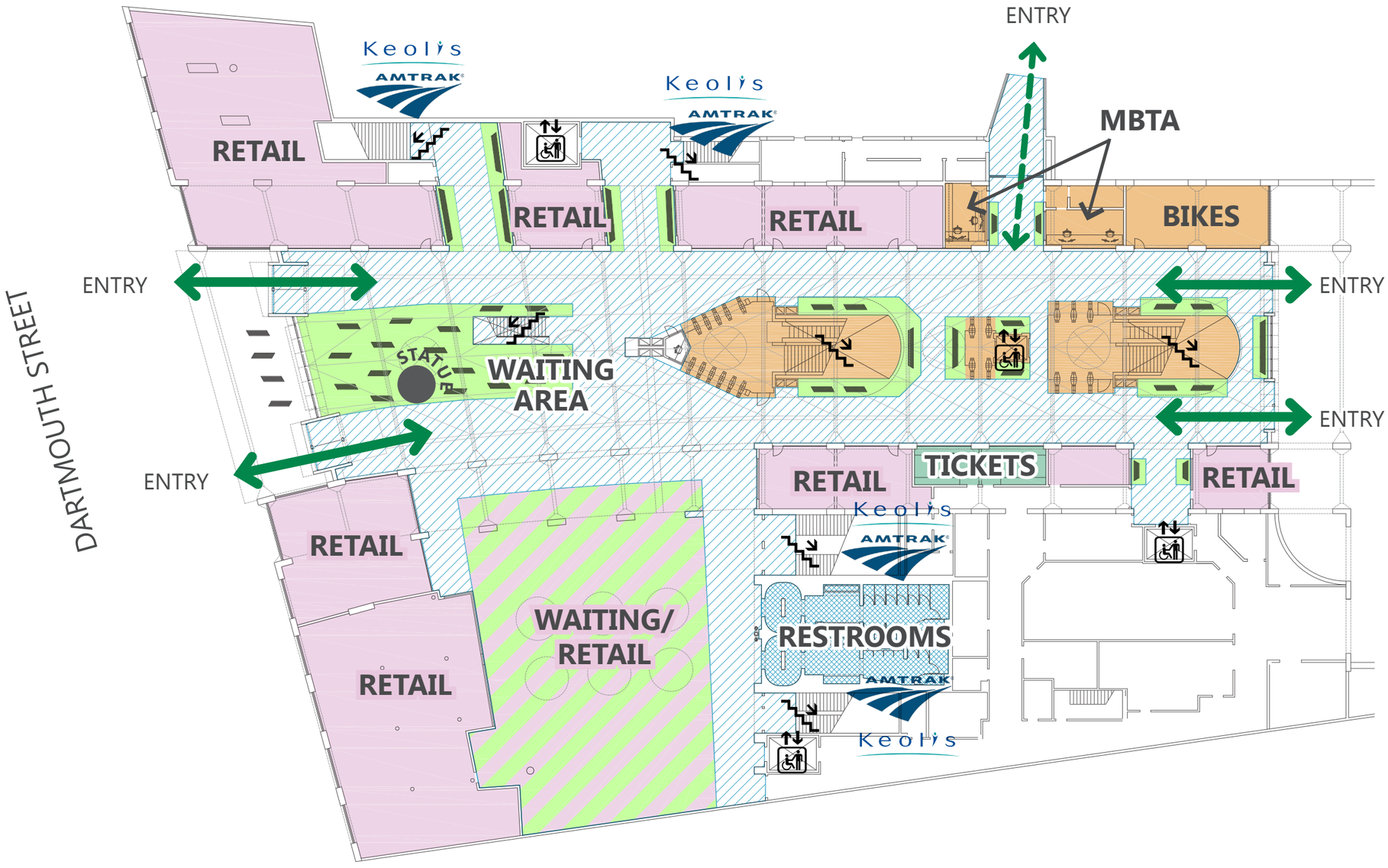
ENTRY AND CIRCULATION THROUGH LOW, DARK ARCADES

OVERSIZED ORANGE LINE BARRIER LIMITS CIRCULATION

ISOLATED AND CRAMPED WAITING AREAS

POOR VENTILATION





BACK BAY/SOUTH END STATION CONCOURSE RENOVATION

NEW ENTRIES INTO CENTRAL HALL IMPROVE CIRCULATION, EGRESS, AND TAKE ADVANTAGE OF GREAT CIVIC SPACE

INCREASED AND BETTER DISTRIBUTED ORANGE LINE FARE GATES IMPROVE TRACK ACCESS

IMPROVED WAITING AREAS

INCREASED AND BETTER DISTRIBUTED BENCHES

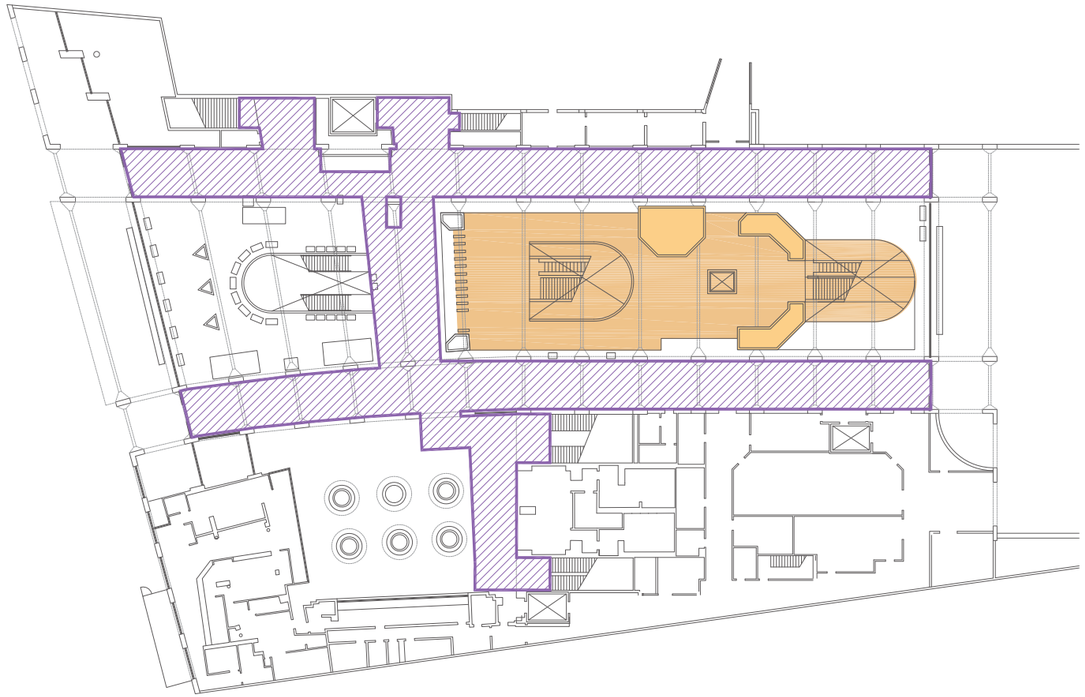
AMTRAK AND KEOLIS TICKETING CENTRALLY LOCATED TO BE MORE VISIBLE

IMPROVED MBTA FUNCTIONS AND OFFICES

NEW EXPANDED AND DISTRIBUTED RETAIL TO ACTIVATE CENTRAL HALL AND IMPROVE STREETSCAPE ENVIRONMENT

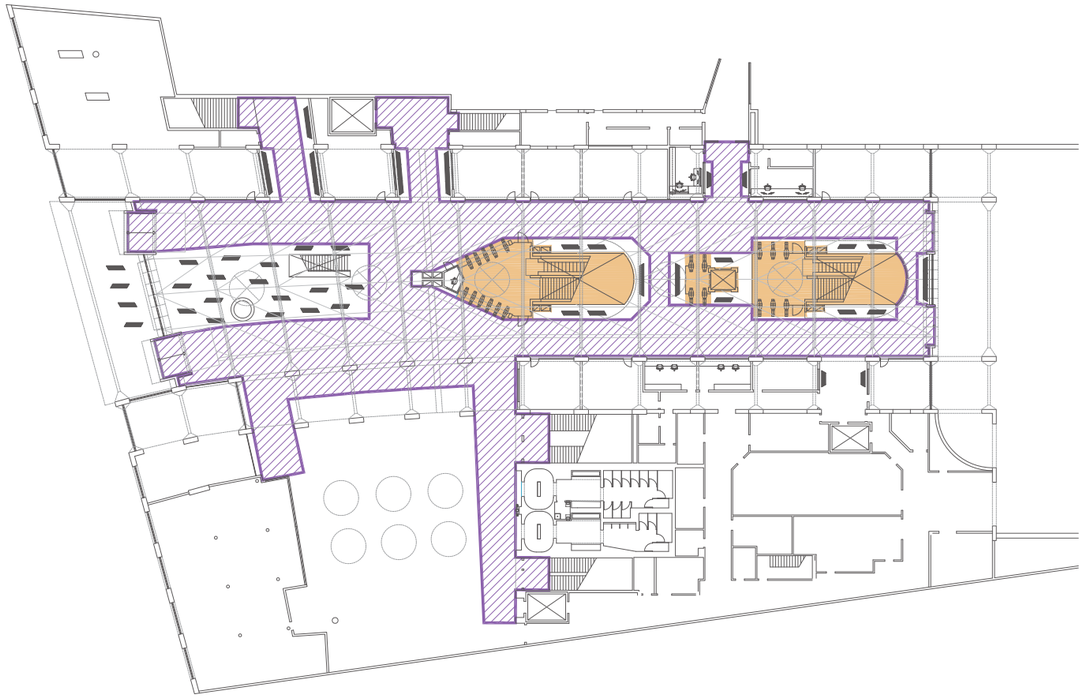
IMPROVED VENTILATION (MBTA-LED PROJECT)

EXISTING



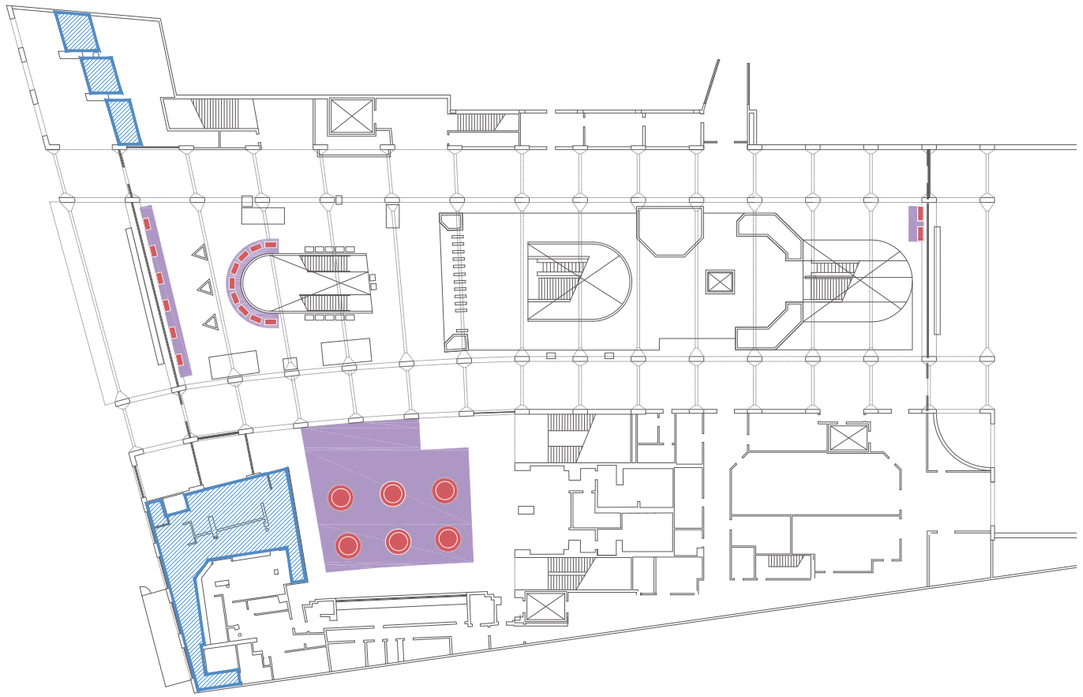
ENTRY DOORS: **8**
ORANGE LINE ENCLOSURE **6,000 SF**
PRIMARY CIRCULATION **12,100 SF**

PROPOSED



ENTRY DOORS: **16**
ORANGE LINE ENCLOSURE **2,500 SF (-56%)**
PRIMARY CIRCULATION **12,900 SF (+7%)**

EXISTING



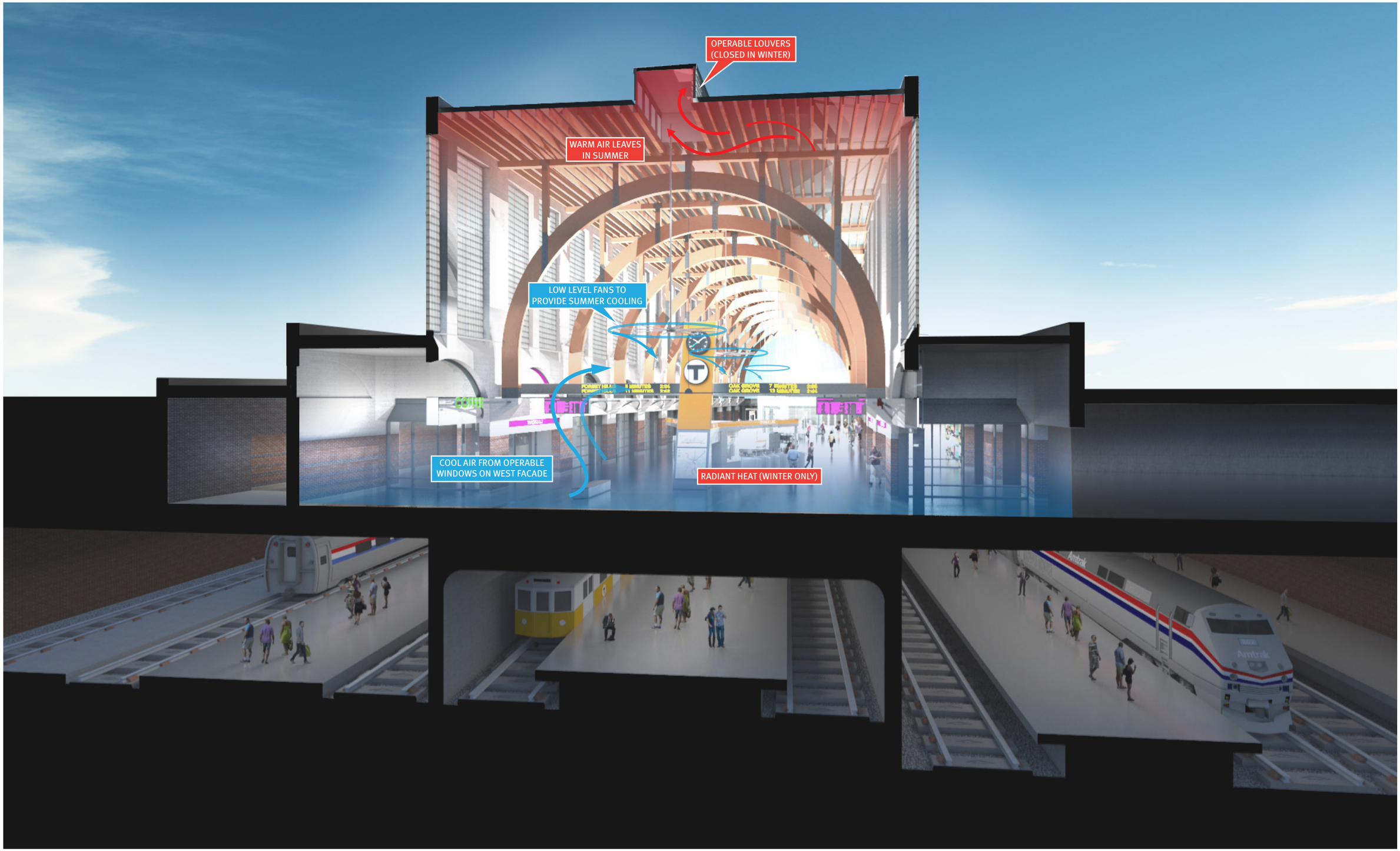
DEDICATED WAITING SPACE **3,050 SF**
CONDITIONED SPACE **1,950 SF**
SEATING SPACE **165 LF**

PROPOSED

DEDICATED WAITING SPACE **5,150 SF (+69%)**
CONDITIONED SPACE **7,550 SF (+287%)**
SEATING SPACE **250 LF (+52%) + 100** INDIVIDUAL SEATS

CONCOURSE RENOVATION - COMPARISON SUMMARY

	EXISTING		PROPOSED	
MBTA USES				
AUTOMATED FARE COLLECTION	9 GATES	↑	15 GATES	67% increase
TICKETING MACHINES	12 UNITS	=	12 UNITS	
ORANGE LINE ENCLOSURE	5,700 SF	↓	2,500 SF	56% decrease
PEDAL AND PARK BIKE PARKING	450 SF	↑	670 SF	49% increase
PUBLIC USES				
STATION ENTRY DOORS	8 DOORS	↑	16 DOORS	200% increase
PRIMARY CIRCULATION SPACE	12,100 SF	↑	12,900 SF	7% increase
DEDICATED WAITING SPACE	3,050 SF	↑	5,150 SF	69% increase
FIXED SEATING SPACE	165 LF	↑	250 LF	52% increase + 100 seats
HEATED/COOLED SPACE	1,950 SF	↑	7,550 SF	287% increase
RETAIL USES	4,800 SF	↑	14,850 SF	209% increase


OPERABLE LOUVERS
(CLOSED IN WINTER)
WARM AIR LEAVES
IN SUMMER
LOW LEVEL FANS TO
PROVIDE SUMMER COOLING
COOL AIR FROM OPERABLE
WINDOWS ON WEST FACADE
RADIANT HEAT (WINTER ONLY)


BACK BAY STATION
ORANGE LINE
COMMUTER RAIL
AMTRAK
ORANGE LINE
COMMUTER RAIL
AMTRAK

The Back Bay / South End Gateway Project
DEIR/DPIR
BOSTON PROPERTIES

Back Bay / South End Concourse Renovation - View of Central Hall from Dartmouth Street Entry

Figure E.8

ARROWSTREET

The Back Bay / South End Gateway Project
DEIR/DPIR
BOSTON PROPERTIES

Back Bay / South End Concourse Renovation - View of New Orange Line Enclosure

Figure E.9

ARROWSTREET

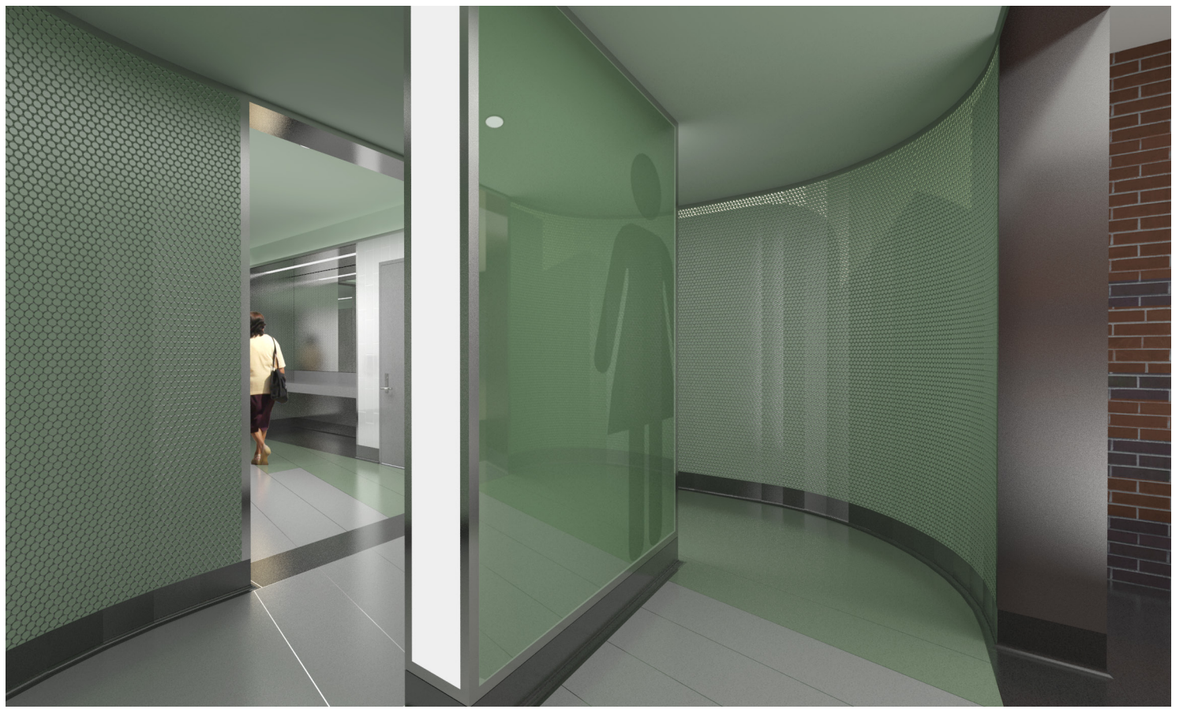

AMTRAK
COMMUTER RAIL
BACK BAY

The Back Bay / South End Gateway Project
DEIR/DPIR
BOSTON PROPERTIES

Back Bay / South End Concourse Renovation - View of New Restroom Entries

Figure E.11

ARROWSTREET



The Back Bay / South End Gateway Project
DEIR/DPIR
BOSTON PROPERTIES

Back Bay / South End Concourse Renovation - View of New Restrooms

Figure E.12

ARROWSTREET

APPENDIX F: Transportation Supporting Documentation

Materials are provided on the enclosed CD-ROM.

Traffic Volume Data

- Turning Movement Counts (TMCs)
  - 40 Trinity Place DPIR Counts
  - October 2015 Ramp Open Counts
  - October 2015 Ramp Closed Counts
  - August 2016 Counts
  - 380 Stuart Street Counts
  - 370-380 Harrison Avenue Counts
  - Wednesday, September 28 – Saturday, October 1, 2016
- MassDOT Season Adjustment Factors

Synchro Level of Service (LOS) Reports

- 2016 Existing Conditions
- 2023 No-Build Base Conditions
- 2023 No-Build Alternate Conditions
- 2023 Build Base Conditions
- 2023 Build Alternate Conditions

Highway Capacity Software (HCS) Merge Analysis

- 2016 Existing Conditions
- 2023 No-Build Base Conditions
- 2023 No-Build Alternate Conditions
- 2023 Build Base Conditions
- 2023 Build Alternate Conditions

Background Project Intersection Changes

- Copley Place
- 40 Trinity Place

ITE Trip Generation

- Internal Person Trips Worksheet
- Base Scheme Trip Generation
- Alternate Scheme Trip Generation
- Saturday Peak Hour Trip Generation
- Delivery/Service Vehicle Trip Generation Worksheet

ULI Shared Parking Report

Transit Analysis

- Crush Capacity
- Ridership Data

Crash/Accident Analysis

- Vehicular Crash Rate Worksheets

APPENDIX G: Sustainability Supporting Documentation

LEED Narrative: Garage West

Project Overview and Summary

The Project incorporates a holistic approach to sustainability that promotes livability and economic development, while also mitigating the external impacts related to energy, emissions and water consumption and, waste production. The Project will track and verify sustainable design strategies and measures to demonstrate compliance with Article 37 through the LEED rating system, for which the Project was registered with the USGBC/GBCI April 6, 2016 under version 2009 for LEED Core & Shell Development (LEED-CS).

The Garage West Parcel features a commercial tower, with parking and a ground floor retail fronting on Dartmouth and Stuart Streets. The Garage West Parcel has targeted LEED-CS Gold certification. The Project is pursuing a variety of credits and points across the seven (7) LEED categories, i.e. Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, Innovation in Design Process and Regional Priority Credits.

The following summary provides more details on the strategy to achieve LEED-CS Gold certification. All credits and corresponding points described below are being pursed unless they are noted as [Possible]. Credits and points that are not being pursued are not included in this narrative. All LEED minimum program requirements and prerequisite requirements will be met.

Sustainable Sites (SS)

- *SS Prerequisite 1: Construction Activity Pollution Prevention*
  An erosion and sedimentation control plan will be developed and implemented for all construction activities for the Project.
- *SS Credit 1: Site Selection*
  By revitalizing an underutilized urban air-rights site, there will be no aspect of development on sensitive land types such as prime farmland, floodplains, habitat for threatened species, water bodies, wetlands, or parks.
- *SS Credit 2: Development Density and Community Connectivity*
  The Project location in a dense, urban area is close to numerous diverse uses recognized by LEED requirements and a mixed residential and commercial area with a mix of development densities. Exemplary performance is being pursued for this credit.
- *SS Credit 4.1: Alternative Transportation – Public Transportation Access*

The site is well served by multi-modal transportation, including Amtrak and the Orange line at Back Bay Station, the Green line at Copley Square Station and numerous bus lines (e.g. 9, 10, 39, 55, 57, 170, 502, 503, 504, and 553) all within a quarter mile radius. Exemplary performance is being pursued for this credit.

- *SS Credit 4.2: Alternative Transportation – Bicycle Storage and Changing Rooms*
  Secure bicycle storage will be provided as well as showers and changing facilities within 200 yards of the building entrance. The number of bicycle racks and showers will be based on LEED 2009 credit guidelines for full-time occupants and visitors.
- *SS Credit 4.3: Alternative Transportation – Low-Emitting and Fuel-Efficient Vehicles*
  Vehicle emissions will be reduced through prioritized parking from low-emitting and fuel-efficient vehicles.
- *SS Credit 4.4: Alternative Transportation – Parking Capacity*
  While parking will be provided on-site, no new parking will be added compared to the existing development.
- *SS Credit 5.1: Site Development – Protect or Restore Habitat* [Possible]
  The green roof will include native or adapted vegetation, which contributes towards protecting and restoring habitat.
- *SS Credit 5.2: Site Development – Maximize Open Space* [Possible]
  Green roof areas and pedestrian-oriented hardscape at ground level both provide open space.
- *SS Credit 6.1: Stormwater Design – Quantity Control*
  Stormwater will be collected and infiltrated to meet the requirements of the groundwater conservation overlay district. Any additional stormwater volume will be discharged to existing stormwater systems.
- SS Credit 6.2: Stormwater Design – Quality Control
  There is a minimized impact on storm water systems and regional water resources through stormwater treatment to improve effluent quality via ground water recharge.
- *SS Credit 7.1: Heat Island Effect – Non-roof*
  To mitigate the heat island effect, hardscape materials will have a low solar reflectance, and trees will provide shade in select locations.
- *SS Credit 7.2: Heat Island Effect – Roof*
  Through a combination a green roof and the use of high-albedo roofing materials, there is a reduced heat island effect and improved microclimate.
- *SS Credit 9: Tenant Design and Construction Guidelines*

To educate tenants about implementing sustainable strategies in their fit-out, a guidance document will be provided describing the sustainable strategies. The intent of these guidelines is to educate future tenants about implementing sustainable design and construction features in their tenant improvement build-out as well as adopting green building practices that support the overall sustainability goals of the Project. The guidelines will also communicate the sustainable and resource-efficient features incorporated into the Project and provide suggested sustainable strategies enabling tenants to coordinate their leased space design and construction with the rest of the Project systems.

Water Efficiency (WE)

- *WE Prerequisite 1: Water Use Reduction – 20% Reduction*
  Ultra-low and low-flow fixtures for WCs, urinals, showers, faucets and sinks minimize the impact on municipal water supply by reducing potable water consumption.
- *WE Credit 1: Water Efficient Landscaping*
  There will be at least a 50% reduction in potable water consumption for irrigation through either the use of non-potable water for irrigation or implementation of landscaping that does not need a permanent irrigation system.
- *WE Credit 3: Water Use Reduction*
  Ultra-low and low-flow fixtures are estimated to reduce water consumption by at least 30%.

Energy and Atmosphere (EA)

- *EA Prerequisite 1: Fundamental Commissioning of Building Energy Systems*
  The Proponent will engage an independent, third party commissioning agent to develop and perform the fundamental commissioning and verification requirements.
- *EA Prerequisite 2: Minimum Energy Performance*
  A comprehensive set of energy reduction strategies include an efficient building envelope, low lighting power densities from LED lighting, and an efficient HVAC system. Specifically, the HVAC system features include high efficiency condensing boilers, a premium efficiency water-cooled chiller plant with variable frequency drives, dedicated outside air system with energy recovery and active chilled beam system. To note, the current strategy is to utilize chilled beams as part of demonstrating compliance with Massachusetts Stretch Energy Code however, additional systems may be considered as the Project develops.
- *EA Prerequisite 3: Fundamental Refrigerant Management*
  The Project will install non-CFC based refrigerants.
- *EA Credit 1: Optimize Energy Performance*

The Project will utilize whole-building energy simulation to demonstrate the proposed design performs better as compared to a baseline building per ASHRAE 90.1-2007 Appendix G method. The preliminary energy model shows that the energy efficiency strategies described in EA Prerequisite 2 achieve 24% energy cost savings. Energy modeling will continue throughout the stages of design to understand how strategies impact energy cost savings.

- *EA Credit 3: Enhanced Commissioning*
  Ownership will engage an independent, third party commissioning agent (CxA) to perform the enhanced commissioning and verification requirements. The enhanced commissioning scope will include the CxA to perform a review of CD documents and provide comments to the design team for alignment with the OPR and BOD as well as reviewing contractor submittals, building operations and post-occupancy review a year after substantial completion and developing an on-going commissioning plan for operations and maintenance.
- *EA Credit 4: Enhanced Refrigerant Management*
  Refrigerants meet credit requirements to minimize their ozone depleting and global warming potential.
- *EA Credit 5.1: Measurement and Verification – Base Building*
  Verification and benchmarking of ongoing energy and water performance will be possible through the development and implementation of a robust measurement and verification plan. The base building's metering strategy utilizing EnerNOC's Energy Intelligence Software (EIS) platform will enable the M&V plan. Additionally, enrollment in ENERGY STAR Portfolio manager enables benchmarking and tracking of energy and water performance.
- *EA Credit 5.2: Measurement and Verification – Tenant Submetering*
  To provide ongoing accountability and monitoring of electricity consumption, a base building centrally monitored metering system will be installed and be capable of expansion to accommodate future tenant submetering. Tenants will receive guidance on the measurement and verification plan including information on the process for corrective action if energy savings goals are not met.
- *EA Credit 6: Green Power* [Possible]
  The energy strategy is to first reduce the Projects' energy consumption. The Project may explore opportunities for procuring off-site renewable energy aligned with LEED requirements.

Materials and Resources (MR)

- *MR Prerequisite 1: Storage and Collection of Recyclables*
  An ongoing recycling strategy will be provided and include space for the collection and storage of materials for recycling for the entire building, including paper, corrugated cardboard, glass, plastics and metal.
- *MR Credit 2: Construction Waste Management*

Efficient use of materials and resources during construction will contribute to diverting construction waste from landfills. At least 75% of construction and demolition debris will be diverted.

- MR Credit 4: Recycled Content
  At least 10% of materials based on cost will include pre-consumer and postconsumer recycled content. The Project will explore increasing recycled content to reach the 20% threshold. [Possible]
- *MR Credit 5: Regional Materials*
  At least 10% of the materials based on cost will be sourced from within 500 miles of the site. The Project will explore increasing regional materials to reach the 20% threshold, but this is [Possible].
- *MR Credit 6: Certified Wood* [Possible]
  The Project is exploring the use of Forest Stewardship Council certification for at least 50% of wood products specified, including structural and general dimensional framing, flooring, sub-flooring wood doors and finishes.

Indoor Environmental Quality (IEQ)

- *IEQ Prerequisite 1: Minimum Indoor Air Quality Performance*
  Demand controlled ventilation may be implemented to further improve indoor air quality through the automatic increase of ventilation rates in densely occupied spaces if high CO_2 levels are detected.
- *IEQ Prerequisite 2: Environmental Tobacco Smoke (ETS) Control*
  The building will be non-smoking and smoking will not be allowed within 25 feet from a building entry, intake and operable window. Signage will be provided noting the no-smoking policy and outdoor designated smoking areas will be clearly identified.
- *IEQ Credit 3: Construction IAQ Management Plan – During Construction*
  The awarded construction manager will be required and responsible for developing and implementing an indoor air quality management plan during construction and pre-occupancy that meets SMACNA guidelines.
- *IEQ Credit 4.1-4.4: Low-Emitting Materials*
  The Project will specify low-emitting materials meeting the category requirements for VOC content in at least 3 of the 4 categories: Adhesives and sealants; paints and coatings; flooring systems; and composite wood and agrifiber products.
- *IEQ Credit 5: Indoor Chemical and Pollutant Source Control* [Possible]
  The Project is exploring to meet the credit requirements of installing permanent entryway systems, preventing interior cross-contamination of gases or chemicals (where present) and installing MERV 13 or higher filters on both return and outside air that is delivered as supply air.
- *IEQ Credit 7: Thermal Comfort – Design*
  The Project will provide a thermally comfortable environment for occupants through compliance with ASHRAE 55-2004.
- *IEQ Credit 8.1: Daylight and Views – Daylight* [Possible]

The high performance façade will provide substantial daylighting in the building interior. The Project will explore the feasibility of achieving daylighting in at least 75% of regularly occupied spaces.

- *IEQ Credit 8.2: Daylight and Views – Views* [Possible]
  The high performance façade will maximize views through the 65% window-to-wall ratio. The Project will consider the feasibility of achieving a direct line of site to the outdoors for building occupants in 90% of all regularly occupied areas by providing a feasible tenant layout to demonstrate compliance.

Innovation and Design (ID)

- *ID Credit 1.1: Exemplary Performance SS Credit 2 Development Density and Community Connectivity*
  The high-density of the Project site and surrounding location achieve exemplary performance criteria for development density.
- *ID Credit 1.2: Exemplary Performance SS Credit 4.1 Public Transportation*
  The proximity of a commuter rail, two subway lines and numerous bus lines all with a high frequency of service achieve exemplary performance criteria for public transportation.
- *ID Credit 1.3: Exemplary Performance MR Credit 2 Construction Waste Management* [Possible]
  The Project will consider the feasibility of diverting 95% or more of total construction waste, which would achieve exemplary performance criteria.
- *ID Credit 1.4: Green Building Education* [Possible]
  The Project will consider the feasibility of providing educational features to highlight the sustainable, high performance building strategies and systems to not only its occupants and visitors but for the larger community as well. Green education options that may be considered include educational building dashboards, an informational website, providing building tours, and/or signage for sustainable features for staff and visitors.
- *ID Credit 1.5: Green Cleaning Policy / Program*
  The Project is will implement green cleaning practices aligned with LEED-EBOM requirements.
- *ID Credit 2: LEED Accredited Professional*
  The Project will have multiple LEED Accredited professionals engaged on the Project team.

Regional Priority Credits (RP)

The Project is targeting achievement of at least three (3) regional priority credits for Boston;

- RP Credit 1.2: Stormwater Design – Quantity Control
- RP Credit 1.3: Heat Island Effect – Non-Roof
- RP Credit 1.4: Heat Island Effect – Roof

LEED Narrative: Garage East and Station East

Project Overview and Summary

The Project incorporates a holistic approach to sustainability that promotes livability and economic development, while simultaneously mitigating the external impacts of energy, water, waste, and emissions. It seeks to track sustainable features and demonstrate compliance with Article 37 through the LEED rating system, for which the Project was registered with the USGBC/GBCI April 6, 2016 under version 2009 for LEED New Construction and Major Renovations (LEED-NC).

The Garage East and Station East Parcels are both feature a residential tower and both have targeted LEED-NC Silver certification. The Project is pursuing a variety of credits and points across the seven (7) LEED categories, i.e. Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, Innovation in Design Process and Regional Priority Credits.

The following summary provides more details on the strategy to achieve LEED-NC Silver certification. All credits and corresponding points described below are being pursed unless they are noted as [Possible]. Credits and points that are not being pursued are not included in this narrative. All LEED minimum program requirements and prerequisite requirements will be met.

Sustainable Sites (SS)

- *SS Prerequisite 1: Construction Activity Pollution Prevention*
  An erosion and sedimentation control plan will be developed and implemented for all construction activities for the Project.
- *SS Credit 1: Site Selection*
  By revitalizing an underutilized urban air-rights site, there will be no aspect of development on sensitive land types such as prime farmland, floodplains, habitat for threatened species, water bodies, wetlands, or parks.
- *SS Credit 2: Development Density and Community Connectivity*
  The Project location in a dense, urban area is close to numerous diverse uses recognized by LEED requirements and a mixed residential and commercial area with a mix of development densities. Exemplary performance is being pursued for this credit.

- *SS Credit 4.1: Alternative Transportation – Public Transportation Access*
  The site is well served by multi-modal transportation, including Amtrak and the Orange line at Back Bay Station, the Green line at Copley Square Station and numerous bus lines (e.g. 9, 10, 39, 55, 57, 170, 502, 503, 504, and 553) all within a quarter mile radius. Exemplary performance is being pursued for this credit.
- *SS Credit 4.2: Alternative Transportation – Bicycle Storage and Changing Rooms* [Possible]
  Covered bicycle storage will be provided. The number of bicycle racks will be based on LEED 2009 credit guidelines for occupants.
- *SS Credit 4.3: Alternative Transportation – Low-Emitting and Fuel-Efficient Vehicles*
  Vehicle emissions will be reduced through prioritized parking from low-emitting and fuel-efficient vehicles.
- *SS Credit 4.4: Alternative Transportation – Parking Capacity*
  While parking will be provided on-site, no new parking will be added compared to the existing development.
- *SS Credit 5.1: Site Development – Protect or Restore Habitat* [Possible]
  Landscapes areas will likely include native or adapted vegetation, which contributes towards protecting and restoring habitat.
- *SS Credit 5.2: Site Development – Maximize Open Space* [Possible]
  Pedestrian-oriented hardscape at ground level provides open space.
- *SS Credit 6.1: Stormwater Design – Quantity Control*
  Stormwater will be collected and infiltrated to meet the requirements of the groundwater conservation overlay district. Any additional stormwater volume will be discharged to existing stormwater systems.
- *SS Credit 6.2: Stormwater Design – Quality Control*
  There is a minimized impact on storm water systems and regional water resources through stormwater treatment to improve effluent quality via ground water recharge.
- *SS Credit 7.1: Heat Island Effect – Non-roof*
  To mitigate the heat island effect, hardscape materials will have a low solar reflectance, trees will provide shade in select locations.
- *SS Credit 7.2: Heat Island Effect – Roof*
  High-albedo roofing materials, there is a reduced heat island effect and improved microclimate.

Water Efficiency (WE)

- *WE Prerequisite 1: Water Use Reduction – 20% Reduction*
  Low-flow fixtures for WCs, urinals, showers, faucets and sinks minimize the impact on municipal water supply by reducing potable water consumption.
- *WE Credit 1: Water Efficient Landscaping*
  There will be at least a 50% reduction in potable water consumption for irrigation through either the use of non-potable water for irrigation or implementation of landscaping that does not need a permanent irrigation system.

- *WE Credit 3: Water Use Reduction*
  Low-flow fixtures are estimated to reduce water consumption by at least 30%.

Energy and Atmosphere (EA)

- *EA Prerequisite 1: Fundamental Commissioning of Building Energy Systems*
  The Proponent will engage an independent, third party commissioning agent to develop and perform the fundamental commissioning and verification requirements.
- *EA Prerequisite 2: Minimum Energy Performance*
  A comprehensive set of energy reduction strategies include an efficient building envelope and an efficient HVAC system. Specifically, the HVAC system features include high efficiency vertical stacked water source heat pumps connected to condensing boilers and cooling towers, high efficiency condensing boilers to meet space heating and domestic hot water demands, and dedicated outside air system with energy recovery serving heat pumps.
- *EA Prerequisite 3: Fundamental Refrigerant Management*
  The Project will install non-CFC based refrigerants.
- *EA Credit 1: Optimize Energy Performance*
  The Project will utilize whole-building energy simulation to demonstrate the proposed design performs better as compared to a baseline building per ASHRAE 90.1-2007 Appendix G method. The preliminary energy model shows that the energy efficiency strategies described in EA Prerequisite 2 achieve 19% energy cost savings. Energy modeling will continue throughout the stages of design to understand how strategies impact energy cost savings.
- *EA Credit 3: Enhanced Commissioning*
  Ownership will engage an independent, third party commissioning agent (CxA) to perform the enhanced commissioning and verification requirements. The enhanced commissioning scope will include the CxA to perform a review of CD documents and provide comments to the design team for alignment with the OPR and BOD as well as reviewing contractor submittals, building operations and post-occupancy review a year after substantial completion and developing an on-going commissioning plan for operations and maintenance.
- *EA Credit 4: Enhanced Refrigerant Management*
  Refrigerants meet credit requirements to minimize their ozone depleting and global warming potential.
- *EA Credit 5: Measurement and Verification*
  Verification and benchmarking of ongoing energy and water performance will be possible through the development and implementation of a robust measurement and verification plan. The base building's metering strategy utilizing EnerNOC's Energy Intelligence Software (EIS) platform will enable the M&V plan. Additionally, enrollment in ENERGY STAR Portfolio manager enables benchmarking and tracking of energy and water performance.
- *EA Credit 6: Green Power* [Possible]

The energy strategy is to first reduce the Projects' energy consumption. The Project may explore opportunities for procuring off-site renewable energy aligned with LEED requirements.

Materials and Resources (MR)

- *MR Prerequisite 1: Storage and Collection of Recyclables*
  An ongoing recycling strategy will be provided and include space for the collection and storage of materials for recycling for the entire building, including paper, corrugated cardboard, glass, plastics and metal.
- *MR Credit 2: Construction Waste Management*
  Efficient use of materials and resources during construction will contribute to diverting construction waste from landfills. At least 75% of construction and demolition debris will be diverted.
- *MR Credit 4: Recycled Content*
  At least 10% of materials based on cost will include pre-consumer and postconsumer recycled content. The Project will explore increasing recycled content to reach the 20% threshold, but this is [Possible].
- *MR Credit 5: Regional Materials*
  At least 10% of the materials based on cost will be sourced from within 500 miles of the site. The Project will explore increasing regional materials to reach the 20% threshold, but this is [Possible].
- *MR Credit 6: Rapidly Renewable Materials* [Possible]
  The Project is exploring the use of rapidly renewable building materials and products for at least 2.5% of building materials, based on cost.
- *MR Credit 7: Certified Wood* [Possible]
  The Project is exploring the use of Forest Stewardship Council certification for at least 50% of wood products specified, including structural and general dimensional framing, flooring, sub-flooring wood doors and finishes.

Indoor Environmental Quality (IEQ)

- *IEQ Prerequisite 1: Minimum Indoor Air Quality Performance*
  Good indoor air quality will be achieved by meeting and/or exceeding the ventilation requirements of ASHRAE 62.1-2007.
- *IEQ Prerequisite 2: Environmental Tobacco Smoke (ETS) Control*
  The building will be non-smoking and smoking will not be allowed within 25 feet from a building entry, intake and operable window. Signage will be provided noting the no-smoking policy and outdoor designated smoking areas will be clearly identified.
- *IEQ Credit 1: Outdoor Air Delivery Monitoring*
  Demand controlled ventilation will be implemented to further improve indoor air quality through the automatic increase of ventilation rates in densely occupied spaces if high CO_2 levels are detected.

- *IEQ Credit 3.1: Construction IAQ Management Plan – During Construction*
  The awarded construction manager will be required and responsible for developing and implementing an indoor air quality management plan during construction and pre-occupancy that meets SMACNA guidelines.
- *IEQ Credit 3.2: Construction IAQ Management Plan – Before Occupancy*
  After interior finishes are installed and new post-construction filtration media are installed, there will be a flush-out to improve indoor air quality.
- *IEQ Credit 4.1-4.4: Low-Emitting Materials*
  The Project will specify low-emitting materials meeting the category requirements for VOC content in at least 3 of the 4 categories: Adhesives and sealants; paints and coatings; flooring systems; and composite wood and agrifiber products.
- *IEQ Credit 5: Indoor Chemical and Pollutant Source Control* [Possible]
  The Project is exploring to meet the credit requirements of installing permanent entryway systems, preventing interior cross-contamination of gases or chemicals (where present) and installing MERV 13 or higher filters on both return and outside air that is delivered as supply air.
- *IEQ Credit 6.1 Controllability of Systems – Lighting*
  There will be lighting system controls in all multi-occupant spaces and in at least 90% of individual occupant spaces.
- *IEQ Credit 7.1: Thermal Comfort – Design*
  The Project will provide a thermally comfortable environment for occupants through compliance with ASHRAE 55-2004.
- *IEQ Credit 7.2: Thermal Comfort - Verification* [Possible]
  The Project is considering administering a thermal comfort survey to building occupants within 6 to 18 months after occupancy.
- *IEQ Credit 8.1: Daylight and Views – Daylight* [Possible]
  The high performance façade will provide substantial daylighting in the building interior. The Project will explore the feasibility of achieving daylighting in at least 75% of regularly occupied spaces.
- *IEQ Credit 8.2: Daylight and Views – Views* [Possible]
  The high performance façade will maximize views through the 55% window-to-wall ratio. The Project will consider the feasibility of achieving a direct line of site to the outdoors for building occupants in 90% of all regularly occupied areas by providing a feasible tenant layout to demonstrate compliance.

Innovation and Design (ID)

- *ID Credit 1.1: Exemplary Performance SS Credit 2 Development Density and Community Connectivity*
  The high-density of the Project site and surrounding location achieve exemplary performance criteria for development density.
- *ID Credit 1.2: Exemplary Performance SS Credit 4.1 Public Transportation*

The proximity of a commuter rail, two subway lines and numerous bus lines all with a high frequency of service achieve exemplary performance criteria for public transportation.

- *ID Credit 1.3: Exemplary Performance MR Credit 2 Construction Waste Management* [Possible]
  The Project will consider the feasibility of diverting 95% or more of total construction waste, which would achieve exemplary performance criteria.
- *ID Credit 1.4: Green Building Education* [Possible]
  The Project will consider the feasibility of providing educational features to highlight the sustainable, high performance building strategies and systems to not only its occupants and visitors but for the larger community as well. Green education options that may be considered include educational building dashboards, an informational website, providing building tours, and/or signage for sustainable features for staff and visitors.
- *ID Credit 1.5: Green Cleaning Policy / Program*
  The Project is will implement green cleaning practices aligned with LEED-EBOM requirements.
- *ID Credit 2: LEEED Accredited Professional*
  The Project will have multiple LEED Accredited professionals engaged on the Project team.

Regional Priority Credits (RP)

The Project is targeting achievement of at least three (3) regional priority credits for Boston;

- RP Credit 1.2: Stormwater Design – Quantity Control
- RP Credit 1.3: Heat Island Effect – Non-Roof
- RP Credit 1.4: Heat Island Effect – Roof

LEED Narrative: Station West

Project Overview and Summary

The Project incorporates a holistic approach to sustainability that promotes livability and economic development, while simultaneously mitigating the external impacts of energy, water, waste, and emissions. It seeks to track sustainable features and demonstrate compliance with Article 37 through the LEED rating system, for which the Project was registered with the USGBC/GBCI April 6, 2016 under version 2009 for LEED Core & Shell Development (LEED-CS).

The Station West Parcel features a vertical expansion of the existing Station to create between additional retail opportunities serving both the adjacent neighborhoods and transit customers using the Site. The Station West Parcel has targeted LEED-CS Silver certification. The Project is pursuing a variety of credits and points across the seven (7) LEED categories, i.e. Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, Innovation in Design Process and Regional Priority Credits.

The following summary provides more details on the strategy to achieve LEED-CS Silver certification. All credits and corresponding points described below are being pursed unless they are noted as [Possible]. Credits and points that are not being pursued are not included in this narrative. All LEED minimum program requirements and prerequisite requirements will be met.

Sustainable Sites (SS)

- *SS Prerequisite 1: Construction Activity Pollution Prevention*
  An erosion and sedimentation control plan will be developed and implemented for all construction activities for the Project.
- *SS Credit 1: Site Selection*
  By revitalizing an underutilized urban air-rights site, there will be no aspect of development on sensitive land types such as prime farmland, floodplains, habitat for threatened species, water bodies, wetlands, or parks.
- *SS Credit 2: Development Density and Community Connectivity*
  The Project location in a dense, urban area is close to numerous diverse uses recognized by LEED requirements and a mixed residential and commercial area with a mix of development densities. Exemplary performance is being pursued for this credit.
- *SS Credit 4.1: Alternative Transportation – Public Transportation Access*
  The site is well served by multi-modal transportation, including Amtrak and the Orange line at Back Bay Station, the Green line at Copley Square Station and numerous bus lines (e.g. 9, 10, 39, 55, 57, 170, 502, 503, 504, and 553) all within a quarter mile radius. Exemplary performance is being pursued for this credit.

- *SS Credit 4.2: Alternative Transportation – Bicycle Storage and Changing Rooms*
  [Possible] Secure bicycle storage, showers, and changing facilities may be provided. The number of bicycle racks and showers would be based on LEED 2009 credit guidelines for full-time occupants and visitors.
- *SS Credit 4.3: Alternative Transportation – Low-Emitting and Fuel-Efficient Vehicles*
  Vehicle emissions will be reduced through prioritized parking from low-emitting and fuel-efficient vehicles.
- *SS Credit 4.4: Alternative Transportation – Parking Capacity*
  While parking will be provided on-site, no new parking will be added compared to the existing development.
- *SS Credit 5.1: Site Development – Protect or Restore Habitat* [Possible]
  Landscapes areas will likely include native or adapted vegetation, which contributes towards protecting and restoring habitat.
- *SS Credit 5.2: Site Development – Maximize Open Space* [Possible]
  Pedestrian-oriented hardscape at ground level provides open space.
- *SS Credit 6.1: Stormwater Design – Quantity Control*
  Stormwater will be collected and infiltrated to meet the requirements of the groundwater conservation overlay district. Any additional stormwater volume will be discharged to existing stormwater systems.
- *SS Credit 6.2: Stormwater Design – Quality Control*
  There is a minimized impact on storm water systems and regional water resources through stormwater treatment to improve effluent quality via ground water recharge.
- *SS Credit 7.1: Heat Island Effect – Non-roof*
  To mitigate the heat island effect, hardscape materials will have a low solar reflectance, trees will provide shade in select locations.
- *SS Credit 7.2: Heat Island Effect – Roof*
  Through the use of high-albedo roofing materials, there is a reduced heat island effect and improved microclimate.
- *SS Credit 9: Tenant Design and Construction Guidelines*
  To educate tenants about implementing sustainable strategies in their fit-out, a guidance document will be provided describing the sustainable strategies implemented in the base building and recommendations for achieving certification under LEED for Commercial Interiors.

Water Efficiency (WE)

- *WE Prerequisite 1: Water Use Reduction – 20% Reduction*
  Ultra-low and low-flow fixtures for WCs, urinals, showers, faucets and sinks minimize the impact on municipal water supply by reducing potable water consumption.
- *WE Credit 1: Water Efficient Landscaping*
  There will be at least a 50% reduction in potable water consumption for irrigation through either the use of non-potable water for irrigation or implementation of landscaping that does not need a permanent irrigation system.

- *WE Credit 3: Water Use Reduction*
  Ultra-low and low-flow fixtures are estimated to reduce water consumption by at least 30%.

Energy and Atmosphere (EA)

- *EA Prerequisite 1: Fundamental Commissioning of Building Energy Systems*
  The Proponent will engage an independent, third party commissioning agent to develop and perform the fundamental commissioning and verification requirements.
- *EA Prerequisite 2: Minimum Energy Performance*
  A comprehensive set of energy reduction strategies include an efficient building envelope, low lighting power densities from LED lighting, and an efficient HVAC system. Specifically, the HVAC system features include high efficiency condensing boilers for meeting space heating demands, premium efficiency cooling towers with variable frequency drives, a 46% window to wall ratio with an insulated shadow box or spandrel, and a 15% skylight to roof ratio.
- *EA Prerequisite 3: Fundamental Refrigerant Management*
  The Project will install non-CFC based refrigerants.
- *EA Credit 1: Optimize Energy Performance*
  The Project will utilize whole-building energy simulation to demonstrate the proposed design performs better as compared to a baseline building per ASHRAE 90.1-2007 Appendix G method. The preliminary energy model shows that the energy efficiency strategies described in EA Prerequisite 2 achieve 15% energy cost savings. Energy modeling will continue throughout the stages of design to understand how strategies impact energy cost savings.
- *EA Credit 3: Enhanced Commissioning*
  Ownership will engage an independent, third party commissioning agent (CxA) to perform the enhanced commissioning and verification requirements. The enhanced commissioning scope will include the CxA to perform a review of CD documents and provide comments to the design team for alignment with the OPR and BOD as well as reviewing contractor submittals, building operations and post-occupancy review a year after substantial completion and developing an on-going commissioning plan for operations and maintenance.
- *EA Credit 4: Enhanced Refrigerant Management*
  Refrigerants meet credit requirements to minimize their ozone depleting and global warming potential.
- *EA Credit 5.1: Measurement and Verification – Base Building*
  Verification and benchmarking of ongoing energy and water performance will be possible through the development and implementation of a robust measurement and verification plan. The base building's metering strategy utilizing EnerNOC's Energy Intelligence Software (EIS) platform will enable the M&V plan. Additionally, enrollment in ENERGY STAR Portfolio manager enables benchmarking and tracking of energy and water performance.

- *EA Credit 5.2: Measurement and Verification – Tenant Submetering* [Possible]
  The Project will consider the feasibility of centrally monitored metering system in the base building that is capable of expansion to accommodate future tenant submetering. Tenants would receive guidance on the measurement and verification plan including information on the process for corrective action if energy savings goals were not met.
- *EA Credit 6: Green Power* [Possible]
  The energy strategy is to first reduce the Projects' energy consumption. The Project may explore opportunities for procuring off-site renewable energy aligned with LEED requirements.

Materials and Resources (MR)

- *MR Prerequisite 1: Storage and Collection of Recyclables*
  An ongoing recycling strategy will be provided and include space for the collection and storage of materials for recycling for the entire building, including paper, corrugated cardboard, glass, plastics and metal.
- *MR Credit 2: Construction Waste Management*
  Efficient use of materials and resources during construction will contribute to diverting construction waste from landfills. At least 75% of construction and demolition debris will be diverted.
- *MR Credit 4: Recycled Content*
  At least 10% of materials based on cost will include pre-consumer and postconsumer recycled content. The Project will explore increasing recycled content to reach the 20% threshold, but this is [Possible].
- *MR Credit 5: Regional Materials.* [Possible]
  The Project is exploring the use of up to 20% of the materials based on cost to be sourced from within 500 miles of the site.
- *MR Credit 6: Certified Wood* [Possible]
  The Project is exploring the use of Forest Stewardship Council certification for at least 50% of wood products specified, including structural and general dimensional framing, flooring, sub-flooring wood doors and finishes.

Indoor Environmental Quality (IEQ)

- *IEQ Prerequisite 1: Minimum Indoor Air Quality Performance*
  Good indoor air quality will be achieved by meeting and/or exceeding the ventilation requirements of ASHRAE 62.1-2007.
- *IEQ Prerequisite 2: Environmental Tobacco Smoke (ETS) Control*
  The building will be non-smoking and smoking will not be allowed within 25 feet from a building entry, intake and operable window. Signage will be provided noting the no-smoking policy and outdoor designated smoking areas will be clearly identified.
- *IEQ Credit 1: Outdoor Air Delivery Monitoring*

Demand controlled ventilation will be implemented to further improve indoor air quality through the automatic increase of ventilation rates in densely occupied spaces if high CO_2 levels are detected.

- *IEQ Credit 3: Construction IAQ Management Plan – During Construction*
  The awarded construction manager will be required and responsible for developing and implementing an indoor air quality management plan during construction and pre-occupancy that meets SMACNA guidelines.
- *IEQ Credit 4.1-4.4: Low-Emitting Materials*
  The Project will specify low-emitting materials meeting the category requirements for VOC content in at least 2 of the 4 categories: Adhesives and sealants; paints and coatings; flooring systems; and composite wood and agrifiber products.
- *IEQ Credit 5: Indoor Chemical and Pollutant Source Control* [Possible]
  The Project is exploring to meet the credit requirements of installing permanent entryway systems, preventing interior cross-contamination of gases or chemicals (where present) and installing MERV 13 or higher filters on both return and outside air that is delivered as supply air.
- *IEQ Credit 7: Thermal Comfort – Design* [Possible]
  The Project will provide a thermally comfortable environment for occupants and is exploring the feasibility of compliance with ASHRAE 55-2004.
- *IEQ Credit 8.1: Daylight and Views – Daylight* [Possible]
  The high performance façade will provide substantial daylighting in the building interior. The Project will explore the feasibility of achieving daylighting in at least 75% of regularly occupied spaces.
- *IEQ Credit 8.2: Daylight and Views – Views* [Possible]
  The Project will consider the feasibility of achieving a direct line of site to the outdoors for building occupants in 90% of all regularly occupied areas by providing a feasible tenant layout to demonstrate compliance.

Innovation and Design (ID)

- *ID Credit 1.1: Exemplary Performance SS Credit 2 Development Density and Community Connectivity*
  The high-density of the Project site and surrounding location achieve exemplary performance criteria for development density.
- *ID Credit 1.2: Exemplary Performance SS Credit 4.1 Public Transportation*
  The proximity of a commuter rail, two subway lines and numerous bus lines all with a high frequency of service achieve exemplary performance criteria for public transportation.
- *ID Credit 1.3: Exemplary Performance MR Credit 2 Construction Waste Management* [Possible]
  The Project will consider the feasibility of diverting 95% or more of total construction waste, which would achieve exemplary performance criteria.
- *ID Credit 1.4: Green Building Education* [Possible]

The Project will consider the feasibility of providing educational features to highlight the sustainable, high performance building strategies and systems to not only its occupants and visitors but for the larger community as well. Green education options that may be considered include educational building dashboards, an informational website, providing building tours, and/or signage for sustainable features for staff and visitors.

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APPENDIX H: Air Quality and Greenhouse Gas Emissions Supporting Documentation

Materials are provided on the enclosed CD-ROM.

Microscale Analysis
Mesoscale Analysis
Stationary Source
Energy Analysis Report

APPENDIX I: Wind Study Supporting Documentation

Pedestrian Wind Report
Design Modifications Memo

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Back Bay/South End Gateway Project

Boston, MA

Report

Pedestrian Wind Consultation

RWDI # 1601374
May 18, 2016

SUBMITTED TO

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1. INTRODUCTION

Rowan Williams Davies & Irwin Inc. (RWDI) is retained by Boston Properties to consult on the pedestrian wind conditions for the proposed Back Bay/South End Gateway project (the "Project") in Boston, MA. The purpose of the study was to assess the wind environment around the development in terms of pedestrian wind comfort and safety. This objective was achieved through wind tunnel testing of a 1:400 scale model of the proposed development with existing, in-construction and the Boston Redevelopment Authority ("BRA"), d/b/a the Boston Planning and Development Agency ("BPDA") approved surroundings.

The simulations were conducted in RWDI's boundary-layer wind tunnel at Guelph, Ontario, for the purpose of quantifying local wind speed conditions and comparing to appropriate criteria for gauging wind comfort in pedestrian areas. The criteria recommended by the BPDA were used in this study. The present report describes the methods and presents the results of the wind tunnel simulations.

2. OVERVIEW

Major buildings, especially those that protrude above their surroundings, often cause increased local wind speeds at the pedestrian level. Typically, wind speeds increase with elevation above the ground surface, and taller buildings intercept these faster winds and deflect them down to the pedestrian level. The funneling of wind through gaps between buildings and the acceleration of wind around corners of buildings may also cause increases in wind speed. Conversely, if a building is surrounded by others of equivalent height, it may be protected from the prevailing upper-level winds, resulting in no significant changes to the local pedestrian-level wind environment. The most effective way to assess potential pedestrian-level wind impacts around a proposed new building is to conduct scale model tests in a wind tunnel.

The consideration of wind in planning outdoor activity areas is important since high winds in an area tend to deter pedestrian use. For example, winds should be light or relatively light in areas where people would be sitting, such as outdoor cafes or playgrounds. For bus stops and other locations where people would be standing, somewhat higher winds can be tolerated. For frequently used sidewalks, where people are primarily walking, stronger winds are acceptable. For infrequently used areas, the wind comfort criteria can be relaxed even further. The actual effects of wind can range from pedestrian inconvenience, due to the blowing of dust and other loose material in a moderate breeze, to severe difficulty with walking due to the wind forces on the pedestrian.

3. PROJECT DESCRIPTION

The proposed Project consists of four air rights development parcels: one commercial building (Garage West), two residential buildings (Garage East and Station East) and a one-story retail expansion of the Back Bay/South End Station (Station West). The Project is located overtop of the Massachusetts Turnpike and 7 rail lines, adjacent to Dartmouth, Stuart, and Clarendon Streets. The Project has several positive design features that are favorable towards achieving wind conditions appropriate for pedestrian use. These include entrances recessed from the main façade of the buildings, vestibule entrances where patrons can seek shelter on windy days, undulating facades and podiums which will help keep accelerated winds away

from the grade level. The Project will be sheltered from the prevailing winds by the existing surrounding buildings to the west.

4. METHODOLOGY

Information concerning the Project Site and surroundings were derived from: information on surrounding buildings and terrain; site plans and elevations of the Project provided by the design team. The following configurations of surroundings will be simulated:

No Build:	includes all existing and BPDA approved surrounding buildings;
Base Scheme:	includes the Garage West Base Scheme (the “Base Scheme”) and all existing and BPDA approved surroundings; and,
Alternate Scheme:	includes the Garage West Alternate Scheme (the “Alternate Scheme”) and all existing and BPDA approved surroundings.

As shown in Figures 1a through 1c, the wind tunnel model included the Project and all relevant surrounding buildings and topography within a 1600-foot radius of the Project Site. The mean speed profile and turbulence of the natural wind approaching the modelled area were also simulated in RWDI's boundary layer wind tunnel. The scale model was equipped with 135 specially designed wind speed sensors that are connected to the wind tunnel's data acquisition system to record the mean and fluctuating components of wind speed at a full-scale height of 5 feet above grade in pedestrian areas throughout the Project Site. Wind speeds were measured for 36 wind directions, in 10 degree increments, starting from true north. The measurements at each sensor location were recorded in the form of ratios of local mean and gust speeds to the reference wind speed in the free stream above the model. The results were then combined with long-term meteorological data, recorded during the years 1995 to 2015 at Boston's Logan International Airport, in order to predict full scale wind conditions. The analysis was performed separately for each of the four seasons and for the entire year.

Figures 2a, 2b and 2c present "wind roses", summarizing the annual and seasonal wind climates in the Boston area, based on the data from Boston Logan International Airport. The left side wind rose in Figure 2a, for example summarizes the spring (March, April, and May) wind data. In general, the prevailing winds at this time of year are from the west-northwest, northwest, west, south-southwest and east-southeast. In addition to these directions, strong winds are also prevalent from the northeast direction as indicated by the red and yellow color bands on the wind rose.

On an annual basis (Figure 2c) the most common wind directions are those between southwest and northwest. Winds from east-southeast are also relatively common. In the case of strong winds, northeast and west through northwest are the dominant wind directions.

This study involved state-of-the-art measurement and analysis techniques to predict wind conditions at the study site. Nevertheless, some subjectivity remains in predicting wind comfort, and this must be kept in mind. For example, the sensation of comfort among individuals can be quite variable. Variations in age,

individual health, clothing, and other human factors can change a particular response of an individual. The comfort limits used in this report represent an average for the total population. Also, unforeseen changes in the Project's surroundings, such as the construction or removal of buildings, can affect the conditions experienced at the Project Site. Finally, the prediction of wind speeds is necessarily a statistical procedure. The wind speeds reported are for the frequency of occurrence stated (one percent of the time). Higher wind speeds will occur but on a less frequent basis.

5. PEDESTRIAN WIND COMFORT CRITERIA

The BPDA has adopted two standards for assessing the relative wind comfort of pedestrians. First, the BPDA wind design guidance criterion states that an effective gust velocity (hourly mean wind speed +1.5 times the root-mean-square wind speed) of 31 mph should not be exceeded more than one percent of the time. The second set of criteria used by the BPDA to determine the acceptability of specific locations is based on the work of Melbourne[1]. This set of criteria is used to determine the relative level of pedestrian wind comfort for activities such as sitting, standing, or walking. The criteria are expressed in terms of benchmarks for the 1-hour mean wind speed exceeded 1% of the time (i.e., the 99-percentile mean wind speed). They are as follows:

BPDA Mean Wind Criteria*

Dangerous	> 27 mph
Uncomfortable for Walking	> 19 and ≤ 27 mph
Comfortable for Walking	> 15 and ≤ 19 mph
Comfortable for Standing	> 12 and ≤ 15 mph
Comfortable for Sitting	< 12 mph

* Applicable to the hourly mean wind speed exceeded one percent of the time.

The wind climate found in a typical downtown location in Boston is generally comfortable for the pedestrian use of sidewalks and thoroughfares and meets the BPDA effective gust velocity criterion of 31 mph. However, without any mitigation measures, this wind climate is likely to be frequently uncomfortable for more passive activities such as sitting.

6. TEST RESULTS

For each model configuration, Figure 3 graphically depicts the mean wind speeds; Figure 4 depicts the effective gust speeds at each wind measurement location based on the annual winds and Figure 5 shows the change in comfort categories between the No Build and the two Build configuration options. Table 1 presents the mean and effective gust wind speeds for each season as well as annually. Typically, the summer and fall winds tend to be more comfortable than the annual winds while the winter and spring winds

[1] Melbourne, W.H., 1978, "Criteria for Environmental Wind Conditions", Journal of Industrial Aerodynamics, 3 (1978) 241 - 249.

are less comfortable than the annual winds. The following summary of pedestrian wind comfort is based on the annual winds for each configuration studied, except where noted below in the text.

A total of 135 sensors were used in the model. Note that the placement of the wind measurement locations was based on our experience and understanding of pedestrian usage of the site, and was reviewed by members of the Project team and approved by the BPDA.

6.1 No Build

A wind comfort categorization of walking is considered appropriate for sidewalks. Lower wind speeds conducive to standing are preferred at building entrances.

As shown in Figure 3a, wind conditions at most grade level locations are suitable for walking or better, annually, with calmer wind speeds, comfortable for sitting or standing, at the areas to the south of the Project Site. Uncomfortable wind conditions on an annual basis are expected at few locations along Stuart Street (Locations 1 through 5, 66, 67, 76, 83 and 126), two (2) locations along Clarendon Street and Stanhope Street to east of the Project Site (Locations 9 and 62), several locations further to the north of Project Site along St. James Avenue and Boylston Street (Locations 79, 81, 92, 93, 99 and 131), two (2) locations along Exeter Street and Huntington Avenue to the northwest of the Project Site (Locations 113 and 117, respectively), and one (1) location along Trinity Place to the north of the Project Site (Location 101). Higher wind speeds categorized as dangerous were detected at one (1) location at the southeast corner of intersection of Trinity Place and St. James Avenue (Location 90) on an annual basis. Wind conditions are predicted to be dangerous at Location 101 during the spring as well as at Locations 113 and 117 during the winter (Table 1).

As shown in Figure 4a and Table 1, the effective gust criterion was met annually at all areas with an exception of six (6) isolated locations, along Stuart Street (Location 4), St. James Avenue (Locations 90 and 93), Trinity Place (Location 101), Exeter Street (Location 113) and Huntington Avenue (Location 117). The effective gust criterion is also expected to be exceeded along Stuart Street, Clarendon Street, Stanhope Street St. James Avenue and Boylston Street during the winter season at Locations 1, 2, 3, 9, 62, 83, 92 and 131, during the spring season at Locations 76, 81 and 99 and during both spring and winter seasons at Locations 5, 66 and 67 (see Table 1).

6.2 Base Scheme

With the addition of the Project Base Scheme, winds at most locations are expected to improve upon or remain similar to the No Build conditions on an annual basis (Figures 3b and 5a). The addition of the Project results in slightly higher wind speeds at some areas to the south and east of the Project Site along Columbus Avenue and Clarendon Street, as well as localized areas to the north of the Project Site along Stuart Street; however, wind conditions are still generally expected to be appropriate for the intended use. Wind conditions comfortable for sitting or standing are predicted at most of the Project's entrances (Locations 3, 8, 12, 13, 16, 17 18, 19, and 20 in Figure 3b) and at most locations around the perimeter of the Project Site. These conditions are considered appropriate for the intended use. Wind conditions

comfortable for walking are predicted at the entrances represented by Locations 2, 4 and 5, which is higher than desired for an entrance location.

Many of the uncomfortable conditions predicted for the No Build conditions are improved along Stuart, Clarendon, and Stanhope Streets (Locations, 2, 3, 4, 5, 9, and 62). Other uncomfortable conditions predicted for the No Build conditions remain similar, with the exception of two (2) new locations, where uncomfortable conditions are predicted; one to the south of the proposed Station East building (Location 14 in Figure 3b) and one to the north of the Garage East building (Location 63 in Figure 3b). The locations with dangerous conditions which were predicted for the No Build conditions on an annual basis at the intersection of St James Avenue and Trinity Place (Location 90 in Figure 3b) and during the winter along Exeter Street (Location 113 in Table 1) and during the spring and winter along Trinity Place (Location 101 in Table 1) remain unchanged.

The exceedance of the effective gust criterion along St. James Avenue, Trinity Place, Exeter Street and Huntington Avenue remain similar to the No Build conditions (Locations 90, 93, 101, 113 and 117 in Figure 4b). However, the exceedance of the effective gust criterion at one (1) location along Stuart Street for the No Build condition (Location 4) is eliminated.

The higher-than-desired wind activities at some entrances on the north side of Garage West building are mainly caused by the exposure to the northeasterly and northwesterly winds. Building canopies or wind screens 6 – 8 feet tall and 20-30% porous installed on both sides of entrance Locations 2, 4 and 5, would help to protect these areas from the approaching winds. Furthermore, building canopies and / or wind screens could be employed to improve wind conditions at the south corner of Station East building near Location 14. Examples of these mitigation measures are shown in Images 1 and 2.

Image 1 – Examples of Wind Screens

Image 2 – Examples of canopies wrapping around the building corner

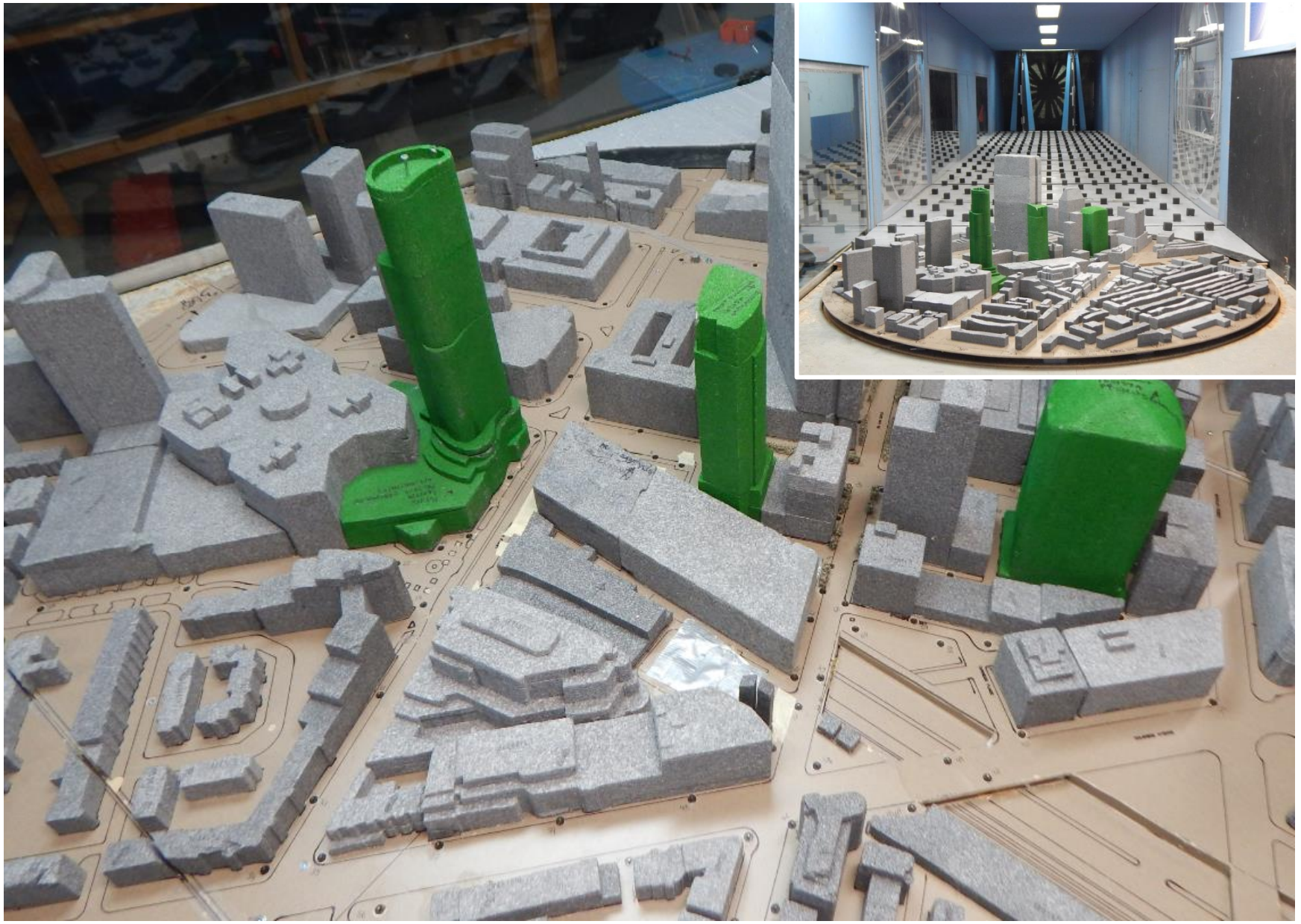
6.3 Alternate Scheme

For the Alternate Scheme of the Project, wind conditions are expected to be very similar to the Base Scheme and the locations where annual and seasonal dangerous conditions and exceedance of effective gust criterion were predicated, remain unchanged (Figures 3c and 4c). Wind control measures suggested for the Base Scheme will be beneficial to improve the wind conditions for the Alternate Scheme as well (Images 1 and 2).

7. APPLICABILITY OF RESULTS

The results presented in this report pertain to the model of the proposed Back Bay / South End Gateway Project constructed using the architectural design drawings listed in Appendix A. Should there be any design changes that deviate from this list of drawings, the results presented may change. Therefore, if changes in the design are made, it is recommended that RWDI be contacted and requested to review their potential effects on wind conditions.

FIGURES



Wind Tunnel Study Model
No Build

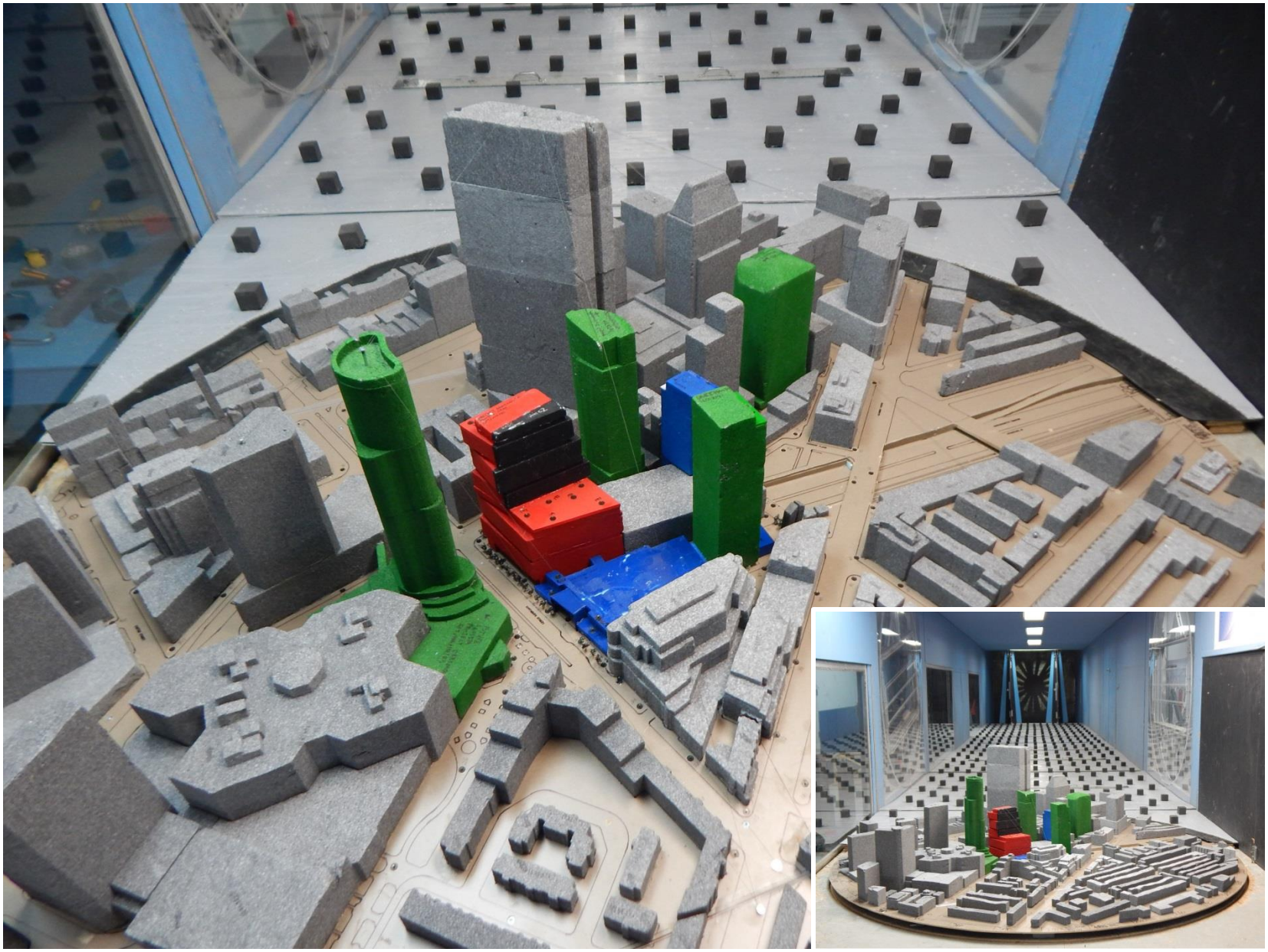
Figure No. 1a

Back Bay / South End Gateway Project – Boston, Massachusetts

Project #1601374

Date: May 18, 2016

RWDI



Wind Tunnel Study Model
Base Scheme

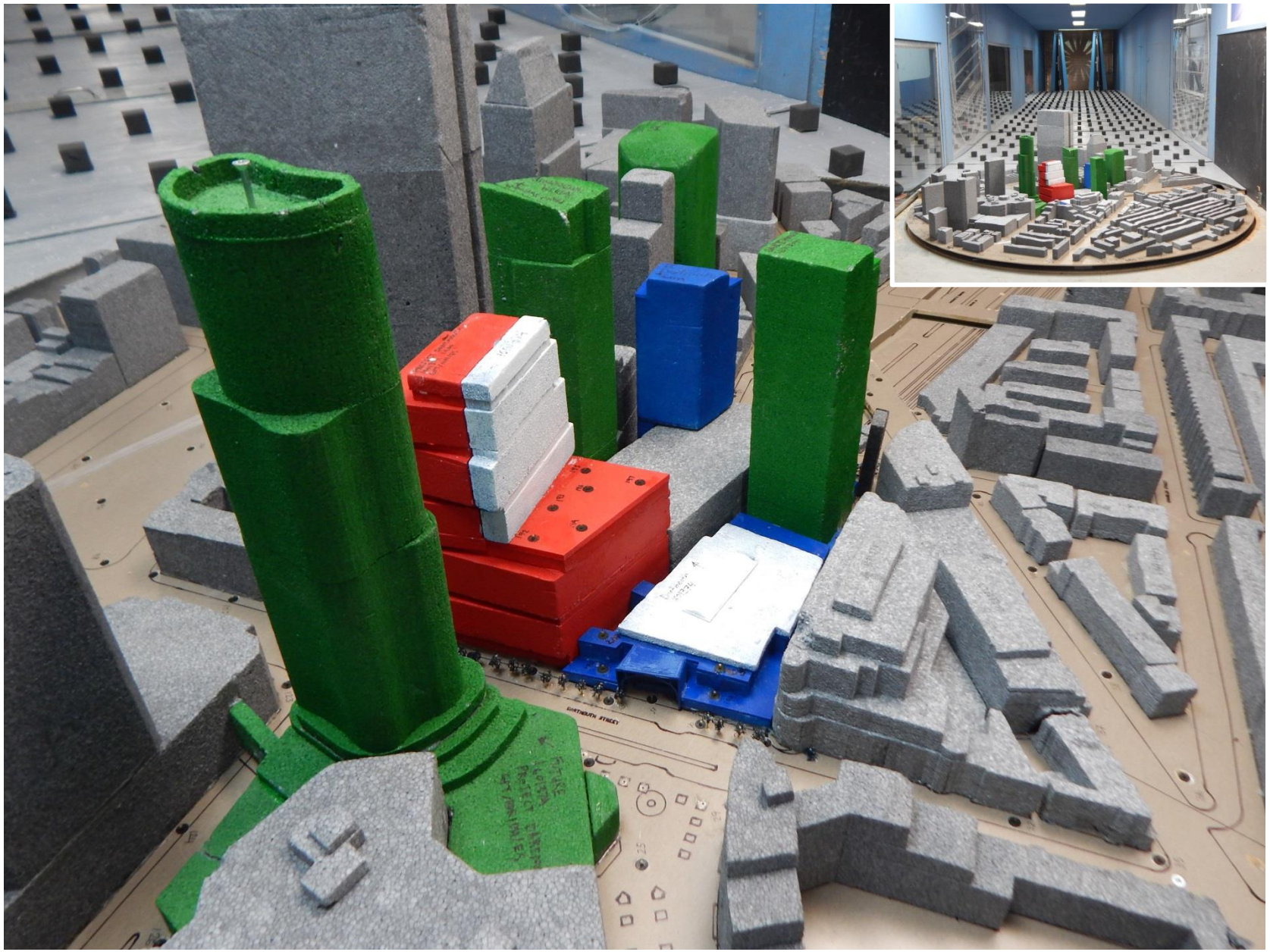
Back Bay / South End Gateway Project – Boston, Massachusetts

Project #1601374

Figure No. 1b

Date: May 18, 2016

RWDI



Wind Tunnel Study Model
Alternate Scheme

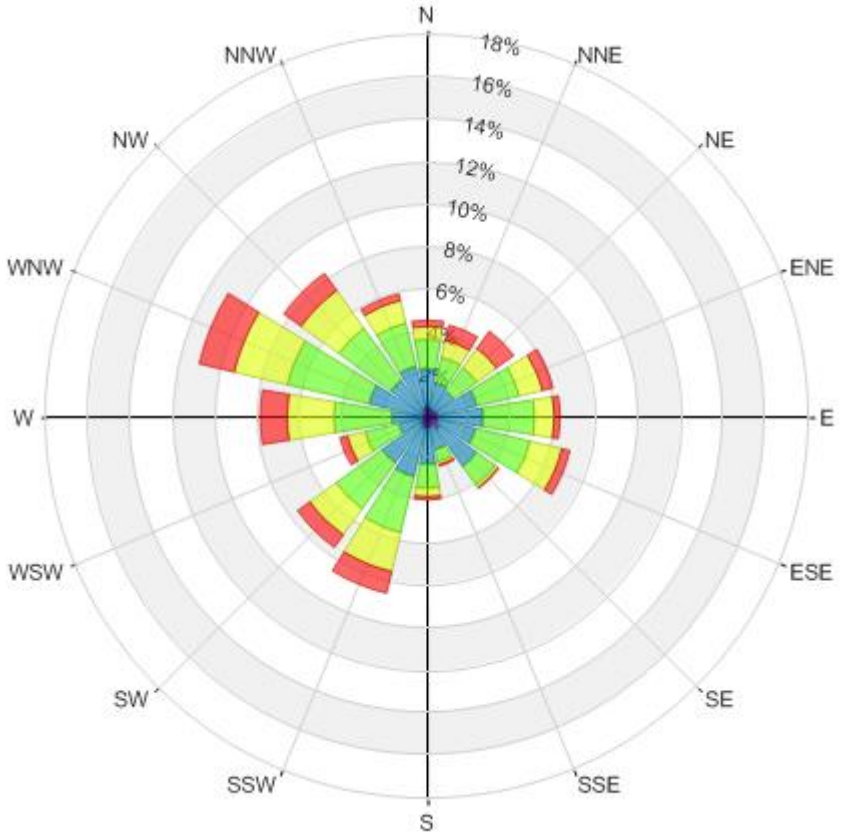
Back Bay / South End Gateway Project – Boston, Massachusetts

Project #1601374

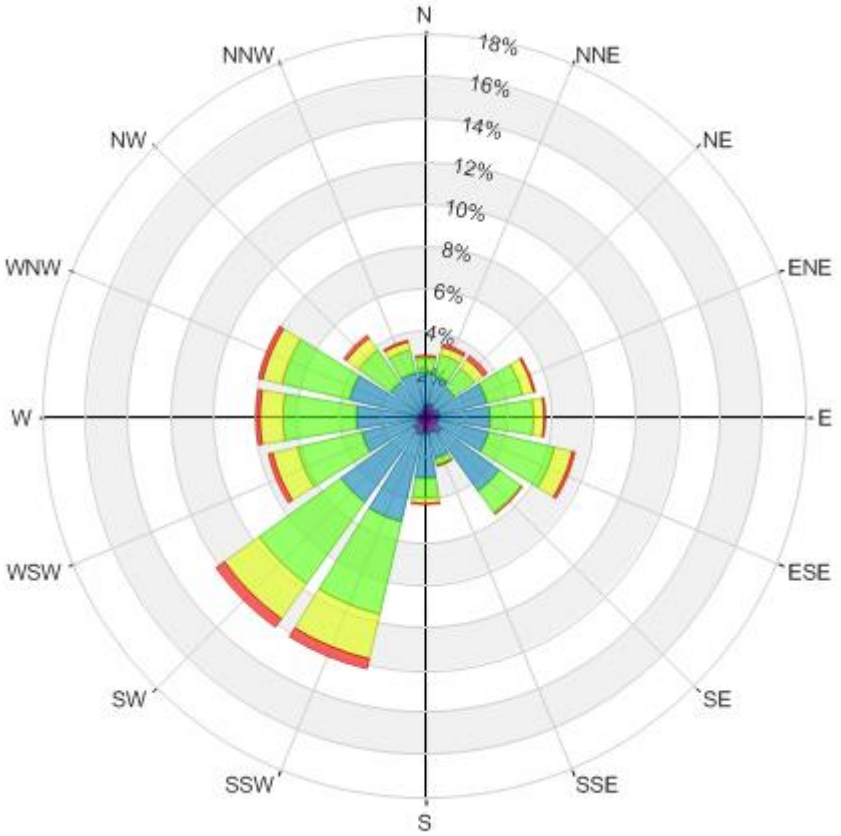
Figure No. 1c

Date: May 18, 2016

RWDI



Spring
(March - May)



Summer
(June - August)

Wind Speed (mph)	Probability (%) Spring	Summer
Calm	2.8	3.1
1-5	6.7	9.5
6-10	28.8	38.8
11-15	32.7	34.4
16-20	19.1	11.7
>20	9.9	2.5

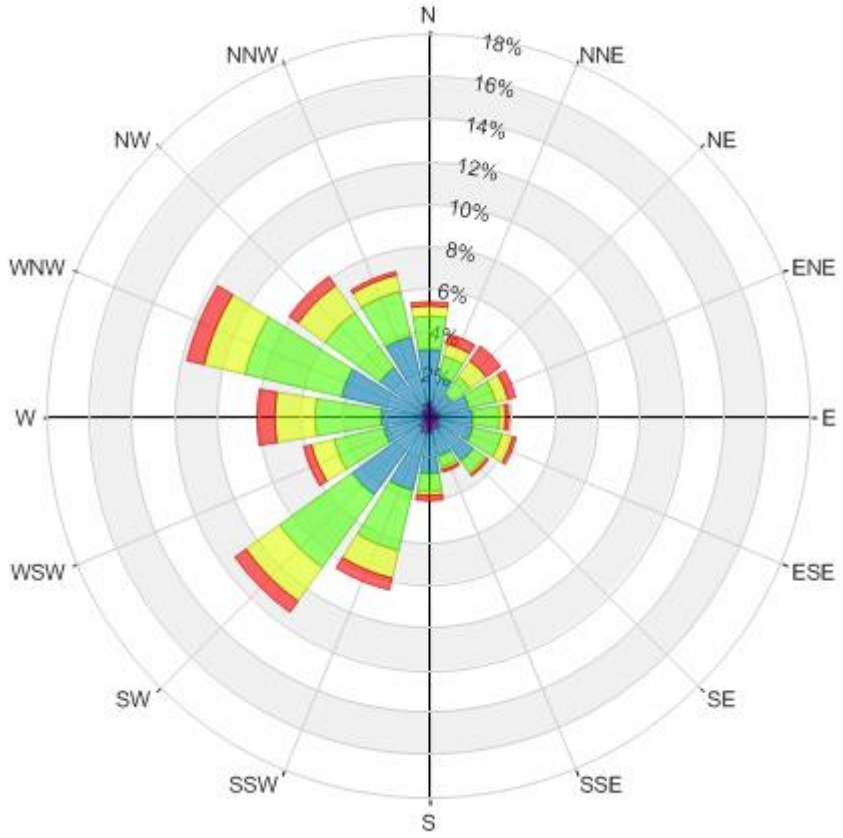
Directional Distribution (%) of Winds (Blowing From)
Boston Logan International Airport (1995 - 2015)

Figure No. 2a

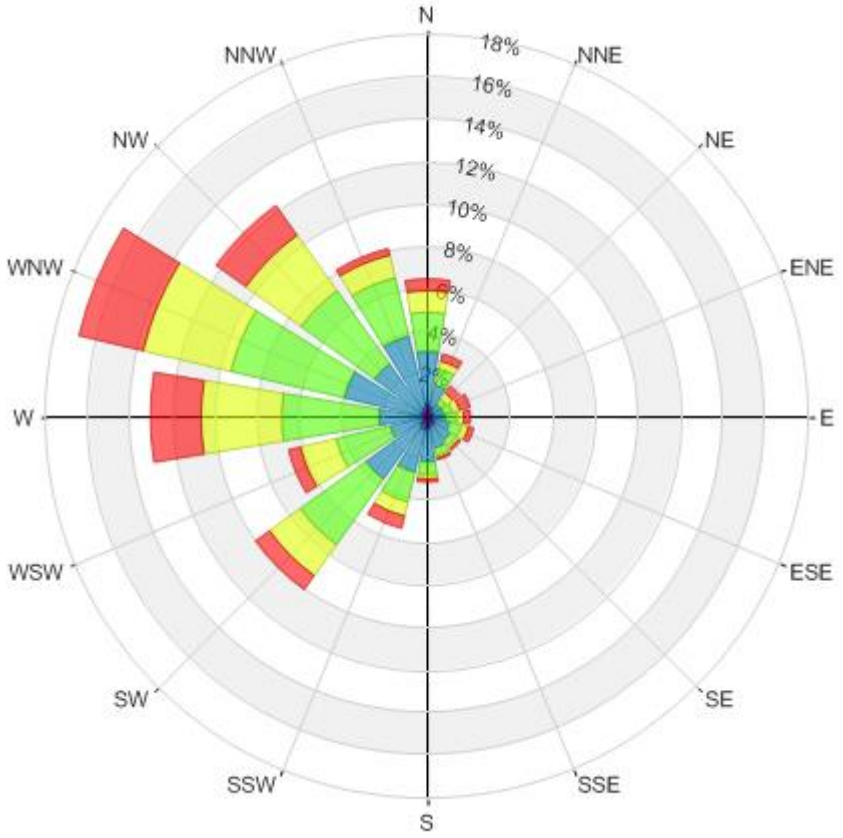
Back Bay / South End Gateway Project – Boston, Massachusetts

Project #1601374

Date: May 18, 2016



Fall
(September - November)



Winter
(December - February)

Wind Speed (mph)	Probability (%) Fall	Winter
Calm	3.4	2.6
1-5	8.5	6.5
6-10	34.7	28.0
11-15	32.3	30.8
16-20	14.4	19.7
>20	6.6	12.3

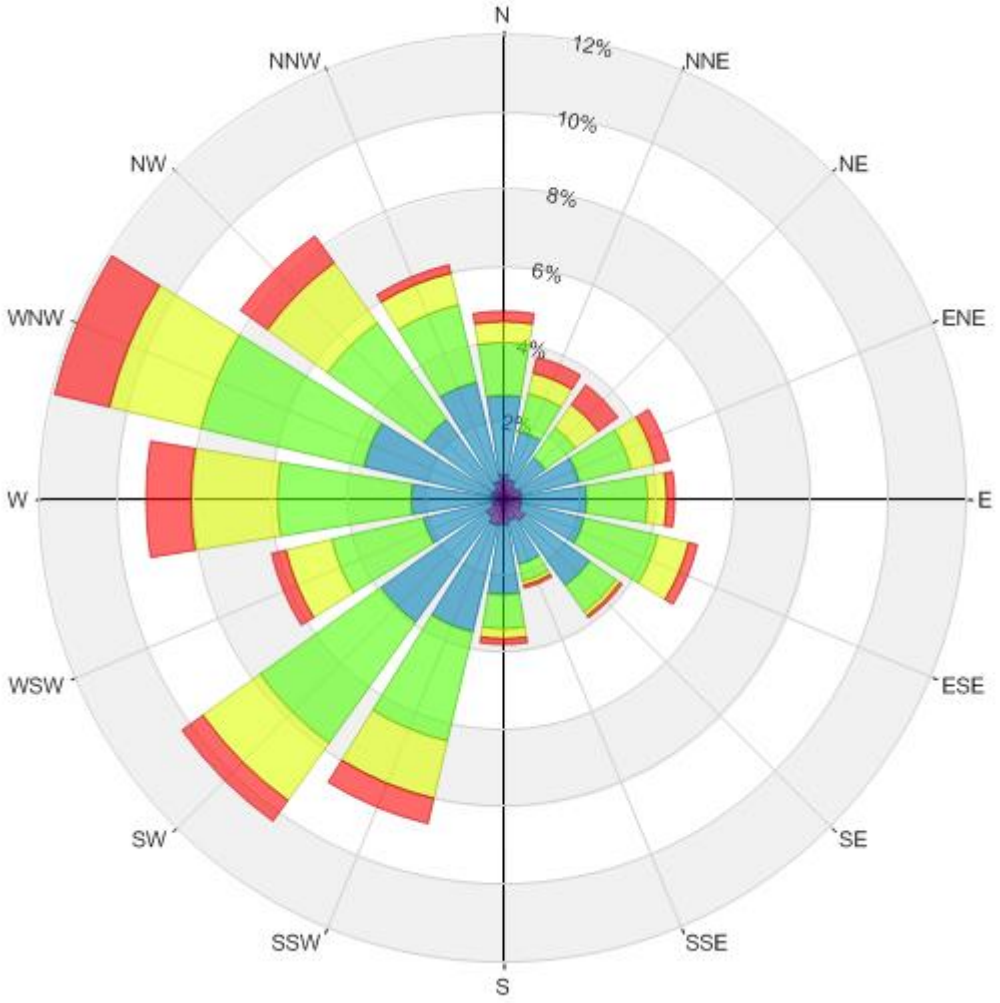
Directional Distribution (%) of Winds (Blowing From)
Boston Logan International Airport (1995 - 2015)

Figure No. 2b

Project Dartmouth – Boston, Massachusetts

Project #1601374

Date: April 27, 2016



Wind Speed (mph)	Probability (%)
Calm	3.0
1-5	7.8
6-10	32.6
11-15	32.6
16-20	16.2
>20	7.8

Annual Winds

Directional Distribution (%) of Winds (Blowing From)
Boston Logan International Airport (1995 - 2015)

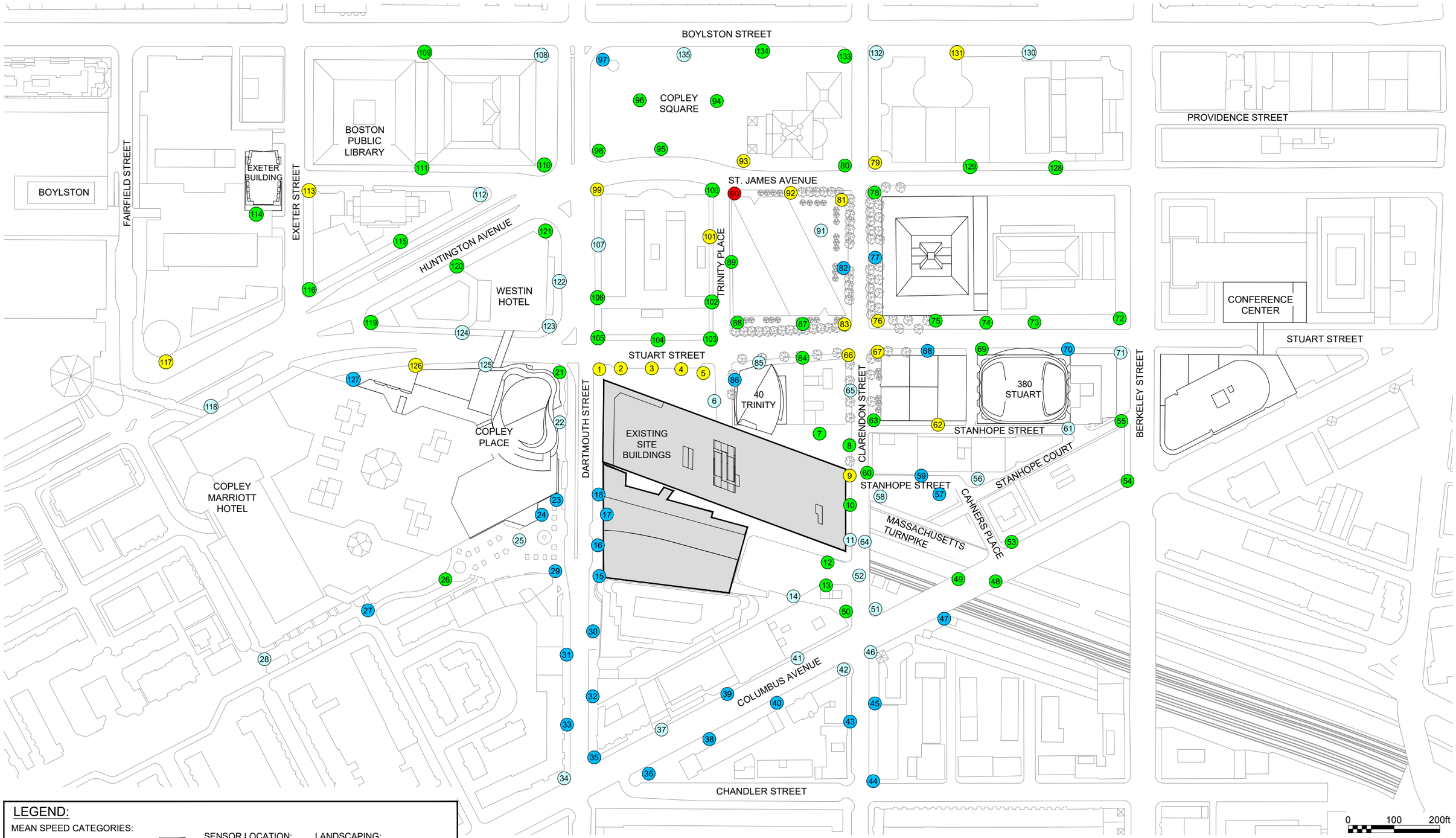
Back Bay / South End Gateway Project – Boston, Massachusetts

Project #1601374

Figure No. 2c

Date: May 18, 2016

RWDI



LEGEND:

MEAN SPEED CATEGORIES:
- Sitting
- Standing
- Walking
- Uncomfortable
- Dangerous

SENSOR LOCATION:
- Grade Level

LANDSCAPING:
- Existing Marcescent Shrubs
- Existing Marcescent Trees

Pedestrian Wind Conditions - Mean Speed - No Build
Annual

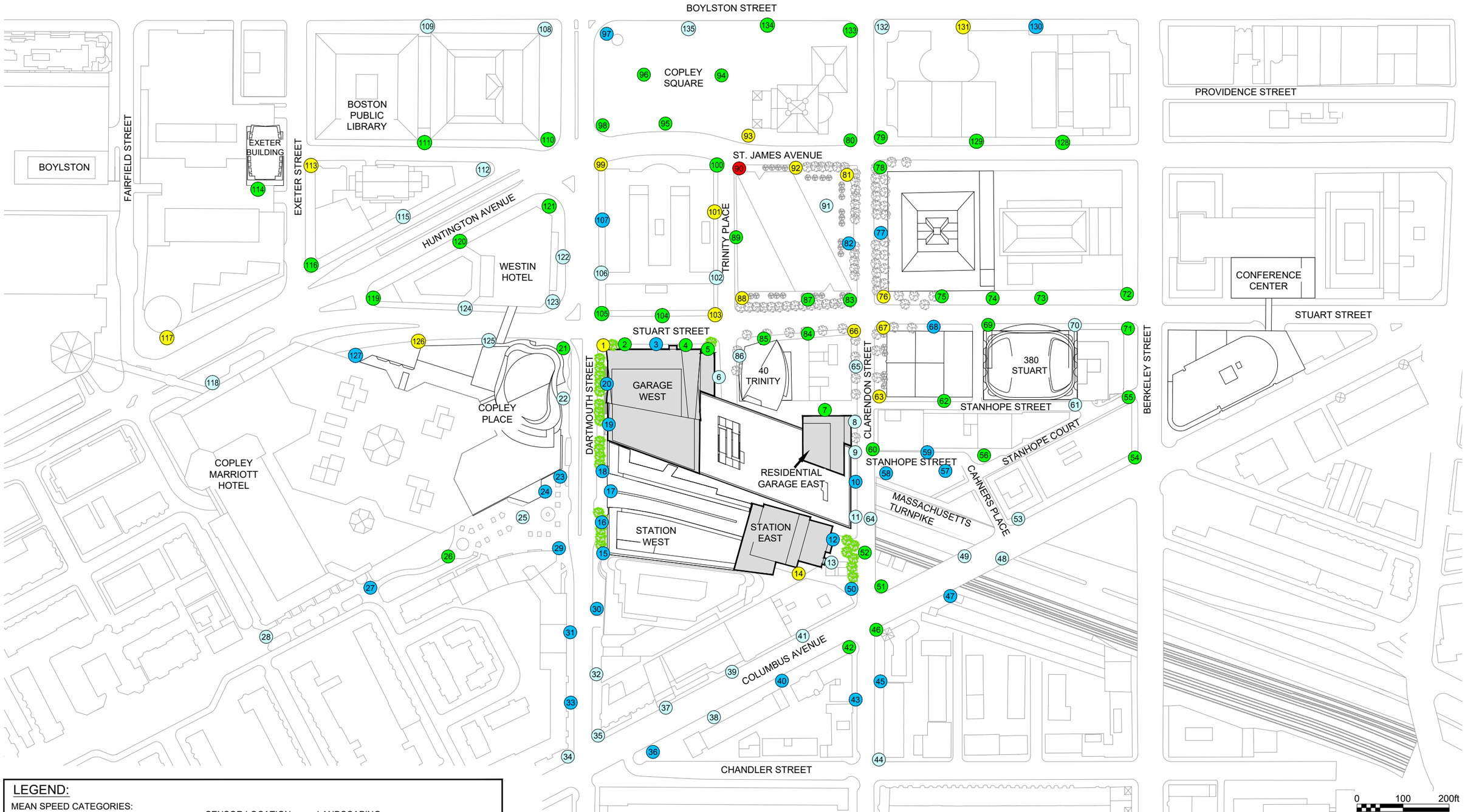
Back Bay / South End Gateway Project - Boston, MA

True North

Project #1601374

Drawn by:	ARM	Figure:	3a
Approx. Scale:			1"=200'
Date Revised:			May 18, 2016

RWDI



LEGEND:

MEAN SPEED CATEGORIES:
- Sitting
- Standing
- Walking
- Uncomfortable
- Dangerous

SENSOR LOCATION:
- Grade Level

LANDSCAPING:
- Existing Marcescent Shrubs - 8' Tall
- Existing Marcescent Trees - 20' Tall
- Proposed Marcescent Trees - 20' Tall

Pedestrian Wind Conditions - Mean Speed - Base Scheme
Annual (January to December)

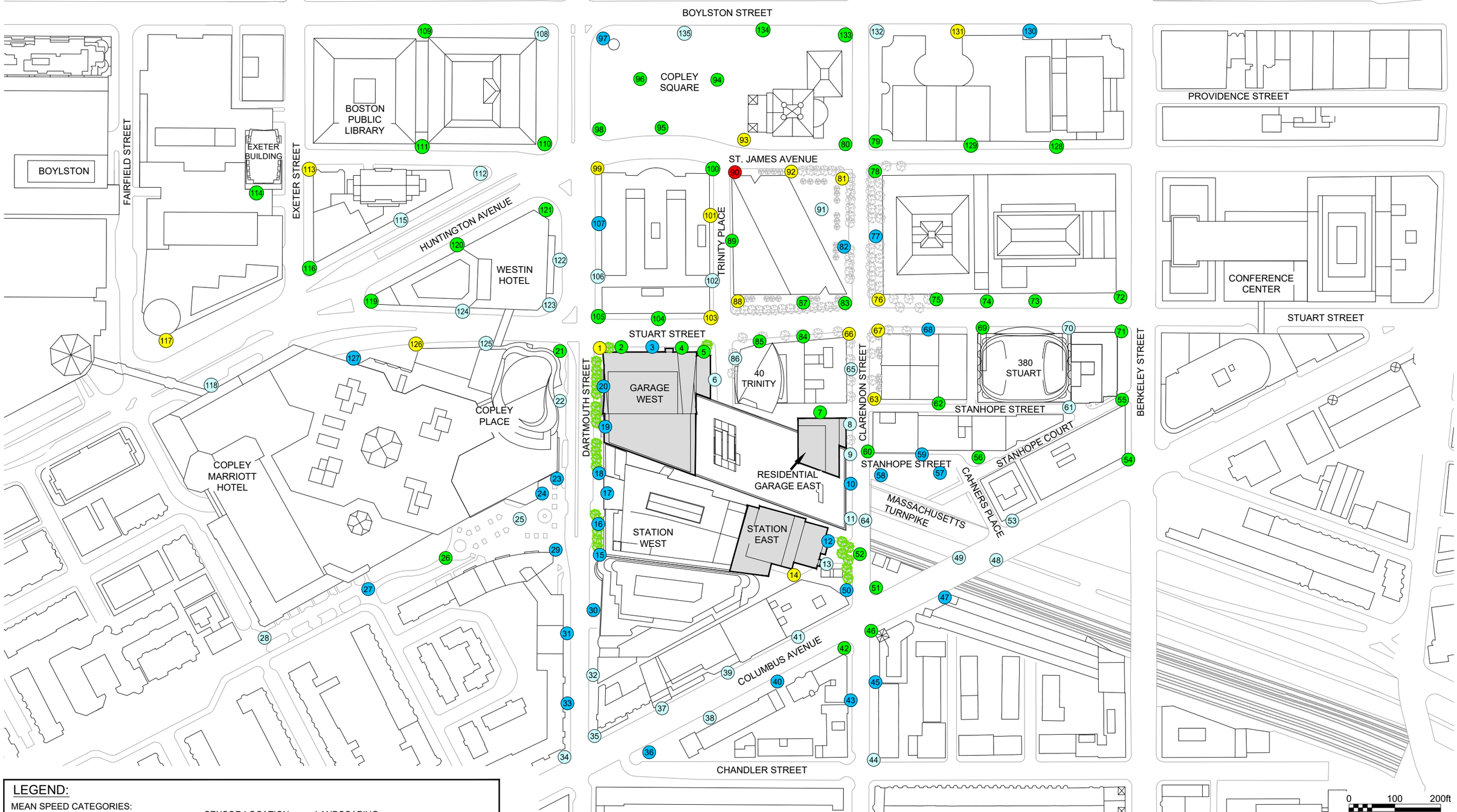
True North

Project Dartmouth - Boston, Massachusetts

Project #1601374

Drawn by:	ARM	Figure:	3b
Approx. Scale:			1"=200'
Date Revised:			May 18, 2016

RWDI



LEGEND:

MEAN SPEED CATEGORIES:
- Sitting
- Standing
- Walking
- Uncomfortable
- Dangerous

SENSOR LOCATION:
- Grade Level

LANDSCAPING:
- Existing Marcescent Shrubs - 8' Tall
- Existing Marcescent Trees - 20' Tall
- Proposed Marcescent Trees - 20' Tall

Pedestrian Wind Conditions - Mean Speed - Alternate Scheme
Annual (January to December)

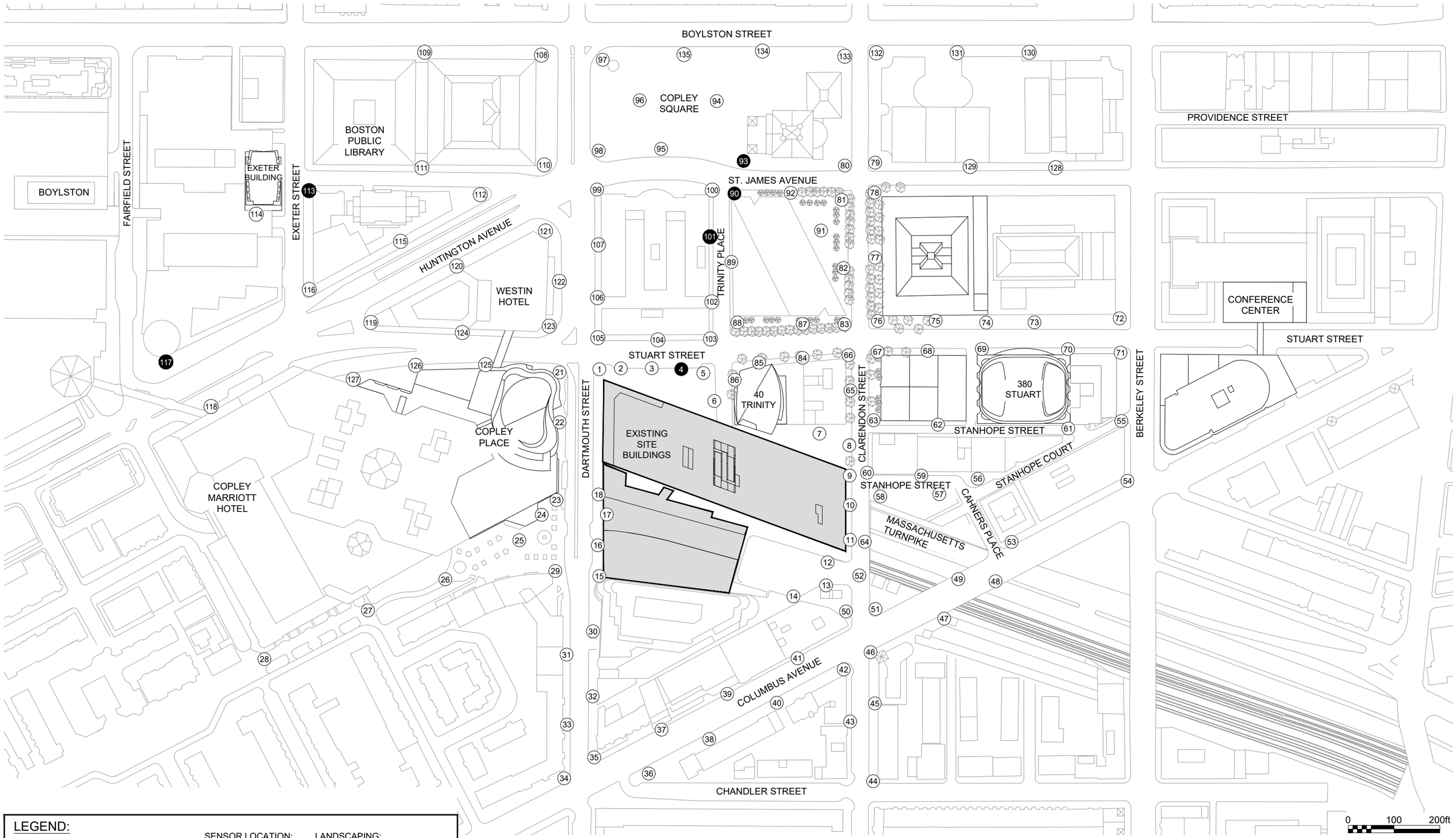
True North

Project Dartmouth - Boston, Massachusetts

Project #1601374

Drawn by:	ARM	Figure:	3c
Approx. Scale:			1"=200'
Date Revised:			May 18, 2016

RWDI



LEGEND:

EFFECTIVE GUST CATEGORIES:
- Acceptable
- Unacceptable

SENSOR LOCATION:
- Grade Level

LANDSCAPING:
- Existing Marcescent Shrubs
- Existing Marcescent Trees

Pedestrian Wind Conditions - Effective Gust Speed - No Build
Annual (January to December)

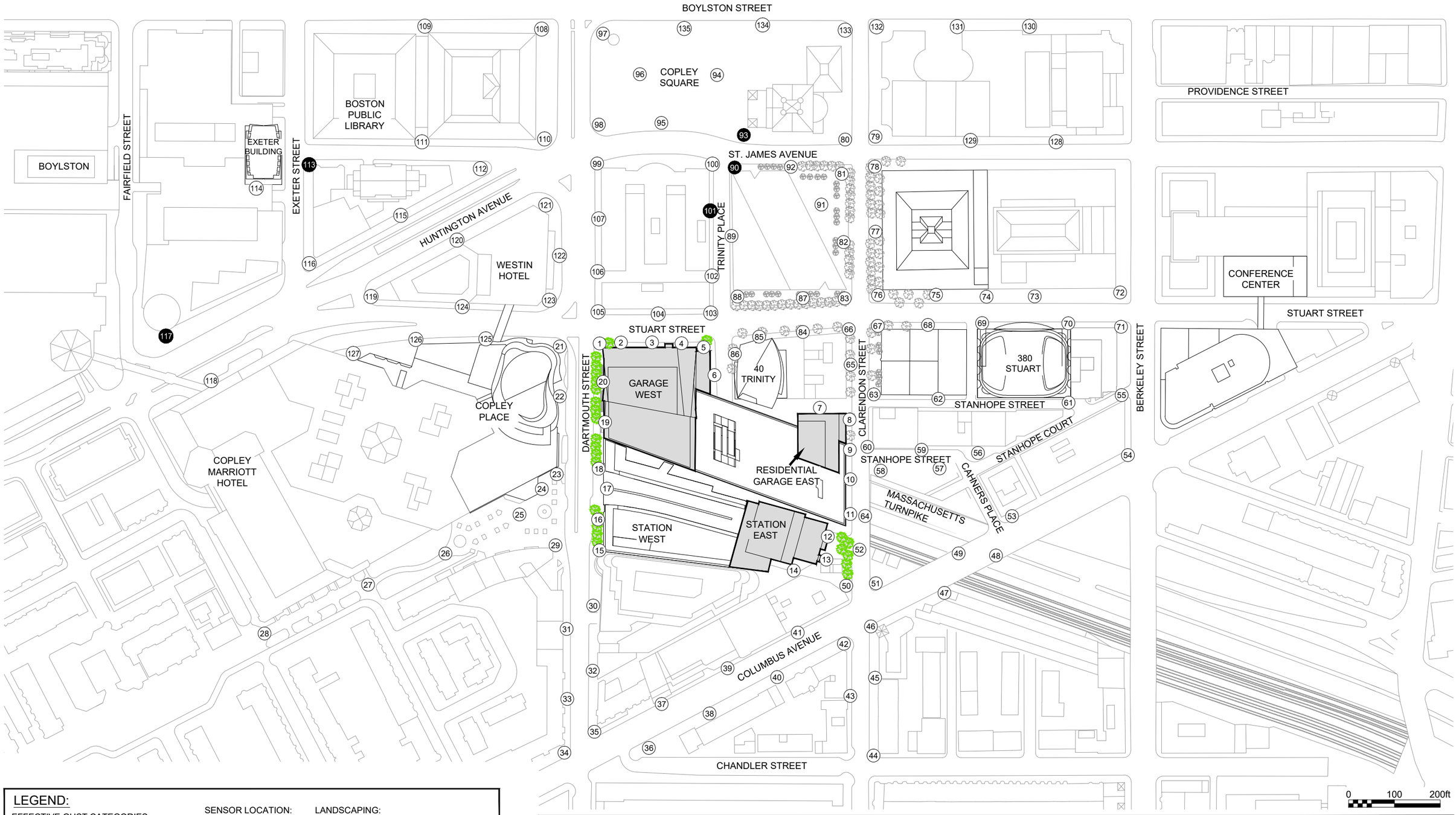
True North

Back Bay / South End Gateway Project - Boston, MA

Project #1601374

Drawn by:	ARM	Figure:	4a
Approx. Scale:			1"=200'
Date Revised:			May 18, 2016

RWDI



LEGEND:

EFFECTIVE GUST CATEGORIES:
- Acceptable
- Unacceptable

SENSOR LOCATION:
- Grade Level

LANDSCAPING:
- Existing Marcescent Shrubs - 8' Tall
- Existing Marcescent Trees - 20' Tall
- Proposed Marcescent Trees - 20' Tall

Pedestrian Wind Conditions - Effective Gust Speed - Base Scheme

Annual (January to December)

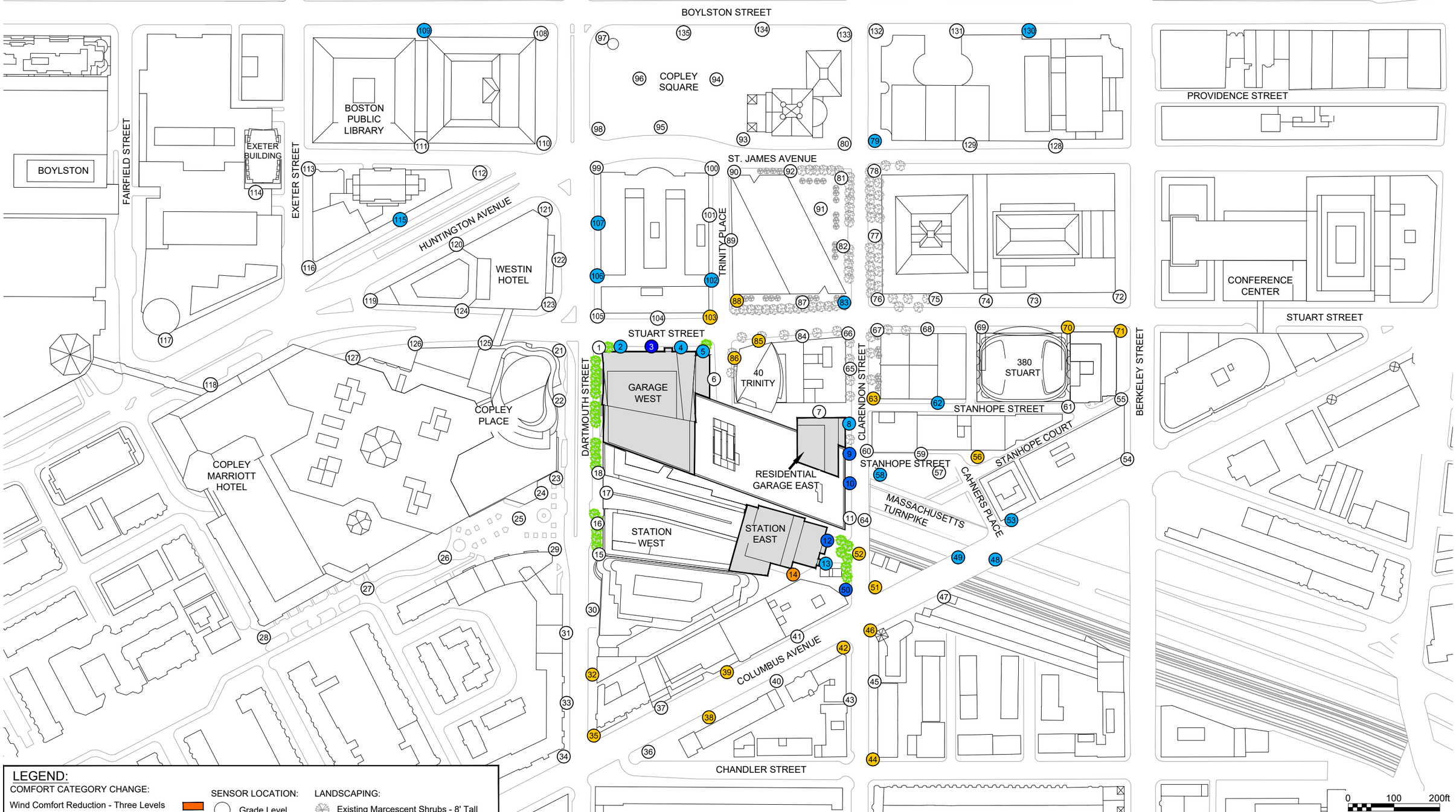
True North

Project Dartmouth - Boston, Massachusetts

Project #1601374

Drawn by:	ARM	Figure:	4b
Approx. Scale:			1"=200'
Date Revised:			May 18, 2016

RWDI



LEGEND:

COMFORT CATEGORY CHANGE:

- Wind Comfort Reduction - Three Levels
- Wind Comfort Reduction - Two Levels
- Wind Comfort Reduction - One Level
- No Comfort Category Change
- Wind Comfort Improvement - One Level
- Wind Comfort Improvement - Two Levels
- Wind Comfort Improvement - Three Levels

SENSOR LOCATION:

- Grade Level

LANDSCAPING:

- Existing Marcescent Shrubs - 8' Tall
- Existing Marcescent Trees - 20' Tall
- Proposed Marcescent Trees - 20' Tall

Pedestrian Wind Conditions - Category Change - No Build to Base Scheme

Annual (January to December)

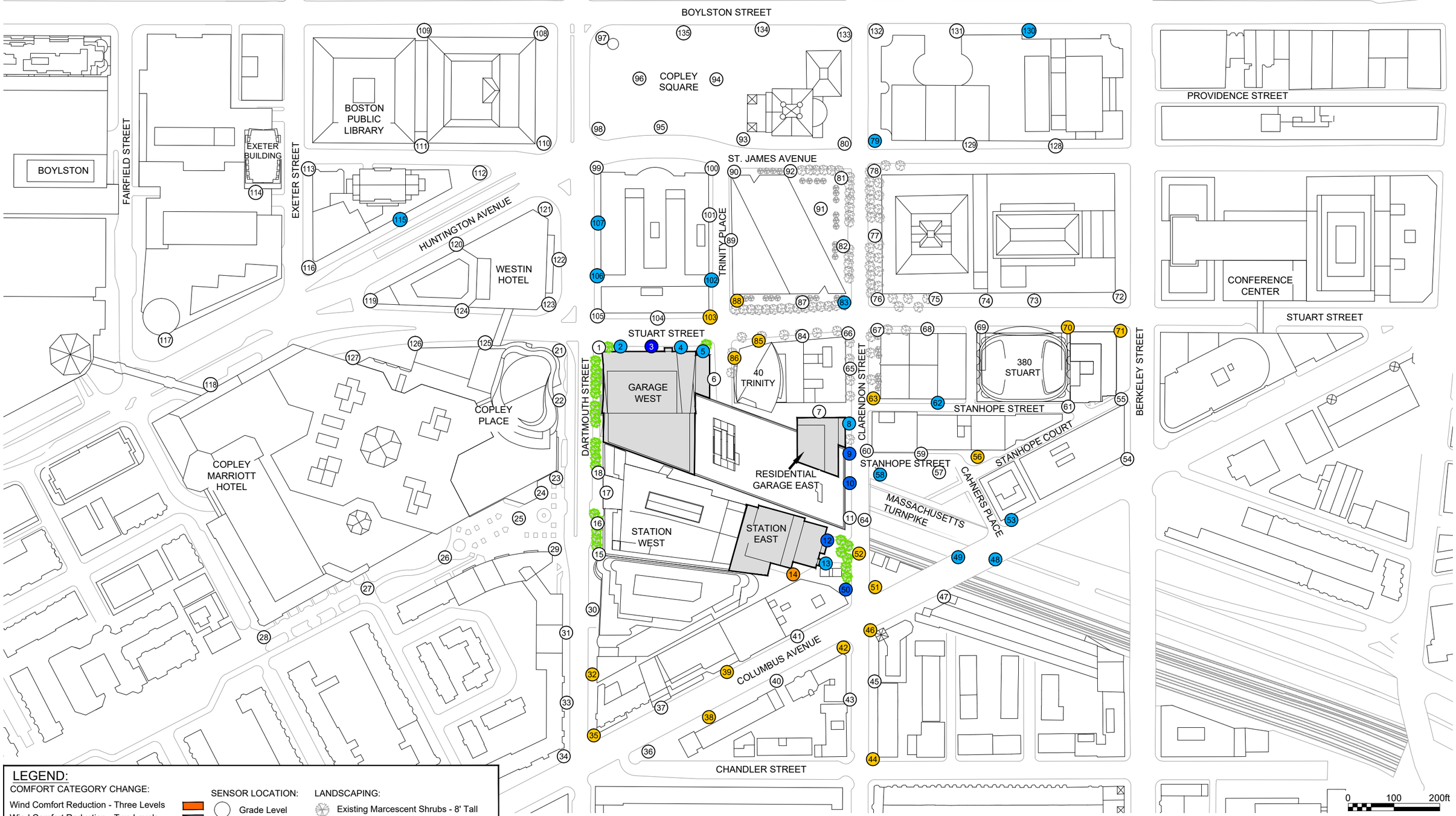
True North

Project Dartmouth - Boston, Massachusetts

Project #1601374

Drawn by:	ARM	Figure:	5a
Approx. Scale:			1"=200'
Date Revised:			May 18, 2016

RWDI



LEGEND:

COMFORT CATEGORY CHANGE:

- Wind Comfort Reduction - Three Levels
- Wind Comfort Reduction - Two Levels
- Wind Comfort Reduction - One Level
- No Comfort Category Change
- Wind Comfort Improvement - One Level
- Wind Comfort Improvement - Two Levels
- Wind Comfort Improvement - Three Levels

SENSOR LOCATION:

- Grade Level

LANDSCAPING:

- Existing Marcescent Shrubs - 8' Tall
- Existing Marcescent Trees - 20' Tall
- Proposed Marcescent Trees - 20' Tall

Pedestrian Wind Conditions - Category Change - No Build to Alternate Scheme

Annual (January to December)

True North

Project Dartmouth - Boston, Massachusetts

Project #1601374

Drawn by:	ARM	Figure:	5b
Approx. Scale:			1"=200'
Date Revised:			May 18, 2016

RWDI

TABLES

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
1	A	Spring	21		Uncomfortable	31		Acceptable
		Summer	16		Walking	23		Acceptable
		Fall	19		Walking	28		Acceptable
		Winter	22		Uncomfortable	32		Unacceptable
		Annual	20		Uncomfortable	29		Acceptable
	B	Spring	21		Uncomfortable	30		Acceptable
		Summer	16		Walking	23		Acceptable
		Fall	19		Walking	27		Acceptable
		Winter	23		Uncomfortable	32		Unacceptable
		Annual	21		Uncomfortable	29		Acceptable
	C	Spring	21		Uncomfortable	30		Acceptable
		Summer	16		Walking	23		Acceptable
		Fall	19		Walking	27		Acceptable
		Winter	22		Uncomfortable	32		Unacceptable
		Annual	21		Uncomfortable	29		Acceptable
2	A	Spring	21		Uncomfortable	31		Acceptable
		Summer	16		Walking	23		Acceptable
		Fall	20		Uncomfortable	28		Acceptable
		Winter	24		Uncomfortable	34		Unacceptable
		Annual	21		Uncomfortable	30		Acceptable
	B	Spring	19		Walking	28		Acceptable
		Summer	14	-12%	Standing	21		Acceptable
		Fall	17	-15%	Walking	26		Acceptable
		Winter	20	-17%	Uncomfortable	30	-12%	Acceptable
		Annual	18	-14%	Walking	27		Acceptable
	C	Spring	19		Walking	28		Acceptable
		Summer	14	-12%	Standing	21		Acceptable
		Fall	17	-15%	Walking	26		Acceptable
		Winter	20	-17%	Uncomfortable	30	-12%	Acceptable
		Annual	18	-14%	Walking	28		Acceptable
3	A	Spring	23		Uncomfortable	31		Acceptable
		Summer	17		Walking	23		Acceptable
		Fall	21		Uncomfortable	29		Acceptable
		Winter	26		Uncomfortable	35		Unacceptable
		Annual	23		Uncomfortable	31		Acceptable
	B	Spring	12	-48%	Sitting	19	-39%	Acceptable
		Summer	10	-41%	Sitting	16	-30%	Acceptable
		Fall	11	-48%	Sitting	18	-38%	Acceptable
		Winter	13	-50%	Standing	20	-43%	Acceptable
		Annual	12	-48%	Sitting	19	-39%	Acceptable
	C	Spring	12	-48%	Sitting	19	-39%	Acceptable
		Summer	10	-41%	Sitting	15	-35%	Acceptable
		Fall	12	-43%	Sitting	19	-34%	Acceptable
		Winter	13	-50%	Standing	21	-40%	Acceptable
		Annual	12	-48%	Sitting	19	-39%	Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
4	A	Spring	24		Uncomfortable	33		Unacceptable
		Summer	17		Walking	24		Acceptable
		Fall	22		Uncomfortable	30		Acceptable
		Winter	26		Uncomfortable	36		Unacceptable
		Annual	24		Uncomfortable	33		Unacceptable
	B	Spring	17	-29%	Walking	25	-24%	Acceptable
		Summer	13	-24%	Standing	18	-25%	Acceptable
		Fall	16	-27%	Walking	23	-23%	Acceptable
		Winter	17	-35%	Walking	25	-31%	Acceptable
		Annual	16	-33%	Walking	23	-30%	Acceptable
	C	Spring	18	-25%	Walking	25	-24%	Acceptable
		Summer	13	-24%	Standing	18	-25%	Acceptable
		Fall	16	-27%	Walking	23	-23%	Acceptable
		Winter	17	-35%	Walking	25	-31%	Acceptable
		Annual	16	-33%	Walking	24	-27%	Acceptable
5	A	Spring	22		Uncomfortable	32		Unacceptable
		Summer	16		Walking	24		Acceptable
		Fall	21		Uncomfortable	30		Acceptable
		Winter	24		Uncomfortable	34		Unacceptable
		Annual	22		Uncomfortable	31		Acceptable
	B	Spring	19	-14%	Walking	27	-16%	Acceptable
		Summer	15		Standing	20	-17%	Acceptable
		Fall	18	-14%	Walking	25	-17%	Acceptable
		Winter	21	-12%	Uncomfortable	29	-15%	Acceptable
		Annual	19	-14%	Walking	26	-16%	Acceptable
	C	Spring	19	-14%	Walking	27	-16%	Acceptable
		Summer	14	-12%	Standing	20	-17%	Acceptable
		Fall	17	-19%	Walking	25	-17%	Acceptable
		Winter	21	-12%	Uncomfortable	29	-15%	Acceptable
		Annual	19	-14%	Walking	26	-16%	Acceptable
6	A	Spring	16		Walking	25		Acceptable
		Summer	13		Standing	20		Acceptable
		Fall	15		Standing	24		Acceptable
		Winter	16		Walking	25		Acceptable
		Annual	15		Standing	24		Acceptable
	B	Spring	15		Standing	22	-12%	Acceptable
		Summer	12		Sitting	17	-15%	Acceptable
		Fall	14		Standing	21	-12%	Acceptable
		Winter	15		Standing	22	-12%	Acceptable
		Annual	14		Standing	21	-12%	Acceptable
	C	Spring	15		Standing	23		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	14		Standing	21	-12%	Acceptable
		Winter	15		Standing	22	-12%	Acceptable
		Annual	14		Standing	21	-12%	Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
7	A	Spring	16		Walking	25		Acceptable
		Summer	13		Standing	20		Acceptable
		Fall	15		Standing	23		Acceptable
		Winter	17		Walking	26		Acceptable
		Annual	16		Walking	24		Acceptable
	B	Spring	18	+12%	Walking	24		Acceptable
		Summer	16	+23%	Walking	20		Acceptable
		Fall	17	+13%	Walking	22		Acceptable
		Winter	18		Walking	24		Acceptable
		Annual	17		Walking	23		Acceptable
	C	Spring	19	+19%	Walking	24		Acceptable
		Summer	16	+23%	Walking	21		Acceptable
		Fall	17	+13%	Walking	23		Acceptable
		Winter	18		Walking	24		Acceptable
		Annual	18	+12%	Walking	23		Acceptable
8	A	Spring	18		Walking	27		Acceptable
		Summer	14		Standing	20		Acceptable
		Fall	17		Walking	25		Acceptable
		Winter	20		Uncomfortable	28		Acceptable
		Annual	18		Walking	26		Acceptable
	B	Spring	15	-17%	Standing	22	-19%	Acceptable
		Summer	12	-14%	Sitting	17	-15%	Acceptable
		Fall	15	-12%	Standing	21	-16%	Acceptable
		Winter	16	-20%	Walking	23	-18%	Acceptable
		Annual	15	-17%	Standing	21	-19%	Acceptable
	C	Spring	15	-17%	Standing	22	-19%	Acceptable
		Summer	12	-14%	Sitting	17	-15%	Acceptable
		Fall	15	-12%	Standing	21	-16%	Acceptable
		Winter	16	-20%	Walking	23	-18%	Acceptable
		Annual	15	-17%	Standing	21	-19%	Acceptable
9	A	Spring	20		Uncomfortable	29		Acceptable
		Summer	16		Walking	23		Acceptable
		Fall	19		Walking	28		Acceptable
		Winter	22		Uncomfortable	32		Unacceptable
		Annual	20		Uncomfortable	29		Acceptable
	B	Spring	15	-25%	Standing	23	-21%	Acceptable
		Summer	11	-31%	Sitting	18	-22%	Acceptable
		Fall	14	-26%	Standing	22	-21%	Acceptable
		Winter	17	-23%	Walking	26	-19%	Acceptable
		Annual	15	-25%	Standing	23	-21%	Acceptable
	C	Spring	14	-30%	Standing	23	-21%	Acceptable
		Summer	11	-31%	Sitting	17	-26%	Acceptable
		Fall	14	-26%	Standing	21	-25%	Acceptable
		Winter	16	-27%	Walking	25	-22%	Acceptable
		Annual	14	-30%	Standing	23	-21%	Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
10	A	Spring	16		Walking	25		Acceptable
		Summer	12		Sitting	19		Acceptable
		Fall	15		Standing	23		Acceptable
		Winter	18		Walking	28		Acceptable
		Annual	16		Walking	25		Acceptable
	B	Spring	12	-25%	Sitting	19	-24%	Acceptable
		Summer	9	-25%	Sitting	15	-21%	Acceptable
		Fall	11	-27%	Sitting	18	-22%	Acceptable
		Winter	14	-22%	Standing	22	-21%	Acceptable
		Annual	12	-25%	Sitting	19	-24%	Acceptable
	C	Spring	12	-25%	Sitting	19	-24%	Acceptable
		Summer	9	-25%	Sitting	14	-26%	Acceptable
		Fall	11	-27%	Sitting	18	-22%	Acceptable
		Winter	13	-28%	Standing	22	-21%	Acceptable
		Annual	12	-25%	Sitting	19	-24%	Acceptable
11	A	Spring	15		Standing	23		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	17		Walking	25		Acceptable
		Annual	15		Standing	23		Acceptable
	B	Spring	14		Standing	21		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	13	-13%	Standing	20		Acceptable
		Winter	15	-12%	Standing	23		Acceptable
		Annual	14		Standing	21		Acceptable
	C	Spring	14		Standing	22		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	13	-13%	Standing	21		Acceptable
		Winter	16		Walking	23		Acceptable
		Annual	14		Standing	21		Acceptable
12	A	Spring	20		Uncomfortable	27		Acceptable
		Summer	15		Standing	21		Acceptable
		Fall	18		Walking	25		Acceptable
		Winter	20		Uncomfortable	28		Acceptable
		Annual	18		Walking	26		Acceptable
	B	Spring	12	-40%	Sitting	19	-30%	Acceptable
		Summer	11	-27%	Sitting	16	-24%	Acceptable
		Fall	11	-39%	Sitting	18	-28%	Acceptable
		Winter	12	-40%	Sitting	18	-36%	Acceptable
		Annual	11	-39%	Sitting	18	-31%	Acceptable
	C	Spring	12	-40%	Sitting	19	-30%	Acceptable
		Summer	11	-27%	Sitting	16	-24%	Acceptable
		Fall	11	-39%	Sitting	18	-28%	Acceptable
		Winter	12	-40%	Sitting	18	-36%	Acceptable
		Annual	11	-39%	Sitting	18	-31%	Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
13	A	Spring	17		Walking	26		Acceptable
		Summer	13		Standing	20		Acceptable
		Fall	16		Walking	24		Acceptable
		Winter	18		Walking	28		Acceptable
		Annual	16		Walking	25		Acceptable
	B	Spring	14	-18%	Standing	20	-23%	Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	13	-19%	Standing	19	-21%	Acceptable
		Winter	13	-28%	Standing	19	-32%	Acceptable
		Annual	13	-19%	Standing	19	-24%	Acceptable
	C	Spring	14	-18%	Standing	20	-23%	Acceptable
		Summer	12		Sitting	17	-15%	Acceptable
		Fall	13	-19%	Standing	19	-21%	Acceptable
		Winter	13	-28%	Standing	20	-29%	Acceptable
		Annual	13	-19%	Standing	19	-24%	Acceptable
14	A	Spring	14		Standing	21		Acceptable
		Summer	10		Sitting	16		Acceptable
		Fall	13		Standing	20		Acceptable
		Winter	13		Standing	21		Acceptable
		Annual	13		Standing	20		Acceptable
	B	Spring	23	+156%	Uncomfortable	30	+100%	Acceptable
		Summer	18	+157%	Walking	22	+100%	Acceptable
		Fall	21	+133%	Uncomfortable	27	+93%	Acceptable
		Winter	23	+130%	Uncomfortable	29	+81%	Acceptable
		Annual	21	+133%	Uncomfortable	27	+80%	Acceptable
	C	Spring	23	+156%	Uncomfortable	29	+93%	Acceptable
		Summer	18	+157%	Walking	22	+100%	Acceptable
		Fall	21	+133%	Uncomfortable	27	+93%	Acceptable
		Winter	23	+130%	Uncomfortable	29	+81%	Acceptable
		Annual	21	+133%	Uncomfortable	27	+80%	Acceptable
15	A	Spring	12		Sitting	18		Acceptable
		Summer	10		Sitting	15		Acceptable
		Fall	12		Sitting	17		Acceptable
		Winter	12		Sitting	18		Acceptable
		Annual	12		Sitting	17		Acceptable
	B	Spring	11		Sitting	17		Acceptable
		Summer	9		Sitting	13	-13%	Acceptable
		Fall	11		Sitting	16		Acceptable
		Winter	12		Sitting	18		Acceptable
		Annual	11		Sitting	17		Acceptable
	C	Spring	11		Sitting	16	-11%	Acceptable
		Summer	9		Sitting	13	-13%	Acceptable
		Fall	10	-17%	Sitting	15	-12%	Acceptable
		Winter	12		Sitting	17		Acceptable
		Annual	11		Sitting	16		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
16	A	Spring	10		Sitting	17		Acceptable
		Summer	8		Sitting	14		Acceptable
		Fall	9		Sitting	16		Acceptable
		Winter	10		Sitting	17		Acceptable
		Annual	9		Sitting	16		Acceptable
	B	Spring	10		Sitting	17		Acceptable
		Summer	7	-12%	Sitting	12	-14%	Acceptable
		Fall	9		Sitting	15		Acceptable
		Winter	11		Sitting	17		Acceptable
		Annual	10	+11%	Sitting	16		Acceptable
	C	Spring	10		Sitting	17		Acceptable
		Summer	7	-12%	Sitting	12	-14%	Acceptable
		Fall	9		Sitting	15		Acceptable
		Winter	10		Sitting	17		Acceptable
		Annual	9		Sitting	15		Acceptable
17	A	Spring	8		Sitting	13		Acceptable
		Summer	7		Sitting	11		Acceptable
		Fall	7		Sitting	12		Acceptable
		Winter	8		Sitting	13		Acceptable
		Annual	7		Sitting	12		Acceptable
	B	Spring	8		Sitting	11	-15%	Acceptable
		Summer	6	-14%	Sitting	8	-27%	Acceptable
		Fall	7		Sitting	10	-17%	Acceptable
		Winter	9	+12%	Sitting	12		Acceptable
		Annual	8	+14%	Sitting	11		Acceptable
	C	Spring	7	-12%	Sitting	11	-15%	Acceptable
		Summer	6	-14%	Sitting	8	-27%	Acceptable
		Fall	7		Sitting	10	-17%	Acceptable
		Winter	8		Sitting	12		Acceptable
		Annual	7		Sitting	11		Acceptable
18	A	Spring	13		Standing	20		Acceptable
		Summer	11		Sitting	16		Acceptable
		Fall	13		Standing	19		Acceptable
		Winter	13		Standing	21		Acceptable
		Annual	12		Sitting	19		Acceptable
	B	Spring	11	-15%	Sitting	17	-15%	Acceptable
		Summer	8	-27%	Sitting	13	-19%	Acceptable
		Fall	10	-23%	Sitting	16	-16%	Acceptable
		Winter	12		Sitting	17	-19%	Acceptable
		Annual	11		Sitting	16	-16%	Acceptable
	C	Spring	11	-15%	Sitting	17	-15%	Acceptable
		Summer	8	-27%	Sitting	13	-19%	Acceptable
		Fall	10	-23%	Sitting	16	-16%	Acceptable
		Winter	11	-15%	Sitting	17	-19%	Acceptable
		Annual	11		Sitting	16	-16%	Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
19	A	Data Not Available						
	B	Spring	10		Uncomfortable	27		Acceptable
		Summer	10		Walking	24		Acceptable
		Fall	11		Uncomfortable	26		Acceptable
		Winter	11		Uncomfortable	27		Acceptable
		Annual	11		Sitting	26		Acceptable
	C	Spring	11		Uncomfortable	27		Acceptable
		Summer	10		Walking	24		Acceptable
		Fall	11		Uncomfortable	26		Acceptable
		Winter	11		Uncomfortable	28		Acceptable
		Annual	11		Sitting	26		Acceptable
20	A	Data Not Available						
	B	Spring	13		Standing	20		Acceptable
		Summer	10		Sitting	15		Acceptable
		Fall	12		Sitting	19		Acceptable
		Winter	12		Sitting	19		Acceptable
		Annual	12		Sitting	18		Acceptable
	C	Spring	13		Standing	20		Acceptable
		Summer	10		Sitting	15		Acceptable
		Fall	12		Sitting	19		Acceptable
		Winter	12		Sitting	19		Acceptable
		Annual	12		Sitting	18		Acceptable
21	A	Spring	18		Walking	25		Acceptable
		Summer	14		Standing	19		Acceptable
		Fall	17		Walking	23		Acceptable
		Winter	18		Walking	25		Acceptable
		Annual	17		Walking	24		Acceptable
	B	Spring	19		Walking	26		Acceptable
		Summer	15		Standing	20		Acceptable
		Fall	18		Walking	24		Acceptable
		Winter	20	+11%	Uncomfortable	27		Acceptable
		Annual	18		Walking	25		Acceptable
	C	Spring	19		Walking	27		Acceptable
		Summer	15		Standing	20		Acceptable
		Fall	18		Walking	25		Acceptable
		Winter	20	+11%	Uncomfortable	28	+12%	Acceptable
		Annual	18		Walking	25		Acceptable
22	A	Spring	15		Standing	23		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	14		Standing	22		Acceptable
		Winter	16		Walking	24		Acceptable
		Annual	15		Standing	22		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	12		Walking	25		Acceptable
		Summer	13		Standing	20		Acceptable
		Fall	15		Walking	23		Acceptable
		Winter	15		Walking	25		Acceptable
		Annual	14		Standing	24		Acceptable
	C	Spring	15		Walking	25		Acceptable
		Summer	12		Standing	20		Acceptable
		Fall	14		Standing	24		Acceptable
		Winter	16		Walking	26		Acceptable
		Annual	14		Standing	24		Acceptable
23	A	Spring	11		Sitting	18		Acceptable
		Summer	10		Sitting	14		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	11		Sitting	18		Acceptable
		Annual	11		Sitting	17		Acceptable
	B	Spring	9	-18%	Sitting	14	-22%	Acceptable
		Summer	8	-20%	Sitting	12	-14%	Acceptable
		Fall	9	-18%	Sitting	14	-18%	Acceptable
		Winter	9	-18%	Sitting	14	-22%	Acceptable
		Annual	9	-18%	Sitting	14	-18%	Acceptable
	C	Spring	9	-18%	Sitting	15	-17%	Acceptable
		Summer	8	-20%	Sitting	12	-14%	Acceptable
		Fall	9	-18%	Sitting	14	-18%	Acceptable
		Winter	9	-18%	Sitting	15	-17%	Acceptable
		Annual	9	-18%	Sitting	14	-18%	Acceptable
24	A	Spring	9		Sitting	14		Acceptable
		Summer	7		Sitting	11		Acceptable
		Fall	8		Sitting	14		Acceptable
		Winter	9		Sitting	15		Acceptable
		Annual	8		Sitting	14		Acceptable
	B	Spring	9		Sitting	14		Acceptable
		Summer	7		Sitting	10		Acceptable
		Fall	8		Sitting	13		Acceptable
		Winter	10	+11%	Sitting	15		Acceptable
		Annual	9	+12%	Sitting	14		Acceptable
	C	Spring	9		Sitting	14		Acceptable
		Summer	7		Sitting	11		Acceptable
		Fall	8		Sitting	13		Acceptable
		Winter	10	+11%	Sitting	15		Acceptable
		Annual	9	+12%	Sitting	14		Acceptable
25	A	Spring	15		Standing	22		Acceptable
		Summer	13		Standing	18		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	16		Walking	24		Acceptable
		Annual	15		Standing	22		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	14		Standing	21		Acceptable
		Summer	11	-15%	Sitting	16	-11%	Acceptable
		Fall	13	-13%	Standing	20		Acceptable
		Winter	15		Standing	23		Acceptable
		Annual	14		Standing	21		Acceptable
	C	Spring	14		Standing	21		Acceptable
		Summer	11	-15%	Sitting	16	-11%	Acceptable
		Fall	13	-13%	Standing	20		Acceptable
		Winter	16		Walking	23		Acceptable
		Annual	14		Standing	21		Acceptable
26	A	Spring	17		Walking	24		Acceptable
		Summer	14		Standing	19		Acceptable
		Fall	16		Walking	23		Acceptable
		Winter	17		Walking	25		Acceptable
		Annual	16		Walking	23		Acceptable
	B	Spring	16		Walking	23		Acceptable
		Summer	13		Standing	18		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	18		Walking	25		Acceptable
		Annual	16		Walking	23		Acceptable
	C	Spring	16		Walking	23		Acceptable
		Summer	13		Standing	18		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	17		Walking	25		Acceptable
		Annual	16		Walking	23		Acceptable
27	A	Spring	11		Sitting	18		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	12		Sitting	18		Acceptable
		Annual	11		Sitting	17		Acceptable
	B	Spring	10		Sitting	16	-11%	Acceptable
		Summer	8	-11%	Sitting	13		Acceptable
		Fall	10		Sitting	16		Acceptable
		Winter	11		Sitting	18		Acceptable
		Annual	10		Sitting	16		Acceptable
	C	Spring	10		Sitting	16	-11%	Acceptable
		Summer	8	-11%	Sitting	13		Acceptable
		Fall	10		Sitting	16		Acceptable
		Winter	11		Sitting	18		Acceptable
		Annual	10		Sitting	16		Acceptable
28	A	Spring	14		Standing	20		Acceptable
		Summer	13		Standing	17		Acceptable
		Fall	14		Standing	19		Acceptable
		Winter	15		Standing	21		Acceptable
		Annual	14		Standing	20		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	14		Standing	20		Acceptable
		Summer	12		Sitting	17		Acceptable
		Fall	13		Standing	19		Acceptable
		Winter	14		Standing	21		Acceptable
		Annual	13		Standing	19		Acceptable
	C	Spring	14		Standing	20		Acceptable
		Summer	12		Sitting	17		Acceptable
		Fall	13		Standing	19		Acceptable
		Winter	15		Standing	21		Acceptable
		Annual	14		Standing	19		Acceptable
29	A	Spring	12		Sitting	19		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	12		Sitting	18		Acceptable
		Winter	13		Standing	20		Acceptable
		Annual	12		Sitting	19		Acceptable
	B	Spring	12		Sitting	19		Acceptable
		Summer	10		Sitting	15	-12%	Acceptable
		Fall	11		Sitting	18		Acceptable
		Winter	13		Standing	20		Acceptable
		Annual	12		Sitting	18		Acceptable
	C	Spring	12		Sitting	19		Acceptable
		Summer	10		Sitting	15	-12%	Acceptable
		Fall	11		Sitting	18		Acceptable
		Winter	13		Standing	20		Acceptable
		Annual	12		Sitting	18		Acceptable
30	A	Spring	11		Sitting	17		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	10		Sitting	17		Acceptable
		Winter	11		Sitting	18		Acceptable
		Annual	10		Sitting	17		Acceptable
	B	Spring	12		Sitting	19	+12%	Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	14	+27%	Standing	20	+11%	Acceptable
		Annual	12	+20%	Sitting	18		Acceptable
	C	Spring	13	+18%	Standing	19	+12%	Acceptable
		Summer	10	+11%	Sitting	15		Acceptable
		Fall	12	+20%	Sitting	17		Acceptable
		Winter	14	+27%	Standing	20	+11%	Acceptable
		Annual	12	+20%	Sitting	18		Acceptable
31	A	Spring	10		Sitting	15		Acceptable
		Summer	8		Sitting	12		Acceptable
		Fall	9		Sitting	15		Acceptable
		Winter	10		Sitting	16		Acceptable
		Annual	10		Sitting	15		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	11		Sitting	17	+13%	Acceptable
		Summer	8		Sitting	13		Acceptable
		Fall	10	+11%	Sitting	16		Acceptable
		Winter	12	+20%	Sitting	18	+12%	Acceptable
		Annual	11		Sitting	17	+13%	Acceptable
	C	Spring	11		Sitting	16		Acceptable
		Summer	8		Sitting	13		Acceptable
		Fall	10	+11%	Sitting	16		Acceptable
		Winter	12	+20%	Sitting	18	+12%	Acceptable
		Annual	11		Sitting	16		Acceptable
32	A	Spring	11		Sitting	18		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	12		Sitting	20		Acceptable
		Annual	11		Sitting	18		Acceptable
	B	Spring	13	+18%	Standing	19		Acceptable
		Summer	10	+11%	Sitting	15		Acceptable
		Fall	12		Sitting	18		Acceptable
		Winter	14	+17%	Standing	21		Acceptable
		Annual	13	+18%	Standing	19		Acceptable
	C	Spring	13	+18%	Standing	19		Acceptable
		Summer	10	+11%	Sitting	15		Acceptable
		Fall	12		Sitting	18		Acceptable
		Winter	14	+17%	Standing	21		Acceptable
		Annual	13	+18%	Standing	19		Acceptable
33	A	Spring	9		Sitting	14		Acceptable
		Summer	7		Sitting	12		Acceptable
		Fall	8		Sitting	13		Acceptable
		Winter	10		Sitting	15		Acceptable
		Annual	9		Sitting	14		Acceptable
	B	Spring	11	+22%	Sitting	17	+21%	Acceptable
		Summer	9	+29%	Sitting	13		Acceptable
		Fall	9	+12%	Sitting	14		Acceptable
		Winter	11		Sitting	16		Acceptable
		Annual	10	+11%	Sitting	15		Acceptable
	C	Spring	11	+22%	Sitting	16	+14%	Acceptable
		Summer	9	+29%	Sitting	13		Acceptable
		Fall	9	+12%	Sitting	14		Acceptable
		Winter	11		Sitting	16		Acceptable
		Annual	10	+11%	Sitting	15		Acceptable
34	A	Spring	15		Standing	20		Acceptable
		Summer	12		Sitting	16		Acceptable
		Fall	14		Standing	19		Acceptable
		Winter	15		Standing	20		Acceptable
		Annual	14		Standing	19		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	13	-13%	Standing	19		Acceptable
		Summer	11		Sitting	15		Acceptable
		Fall	12	-14%	Sitting	18		Acceptable
		Winter	14		Standing	19		Acceptable
		Annual	13		Standing	18		Acceptable
	C	Spring	13	-13%	Standing	19		Acceptable
		Summer	11		Sitting	16		Acceptable
		Fall	12	-14%	Sitting	17	-11%	Acceptable
		Winter	14		Standing	19		Acceptable
		Annual	13		Standing	18		Acceptable
35	A	Spring	13		Standing	18		Acceptable
		Summer	11		Sitting	15		Acceptable
		Fall	12		Sitting	17		Acceptable
		Winter	14		Standing	19		Acceptable
		Annual	12		Sitting	18		Acceptable
	B	Spring	16	+23%	Walking	21	+17%	Acceptable
		Summer	13	+18%	Standing	17	+13%	Acceptable
		Fall	14	+17%	Standing	19	+12%	Acceptable
		Winter	16	+14%	Walking	22	+16%	Acceptable
		Annual	15	+25%	Standing	20	+11%	Acceptable
	C	Spring	16	+23%	Walking	21	+17%	Acceptable
		Summer	13	+18%	Standing	17	+13%	Acceptable
		Fall	14	+17%	Standing	19	+12%	Acceptable
		Winter	17	+21%	Walking	22	+16%	Acceptable
		Annual	15	+25%	Standing	21	+17%	Acceptable
36	A	Spring	11		Sitting	18		Acceptable
		Summer	9		Sitting	15		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	12		Sitting	19		Acceptable
		Annual	11		Sitting	17		Acceptable
	B	Spring	12		Sitting	18		Acceptable
		Summer	10	+11%	Sitting	15		Acceptable
		Fall	12		Sitting	17		Acceptable
		Winter	13		Standing	19		Acceptable
		Annual	12		Sitting	18		Acceptable
	C	Spring	11		Sitting	18		Acceptable
		Summer	10	+11%	Sitting	15		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	12		Sitting	19		Acceptable
		Annual	11		Sitting	18		Acceptable
37	A	Spring	15		Standing	20		Acceptable
		Summer	12		Sitting	16		Acceptable
		Fall	13		Standing	18		Acceptable
		Winter	15		Standing	21		Acceptable
		Annual	14		Standing	19		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	16		Walking	21		Acceptable
		Summer	13		Standing	17		Acceptable
		Fall	14		Standing	19		Acceptable
		Winter	16		Walking	21		Acceptable
		Annual	15		Standing	20		Acceptable
	C	Spring	16		Walking	21		Acceptable
		Summer	12		Sitting	16		Acceptable
		Fall	14		Standing	19		Acceptable
		Winter	16		Walking	21		Acceptable
		Annual	15		Standing	20		Acceptable
38	A	Spring	13		Standing	18		Acceptable
		Summer	10		Sitting	14		Acceptable
		Fall	12		Sitting	17		Acceptable
		Winter	13		Standing	18		Acceptable
		Annual	12		Sitting	17		Acceptable
	B	Spring	14		Standing	20	+11%	Acceptable
		Summer	11		Sitting	16	+14%	Acceptable
		Fall	13		Standing	18		Acceptable
		Winter	14		Standing	20	+11%	Acceptable
		Annual	13		Standing	18		Acceptable
	C	Spring	14		Standing	19		Acceptable
		Summer	11		Sitting	15		Acceptable
		Fall	12		Sitting	18		Acceptable
		Winter	14		Standing	19		Acceptable
		Annual	13		Standing	18		Acceptable
39	A	Spring	12		Sitting	18		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	11		Sitting	16		Acceptable
		Winter	12		Sitting	18		Acceptable
		Annual	11		Sitting	17		Acceptable
	B	Spring	14	+17%	Standing	20	+11%	Acceptable
		Summer	11	+22%	Sitting	15		Acceptable
		Fall	12		Sitting	17		Acceptable
		Winter	14	+17%	Standing	19		Acceptable
		Annual	13	+18%	Standing	18		Acceptable
	C	Spring	14	+17%	Standing	19		Acceptable
		Summer	11	+22%	Sitting	15		Acceptable
		Fall	12		Sitting	17		Acceptable
		Winter	14	+17%	Standing	19		Acceptable
		Annual	13	+18%	Standing	18		Acceptable
40	A	Spring	11		Sitting	17		Acceptable
		Summer	8		Sitting	13		Acceptable
		Fall	10		Sitting	16		Acceptable
		Winter	11		Sitting	16		Acceptable
		Annual	10		Sitting	16		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	13	+18%	Standing	20	+18%	Acceptable
		Summer	10	+25%	Sitting	15	+15%	Acceptable
		Fall	12	+20%	Sitting	18	+12%	Acceptable
		Winter	13	+18%	Standing	20	+25%	Acceptable
		Annual	12	+20%	Sitting	18	+12%	Acceptable
	C	Spring	13	+18%	Standing	19	+12%	Acceptable
		Summer	10	+25%	Sitting	15	+15%	Acceptable
		Fall	12	+20%	Sitting	18	+12%	Acceptable
		Winter	13	+18%	Standing	19	+19%	Acceptable
		Annual	12	+20%	Sitting	18	+12%	Acceptable
41	A	Spring	14		Standing	20		Acceptable
		Summer	10		Sitting	15		Acceptable
		Fall	13		Standing	18		Acceptable
		Winter	13		Standing	19		Acceptable
		Annual	13		Standing	18		Acceptable
	B	Spring	14		Standing	20		Acceptable
		Summer	10		Sitting	15		Acceptable
		Fall	13		Standing	19		Acceptable
		Winter	13		Standing	19		Acceptable
		Annual	13		Standing	19		Acceptable
	C	Spring	14		Standing	20		Acceptable
		Summer	10		Sitting	15		Acceptable
		Fall	13		Standing	19		Acceptable
		Winter	13		Standing	19		Acceptable
		Annual	13		Standing	19		Acceptable
42	A	Spring	15		Standing	21		Acceptable
		Summer	11		Sitting	16		Acceptable
		Fall	13		Standing	19		Acceptable
		Winter	14		Standing	20		Acceptable
		Annual	13		Standing	19		Acceptable
	B	Spring	17	+13%	Walking	23		Acceptable
		Summer	13	+18%	Standing	18	+12%	Acceptable
		Fall	16	+23%	Walking	22	+16%	Acceptable
		Winter	17	+21%	Walking	24	+20%	Acceptable
		Annual	16	+23%	Walking	22	+16%	Acceptable
	C	Spring	17	+13%	Walking	23		Acceptable
		Summer	13	+18%	Standing	18	+12%	Acceptable
		Fall	16	+23%	Walking	22	+16%	Acceptable
		Winter	17	+21%	Walking	24	+20%	Acceptable
		Annual	16	+23%	Walking	22	+16%	Acceptable
43	A	Spring	10		Sitting	16		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	10		Sitting	16		Acceptable
		Winter	11		Sitting	17		Acceptable
		Annual	10		Sitting	16		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	11		Sitting	18	+12%	Acceptable
		Summer	10	+11%	Sitting	15		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	12		Sitting	19	+12%	Acceptable
		Annual	11		Sitting	17		Acceptable
	C	Spring	11		Sitting	18	+12%	Acceptable
		Summer	10	+11%	Sitting	15		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	12		Sitting	19	+12%	Acceptable
		Annual	11		Sitting	18	+12%	Acceptable
44	A	Spring	12		Sitting	18		Acceptable
		Summer	10		Sitting	16		Acceptable
		Fall	11		Sitting	18		Acceptable
		Winter	12		Sitting	19		Acceptable
		Annual	12		Sitting	18		Acceptable
	B	Spring	13		Standing	20	+11%	Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	13	+18%	Standing	19		Acceptable
		Winter	13		Standing	20		Acceptable
		Annual	13		Standing	19		Acceptable
	C	Spring	13		Standing	20	+11%	Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	12		Sitting	19		Acceptable
		Winter	13		Standing	20		Acceptable
		Annual	13		Standing	19		Acceptable
45	A	Spring	11		Sitting	17		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	10		Sitting	16		Acceptable
		Winter	11		Sitting	18		Acceptable
		Annual	10		Sitting	16		Acceptable
	B	Spring	12		Sitting	18		Acceptable
		Summer	9		Sitting	15		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	12		Sitting	19		Acceptable
		Annual	11		Sitting	17		Acceptable
	C	Spring	11		Sitting	18		Acceptable
		Summer	9		Sitting	15		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	12		Sitting	19		Acceptable
		Annual	11		Sitting	17		Acceptable
46	A	Spring	16		Walking	22		Acceptable
		Summer	13		Standing	18		Acceptable
		Fall	15		Standing	21		Acceptable
		Winter	16		Walking	22		Acceptable
		Annual	15		Standing	21		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	18	+12%	Walking	24		Acceptable
		Summer	15	+15%	Standing	20	+11%	Acceptable
		Fall	17	+13%	Walking	23		Acceptable
		Winter	18	+12%	Walking	25	+14%	Acceptable
		Annual	17	+13%	Walking	23		Acceptable
	C	Spring	18	+12%	Walking	24		Acceptable
		Summer	15	+15%	Standing	20	+11%	Acceptable
		Fall	17	+13%	Walking	23		Acceptable
		Winter	18	+12%	Walking	25	+14%	Acceptable
		Annual	17	+13%	Walking	23		Acceptable
47	A	Spring	10		Sitting	16		Acceptable
		Summer	8		Sitting	13		Acceptable
		Fall	10		Sitting	15		Acceptable
		Winter	10		Sitting	16		Acceptable
		Annual	10		Sitting	15		Acceptable
	B	Spring	10		Sitting	17		Acceptable
		Summer	8		Sitting	13		Acceptable
		Fall	9		Sitting	15		Acceptable
		Winter	10		Sitting	16		Acceptable
		Annual	9		Sitting	16		Acceptable
	C	Spring	10		Sitting	16		Acceptable
		Summer	8		Sitting	13		Acceptable
		Fall	9		Sitting	15		Acceptable
		Winter	10		Sitting	16		Acceptable
		Annual	9		Sitting	15		Acceptable
48	A	Spring	18		Walking	24		Acceptable
		Summer	14		Standing	19		Acceptable
		Fall	16		Walking	22		Acceptable
		Winter	18		Walking	24		Acceptable
		Annual	17		Walking	23		Acceptable
	B	Spring	16	-11%	Walking	22		Acceptable
		Summer	13		Standing	17	-11%	Acceptable
		Fall	15		Standing	20		Acceptable
		Winter	16	-11%	Walking	22		Acceptable
		Annual	15	-12%	Standing	21		Acceptable
	C	Spring	16	-11%	Walking	22		Acceptable
		Summer	12	-14%	Sitting	17	-11%	Acceptable
		Fall	15		Standing	20		Acceptable
		Winter	16	-11%	Walking	22		Acceptable
		Annual	15	-12%	Standing	21		Acceptable
49	A	Spring	18		Walking	24		Acceptable
		Summer	14		Standing	18		Acceptable
		Fall	16		Walking	22		Acceptable
		Winter	18		Walking	24		Acceptable
		Annual	17		Walking	22		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	16	-11%	Walking	23		Acceptable
		Summer	12	-14%	Sitting	17		Acceptable
		Fall	15		Standing	21		Acceptable
		Winter	16	-11%	Walking	23		Acceptable
		Annual	15	-12%	Standing	21		Acceptable
	C	Spring	16	-11%	Walking	23		Acceptable
		Summer	12	-14%	Sitting	17		Acceptable
		Fall	15		Standing	21		Acceptable
		Winter	16	-11%	Walking	22		Acceptable
		Annual	15	-12%	Standing	21		Acceptable
50	A	Spring	16		Walking	25		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	15		Standing	23		Acceptable
		Winter	18		Walking	27		Acceptable
		Annual	16		Walking	25		Acceptable
	B	Spring	12	-25%	Sitting	19	-24%	Acceptable
		Summer	10	-17%	Sitting	16	-11%	Acceptable
		Fall	11	-27%	Sitting	18	-22%	Acceptable
		Winter	12	-33%	Sitting	20	-26%	Acceptable
		Annual	11	-31%	Sitting	18	-28%	Acceptable
	C	Spring	12	-25%	Sitting	19	-24%	Acceptable
		Summer	11		Sitting	16	-11%	Acceptable
		Fall	12	-20%	Sitting	18	-22%	Acceptable
		Winter	13	-28%	Standing	20	-26%	Acceptable
		Annual	12	-25%	Sitting	18	-28%	Acceptable
51	A	Spring	15		Standing	23		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	14		Standing	22		Acceptable
		Winter	16		Walking	25		Acceptable
		Annual	15		Standing	23		Acceptable
	B	Spring	18	+20%	Walking	24		Acceptable
		Summer	16	+45%	Walking	21	+24%	Acceptable
		Fall	17	+21%	Walking	23		Acceptable
		Winter	18	+12%	Walking	24		Acceptable
		Annual	17	+13%	Walking	23		Acceptable
	C	Spring	18	+20%	Walking	24		Acceptable
		Summer	16	+45%	Walking	21	+24%	Acceptable
		Fall	17	+21%	Walking	23		Acceptable
		Winter	18	+12%	Walking	24		Acceptable
		Annual	17	+13%	Walking	23		Acceptable
52	A	Spring	15		Standing	23		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	17		Walking	25		Acceptable
		Annual	15		Standing	23		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	17	+13%	Walking	24		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	16		Walking	23		Acceptable
		Winter	19	+12%	Walking	27		Acceptable
		Annual	17	+13%	Walking	24		Acceptable
	C	Spring	17	+13%	Walking	25		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	15		Standing	23		Acceptable
		Winter	18		Walking	27		Acceptable
		Annual	16		Walking	24		Acceptable
53	A	Spring	17		Walking	23		Acceptable
		Summer	15		Standing	21		Acceptable
		Fall	16		Walking	23		Acceptable
		Winter	17		Walking	25		Acceptable
		Annual	16		Walking	23		Acceptable
	B	Spring	15	-12%	Standing	22		Acceptable
		Summer	13	-13%	Standing	19		Acceptable
		Fall	14	-12%	Standing	21		Acceptable
		Winter	15	-12%	Standing	22	-12%	Acceptable
		Annual	14	-12%	Standing	21		Acceptable
	C	Spring	15	-12%	Standing	23		Acceptable
		Summer	13	-13%	Standing	20		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	16		Walking	23		Acceptable
		Annual	15		Standing	22		Acceptable
54	A	Spring	19		Walking	26		Acceptable
		Summer	14		Standing	20		Acceptable
		Fall	17		Walking	24		Acceptable
		Winter	19		Walking	27		Acceptable
		Annual	17		Walking	24		Acceptable
	B	Spring	18		Walking	26		Acceptable
		Summer	14		Standing	20		Acceptable
		Fall	17		Walking	24		Acceptable
		Winter	19		Walking	26		Acceptable
		Annual	17		Walking	24		Acceptable
	C	Spring	18		Walking	26		Acceptable
		Summer	14		Standing	20		Acceptable
		Fall	17		Walking	24		Acceptable
		Winter	19		Walking	26		Acceptable
		Annual	17		Walking	24		Acceptable
55	A	Spring	18		Walking	26		Acceptable
		Summer	15		Standing	21		Acceptable
		Fall	16		Walking	23		Acceptable
		Winter	18		Walking	26		Acceptable
		Annual	17		Walking	24		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	17		Walking	23	-12%	Acceptable
		Summer	14		Standing	19		Acceptable
		Fall	15		Standing	21		Acceptable
		Winter	17		Walking	24		Acceptable
		Annual	16		Walking	22		Acceptable
	C	Spring	17		Walking	24		Acceptable
		Summer	13	-13%	Standing	19		Acceptable
		Fall	15		Standing	21		Acceptable
		Winter	17		Walking	24		Acceptable
		Annual	16		Walking	22		Acceptable
56	A	Spring	15		Standing	23		Acceptable
		Summer	12		Sitting	17		Acceptable
		Fall	14		Standing	21		Acceptable
		Winter	16		Walking	24		Acceptable
		Annual	15		Standing	22		Acceptable
	B	Spring	18	+20%	Walking	24		Acceptable
		Summer	14	+17%	Standing	19	+12%	Acceptable
		Fall	16	+14%	Walking	22		Acceptable
		Winter	19	+19%	Walking	26		Acceptable
		Annual	17	+13%	Walking	24		Acceptable
	C	Spring	17	+13%	Walking	24		Acceptable
		Summer	13		Standing	19	+12%	Acceptable
		Fall	16	+14%	Walking	22		Acceptable
		Winter	18	+12%	Walking	26		Acceptable
		Annual	17	+13%	Walking	24		Acceptable
57	A	Spring	11		Sitting	17		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	10		Sitting	16		Acceptable
		Winter	11		Sitting	17		Acceptable
		Annual	10		Sitting	16		Acceptable
	B	Spring	11		Sitting	18		Acceptable
		Summer	10	+11%	Sitting	15		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	12		Sitting	18		Acceptable
		Annual	11		Sitting	17		Acceptable
	C	Spring	11		Sitting	17		Acceptable
		Summer	10	+11%	Sitting	15		Acceptable
		Fall	11		Sitting	16		Acceptable
		Winter	11		Sitting	18		Acceptable
		Annual	11		Sitting	17		Acceptable
58	A	Spring	15		Standing	25		Acceptable
		Summer	13		Standing	20		Acceptable
		Fall	14		Standing	23		Acceptable
		Winter	17		Walking	27		Acceptable
		Annual	15		Standing	24		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	12	-20%	Sitting	19	-24%	Acceptable
		Summer	9	-31%	Sitting	15	-25%	Acceptable
		Fall	11	-21%	Sitting	18	-22%	Acceptable
		Winter	12	-29%	Sitting	20	-26%	Acceptable
		Annual	11	-27%	Sitting	19	-21%	Acceptable
	C	Spring	12	-20%	Sitting	19	-24%	Acceptable
		Summer	9	-31%	Sitting	15	-25%	Acceptable
		Fall	11	-21%	Sitting	18	-22%	Acceptable
		Winter	13	-24%	Standing	21	-22%	Acceptable
		Annual	11	-27%	Sitting	19	-21%	Acceptable
59	A	Spring	10		Sitting	16		Acceptable
		Summer	8		Sitting	13		Acceptable
		Fall	9		Sitting	14		Acceptable
		Winter	10		Sitting	16		Acceptable
		Annual	9		Sitting	15		Acceptable
	B	Spring	8	-20%	Sitting	14	-12%	Acceptable
		Summer	7	-12%	Sitting	12		Acceptable
		Fall	8	-11%	Sitting	13		Acceptable
		Winter	8	-20%	Sitting	14	-12%	Acceptable
		Annual	8	-11%	Sitting	13	-13%	Acceptable
	C	Spring	8	-20%	Sitting	14	-12%	Acceptable
		Summer	7	-12%	Sitting	12		Acceptable
		Fall	8	-11%	Sitting	13		Acceptable
		Winter	8	-20%	Sitting	14	-12%	Acceptable
		Annual	8	-11%	Sitting	13	-13%	Acceptable
60	A	Spring	18		Walking	28		Acceptable
		Summer	14		Standing	22		Acceptable
		Fall	17		Walking	27		Acceptable
		Winter	21		Uncomfortable	31		Acceptable
		Annual	18		Walking	28		Acceptable
	B	Spring	18		Walking	27		Acceptable
		Summer	14		Standing	20		Acceptable
		Fall	17		Walking	26		Acceptable
		Winter	20		Uncomfortable	30		Acceptable
		Annual	18		Walking	27		Acceptable
	C	Spring	19		Walking	27		Acceptable
		Summer	14		Standing	20		Acceptable
		Fall	18		Walking	26		Acceptable
		Winter	21		Uncomfortable	30		Acceptable
		Annual	18		Walking	27		Acceptable
61	A	Spring	15		Standing	21		Acceptable
		Summer	12		Sitting	17		Acceptable
		Fall	14		Standing	20		Acceptable
		Winter	16		Walking	22		Acceptable
		Annual	15		Standing	21		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	15		Standing	21		Acceptable
		Summer	12		Sitting	16		Acceptable
		Fall	14		Standing	20		Acceptable
		Winter	17		Walking	22		Acceptable
		Annual	15		Standing	20		Acceptable
	C	Spring	15		Standing	21		Acceptable
		Summer	12		Sitting	16		Acceptable
		Fall	14		Standing	20		Acceptable
		Winter	16		Walking	22		Acceptable
		Annual	15		Standing	20		Acceptable
62	A	Spring	22		Uncomfortable	31		Acceptable
		Summer	16		Walking	23		Acceptable
		Fall	19		Walking	29		Acceptable
		Winter	24		Uncomfortable	35		Unacceptable
		Annual	21		Uncomfortable	31		Acceptable
	B	Spring	18	-18%	Walking	29		Acceptable
		Summer	14	-12%	Standing	21		Acceptable
		Fall	17	-11%	Walking	27		Acceptable
		Winter	21	-12%	Uncomfortable	33		Unacceptable
		Annual	18	-14%	Walking	29		Acceptable
	C	Spring	18	-18%	Walking	28		Acceptable
		Summer	14	-12%	Standing	21		Acceptable
		Fall	17	-11%	Walking	26	-10%	Acceptable
		Winter	21	-12%	Uncomfortable	32		Unacceptable
		Annual	18	-14%	Walking	28		Acceptable
63	A	Spring	18		Walking	27		Acceptable
		Summer	14		Standing	20		Acceptable
		Fall	17		Walking	25		Acceptable
		Winter	19		Walking	29		Acceptable
		Annual	18		Walking	26		Acceptable
	B	Spring	20	+11%	Uncomfortable	28		Acceptable
		Summer	16	+14%	Walking	22		Acceptable
		Fall	19	+12%	Walking	26		Acceptable
		Winter	21	+11%	Uncomfortable	31		Acceptable
		Annual	20	+11%	Uncomfortable	28		Acceptable
	C	Spring	20	+11%	Uncomfortable	28		Acceptable
		Summer	15		Standing	21		Acceptable
		Fall	19	+12%	Walking	26		Acceptable
		Winter	21	+11%	Uncomfortable	30		Acceptable
		Annual	20	+11%	Uncomfortable	27		Acceptable
64	A	Spring	13		Standing	21		Acceptable
		Summer	10		Sitting	17		Acceptable
		Fall	13		Standing	20		Acceptable
		Winter	15		Standing	23		Acceptable
		Annual	13		Standing	21		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	15	+15%	Standing	23		Acceptable
		Summer	11		Sitting	18		Acceptable
		Fall	14		Standing	22		Acceptable
		Winter	16		Walking	25		Acceptable
		Annual	14		Standing	23		Acceptable
	C	Spring	15	+15%	Standing	23		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	14		Standing	22		Acceptable
		Winter	16		Walking	25		Acceptable
		Annual	14		Standing	22		Acceptable
65	A	Spring	15		Standing	22		Acceptable
		Summer	11		Sitting	16		Acceptable
		Fall	14		Standing	20		Acceptable
		Winter	16		Walking	23		Acceptable
		Annual	14		Standing	21		Acceptable
	B	Spring	13	-13%	Standing	20		Acceptable
		Summer	10		Sitting	15		Acceptable
		Fall	13		Standing	19		Acceptable
		Winter	15		Standing	21		Acceptable
		Annual	13		Standing	19		Acceptable
	C	Spring	13	-13%	Standing	20		Acceptable
		Summer	10		Sitting	15		Acceptable
		Fall	13		Standing	19		Acceptable
		Winter	15		Standing	21		Acceptable
		Annual	13		Standing	19		Acceptable
66	A	Spring	24		Uncomfortable	32		Unacceptable
		Summer	18		Walking	25		Acceptable
		Fall	22		Uncomfortable	30		Acceptable
		Winter	27		Uncomfortable	35		Unacceptable
		Annual	24		Uncomfortable	31		Acceptable
	B	Spring	23		Uncomfortable	31		Acceptable
		Summer	19		Walking	25		Acceptable
		Fall	21		Uncomfortable	29		Acceptable
		Winter	25		Uncomfortable	33		Unacceptable
		Annual	22		Uncomfortable	30		Acceptable
	C	Spring	23		Uncomfortable	31		Acceptable
		Summer	18		Walking	25		Acceptable
		Fall	21		Uncomfortable	29		Acceptable
		Winter	25		Uncomfortable	33		Unacceptable
		Annual	22		Uncomfortable	30		Acceptable
67	A	Spring	25		Uncomfortable	33		Unacceptable
		Summer	18		Walking	24		Acceptable
		Fall	23		Uncomfortable	30		Acceptable
		Winter	25		Uncomfortable	33		Unacceptable
		Annual	23		Uncomfortable	31		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	23		Uncomfortable	31		Acceptable
		Summer	16	-11%	Walking	22		Acceptable
		Fall	21		Uncomfortable	28		Acceptable
		Winter	22	-12%	Uncomfortable	30		Acceptable
		Annual	21		Uncomfortable	29		Acceptable
	C	Spring	23		Uncomfortable	31		Acceptable
		Summer	16	-11%	Walking	22		Acceptable
		Fall	21		Uncomfortable	29		Acceptable
		Winter	22	-12%	Uncomfortable	31		Acceptable
		Annual	21		Uncomfortable	29		Acceptable
68	A	Spring	12		Sitting	19		Acceptable
		Summer	10		Sitting	15		Acceptable
		Fall	11		Sitting	18		Acceptable
		Winter	12		Sitting	19		Acceptable
		Annual	11		Sitting	18		Acceptable
	B	Spring	12		Sitting	19		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	11		Sitting	18		Acceptable
		Winter	12		Sitting	18		Acceptable
		Annual	11		Sitting	18		Acceptable
	C	Spring	12		Sitting	19		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	11		Sitting	18		Acceptable
		Winter	12		Sitting	19		Acceptable
		Annual	11		Sitting	18		Acceptable
69	A	Spring	21		Uncomfortable	28		Acceptable
		Summer	17		Walking	23		Acceptable
		Fall	19		Walking	26		Acceptable
		Winter	20		Uncomfortable	28		Acceptable
		Annual	19		Walking	27		Acceptable
	B	Spring	18	-14%	Walking	25	-11%	Acceptable
		Summer	13	-24%	Standing	18	-22%	Acceptable
		Fall	16	-16%	Walking	23	-12%	Acceptable
		Winter	18		Walking	26		Acceptable
		Annual	17	-11%	Walking	24	-11%	Acceptable
	C	Spring	18	-14%	Walking	26		Acceptable
		Summer	13	-24%	Standing	18	-22%	Acceptable
		Fall	16	-16%	Walking	24		Acceptable
		Winter	18		Walking	26		Acceptable
		Annual	17	-11%	Walking	24	-11%	Acceptable
70	A	Spring	13		Standing	19		Acceptable
		Summer	10		Sitting	15		Acceptable
		Fall	12		Sitting	18		Acceptable
		Winter	13		Standing	19		Acceptable
		Annual	12		Sitting	18		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	13		Standing	20		Acceptable
		Summer	10		Sitting	15		Acceptable
		Fall	13		Standing	19		Acceptable
		Winter	14		Standing	20		Acceptable
		Annual	13		Standing	19		Acceptable
	C	Spring	13		Standing	20		Acceptable
		Summer	10		Sitting	15		Acceptable
		Fall	12		Sitting	19		Acceptable
		Winter	14		Standing	21	+11%	Acceptable
		Annual	13		Standing	19		Acceptable
71	A	Spring	16		Walking	22		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	15		Standing	21		Acceptable
		Winter	17		Walking	24		Acceptable
		Annual	15		Standing	22		Acceptable
	B	Spring	17		Walking	24		Acceptable
		Summer	13		Standing	18		Acceptable
		Fall	16		Walking	22		Acceptable
		Winter	19	+12%	Walking	25		Acceptable
		Annual	17	+13%	Walking	23		Acceptable
	C	Spring	18	+12%	Walking	24		Acceptable
		Summer	14	+17%	Standing	19		Acceptable
		Fall	16		Walking	22		Acceptable
		Winter	19	+12%	Walking	25		Acceptable
		Annual	17	+13%	Walking	23		Acceptable
72	A	Spring	17		Walking	24		Acceptable
		Summer	13		Standing	19		Acceptable
		Fall	16		Walking	22		Acceptable
		Winter	17		Walking	24		Acceptable
		Annual	16		Walking	23		Acceptable
	B	Spring	16		Walking	24		Acceptable
		Summer	13		Standing	18		Acceptable
		Fall	16		Walking	22		Acceptable
		Winter	17		Walking	24		Acceptable
		Annual	16		Walking	23		Acceptable
	C	Spring	17		Walking	24		Acceptable
		Summer	13		Standing	19		Acceptable
		Fall	16		Walking	23		Acceptable
		Winter	17		Walking	25		Acceptable
		Annual	16		Walking	23		Acceptable
73	A	Spring	17		Walking	24		Acceptable
		Summer	14		Standing	19		Acceptable
		Fall	16		Walking	23		Acceptable
		Winter	18		Walking	25		Acceptable
		Annual	16		Walking	23		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	17		Walking	24		Acceptable
		Summer	13		Standing	19		Acceptable
		Fall	16		Walking	23		Acceptable
		Winter	18		Walking	26		Acceptable
		Annual	16		Walking	24		Acceptable
	C	Spring	17		Walking	24		Acceptable
		Summer	13		Standing	19		Acceptable
		Fall	16		Walking	23		Acceptable
		Winter	18		Walking	26		Acceptable
		Annual	16		Walking	23		Acceptable
74	A	Spring	16		Walking	24		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	17		Walking	25		Acceptable
		Annual	16		Walking	23		Acceptable
	B	Spring	17		Walking	25		Acceptable
		Summer	13		Standing	19		Acceptable
		Fall	16		Walking	23		Acceptable
		Winter	18		Walking	26		Acceptable
		Annual	17		Walking	24		Acceptable
	C	Spring	17		Walking	25		Acceptable
		Summer	13		Standing	19		Acceptable
		Fall	16		Walking	23		Acceptable
		Winter	19	+12%	Walking	27		Acceptable
		Annual	17		Walking	24		Acceptable
75	A	Spring	19		Walking	27		Acceptable
		Summer	15		Standing	21		Acceptable
		Fall	18		Walking	25		Acceptable
		Winter	22		Uncomfortable	30		Acceptable
		Annual	19		Walking	27		Acceptable
	B	Spring	18		Walking	27		Acceptable
		Summer	13	-13%	Standing	20		Acceptable
		Fall	17		Walking	25		Acceptable
		Winter	21		Uncomfortable	30		Acceptable
		Annual	18		Walking	26		Acceptable
	C	Spring	18		Walking	27		Acceptable
		Summer	14		Standing	20		Acceptable
		Fall	17		Walking	25		Acceptable
		Winter	21		Uncomfortable	30		Acceptable
		Annual	18		Walking	27		Acceptable
76	A	Spring	25		Uncomfortable	34		Unacceptable
		Summer	17		Walking	24		Acceptable
		Fall	22		Uncomfortable	31		Acceptable
		Winter	22		Uncomfortable	31		Acceptable
		Annual	22		Uncomfortable	30		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
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C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	25		Uncomfortable	34		Unacceptable
		Summer	18		Walking	24		Acceptable
		Fall	22		Uncomfortable	31		Acceptable
		Winter	22		Uncomfortable	31		Acceptable
		Annual	22		Uncomfortable	30		Acceptable
	C	Spring	25		Uncomfortable	34		Unacceptable
		Summer	18		Walking	24		Acceptable
		Fall	22		Uncomfortable	31		Acceptable
		Winter	23		Uncomfortable	31		Acceptable
		Annual	22		Uncomfortable	30		Acceptable
77	A	Spring	13		Standing	17		Acceptable
		Summer	9		Sitting	12		Acceptable
		Fall	12		Sitting	16		Acceptable
		Winter	12		Sitting	16		Acceptable
		Annual	12		Sitting	16		Acceptable
	B	Spring	13		Standing	17		Acceptable
		Summer	9		Sitting	12		Acceptable
		Fall	12		Sitting	16		Acceptable
		Winter	12		Sitting	16		Acceptable
		Annual	12		Sitting	16		Acceptable
	C	Spring	13		Standing	17		Acceptable
		Summer	9		Sitting	12		Acceptable
		Fall	12		Sitting	16		Acceptable
		Winter	12		Sitting	16		Acceptable
		Annual	12		Sitting	16		Acceptable
78	A	Spring	19		Walking	27		Acceptable
		Summer	14		Standing	20		Acceptable
		Fall	18		Walking	25		Acceptable
		Winter	19		Walking	28		Acceptable
		Annual	18		Walking	26		Acceptable
	B	Spring	19		Walking	27		Acceptable
		Summer	14		Standing	20		Acceptable
		Fall	17		Walking	25		Acceptable
		Winter	19		Walking	27		Acceptable
		Annual	18		Walking	26		Acceptable
	C	Spring	19		Walking	27		Acceptable
		Summer	14		Standing	20		Acceptable
		Fall	17		Walking	25		Acceptable
		Winter	19		Walking	28		Acceptable
		Annual	18		Walking	26		Acceptable
79	A	Spring	20		Uncomfortable	28		Acceptable
		Summer	15		Standing	21		Acceptable
		Fall	19		Walking	26		Acceptable
		Winter	21		Uncomfortable	30		Acceptable
		Annual	20		Uncomfortable	27		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
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C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	20		Uncomfortable	27		Acceptable
		Summer	14		Standing	20		Acceptable
		Fall	18		Walking	26		Acceptable
		Winter	21		Uncomfortable	29		Acceptable
		Annual	19		Walking	27		Acceptable
	C	Spring	20		Uncomfortable	27		Acceptable
		Summer	14		Standing	21		Acceptable
		Fall	19		Walking	26		Acceptable
		Winter	21		Uncomfortable	29		Acceptable
		Annual	19		Walking	27		Acceptable
80	A	Spring	20		Uncomfortable	30		Acceptable
		Summer	15		Standing	22		Acceptable
		Fall	19		Walking	28		Acceptable
		Winter	21		Uncomfortable	31		Acceptable
		Annual	19		Walking	29		Acceptable
	B	Spring	20		Uncomfortable	30		Acceptable
		Summer	14		Standing	22		Acceptable
		Fall	18		Walking	28		Acceptable
		Winter	20		Uncomfortable	30		Acceptable
		Annual	19		Walking	28		Acceptable
	C	Spring	20		Uncomfortable	30		Acceptable
		Summer	14		Standing	22		Acceptable
		Fall	18		Walking	28		Acceptable
		Winter	20		Uncomfortable	31		Acceptable
		Annual	19		Walking	28		Acceptable
81	A	Spring	24		Uncomfortable	33		Unacceptable
		Summer	17		Walking	23		Acceptable
		Fall	22		Uncomfortable	30		Acceptable
		Winter	22		Uncomfortable	30		Acceptable
		Annual	22		Uncomfortable	30		Acceptable
	B	Spring	24		Uncomfortable	33		Unacceptable
		Summer	17		Walking	23		Acceptable
		Fall	21		Uncomfortable	30		Acceptable
		Winter	22		Uncomfortable	30		Acceptable
		Annual	21		Uncomfortable	29		Acceptable
	C	Spring	24		Uncomfortable	33		Unacceptable
		Summer	17		Walking	23		Acceptable
		Fall	22		Uncomfortable	30		Acceptable
		Winter	22		Uncomfortable	30		Acceptable
		Annual	21		Uncomfortable	30		Acceptable
82	A	Spring	11		Sitting	18		Acceptable
		Summer	8		Sitting	14		Acceptable
		Fall	10		Sitting	17		Acceptable
		Winter	10		Sitting	17		Acceptable
		Annual	10		Sitting	17		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	12		Sitting	19		Acceptable
		Summer	10	+25%	Sitting	16	+14%	Acceptable
		Fall	11		Sitting	18		Acceptable
		Winter	11		Sitting	18		Acceptable
		Annual	11		Sitting	18		Acceptable
	C	Spring	12		Sitting	19		Acceptable
		Summer	9	+12%	Sitting	15		Acceptable
		Fall	11		Sitting	18		Acceptable
		Winter	11		Sitting	18		Acceptable
		Annual	11		Sitting	18		Acceptable
83	A	Spring	21		Uncomfortable	29		Acceptable
		Summer	18		Walking	24		Acceptable
		Fall	20		Uncomfortable	28		Acceptable
		Winter	24		Uncomfortable	32		Unacceptable
		Annual	21		Uncomfortable	29		Acceptable
	B	Spring	19		Walking	28		Acceptable
		Summer	15	-17%	Standing	23		Acceptable
		Fall	18		Walking	26		Acceptable
		Winter	20	-17%	Uncomfortable	30		Acceptable
		Annual	18	-14%	Walking	28		Acceptable
	C	Spring	18	-14%	Walking	27		Acceptable
		Summer	15	-17%	Standing	22		Acceptable
		Fall	17	-15%	Walking	26		Acceptable
		Winter	20	-17%	Uncomfortable	30		Acceptable
		Annual	18	-14%	Walking	27		Acceptable
84	A	Spring	18		Walking	27		Acceptable
		Summer	13		Standing	20		Acceptable
		Fall	17		Walking	25		Acceptable
		Winter	18		Walking	27		Acceptable
		Annual	17		Walking	25		Acceptable
	B	Spring	17		Walking	26		Acceptable
		Summer	13		Standing	20		Acceptable
		Fall	16		Walking	24		Acceptable
		Winter	17		Walking	25		Acceptable
		Annual	16		Walking	25		Acceptable
	C	Spring	17		Walking	27		Acceptable
		Summer	13		Standing	20		Acceptable
		Fall	16		Walking	25		Acceptable
		Winter	17		Walking	26		Acceptable
		Annual	16		Walking	25		Acceptable
85	A	Spring	16		Walking	23		Acceptable
		Summer	12		Sitting	17		Acceptable
		Fall	15		Standing	21		Acceptable
		Winter	16		Walking	23		Acceptable
		Annual	15		Standing	21		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	17		Walking	25		Acceptable
		Summer	13		Standing	19	+12%	Acceptable
		Fall	16		Walking	23		Acceptable
		Winter	17		Walking	26	+13%	Acceptable
		Annual	16		Walking	24	+14%	Acceptable
	C	Spring	17		Walking	25		Acceptable
		Summer	13		Standing	19	+12%	Acceptable
		Fall	16		Walking	23		Acceptable
		Winter	17		Walking	25		Acceptable
		Annual	16		Walking	24	+14%	Acceptable
86	A	Spring	12		Sitting	19		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	12		Sitting	19		Acceptable
		Annual	11		Sitting	18		Acceptable
	B	Spring	14	+17%	Standing	21	+11%	Acceptable
		Summer	11	+22%	Sitting	16	+14%	Acceptable
		Fall	13	+18%	Standing	19	+12%	Acceptable
		Winter	15	+25%	Standing	23	+21%	Acceptable
		Annual	14	+27%	Standing	21	+17%	Acceptable
	C	Spring	14	+17%	Standing	21	+11%	Acceptable
		Summer	11	+22%	Sitting	16	+14%	Acceptable
		Fall	13	+18%	Standing	19	+12%	Acceptable
		Winter	15	+25%	Standing	23	+21%	Acceptable
		Annual	14	+27%	Standing	21	+17%	Acceptable
87	A	Spring	18		Walking	26		Acceptable
		Summer	14		Standing	19		Acceptable
		Fall	17		Walking	25		Acceptable
		Winter	21		Uncomfortable	29		Acceptable
		Annual	18		Walking	26		Acceptable
	B	Spring	16	-11%	Walking	23	-12%	Acceptable
		Summer	13		Standing	18		Acceptable
		Fall	15	-12%	Standing	22	-12%	Acceptable
		Winter	18	-14%	Walking	26	-10%	Acceptable
		Annual	16	-11%	Walking	23	-12%	Acceptable
	C	Spring	16	-11%	Walking	23	-12%	Acceptable
		Summer	13		Standing	18		Acceptable
		Fall	15	-12%	Standing	22	-12%	Acceptable
		Winter	18	-14%	Walking	25	-14%	Acceptable
		Annual	16	-11%	Walking	23	-12%	Acceptable
88	A	Spring	19		Walking	28		Acceptable
		Summer	15		Standing	21		Acceptable
		Fall	18		Walking	26		Acceptable
		Winter	21		Uncomfortable	31		Acceptable
		Annual	19		Walking	28		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	20		Uncomfortable	27		Acceptable
		Summer	15		Standing	21		Acceptable
		Fall	19		Walking	25		Acceptable
		Winter	23		Uncomfortable	30		Acceptable
		Annual	20		Uncomfortable	27		Acceptable
	C	Spring	20		Uncomfortable	27		Acceptable
		Summer	15		Standing	21		Acceptable
		Fall	19		Walking	25		Acceptable
		Winter	22		Uncomfortable	30		Acceptable
		Annual	20		Uncomfortable	27		Acceptable
89	A	Spring	19		Walking	28		Acceptable
		Summer	14		Standing	21		Acceptable
		Fall	18		Walking	26		Acceptable
		Winter	20		Uncomfortable	29		Acceptable
		Annual	18		Walking	27		Acceptable
	B	Spring	17	-11%	Walking	25	-11%	Acceptable
		Summer	12	-14%	Sitting	19		Acceptable
		Fall	15	-17%	Standing	24		Acceptable
		Winter	18		Walking	27		Acceptable
		Annual	16	-11%	Walking	24	-11%	Acceptable
	C	Spring	17	-11%	Walking	26		Acceptable
		Summer	12	-14%	Sitting	19		Acceptable
		Fall	16	-11%	Walking	24		Acceptable
		Winter	18		Walking	27		Acceptable
		Annual	16	-11%	Walking	25		Acceptable
90	A	Spring	32		Dangerous	42		Unacceptable
		Summer	28		Dangerous	35		Unacceptable
		Fall	31		Dangerous	40		Unacceptable
		Winter	33		Dangerous	42		Unacceptable
		Annual	31		Dangerous	40		Unacceptable
	B	Spring	32		Dangerous	42		Unacceptable
		Summer	27		Uncomfortable	34		Unacceptable
		Fall	30		Dangerous	39		Unacceptable
		Winter	31		Dangerous	41		Unacceptable
		Annual	30		Dangerous	39		Unacceptable
	C	Spring	32		Dangerous	42		Unacceptable
		Summer	26		Uncomfortable	34		Unacceptable
		Fall	30		Dangerous	39		Unacceptable
		Winter	31		Dangerous	41		Unacceptable
		Annual	30		Dangerous	39		Unacceptable
91	A	Spring	16		Walking	25		Acceptable
		Summer	12		Sitting	19		Acceptable
		Fall	15		Standing	23		Acceptable
		Winter	17		Walking	27		Acceptable
		Annual	15		Standing	24		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	15		Standing	25		Acceptable
		Summer	11		Sitting	18		Acceptable
		Fall	14		Standing	22		Acceptable
		Winter	16		Walking	26		Acceptable
		Annual	15		Standing	24		Acceptable
	C	Spring	15		Standing	25		Acceptable
		Summer	11		Sitting	18		Acceptable
		Fall	14		Standing	22		Acceptable
		Winter	16		Walking	26		Acceptable
		Annual	15		Standing	24		Acceptable
92	A	Spring	23		Uncomfortable	31		Acceptable
		Summer	17		Walking	23		Acceptable
		Fall	21		Uncomfortable	29		Acceptable
		Winter	25		Uncomfortable	33		Unacceptable
		Annual	22		Uncomfortable	30		Acceptable
	B	Spring	23		Uncomfortable	32		Unacceptable
		Summer	17		Walking	23		Acceptable
		Fall	21		Uncomfortable	29		Acceptable
		Winter	25		Uncomfortable	34		Unacceptable
		Annual	23		Uncomfortable	31		Acceptable
	C	Spring	23		Uncomfortable	32		Unacceptable
		Summer	17		Walking	23		Acceptable
		Fall	21		Uncomfortable	29		Acceptable
		Winter	25		Uncomfortable	34		Unacceptable
		Annual	23		Uncomfortable	31		Acceptable
93	A	Spring	26		Uncomfortable	35		Unacceptable
		Summer	21		Uncomfortable	27		Acceptable
		Fall	24		Uncomfortable	32		Unacceptable
		Winter	26		Uncomfortable	34		Unacceptable
		Annual	25		Uncomfortable	33		Unacceptable
	B	Spring	26		Uncomfortable	35		Unacceptable
		Summer	20		Uncomfortable	27		Acceptable
		Fall	24		Uncomfortable	32		Unacceptable
		Winter	25		Uncomfortable	34		Unacceptable
		Annual	24		Uncomfortable	32		Unacceptable
	C	Spring	26		Uncomfortable	35		Unacceptable
		Summer	20		Uncomfortable	27		Acceptable
		Fall	24		Uncomfortable	32		Unacceptable
		Winter	25		Uncomfortable	34		Unacceptable
		Annual	24		Uncomfortable	32		Unacceptable
94	A	Spring	17		Walking	26		Acceptable
		Summer	14		Standing	21		Acceptable
		Fall	16		Walking	24		Acceptable
		Winter	17		Walking	26		Acceptable
		Annual	16		Walking	24		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	18		Walking	27		Acceptable
		Summer	15		Standing	23		Acceptable
		Fall	17		Walking	26		Acceptable
		Winter	18		Walking	27		Acceptable
		Annual	17		Walking	26		Acceptable
	C	Spring	18		Walking	27		Acceptable
		Summer	15		Standing	22		Acceptable
		Fall	17		Walking	26		Acceptable
		Winter	18		Walking	27		Acceptable
		Annual	17		Walking	26		Acceptable
95	A	Spring	20		Uncomfortable	30		Acceptable
		Summer	15		Standing	22		Acceptable
		Fall	18		Walking	28		Acceptable
		Winter	18		Walking	29		Acceptable
		Annual	18		Walking	27		Acceptable
	B	Spring	20		Uncomfortable	30		Acceptable
		Summer	14		Standing	22		Acceptable
		Fall	18		Walking	27		Acceptable
		Winter	18		Walking	28		Acceptable
		Annual	18		Walking	27		Acceptable
	C	Spring	19		Walking	30		Acceptable
		Summer	14		Standing	21		Acceptable
		Fall	18		Walking	28		Acceptable
		Winter	18		Walking	28		Acceptable
		Annual	18		Walking	27		Acceptable
96	A	Spring	17		Walking	25		Acceptable
		Summer	13		Standing	18		Acceptable
		Fall	16		Walking	24		Acceptable
		Winter	16		Walking	24		Acceptable
		Annual	16		Walking	23		Acceptable
	B	Spring	17		Walking	25		Acceptable
		Summer	12		Sitting	19		Acceptable
		Fall	16		Walking	24		Acceptable
		Winter	16		Walking	25		Acceptable
		Annual	16		Walking	24		Acceptable
	C	Spring	17		Walking	26		Acceptable
		Summer	13		Standing	19		Acceptable
		Fall	16		Walking	24		Acceptable
		Winter	17		Walking	25		Acceptable
		Annual	16		Walking	24		Acceptable
97	A	Spring	13		Standing	19		Acceptable
		Summer	10		Sitting	15		Acceptable
		Fall	12		Sitting	18		Acceptable
		Winter	14		Standing	20		Acceptable
		Annual	12		Sitting	19		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	12		Sitting	19		Acceptable
		Summer	9		Sitting	15		Acceptable
		Fall	11		Sitting	18		Acceptable
		Winter	13		Standing	20		Acceptable
		Annual	12		Sitting	18		Acceptable
	C	Spring	12		Sitting	19		Acceptable
		Summer	9		Sitting	15		Acceptable
		Fall	11		Sitting	18		Acceptable
		Winter	13		Standing	20		Acceptable
		Annual	12		Sitting	18		Acceptable
98	A	Spring	19		Walking	28		Acceptable
		Summer	16		Walking	23		Acceptable
		Fall	18		Walking	26		Acceptable
		Winter	19		Walking	27		Acceptable
		Annual	18		Walking	26		Acceptable
	B	Spring	20		Uncomfortable	28		Acceptable
		Summer	16		Walking	22		Acceptable
		Fall	18		Walking	26		Acceptable
		Winter	19		Walking	27		Acceptable
		Annual	19		Walking	26		Acceptable
	C	Spring	20		Uncomfortable	27		Acceptable
		Summer	16		Walking	22		Acceptable
		Fall	18		Walking	26		Acceptable
		Winter	19		Walking	27		Acceptable
		Annual	19		Walking	26		Acceptable
99	A	Spring	23		Uncomfortable	32		Unacceptable
		Summer	17		Walking	24		Acceptable
		Fall	21		Uncomfortable	30		Acceptable
		Winter	22		Uncomfortable	31		Acceptable
		Annual	21		Uncomfortable	30		Acceptable
	B	Spring	24		Uncomfortable	32		Unacceptable
		Summer	17		Walking	23		Acceptable
		Fall	22		Uncomfortable	30		Acceptable
		Winter	22		Uncomfortable	30		Acceptable
		Annual	21		Uncomfortable	29		Acceptable
	C	Spring	23		Uncomfortable	32		Unacceptable
		Summer	17		Walking	23		Acceptable
		Fall	22		Uncomfortable	29		Acceptable
		Winter	22		Uncomfortable	30		Acceptable
		Annual	21		Uncomfortable	29		Acceptable
100	A	Spring	18		Walking	28		Acceptable
		Summer	14		Standing	21		Acceptable
		Fall	17		Walking	26		Acceptable
		Winter	18		Walking	27		Acceptable
		Annual	17		Walking	26		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	20	+11%	Uncomfortable	30		Acceptable
		Summer	16	+14%	Walking	25	+19%	Acceptable
		Fall	19	+12%	Walking	29	+12%	Acceptable
		Winter	20	+11%	Uncomfortable	30	+11%	Acceptable
		Annual	19	+12%	Walking	29	+12%	Acceptable
	C	Spring	20	+11%	Uncomfortable	30		Acceptable
		Summer	16	+14%	Walking	25	+19%	Acceptable
		Fall	18		Walking	28		Acceptable
		Winter	19		Walking	30	+11%	Acceptable
		Annual	18		Walking	28		Acceptable
101	A	Spring	30		Dangerous	39		Unacceptable
		Summer	21		Uncomfortable	28		Acceptable
		Fall	27		Uncomfortable	35		Unacceptable
		Winter	28		Dangerous	37		Unacceptable
		Annual	27		Uncomfortable	35		Unacceptable
	B	Spring	30		Dangerous	39		Unacceptable
		Summer	21		Uncomfortable	27		Acceptable
		Fall	27		Uncomfortable	36		Unacceptable
		Winter	28		Dangerous	37		Unacceptable
		Annual	27		Uncomfortable	35		Unacceptable
	C	Spring	30		Dangerous	39		Unacceptable
		Summer	21		Uncomfortable	28		Acceptable
		Fall	27		Uncomfortable	36		Unacceptable
		Winter	28		Dangerous	38		Unacceptable
		Annual	27		Uncomfortable	36		Unacceptable
102	A	Spring	17		Walking	25		Acceptable
		Summer	13		Standing	19		Acceptable
		Fall	16		Walking	23		Acceptable
		Winter	18		Walking	26		Acceptable
		Annual	17		Walking	24		Acceptable
	B	Spring	15	-12%	Standing	23		Acceptable
		Summer	11	-15%	Sitting	17	-11%	Acceptable
		Fall	14	-12%	Standing	21		Acceptable
		Winter	16	-11%	Walking	24		Acceptable
		Annual	15	-12%	Standing	22		Acceptable
	C	Spring	16		Walking	23		Acceptable
		Summer	12		Sitting	17	-11%	Acceptable
		Fall	14	-12%	Standing	22		Acceptable
		Winter	16	-11%	Walking	24		Acceptable
		Annual	15	-12%	Standing	22		Acceptable
103	A	Spring	18		Walking	27		Acceptable
		Summer	14		Standing	20		Acceptable
		Fall	17		Walking	26		Acceptable
		Winter	20		Uncomfortable	30		Acceptable
		Annual	18		Walking	27		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	24	+33%	Uncomfortable	32	+19%	Unacceptable
		Summer	18	+29%	Walking	24	+20%	Acceptable
		Fall	22	+29%	Uncomfortable	30	+15%	Acceptable
		Winter	25	+25%	Uncomfortable	34	+13%	Unacceptable
		Annual	23	+28%	Uncomfortable	31	+15%	Acceptable
	C	Spring	23	+28%	Uncomfortable	32	+19%	Unacceptable
		Summer	18	+29%	Walking	24	+20%	Acceptable
		Fall	22	+29%	Uncomfortable	29	+12%	Acceptable
		Winter	25	+25%	Uncomfortable	34	+13%	Unacceptable
		Annual	23	+28%	Uncomfortable	31	+15%	Acceptable
104	A	Spring	18		Walking	26		Acceptable
		Summer	16		Walking	21		Acceptable
		Fall	16		Walking	23		Acceptable
		Winter	17		Walking	25		Acceptable
		Annual	17		Walking	24		Acceptable
	B	Spring	19		Walking	27		Acceptable
		Summer	17		Walking	24	+14%	Acceptable
		Fall	18	+12%	Walking	26	+13%	Acceptable
		Winter	18		Walking	26		Acceptable
		Annual	18		Walking	26		Acceptable
	C	Spring	19		Walking	27		Acceptable
		Summer	16		Walking	23		Acceptable
		Fall	17		Walking	25		Acceptable
		Winter	18		Walking	26		Acceptable
		Annual	17		Walking	25		Acceptable
105	A	Spring	20		Uncomfortable	29		Acceptable
		Summer	15		Standing	21		Acceptable
		Fall	19		Walking	27		Acceptable
		Winter	19		Walking	28		Acceptable
		Annual	18		Walking	27		Acceptable
	B	Spring	19		Walking	29		Acceptable
		Summer	14		Standing	21		Acceptable
		Fall	17	-11%	Walking	26		Acceptable
		Winter	20		Uncomfortable	30		Acceptable
		Annual	18		Walking	27		Acceptable
	C	Spring	19		Walking	29		Acceptable
		Summer	14		Standing	21		Acceptable
		Fall	18		Walking	26		Acceptable
		Winter	20		Uncomfortable	29		Acceptable
		Annual	18		Walking	28		Acceptable
106	A	Spring	17		Walking	24		Acceptable
		Summer	13		Standing	18		Acceptable
		Fall	16		Walking	23		Acceptable
		Winter	17		Walking	24		Acceptable
		Annual	16		Walking	23		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	16		Walking	23		Acceptable
		Summer	12		Sitting	17		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	15	-12%	Standing	23		Acceptable
		Annual	15		Standing	22		Acceptable
	C	Spring	16		Walking	23		Acceptable
		Summer	12		Sitting	17		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	15	-12%	Standing	23		Acceptable
		Annual	15		Standing	22		Acceptable
107	A	Spring	14		Standing	21		Acceptable
		Summer	11		Sitting	18		Acceptable
		Fall	12		Sitting	19		Acceptable
		Winter	14		Standing	22		Acceptable
		Annual	13		Standing	20		Acceptable
	B	Spring	13		Standing	20		Acceptable
		Summer	11		Sitting	16	-11%	Acceptable
		Fall	12		Sitting	19		Acceptable
		Winter	12	-14%	Sitting	20		Acceptable
		Annual	12		Sitting	19		Acceptable
	C	Spring	12	-14%	Sitting	20		Acceptable
		Summer	10		Sitting	16	-11%	Acceptable
		Fall	11		Sitting	18		Acceptable
		Winter	12	-14%	Sitting	20		Acceptable
		Annual	12		Sitting	19		Acceptable
108	A	Spring	15		Standing	23		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	14		Standing	21		Acceptable
		Winter	16		Walking	24		Acceptable
		Annual	15		Standing	22		Acceptable
	B	Spring	16		Walking	23		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	16		Walking	24		Acceptable
		Annual	15		Standing	22		Acceptable
	C	Spring	16		Walking	24		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	16		Walking	24		Acceptable
		Annual	15		Standing	22		Acceptable
109	A	Spring	16		Walking	24		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	14		Standing	22		Acceptable
		Winter	17		Walking	27		Acceptable
		Annual	16		Walking	24		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	16		Walking	24		Acceptable
		Summer	11		Sitting	18		Acceptable
		Fall	14		Standing	22		Acceptable
		Winter	17		Walking	27		Acceptable
		Annual	15		Standing	24		Acceptable
	C	Spring	16		Walking	24		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	14		Standing	22		Acceptable
		Winter	17		Walking	27		Acceptable
		Annual	16		Walking	24		Acceptable
110	A	Spring	18		Walking	25		Acceptable
		Summer	14		Standing	19		Acceptable
		Fall	17		Walking	24		Acceptable
		Winter	18		Walking	25		Acceptable
		Annual	17		Walking	24		Acceptable
	B	Spring	18		Walking	25		Acceptable
		Summer	14		Standing	19		Acceptable
		Fall	17		Walking	24		Acceptable
		Winter	18		Walking	25		Acceptable
		Annual	17		Walking	24		Acceptable
	C	Spring	19		Walking	25		Acceptable
		Summer	14		Standing	19		Acceptable
		Fall	17		Walking	24		Acceptable
		Winter	18		Walking	25		Acceptable
		Annual	17		Walking	24		Acceptable
111	A	Spring	17		Walking	23		Acceptable
		Summer	13		Standing	18		Acceptable
		Fall	15		Standing	21		Acceptable
		Winter	17		Walking	24		Acceptable
		Annual	16		Walking	22		Acceptable
	B	Spring	17		Walking	24		Acceptable
		Summer	13		Standing	18		Acceptable
		Fall	15		Standing	21		Acceptable
		Winter	17		Walking	24		Acceptable
		Annual	16		Walking	23		Acceptable
	C	Spring	17		Walking	23		Acceptable
		Summer	13		Standing	18		Acceptable
		Fall	15		Standing	21		Acceptable
		Winter	17		Walking	24		Acceptable
		Annual	16		Walking	22		Acceptable
112	A	Spring	15		Standing	23		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	16		Walking	25		Acceptable
		Annual	15		Standing	22		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	15		Standing	22		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	14		Standing	21		Acceptable
		Winter	16		Walking	24		Acceptable
		Annual	15		Standing	22		Acceptable
	C	Spring	15		Standing	22		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	14		Standing	21		Acceptable
		Winter	16		Walking	23		Acceptable
		Annual	14		Standing	22		Acceptable
113	A	Spring	26		Uncomfortable	37		Unacceptable
		Summer	21		Uncomfortable	29		Acceptable
		Fall	25		Uncomfortable	35		Unacceptable
		Winter	28		Dangerous	41		Unacceptable
		Annual	26		Uncomfortable	37		Unacceptable
	B	Spring	27		Uncomfortable	37		Unacceptable
		Summer	21		Uncomfortable	29		Acceptable
		Fall	25		Uncomfortable	35		Unacceptable
		Winter	30		Dangerous	41		Unacceptable
		Annual	27		Uncomfortable	37		Unacceptable
	C	Spring	26		Uncomfortable	36		Unacceptable
		Summer	21		Uncomfortable	28		Acceptable
		Fall	24		Uncomfortable	34		Unacceptable
		Winter	28		Dangerous	40		Unacceptable
		Annual	25		Uncomfortable	36		Unacceptable
114	A	Spring	18		Walking	28		Acceptable
		Summer	13		Standing	20		Acceptable
		Fall	16		Walking	25		Acceptable
		Winter	19		Walking	27		Acceptable
		Annual	17		Walking	26		Acceptable
	B	Spring	18		Walking	27		Acceptable
		Summer	13		Standing	19		Acceptable
		Fall	16		Walking	25		Acceptable
		Winter	18		Walking	26		Acceptable
		Annual	17		Walking	25		Acceptable
	C	Spring	18		Walking	28		Acceptable
		Summer	13		Standing	20		Acceptable
		Fall	16		Walking	25		Acceptable
		Winter	19		Walking	27		Acceptable
		Annual	17		Walking	26		Acceptable
115	A	Spring	16		Walking	25		Acceptable
		Summer	12		Sitting	19		Acceptable
		Fall	15		Standing	23		Acceptable
		Winter	17		Walking	27		Acceptable
		Annual	16		Walking	24		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	16		Walking	24		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	17		Walking	26		Acceptable
		Annual	15		Standing	23		Acceptable
	C	Spring	16		Walking	24		Acceptable
		Summer	12		Sitting	19		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	17		Walking	26		Acceptable
		Annual	15		Standing	24		Acceptable
116	A	Spring	17		Walking	26		Acceptable
		Summer	13		Standing	20		Acceptable
		Fall	16		Walking	25		Acceptable
		Winter	19		Walking	29		Acceptable
		Annual	17		Walking	26		Acceptable
	B	Spring	17		Walking	26		Acceptable
		Summer	13		Standing	20		Acceptable
		Fall	16		Walking	24		Acceptable
		Winter	18		Walking	29		Acceptable
		Annual	17		Walking	26		Acceptable
	C	Spring	17		Walking	26		Acceptable
		Summer	13		Standing	20		Acceptable
		Fall	16		Walking	25		Acceptable
		Winter	19		Walking	30		Acceptable
		Annual	17		Walking	26		Acceptable
117	A	Spring	25		Uncomfortable	36		Unacceptable
		Summer	20		Uncomfortable	28		Acceptable
		Fall	24		Uncomfortable	33		Unacceptable
		Winter	28		Dangerous	40		Unacceptable
		Annual	25		Uncomfortable	36		Unacceptable
	B	Spring	24		Uncomfortable	35		Unacceptable
		Summer	19		Walking	26		Acceptable
		Fall	22		Uncomfortable	32		Unacceptable
		Winter	27		Uncomfortable	39		Unacceptable
		Annual	24		Uncomfortable	34		Unacceptable
	C	Spring	25		Uncomfortable	36		Unacceptable
		Summer	19		Walking	27		Acceptable
		Fall	23		Uncomfortable	33		Unacceptable
		Winter	28		Dangerous	41		Unacceptable
		Annual	25		Uncomfortable	36		Unacceptable
118	A	Spring	15		Standing	24		Acceptable
		Summer	13		Standing	20		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	15		Standing	24		Acceptable
		Annual	15		Standing	23		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	16		Walking	24		Acceptable
		Summer	12		Sitting	19		Acceptable
		Fall	14		Standing	23		Acceptable
		Winter	15		Standing	25		Acceptable
		Annual	15		Standing	23		Acceptable
	C	Spring	15		Standing	24		Acceptable
		Summer	12		Sitting	19		Acceptable
		Fall	14		Standing	22		Acceptable
		Winter	15		Standing	25		Acceptable
		Annual	14		Standing	23		Acceptable
119	A	Spring	18		Walking	29		Acceptable
		Summer	14		Standing	23		Acceptable
		Fall	17		Walking	27		Acceptable
		Winter	18		Walking	30		Acceptable
		Annual	17		Walking	28		Acceptable
	B	Spring	18		Walking	28		Acceptable
		Summer	15		Standing	22		Acceptable
		Fall	17		Walking	27		Acceptable
		Winter	18		Walking	29		Acceptable
		Annual	17		Walking	27		Acceptable
	C	Spring	18		Walking	28		Acceptable
		Summer	14		Standing	22		Acceptable
		Fall	17		Walking	27		Acceptable
		Winter	18		Walking	29		Acceptable
		Annual	17		Walking	27		Acceptable
120	A	Spring	19		Walking	28		Acceptable
		Summer	15		Standing	22		Acceptable
		Fall	17		Walking	25		Acceptable
		Winter	19		Walking	28		Acceptable
		Annual	18		Walking	26		Acceptable
	B	Spring	18		Walking	27		Acceptable
		Summer	13	-13%	Standing	20		Acceptable
		Fall	17		Walking	25		Acceptable
		Winter	17	-11%	Walking	27		Acceptable
		Annual	17		Walking	25		Acceptable
	C	Spring	19		Walking	27		Acceptable
		Summer	14		Standing	20		Acceptable
		Fall	17		Walking	25		Acceptable
		Winter	18		Walking	27		Acceptable
		Annual	17		Walking	26		Acceptable
121	A	Spring	19		Walking	29		Acceptable
		Summer	14		Standing	22		Acceptable
		Fall	17		Walking	26		Acceptable
		Winter	20		Uncomfortable	30		Acceptable
		Annual	18		Walking	27		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
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Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
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C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	17	-11%	Walking	26	-10%	Acceptable
		Summer	12	-14%	Sitting	20		Acceptable
		Fall	15	-12%	Standing	24		Acceptable
		Winter	17	-15%	Walking	28		Acceptable
		Annual	16	-11%	Walking	25		Acceptable
	C	Spring	17	-11%	Walking	26	-10%	Acceptable
		Summer	12	-14%	Sitting	19	-14%	Acceptable
		Fall	15	-12%	Standing	24		Acceptable
		Winter	18		Walking	28		Acceptable
		Annual	16	-11%	Walking	25		Acceptable
122	A	Spring	15		Standing	24		Acceptable
		Summer	11		Sitting	18		Acceptable
		Fall	14		Standing	23		Acceptable
		Winter	15		Standing	23		Acceptable
		Annual	14		Standing	22		Acceptable
	B	Spring	14		Standing	24		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	14		Standing	22		Acceptable
		Winter	14		Standing	22		Acceptable
		Annual	13		Standing	22		Acceptable
	C	Spring	14		Standing	24		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	14		Standing	22		Acceptable
		Winter	14		Standing	22		Acceptable
		Annual	14		Standing	22		Acceptable
123	A	Spring	15		Standing	23		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	13		Standing	21		Acceptable
		Winter	15		Standing	23		Acceptable
		Annual	14		Standing	22		Acceptable
	B	Spring	16		Walking	24		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	14		Standing	22		Acceptable
		Winter	16		Walking	24		Acceptable
		Annual	15		Standing	23		Acceptable
	C	Spring	16		Walking	24		Acceptable
		Summer	11		Sitting	18		Acceptable
		Fall	14		Standing	22		Acceptable
		Winter	17	+13%	Walking	25		Acceptable
		Annual	15		Standing	23		Acceptable
124	A	Spring	16		Walking	23		Acceptable
		Summer	13		Standing	19		Acceptable
		Fall	14		Standing	22		Acceptable
		Winter	15		Standing	23		Acceptable
		Annual	14		Standing	22		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
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	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	14	-12%	Standing	21		Acceptable
		Summer	11	-15%	Sitting	17	-11%	Acceptable
		Fall	13		Standing	20		Acceptable
		Winter	13	-13%	Standing	21		Acceptable
		Annual	13		Standing	20		Acceptable
	C	Spring	14	-12%	Standing	21		Acceptable
		Summer	11	-15%	Sitting	17	-11%	Acceptable
		Fall	13		Standing	20		Acceptable
		Winter	13	-13%	Standing	21		Acceptable
		Annual	13		Standing	20		Acceptable
125	A	Spring	15		Standing	21		Acceptable
		Summer	13		Standing	17		Acceptable
		Fall	14		Standing	20		Acceptable
		Winter	14		Standing	21		Acceptable
		Annual	14		Standing	20		Acceptable
	B	Spring	14		Standing	21		Acceptable
		Summer	11	-15%	Sitting	15	-12%	Acceptable
		Fall	14		Standing	20		Acceptable
		Winter	15		Standing	22		Acceptable
		Annual	14		Standing	20		Acceptable
	C	Spring	14		Standing	21		Acceptable
		Summer	11	-15%	Sitting	15	-12%	Acceptable
		Fall	13		Standing	20		Acceptable
		Winter	15		Standing	22		Acceptable
		Annual	13		Standing	20		Acceptable
126	A	Spring	21		Uncomfortable	30		Acceptable
		Summer	17		Walking	24		Acceptable
		Fall	20		Uncomfortable	29		Acceptable
		Winter	22		Uncomfortable	30		Acceptable
		Annual	20		Uncomfortable	29		Acceptable
	B	Spring	21		Uncomfortable	29		Acceptable
		Summer	17		Walking	23		Acceptable
		Fall	20		Uncomfortable	28		Acceptable
		Winter	21		Uncomfortable	30		Acceptable
		Annual	20		Uncomfortable	28		Acceptable
	C	Spring	21		Uncomfortable	29		Acceptable
		Summer	17		Walking	23		Acceptable
		Fall	20		Uncomfortable	28		Acceptable
		Winter	21		Uncomfortable	30		Acceptable
		Annual	20		Uncomfortable	28		Acceptable
127	A	Spring	13		Standing	19		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	12		Sitting	18		Acceptable
		Winter	12		Sitting	19		Acceptable
		Annual	12		Sitting	18		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
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Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
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	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	13		Standing	19		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	12		Sitting	18		Acceptable
		Winter	13		Standing	19		Acceptable
		Annual	12		Sitting	18		Acceptable
	C	Spring	13		Standing	20		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	12		Sitting	18		Acceptable
		Winter	13		Standing	19		Acceptable
		Annual	12		Sitting	18		Acceptable
128	A	Spring	19		Walking	25		Acceptable
		Summer	14		Standing	19		Acceptable
		Fall	17		Walking	24		Acceptable
		Winter	21		Uncomfortable	28		Acceptable
		Annual	19		Walking	25		Acceptable
	B	Spring	19		Walking	26		Acceptable
		Summer	14		Standing	19		Acceptable
		Fall	18		Walking	24		Acceptable
		Winter	21		Uncomfortable	28		Acceptable
		Annual	19		Walking	25		Acceptable
	C	Spring	19		Walking	26		Acceptable
		Summer	14		Standing	19		Acceptable
		Fall	18		Walking	24		Acceptable
		Winter	21		Uncomfortable	28		Acceptable
		Annual	19		Walking	25		Acceptable
129	A	Spring	18		Walking	25		Acceptable
		Summer	13		Standing	18		Acceptable
		Fall	17		Walking	23		Acceptable
		Winter	19		Walking	27		Acceptable
		Annual	17		Walking	24		Acceptable
	B	Spring	18		Walking	25		Acceptable
		Summer	13		Standing	18		Acceptable
		Fall	16		Walking	23		Acceptable
		Winter	19		Walking	27		Acceptable
		Annual	17		Walking	24		Acceptable
	C	Spring	18		Walking	25		Acceptable
		Summer	13		Standing	18		Acceptable
		Fall	16		Walking	23		Acceptable
		Winter	20		Uncomfortable	28		Acceptable
		Annual	17		Walking	25		Acceptable
130	A	Spring	13		Standing	20		Acceptable
		Summer	11		Sitting	16		Acceptable
		Fall	12		Sitting	18		Acceptable
		Winter	14		Standing	20		Acceptable
		Annual	13		Standing	19		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
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Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
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	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	13		Standing	19		Acceptable
		Summer	10		Sitting	14	-12%	Acceptable
		Fall	12		Sitting	18		Acceptable
		Winter	13		Standing	19		Acceptable
		Annual	12		Sitting	18		Acceptable
	C	Spring	13		Standing	19		Acceptable
		Summer	10		Sitting	14	-12%	Acceptable
		Fall	12		Sitting	18		Acceptable
		Winter	13		Standing	19		Acceptable
		Annual	12		Sitting	18		Acceptable
131	A	Spring	21		Uncomfortable	31		Acceptable
		Summer	16		Walking	24		Acceptable
		Fall	19		Walking	29		Acceptable
		Winter	22		Uncomfortable	33		Unacceptable
		Annual	20		Uncomfortable	30		Acceptable
	B	Spring	20		Uncomfortable	30		Acceptable
		Summer	16		Walking	23		Acceptable
		Fall	19		Walking	28		Acceptable
		Winter	22		Uncomfortable	33		Unacceptable
		Annual	20		Uncomfortable	30		Acceptable
	C	Spring	20		Uncomfortable	30		Acceptable
		Summer	16		Walking	23		Acceptable
		Fall	19		Walking	28		Acceptable
		Winter	22		Uncomfortable	33		Unacceptable
		Annual	20		Uncomfortable	30		Acceptable
132	A	Spring	14		Standing	22		Acceptable
		Summer	12		Sitting	19		Acceptable
		Fall	13		Standing	21		Acceptable
		Winter	14		Standing	23		Acceptable
		Annual	14		Standing	21		Acceptable
	B	Spring	13		Standing	21		Acceptable
		Summer	11		Sitting	17	-11%	Acceptable
		Fall	12		Sitting	20		Acceptable
		Winter	14		Standing	22		Acceptable
		Annual	13		Standing	20		Acceptable
	C	Spring	13		Standing	22		Acceptable
		Summer	11		Sitting	17	-11%	Acceptable
		Fall	13		Standing	20		Acceptable
		Winter	14		Standing	22		Acceptable
		Annual	13		Standing	21		Acceptable
133	A	Spring	20		Uncomfortable	28		Acceptable
		Summer	17		Walking	24		Acceptable
		Fall	18		Walking	26		Acceptable
		Winter	18		Walking	27		Acceptable
		Annual	18		Walking	26		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

Table 1: Mean Speed and Effective Gust Speed - Multiple Seasons

BRA Criteria			Mean Wind Speed			Effective Gust Wind Speed		
Loc.	Config.	Season	Speed (mph)	%Change	RATING	Speed (mph)	%Change	RATING
	B	Spring	17	-15%	Walking	26		Acceptable
		Summer	15	-12%	Standing	22		Acceptable
		Fall	16	-11%	Walking	24		Acceptable
		Winter	16	-11%	Walking	25		Acceptable
		Annual	16	-11%	Walking	24		Acceptable
	C	Spring	18		Walking	27		Acceptable
		Summer	16		Walking	23		Acceptable
		Fall	17		Walking	25		Acceptable
		Winter	17		Walking	25		Acceptable
		Annual	17		Walking	25		Acceptable
134	A	Spring	18		Walking	25		Acceptable
		Summer	16		Walking	22		Acceptable
		Fall	17		Walking	23		Acceptable
		Winter	17		Walking	24		Acceptable
		Annual	17		Walking	23		Acceptable
	B	Spring	17		Walking	25		Acceptable
		Summer	15		Standing	21		Acceptable
		Fall	16		Walking	23		Acceptable
		Winter	16		Walking	24		Acceptable
		Annual	16		Walking	23		Acceptable
	C	Spring	17		Walking	25		Acceptable
		Summer	15		Standing	21		Acceptable
		Fall	16		Walking	23		Acceptable
		Winter	16		Walking	24		Acceptable
		Annual	16		Walking	23		Acceptable
135	A	Spring	15		Standing	23		Acceptable
		Summer	12		Sitting	17		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	15		Standing	23		Acceptable
		Annual	14		Standing	22		Acceptable
	B	Spring	16		Walking	24		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	15		Standing	23		Acceptable
		Annual	15		Standing	22		Acceptable
	C	Spring	16		Walking	24		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	15		Standing	23		Acceptable
		Winter	16		Walking	24		Acceptable
		Annual	15		Standing	22		Acceptable

Notes: 1) Wind speeds are for a 1% probability of exceedance; and,
2) % Change is based on comparison with Configuration A and only those that are greater than 10% are listed.

Configurations	Mean Wind Speed Criteria		Effective Gust Criteria	
A – No Build	Comfortable for Sitting:	≤ 12 mph	Acceptable:	≤ 31 mph
B – Base Scheme	Comfortable for Standing:	> 12 and ≤ 15 mph	Unacceptable:	> 31 mph
C – Alternate Scheme	Comfortable for Walking:	> 15 and ≤ 19 mph		
	Uncomfortable for Walking:	> 19 and ≤ 27 mph		
	Dangerous Conditions:	> 27 mph		

APPENDIX A

APPENDIX A: DRAWING LIST FOR MODEL CONSTRUCTION

The drawings and information listed below were received from Pelli Clarke Pelli Architects and were used to construct the scale model of the proposed Back Bay / South End Gateway Project. Should there be any design changes that deviate from this list of drawings, the results may change. Therefore, if changes in the design are made, it is recommended that RWDI be contacted and requested to review their potential effects on wind conditions.

File Name	File Type	Date Received (dd/mm/yyyy)
160311_Massing_RWDI.3dm	Rhinoceros	11/03/16

RWDI
CONSULTING ENGINEERS & SCIENTISTS

CANADA'S BEST MANAGED COMPANIES
Platinum member

Memorandum

Tel: 519.823.1311
Fax: 519.823.1316

Rowan Williams Davies & Irwin Inc.
600 Southgate Drive
Guelph, Ontario, Canada
N1G 4P6

Date: December 21, 2016 RWDI Reference #: 1601374

To: Melissa Schrock, Boston Properties E-Mail: mshrock@bostonproperties.com

From: Nishat Nourin, RWDI E-Mail: Nishat.Nourin@rwdi.com
Gregory P. Thompson, RWDI Greg.Thompson@rwdi.com

RE: Back Bay/South End Gateway Project
Pedestrian Wind Study – Review of Design Modifications

Dear Ms. Schrock,

Rowan Williams Davies & Irwin Inc. (RWDI) has prepared this letter to comment on the potential wind effects of recent design modifications and MEPA-requested alternative studies for the proposed Back Bay/South End Gateway Project (the "Project") in Boston, Massachusetts. Updated architectural drawings were provided to RWDI by Pelli Clarke Pelli Architects on October 6 and 7, 2016, and November 10, 2016. This assessment is based on the results of previous wind tunnel testing conducted for the same Project, our understanding of wind flows around buildings and our engineering judgment.

Wind tunnel tests were conducted by RWDI for the Project in April, 2016. Our findings are summarized in the following report:

"Project Dartmouth - Boston, MA - Pedestrian Wind Consultation", RWDI Project # 1601374, May 18, 2016".

DESIGN MODIFICATIONS

Since the wind tunnel testing, the general massing of the Project, as indicated by the most updated drawings received by RWDI on October 6 and 7, 2016, remains similar to the previous design. However, there are several design modifications that may potentially affect pedestrian wind conditions:

1. The height of the Station West Retail is substantially reduced as the 3rd level is eliminated and height of the 2nd level is reduced by 4 feet.

2. The Station East building is moved westward into the Project Site by 13 feet and the ground floor lobby extension is reduced in size (see Images 1a and 1b); and,

3. The height of the Station East mechanical penthouse is modestly increased by 6 feet.

For the Station West Retail, as noted above, there is an approximately 20 feet reduction of the height. During the previous testing, RWDI studied two versions of the Station West Retail, a one-level vertical expansion (Station West Base Scheme), and a two-level vertical expansion (Station West Alternate Scheme). We understand that a reduced Station West Base Scheme will be adopted. This change will be

incorporated with the studied Garage West Alternate scheme. Based on the wind tunnel test results, these changes are not expected to have any negative impact on the wind conditions mentioned in our report.

As shown in Images 1a and 1b below, the relocation of the Station East building and the reduction of the lobby extension are expected to result in similar wind conditions as predicted in previous wind tunnel tests. The existing and proposed buildings around Station East and the proposed marcescent trees to the east of the building would protect the surrounding areas from high wind activity.

Image 1a: Previous foot print of Station East building used in wind tunnel testing on April, 2016

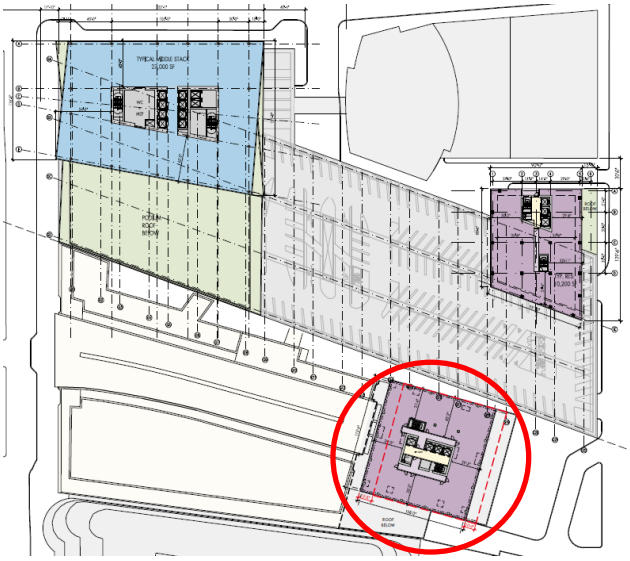


Image 1b: Revised foot print of Station East building received on October 7, 2016 (red dotted line indicates previous footprint)

The effect of the modest height change for the mechanical penthouse of the Station East building is also minimal. The height difference of 6 feet is not expected to alter the overall wind conditions predicted and the wind conditions are expected to be similar to what has been presented in the report for the height tested.

MEPA-REQUESTED ALTERNATIVES

In addition to the above changes, RWDI was requested to provide a qualitative assessment on two development alternatives: the As-Of-Right Zoning Alternative and the Third Residential Building Alternative for the Garage West Site (Images 2a through 2d). The development alternatives were received by RWDI on November 10, 2016 from Pelli Clarke Pelli Architects.

The As-Of-Right Zoning Alternative is very similar to the Project design tested in our wind tunnel (Images 2a and 2b), and also known as the Preferred Alternative. The As-Of-Right Zoning Alternative includes an additional step at the south podium, and regular setbacks between the 14th floor and 22nd floor, similar to the undulating setbacks of the Preferred Alternative. Both the As-Of-Right Zoning Alternative and the Project design incorporate a setback of the tower on the south, which helps reduce the energy of winds downwashing off the façade and thus reduce the direct impact of downwashing wind flows at grade level.

The additional setback of the As-Of-Right Zoning Alternative is not anticipated to create a significant benefit in the reduction of downwashing wind flows at grade level. These are additional minor design changes and the wind conditions at grade level are expected to be similar to the conditions predicted from the wind tunnel test.

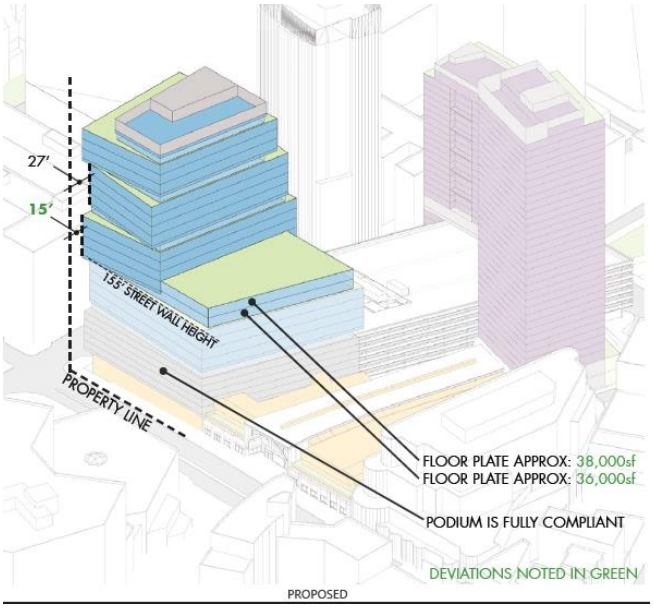


Image 2a: Preferred Alternative design of Garage West building used in Wind Tunnel Testing on April, 2016

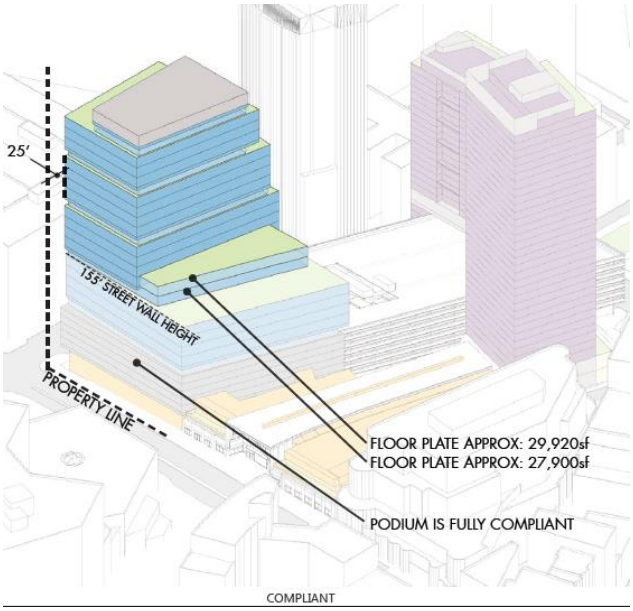


Image 2b: As-Of-Right Zoning Alternative received on November 10, 2016

Third Residential Building Alternative (Image 2d) is the same height as the office building in the Preferred Alternative and is situated in the same location on the site with its northwest corner at the corner of the project site. With this location and height, it is expected to capture approximately the same amount of wind as the Preferred Alternative. While the Third Residential Building Alternative is a more slender building with a smaller footprint, it has a much smoother façade than the irregular profile of the office building in the Preferred Alternative, which incorporates multiple steps that are beneficial to reduce the energy of winds. The Third Residential Alternative does include a lower podium compared to the Preferred Alternative, which is also beneficial in reducing downwashing. In addition, the residential building has a narrower façade facing the west and sets back from the north and west edges of its podium, which are positive design features that are expected to reduce downwashing wind flows at grade level. Therefore, considering both positive and negative attributes of the Third Residential Building Alternative, RWDI anticipates that the wind speeds at grade level would be similar to those found during the testing of the Project Design.

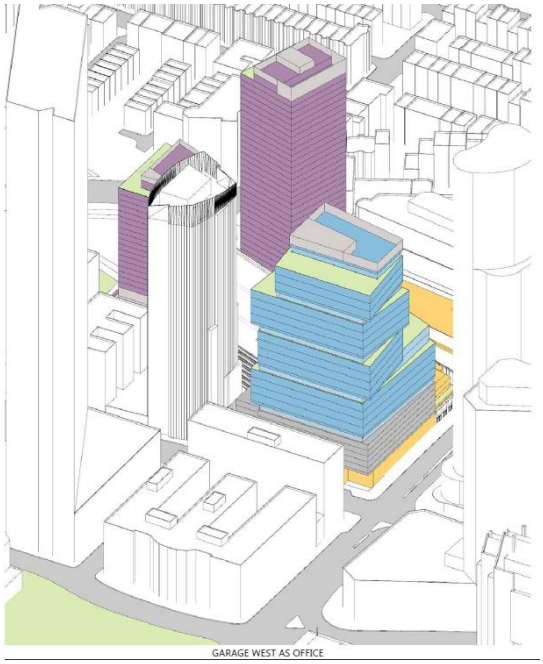


Image 2c: Preferred Alternative design of Garage West building used in Wind Tunnel Testing on April, 2016

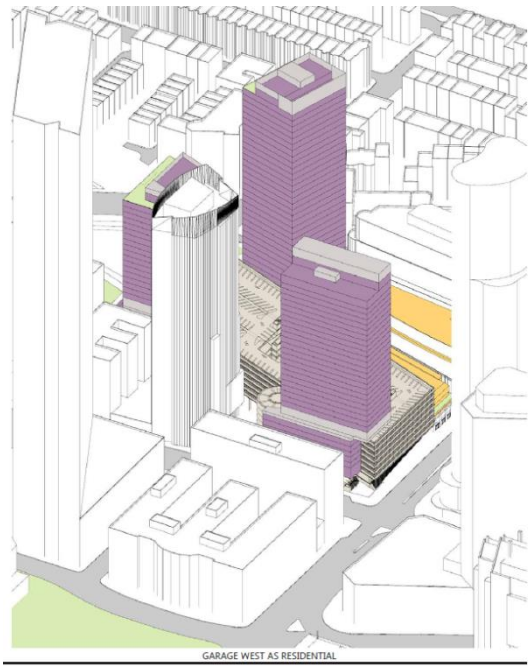


Image 2d: Third Residential Building Alternative received on November 10, 2016

We trust the above assessment satisfies your requirements for the Project. Should you have any questions or require additional information, please do not hesitate to call.

Yours very truly,

ROWAN WILLIAMS DAVIES & IRWIN Inc.

Nishat Nourin, M.Eng., EIT
Microclimate Scientist

Gregory P. Thompson, M.A.Sc.
Senior Project Manager / Principal

APPENDIX J: BPDA Supporting Documentation

BPDA Accessibility Checklist
BPDA Climate Change Preparedness and Resiliency Checklist

Article 80 | ACCESSIBILTY CHECKLIST

Project Information

Project Name:	**The Back Bay / South End Gateway Project**
Project Address Primary:	**145 Dartmouth St. and 165 Dartmouth St., also known as 100 Clarendon St.**
Project Address Additional:	
Project Contact (name / Title / Company / email / phone):	**Melissa Schrock, Senior Project Manager, Development** **Boston Properties, Inc.** **mschrock@bostonproperties.com** **617-236-3300**

Team Description

Owner / Developer:	**BP Hancock LLC, owner through its affiliate Boston Properties Limited Partnership**
Architect:	**Pelli Clarke Pelli Architects –** Garage West, Garage East, Station East **Arrowstreet, Inc.** – Station West
Engineer (building systems):	**Bard, Rao + Athanas Consulting Engineers –** Garage West, Garage East, Station East **AHA Consulting Engineers.** – Station West
Sustainability / LEED:	**ARUP**
Permitting:	**VHB**
Construction Management:	**Turner Construction Company**

Project Permitting and Phase

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

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

Building Classification and Description

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

Residential – One to Three Unit	**Residential - Multi-unit, Four +**	Institutional	Education
Commercial	**Office**	**Retail**	Assembly

	Laboratory / Medical	Manufacturing / Industrial	Mercantile	Storage, Utility and Other
First Floor Uses (List)	**Garage West:** lobby, retail, public transit access and back of house **Garage East:** lobby and back of house **Station East:** lobby, retail, public transit access and back of house **Station West**: lobby, retail, public transit access and back of house			

What is the Construction Type – select most appropriate type?

Wood Frame	Masonry	**Steel Frame** (Garage West, Station West, Station East)	**Concrete** (Garage East)

Describe the building?

The Project is comprised of up to approximately 1.26 million square feet of mixed use redevelopment across four Air Rights Development Parcels (Garage West Parcel, Garage East Parcel, Station East Parcel and Station West Parcel), consisting of a new office building with ground floor retail, two new residential buildings, a one-story vertical retail expansion of the existing Back Bay/South End Station building, and the partial redevelopment of the existing 100 Clarendon Street Parking Garage.

Site Area:	***Garage West: 68,846 sf*** ***Garage East: 52,966 sf*** ***Station East: 38,413 sf*** ***Station West: 64,676 sf***	Building Area:[1] **(for Base Schemes)**	***Garage West: 606,400 sf*** ***Garage East: 222,100 sf*** ***Station East: 387,000 sf*** ***Station West: 30,000 sf***
Building Height: [2]	***Garage West: 365'*** ***Garage East: 305'*** ***Station East: 400'*** ***Station West: 42'***	Number of Stories:	***Garage West: 26*** ***Garage East: 28*** ***Station East: 35*** ***Station West: 1***
First Floor Elevation (reference Boston City Base):	***Garage West: 17.5-22' (Stuart St.) and 31' on (Dartmouth St.)*** ***Garage East: 18'*** ***Station East: 29 - 31.5'*** ***Station West: 29.2'***	Are there below grade spaces/levels, if yes how many:	***There will not be below grade spaces at the Station East or Station West Parcels. There may be a partial basement level at the Garage West and /or the Garage East Parcel for services uses.***

[1] Unless labeled otherwise, all areas provided herein are described in gross floor area as such term is used in the definition of "Floor Area Ratio" in the Code; therefore, such areas specifically exclude floor area devoted to garage use, whether or not in the basement of a building or serving residential uses, mechanical equipment, storage, service and loading areas, and areas serving as access to, egress from or use by public transit services, including pedestrian bridge connections providing access to such public transit services, whether directly or indirectly as part of the overall Project. Please note that given the fact that the majority of the Project Site is on and over air rights, it is not possible to reconstruct parking spaces beneath one or more of the buildings, and thus this filing and PDA No.2 as amended will expressly exclude the square footage allocated to such parking for the purposes of calculating FAR.

[2] Notwithstanding the definition of "Building Height" set forth in the Code, with respect to each of the Air Rights Development Parcels, the following shall be the "grade" for each: (i) Garage West: 20'-6" BCB; (ii) Garage East: 19'-2" BCB; (iii) Station East: 31'-6" BCB; (iv) Station West: 29'-2" BCB; and the "Building Height" shall be the vertical distance from said "grade" to the top of the structure of the last occupied floor; Provided further that any elevator penthouse, stairway bulkhead or any other roof structure built for the purpose of accessing a roof deck or roof terrace as well as the said roof decks and roof terraces and other roof top amenities themselves, shall be excluded from the calculation of building height under the PDA.

Assessment of Existing Infrastructure for Accessibility:

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

Provide a description of the development neighborhood and identifying characteristics.	The Project is located at the edge of Boston's Back Bay and South End Neighborhoods. The immediately adjacent areas of Back Bay are dominated by large scale commercial office and retail uses within buildings dating from the early 20th century to the more modern 200 Clarendon Tower and Copley Place Mall. The adjacent areas of the South End neighborhood are dominated by residential row housing and tree-lined streets typical of its mature residential nature. The Project area also contains open space uses such as the exterior plaza at the Copley Place Mall, the nearby Copley Square and the wide sidewalks adjacent to the Boston Public Library. The existing sidewalks and pedestrian ramps are cast-in-place concrete that are in fair to poor condition. In two specific locations, due to the bridge sections of Dartmouth and Clarendon Streets spanning I-90 and the rail lines, the existing sidewalks are not ADA compliant as they exceed the maximum allowable cross slope. This occurs at the Dartmouth Street/Stuart Street intersection and along the western side of Clarendon Street between the MassDOT-controlled service road and the entrance to the Garage.
List the surrounding ADA compliant MBTA transit lines and the proximity to the development site: Commuter rail, subway, bus, etc.	The Project Site is located over and adjacent to the Back Bay / South End Station with immediate access to multiple public transportation services, including MBTA Commuter Rail, Orange Line and local bus routes, and AMTRAK.
List the surrounding institutions: hospitals, public housing and elderly and disabled housing developments, educational facilities, etc.	The nearest known public housing/elderly facility is 70 St. Botolph St., approximately 0.25 miles southwest of the Site. The closest known public school is the Snowden International School, approximately 0.2 miles north of the site.
Is the proposed development on a priority accessible route to a key public use facility? List the surrounding: government buildings, libraries, community centers and recreational facilities and other related facilities.	Boston Public Library, YWCA, Trinity Church, Back Bay Station, Copley Square, Southwest Corridor Park, Freida Garcia Park.

Surrounding Site Conditions – Existing:

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

Are there sidewalks and pedestrian ramps existing at the development site?	**Yes**
If yes above, list the existing sidewalk and pedestrian ramp materials and physical condition at the development site.	**The existing sidewalks and pedestrian ramps are cast-in-place concrete that are in fair to poor condition. In two specific locations, due to the interface between the bridge sections of Dartmouth and Clarendon Streets spanning I-90 rail lines, the existing sidewalks are not ADA compliant as they exceed the maximum allowable cross slope. This occurs at the Dartmouth Street/Stuart Street intersection and along the western side of Clarendon Street between the MassDOT-controlled service road and the entrance to the Garage.**
Are the sidewalks and pedestrian ramps existing-to-remain? **If yes,** have the sidewalks and pedestrian ramps been verified as compliant? **If yes,** please provide surveyors report.	**The hardscape and streetscape improvements at the Project Site are anticipated to be reconstructed as part of the Project. Therefore, the existing sidewalks and pedestrian ramps have not been verified by a surveyor for compliance.**
Is the development site within a historic district? **If yes,** please identify.	**No. The Project Site is not located within any existing historic district but is adjacent to Back Bay Historic District and the Park Square Stuart Street Historic District (inventoried), and is in proximity to the South End District/South End Landmark District, the Bay Village Historic District, and the St. Botolph Street Area/Architectural Conservation District**

Surrounding Site Conditions – Proposed

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

Are the proposed sidewalks consistent with the Boston Complete Street Guidelines? See: www.bostoncompletestreets.org	**The proposed sidewalks at the Project Site will be consistent with the BTD Complete Streets Guidelines.**

If yes above, choose which Street Type was applied: Downtown Commercial, Downtown Mixed-use, Neighborhood Main, Connector, Residential, Industrial, Shared Street, Parkway, Boulevard.	The current sidewalk design is at a conceptual level but is anticipated to meet the Downtown Commercial and/or Downtown Mixed Use standards.
What is the total width of the proposed sidewalk? List the widths of the proposed zones: Frontage, Pedestrian and Furnishing Zone.	Along Dartmouth Street, the sidewalk typically maintains 21 feet from curb to structure. This dimension includes a 6.5-foot furnishing zone from back of curb, where street trees, parking meters, lighting, trash receptacles, and other streetscape elements are to be located. The pedestrian zone along Dartmouth Street maintains a 15-foot clear zone. Where appropriate, a 2-foot wide frontage zone will be included. This condition exists along the entire stretch of Dartmouth Street except at an existing raised outdoor restaurant patio at the southern portion of the site. At this condition, the curb shifts to allow for a 13' clear zone for pedestrian travel. Along Stuart Street, a vehicular lay-by is provided to service the office building and entrance to the Station through-block connector. In this area, a 6.5-foot furnishing zone is provided and the pedestrian zone is a minimum of 11-foot clear. This area also includes planting buffers at each end of the lay-by to increase pedestrian safety. Along Clarendon Street, the frontage zone varies from 2 feet to 6.5 feet a minimum 9-foot clear pedestrian path of travel is provided along the proposed Garage East residential building, increasing to a 15-foot width in front of the Garage itself. At the station entry this 15-foot pedestrian clear path continues and opens into a civic pedestrian plaza with landscape and trees in raised planters. This enhanced pedestrian zone includes accessible paths to the station and residential entrances. A vehicular drop-off is also provided.
List the proposed materials for each Zone. Will the proposed materials be on private property or will the proposed materials be on the City of Boston pedestrian right-of-way?	Proposed materials for the sidewalks will likely include unit pavers for the furnishing zones and cast-in-place concrete for the pedestrian and frontage zones. Unit pavers may also be used to enhance building entries and other special areas within the pedestrian zone. These materials will be located on both private property and within the City of Boston pedestrian right-of-way.
If the pedestrian right-of-way is on private property, will the proponent seek a pedestrian easement with the City of Boston Public Improvement Commission?	The extent to which an easement or other authorization is required from PIC will be determined as the Project plans advance during the public review process.
Will sidewalk cafes or other furnishings be programmed for the pedestrian right-of-way?	These details will be determined as the design advances.
If yes above, what are the proposed dimensions of the sidewalk café or	These details will be determined as the design advances.

furnishings and what will the right-of-way clearance be?	

Proposed Accessible Parking:

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

What is the total number of parking spaces provided at the development site parking lot or garage?	**The Garage will provide up to the existing permitted capacity of 2013 spaces.**
What is the total number of accessible spaces provided at the development site?	**To be determined as the design advances, however, the Project will fully comply with all state and local regulatory requirements.**
Will any on street accessible parking spaces be required? If yes, has the proponent contacted the Commission for Persons with Disabilities and City of Boston Transportation Department regarding this need?	**No on-street accessible parking spaces are anticipated to be required and none are proposed at this time.**
Where is accessible visitor parking located?	**Accessible visitor parking will be available within the Garage at the Project Site, and located near entrances and elevators.**
Has a drop-off area been identified? If yes, will it be accessible?	**Yes, accessible drop-off areas are planned along Stuart Street, Dartmouth Street, and off Clarendon Street in proximity to Station and lobby entrances.**
Include a diagram of the accessible routes to and from the accessible parking lot/garage and drop-off areas to the development entry locations. Please include route distances.	**Please see figure attached.**

Circulation and Accessible Routes:

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

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

Provide a diagram of the accessible route connections through the site.	**Please see figure attached.**
Describe accessibility at each entryway: Flush Condition, Stairs, Ramp Elevator.	**Entryways are anticipated to include a combination of flush connections, stairs, ramps and elevators to provide ADA compliant access to all individuals.**
Are the accessible entrance and the standard entrance integrated?	**As currently designed, the accessible and standard entrances are anticipated to be integrated.**
If no above, what is the reason?	
Will there be a roof deck or outdoor courtyard space? If yes, include diagram of the accessible route.	**Yes. Roof decks are presently planned at all parcels. See attached figure.**
Has an accessible routes way-finding and signage package been developed? If yes, please describe.	**No. At this early stage of design, accessible routes and way-finding signage packages have not yet been developed.**

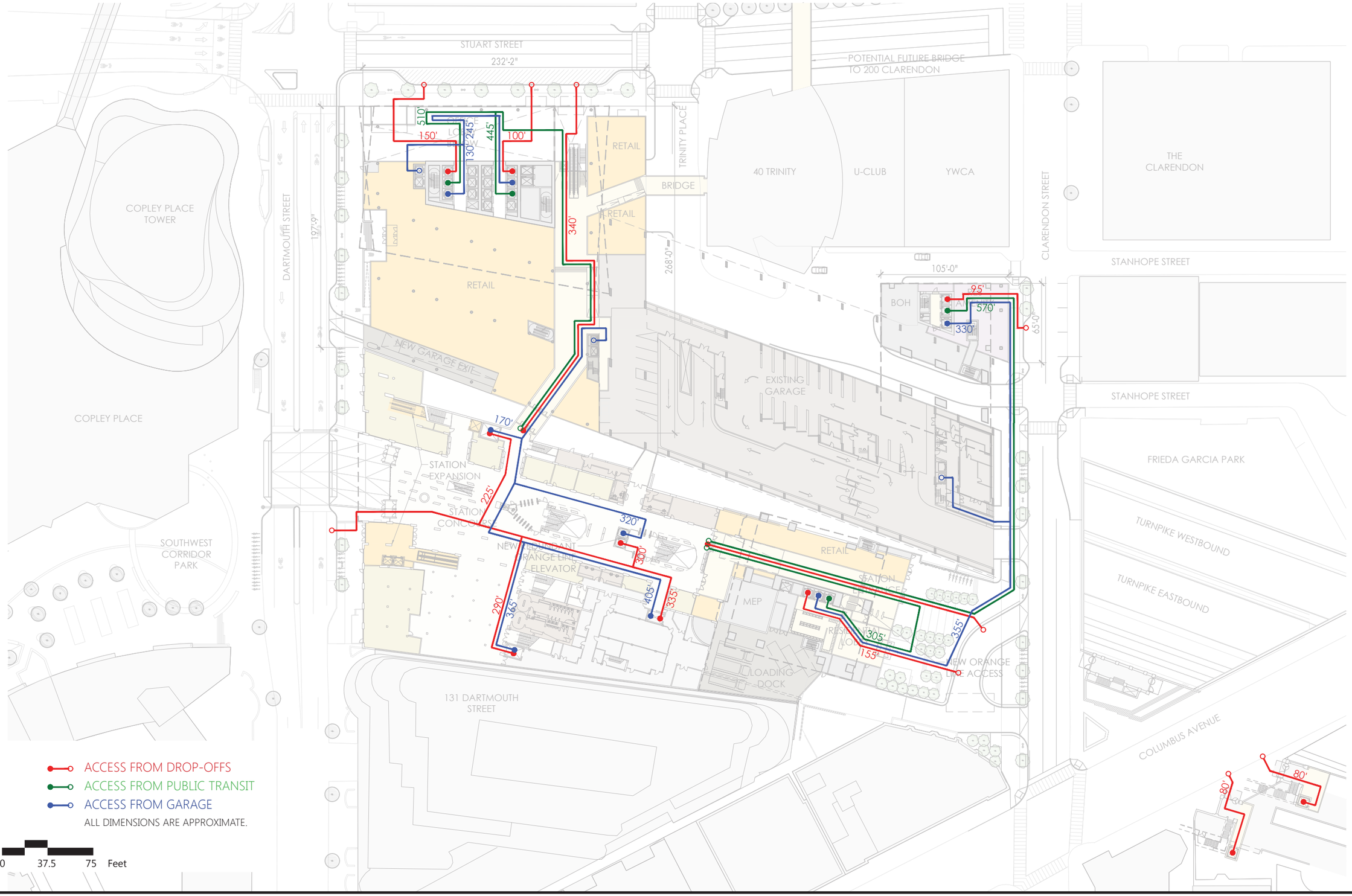
Accessible Units: (If applicable)

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

What is the total number of proposed units for the development?	**The Garage East building includes approximately 240 residential units and the Station East building includes approximately 360 residential units.**
How many units are for sale; how many are for rent? What is the market value vs. affordable breakdown?	**The mix of rental vs. for-sale units in the Garage East and Station East residential buildings will be determined as the project design advances.**
How many accessible units are being proposed?	**The number of accessible units at the Project will be determined as the project advances, however, as required by 521 CMR, it is anticipated that 5% will be designed to be accessible.**

Article 80 | ACCESSIBILTY CHECKLIST

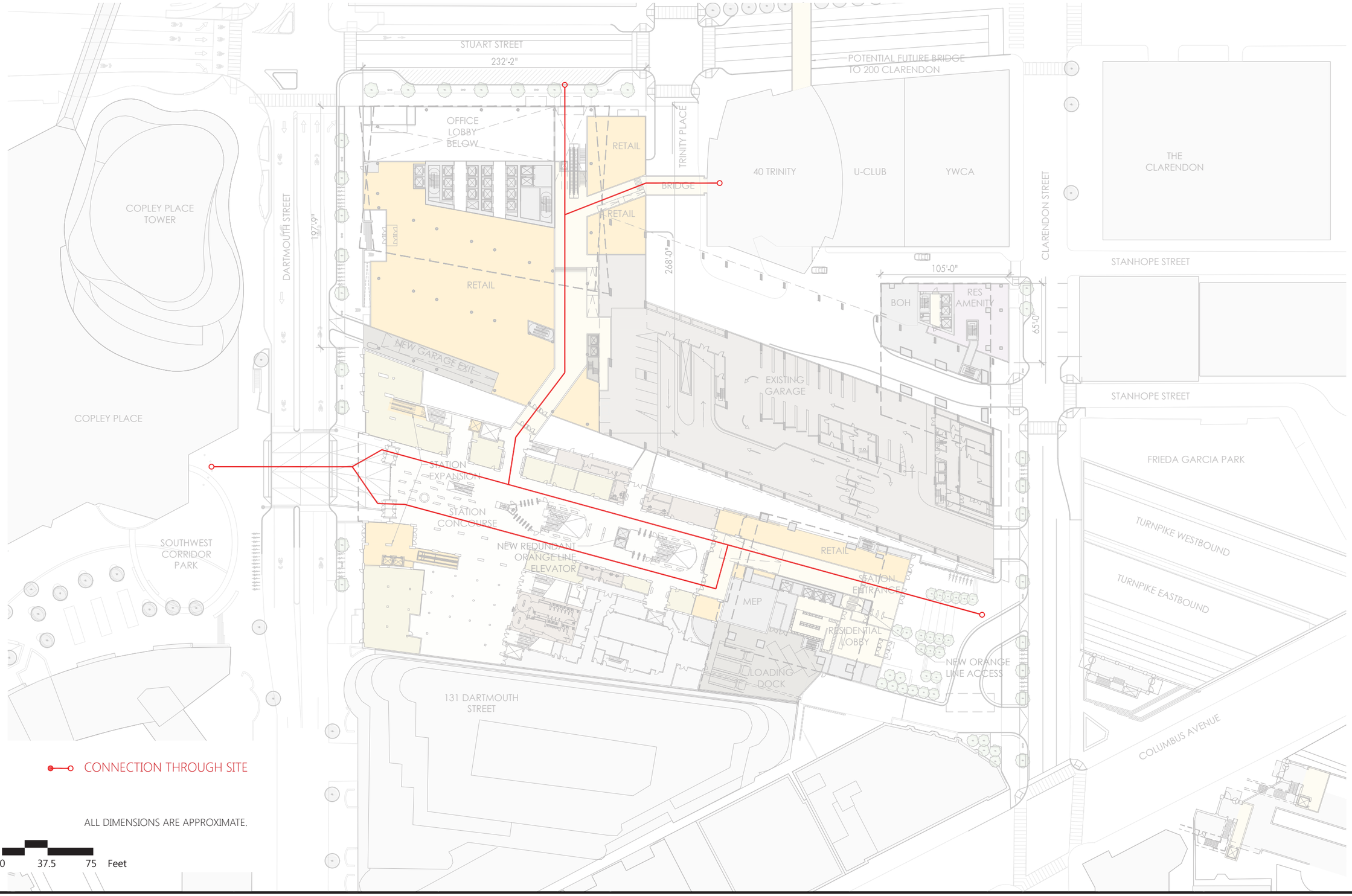
Please provide plan and diagram of the accessible units.	**These details will be determined as the Project design advances.**
How many accessible units will also be affordable? If none, please describe reason.	**The number of affordable accessible residential units will be determined as the Project design advances.**
Do standard units have architectural barriers that would prevent entry or use of common space for persons with mobility impairments? Example: stairs at entry or step to balcony. **If yes,** please provide reason.	**The interior building design is early in its development, however, it is not anticipated that neither residential units or common space will have any architectural barriers.**
Has the proponent reviewed or presented the proposed plan to the City of Boston Mayor's Commission for Persons with Disabilities Advisory Board?	**The Project has not yet presented the proposed plan to the City of Boston Mayor's Commission for Persons with Disabilities Advisory Board. The Project Team is scheduled to meet with the Board on February 27, 2017.**
Did the Advisory Board vote to support this project? **If no,** what recommendations did the Advisory Board give to make this project more accessible?	**The Project has not yet been reviewed by the Advisory Board.**

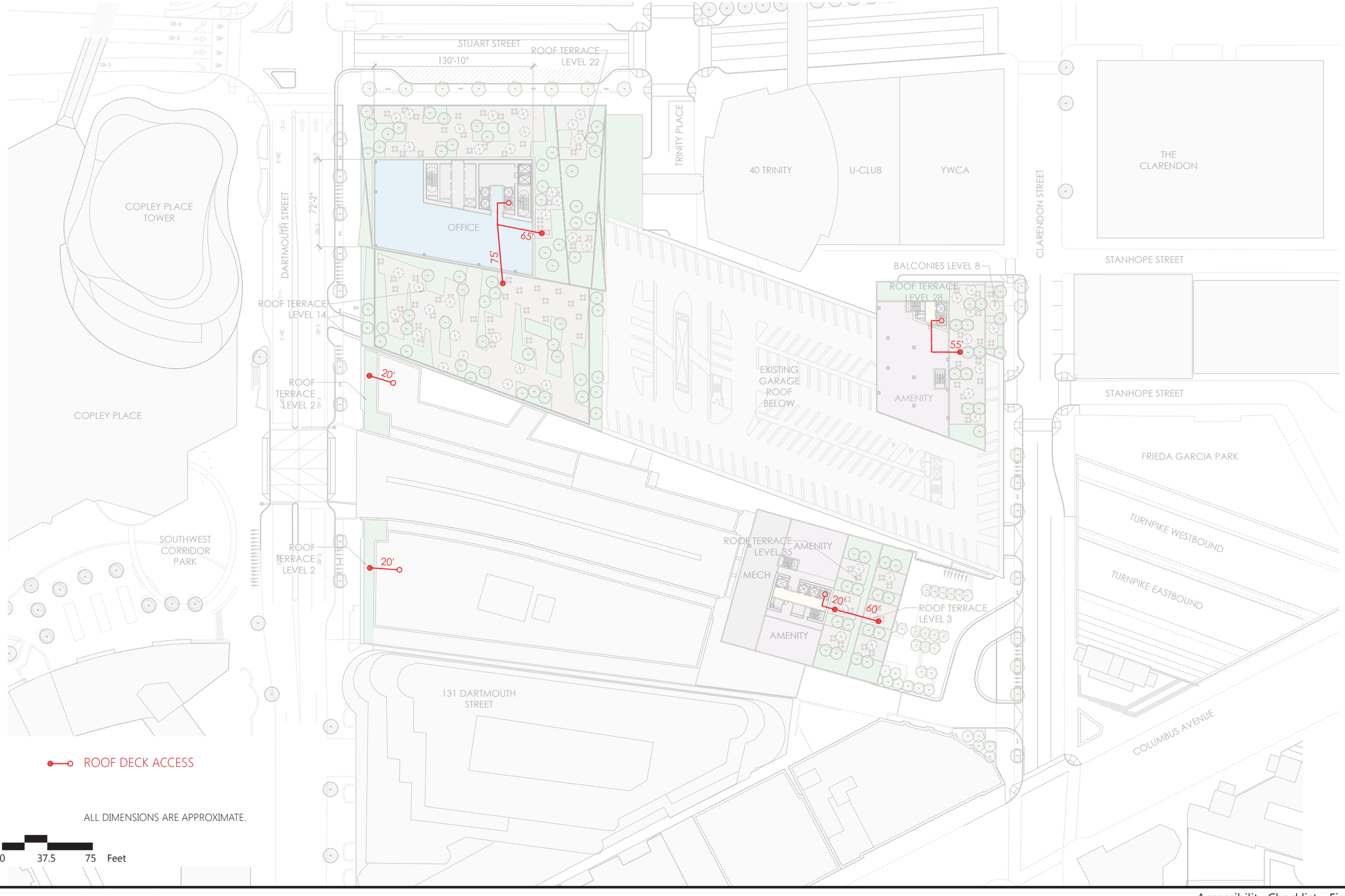


ACCESS FROM DROP-OFFS
ACCESS FROM PUBLIC TRANSIT
ACCESS FROM GARAGE

ALL DIMENSIONS ARE APPROXIMATE.

0 37.5 75 Feet


STUART STREET
232'-2"
POTENTIAL FUTURE BRIDGE TO 200 CLARENDON
OFFICE LOBBY BELOW
RETAIL
TRINITY PLACE
40 TRINITY
U-CLUB
YWCA
THE CLARENDON
BRIDGE
RETAIL
COPLEY PLACE TOWER
DARTMOUTH STREET
197'-9"
268'-0"
105'-0"
CLARENDON STREET
STANHOPE STREET
BOH
RES AMENITY
65'-0"
RETAIL
NEW GARAGE EXIT
EXISTING GARAGE
STANHOPE STREET
COPLEY PLACE
FRIEDA GARCIA PARK
STATION EXPANSION
STATION CONCOURSE
NEW REDUNDANT ORANGE LINE ELEVATOR
SOUTHWEST CORRIDOR PARK
RETAIL
STATION ENTRANCE
MEP
RESIDENTIAL LOBBY
LOADING DOCK
NEW ORANGE LINE ACCESS
TURNPIKE WESTBOUND
TURNPIKE EASTBOUND
131 DARTMOUTH STREET
COLUMBUS AVENUE
CONNECTION THROUGH SITE
ALL DIMENSIONS ARE APPROXIMATE.
0
37.5
75
Feet


STUART STREET
130'-10"
ROOF TERRACE
LEVEL 22
TRINITY PLACE
40 TRINITY
U-CLUB
YWCA
THE
CLARENDON
CLARENDON STREET
STANHOPE STREET
COPLEY PLACE
TOWER
DARTMOUTH STREET
72'-2"
OFFICE
65'
75'
ROOF TERRACE
LEVEL 14
20'
ROOF
TERRACE
LEVEL 2
COPLEY PLACE
BALCONIES LEVEL 8
ROOF TERRACE
LEVEL 28
55'
EXISTING
GARAGE
ROOF
BELOW
AMENITY
STANHOPE STREET
FRIEDA GARCIA PARK
SOUTHWEST
CORRIDOR
PARK
ROOF
TERRACE
LEVEL 2
20'
ROOF TERRACE
LEVEL 35
AMENITY
MECH
20'
60'
AMENITY
ROOF TERRACE
LEVEL 3
TURNPIKE WESTBOUND
TURNPIKE EASTBOUND
131 DARTMOUTH
STREET
COLUMBUS AVENUE
ROOF DECK ACCESS
ALL DIMENSIONS ARE APPROXIMATE.
0
37.5
75
Feet

Climate Change Preparedness and Resiliency Checklist for New Construction

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

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

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

Climate Change Analysis and Information Sources:

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

Checklist

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

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

Please Note: When initiating a new project, please visit the BPDA web site for the most current Climate Change Preparedness & Resiliency Checklist.

A.1 - Project Information

Project Name:	**The Back Bay / South End Gateway Project**
Project Address Primary:	**145 Dartmouth St. and 165 Dartmouth St., also known as 100 Clarendon St.**
Project Address Additional:	
Project Contact (name / Title / Company / email / phone):	**Melissa Schrock, Senior Project Manager, Development** **Boston Properties, Inc.** **mschrock@bostonproperties.com** **617-236-3300**

A.2 - Team Description

Owner / Developer:	**BP Hancock LLC, owner through its affiliate Boston Properties Limited Partnership**
Architect:	**Pelli Clarke Pelli Architects –** Garage West, Garage East, Station East **Arrowstreet, Inc.** – Station West
Engineer (building systems):	**Bard, Rao + Athanas Consulting Engineers –** Garage West, Garage East, Station East **AHA Consulting Engineers.** – Station West
Sustainability / LEED:	**ARUP**
Permitting:	**VHB**
Construction Management:	**Turner Construction Company**
Climate Change Expert:	**ARUP**

A.3 - Project Permitting and Phase

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

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

A.4 - Building Classification and Description – *<u>*Building descriptions assume Base Schemes**</u>*

List the principal Building Uses:	**Office, retail, residential and parking**
List the First Floor Uses:	**Garage West**: lobby, retail, public transit access and back of house **Garage East:** lobby and back of house **Station East:** lobby, retail, public transit access and back of house **Station West:** lobby, retail, public transit access and back of house

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

Wood Frame	Masonry	**Steel Frame** (Garage West, Station West, Station East)	**Concrete** (Garage East)

Describe the building? **The Project is comprised of up to approximately 1.245 million square feet of mixed-use redevelopment across four Air Rights Development Parcels (Garage West Parcel, Garage East Parcel, Station East Parcel and Station West Parcel), consisting of a new office building with ground floor retail, two new residential buildings, a one-story vertical retail expansion of the existing Back Bay/South End Station building, and the partial redevelopment of the existing 100 Clarendon Street Parking Garage.**

Site Area:	***Garage West: 68,846 sf*** ***Garage East: 52,966 sf*** ***Station East: 38,413 sf*** ***Station West: 64,676 sf***	Building Area:[1] **(for Base Schemes)**	***Garage West: 606,400 sf*** ***Garage East: 222,100 sf*** ***Station East: 387,000 sf*** ***Station West: 30,000 sf***
Building Height:[2]	***Garage West: 365'*** ***Garage East: 305'*** ***Station East: 400'*** ***Station West: 462'***	Number of Stories:	***Garage West: 26*** ***Garage East: 28*** ***Station East: 35*** ***Station West: 1***
First Floor Elevation (reference Boston City Base):	***Garage West: 17.5-22' (Stuart St.) and 31' on (Dartmouth St.)*** ***Garage East: 18'*** ***Station East: 29' – 31.5'*** ***Station West: 29.2'***	Are there below grade spaces/levels, if yes how many:	***There will not be below grade spaces at the Station East, or Station West Parcels. There may be a partial basement level at the Garage West and /or the Garage East Parcel for services uses.***

A.5 - Green Building

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

Garage West: LEED 2009 for Core and Shell – **GOLD**

Garage East: LEED 2009 for New Construction and Major Renovations – **SILVER**

Station East: LEED 2009 for New Construction and Major Renovations – **SILVER**

Station West: LEED 2009 for Core and Shell – **SILVER**

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[1] Unless labeled otherwise, all areas provided herein are described in gross floor area as such term is used in the definition of "Floor Area Ratio" in the Code; therefore, such areas specifically exclude floor area devoted to garage use, whether or not in the basement of a building or serving residential uses, mechanical equipment, storage, service and loading areas, and areas serving as access to, egress from or use by public transit services, including pedestrian bridge connections providing access to such public transit services, whether directly or indirectly as part of the overall Project. Please note that given the fact that the majority of the Project Site is on and over air rights, it is not possible to reconstruct parking spaces beneath one or more of the buildings, and thus this filing and PDA No.2 as amended will expressly exclude the square footage allocated to such parking for the purposes of calculating FAR.

[2] Notwithstanding the definition of "Building Height" set forth in the Code, with respect to each of the Air Rights Development Parcels, the following shall be the "grade" for each: (i) Garage West: 20'-6" BCB; (ii) Garage East: 19'-2" BCB; (iii) Station East: 31'-6" BCB; (iv) Station West: 29'-2" BCB; and the "Building Height" shall be the vertical distance from said "grade" to the top of the structure of the last occupied floor; Provided further that any elevator penthouse, stairway bulkhead or any other roof structure built for the purpose of accessing a roof deck or roof terrace as well as the said roof decks and roof terraces and other roof top amenities themselves, shall be excluded from the calculation of building height under the PDA.

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

Registered:	Yes / No	Certified:	Yes / No

A.6 - Building Energy

Garage West

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

Electric:	*11.6 MW*	Heating:	*16,210 mbh*
What is the planned building Energy Use Intensity:	*61*	Cooling:	*2,200 tons*

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

Electric:	*2 MW*	Heating:	*10,000 mbh*
		Cooling:	*0 tons*

Garage East

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

Electric:	*4.6 MW*	Heating:	*5,000 mbh*
What is the planned building Energy Use Intensity:	*63*	Cooling:	*800 tons*

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

Electric:	*1.5 MW*	Heating:	*3,600 mbh*
		Cooling:	*0 tons*

Station East

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

Electric:	*6 MW*	Heating:	*7,310 mbh*
What is the planned building Energy Use Intensity:	*63*	Cooling:	*1,300 tons*

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

Electric:	*1.5 MW*	Heating:	*6,000 mbh*
		Cooling:	*0 tons*

Station West

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

Electric:	*2.4 MW*	Heating:	*3,000 mbh*
What is the planned building Energy Use Intensity:	*120-220*	Cooling:	*300 tons*

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

Electric:	*None (no generator)*	Heating:	*None (no generator)*
		Cooling:	*None (no generator)*

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

Electrical Generation:	*Electrical generation = peak electric demands of critical systems*		Fuel Source:	*Diesel*
System Type and Number of Units:	**Combustion Engine**	Gas Turbine	Combine Heat and Power	*Single (Units)*

B - Extreme Weather and Heat Events

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

B.1 - Analysis

What is the full expected life of the project?

Select most appropriate:	10 Years	25 Years	50 Years | ***(60 yrs.)***	75 Years

What is the full expected operational life of key building systems (e.g. heating, cooling, and ventilation)?

Select most appropriate:	10 Years	**25 Years**	50 Years	75 Years

What time span of future Climate Conditions was considered?

Near term: 2030 for Sea Level Rise (SLR) and storm surge; and span of 2015-2045 for temperature and precipitation.
Longer term: 2070 for SLR and storm surge and span of 2055-2085 for temperature and 2050 and 2100 for precipitation.

Analysis Conditions - What range of temperatures will be used for project planning – Low/High?

There are several sources that could be consulted with respect to projected temperature changes. They include the 2007 NECIA UCS report, EEA's Climate Adaptation Report (2011), the National Climate Assessment (2014) and Katharine Hayhoe's downscaled projections (2013) for the City of Cambridge, which include Boston-specific data, among others. In all of these, there is a general trend showing an increase in annual temperature, including both increases during the summer and winter months. Of these increases, those seen during the summer months will present the greatest challenges in terms of cooling loads and associated energy demands. Therefore, this project will focus on the summer peak temperatures and heat waves.

What Extreme Heat Event characteristics will be used for project planning – Peak High, Duration, and Frequency?
The City of Cambridge study provides downscaled data that provides a more robust baseline with respect to localized projections than the larger, more regionalized studies that were presented in the NECIA, EEA and NCA reports. Katharine Hayhoe's work predicted the following change in temperature under low and high emission scenarios for the 2030 (2015-2045) and 2070 (2055-2085) time horizons when compared to the present-day baseline (1971-2000). In those compilations, the following trends are observed:

Temp Changes	1971-2000	2030-low	2030-high	2070-low	2070-high
Annual Temp	50	53.3	53.5	55.8	58.7
Summer Temp	70.6	74.5	74.8	77.4	80.6
Winter Temp	29.8	32.2	33	34.6	38
Days >90 per year	11	29	31	47	68
Days >100 per year	<1	2	2	6	16

Assuming there are 90 days of summer within the June, July and August time frame, then by 2030, a third of the summer would have temps over 90; by 2070 under the low emission scenario, this would increase to nearly 50% and as much as 66% under the high emission scenario.

While there has been no study on the direct increase in heat waves during this time, a first order approximation is that those would increase concurrently with the increase in the number of days above 90 degrees F. Given that there are currently 1-2 heatwaves per summer in this area historically, one could project a similar increase in heatwaves based on the percent of days above 90 degrees – perhaps as many as 2-4 in 2030s and 6-8 in 2070s.

What Drought characteristics will be used for project planning – Duration and Frequency?

The Northeast has been trending towards a much wetter climate over the last 50 years in MA (Hayhoe et al, 2013; NCA, 2014). Since 1958, there has been a 74% increase in the frequency of extreme precipitation events both in terms of rain and snow. This trend is expected to continue (IBID). Based on that data, drought is not considered to be concern for this project.

What Extreme Rain Event characteristics will be used for project planning – Seasonal Rain Fall, Peak Rain Fall, and Frequency of Events per year?

The Project anticipates using the precipitation projections that were used in the recent BWSC Wastewater and Storm Drainage System Facility Plan (2015). Several joint workshops between BWSC, City and Cambridge and other entities were held to vet these numbers with those developed as part of the City of Cambridge Vulnerability Assessment study to ensure a level of standardization / compatibility across the Charles River. While there were some slight differences in the two methodologies (e.g., different projection horizons and GCMs were used), the two approaches yielded very similar results, providing independent verification of the projections and additional confidence in the recommended design storms.

	Total Storm Volume (inches)			Peak Hourly Intensities (inches per hour)		
Scenario Year	2035	2060	2100	2035	2060	2100
Medium (B2)	5.55	5.76	6.08	1.76	1.83	1.93
Precautionary (A1F1)	5.60	6.03	6.65	1.78	1.91	2.11

What Extreme Wind Storm Event characteristics will be used for project planning – Peak Wind Speed, Duration of Storm Event, and Frequency of Events per year?

There is still significant uncertainty with respect to how wind patterns and intensities will change with respect to future climatological conditions. Some models predict that a warming would lessen the

difference in air mass temperatures, others show a decrease in atmospheric wind shear aspects – both of which would potentially lead to less intense wind events. Other models predict an increase in wind intensities based on the increase of energy in the atmosphere. El Nino/La Nina add another layer of complexity to the projections. Based on this uncertainty, current wind design criteria are adopted for the Project.

B.2 - Mitigation Strategies

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

Building energy use below code:	Garage West: 21%* Garage East: 20%* Station East: 20%* Station West: complies with 90.1-2013 ECB *reference code = new 2017 Stretch Energy Code
How is performance determined:	Preliminary Energy Models

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

Select all appropriate:	High performance building envelope	High performance lighting & controls	Building day lighting	EnergyStar equip. / appliances
	High performance HVAC equipment	Energy recovery ventilation	No active cooling	No active heating
Describe any added measures:	See Section 5.4 of the DPIR/DEIR and Appendix G for LEED compliance narratives.			

What are the insulation ® values for building envelope elements?

	Garage West	Garage East	Station West	Station East
Foundation (R value)	7.5 (continuous)	7.5 (continuous)	N/A	7.5 (continuous)
Windows (R Value / U Value)	R=2.56 / U= 0.39	R=2.56 / U= 0.39	R=2.56 / U= 0.39	R=2.56 / U= 0.39
Walls / Curtain Wall (R value)	18.18 (opaque) 5 (spandrel)	18.18 (opaque) 5 (spandrel)	18.18 (opaque) 5 (spandrel)	18.18 (opaque) 5 (spandrel)
Basement / Slab (R value)	15 (for 24")	15 (for 24")	N/A	15 (for 24")
Doors (R Value)	2	2	2	2

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

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

Describe any added measures:	**Preliminary feasibility studies for the systems identified above have been conducted and results indicate minor energy savings, except for CHP systems, refer to Section 5.4.3 for full details. While not included in the base design proposal, these systems will continue to be evaluated as the Project design develops.**

Will the project employ Distributed Energy / Smart Grid Infrastructure and /or Systems?

Select all appropriate: **The Project will consider implementation of these strategies where feasible.**	Connected to local distributed electrical	Building will be Smart Grid ready	Connected to distributed steam, hot, chilled water	Distributed thermal energy ready

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

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

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

Select all appropriate:	**Solar oriented – longer south walls**	Prevailing winds oriented	External shading devices	Tuned glazing,
	Building cool zones	**Operable windows (Residential only)**	**Natural ventilation**	**Building shading**
	Potable water for drinking / food preparation	Potable water for sinks / sanitary systems	Waste water storage capacity	**High Performance Building Envelope**
Describe any added measures:	**The measures noted above have been and will continue to be explored for their feasibility as the Project design develops.**			

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

Select all appropriate:	**High reflective paving materials**	**Shade trees & shrubs**	**High reflective roof materials**	**Vegetated roofs**
Describe other strategies:	**The measures noted above are all strategies the project will incorporate and related credits are indicated for achievement in their respective LEED checklists.**			

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

Select all appropriate:	**On-site infiltration systems & ponds* *A portion of the P roject stormwater is planned to be infiltrated on-site as part of meeting GCOD requirements**	Infiltration galleries & areas	vegetated water capture systems	**Vegetated roofs**
Describe other strategies:				

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

Select all appropriate:	**Hardened building structure & elements**	**Buried utilities & hardened infrastructure**	**Hazard removal & protective landscapes**	Soft & permeable surfaces (water infiltration)
Describe other strategies:	**The measures noted above will be explored for their feasibility as the Project design develops.**			

–C - Sea-Level Rise and Storms

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

C–1 - Location Description and Classification:

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

Yes / **No**	***There is no risk posed in the near term as evidenced in the 2030 flood map. The 2070 high emissions scenario from the Woods Hole Group's Boston Harbor Flood Risk Model shows that the Project Site has minimal risk of flooding. This reflects a scenario in which the Charles River Dam fails, regional infrastructure is inundated and indicates the need for a regional discussion to mitigate the impact of flood pathways in the event of dam failure.*** ***Regardless of minimal risk of flood, the Project is planning to locate critical building systems above grade. Additionally, at the appropriate time in the future, the Project would consider implementing temporary flood barriers, as necessary.***

Describe site conditions? **The Project Site is outside the floodplain.**

Site Elevation – Low/High Points:	***Garage West:*** High: EL 31 @ entrances to Harvard Vanguard / Eastern Bank; Low: EL 14 @ entrance to Mass Pike Access Ramp @ intersection with Trinity Place ***Garage East:*** High: EL 28 along Clarendon Street; Low: EL 15 along Access Road @ intersection with Trinity Place ***Station East:*** High: EL 29 @ entrance to Back Bay Station along bus loop; Low: EL 27 along Clarendon Street ***Station West:*** High: EL 29 @ entrance to Back Bay Station along Dartmouth Street; Low: EL 27 along Dartmouth Street Elevations refer to Boston City Base (BCB) as shown on the Existing Conditions Plan of Land prepared by Feldman Land Surveyors, dated March 27, 2015.
Building Proximity to Water:	***Approx. 0.5 miles to Charles River***

Is the site or building located in any of the following? (based on existing)

Coastal Zone:	*Yes /* **No**	Velocity Zone:	*Yes /* **No**
Flood Zone:	*Yes /* **No**	Area Prone to Flooding:	*Yes /* **No**

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

2013 FEMA Prelim. FIRMs:	*Yes* / **No**	Future floodplain delineation updates:	*Yes* / **No**

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

Approx. 0.5 miles

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

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

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

APPENDIX K: Solar Glare Analysis Supporting Documentation

Boston Properties

Back Bay / South End Gateway Project

Solar Glare Analysis

Issue | November 4, 2016

Job number 247581-00

Arup USA, Inc
955 Massachusetts Avenue
4th Floor
Cambridge MA 02139
United States of America
www.arup.com

ARUP

Contents

Appendices

1 Introduction

Boston Properties engaged Arup USA Inc (Arup) to conduct solar glare analysis for the Back Bay / South End Gateway project (Gateway) in support of the development of the DPIR/DEIR.

The Boston Planning and Development Agency (BPDA) Development Guidelines require projects undergoing Large Project Review to analyze the potential impacts from solar glare on the following areas to identify the potential for visual impairment or discomfort due to reflective spot glare at (1) potentially affected streets, (2) public open spaces and/or (3) pedestrian areas.

Additionally, projects must consider the potential for solar heat buildup in any nearby buildings receiving reflective sunlight from the Project, as applicable.

1.1 Solar Glare

The thresholds established to determine acceptable levels of glare are as follows;

- Imperceptible glare: No glare can be perceived.
- Perceptible glare: Glare can be perceived in the scene from the specific location but does not contribute to high reflectance values and has little effect on the observer.
- Disturbing glare: Potential for after image may occur if viewer is directly in line of sight of glare source for elongated periods of time (e.g. hours).
- Intolerable glare: Potential for eye damage if viewer is directly in line of sight at the source.

For more detailed information on glare criteria ranges please refer to Appendix A.

2 Executive Summary

Key findings from the solar glare analysis are as follows;

- **There are no instances of intolerable glare at any of the locations.**
- **There are instances of disturbing glare at 8 locations. These are brief instances lasting typically one hour and will not cause hazardous conditions or issues. For pedestrians, glare can be remedied by looking away, for drivers by looking away or turning down the internal visor in the vehicle and at buildings, utilizing internal blinds.**
- **There were no glare issued indicated at six (6) locations.**
- **Heat buildup that has the ability to cause hazards due to solar exposure are not anticipated for the Gateway project due the lack of curvilinear geometries, lack of highly reflective glazing and lack of intolerable glare instances from the solar glare analysis.**

A summary table for each location and analysis results is as follows;

Location		Type	Glare Experienced
1	Copley Square	Pedestrian	No glare issues to be addressed.
2	Stuart & Dartmouth Streets	Pedestrian	One instance of disturbing glare is experienced and indicated to be no longer than one to two hours. It can be remedied by looking away from the point source.
3	Stuart & Clarendon Streets	Pedestrian	No glare issues to be addressed.
4	Southwest Corridor Park	Pedestrian	Two (2) instances of disturbing glare are experienced and indicated to be no longer than one to two hours. They can be remedied by looking away from the point source.
5	Columbus Ave at Cahners Place	Pedestrian	No glare issues to be addressed.
6	Stuart Street	Driver	No glare issues to be addressed.
7	Mass Pike westbound	Driver	Two (2) instances of disturbing glare are experienced and indicated to be no longer than one to two hours. They can be remedied simply by looking away from the point source or turning down the internal visor in the vehicle. Additionally, given cars are moving at

			high speeds any glare experienced will be momentary.
8	Columbus Ave	Driver	No glare issues to be addressed.
9	Dartmouth Street	Driver	No glare issues to be addressed.
10	100 Clarendon	Building	Minimal instances of disturbing glare are experienced and indicated to be no longer than one hour. They can be remedied simply by utilizing internal blinds.
11	Copley Place Tower	Building	Minimal instances of disturbing glare are experienced and indicated to be no longer than one hour. They can be remedied simply by utilizing internal blinds.
12	40 Trinity	Building	Minimal instances of disturbing glare are experienced and indicated to be no longer than one hour. They can be remedied simply by utilizing internal blinds.
13	131 Dartmouth	Building	Minimal instances of disturbing glare are experienced and indicated to be no longer than one hour. They can be remedied simply by utilizing internal blinds.

2.1 Mitigation Strategies for Consideration

Mitigation strategies that could be implemented as the project develops to ensure that the minor disturbances identified in the analysis are reduced include;

- Glazing: Further reducing the visible reflectance (below 20%) for glass at given parcels or specific façade orientations. Also, implementing glass with frit (i.e. ceramic coating) could reduce and mitigate glare.
- Window to wall ratio: Reducing the glazing ratio, particularly on the west façades could also reduce and mitigate glare.
- External shading devices: Integrating exterior shading to block out high angle (summer) reflections and/or vertical louvers to block low angle (i.e. winter and early morning, later afternoon) reflections could help reduce and mitigate glare.
- Building Materials: At this stage where building materials are undefined. Low reflectance building claddings are recommended as materials such as reflected metal panels may lead to severe glare problems.

3 Methodology

3.1 Software

The analysis was conducted using DIVA version 4 in the Grasshopper Parametric Modeling Platform. DIVA uses RADIANCE and DAYSIM as its daylight simulation engines.

A ray tracing approach was used for the simulations.

All simulations were carried out under CIE Clear Sky which assumes no cloud cover for the simulated period. This helped identify a worst case scenario for the analysis results. The Boston Logan International Airport TMY3 weather file was used for the analysis.

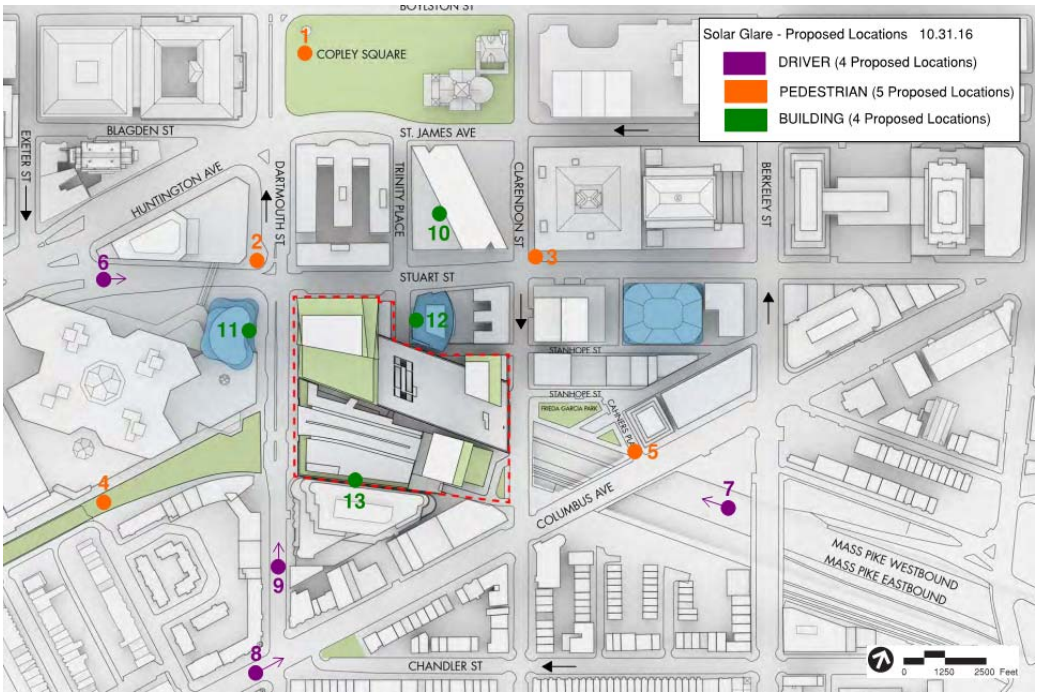
3.2 Key Assumptions

The following are key assumptions that have been included in the analysis;

- The massing model was provided to Arup by Pelli Clarke Pelli Architects (PCPA) and represents the current massing for the Gateway project.
- Only building massing is present in the model. Vegetation or other non-architectural obstructions are not included in the model or subsequent analysis.
- The analysis only includes light that has been reflected once from the new buildings. No further reflectance has been included, i.e. from other buildings. As such, all surrounding buildings have been treated in the model as non-reflective.
- The cone of vision was defined at 20 degrees for drivers and 30 degrees for pedestrians.
- Areas of glazing were defined as 20% reflective. Opaque wall areas were defined as 0% reflective. It is important to note that more detailed façade material properties (fore opaque wall materials for instance) would likely affect the results of the glare analysis results.

3.3 Analysis Locations

Locations for the analysis were selected for pedestrians, drivers and buildings at areas of concern around the project site. The locations were reviewed and agreed with Boston Planning and Development Agency and include the following;



1. Pedestrians: 5 proposed locations were identified which represent locations of high pedestrian traffic in the project area that have a view corridor to the Gateway project. These include locations at Copley square (1), along Stuart Street (2 & 3), at the Southwest Corridor Park (4) and along Columbus Ave (5).

2. Drivers: 4 proposed locations were identified which represent locations where drivers have a view corridor to the Gateway project. These include locations on Stuart Street eastbound (6), the Mass Pike westbound (7), Columbus Ave (8) and Dartmouth Street northbound (9).

3. Buildings: 4 proposed locations were identified which represent buildings immediately adjacent to the project site that are of sufficient height and façade articulation where glare impacts could arise. Both existing and planned/approved buildings were selected for analysis and include 100 Clarendon (10), Copley Place Tower (11), 40 Trinity (12), and 131 Dartmouth Street (13).

3.4 Analysis Model

The model for the analysis was simplified as follows;

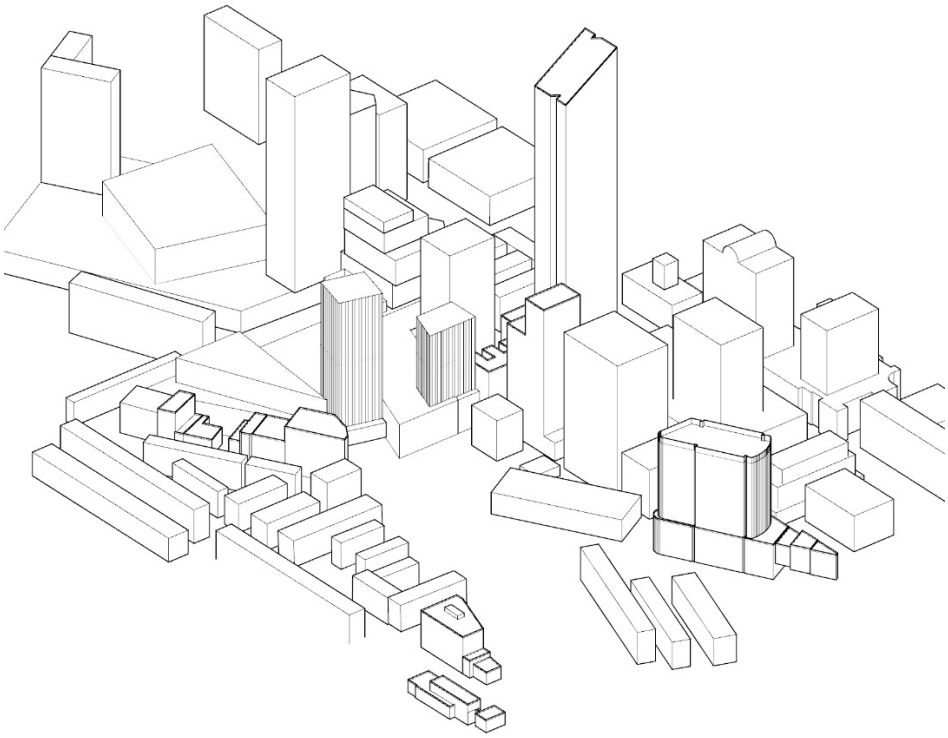


Image: Solar glare model

Garage West has been modeled as all glass as shown below.

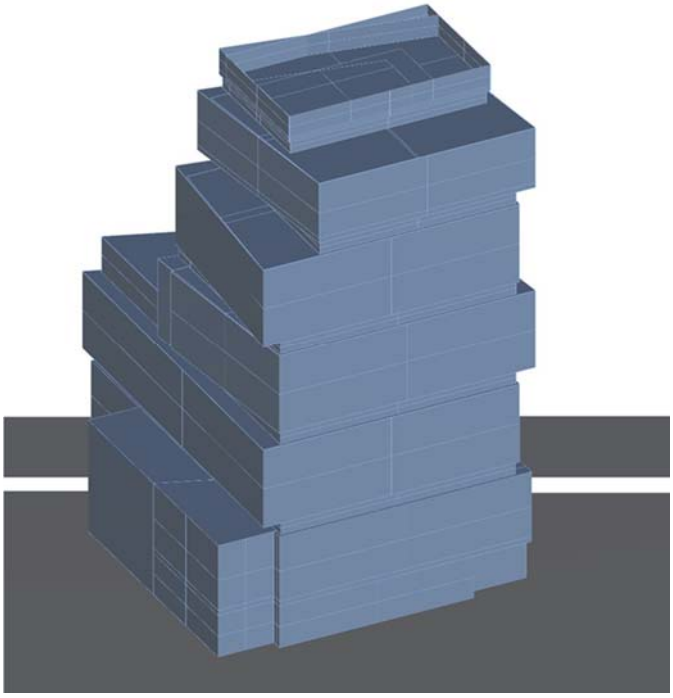


Image: Garage West massing model

Station East and Garage East have been modeled as 55% glass and 45% opaque wall. The glass to opaque wall module has been enlarged from the one sent by PCPA. Therefore, the one in the model represents a worst case scenario as the actual glass width (9’-4”) is larger than what would be designed.

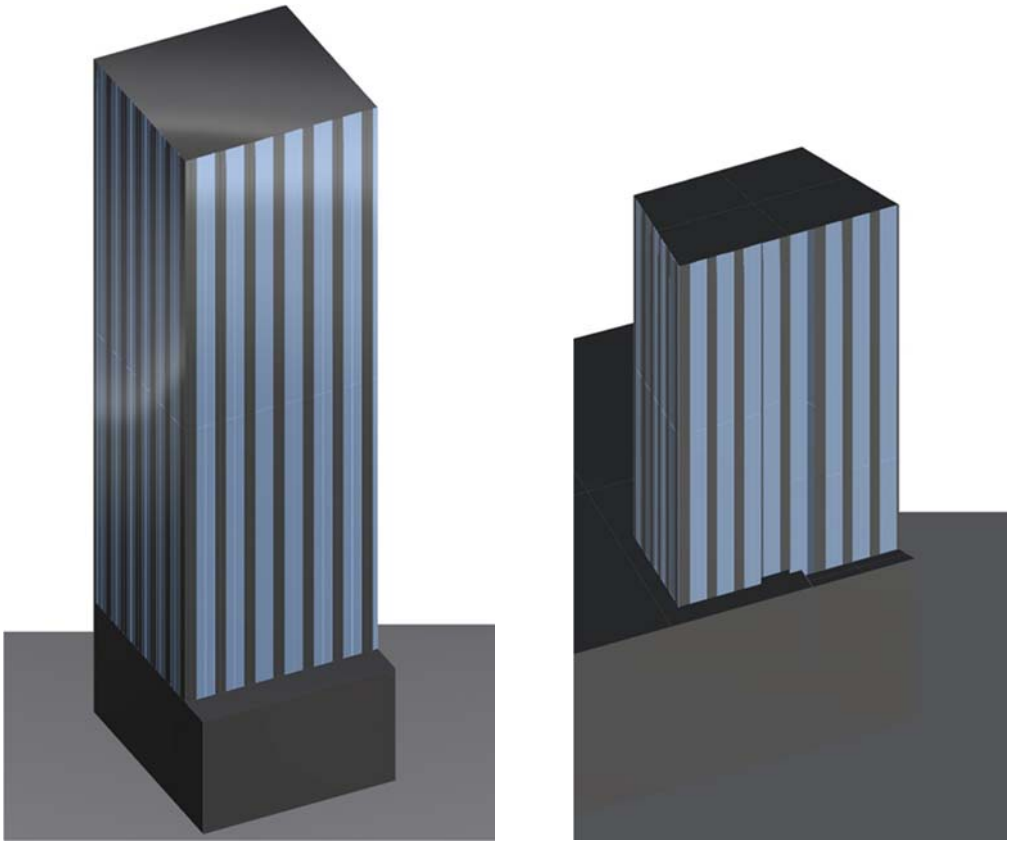


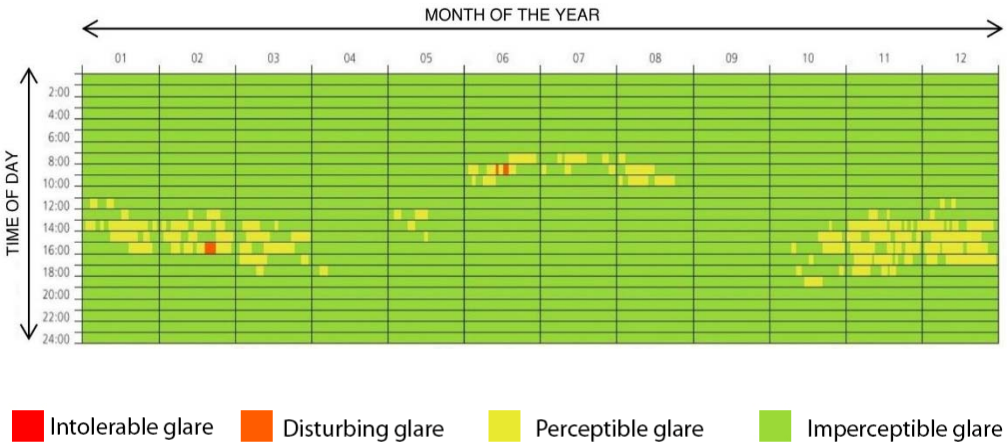
Image: Station East (left) and Garage East (right) massing models

4 Analysis Results

Understanding the results

The results of the solar glare analysis for each location are presented by the following image which is an annual view of potential solar glare at the given location. The month of the year is across the horizontal axis and time of day is on the vertical axis.

This output serves to identify the frequency, intensity and exact occurrence of any glare exposure throughout the year.



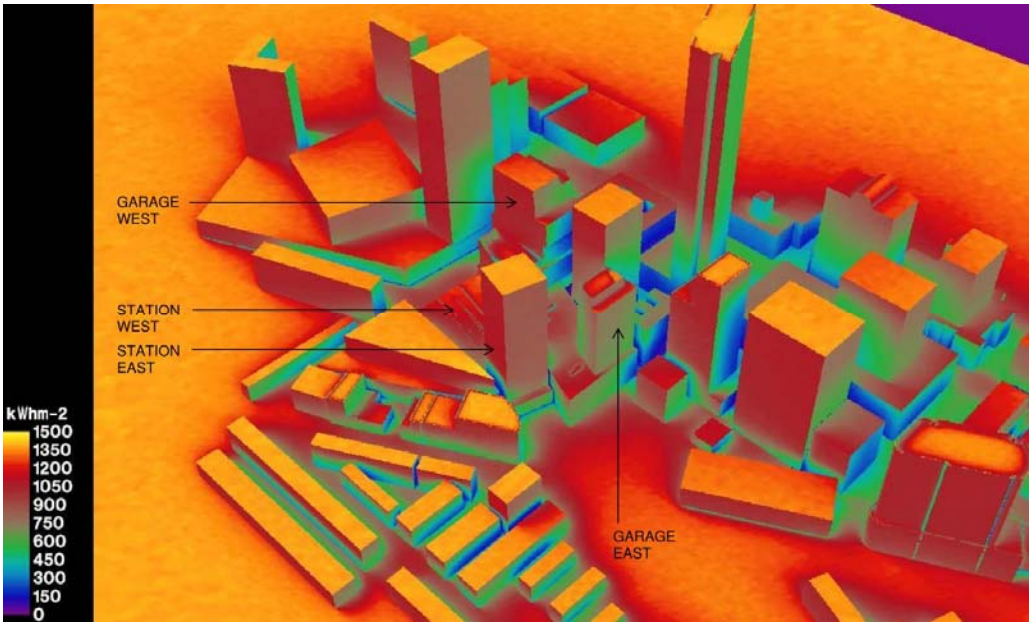
The colors indicate the level of solar glare experienced. The thresholds established to determine acceptable levels of glare are as follows;

- Imperceptible glare: No glare can be perceived.
- Perceptible glare: Glare can be perceived in the scene from the specific location but does not contribute to high reflectance values and has little effect on the observer.
- Disturbing glare: Potential for after image may occur if viewer is directly in line of sight of glare source for elongated periods of time (e.g. hours).
- Intolerable glare: Potential for eye damage if viewer is directly in line of sight at the source.

For more detailed information on glare criteria ranges please refer to Appendix A.

Annual Radiation & Sun Path

The radiation map below highlights the level of luminance on each building annually. Roof areas have the highest exposure followed by southern façade areas.



The sun path diagrams below indicate (1) the annual sun path for Boston and (2) the annual sun path as it specifically relates to the Gateway project.

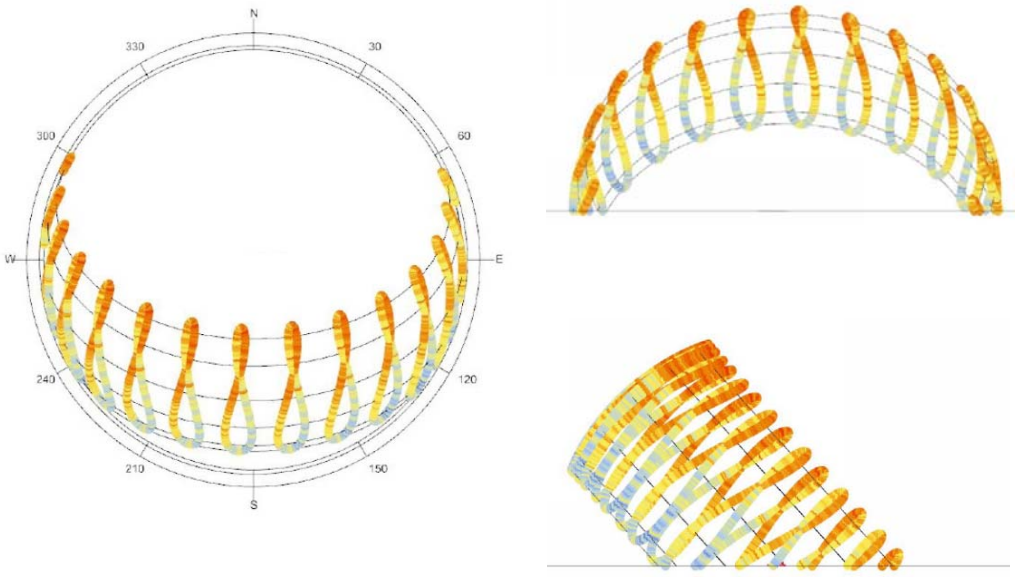


Image: Sun path diagrams for Boston, MA, plan view (left), view facing south (upper right) and view facing west (lower right).

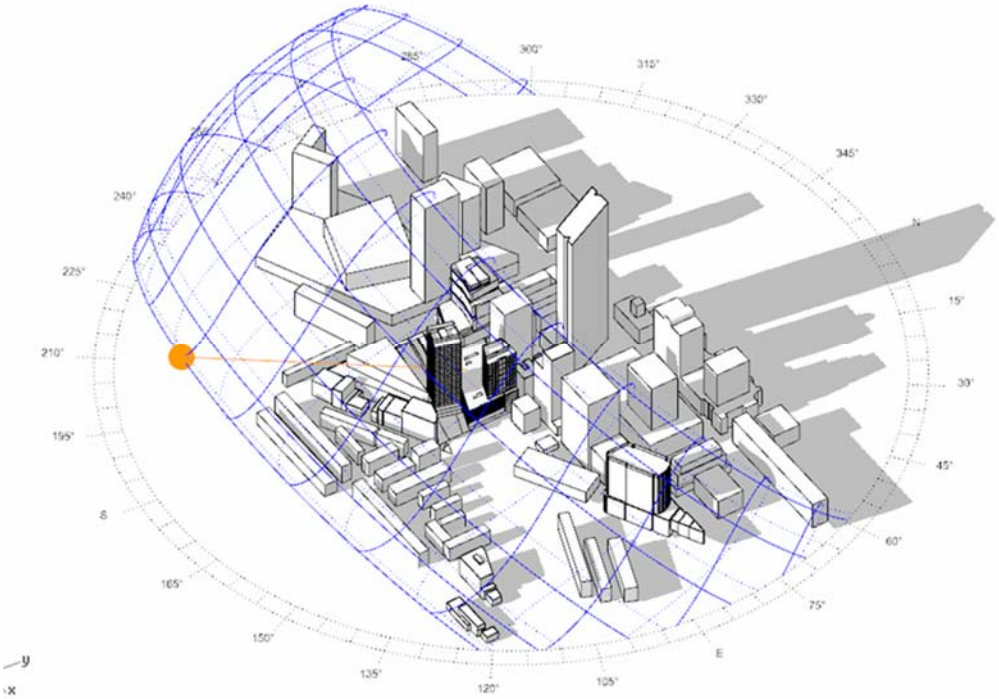
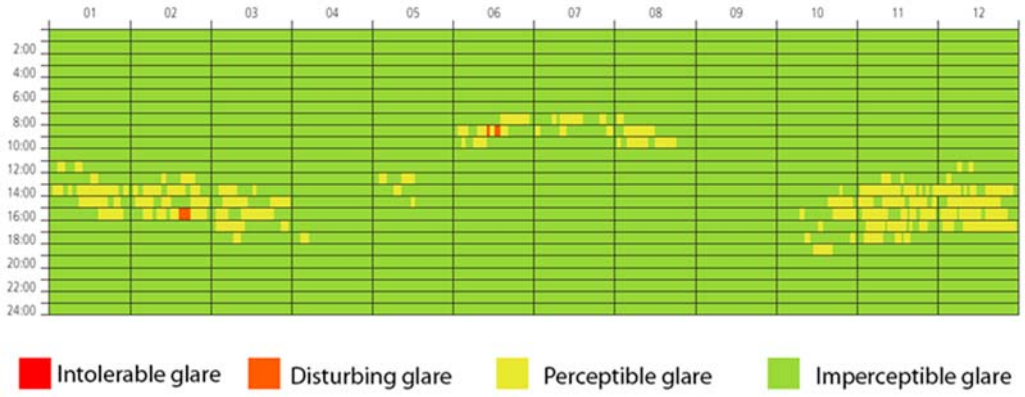


Image: Sun path diagram at the project site

4.1 Pedestrian #1: Copley Square

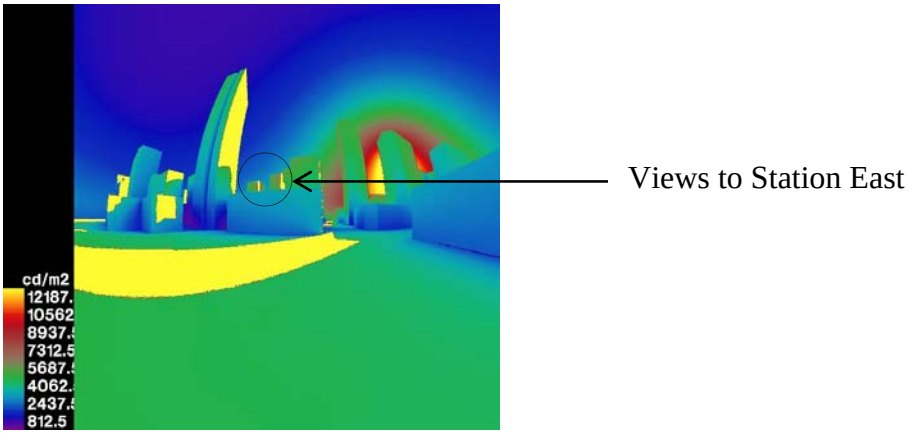
The solar glare analysis results for the pedestrian location at Copley Square are as follows;



Results: There are two (2) instances of disturbing glare that are indicated to occur mid-February at 4pm and in mid-June at 9am. These are indicated to be no longer than one hour and can be remedied simply by looking away from the point source. Winter reflections can be attributed to reflections off of Station East. There are no instances of intolerable glare.

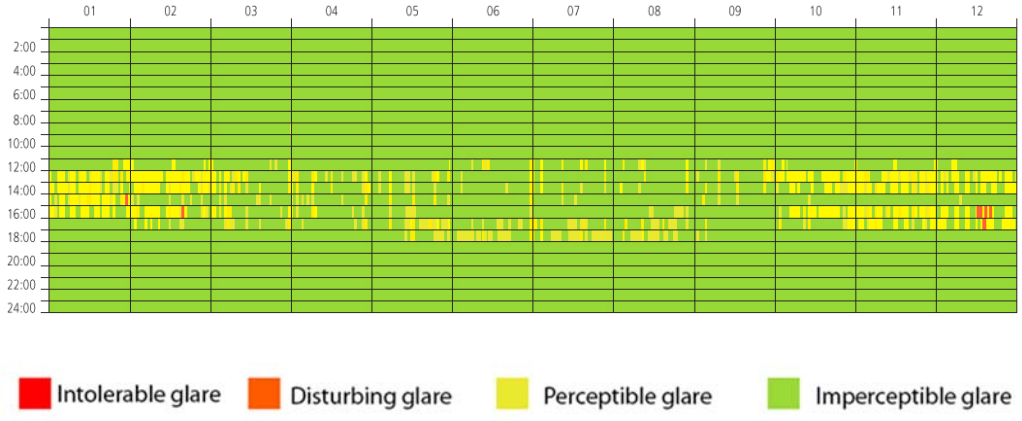
This is not anticipated to cause glare disturbances. There are no recommendations required.

Glare Source Point in Time: February 15, 4:00pm



4.2 Pedestrian #2: Dartmouth & Stuart Streets

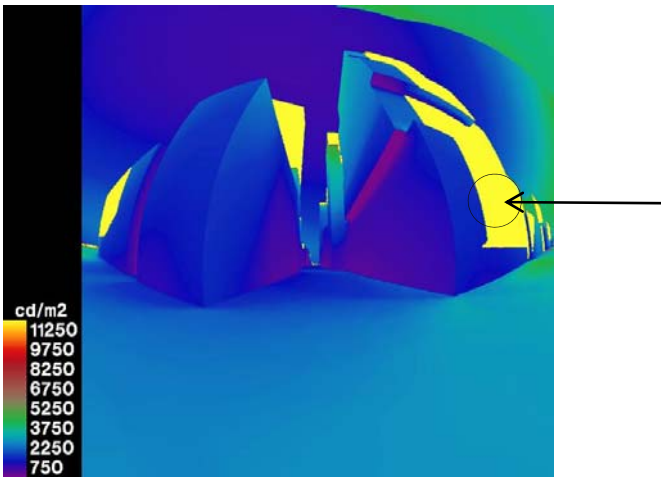
The solar glare analysis results for the pedestrian location at Dartmouth & Stuart Streets are as follows;



Results: There is one (1) instance of disturbing glare occurring at 4pm and 5pm in late January and mid-December. These are indicated to be no longer than one to two hours and can be remedied simply by looking away from the point source. These can be attributed to reflections off the western façade of Garage West. There are no instances of intolerable glare.

Refer to executive summary for recommendations.

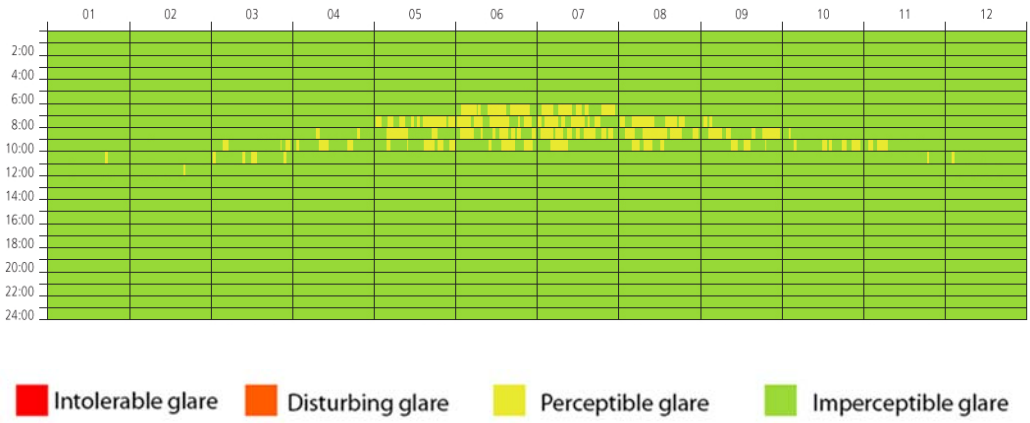
Glare Source Point in Time: December 15, 4:00



Views to West Façade of Garage West

Pedestrian #3: Clarendon & Stuart Streets

The solar glare analysis results for the pedestrian location at Clarendon & Stuart Streets are as follows;



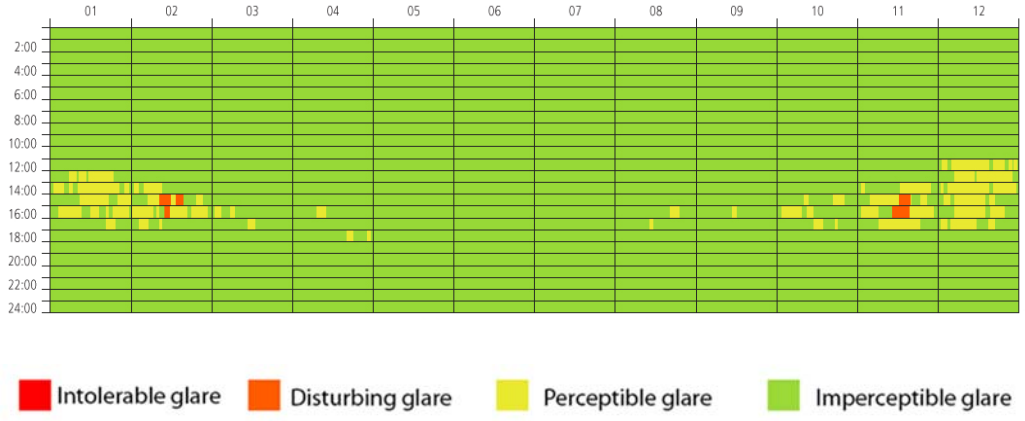
Results:

Perceptible glare is indicated in the morning (predominantly early morning) during summer months. No disturbing or intolerable glare is experienced at this location.

There are no recommendations required.

4.3 Pedestrian #4: Southwest Corridor Park

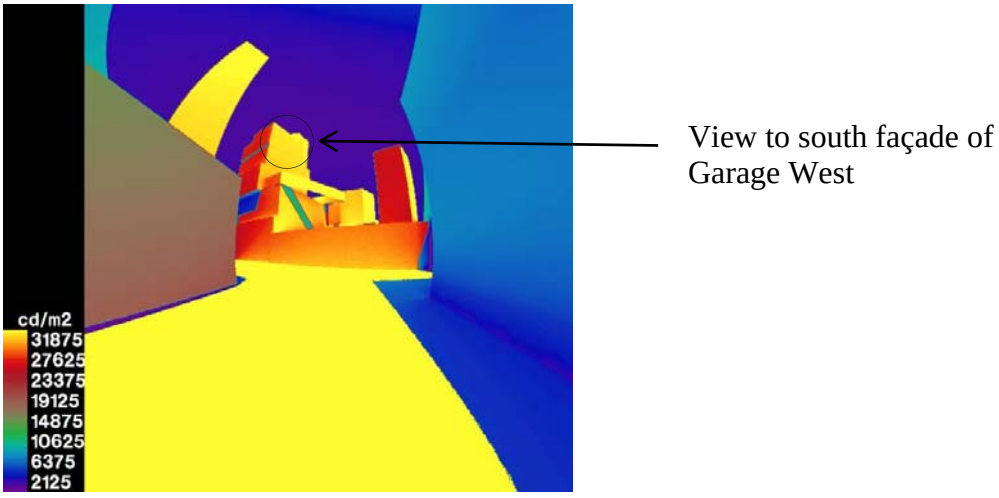
The solar glare analysis results for the pedestrian location at the Southwest Corridor Park are as follows;



Results: There are two (2) instances of disturbing glare indicated in February and November around 3pm and 4pm. These are indicated to be no longer than one to two hours and can be remedied simply by looking away from the point source. The glare can be attributed to the south façade of Garage West being in direct view of pedestrians at this location. There are no instances of intolerable glare.

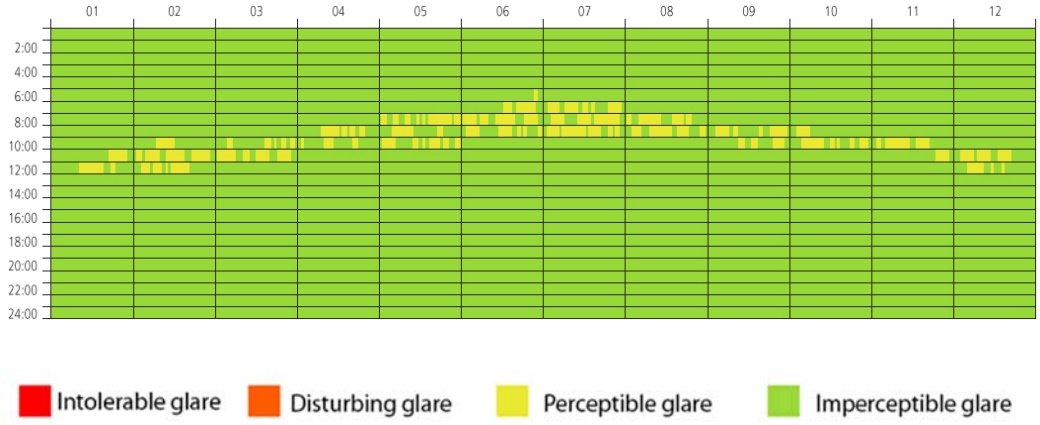
Refer to executive summary for recommendations.

Glare Source Point in Time: February 15, 15:00



4.4 Pedestrian #5: Columbus Ave & Cahners Place

The solar glare analysis results for the pedestrian location at Columbus Ave & Cahners Place are as follows;

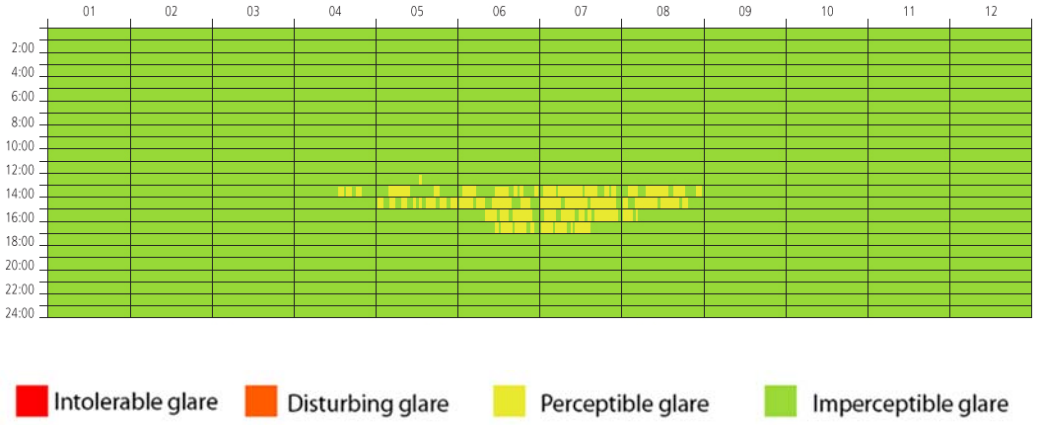


Results: Perceptible glare can be experienced annually in the morning hours. This can be attributed to reflections off of Garage West and Station East. No disturbing or intolerable glare can be experienced from this location.

There are no recommendations required.

4.5 Driver #6: Stuart Street & Huntington Ave

The solar glare analysis results for the driver location at Stuart Street & Huntington Ave are as follows;

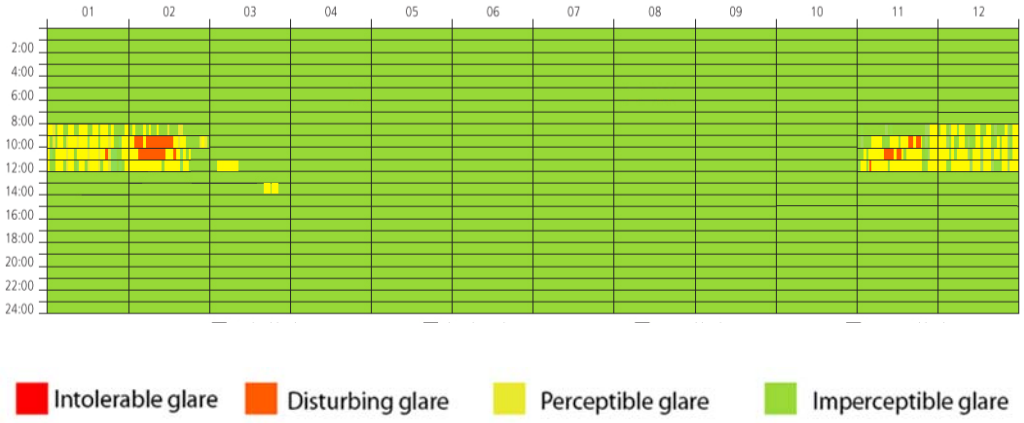


Results: Perceptible glare can be experienced during summer months in the Afternoon. Winter sun reflections are blocked off by surrounding construction. No disturbing glare can be seen from this location.

There are no recommendations required.

4.6 Driver #7: Mass Pike Westbound

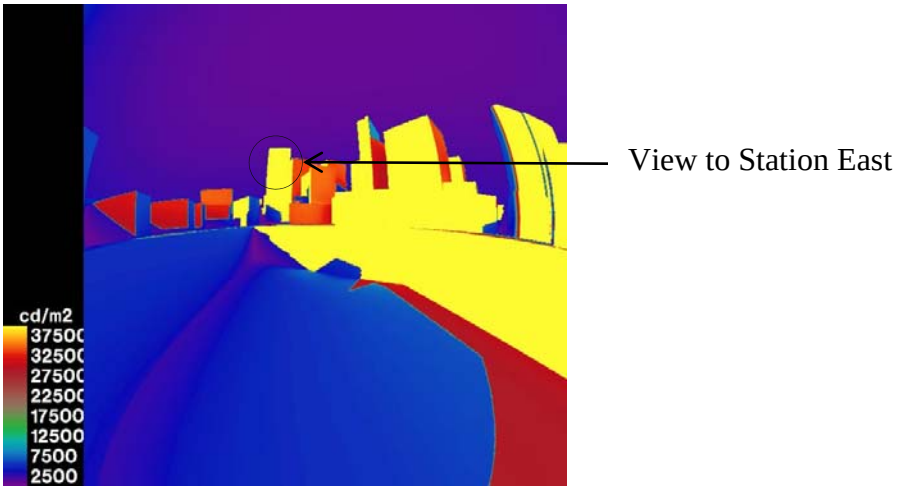
The solar glare analysis results for the driver location on the Mass Pike westbound are as follows;



Results: There are two (2) instances of disturbing glare indicated in February and November around 10am to 12pm. These are indicated to be no longer than one to two hours and can be remedied simply by looking away from the point source or turning down the internal visor in the vehicle. Additionally, given cars are moving at high speeds any glare experienced will be momentary. The glare can be attributed to eastern reflections off of all three buildings in the proposed development. There are no instances of intolerable glare.

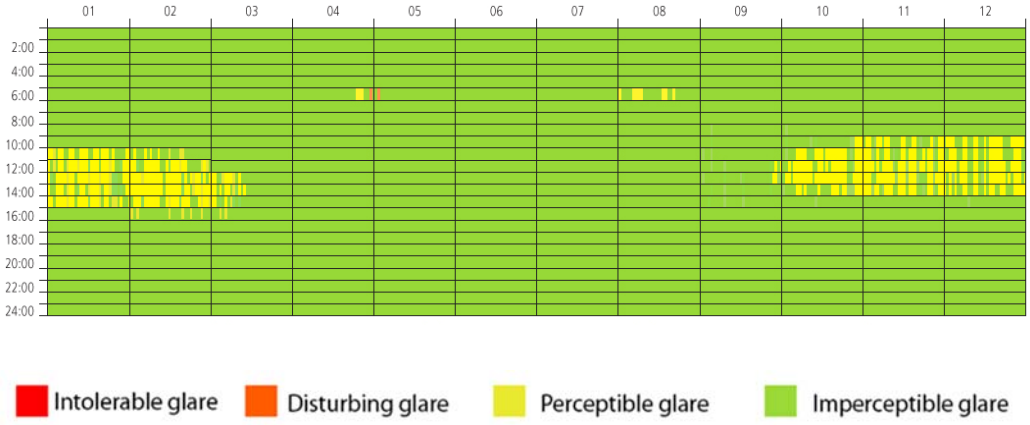
Refer to executive summary for recommendations.

Glare Source Point in Time: February 15, 10:00am



4.7 Driver #8: Columbus Ave

The solar glare analysis results for the driver location on Columbus Ave are as follows;

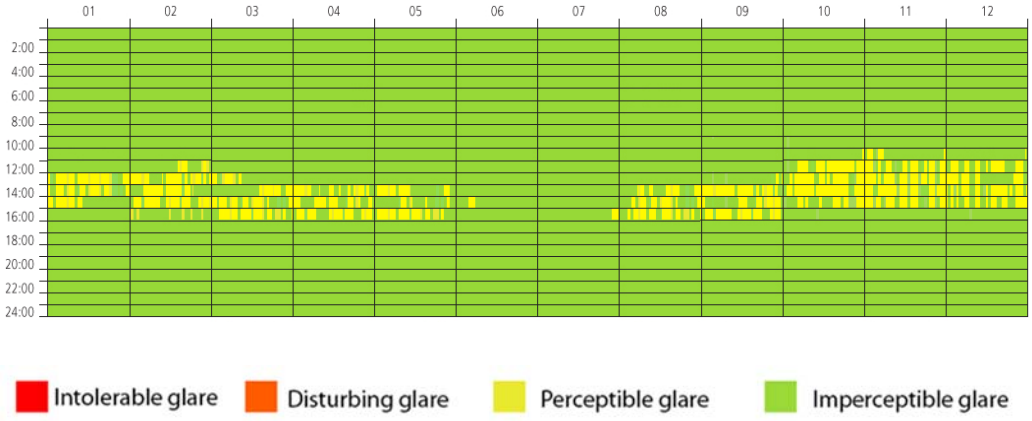


Results: Perceptible glare can be experienced from October through to March from 10am to 3pm and is attributed to south façade reflections off Garage West and Station East. No disturbing or intolerable glare can be seen from this location.

There are no recommendations required.

4.8 Driver #9: Dartmouth Street Northbound

The solar glare analysis results for the driver location on Dartmouth Street are as follows;

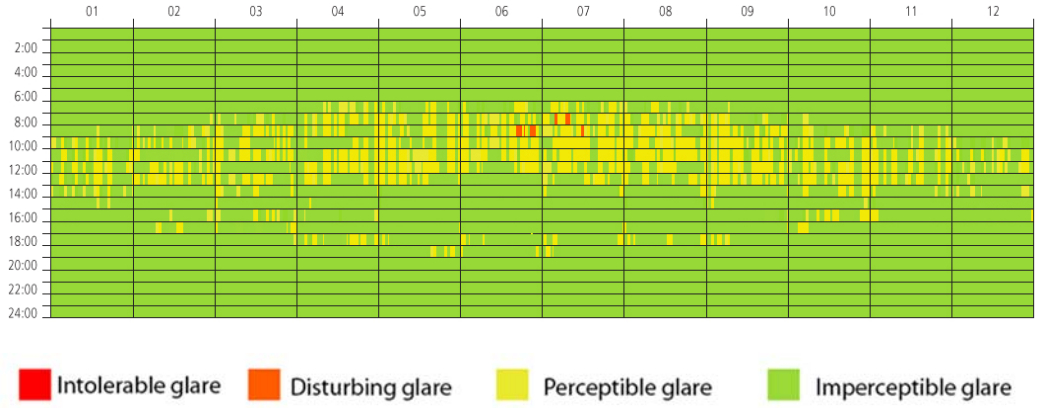


Results: Perceptible glare can be experienced August through May from 1pm to 4pm. In June and July the minimal glare becomes imperceptible. No disturbing or intolerable glare is experienced from this location.

There are no recommendations required.

4.9 Building #10: 100 Clarendon Street

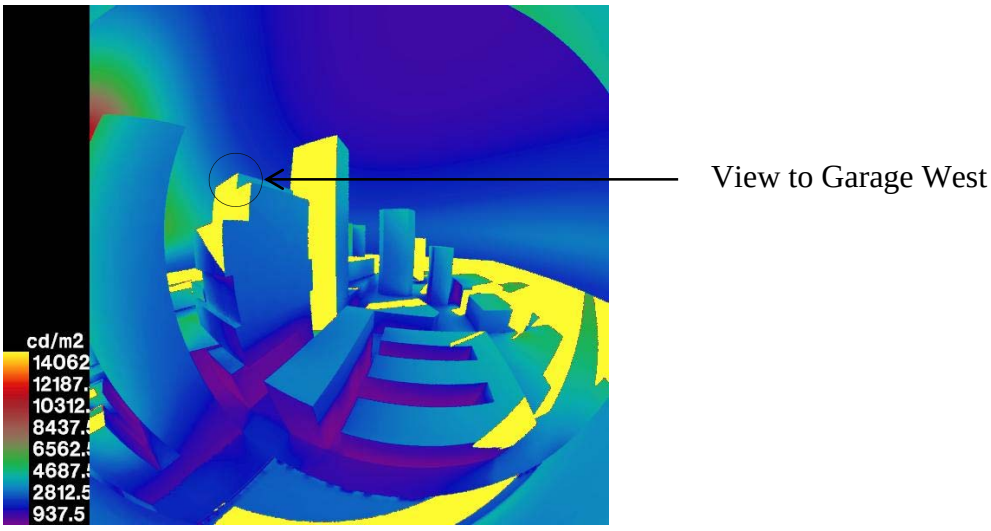
The solar glare analysis results for the building location at 100 Clarendon Street are as follows;



Results: This receptor point was placed at mid-height of 100 Clarendon Street at approximately 390 feet. At this height, there are less obstructions resulting in more perceptible glare. Minor instances of disturbing glare can be experienced in June and July between 8am and 10am. These are indicated to be no longer than one hour and can be remedied simply by utilizing internal blinds. There are no instances of intolerable glare.

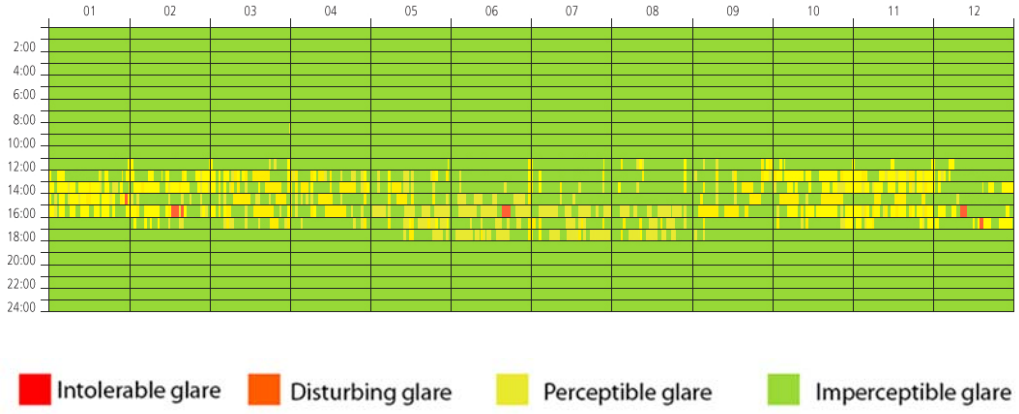
Refer to executive summary for recommendations.

Glare Source Point in Time: June 21, 9:00am



4.10 Building #11: Copley Place Tower

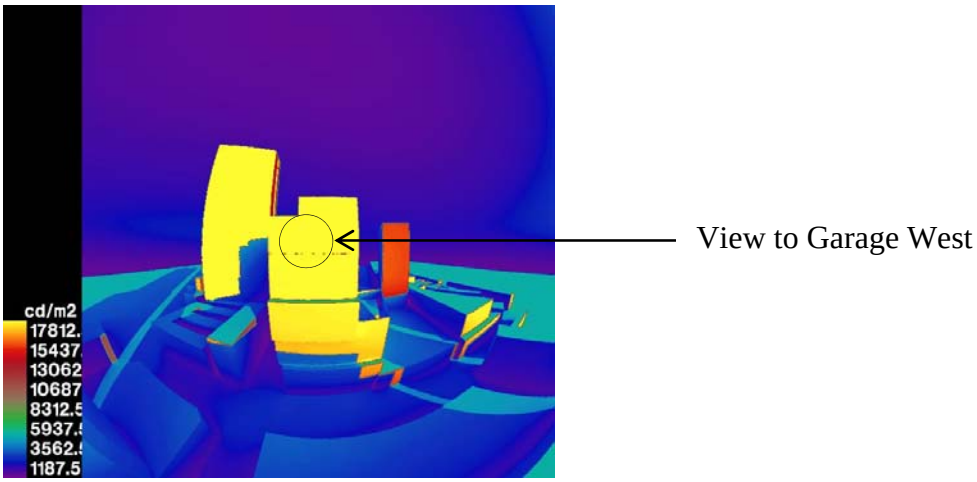
The solar glare analysis results for the building location at the proposed development at Copley Place Tower are as follows;



Results: This receptor point was placed at mid-height of Copley Place Tower at approximately 304 feet. At this height, there are less obstructions resulting in more perceptible glare. Minor instances of disturbing glare occur at 3pm and 4pm in February, June and December. These are attributed to reflections off the western façade of Garage West. These are indicated to be no longer than one hour and can be remedied simply by utilizing internal blinds. There are no instances of intolerable glare.

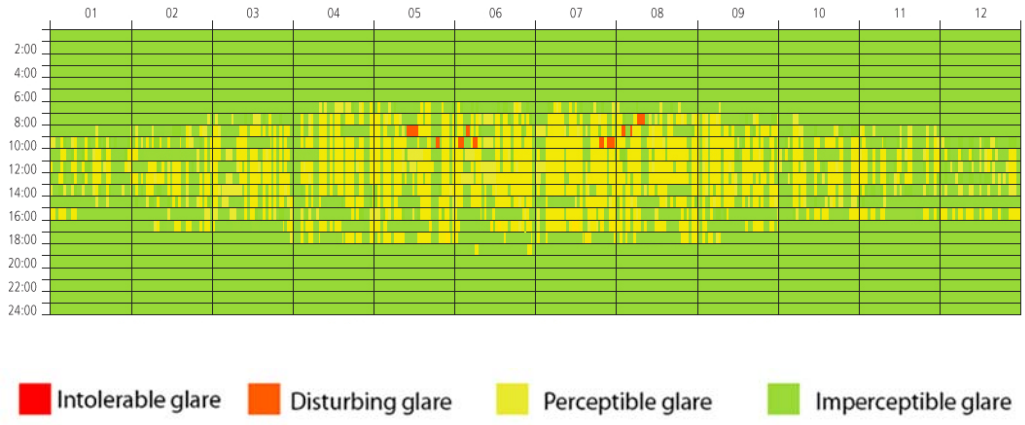
Refer to executive summary for recommendations.

Glare Source Point in Time: June 21, 4:00pm



4.11 Building #12: 40 Trinity Place

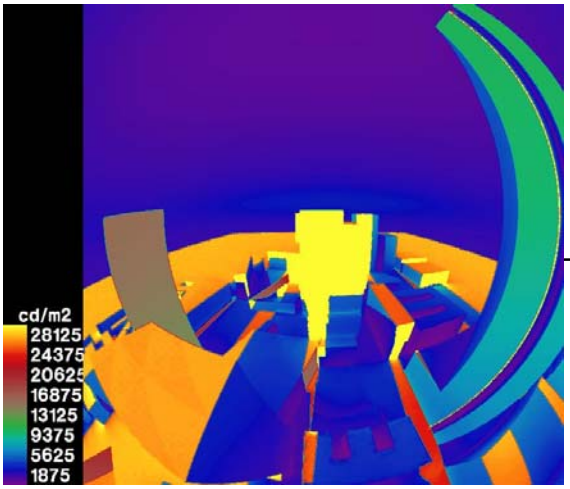
The solar glare analysis results for the building location at the proposed development at 40 Trinity Place are as follows;



Results: This receptor point was placed at mid height of the proposed building (40 Trinity Place) at approximately 197 feet off the ground. At this height, there are less obstructions resulting in more perceptible glare. Instances of disturbing glare are indicated in mid-May, early June, late July and early August between 8am and 11am. These are indicated to be no longer than one hour and can be remedied simply by utilizing internal blinds. There are no instances of intolerable glare.

Refer to executive summary for recommendations.

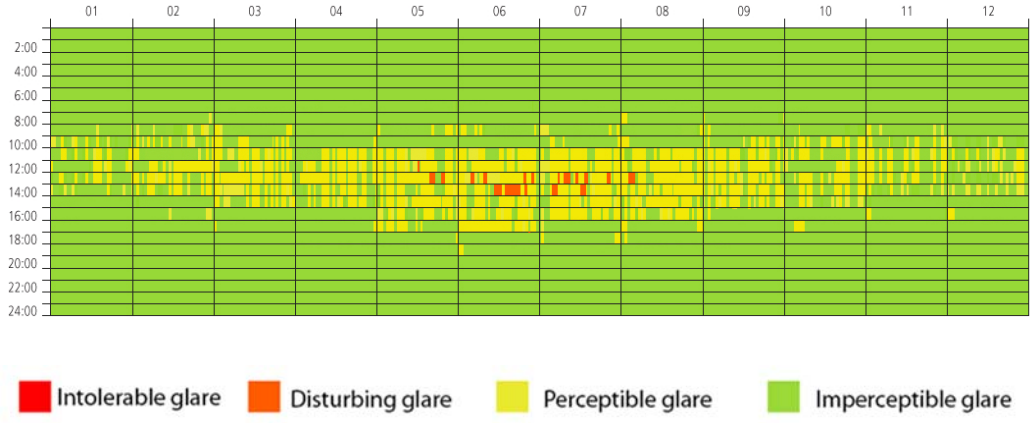
Glare Source Point in Time: June 2, 10:00am



Views to Garage West east facade

4.12 Building #13: 131 Dartmouth

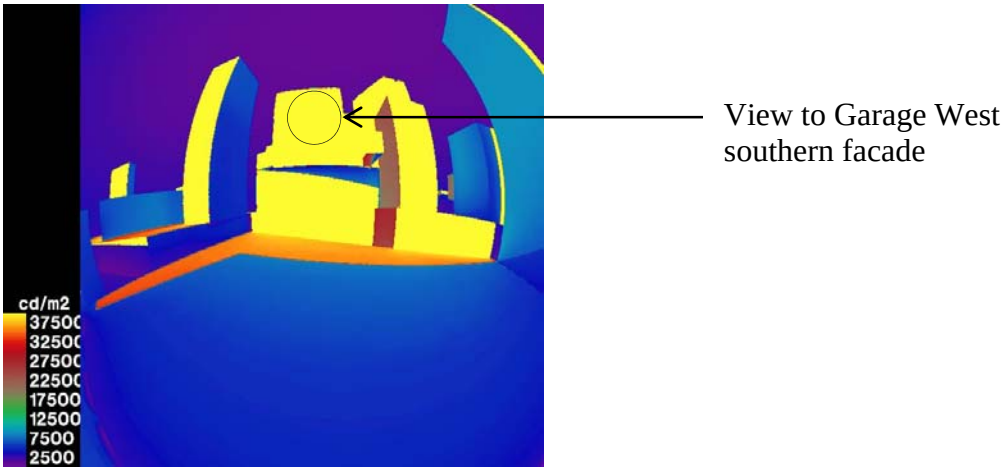
The solar glare analysis results for the building location at 131 Dartmouth Street are as follows;



Results: This receptor point was placed at the mid-point of the top level of 131 Dartmouth Street approximately 100ft. At this height, there are less obstructions resulting in more perceptible glare. Instances of disturbing glare care indicated in June and July between 12pm and 2pm. These are indicated to be no longer than one hour and can be remedied simply by utilizing internal blinds. There are no instances of intolerable glare.

Refer to executive summary for recommendations.

Glare Source Point in Time: June 21, 1:00pm



5 Heat Buildup Assessment

Heat buildup that have the ability to cause hazards due to solar exposure are not anticipated for the Gateway project due to several reasons as follows;

- None of the proposed buildings have curvilinear geometries.

  According to Yang et al [11] curved envelopes could magnify sunlight in the same way as solar concentrators and cause higher thermal intensities in surrounding neighborhoods. In extreme scenarios where longer exposure is experienced melting of urban elements can be witnessed.

- Glazing has been established at 20% reflectivity. As this is not categorized as highly reflective, hazardous thermal irradiance values are not likely to occur.

- Solar glare analysis results presented in this report did not indicate any instances of intolerable glare. Drawing on the proportionate relationship between solar reflectance and thermal energy, high thermal irradiance values are therefore not anticipated.

  The location with the highest glare indicated was location #7 on the MassPike. There is no anticipated heat buildup risk as cars are not stationary on the highway to allow for heat buildup.

[1] X Yang, L Grobe1 “Simulation of Reflected Daylight From Building Envelopes”, Proceedings of BS2013

Appendix A

Glare Evaluation Criteria

A1 Glare Evaluation Criteria

The thresholds referenced in the solar glare analysis (e.g. imperceptible glare, perceptible glare, disturbing glare and intolerable glare) rely on the below criteria developed by Ho et al[2]

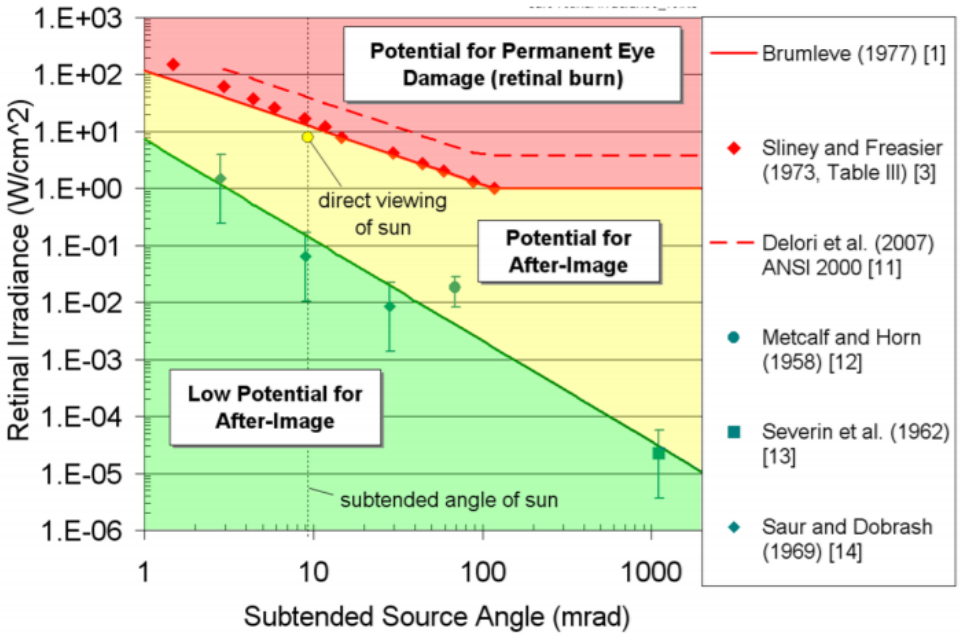


Image: Glare hazard plot illustrating the ocular impact as a function of retinal irradiance and subtended source angle.

The subtended source angle represents the size of the glare viewed by an observer, while the retinal irradiance determines the amount of energy impacting the retina of the observer. Larger source angles can result in glare of high intensity, even if the retinal irradiance is low.

[2] C. Ho, C. Ghanbari and R. Diver, "Methodology to Assess Potential Glint and Glare Hazards From Concentrating Solar Power Plants: Analytical Models and Experimental Validation," J. Sol.

APPENDIX L: Historic Resources Supporting Documentation

October 12, 2016

Brona Simon, Executive Director
Massachusetts Historical Commission
220 Morrissey Boulevard
Boston, Massachusetts 02125

Re: The Back Bay/South End Gateway Project at MBTA Back Bay Station, Boston, MA
MHC# RC.60158; EEA#15502

Dear Ms. Simon:

VHB is providing this letter on behalf of BP Hancock LLC (the "Proponent" and an affiliate of Boston Properties). We are in receipt of the Massachusetts Historical Commission (MHC) comment letter to the Executive Office of Energy and Environmental Affairs (EEA), dated June 15, 2016, regarding the proposed Back Bay/South End Gateway Project at MBTA Back Bay Station (the "Project"). The MHC provided comments on the Environmental Notification Form, which will be addressed in the forthcoming the Draft Environmental Impact Report (DEIR). In advance of the DEIR, the Proponent wants to clarify two issues raised in your letter as they relate to compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800), specifically regarding the closure of the I-90 westbound on-ramp and the fact that the Project requires air rights development agreements from the Massachusetts Department of Transportation (MassDOT).

The closure of the I-90 ramp is a separate project being proposed and studied by the MassDOT. Although the Project's Garage West Alternate Scheme takes into consideration the proposed removal of the ramp, its removal is not part of this Project. Removal of the ramp will be the subject of its own federal environmental review lead by the Federal Highway Administration (FHWA) with MassDOT, in compliance with the National Environmental Policy Act (NEPA). Please refer to the attached letter from MassDOT to FHWA dated August 25, 2016 and the attached response from FHWA dated September 20, 2016 confirming the independent utility of MassDOT's proposed ramp closure project.

Regarding air rights, the Proponent occupies and utilizes the majority of the Project Site pursuant to an existing Ground and Air Rights Lease with MassDOT, which authorizes four future ground and air rights development parcels. The Project team has confirmed with MassDOT that existing and future air rights agreements do not require any FHWA participation or approval because there was no federal funding applicable to this portion of I-90 and there is no connected action between the ramp closure and the Proponent. It was concluded, in consultation with MassDOT, that the Project would not trigger review under NEPA or Section 106.

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The Proponent looks forward to providing thoughtful response to MHC's other comments regarding the Project, which will be addressed in the DEIR.

If you have any questions or require additional information, please do not hesitate to contact me at (617) 607-1590.

Sincerely,

Maureen A. Cavanaugh
Director of Cultural Resources

Enclosures

Cc: Secretary Matthew A. Beaton, EEA
Deirdre Buckley, Massachusetts Environmental Policy Act Unit
Alex Strysky, Massachusetts Environmental Policy Act Unit
John McVann, FHWA
Carol Almeida, FHWA
Joshua Grzegorzewski, FHWA
Mark Boyle, MassDOT
Bryan Gubbins, MassDOT
Steve McLaughlin, MassDOT
Michael Trepanier, MassDOT
Jeffrey Shrimpton, MassDOT
Roseanne Foley, Boston Landmarks Commission
Greg Galer, Boston Preservation Alliance
Mike Cantalupa, Boston Properties
Melissa Schrock, Boston Properties

Charles D. Baker, Governor
Karyn E. Polito, Lieutenant Governor
Stephanie Pollack, Secretary & CEO
Thomas J. Tinlin, Administrator

MassDOT
Massachusetts Department of Transportation
Highway Division

August 25, 2016

Jeff McEwen, Division Administrator
Federal Highway Administration
Massachusetts Division
55 Broadway, 10th Floor
Cambridge, Massachusetts 02142

ATTN: Joshua Grzegorzewski, Field Operations Team Leader

Dear Mr. McEwen,

The Massachusetts Department of Transportation Highway Division (MassDOT) is evaluating the closure of the Clarendon Street westbound on-ramp to I-90 to improve safety and operations. MassDOT is preparing an Interchange Modification Report (IMR) to evaluate the ramp closure.

I am writing to request Federal Highway Administration (FHWA) concurrence that the potential closure of the Clarendon Street on-ramp meets the criteria of a project with independent utility. MassDOT seeks this determination in order to clarify the environmental process for the MassDOT ramp project and a separate redevelopment project (Back Bay/South End Gateway Project) located above the on-ramp. The following information is provided as background and to support our request.

Three on-ramps, within approximately 2,000 feet of each other, provide access to westbound I-90 (MassPike) from the Back Bay neighborhood of Boston (see Figure 1).

- The Huntington Avenue on-ramp carries 3,742 average weekday traffic (AWDT) (taken from 2014 MassDOT traffic count stations). The ramp has sufficient acceleration distance and connects to an add-a-lane in the Prudential tunnel which facilitates vehicles entering the main stream of traffic;
- The Clarendon Street on-ramp is located beneath the Clarendon Street Parking Garage and carries 1,092 AWDT. The ramp can be accessed from Clarendon Street and the parking garage via a MassDOT-controlled service road. The ramp has a substandard acceleration lane and poor sight distance entering a traffic lane under the Prudential tunnel;
- The Arlington Street on-ramp carries 4,788 AWDT. It has a long acceleration lane and joins the Turnpike just before the Prudential tunnel.

The separate, privately proposed Gateway project is located above I-90 on a site that includes four future air rights development parcels - two above I-90 and two above the MBTA Back Bay Station. The proposed Gateway project consists of mixed-use redevelopment with office, retail, and residential uses, along with partial redevelopment of the Clarendon Street Parking Garage.

The proposed Gateway Project is independent of the possible ramp closure. The developer has prepared and is seeking permitting based on two alternatives -- the Base Scheme that assumes that the

ramp stays open in its current configuration, and the Alternate Scheme that assumes that the ramp is closed. The two schemes vary slightly in the massing of the proposed Garage West office and in the proposed egress from the reconfigured garage. Please see the attached Figures 2.1a and 2.1b from the developer's Project Notification Form, showing the difference in building massing. Please see attached Figures 4.2 and 4.3 for the difference in the proposed garage access/egress.

The original 1969 air rights lease with John Hancock Mutual Insurance Company has been renegotiated with the Hancock's successor in interest, BP Hancock LLC (Boston Properties, the proponent for the Gateway Project). The current lease, effective August 1, 2015, extends and expands the original lease. Pursuant to the new lease, MassDOT has conditionally approved the developer's Air Rights Development Project Plan for the limited purposes of seeking project approvals. MassDOT's approval is conditioned upon successful resolution of several key design and transportation issues, as well as granting of all major state and city discretionary permits. The design of each component of the project will be subject to detailed review and approval by MassDOT and, where relevant, the MBTA.

To the best of our knowledge, no FHWA funds were used in the land acquisition for, initial construction of, or any subsequent construction on the Massachusetts Turnpike or Turnpike Extension. Although the Massachusetts Turnpike is a federally designated roadway, FHWA has previously confirmed verbally that because the Turnpike and the Turnpike Extension are not federal-aid roadways, the Lease and air rights development are not subject to FHWA review and approval. MassDOT understands and has informed the developer, however, that any alteration to the ramp, even temporarily during construction, will require FHWA review and approval.

Relative to the potential ramp closure project, MassDOT is preparing an Interchange Modification Report (IMR) to evaluate the Clarendon Street on-ramp closure. We will submit the IMR to FHWA for review and approval. We will also prepare appropriate National Environmental Policy Act (NEPA) documentation for the ramp project since it would require FHWA approval and therefore is a federal action subject to NEPA. It is MassDOT's opinion that the ramp closure will be classified as a Categorical Exclusion, however, this determination will be made formally once the IMR and its traffic analysis is completed.

MassDOT, and previously the Massachusetts Turnpike Authority, have been evaluating the I-90 Boston ramps going back to 1997 to investigate the potential for revising access to and from the Massachusetts Turnpike, including the closure of the low-volume, sub-standard Clarendon Street Ramp. The proposed Gateway redevelopment project provides an opportunity to prioritize the ramp safety improvement project.

As stated above, it is MassDOT's opinion that closing the Clarendon Street on-ramp to westbound I-90 has independent utility and can be considered a non-connected action relative to the Gateway Project. As stated in the MassDOT Instructions for preparation of CE and other NEPA documents (May 2, 2016), *a project's independent utility is the determinant as to whether the project is connected to another project. NEPA requires "connected actions" (or connected projects) to be considered together in a single environmental document.*

A transportation project has independent utility when it is a usable and a reasonable expenditure even if no additional transportation improvements in the area are made.

Closing the Clarendon Street on-ramp would address a needed operational and safety improvement by removing a low-volume and geometrically sub-standard on-ramp that is within the vicinity of two other westbound on-ramps. The closed ramp may also provide a parking area for emergency vehicles. The expenditure is a reasonable investment and does not require additional transportation improvements in the area to be made.

A connected action is one that automatically triggers other actions that may require NEPA documentation. It is an action that cannot or will not proceed unless other actions are taken previously or simultaneously. It is an inter-dependent part of a larger action and depends on the larger action for its justification.

The Clarendon Street on-ramp closure project would not trigger any other ramp project on the Turnpike and would not preclude any alternatives that might be considered for revising access to and/or from the Turnpike in the future. The closure does not depend on other actions to be taken either on the Turnpike or above, on street level. The Gateway project has developed alternatives for redevelopment of the Clarendon Street garage that can proceed whether or not the ramp is closed.

In conclusion, it is the opinion of MassDOT Environmental Section that closing the Clarendon Street ramp is a single and complete project with independent utility and is not an inter-dependent part of the Gateway Project. MassDOT is preparing an IMR to evaluate and make a final determination as to the ramp closure. The purpose of the ramp closure is to address the operations and safety issues of the existing sub-standard ramp. The ramp is underused compared to the two other ramps in the vicinity, making closure a reasonable action. The ramp closure does not depend on the Gateway Project for its justification. MassDOT is seeking concurrence from FHWA on our position that the ramp closure and the Gateway Project are not connected actions and have independent utility.

Thank you for your attention to this matter. If you have any questions or need additional information please do not hesitate to contact me at 857-368-8828 or michael.trepanier@state.ma.us.

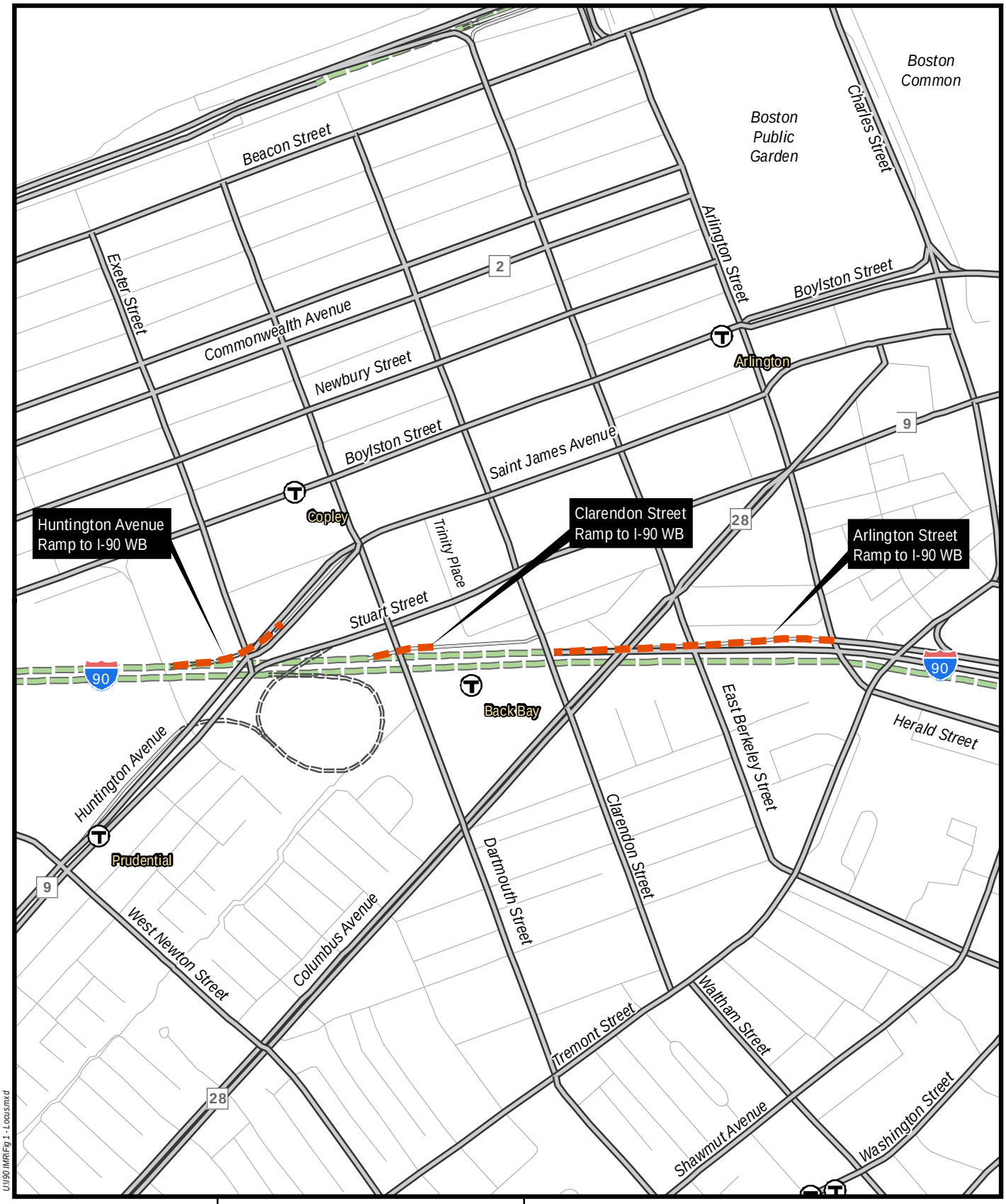
Sincerely,

Michael Trepanier
Senior Environmental Planner

Attachments: Figure 1 Project Locus
Figure 2.1a Rendered View – Garage West Base Scheme
Figure 2.1b Rendered View – Garage West Alternate Scheme
Figure 4.2 Garage West Base Scheme
Figure 4.3 Garage West Alternate Scheme

Note: Figures 2.1a, 2.1b, 4.2 and 4.3 are taken from Project Notification Form for the Back Bay/South End Gateway Project, PB Hancock LLC, March 29, 2016.

cc: Tomasz Janikula, FHWA
Steve McLaughlin, MassDOT Bridge Project Management
Jim Danila, MassDOT Traffic
Bill Tuttle, MassDOT OREAD
Andy Paul, MassDOT Highway Design
Hardy Patel, MassDOT Highway Design
Lionel Lucien, MassDOT Planning
Raj Kulen, MassDOT District 6



U:\I90 IMR\Fig 1 - Locus.mxd

Prepared By:

JACOBS

Data compiled from the following source: MassGIS, Commonwealth of Mass., Info. Technology Division

- *MassDOT Roads*

Approx. Scale in Feet

0 600

I-90 Westbound Ramps
Back Bay Station Vicinity
Boston, MA

Locus Map

Figure 1

THE BACK BAY / SOUTH END
GATEWAY PROJECT
BOSTON PROPERTIES

VIEW FROM SOUTHWEST CORRIDOR PARK
GARAGE WEST BASE SCHEME AND STATION WEST BASE SCHEME

Figure 2.1a

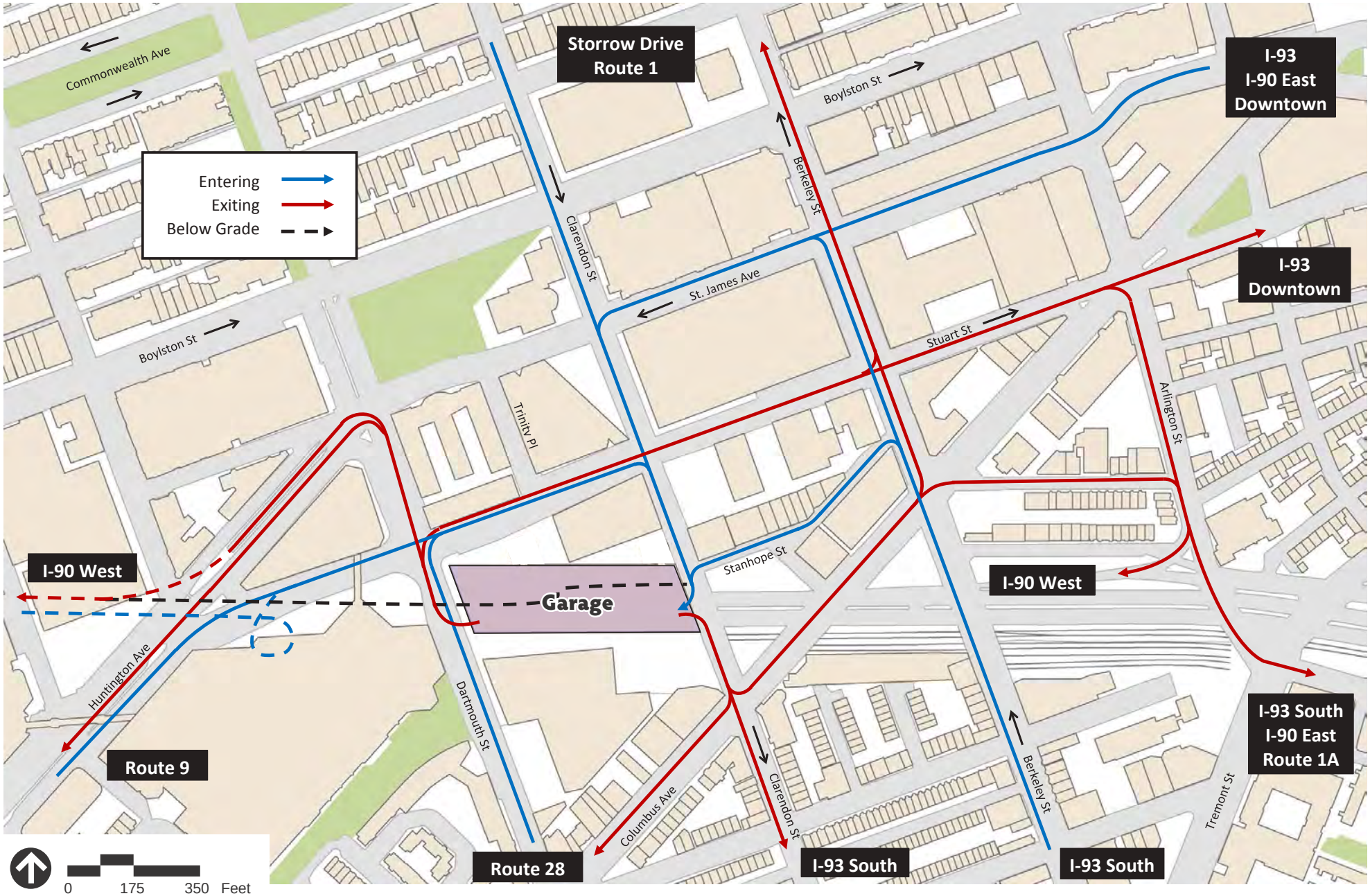
ARROWSTREET
Pelli Clarke Pelli Architects

THE BACK BAY / SOUTH END
GATEWAY PROJECT
BOSTON PROPERTIES

VIEW FROM SOUTHWEST CORRIDOR PARK
GARAGE WEST ALTERNATE SCHEME AND STATION WEST BASE SCHEME

Figure 2.1b

ARROWSTREET
Pelli Clarke Pelli Architects



Source Info

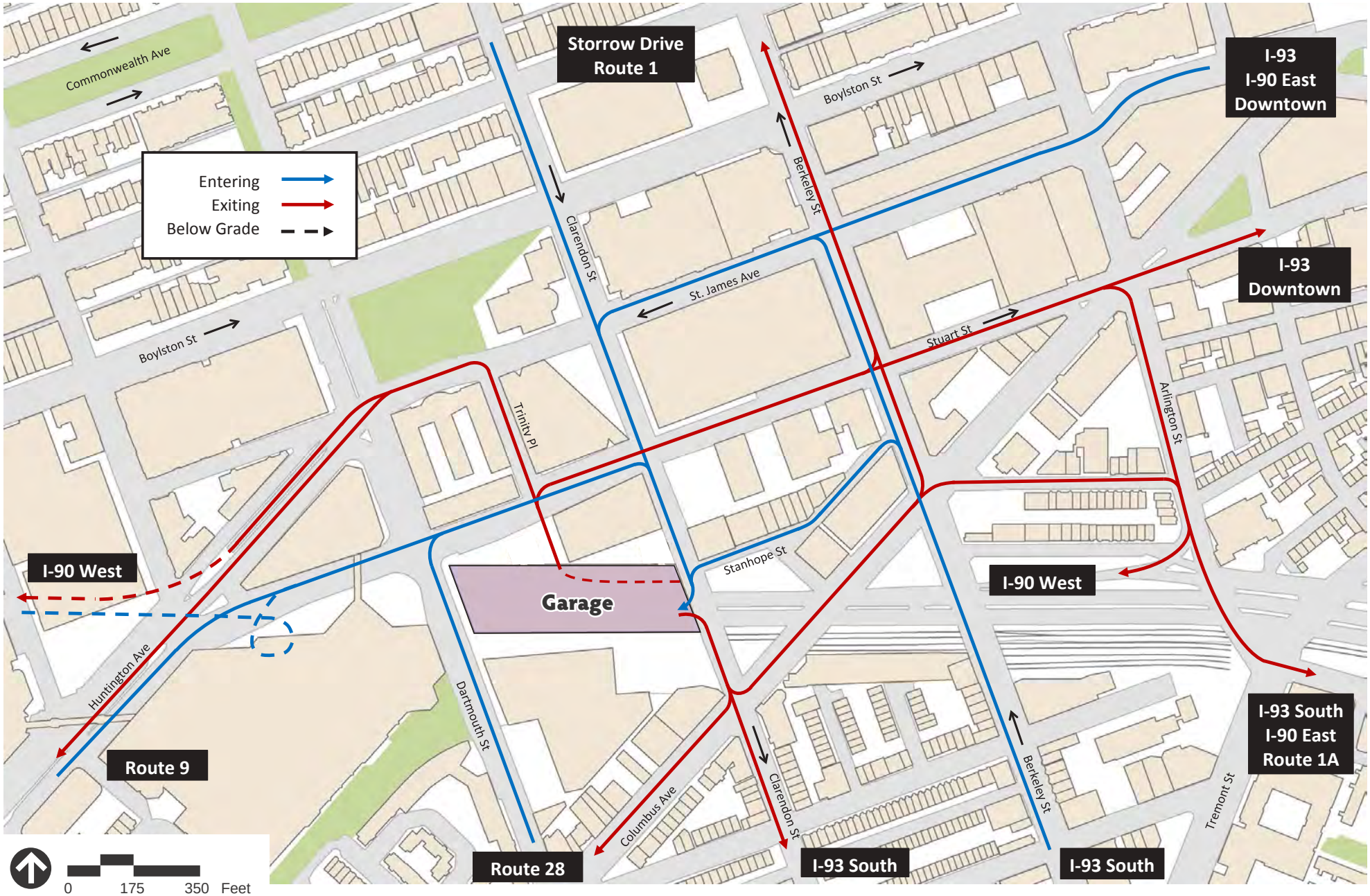
PROJECT DARTMOUTH

BOSTON PROPERTIES

Future Parking Garage Access
Garage West Base Scheme

Figure 4.2

vhb



Source Info

PROJECT DARTMOUTH

BOSTON PROPERTIES

Future Parking Garage Access
Garage West Alternate Scheme

Figure 4.3

vhb

U.S. Department of Transportation
Federal Highway Administration

Massachusetts Division

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(617) 494-3355 (fax)
www.fhwa.dot.gov/madiv

September 20, 2016

In Reply Refer To:
HDA-MA

Kevin M. Walsh
Director of Environmental Services
Massachusetts Department of Transportation
10 Park Plaza
Boston, MA 02116

Subject: Closure of Clarendon Street Westbound On-ramp to I-90

Dear Mr. Walsh:

Thank you for your letter of August 25, 2016 regarding your evaluation of the closing of Clarendon Street westbound on-ramp to I-90 to improve safety and operations. The FHWA concurs that the ramp closure and the Gateway project are not connected actions and have independent utility.

Please contact me at (617) 494-3275 if you have any comments or questions.

Sincerely,

Michael Chong
Planning and Environment
Program Manager

cc: Michael Trepanier, MassDOT – Highway Division

APPENDIX M: Comment Letters on the ENF

The Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Charles D. Baker
GOVERNOR

Karyn E. Polito
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June 24, 2016

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME	: The Back Bay/South End Gateway Project
PROJECT MUNICIPALITY	: Boston
PROJECT WATERSHED	: Boston Harbor/Charles River
EEA NUMBER	: 15502
PROJECT PROPONENT	: BP Hancock LLC
DATE NOTICED IN MONITOR	: April 20, 2016

Pursuant to the Massachusetts Environmental Policy Act (M.G.L. c. 30, ss. 61-62I) and Section 11.03 of the MEPA Regulations (301 CMR 11.00), I hereby determine that this project **requires** the preparation of a mandatory Draft Environmental Impact Report (DEIR). 1.1

The project proposes a major air rights development in the Back Bay and South End of Boston. It will include up to 1.2 million square feet (msf) of commercial, residential and retail space built over and around the Massachusetts Bay Transportation Authority's (MBTA) Back Bay/South End Station, Interstate-90/Massachusetts Turnpike (I-90) and the 100 Clarendon Street Parking Garage (Garage).

This transit-oriented development provides an opportunity to enhance the public realm and vital transportation resources while providing economic development and new housing consistent with the Commonwealth's economic, environmental and transportation goals. It will develop high-density office, residential uses and retail adjacent to the MBTA Station. It is intended to revitalize the area and create a better connection between the Back Bay and South End neighborhoods by integrating the site and its uses with the neighborhood and street-level activity. Underutilized ground level areas along Stuart Street and the bus turn-around on Clarendon Street will be replaced with more active uses.

A common theme of comment letters is ensuring that the project provides a balanced development that places an appropriate emphasis on preserving and improving the public realm.

Comment letters express concern with the impact of the project on the urban environment and historic resources, including the effects of wind and shadow. A particular concern is the potential impact of the project and proposed vehicular access on transit operations and pedestrian access. To conform with the Commonwealth's and the City's urban design and development goals, the project must strive not only to preserve and improve operations and access but to increase capacity to the extent possible to support increased ridership that will be generated by this project. These concerns are similar to those that have been identified and addressed on other major redevelopment projects around transit hubs, including the Boston Garden project (EEA# 15052) at North Station and the South Station Air Rights project (EEA# 9131) at South Station. 1.2

As described in the Environmental Notification Form (ENF), the project consists of the construction of approximately 1.2 msf of mixed use development, including 575,000 sf of commercial office space, 100,000 sf of retail/restaurant space, and 600 residential units. It will include parking, loading and service areas. It includes the demolition of an existing parking garage and construction over ground and air rights covering the MBTA station. The project is comprised of four severable components that may be undertaken in phases by individual owners or developers:

1. Garage West Parcel: The existing western garage drum and a portion of the garage will be demolished. A new 26-story building with 575,000 sf of commercial office space, up to 27,000 sf ground floor retail/restaurant uses, and approximately 200,000 sf of parking (up to 2,013 spaces) will be constructed. Most of this project component will be constructed over I-90. The Proponent has developed design alternatives for the development of this parcel with and without closure of the existing on-ramp that connects Clarendon Street and I-90 westbound. The garage exit will be located either on Dartmouth Street or on Trinity Place depending on whether the I-90 ramp is eliminated or not.

2. Garage East Parcel: The existing eastern garage drum will be demolished. A 28-story, approximately 215,000 sf residential building with 240 units will be constructed. Most of this project component will be constructed over I-90. A parking garage entrance/exit will be located on Clarendon Street.

3. Station East Parcel: The existing MBTA bus drop-off will be relocated and an existing ventilation tower demolished. A 34-story, 377,000-sf building will be constructed with 360 residential units, 8,500-sf of retail space, and a new entrance to the MBTA station. This component of the project may also include reactivation of the Commuter Rail head house on the south side of Columbus Ave. Most of this project component will be constructed over the MBTA station and/or subway and railroad tracks.

4. Station West Parcel: The project includes a one- or two-story vertical expansion of the MBTA station to provide 30,000 to 65,000 sf of retail.

Portions of the site are owned by the Massachusetts Department of Transportation (MassDOT), the MBTA, and the Proponent. Pursuant to the Proponent's ground and air rights development agreement with the Massachusetts Department of Transportation (MassDOT), and its property management responsibilities, the Proponent will renovate Back Bay Station. The

station improvements include the following elements to improve customer experience and access:

- Restore the station architecture to its original condition;
- Create new and expanded waiting areas;
- Add lighting and temperature controls;
- Clarify signage and wayfinding components;
- Improve access and egress into the station;
- Renovate the public restrooms;
- Add retail opportunities to serve MBTA riders and the community; and
- Provide a monetary contribution that may be used to improve the track-level ventilation system.

The location of this project with direct access to transit offers the most important opportunity to minimize the long-term traffic and air quality impacts of the project. I received considerable public comment concerning the Proponent's proposed design for the station renovation. Commenters expressed concern about the lack of public input into the design, about vehicular and pedestrian access within and around the station, and whether the design would be able to support existing operations in addition to enhancing capacity of the station to accommodate increased ridership. I note that MassDOT is initiating a public process regarding station improvements which should afford opportunities to learn more about the project and goals and to provide input. The Scope for the DEIR requires more information regarding the station improvements, including identification of project goals, a detailed description of changes, and discussion of how changes address project goals. 1.3

Project Site

The 5.2-acre project site is bounded by Dartmouth Street to the west, Stuart Street and Trinity Place to the north, Clarendon Street to the east, and abutting properties along Columbus Avenue to the south. The site is located between the dense commercial development in Copley Square and Back Bay and the residential neighborhood of the South End.

Approximately three-quarters of the site is located on and over the MBTA station and I-90. A small portion of the site is located at ground level along Stuart Street between Trinity Place and Dartmouth Street. The MBTA station and tracks occupy the southern half of the site. The station serves the MBTA's Orange Line subway and Commuter Rail, and Amtrak passenger rail which provides service between Boston and New York. The station concourse occupies the southwest quadrant of the site and its main entrance is located at the street level on Dartmouth Street. The southeast quadrant consists of a second entrance to the station from Clarendon Street. The parcel includes a surface driveway with a bus turnaround and drop-off/pick-up area, sidewalks, and a plaza. Two ventilation stacks are also located on this parcel. A 2,013-space parking garage occupies the northern half of the site, most of which spans I-90 between Dartmouth and Clarendon Streets. A ramp from Clarendon Street to the westbound lanes of I-90 is located on the northeast quadrant of the site along the northern edge of the parcel below the parking garage.

The portions of the site over I-90 and the subway and railroad tracks are constructed on a structural deck supported by pilings. The pilings are installed on either side of I-90 and in the subway and rail platform. The elevation of the deck along the northeast corner of the site is higher than the surrounding streets. The approximately six-foot difference in elevation between Dartmouth Street and the first floor of the garage building requires stairs and ramps to provide pedestrian access to the site. Along Stuart Street, the deck elevation is up to 13 feet higher than the street. This side of the site is dominated by a concrete wall at the rear of the sidewalk that makes up the difference in elevation and separates the site from pedestrian and street-level activity. Redevelopment of the site is constrained by the deck, existing pilings, cost and complexity of constructing the foundation systems, and the need to maintain operations of the transportation infrastructure and vehicular and pedestrian corridors.

The site is located in several zoning areas designated by the Boston Redevelopment Authority (BRA). The majority of the site is located within Area 4 of the Stuart Street District established by Article 48 of the Boston Zoning Code in an area designated as Planned Development Area (PDA) No. 2. A small part of the site near the intersection of Clarendon Street and Columbus Avenue is located in the Community Commercial Zoning Subdistrict established in accordance with Article 64 of the Boston Zoning Code. The site is also located in the Groundwater Conservation Overlay District (GCOD) and Restricted Parking Overlay District (RPOD).

The site contains one property, the parking garage at 100 Clarendon Street, that is listed in the Massachusetts Historical Commission's (MHC) Inventory of Historic and Archaeological Assets of the Commonwealth. The site is within one-quarter mile of five historic districts listed or eligible to be listed on the State and National Registers, including the Back Bay Historic District (BOS.BT)/Back Bay Architectural District (BOS.BW), South End District (BOS.AB)/South End Landmark District (BOS.AC), Saint Botolph Architectural Conservation District (BOS.BV), Bay Village Historic District (BOS.BQ), and Park Square-Stuart Street Historic District. Sixteen individually designated or inventoried properties are located within these districts. Among the significant buildings in proximity to the site are the YWCA Building (BOS.2368) adjacent to the site on Stuart Street, the Boston Public Library- McKim Building (BOS.2624), Trinity Church (BOS.2623), New Old South Church (BOS.2653), Trinity Rectory (BOS.2371), Youth's Companion Building, and the Armory of the First Corp of Cadets (BOS.2371). The site is also within landlocked tidelands approximately one-half mile from the Charles River. The site does not include any wetland resource areas.

Environmental Impacts and Mitigation

The new office, retail, and residential uses will generate 12,980 new average daily trips (adt), but the Proponent expects the actual number of new vehicular trips to be considerably lower when adjusted to reflect the use of alternate modes of transportation, such as transit and walking, to access the site. No new parking spaces will be added to the existing 2,013 spaces. The project will consume 176,574 gallons per day (gpd) of water and generate 160,522 gpd of wastewater. The project will not significantly alter the site's impervious area. Emissions of Greenhouse Gasses (GHG) and other air pollutants are associated with the burning of fossil fuels for on-site energy use and automobile travel by residents and visitors to the site. The height of the proposed buildings may cast shadows and caused changes to wind patterns that affect adjacent historic resources.

The project will minimize and mitigate transportation-related impacts through the use of Transportation Demand Management (TDM) measures such as encouraging use of public transit and other alternate modes of travel. The project will employ measures to conserve water and contribute to Infiltration/Inflow (I/I) reduction to preserve sewer capacity. The project will employ stormwater Best Management Practices (BMPs) to improve the water quality and flow rate of stormwater discharged from the site, including infiltrating stormwater to the ground. As indicated in the PNF, the project will mitigate GHG emissions by incorporating energy efficiency measures into the building design and potentially generating renewable energy on-site.

Permitting and Jurisdiction

The project is undergoing MEPA review and subject to preparation of a mandatory Environmental Impact Report (EIR) pursuant to Section 11.03 (6)(a)(6) because it requires State Agency Permits and will generate 3,000 or more new average daily trips (adt) on roadways providing access to a single location. The project requires approvals for construction in the ground and air rights on and above the MBTA station, subway and rail tracks, and I-90 and it requires a Vehicular Access Permit from MassDOT. The project may require a Construction Site Dewatering Discharge Permit from the Massachusetts Water Resource Authority (MWRA). It will require review by the Massachusetts Historical Commission (MHC) in connection with the project's potential impacts on historic properties. The project includes modification to an urban renewal plan in accordance with M.G.L. c.121A. It is also subject to the MEPA GHG Emissions Policy and Protocol and will require a Public Benefit Determination.

The project requires a National Pollutant Discharge Elimination System (NPDES) construction permit from the U.S. Environmental Protection Agency (EPA) and a Determination of No Hazard to Air Navigation from the Federal Aviation Administration (FAA).

The project will require multiple permits and approvals from the City of Boston, including Large Project Review pursuant to Article 80B of the Boston Zoning Code, PDA approval, a Construction Management Plan (CMP) and approval of a Transportation Access Plan Agreement (TAPA). The Proponent filed a Letter of Intent to the BRA on December 30, 2015. A Project Notification Form (PNF) was filed in March and is undergoing review. The Proponent is seeking a Planned Development Area from the BRA. PDA3 Review, as required pursuant to Article 80C of the Zoning Code.

Because the Proponent is seeking a land transfer in the form of air-rights and ground leases from MassDOT, MEPA jurisdiction extends to those aspects of the project within the area subject to the land transfer that are likely, directly or indirectly, to cause Damage to the Environment. In addition, I note that the project may pursue State Financial Assistance in the form of Infrastructure, Investment and I (I-cubed) funding. Pursuant to 301 CMR 11.01(2)(a)(3), MEPA subject matter jurisdiction is functionally equivalent to full scope jurisdiction. 1.4

SCOPE

General

The DEIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this scope. The DEIR should clearly demonstrate that the Proponent has sought to avoid, minimize and mitigate Damage to the Environment to the maximum extent feasible. 1.5

Project Description and Permitting

The ENF described the existing site conditions and provided a basic project description and conceptual plans. It identified the project's impacts on transportation, water and sewer use, stormwater management, and historic properties and the short-term impacts anticipated during the constriction period, and acknowledged the need to mitigate these impacts. A brief list of alternatives was provided. The ENF included a copy of the PNF submitted to the BRA that contained a significantly more detailed project description and analysis of the project and its impacts and mitigation measures. The PNF provided important context for the project, including a discussion of relevant zoning, urban design and planning goals and site constraints, which are critical to evaluation of the Preferred Alternative in comparison to other alternatives. Much of the review of the project reflected in this Certificate, including its impacts, and potential mitigation measures, is based on information provided in the PNF. To provide a full and self-contained description and analysis of the project for the MEPA record, the DEIR should include the information contained in the PNF, updated as relevant, in addition to the additional analyses and information required in this Scope. 1.6

The DEIR should include a detailed description of existing conditions. It should clearly identify ownership of the site and quantify areas that are on solid ground and areas over the I-90, subway, commuter rail, and Amtrak rights-of-way. The DEIR should describe the project and identify any changes to the project since the filing of the ENF. The DEIR should include updated site plans, if applicable, for existing and post-development conditions at a legible scale. Conceptual plans should be provided at a legible scale and clearly identify buildings, public areas, impervious areas, pedestrian and bicycle accommodations, transportation facilities managed by MassDOT, MBTA, and the City of Boston, and stormwater and utility infrastructure. 1.7 1.8

The DEIR should identify and describe State, federal and local permitting and review requirements associated with the project including requests for Financial Assistance and provide an update on the status of each of these pending actions. The DEIR should include a description and analysis of applicable statutory and regulatory standards and requirements, and a discussion of the project's consistency with those standards. It should describe the project's consistency with the existing Urban Renewal Plan and what modifications to the plan are proposed in accordance with M.G.L. c.121A to accommodate the proposed development program. It should identify permits and approvals required by the City of Boston and describe the status of these reviews and approvals, in particular, in regards to any implications to the project uses or design. 1.9

The DEIR should provide more information about the Proponent's obligations to manage and upgrade the station as part of the Ground and Air Rights Lease. The DEIR should provide a 1.10

description of the proposed changes to the MBTA station, describe the design review process for the changes, including any public review, and respond to the issues and concerns identified in comment letters. It should assess the project's potential impact on capacity and describe how the changes will accommodate existing and future ridership at the station. 1.11

The DEIR should identify and describe projects in the immediate project area which may be constructed concurrent with or prior to the proposed development (e.g. Copley Place, EEA# 14790) and describe related roadway, transit and pedestrian improvements and construction phasing. 1.12

Project Phasing

According to the PNF, the development of each of the four parcels is severable from the others and therefore the project may be constructed in phases by the Proponent or successor(s) in interest based on future market conditions. The DEIR should describe likely phasing scenarios based on site and structural constraints, interdependence of uses such as parking supply, mitigation commitments, and any other relevant factors. The DEIR should discuss how mitigation measures will be implemented in the phasing scenarios to ensure that project impacts are appropriately mitigated as development proceeds. It should also address how the need for subsequent review by MEPA and/or the City of Boston will be addressed. 1.13

Alternatives Analysis

The ENF included a brief description of alternative designs and relatively minor changes in programming. The alternatives include the following designs:

- No-Build;
- Reduced Build; and
- Increased Build.

The No-Build Alternative would maintain the existing configuration of the garage and station property and continue routine maintenance of the station. The Reduced Build Alternative would involve the construction of a significantly smaller building on one or more of the parcels compared to the towers proposed in the Preferred Alternative. According to the ENF, this alternative is not feasible because the high costs related to the foundation and structural systems required for construction over the transportation infrastructure present at the site would render a smaller development infeasible based on cost. The Increased Build Alternative would include a taller building on the Station West parcel in place of the one- or two-story vertical addition proposed in the Preferred Alternative. The Proponent indicates that this alternative would require additional foundation and support systems that are costly and not technically feasible because of the existing configuration of the station and the need to maintain access to it during construction. The Garage West Parcel Bridge Alternative would involve the reorientation of the office building proposed for this parcel from an east-west orientation to a north-south orientation. The Proponent has determined this alternative is infeasible and cost-prohibitive because of the impacts to space and circulation within the station associated with additional foundation elements. These elements would be required through the station concourse and track level to bridge I-90 with a structural deck.

MassDOT's comments indicate that it has considered closure of the I-90 westbound on-ramp from Clarendon Street independent of the proposed project and that it intends to prepare an Interchange Modification Report (IMR) to evaluate the effects of the closure and make a final determination. As requested by MassDOT, the ENF described an alternate design for the Garage West Preferred Alternative that could be implemented if the I-90 westbound on-ramp were to be closed. The proposed development program is essentially the same in both alternatives, but the closure of the ramp (Garage West Alternate Scheme) would allow traffic to exit the garage onto Trinity Place rather than onto Dartmouth Street, as proposed in the Garage West Base Scheme. According to the ENF, the Garage West Alternate Scheme is advantageous because it will avoid conflicts with the high level of pedestrian activity on Dartmouth Street, allow a through-block pedestrian connection from Stuart Street and Trinity Place to the station, and will make a retail space at the corner of Trinity Place and Stuart Street viable.

Should MassDOT determine that the closure would be beneficial, it will consult with the City of Boston and submit the IMR to the Federal Highway Administration (FHWA) for approval. Many commenters noted the conflict between pedestrians and vehicles that would be created by a garage exit onto Dartmouth Street. The DEIR should include a modified version of the Garage West Base Scheme that eliminates the Dartmouth Street garage exit and either relies solely on the Clarendon Street entrance/exit and/or identifies a second exit into Trinity Place. The DEIR must include at least one alternative that provides access to Trinity Place or provide a clear analysis of why that is infeasible if the I-90 ramp remains open. 1.14

MassDOT's and FHWA's determination regarding the I-90 ramp may have a significant impact on traffic flow and operations in the project area. Closure of the ramp would benefit the development, primarily, by facilitating an alternate exit on Trinity Street and, secondarily, through a relatively small increase in development potential. MassDOT did not provide a schedule for completion of the IMR. The DEIR should discuss how schedule and phasing may be affected by MassDOT's determination regarding the ramp and how timing of that decision relates to the development project. 1.15

According to the PNF, the project conforms closely to the Stuart Street District zoning requirements, but the Proponent will seek PDA approval from the BRA because of the complexity of the project and the underlying zoning. The DEIR should include an analysis of at least two alternatives, including but not limited to: 1.16

- A third residential tower in place of the proposed office tower; and
- A development that strictly conforms to Stuart Street District and Community Commercial Zoning Subdistrict zoning requirements.

The DEIR should provide a detailed comparison of the alternatives, including detailed descriptions and plans of each alternative. The DEIR should compare the environmental impacts of each alternative, quantitatively to the extent practicable, with respect to trip generation, traffic operations, pedestrian and bicycle access, water use, wastewater generation, impervious area, shadow, wind, GHG emissions, and potential for renewable energy generation. The DEIR should describe any impacts or opportunities for improved access to the MBTA station associated with the alternatives. 1.17

In recognition of the likely possibility that the phasing and development will change due to market conditions, I encourage the Proponent to think strategically about alternative development scenarios and structure them to facilitate subsequent MEPA review (e.g. Notice of Project Change (NPC)). 1.18

Land

The project site has complex patterns of ownerships and easements. Portions of the site are owned by MassDOT, the MBTA, and the Proponent. When the Proponent purchased its property in 1990, 54 years remained on the lease of the Garage and its air rights from the Massachusetts Turnpike Authority (MTA) (which has been incorporated into MassDOT). On January 5, 2015, the Proponent entered into a Ground and Air Rights Lease with MassDOT which extended the timeframe of the lease to 99 years and expanded the air rights to include Back Bay Station. The lease includes provisions (Section 15.8 and 15.9 of the Ground and Air Rights Lease) that may authorize air rights development of up to four parcels; these provisions are referred to by MassDOT as the Development Agreement. The Ground and Air Rights Lease includes a requirement that air rights development undergo MEPA review and other "Governmental Approvals." A Form of Air Rights Development Project Lease was entered into on August 1, 2015.

On February 2, 2016, the Proponent filed a Proposed Air Rights Development Project Development Plan (Development Plan) with MassDOT. It describes new development of up to 1.7 million gross sf (equivalent to approximately 1.3 million Floor to Area Ratio (FAR) sf) in the aggregate on the four development parcels described in the Ground and Air Rights Lease, and includes conceptual plans, massing diagrams, and other materials that describe and illustrate the project. Full execution of the lease will not occur until completion of MEPA review and other required reviews, approvals and conditions.

The Proponent occupies the majority of the site pursuant to the Ground and Air Rights Lease with MassDOT, which authorizes the ground and air rights development on the four parcels. As noted above, the Proponent has property management responsibilities for the MBTA Station concourse and has commenced a series of station upgrades. The site is also subject to easements for rail service, utilities, and other private parties that must be maintained as part of the site redevelopment. 1.19

The DEIR should include one or more graphics that clearly identifies the areas subject to the MassDOT lease. It should identify and quantify current ownership, proposed ownership/ development rights, and temporary and permanent easement areas, including any easements required by the project from the City of Boston. It should include, in an appendix, the Ground and Air Rights Lease and the Development Plan. The DEIR should describe any additional ownership or lease arrangements that would be required to implement project alternatives related to the closure of the I-90 ramp. 1.20 1.21 1.22

Traffic and Transportation

The PNF provided a description of existing traffic patterns, on-site parking capacity, and public transportation service to the site. It included trip generation estimates and likely travel routes for vehicles arriving to and departing from the site. The DEIR should include a Traffic 1.23

Impact Assessment (TIA) as described below and provide additional analysis regarding the project's impact and proposed mitigation measures related to vehicular traffic, pedestrian and bicycle facilities, and public transportation. MassDOT comments stress that the TIA should include a comprehensive multimodal assessment of transportation impacts including vehicular, transit and pedestrian capacity analysis. A major focus of this section of the DEIR should be a detailed analysis of existing conditions and measures the project could implement to encourage and facilitate transit, bicycle and pedestrian access to the buildings and MBTA station and the surrounding area. 1.23 cont. 1.24

Existing Conditions

Vehicles currently enter the parking garage through the entrance on Clarendon Street or, for pass-holders only, the entrance drum on the Garage West Parcel accessible from Stuart Street via Trinity Place. Vehicles may exit the garage on either Clarendon Street or pass-holders may use the exit drum on the Garage East parcel. Vehicles leaving through the exit drum have access to the I-90 westbound ramp and Trinity Place/Stuart Street via a MassDOT service road. Because Clarendon Street is a one way street with traffic flowing south, vehicles using this entrance must come from the direction of Stuart Street or Stanhope Street and make a right turn into the garage; exiting vehicles must turn right toward Columbus Avenue. A police officer or garage employee typically controls traffic entering or exiting the garage during peak periods because of the high volume of pedestrians crossing the garage driveway to access or leave the nearby MBTA station entrance.

The site is served by multiple transit options. The Back Bay Station provides access to the MBTA's Orange Line subway; the Franklin, Needham, Providence/Stoughton, and Framingham/Worcester commuter rail lines; and Amtrak service to points south. The Copley Square Station provides access to four branches on the Green Line. The MBTA operates nine bus routes in the vicinity of the project site, including Routes 10, 39, and 170 that stop or terminate at the station. The Route 39 bus terminates in the drop-off area on the Station East parcel. According to the PNF, the Proponent is working with the MBTA to determine a suitable new terminus for the Route 39 bus prior to construction of the proposed residential building on the Station East parcel.

Proposed Parking Garage Ingress and Egress

The project will not increase the number of parking spaces at the site. Parking will be provided on the Garage West and Garage East parcels but the entry and exit drums will be demolished. Under the Garage West Base Scheme, the connections between Stuart Street/Trinity Place and the garage would be eliminated. Direct access from the garage to the I-90 westbound on-ramp would also be eliminated, but the ramp would remain accessible from Clarendon Street. A new exit would be provided onto Dartmouth Street and the Clarendon Street driveway would be maintained. Under the Garage West Alternate Scheme, the I-90 westbound on-ramp would be removed, allowing for an exit from the garage to Stuart Street. The only entrance to the garage would be through the Clarendon Street driveway, which would continue to serve as an exit from the driveway.

As noted above, the Garage West Base Scheme could create a significant conflict between pedestrians and vehicles. The sidewalk along Dartmouth Street is heavily used and

provides direct access to the MBTA station from Copley Square. Many comment letters expressed concern with this exit. I expect that the DEIR will include an assessment of this potential conflict and identify alternatives to avoid, minimize and mitigate impacts to pedestrian flow along Dartmouth Street. The DEIR requires analysis of an alternative Garage West Base Scheme that does not include a garage exit in this location. As described below, the DEIR will also provide a detailed pedestrian impact analysis that will include an evaluation of the Garage West Base and Alternate Scheme. 1.25 1.26

Traffic Operations

According to the PNF, the project will generate 12,980 adt based on the Institute of Transportation Engineers (ITE) Land Use Codes (LUC) 220 (Apartment), 710 (Office) and 820 (Shopping Center). The project will generate 1,261 trips during the AM peak period and 1,458 during the PM peak period. The Garage West Alternate Scheme would result in higher trip generation, with a total of 14,620 adt, 1,302 trips during the AM peak, and 1,602 trips during the PM peak. Most of the site's visitors and residents are expected to use alternate modes of transportation such as transit, walking, biking, or ridesharing. Adjusting for the anticipated high level of non-single occupant vehicle (SOV) trips, the project is expected to generate 4,180 adt under the base scheme and 4,974 adt under full build conditions with the Garage West Alternate Scheme.

The DEIR should include a Transportation Impact Assessment (TIA) consistent with the EEA/MassDOT *Transportation Impact Assessment (TIA) Guidelines* issued in March 2014 and the analyses and data requested in MassDOT's comment letter. The traffic study should provide a comprehensive multimodal evaluation of transportation impacts and identify appropriate mitigation. The TIA should provide transit and capacity analyses and evaluate bicycle and pedestrian facilities for the existing conditions, future No-Build conditions, and future Build conditions. The Proponent should provide a clear commitment to implement integrated multimodal mitigation measures to improve vehicular traffic operations and accommodate walking, bicycling and transit use by employees, residents, and visitors to the site. The TIA should describe the timing of impacts and mitigation measures, particularly with respect to any phasing of the project build-out. The TIA should include an analysis of any intersections in the study area that have crash rates higher than the State and/or MassDOT District 6 average, and discuss causality and potential mitigation measures to be implemented by the Proponent. 1.27

In addition to the trip generation estimates included in the PNF, the DEIR should provide estimates for the average Saturday daily trips and Saturday peak period trips based on the ITE *Trip Generation Manual* (9th Edition). Adjustments of the trip generation estimates should be calculated using applicable methodologies for pass-by and/or internal capture trips from the most recent editions of the ITE *Trip Generation Manual* and *Trip Generation Handbook*. The DEIR should include a trip distribution for the project using a gravity model based on factors such as census data, origin-destination, travel time, and distance to determine trip characteristics for employees and residents of the project site. The model should also consider the impact of the potential closure of the I-90 on ramp to the transportation network and trip distribution. The Proponent should consult with MassDOT, the City of Boston, and the MBTA to develop travel demand and trip generation characteristics in light of the difficulty in adequately modeling the transit trip generation and trip assignments for the project. The City of Boston's mode split data for this section of the city should be compared to the ITE values to better estimate the share of 1.28

trips accomplished by walking, bicycling, and transit use. The DEIR should fully document how the trip generation estimates and trip assignments were derived. If appropriate, the study area defined below should be modified on the basis of these results. 1.29

MassDOT has requested that additional locations be added to the study area proposed in the PNF. The TIA study area should include the following 32 intersections and roadways:

- Boylston Street at Clarendon Street;
- Boylston Street at Berkeley Street;
- St. James Avenue at Dartmouth Street;
- St. James Avenue at Trinity Place;
- St. James Avenue at Clarendon Street;
- St. James Avenue at Berkeley Street;
- St. James Avenue at Arlington Street;
- Huntington Avenue at Exeter Street and Stuart Street;
- Stuart Street at Dartmouth Street;
- Stuart Street at Trinity Place;
- Stuart Street at Clarendon Street;
- Stuart Street at Berkeley Street;
- Stuart Street at Arlington Street;
- Clarendon Street at Stanhope Street;
- Clarendon Street at Back Bay Station; 1.30
- Clarendon Street at the I-90 westbound on-ramp
- Columbus Avenue at Dartmouth Street;
- Columbus Avenue at Clarendon Street;
- Columbus Avenue at Cahners Place;
- Columbus Avenue at Berkeley Street;
- Arlington Street at Marginal Road and the I-90 on-ramp;
- Arlington Street at Stuart Street/Columbus Avenue;
- Arlington Street/Herald Street at Tremont Street;
- Herald Street at Albany Street;
- Albany Street at I-93 southbound on-ramp;
- Albany Street at Traveler Street;
- Berkeley Street at Storrow Drive on-ramps;
- Storrow Drive eastbound off-ramp at Clarendon Street;
- Stuart Street at I-90 westbound off-ramp; and
- Huntington Avenue at Blagden Street/I-90 westbound on-ramp.

The TIA should include operational analyses for the I-90 mainline, including the merge sections for the Arlington Street, Clarendon Street, and Huntington Avenue on-ramps. The TIA should provide comprehensive analyses for both the No-Build and Future Build scenarios in which the I-90 westbound ramp remains open or is permanently closed. 1.31

The TIA should also include trips that will be generated by nearby planned and/or approved projects in establishing traffic volumes for the future No-Build and Build scenarios. In addition, an annual growth factor should be applied to existing traffic volumes prior to addition 1.32

project-specific background growth. The planning horizon for the TIA should be seven years from the filing of the DEIR, with the exception of the analyses of the I-90 westbound on-ramp closure, which should use a 20-year planning horizon consistent with FHWA requirements. The Proponent should consult with MassDOT regarding the modeling of impacts to area traffic conditions associated with proposed I-90 westbound ramp closure. 1.32 cont.

The DEIR should characterize existing and future traffic operations with capacity analyses for the weekday AM and PM and Saturday peak hour conditions for all intersections. The capacity analyses should be performed for the entire build-out including both the Garage West Base Scheme and Garage West Alternative Scheme which is based on the elimination of the I-90 westbound on-ramp. 1.33

The DEIR should document the project's impacts to vehicular flow and bus headway at the station entrance and consider impacts due to the proposed signalized exits. 1.34

The DEIR should depict the peak hour 50th (average) and 95th percentile queue lengths for each lane group/turning movement at each study area intersection for all scenarios. The results of this analysis should be provided in a tabular format that identifies Existing, No Build, Future Build and Future Build with Mitigation scenarios for all peak hour conditions. The analysis should clearly identify any extended queues that would affect vehicle movements and identify appropriate mitigation. The level of service (LOS) for each lane group/turning movement should be clearly depicted for each scenario using color coded illustrations. 1.35

The DEIR should include a traffic signal warrant study (TSWS) and document the need at any intersection where signalization is proposed. The DEIR should also identify any locations where a left turn lane is proposed and fully document the need for the turning lane. 1.36

The DEIR should include sufficiently detailed conceptual plans (preferably 80-scale) for proposed roadway improvements in order to verify the feasibility of constructing improvements. The plans should show proposed lane widths and offsets, layout lines and jurisdictions, and land uses adjacent to areas where improvements are proposed. 1.37

Any proposed mitigation within the state highway layout and all internal site circulation must be consistent with a Complete Streets design approach that provides adequate and safe accommodations for all roadway users, including bicyclists, pedestrians, and public transit riders. Guidance on Complete Streets design guidelines is included in the *MassDOT Project Development and Design Guide*. I expect the Proponent to consult with the City of Boston regarding its Complete Streets Initiative and opportunities for incorporating "green infrastructure into the design of streets and sidewalks. 1.38

Parking

The project will include up to 2,013 parking spaces. The DEIR should discuss the rationale for determining the number of parking spaces to be provided. According to MassDOT, the most recent edition of ITE's *Parking Generation* document should be consulted, but it may not effectively predict parking rates for this mixed-use project. 1.39

The DEIR should include a summary of the parking need and supply for comparable facilities using multiple data sources, including consultation with the Boston Transportation Department (BTD). The DEIR should describe how occupancy of parking spaces at these facilities varies during the day and identify peak periods of use. 1.40

Public Transportation

As achieving a high transit mode share for this project is predicated on the project's proximity to transit, the DEIR should include a detailed transit capacity analysis to determine the existing conditions and potential impacts of the project on the transit system. The analysis should be developed in consultation with the MBTA and the Central Transportation Planning Staff (CTPS). The analysis should be based on the existing Orange Line system and any planned service enhancements and include projected conditions upon completion of individual phases and the Full Build. 1.41

The DEIR should evaluate the additional demand the project will place on public transportation facilities and services. The DEIR should address the expected additional ridership on the Orange Line and the impact of the additional ridership throughout the day, including peak periods. The DEIR should include tables showing the peak period headway and the MBTA's Policy Load and Crush Load Capacity for both inbound and outbound directions on the Orange Line. The data should be provided for future conditions upon completion of project phases and the full buildout. This information should be shown graphically to indicate the project's added ridership in comparison to base ridership and the load capacities. 1.42

The DEIR should describe existing conditions at the station, describe how employees, visitors, and residents will access the station, identify any measures that may be necessary to improve conditions and capacity to address increased transit ridership. 1.43

The DEIR should include a discussion of the ongoing improvements the Proponent is implementing at the station as part of its management responsibilities and how those improvements will accommodate growth in the volume of transit riders generated by the project and adjacent projects. I note that MassDOT intends to initiate public review of proposed improvements this year and expect this process will inform the DEIR. 1.44

The DEIR should provide a detailed analysis of the project's impact to the MBTA bus network that serves the site, including Routes 10, 39, and 170. The DEIR should review the capacity of bus service to the site under existing conditions and upon completion of the project, taking into account other projects in the vicinity that are under construction or planned. The DEIR should evaluate options for relocating the Route 39 terminus and identify the potential impacts to service. The Proponent should provide the analysis of impacts to bus service requested in MassDOT's comment letter. 1.45

Pedestrian and Bicycle Access

The DEIR should provide an inventory of pedestrian and bicycle facilities in the study area and bicycle network in the vicinity of the project as requested in MassDOT's comment letter. The inventory should document the width and condition of sidewalks and crosswalks, bikeway types, bikeway widths, and number and speed of bicyclists. Travel routes of bicyclists through the area should be identified and evaluated in terms of safety and origin-destination of potential employees and residents of the project site. The DEIR should identify measures for improving deficient pedestrian and bicycle facilities in the area and expanding or adding new bicycle routes. The DEIR should quantify the capacity of sidewalks and bicycle facilities adjacent to the project site and identify any impacts or improvements on pedestrian and bicycle passage that are related to the project. 1.46

Plans included in the PNF showed potential locations of a pedestrian bridge spanning Dartmouth Street and another that would connect the Proponent's property at 40 Trinity Place to 200 Clarendon Street. The DEIR should discuss the pedestrian 1.47

bridges in the context of overall pedestrian circulation in the area and provide more detail about potential locations and designs of the bridges. 1.47 cont.

The DEIR should include a pedestrian impact analysis to determine the quality of service provided to pedestrians at intersections and pedestrian facilities in the vicinity of the project site. The analysis should provide a pedestrian LOS for each intersection and crosswalk under the Existing, No Build, and Build conditions, for the Garage West Base Scheme, Garage West Alternative Scheme, and version of the Garage West Alternative Scheme that does not include a garage exit onto Dartmouth Street. The pedestrian impact analysis should be prepared using methodologies described in the most recent edition of the *Highway Capacity Manual*. 1.48

Transportation Demand Management

The PNF indicated that the Proponent will develop and implement a robust Transportation Demand Management (TDM) Program to provide incentives for using alternative transportation and discourage SOV trips. The TDM program should evaluate all feasible measures to reduce trip generation associated with the project. The TDM plan should seek to maximize the use of pedestrian and bicycle facilities, offer incentives for using public transportation, and encourage the use of low-emissions vehicles. The Proponent should consider implementing the following measures: 1.49

- Designation of a full-time on-site TDM coordinator;
- Provision of commuter information for employees and visitors;
- Bicycle and pedestrian improvements within the project site and connections to adjacent streets, public transportations, and other destinations;
- Participation in programs providing alternative transportation;
- Participation in available fixed-route transit services that are or will become available in the vicinity;
- Subsidized passes for residents;
- Support for ride-sharing matching/carpooling through the active promotion of NuRide, the Commonwealth's web-based trip planning and ride-matching system that allows users to earn rewards for taking greener trips; 1.50
- Provide an appropriate number of parking spaces for a car-sharing program;
- Provide preferential parking for low-emission vehicles;
- Installing on-site electric vehicle (EV) and solar-powered EV charging stations;
- Implement a five-year monitoring program to determine the effectiveness of the TDM program, on an iterative basis;
- Organize carpools/vanpools to nearby employment, retail, and health care centers;
- Provide indoor, secure bicycle parking; and
- Consult with MassRIDES, the Commonwealth's Travel Options provider, to help implement the program.

The Proponent should consult with MassRIDES and A Better City Transportation Management Association (TMA) to discuss specific measures that have been successful in reducing trip generation for similar projects in Boston. 1.51

Transportation Monitoring Program

According to MassDOT, the Proponent will be required to conduct annual traffic monitoring for a period of five years. The goal of the monitoring program is to evaluate the transportation-related assumptions made in the DEIR, the adequacy of mitigation measures, and the effectiveness of the TDM program. The monitoring program will include:

- Simultaneous automatic traffic recorder (ATR) counts at each garage entrance for a continuous 24-hour period on a typical weekday and Saturday;
- Travel survey of employees, patrons, and residents of the site;
- Weekday AM and PM peak hour turning movement counts (TMC) and operations analysis at mitigated intersections, including the garage entrances; and
- An update on TDM effectiveness and transit ridership.

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Greenhouse Gas (GHG) Emissions

This project is subject to review under the May 5, 2010 MEPA GHG Policy. The DEIR should include an analysis of GHG emissions and mitigation measures in accordance with the standard requirements of this Policy. The Policy requires Proponents to quantify carbon dioxide (CO_2) emissions and identify measures to avoid, minimize or mitigate such emissions. The analysis should quantify the direct and indirect CO_2 emissions of the project's energy use (stationary sources) and transportation-related emissions (mobile sources). Direct emissions include on-site stationary sources, which typically emit GHGs by burning fossil fuel for heat, hot water, steam and other processes. Indirect emissions result from the consumption of energy, such as electricity, that is generated off-site by burning of fossil fuels, and from emissions from vehicles used by employees, vendors, customers and others. The DEIR should identify and commit to mitigation measures to avoid and minimize GHG emissions. The Proponent should refer to the Policy for additional guidance on the GHG analysis. MEPA, MassDEP and the Department of Energy Resources (DOER) staff are available to assist with these efforts and the I Proponent should consult with them regarding the analysis prior to submission of the DEIR.

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I strongly encourage the Proponent to explore the availability of financial incentives offered by utility companies to help implement energy efficiency measures that would reduce GHG emissions. These incentives may be performance-based and tied to power and fuel avoided compared to a building designed to Building Code requirements. Incentives may also be available to offset design charette and energy modeling costs. For gas, more information is available on National Grid's website and in National Grid's New Construction Guide.[1] For electricity, more information can be obtained by contacting newconstructionMA@eversource.com. The GHG analysis should report on financial incentives that may be available from utility companies to help offset the cost of energy efficiency measures of this project.

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[1] National Grid Commercial and Industrial Construction Services: https://www.nationalgridus.com/Trade/EE-Programs-Solutions/CI-New-Construction-Services?gclid=Cj0KEQjwrte4BRD-oYi3y5_AhZ4BEiQAzIFxn_VdWabqesqI52YlID4qJ0nC6a4rTuojTUh33NDqAeoaAmeb8P8HAQ

New Construction Guide: https://www.nationalgridus.com/media/trade/NewConstruction_Guide_Digital_Update.pdf

Stationary Sources

I note that the City of Boston is a designated Green Community. As such, the City has adopted the Commonwealth of Massachusetts' Stretch Energy Code (SC). Therefore, the project will be required to meet the applicable version of the Stretch Code in effect at the time of construction. The Stretch Code increases the energy efficiency code requirements for new construction (both residential and commercial) and for major residential renovations or additions in municipalities that adopt it. A revised Stretch Code (SCII) is pending review and approval by the Board of Building Regulations and Standards (BBRS). According to the PNF, the SCII is anticipated to require energy use in new large buildings to be approximately 10 percent below the baseline of standard established by the Building Code, which will be based on standards of the 2015 International Energy Conservation Code (IECC 2015) which references standards established by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE 90.1-2013). 1.56

According to the PNF, the project has been designed to incorporate energy efficiency measures to meet the anticipated requirements of SCII. The PNF included a discussion of the preliminary energy efficiency design measures and modeling results for the proposed buildings. The buildings will use approximately 20 percent less energy than the IECC 2015 standard, resulting in a reduction in GHG emissions of approximately 18 percent. Energy efficiency measures incorporated into the design of the project include:

- High efficiency condensing boilers to meet space heating demands and hot water demands;
- High-efficiency vertical stacked water source heat pumps connected to condensing boilers and cooling towers;
- Dedicated outside air system with energy recovery;
- Floor-by-floor variable air volume (VAV) reheat units serving chilled beams;
- Premium efficiency water-cooled chiller plant with variable frequency drives;
- Low lighting power densities to be achieved by using LED lighting;
- Forty-six percent window to wall ratio with insulated shadow box or spandrel in the Station West retail units;
- Low U-value wall and roof insulation; and
- Fifteen percent skylight to roof ratio in the Station West retail units.

The DEIR should include a GHG emissions analysis that calculates and compares GHG emissions from: 1) a Base Case corresponding to the current Massachusetts Building Code and 2) a Preferred Alternative that achieves greater reductions in energy use and GHG emissions than required by the Building Code. The GHG analysis should model energy use, emissions, and mitigation measures associated with the project in accordance with the GHG Policy and the Department of Energy Resource's (DOER) comment letter. 1.57

The GHG analysis should clearly demonstrate consistency with the objectives of MEPA review, one of which is to document the means by which Damage to the Environment can be avoided, minimized and mitigated to the maximum extent feasible. The Proponent should identify the model used to analyze GHG emissions, clearly state modeling assumptions, explicitly note which GHG reduction measures have been modeled, and identify whether certain 1.58

building design or operational GHG reduction measures will be mandated by the Proponent to future occupants or merely encouraged for adoption and implementation. The DEIR should include the modeling printout for each alternative and emission tables that compare base case emissions in tons per year (tpy) with the Preferred Alternative showing the anticipated reduction in tpy and percentage by emissions source (direct, indirect and transportation). Other tables and graphs may also be included to convey the GHG emissions and potential reductions associated with various mitigation measures as necessary. The DEIR should provide the information and formatted tables requested in the DOER comment letter. 1.58 cont.

The DEIR should present an evaluation of mitigation measures identified in the GHG Policy Appendix. In particular, the feasibility of each of the mitigation measures outlined below should be assessed for each of the major project elements, and if feasible, GHG emissions reduction potential associated with major mitigation elements should be evaluated to assess the relative benefits of each measure. The DEIR should explain, in reasonable detail, why certain measures, which could provide significant GHG reductions, were not selected – either because it is not applicable to the project or is considered technically or financially infeasible. The DEIR should assess the feasibility of the following mitigation measures: 1.59 1.60

- Minimize energy use through building orientation and evaluate its impacts on energy usage, including solar gain, day-lighting and viability of solar photovoltaic (PV) systems;
- Use of high-albedo roofing materials;
- Install high-efficiency HVAC systems and adequate numbers of thermal zones to support temperature controls;
- Reduce energy use through peak shaving or load shifting strategies;
- Maximize interior day-lighting through floor-plates, increased building perimeter and use of skylights, clerestories and light wells;
- Incorporate window glazing to balance and optimize daylighting, heat loss and solar heat gain performance;
- Incorporate roof and wall insulation to minimize heat loss and minimize uncontrolled infiltration through the building envelope;
- Incorporate lighting motion sensors, climate control and building energy management systems;
- Install energy efficient LED lighting, both exterior and interior;
- Evaluate additional measures to reduce project plug loads, including the use of more efficient equipment (such as Energy Star), consider energy consumption as a factor in the selection of special equipment, and consider power management techniques;
- Use of combined heat and power (CHP) units for the residential component of the project;
- Develop a tenant manual to encourage energy and water conservation, recycling, and use of Energy Star rated appliances to reduce plug loads; and
- Consider the development of a “green lease” program whereby tenants agree to pay the landlord recovery costs for energy efficiency improvements based on predicted cost savings to the tenant.

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The DEIR should include an analysis of at least three wall/fenestration scenarios, including the use of spandrels, which exceed minimum Building Code specifications. It should analyze the feasibility and benefits of incorporating on-site generation and renewable energy 1.62

sources thoroughly in the DEIR. At a minimum, the DEIR should analyze the feasibility of employing solar photovoltaic (PV), solar hot water, CHP systems, and document the expected energy savings and reduction in GHG emissions from each generating technology. The Proponent should consider the use of one or more CHP systems for this project. Beyond providing efficient power for lighting and heating, CHP can also create greater reliability for electricity, greater control over uncertainties associated with energy prices, and produce off-grid power in the event of a black-out. I encourage the Proponent to consult with DOER regarding this analysis to ensure that the analysis accurately reflects the benefits of CHP. 1.63

The solar feasibility analysis should consider solar PV for both a first-party and a third-party ownership structure. The Proponent should contact the MEPA office for recently updated data on solar installation costs and a solar financial modeling spreadsheet. The analysis should:

- Estimate available roof area (excluding areas dedicated for mechanical equipment) or ground space for solar panel installation; 1.64
- State the assumed panel efficiency;
- Estimate electrical or thermal output of the potential system; and
- Estimate annual GHG reductions due to the use of renewable energy versus electricity or natural gas.

The analysis should include a narrative and data to support the Proponent's adoption (or dismissal) of solar PV or solar thermal systems as a feasible measure to avoid, minimize or mitigate project-related GHG emissions and Damage to the Environment. For those projects that choose not to implement the use of solar in conjunction with the project, the analysis should include:

- A commitment to construct the project as "solar-ready". At a minimum, this commitment should include design of a structure capable of supporting solar-related infrastructure. Such a commitment may also include provision of interconnection and inverter equipment, or other design features to facilitate future solar installations. 1.65
- Completion of cost analysis to determine the overall financial feasibility of installation of solar, including potential payback periods for first-party and third-party ownership systems.
- Discussion of potential environmental constraints (shading, presence of wetlands, etc.) limiting the application of solar on-site.

I encourage the Proponent to consider design options that will allow for cost-effective integration of efficiency or renewable energy measures in the future when such measures may become more financially or technically feasible. 1.66

Mobile sources

The GHG analysis should include an evaluation of potential GHG emissions from mobile emissions sources. The DEIR should follow the guidance provided in the Policy for *Indirect Emissions from Transportation* to determine mobile emissions for Existing Conditions, Build Conditions, and Build Conditions with Mitigation. The Proponent should thoroughly explore means to improve traffic operations and minimize overall single occupancy vehicle trips. 1.67

Improvements in traffic operations that minimize idling time can minimize overall project-related mobile source emissions. The DEIR should also review measures to promote the use of low-emissions vehicles, including installing EV charging stations and providing designated parking spaces for these vehicles. The Build with Mitigation model should incorporate roadway improvements and TDM measures to be implemented by the Proponent. 1.68

Mitigation

The DEIR should include a commitment to provide a self-certification to the MEPA Office at the completion of the project. It should be signed by an appropriate professional (e.g. engineer, architect, transportation planner, general contractor) indicating that all of the GHG mitigation measures, or equivalent measures that are designed to collectively achieve identified reductions in stationary source GHG emission and transportation-related measures, have been incorporated into the project. 1.69

Air Quality

In accordance with the State Implementation Plan (SIP) for ozone attainment, the proponent must conduct an indirect source review analysis. This analysis should be conducted in accordance with MassDEP *Guidelines for Performing Mesoscale Analysis of Indirect Sources.* The proponent should consult with MassDEP for guidance and for confirmation of the appropriate study areas. The purpose of the analysis is to determine whether and to what extent the project will increase the amount of volatile organic compounds (VOC) and nitrogen oxides (NO_x) emitted in the project area and to determine consistency with the SIP. The analysis should model emissions under No Build and Build conditions. If VOC emissions are greater than the No Build scenario, the proponent must provide measures to mitigate this impact, including a TDM Program. 1.70 1.71

Commenters have noted the potential impacts of locating residential development adjacent or proximate to a source of ultra fine particulate matter (UFP) such as vehicle emissions from I-90. I encourage the proponent to incorporate measures to enhance indoor air quality, including the installation of High-Efficiency Particulate Air (HEPA) filters into the heating, ventilating, and air conditioning (HVAC) system. Additionally, I recommend that the Proponent locate air intakes as far away as possible from sources of pollutants. 1.72

Climate Change and Sustainability

The DEIR should provide an analysis of potential effects of climate change that could affect the project and identify and describe resiliency measures that will be incorporated into the project design, including any resiliency measures to be incorporated into the station upgrade. The PNF included an evaluation of the project's climate change preparedness and a copy of the BRA Climate Change Resiliency and Preparedness Checklist. According to the PNF, the site is not located within a flood hazard area as delineated on the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map for the area. The PNF also included inundation probability maps published in the *MassDOT-FHWA Pilot Project Report: Climate Change and Extreme Weather, Vulnerability Assessments and Adaptation Options for the Central Artery/Tunnel ((June 2015).* According to this report, the site is located in an area of minimal flood risk on the projected 2070 inundation probability map under the high emissions scenario. 1.73

The Proponent is considering incorporating the following features into the project design to increase resiliency from climate change-induced flooding, sea level rise, and more frequent and intense storms and extreme heat events:

- Energy-efficient equipment;
- Back-up generators for critical systems;
- On-site renewable energy;
- Rainwater harvesting;
- Fortification of buildings and utilities against extreme storm events;
- Locating critical equipment above grade;
- Implementing flood barriers in the future, if necessary;
- Operable windows in residential buildings to provide natural ventilation;
- Capacity for water storage; and,
- Low-carbon building design.

I urge the Proponent to consider any additional design features that may provide resiliency and support adaptation under future climate scenarios. 1.74

The DEIR should discuss sustainable design features of the project. Article 37 of the Boston Zoning Code requires that the project be certifiable by the U.S. Green Building Council's Leadership in Energy and Environmental Design program. The PNF included an outline of measures the project will implement that are creditable toward LEED certification. The DEIR should include a full evaluation of ustainable design elements for the buildings and exterior site areas, including measures identified in the LEED rating system. The DEIR should also describe how the project will use recycled building materials and incorporate recycling and source reduction. 1.75

Stormwater and Groundwater

The PNF described existing stormwater facilities on each parcel and traced the flow of stormwater through the BWSC system to the ultimate discharge points. The PNF described the preliminary design of the project's stormwater management facilities, including infiltration systems and components to improve water quality, including removal of Total Suspended Solids (TSS) and phosphorous. The stormwater management system will be designed to comply with the SMS, including requirements for maintaining pre-development peak discharge stormwater flow rates and volumes. The project is considered a Land Use with Higher Potential Pollutant Loads (LUHPPL) and the stormwater management system will be designed to treat the one-inch water quality volume to the maximum extent practicable.

The project is located in the City of Boston's GCOD. The project must therefore undertake measures to infiltrate stormwater runoff to replenish groundwater. According to the PNF, observation wells in the vicinity of the site have reported the groundwater elevation to vary from elevation 2 feet to elevation 7 feet Boston City Base (BCB) between 1999 and 2015. According to the PNF, approximately three-quarters of the site is located above transportation infrastructure, including I-90 travel lanes and subway and railroad tracks, that are at an elevation below the desired groundwater recharge elevation. Because of this, it may not be possible to meet the standard of recharging the first inch of runoff over the entire post-development 1.76

impervious area. The stormwater management system will be designed to include recharge chambers designed to infiltrate runoff over a 72-hour period to maximize recharge to groundwater. The DEIR should provide details about infiltration methods included in the stormwater management design and any necessary data and analysis to document the extent to which the project will meet the GCOD infiltration standard. 1.77

The DEIR should include the information and plans provided in the PNF describing the existing stormwater management infrastructure, including connections to the Boston Water and Sewer Commission (BWSC) system, and ultimate discharge points. The DEIR should identify stormwater modeling assumptions, detail the proposed stormwater management system, and provide supporting documentation or data to demonstrate that it will comply with the SMS and BWSC standards. The DEIR should describe the proposed management system and include calculations, plans at a readable scale, and design details for Best Management Practices (BMPs). It should identify specific BMPs for the parking garage to mitigate stormwater runoff, in particular oil separators or similar BMPs. 1.78

Stormwater runoff from the site will be directed to the Charles River. MassDEP has established Total Maximum Daily Loads (TMDL) for the Charles River for phosphorous and pathogens. The DEIR should identify BMPs and low impact development measures to maximize groundwater recharge. 1.79 The DEIR should provide sufficient detail to demonstrate that the stormwater management system will meet the Charles River TMDLs requirements for phosphorous and pathogens. 1.80

Water and Wastewater

The project will consume 176,574 gpd and generate 160,522 gpd of wastewater. The DEIR should tabulate wastewater generation and water consumption by use, including estimates of peak and continuous maximum water demand for each proposed use and for landscape irrigation and air conditioning make-up water. The DEIR should include information provided in the PNF concerning the existing and proposed water and wastewater systems on site and in the BWSC system. 1.81 The DEIR should analyze flow pressure and/or existing capacity of the BWSC water and sewer system that serve the site. 1.82 The DEIR should describe the location and size of infrastructure, connections to the BWSC water and sewer systems, and the path and ultimate disposal of wastewater from the site. 1.83 The DEIR should identify and describe water conservation measures that will be incorporated into design and operations. 1.84 At a minimum, the DEIR should review the feasibility of installing low-flow fixtures and using rainwater or gray water for irrigation and other purposes. 1.85

It should identify any combined sewers along the project's wastewater flow path, discuss potential impacts to system capacity during dry and wet weather conditions, and identify opportunities to minimize combined sewer overflow (CSO) events within the system. The project will be required to mitigate its contribution of flow into the BWSC sanitary system. MassDEP regulations at 314 CMR 12.04(2)(d) specify that communities with combined sewer overflows (CSOs), such as Boston, must require projects generating 15,000 gpd or more of new wastewater flow to remove four gallons of infiltration and inflow (I/I) for each gallon of wastewater. The DEIR should include a commitment to I/I removal and identify any mitigation projects or monetary contribution by the Proponent. The Proponent should consult with BWSC to identify appropriate I/I mitigation in connection with this project. 1.86

Historic Resources

The PNF provided a description of the historic resources within and adjacent to the project site, including a map of historic districts and properties listed in MHC's Inventory of Historic and Archaeological Assets of the Commonwealth located within a quarter-mile of the site. The PNF included a summary of a shadow impact analysis that concludes that shadow impacts of the project have been minimized to the extent practicable.

As requested in MHC's letter, the DEIR should include a historic resources assessment of historic properties within a quarter-mile of the project site. The DEIR should include pedestrian-level perspectives of the project from nearby historic resources to assist MHC in evaluating the effect of the project's size, scale and massing will have in these resources. The DEIR should include the shadow impact analysis with illustrations of the shadows on the facades of historic buildings. The DEIR should include the results of a quantitative wind tunnel analysis, document the project's effect on pedestrian-level wind conditions, and identify any necessary mitigation measures. 1.87

Solid Waste

The DEIR should characterize the solid waste expected to be generated by the project. In 2014, Massachusetts banned the disposal of commercial organic wastes by businesses and institutions that generate a ton or more of organic materials per week. Business subject to the ban must use composting, conversion (such as anaerobic digestion), recycling or reuse of organic waste. The DEIR should indicate whether any proposed uses may be subject to the waste ban and how it may dispose of its organic waste. 1.88 1.89

The DEIR should describe measures to reduce and recycle organic and other wastes through waste diversion and recycling programs. As noted by MassDEP, incorporating the design, infrastructure, and contractual components of the project's solid waste facilities at this stage will help ensure the success of future waste reduction and recycling efforts. The Proponent should refer to MassDEP's comment letter for additional information and links to web sites providing technical assistance. 1.90 1.91

Construction Period

The DEIR should identify the schedule for construction of various elements and phases. It should identify construction-period impacts and mitigation relative to noise, air quality, water quality, and traffic, including pedestrians, bicyclists and transit riders. The DEIR should document any contaminated soil or groundwater regulated under the Massachusetts Contingency Plan (MCP) and describe remediation and mitigation measures if necessary. The DEIR should confirm that the project will require its construction contractors to use Ultra Low Sulfur Diesel fuel, and discuss the use of after-engine emissions controls, such as oxidation catalysts or diesel particulate filters. More information regarding construction-period diesel emission mitigation may be found on MassDEP's web site at http://www.mass.gov/dep/air/diesel/conretro.pdf. 1.92 1.93 1.94

The DEIR should provide drafts of the Construction Management Plan (CMP) and Transportation Access Plan Agreement (TAPA) and specifically identify construction period 1.95

impacts to public access to transit, including bus routes and stops. The DEIR should identify measures to be taken during the construction of each phase to ensure safe and convenient passage for transit riders between Orange Line and Amtrak facilities and the project site. Several commenters noted that this will be one among several large projects to be under construction concurrently. The DEIR should review any additional coordination with the City of Boston, MBTA, MassDOT, and other project Proponents that may be warranted to coordinate construction schedules and develop mitigation measures necessary to minimize construction-period impacts. 1.96 1.97

The DEIR should provide more information regarding the project's generation, handling, recycling, and disposal of construction and demolition debris (C&D) and identify measures to reduce solid waste generated by the project. I strongly encourage the Proponent to commit to C&D recycling activities as a sustainable measure for the project. Demolition of any structures must comply with the MassDEP Asbestos Regulations (310 CMR 7.15) that became effective on June 20, 2014. These regulations require a pre-demolition and post-abatement surveys and inspections by a licensed asbestos monitor. The Proponent should consult the MassDEP comment letter with regard to regulatory requirements and potential mitigation measures for the removal, handling, and disposal of asbestos containing material (ACM) and other demolition debris during the construction period. The Proponent is reminded that any contaminated material encountered during construction must be managed in accordance with the MCP and with prior notification to MassDEP. 1.98 1.99

The DEIR should describe potential construction period dewatering requirements, discuss how dewatering will be conducted in a manner consistent with MWRA, MassDEP and/or BWSC regulations/guidelines, and identify any necessary permits. The draft CMP should include appropriate erosion and sedimentation control BMPs. I encourage the Proponent to adopt erosion and sedimentation controls consistent with a Stormwater Pollution Prevention Plan prepared in accordance with the NPDES Construction General Permit requirements. 1.100

Public Benefit Determination

This project is subject to a mandatory Public Benefit review pursuant to 301 CMR 13.00. The DEIR should include detailed information describing the nature of the tidelands affected by the project and the public benefit of the project. The DEIR should discuss the impact of the project on abutters and the surrounding community, including effects of wind and shadow, enhancement to the property, and benefits to the public trust rights in tidelands and other rights. The DEIR should identify benefits of the project provided through municipal permits, community activities on the site, environmental protection and preservation, public health and safety, and the general welfare. 1.101 1.102 1.103

Mitigation

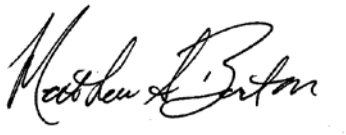
The DEIR should include a separate chapter summarizing proposed mitigation measures. This chapter should also include draft Section 61 Findings for each permit to be issued by State Agencies. The DEIR should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and a schedule for implementation. The DEIR should clearly indicate which mitigation measures will be constructed or implemented based upon project phasing, either tying mitigation commitments to overall project square footage/phase or environmental impact thresholds, to ensure that measures are in place to mitigate the anticipated impact associated with each development phase. 1.104

Responses to Comments

The DEIR should contain a copy of this Certificate and a copy of each comment letter received. In order to ensure that the issues raised by commenters are addressed, the DEIR should include direct responses to comments to the extent that they are within MEPA jurisdiction. This directive is not intended to, and shall not be construed to, enlarge the Scope of the DEIR beyond what has been expressly identified in this certificate. 1.105

Circulation

The Proponent should circulate the DEIR to those parties who commented on the ENF, to any State Agencies from which the Proponent will seek permits or approvals, and to any parties specified in section 11.16 of the MEPA regulations. Per 301 CMR 11.16(5), the Proponent may circulate copies of the EIR to commenters in CD-ROM format or by directing commenters to a project website address. However, the Proponent must make a reasonable number of hard copies available to accommodate those without convenient access to a computer and distribute these upon request on a first-come, first-served basis. The Proponent should send correspondence accompanying the CD-ROM or website address indicating that hard copies are available upon request, noting relevant comment deadlines, and appropriate addresses for submission of comments. The DEIR submitted to the MEPA office should include a digital copy of the complete document. A copy of the DEIR should be made available for review at the Boston Public Library. 1.106



June 24, 2016
Date

Matthew A. Beaton

Comments received:

05/05/2016 Boston Water and Sewer Commission (BWSC)
05/06/2016 Massachusetts Water Resources Authority (MWRA)

05/10/2016	Massachusetts Department of Environmental Protection (MassDEP)/Northeast Regional Office (NERO)
05/18/2016	Gerry Ives
05/23/2016	Charles River Watershed Association (CRWA)
05/30/2016	Elliott Laffer
05/31/2016	Massachusetts Department of Environmental Protection (MassDEP)/ Bureau of Air and Waste
05/31/2016	Department of Energy Resources (DOER)
05/31/2016	Kenneth E. Kruckemeyer
05/31/2016	Shirley Kressel
06/13/2016	Lynn V. Foster
06/15/2016	Massachusetts Historical Commission (MHC)
06/16/2016	Kenneth E. Kruckemeyer
06/16/2016	Tracy Pesanelli
06/16/2016	Susan D. Prindle
06/16/2017	Vicki C. Smith, Neighborhood Association of the Back Bay (NABB)
06/16/2016	Barry L. Solar, Neighborhood Association of the Back Bay (NABB)
06/16/2016	Anne Swanson
06/16/2016	Ann Hershfang
06/16/2016	Betsy Hall, Ellis South End Neighborhood Association
06/17/2016	Massachusetts Department of Transportation (MassDOT)
06/17/2016	Dr. P MacKenzie Bok, Bay Village Neighborhood Association
06/17/2016	Paula Griswold
06/17/2015	Heyward Parker James
06/17/2016	Jacquelin S. Yessian
06/17/2016	City Councilor Josh Zakim, District 8
06/17/2016	Pamela Humphrey
06/17/2016	Ann Beha
06/24/2016	Pam Lassiter

MAB/AJS/ajs

Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection
Northeast Regional Office • 205B Lowell Street, Wilmington MA 01887 • 978-694-3200

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Matthew A. Beaton
Secretary

Martin Suuberg
Commissioner

May 10, 2016

Matthew A. Beaton, Secretary
Executive Office of
Energy & Environmental Affairs
100 Cambridge Street
Boston MA, 02114

RE: Boston
The Back Bay/South End Gateway Project
145 & 165 Dartmouth Street
EEA #15502 (EEA #2081 and 3074)

Attn: MEPA Unit

Dear Secretary Beaton:

The Massachusetts Department of Environmental Protection (MassDEP) has reviewed the Environmental Notification Form (ENF) and Project Notification Form submitted by Boston Properties limited Partnership to demolish the existing facilities on the Garage West, Garage East, Station East, and Station West parcels in order to construct a mixed-use project consisting of about 575,000 square feet (sf) of commercial office space, about 100,000 sf of retail and restaurant space, and 600 residential units on the site that totals 5.2 acres in Boston (EEA #15502). Three quarters of the site is on air-rights over I-90, the Station, the MBTA Orange and commuter rail lines, and AMTRAK rail lines. Each of the four parcels may be owned and developed by separate developers in the future. The 2,013 parking spaces will not increase for the proposed project, which is categorically included for the preparation of an environmental impact report and subject to the City of Boston's Article 80B, large project review. MassDEP provides the following comments.

Wastewater

The ENF states that there is sufficient capacity in the existing collection system to accommodate the estimated 176,574 gallons per day (gpd) of sanitary sewage of wastewater flow that would be generated by the project. As of April 25, 2014, the sewer regulations changed and the requirements for self-certification or a sewer connection/extension permit from MassDEP were eliminated. Under the terms of the new regulations at 314 CMR 12.04(2)(d), MassDEP requires sewer authorities with permitted combined sewer overflows, including the Boston Water & Sewer Commission, to require removal of four gallons of infiltration and inflow (I/I) for each gallon of new wastewater flows generated for any new connection where greater than 15,000 gallons per day of new wastewater flows will be generated. The EIR should describe the sewer

2.1

system for the project and identify any sewer system deficiencies within the combined sanitary sewer system serving the project site. 2.1 cont.

Stormwater

One reported sustainability goal of the stormwater management system is to manage runoff to minimize flooding risks caused by extreme weather events. The Project Notification Form (PNF) indicates that consideration is being given to designing the stormwater management system with onsite-retention systems, infiltration galleries, vegetated rooftops, and rainwater harvesting. These best management practices and the addition of other low impact development (LID) measures would improve post-development stormwater characteristics by removing phosphorus as required for stormwater discharging to the Charles River, and increasing groundwater recharge and evapotranspiration within this highly urbanized area. However, the stormwater checklist associated with the MassDEP stormwater management standards in Section 6.4.3 of the PNF, indicates that the stormwater management system will be comprised of deep-sump catch basins, and/or proprietary particle separators, and a subsurface infiltration system. This more conventional stormwater management system would not be as effective as the system described in the sustainability section of the PNF. The EIR should explain the stormwater management system in greater detail and expand on the information in the PNF by providing stormwater management plans to demonstrate that the project achieves the sustainability goals as well as the applicable stormwater management standards. 2.2

Stormwater discharges to the Charles River need to be consistent with the established water quality standards and goals for phosphorus and pathogen removal in the *Final Total Maximum Daily Load for Nutrients in the Lower Charles River Basin* (June, 2007) and the *Total Maximum Daily Loads for Pathogens within the Charles River Watershed* (January 2007). Accordingly, the EIR should provide sufficient information to demonstrate that the stormwater management system would be designed to address the water quality impairments covered by the applicable TMDLs. 2.3

Greenhouse Gas (GHG) Emissions

As a categorically included project for the preparation of an environmental impact report, this project is subject to the MEPA *Greenhouse Gas Emissions Policy and Protocol*. The sustainability and green building section of the PNF indicates each building is being designed to be Leadership in Energy and Environmental Design (LEED) Certified (Gold and Silver) in compliance with Article 37-Green Buildings of the Boston Zoning Code. MEPA project reviews such as this one are projected to contribute towards the reduction of about 100,000 Metric Tons of CO_2 equivalent emissions by 2020, in the Massachusetts Clean Energy and Climate Plan 2020. The GHG analysis must consider and provide details on commitments to measures that will reduce the CO_2 emissions to the greatest extent practicable. Buildings themselves are estimated by the US Department of Energy to consume 40 percent of the energy annually in the United States, and 44 percent of all buildings' energy use is for heating and cooling, which equates to 20 percent of the CO_2 emission in the United States. As a result, significant efforts are being made to advance high performance and zero net energy in this sector. 2.4

According to the preliminary energy assessment, the stationary source GHG analysis will be based on a comparison of the Base Case and the Mitigation Alternative. The baseline

alternative assumes minimum compliance with ASHRAE 90.1-2013, and the revised Stretch Energy Code requirements that energy use per square foot be reduced by at least 10 percent below the energy requirements of ASHRAE 90.1-2013 Appendix G will be used for the Mitigation Alternative. This energy efficiency goal is reported to be achievable using energy peak shaving with on-site energy storage and efficient HVAC systems and high efficiency lighting that maximizes LED integration and reduces lighting power density. A general overview of the modeling assumptions for HVAC and lighting systems in the office, retail/restaurant space, and the residential space also was provided in the PNF. Overall, it is estimated that stationary source CO_2 emissions would be reduced by 18.2 percent. The preliminary study showed that the retail space had a much smaller emission reduction at 6.8 percent (34 tons/year) than either the office or the residential space. If the energy demand cannot be reduced to a greater extent, the EIR should provide a reasonable explanation. 2.5

The PNF indicates that renewable energy will be incorporated into the development to the extent feasible. A feasibility study of photovoltaics, wind turbines, and combined heat and power should be included in the GHG analysis for the potential of renewable energy sources on site to reduce the project's carbon footprint. 2.6

Recycling

The project includes demolition and reconstruction, which will generate a significant amount of construction and demolition (C&D) waste. Even though the ENF indicates that C&D waste will be recycled to the greatest extent feasible, the ENF has not made a specific commitment. MassDEP encourages the project proponent to make a significant commitment in the EIR to C&D recycling activities as a sustainable measure for the project. In addition, the proponent is advised that demolition activities must comply with both Solid Waste and Air Pollution Control regulations, pursuant to M.G.L. Chapter 40, Section 54, which provides: 2.7

> "Every city or town shall require, as a condition of issuing a building permit or license for the demolition, renovation, rehabilitation or other alteration of a building or structure, that the debris resulting from such demolition, renovation, rehabilitation or alteration be disposed of in a properly licensed solid waste disposal facility, as defined by Section one hundred and fifty A of Chapter one hundred and eleven. Any such permit or license shall indicate the location of the facility at which the debris is to be disposed. If for any reason, the debris will not be disposed as indicated, the permittee or licensee shall notify the issuing authority as to the location where the debris will be disposed. The issuing authority shall amend the permit or license to so indicate."

For the purposes of implementing the requirements of M.G.L. Chapter 40, Section 54, MassDEP considers an asphalt, brick, and concrete (ABC) rubble processing or recycling facility, (pursuant to the provisions of Section (3) under 310 CMR 16.05, the Site Assignment regulations for solid waste management facilities), to be conditionally exempt from the site assignment requirements, if the ABC rubble at such facilities is separated from other solid waste materials at the point of generation. In accordance with 310 CMR 16.05(3), ABC can be crushed on-site with a 30-day notification to MassDEP. However, the asphalt is limited to weathered bituminous concrete, (no roofing asphalt), and the brick and concrete must be uncoated or not impregnated

with materials such as roofing epoxy. If the brick and concrete are not clean, the material is defined as construction and demolition (C&D) waste and requires either a Beneficial Use Determination (BUD) or a Site Assignment and permit before it can be crushed.

Pursuant to the requirements of 310 CMR 7.02 of the Air Pollution Control regulations, if the ABC crushing activities are projected to result in the emission of one ton or more of particulate matter to the ambient air per year, and/or if the crushing equipment employs a diesel oil fired engine with an energy input capacity of three million or more British thermal units per hour for either mechanical or electrical power which will remain on-site for twelve or more months, then a plan application must be submitted to MassDEP for written approval prior to installation and operation of the crushing equipment. 2.8

Asbestos removal notification on permit form ANF 001 and building demolition notification on permit form AQ06 must be submitted to MassDEP at least 10 working days prior to initiating work. Except for vinyl asbestos tile (VAT) and asphaltic-asbestos felt and shingles, the disposal of asbestos containing materials within the Commonwealth must be at a facility specifically approved by MassDEP, (310 CMR 19.061). No asbestos containing material including VAT, and/or asphaltic-asbestos felts or shingles may be disposed at a facility operating as a recycling facility, (310 CMR 16.05). In addition, the demolition project contain asbestos, the project proponent is advised that asbestos and asbestos-containing waste material are a special waste as defined in the Solid Waste Management regulations, (310 CMR 19.061). he disposal of the asbestos containing materials outside the jurisdictional boundaries of the Commonwealth must comply with all the applicable laws and regulations of the state receiving the material. 2.9 2.10

The demolition activity also must conform to current Massachusetts Air Pollution Control regulations governing nuisance conditions at 310 CMR 7.01, 7.09 and 7.10. As such, the proponent should propose measures to alleviate dust, noise, and odor nuisance conditions, which may occur during the demolition. Again, MassDEP must be notified in writing, at least 10 days in advance of removing any asbestos, and at least 10 days prior to any demolition work. The removal of asbestos from the buildings must adhere to the special safeguards defined in the Air Pollution Control regulations, (310 CMR 7.15 (2)). 2.11 2.12

Waste Ban Regulation – 310 CMR 19.017

Section 310 CMR 19.017 ***Waste Bans*** of the Massachusetts Solid Waste regulations prohibit the disposal of certain wastes in Massachusetts. These wastes include, but are not limited to, recyclable paper (including cardboard). On October 1, 2014, the Massachusetts Organics Waste Ban on the disposal of commercial organic wastes by businesses and institutions takes effect. It prohibits the disposal of organic wastes from businesses and institutions that generate a ton or more of organic materials per week, which necessitates the composting, conversion (such as anaerobic digestion), recycling or reuse of organic the waste.

As the lead state agencies responsible for helping the Commonwealth achieve its waste diversion goals, MassDEP and EEA have strongly supported voluntary initiatives by the private sector to institutionalize source reduction and recycling into their operations. Adapting the design, infrastructure, and contractual requirements necessary to incorporate reduction, recycling and recycled products into existing large-scale developments has presented significant challenges 2.13

to recycling proponents. Integrating those components into developments such as The Back Bay/South End Gateway project at the planning and design stage enable the project's management and occupants to establish and maintain effective waste diversion programs. For example, facilities with minimal obstructions to trash receptacles and easy access to main recycling areas and trash chutes allow for implementation of recycling programs and have been proven to reduce cleaning costs by 20 percent to 50 percent. Other designs that provide sufficient space and electrical services will support consolidating and compacting recyclable material and truck access for recycling material collection. 2.13 cont.

By incorporating recycling and source reduction into the design, the proponent has the opportunity to join a national movement toward sustainable design. Sustainable design was endorsed in 1993 by the American Institute of Architects with the signing of its *Declaration of Interdependence for a Sustainable Future.* The project proponent may be aware of organizations that provide additional information and technical assistance, including Reuse Marketplace (http://www.reusemarketplace.org/), USEPA's WasteWise Program (www.epa.gov/wastewise/), and MassRecycle (http://www.massrecycle.org/). The listed organizations and programs are notable for offering valuable and effective waste reduction and recycling assistance, web-based resources, case studies, and tools for C&D projects.

Massachusetts Contingency Plan (MCP)/M.G.L. c.21E

Contaminated Soil and Groundwater: The ENF indicates that the project has not been regulated under the MCP/MGL c21E. Even so, the PNF acknowledges that the urban fill on site is the source of low levels of contamination. Accordingly, the proponent is reminded that excavating, removing and/or disposing of contaminated soil, pumping of contaminated groundwater, or working in contaminated media must be done under the provisions of MGL c.21E (and, potentially, c.21C) and OSHA. If permits and approvals under these provisions are not obtained beforehand, considerable delays in the project can occur. The project proponent cannot manage contaminated media without prior submittal of appropriate plans to MassDEP, which describe the proposed contaminated soil and groundwater handling and disposal approach, and health and safety precautions. If contamination at the site is known or suspected, the appropriate tests should be conducted well in advance of the start of construction and professional environmental consulting services should be readily available to provide technical guidance to facilitate any necessary permits. If dewatering activities are to occur at a site with contaminated groundwater, or in proximity to contaminated groundwater where dewatering can draw in the contamination, a plan must be in place to properly manage the groundwater and ensure site conditions are not exacerbated by these activities. Dust and/or vapor monitoring and controls are often necessary for large-scale projects in contaminated areas. The need to conduct real-time air monitoring for contaminated dust and to implement dust suppression must be determined prior to excavation of soils, especially those contaminated with compounds such as metals and PCBs. An evaluation of contaminant concentrations in soil should be completed to determine the concentration of contaminated dust that could pose a risk to health of on-site workers and nearby human receptors. If this dust concentration, or action level, is reached during excavation, dust suppression should be implemented as needed, or earthwork should be halted. 2.14

Potential Indoor Air Impacts: Parties constructing and/or renovating buildings in contaminated areas should consider whether chemical or petroleum vapors in subsurface soils and/or

groundwater could impact the indoor air quality of the buildings. All relevant site data, such as contaminant concentrations in soil and groundwater, depth to groundwater, and soil gas concentrations should be evaluated to determine the potential for indoor air impacts to existing or proposed building structures. Particular attention should be paid to the vapor intrusion pathway for sites with elevated levels of chlorinated volatile organic compounds such as tetrachloroethylene (PCE) and trichloroethylene (TCE). MassDEP has additional information about the vapor intrusion pathway on its website at http://www.mass.gov/dep/cleanup/laws/vifs.htm. 2.15

New Structures and Utilities: Construction activities conducted at a disposal site shall not prevent or impede the implementation of likely assessment or remedial response actions at the site. Construction of structures at a contaminated site may be conducted as a Release Abatement Measure if assessment and remedial activities prescribed at 310 CMR 40.0442(3) are completed within and adjacent to the footprint of the proposed structure prior to or concurrent with the construction activities. Excavation of contaminated soils to construct clean utility corridors should be conducted for all new utility installations. 2.16

Air Quality-Boiler

Pre-installation approval from MassDEP, pursuant to regulation 310 CMR 7.02, is required if the project will include any boiler regulated under 310 CMR 7.26(30)-(37), inclusive. Natural gas or distillate fuel oil-fired boilers with an energy input capacity less than 10,000,000 British thermal units per hour (Btu/hr) are exempt from the above listed regulations. In addition, if the project will be equipped with emergency generators equal to or greater than 37 kW, then each of those emission units must comply with the regulatory requirements in 310 CMR 7.26(42). 2.17

The MassDEP appreciates the opportunity to comment on this proposed project. Please contact Kevin.Brander@state.ma.us , at (978) 694-3236 for further information on the wastewater issues If you have any general questions regarding these comments, please contact Nancy.Baker@state.ma.us , MEPA Review Coordinator at (978) 694-3338.

Sincerely,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

John D. Viola
Deputy Regional Director

cc: Brona Simon, Massachusetts Historical Commission
Kevin Brander, MassDEP-NERO
John E. Sullivan, BWSC
Paul Ormond, DOER

Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection
One Winter Street Boston, MA 02108 • 617-292-5500

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Matthew A. Beaton
Secretary

Martin Suuberg
Commissioner

May 31, 2016

Matthew A. Beaton, Secretary
Executive Office of Energy and
Environmental Affairs
100 Cambridge Street
Boston, MA 02114

Re: Boston
The Back Bay South End Gateway Project
145 & 165 Dartmouth Street
EEA #15502 (EEA #2081 & 3074)

Attn: MEPA Unit

Dear Secretary Beaton:

This letter supplements the Massachusetts Department of Environmental Protection (MassDEP) letter dated May 10, 2016 on the Backbay South End Gateway Project Environmental Notification Form (ENF).

The project will generate 14,602 average daily traffic (4,180 adjusted), with 340 trips in the AM and PM peak hours. The project includes approx 575,000 sf of office, 600 residential units, and 90,000 to 120,000 sf of office space. 30 % of the vehicle trips will be from the office use, 19% residential, 30% retail. The project will require an air quality mesoscale analysis as outlined below.

Mesoscale Analysis

In view of the number of projected vehicle trips, the proponent must conduct an air quality mesoscale analysis of project-related emissions, as required by MassDEP. The purpose of the mesoscale analysis is to determine to what extent the proposed project vehicle trips will increase the amount of volatile organic compounds (VOCs) and nitrogen oxides (NOx) emitted in the project area. 3.1

The proposed project is also subject to the MEPA Greenhouse Gas Emissions Policy and Protocol, as amended on May 5, 2010. This policy requires the project proponent to quantify project-related carbon dioxide (CO_2) emissions and identify measures to avoid, minimize, and mitigate these emissions. The mesoscale analysis should also be used to quantify the CO_2. 3.2

The mesoscale analysis must quantify and compare the indirect emissions of VOCs, NOx and CO_2 from transportation sources under the project's future No Build, Build, and Build with Mitigation conditions. The Build with Mitigation condition should reflect the local roadway improvements and transportation demand management (TDM) measures to be implemented by the proponent. 3.3 3.4

The proponent should use the latest version of the MOVES emissions model approved by the U.S. Environmental Protection Agency to conduct the mesoscale analysis and generate motor vehicle emission factors for VOC, NO_x and CO_2 for the roadway network in the project area. The subsequent environment filing should contain the results and a discussion of the results of the mesoscale analysis under the three conditions. 3.5

Construction-Related Measures

MassDEP requests that the proponent specifically use construction equipment with engines manufactured to Tier 4 federal emission standards, which are the most stringent emission standards currently available for off-road engines. If a piece of equipment is not available in the Tier 4 configuration, then MassDEP requests that the proponent use construction equipment that has been retrofitted with the best available after-engine emission control technology, such as diesel oxidation catalysts (DOCs) or diesel particulate filters (DPFs), to reduce exhaust emissions during the construction period of the project. Additional information is available on the MassDEP website: http://www.mass.gov/dep/air/diesel/conretro.pdf. 3.6

The subsequent environmental filing should contain a list of the construction engines to be used at the project, their emission tiers, and, if applicable, the retrofit technology installed on their engines. 3.7

Sincerely,

Christine Kirby
Director, Air and Climate Programs
Bureau of Air and Waste

Charles D. Baker, Governor
Karyn E. Polito, Lieutenant Governor
Stephanie Pollack, MassDOT Secretary & CEO

massDOT
Massachusetts Department of Transportation

June 17, 2016

Matthew Beaton, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114-2150

RE: Boston: Back Bay/South End Gateway – ENF
(EEA #15502)

ATTN: MEPA Unit
Alex Strysky

Dear Secretary Beaton:

On behalf of the Massachusetts Department of Transportation, I am submitting comments regarding the proposed Back Bay/South End Gateway project in Boston, as prepared by the Office of Transportation Planning. If you have any questions regarding these comments, please contact J. Lionel Lucien, P.E., Manager of the Public/Private Development Unit, at (857) 368-8862.

Sincerely,

David J. Mohler
Executive Director
Office of Transportation Planning

DJM/jll

Ten Park Plaza, Suite 4150, Boston, MA 02116
Tel: 857-368-4636, TTY: 857-368-0655
www.mass.gov/massdot

cc: Thomas J. Tinlin, Administrator, Highway Division
Patricia Leavenworth, P.E., Chief Engineer, Highway Division
Walter Heller, P.E., District 6 Highway Director
Mark Boyle, Assistant General Manager, MBTA
Neil Boudreau, State Traffic Engineer
Boston Transportation Department
Boston Region Metropolitan Planning Organization
PPDU Files

Charles D. Baker, Governor
Karyn E. Polito, Lieutenant Governor
Stephanie Pollack, MassDOT Secretary & CEO

massDOT
Massachusetts Department of Transportation

MEMORANDUM

TO: David J. Mohler, Executive Director
Office of Transportation Planning

FROM: J. Lionel Lucien, P.E., Manager
Public/Private Development Unit

DATE: June 17, 2016

RE: Boston – Back Bay/South End Gateway Project – ENF
(EEA #15502)

The Public/Private Development Unit (PPDU) has reviewed the Environmental Notification Form (ENF) for the proposed Back Bay/South End Gateway project in Boston. The proposed development program for the site would include 575,000 square feet of commercial office space, up to 100,000 square feet of retail and restaurant space, up to 600 residential units, 2,013 parking spaces, and related loading and service facilities. The project site consists of approximately 5.2 acres bounded by Dartmouth Street to the west, Stuart Street and Trinity Place to the north, Trinity Place and Clarendon Street to the east, and the MBTA right-of-way to the south. The site consists of the existing MBTA Back Bay station, associated parking garage and bus drop-off facilities, and is primarily located over air rights of the I-90 Extension of the Massachusetts Turnpike (I-90) and the track and concourse levels of the MBTA Station. I-90 runs under the site and includes a westbound on-ramp from Clarendon Street within the project bounds.

MassDOT has entered into a Development Agreement with BP Hancock LLC (the Proponent) based on a Ground and Air Rights Lease dated January 5, 2015 and the Form of Air Rights Development Project Lease dated August 1, 2015. MassDOT has conditionally approved the Air Rights Development Project Development Plan, which is intended to provide MassDOT with an understanding of the project, for which the Proponent will be seeking permits and approvals. The MassDOT Development Agreement establishes procedures under which the Proponent will prepare a full development plan and seek all required permits and approvals for the development plan within certain milestones. The MassDOT Development Agreement requires full execution of the Lease upon successful completion of the MEPA/NEPA review process as applicable, the receipt of any required approvals, and satisfying other conditions that are precedents for closing the Lease. The Proponent has been working with the Office of Real Estate and Asset Development (OREAD) and the MBTA for several months on site development and site planning. MassDOT appreciates the level of coordination, interaction, and involvement demonstrated by the Proponent, and fully anticipates that this level of cooperation will continue throughout the environmental review process.

4.1

Ten Park Plaza, Suite 4150, Boston, MA 02116
Tel: 857-368-4636, TTY: 857-368-0655
www.mass.gov/massdot

The project requires a MassDOT Vehicular Access Permit because the site is partially over I-90 and may result in modifications to the I-90 on-ramp located within the project bounds. The project may also require a permit for construction in accordance with M.G.L c. 40, Section 54A, MBTA approvals and/or consent, and finalization and execution of an Air Rights Lease(s). The project is categorically included for the preparation of an Environmental Impact Report (EIR) because it would generate in excess of 3,000 daily vehicle trips.

The following scope of work for the transportation section of the required Draft EIR is recommended and described as follows:

Scope of Work

The Draft Environmental Impact Report (DEIR) should include a Transportation Impact Assessment (TIA) prepared in conformance with the current MassDOT/EOEEA *Transportation Impact Assessment Guidelines*. The study should include a comprehensive multimodal assessment of the transportation impacts of the project. The TIA should provide transit and capacities analyses, and evaluate bicycle and pedestrian facilities for the existing conditions, future No-Build conditions, and future Build conditions within the study area. The future Build conditions should include an analysis of operations both with and without any improvements suggested to mitigate project impacts. The study should propose an integrated multimodal mitigation package intended to improve vehicular traffic operations while supporting increased use of walking, bicycling, and transit by employees, patrons, and residents. Items listed below should be accounted for in preparing the TIA. 4.2

Trip Generation

Based on the information presented within the ENF, the Full-Build project would generate 12,980 unadjusted new vehicle trips on an average weekday. This estimate is based on the Institute of Transportation Engineers (ITE) Trip Generation Manual using trip generation rates for the appropriate land use codes. The DEIR should include estimates for the average Saturday, the weekday AM Peak, and weekday PM Peak hours, and the Saturday peak hour for the full-build project. The trip rates should be obtained from the ITE Trip Generation Manual (9th edition). 4.3

Trip reduction estimates resulting from pass-by and/or internal capture trips should be determined using applicable methodologies from the most recent editions of ITE's Trip Generation Manual and Trip Generation Handbook. 4.4

Trip Distribution

The DEIR should provide a trip distribution for the project based on a gravity model or similar model that uses factors such as census data, origin-destination, travel time, and distance to determine trip characteristics for employees and residents of the project. 4.5 The DEIR should provide all appropriate back up documentation to verify how the different percentages are calculated and assigned to the roadway network and the transit system. In addition, the model 4.6

should be able to consider a potential I-90 on-ramp closure impact to the transportation network trip distribution. 4.6 cont.

Mode Split

The project is located directly adjacent to a major MBTA transportation hub that provides access to the MBTA Commuter Rail, the Orange Line, local buses, and AMTRAK. The DEIR should contain an analysis of what additional demand will be generated by the project and document its impacts on the Back Bay station. While the proximity of transit provides an excellent opportunity for a high level of transit usage, MassDOT anticipates that it will be a challenge to adequately model the transit trip generation and trip assignments for the project. As a result, the Proponent should work closely with the MassDOT Office of Transportation Planning, the City of Boston, and the MBTA Service Planning Department to develop appropriate and reasonable travel demand and trip generation characteristics. Since it is likely that this project would have a much higher share of walking, bicycling, and transit use, the ITE numbers should be compared to BTD mode splits for this district of the City of Boston. 4.7 4.8

The DEIR should then present not just the result of that analysis but a full and complete presentation on how the multimodal trip generation estimates and trip assignment rates were developed and what research was done to support these rates. The DEIR should include all back up data used to arrive at any trip generation estimates to corroborate any assumptions included in the analyses. 4.9

Once the trip generation, the modal split, and the trip distribution and assignment estimates are developed, the study area should be used and updated as defined below to create network maps for the different peak-hour analysis and the different modes. 4.10

Study Area

The ENF has proposed a comprehensive study area that includes a number of signalized and unsignalized intersections in the vicinity of the site. Pending the application of modal split and pass-by credits to establish the traffic volumes assigned to the roadway network, MassDOT recommends that the following locations be added to the study area: 4.11

- Clarendon Street at the I-90 westbound on-ramp;
- Arlington Street at Marginal Road/I-90 westbound on-ramp;
- Arlington Street at Stuart Street/Columbus Avenue;
- Arlington Street/Herald Street at Tremont Street;
- Herald Street at Albany Street;
- Albany Street at I-93 southbound on-ramp;
- Albany Street at Traveler Street;
- Traveler Street at I-93 northbound on-ramp/ I-90 westbound on-ramp;
- Berkeley Street at Storrow Drive on-ramps;
- Storrow Drive eastbound off-ramp at Clarendon Street;

- Stuart Street at I-90 westbound off-ramp; and
- Huntington Avenue at Blagden Street/I-90 westbound on-ramp

4.11 cont.

The most immediate impacts to state highways include the portion of I-90 located under the project site as well as the I-90 westbound on-ramp. Therefore, the study area should include operational analyses for the I-90 mainline including the merge sections for the Arlington Street, Clarendon Street, and Huntington Avenue on-ramps. 4.12

As discussed in meetings with the Proponent, MassDOT has for some time considered the closure of the Clarendon Street on-ramp to I-90 westbound as a separate and independent project from this proposal. MassDOT intends to prepare an Interchange Modification Report to make its own evaluation and final determination as to the ramp closure, subsequently seek concurrence with the City of Boston, and then submit for approval to the Federal Highway Administration (FHWA). Consequently, the DEIR transportation study should provide a comprehensive traffic analysis of the study area network with two alternatives: one that assumes the ramp remains opened and the other with the ramp permanently closed. This analysis should be provided for both No-Build and Future Build conditions. 4.13

Background Growth

The TIA should include trips generated by other nearby planned and/or approved projects as part of the background growth in developing future No-Build and Build traffic volumes. ITE trip rates should be used to estimate the vehicle trip generation of un-built and/or yet to be occupied space. In addition, an annual growth factor should be superimposed on existing traffic volumes prior to the addition of the volumes associated with background project-specific growth. 4.14

The planning horizon year for the TIA should be seven years from the time of submittal of the DEIR. It is expected that this will allow a reasonable planning horizon "time window" when the project reaches the design stage for improvements. The alternative analysis for the potential ramp closure should be based on 20-year planning horizon for consistency with FHWA requirements for the preparation of an IMR. 4.15

In a previous email to MassDOT, the Proponent has requested the use of the existing Charles River Basin (CRB) model to evaluate the effect of the ramp closure on traffic conditions in the study area. The Proponent should provide additional information to MassDOT on this model as to how it would be calibrated to match the DEIR transportation analysis methodology, which is based on a 7-year horizon. The Proponent should also address the compatibility of the CRB model with the Central Transportation Planning Staff model to be used by MassDOT for the preparation of the IMR. 4.16 4.17

Vehicle Crash Data

Vehicle crash data was not included in the ENF but should be included in the DEIR. Specifically, the DEIR should conduct analysis for any study area intersections having crash 4.18

rates higher than the State and/or District 6 average. The analysis should include a discussion of causality, suggestions for mitigation, and commitment to implementing this mitigation. 4.19

Traffic Operations

Capacity analyses should be conducted for the weekday AM, PM, and Saturday peak hours for both existing and future conditions for each development alternative considered. In addition, capacity analyses for Build with mitigation conditions should be provided for all intersections, particularly those with impacts to the state highway system. Of particular concern are the areas where Boston Transportation Department jurisdictional roadways interact with MassDOT-controlled locations. 4.20 The DEIR should also clearly document the project's impacts to vehicular flow and bus headway at the station entrance due to the changes in location, number, and capacity of entrances to the garage and should include impacts due to the proposed signalization of the garage exits onto Clarendon Street. 4.21

The DEIR should provide illustrations depicting the peak hour 50th (average) and 95th percentile queue lengths for each lane group/turning movement at each study area intersection, for all analysis scenarios. The information contained in these illustrations should clearly demonstrate that the project would not result in any extended queues that would block vehicle movements to/from study area intersections, particularly those involving state highways. Appropriate mitigation should be identified at any locations where queue blockages occur. Color-coded illustrations should also be prepared depicting the level of service (LOS) for each lane group/turning movement for each case. 4.22

A traffic signal warrant study (TSWS) should be performed and the need documented for any locations where signalization is being proposed, including site driveway intersections with the public roadway system. A left-turn lane warrant analysis should be conducted and the need documented for any locations where the addition of such a lane is being proposed, including at site driveways. 4.23

Conceptual Plans

The DEIR should include sufficiently detailed conceptual plans (minimum of 80-scale) for proposed roadway improvements in order to verify the feasibility of constructing such improvements. These plans should clearly show proposed lane widths and offsets, layout lines and jurisdictions, and land uses adjacent to areas where improvements are proposed. 4.24

Public Transportation

As described above, the MBTA currently operates extensive rapid transit and bus service near the site. The DEIR should contain an analysis of what additional demand will be generated by the project. Once those travel demand and transit trip generation rates are developed and applied to the project, the DEIR should address the following issues: 4.25

The DEIR should contain an assessment of how riders, particularly during the MBTA peak periods, are expected to access the facility via transit. The DEIR should estimate what additional new ridership on the Orange Line can be anticipated and what time of day those impacts will occur. The Proponent should work with the MBTA Service Planning Department to ensure that it has access to the most recent and most relevant ridership and operational statistics for the Orange Line. 4.26 4.27

The DEIR should also provide information demonstrating how employees, residents, and customers who choose to use the Orange Line will get from the site to the rapid transit station. Of particular importance to the MBTA are all codes and standards related to the Americans with Disabilities Act (ADA), the Massachusetts Architectural Access Board (MAAB) along with Federal Transit Administration (FTA) regulations and guidance. The Proponent should present the existing conditions and how those conditions should be upgraded/improved so as to ensure a fully accessible path of travel for all of the customers. 4.28 4.29

In addition to Orange Line service, the area is also served by a series of MBTA bus routes, predominantly the Route 39 (Forest Hills Station-Back Bay via Huntington Avenue), Route 10 (City Point-Copley Square Via Andrew Station & Boston University Medical Center), and Route 170 (Central Square-Waltham-Dudley Square). A series of other routes run through the travel area but do not currently stop in the vicinity of the proposed facility.

As part of the DEIR, the Proponent should provide a detailed presentation of the impact to the MBTA bus network. Specifically, the DEIR should identify the future Build Demand for the #39, #10, and #170 buses and its comparison to the Future No Build Demand for local bus services. Based on this assessment, the DEIR should present the anticipated demand in terms of MBTA Service Standards for bus volumes, capacity, *etc.* to determine what the impacts to the MBTA bus network will be. The DEIR should determine what if any additional service would need to be added to the bus network in order to ensure that the MBTA bus routes would meet existing MBTA service standards. 4.30

The DEIR should show how residents, customers or employees using the bus network will get from the stop to the site with an emphasis on how pedestrians will cross Clarendon Street and Dartmouth Street to access bus stops. The DEIR should, as part of its traffic analysis, show how pedestrian crossings and bus stops can be coordinated to ensure safe, accessible travel for bus customers. 4.31

Pedestrian Access

Because the project is expecting a high pedestrian mode share, it is expected that the Proponent will provide a mitigation package that ensures that walking and bicycling will be an attractive way to access the site. The DEIR should provide an inventory of existing sidewalks and crosswalks within the study area, and should address the quality and condition of those facilities. The DEIR should include a commitment to improvements in any areas that are structurally deficient or not meeting current codes for accessibility. Special attention should be 4.32 4.33

given to linking the proposed development to adjacent complementary land uses and to transit facilities. 4.34

Any proposed mitigation within the state highway layout and all internal site circulation must be consistent with a Complete Streets design approach that provides adequate and safe accommodation for all roadway users, including pedestrians, bicyclists, and public transit riders. Complete Streets design guidelines are included in the MassDOT *Project Development and Design Guide*. Where these criteria cannot be met, the Proponent should provide justification, and should work with the MassDOT Highway Division to obtain a design waiver. 4.35

Bicycle Access

The ENF also proposes improvements to the existing bicycle network within the vicinity of the project. The DEIR should include a detailed inventory of the bicycle network to include bikeway types, bikeway widths, and bicycle number and speeds. The Proponent should identify the likely travel routes for bicyclists within the study area. The degree to which these routes can safely support bicycle travel should also be examined. The DEIR should reevaluate these routes based on the origin-destination of potential employees and residents. Based on this analysis, the Proponent should consider the feasibility of expanding some of these existing routes or consider new routes to encourage bicycle travel in and around the site. Similarly for pedestrian access, the project should work closely with MassDOT and the City of Boston to provide a seamless connection between the existing and planned bicycle facilities in the study area. 4.36 4.37

Parking

According to the ENF, the project at full build would include the provision of a parking garage to accommodate up to 2,013 vehicles. The DEIR should clarify how the parking needs of the project were determined and explain the methodology used to determine the total parking required. The Institute of Transportation Engineers' *Parking Generation* generally provides a reasonable basis for comparison to parking requirements under local zoning, but this reference does not present parking rates for this type of mixed-use. The DEIR should include a summary of parking need and supply for comparable facilities based on multiple data sources. It should also determine the number of parking spaces occupied at various times of the day and identify the periods of peak use. 4.38

Transportation Demand Management

The DEIR should include a comprehensive Travel Demand Management (TDM) program that would implement measures aimed at reducing site trip generation. The TDM program should further investigate measures that would maximize usage of existing and new pedestrian, bicycle, and transit facilities. Such measures may include subsidizing transit passes, limiting the available parking supply, providing on-site amenities and conveniences that would reduce the need for automobile travel, and providing seamless pedestrian access to the Back Bay Station and nearby bus stops. In any mixed-use development, the range of TDM measures varies widely to meet the specific needs of each of the proposed land uses. We urge the Proponent to meet with 4.39 4.40

MassRIDES and A Better City Transportation Management Association to discuss TDM measures that have been successful in limiting single occupant vehicle trips at similar projects within the urban core of Boston. The Proponent should also promote ridesharing through NuRide, the Commonwealth's web-based trip planning and ridematching service that enables participants to earn rewards for taking "green" trips. The Proponent should provide information on the substance and outcomes of its consultations in the DEIR. 4.40 cont. 4.41

Transportation Monitoring Program

The Proponent will be required to conduct an annual traffic monitoring program for a period of five years, beginning six months after occupancy of the full-build project. It would include:

- Simultaneous automatic traffic recorder (ATR) counts at each garage entrance for a continuous 24-hour period on a typical weekday and Saturday;
- Travel survey of employees and patrons at the site (to be administered by the Transportation Coordinator);
- Weekday AM and PM and Saturday peak hour turning movement counts (TMCs) and operations analysis at "mitigated" intersections, including those involving garage entrances; and
- An update on TDM effectiveness and transit ridership. 4.42

The goals of the monitoring program will be to evaluate the assumptions made in the Environmental Impact Report (EIR) and the adequacy of the mitigation measures, as well as to determine the effectiveness of the TDM program.

The Proponent should continue consultation with MassDOT PPDU, OREAD, the MBTA, and the District 6 office during the preparation of the DEIR. If you have any questions regarding these comments, please contact me at (857) 368-8862 or Derek Valentine at (857) 368-8885. 4.43

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF
ENERGY AND ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENERGY RESOURCES
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Charles D. Baker
Governor

Karyn E. Polito
Lt. Governor

Matthew A. Beaton
Secretary

Judith F. Judson
Commissioner

31 May 2016

Matthew Beaton, Secretary
Executive Office of Energy & Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02114
Attn: MEPA Unit

RE: Back Bay / South End Gateway Project, Boston, Massachusetts, EEA #15502

Cc: Arah Schuur, Director of Energy Efficiency Programs, Department of Energy Resources
Judith Judson, Commissioner, Department of Energy Resources

Dear Secretary Beaton:

We've reviewed the Environmental Notification Form for the above-referenced project. The purpose of this memorandum is to:

- Help ensure that the content of sequent submissions to MEPA conforms to the application of the MEPA Greenhouse Gas (GHG) Policy and Protocol for this project;
- Help ensure that the project is made aware of the requirements of Chapter 5 of the building code ("Advanced Energy Efficiency), also known as the "Stretch Code"; and to
- Highlight design and proposed mitigation measures which appear potentially promising for the project.

GHG Policy and Stretch Code:

In general, the Policy requires that:

- GHG emissions be identified and quantified;

- The proposed design incorporate ways to avoid, minimize, or mitigate GHG emissions; 5.1 cont.

The GHG Policy and supporting documentation is available at http://www.mass.gov/eea/agencies/mepa/greenhouse-gas-emissions-policy-and-protocol-generic.html

Boston has adopted the Mass Stretch Energy Building Code (SC). For more information on SC is available at http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/csl/stretch-energy-code-information.html

Avoiding, Minimizing, and Mitigating GHG Emissions:

With respect to stationary sources of GHG, the next future submission should demonstrate that the project is taking all feasible measures to avoid, minimize and mitigate GHG emissions. We recommend the following be investigated: 5.2

- *Utility Incentives*: The project may be able to access financial incentives to help offset the cost of energy efficiency measures which would also reduce emissions. These incentives are sometimes performance-based and tied to power (kWhr/year) and fuel (therm/year) avoided compared to a code building. We recommend reaching out to the local utilities and analyzing how incentives can help advance requirements to avoid, minimize and mitigate GHG emissions. Incentives are also available for offsetting design charette and energy modeling costs. 5.3

  For gas, more information is available on National Grid's website (footnote (1) below) and in National Grid's New Construction Guide (footnote (2) below). For electricity, obtain more information by reaching out to newconstructionMA@eversource.com.

- *Building Envelop:* We anticipate building envelop (wall, roof, and fenestration) improvements will be a key GHG reduction strategy. We recommend at least three above-code wall/fenestration scenarios be investigated, including scenarios using spandrels. 5.4

- *HVAC Systems:* We were pleased to see many HVAC systems improvements described in the Project Notification Form. The DOER encourages the proponent to continue to use HVAC and domestic water heating mitigation as a key GHG reduction strategy. 5.5

[1] https://www.nationalgridus.com/Trade/EE-Programs-Solutions/CI-New-Construction-Services?gclid=Cj0KEQjwrte4BRD-oYi3y5_AhZ4BEiQAzIFxn_VdWabqesqI52YlID4qJ0nC6a4rTuojTUh33NDqAeoaAmeb8P8HAQ

[2] https://www.nationalgridus.com/media/trade/NewConstruction_Guide_Digital_Update.pdf

- *CHP*: The residential portion of the project is well-suited for use of combined heat and power, which can also qualify for generous incentives. MEPA allows the use of a source energy path compliance with the stretch energy code. 5.6

- *Solar*: Solar PV on the roofs provides a means to develop both an economic asset while reducing GHG emissions, often at no cost via third party ownership models. We recommend that this option be evaluated. 5.6

- *Energy Star Appliances:* MEPA allows proponents to reduce internal plug loads by 10% if the proponents commit to using only Energy Star appliances and devices. If the space is to be leased, the proponents must commit to having leases which require tenants to use Energy Star appliances and devices. 5.7

- *LED Lighting:* Interior and exterior LED lighting can also contribute to GHG reduction. 5.8

- *Electric Vehicle Charging Stations:* Consider electric vehicle charging stations. Grants are potentially available. See http://www.mass.gov/eea/docs/dep/air/community/evipwpc-ap.pdf 5.9

Recommendations for Submission:

In order to expedite the DOER review, we recommend the following accompany the submission:

- A table similar to the example below should be included: 5.10

Measure/Area	Baseline Code	Proposed	% Improvement	Comment
Roof Assembly U-value (Btu/hr-Ft^2-f)				
Bldg 1	0.048	0.040	17%	
Bldg 2	0.055	0.051	7%	
Area Window/Area Wall (%)				
Bldg 1	0.4	0.54	-35%	
Bldg 2	0.4	0.30	25%	
Window U-value (Btu/hr-Ft^2-f)				
Bldg 1	0.55	0.47	15%	
Bldg 2	0.55	0.40	27%	
AC Efficiency (EER)				
Bldg 1	13.5	14.5	7%	
Bldg 2	11.7	14.9	27%	
ERV Effectiveness (%)				
Bldg 1	none	none	–	
Bldg 2	none	none	–	
Boiler (% efficiency)				
Bldg 1	0.8	0.93	16%	
Bldg 2	0.8	0.93	16%	
LPD (Watts/sq ft)				

Bldg 1	1.0	0.7	30%	
Bldg 2	0.9	0.8	11%	

Notes:
1. Values and proposed measures are examples, populate with proposed values and measures
2. Table shows examples of 2 buildings. Adjust the rows to the actual number of buildings

- A description of the proposed building envelop assembly: report both component R-values and whole assembly U-factor. Utilize the pre-calculated relationships between R-Value and U-factor contained in Appendix A of the applicable code (Appendix A is the applicable appendix in both ASHRAE and IECC). 5.11

  Baseline buildings' total wall (and roof) assemblies shall match the applicable U value as required in Appendix G, table G3.1 part 5b of the code.

  Estimate the total greenhouse gas reduction compared to baseline associated with each of the three above-code envelope/fenestration scenarios investigated.

- Submit the following:

  - A description of the building energy simulation model and procedures utilized. 5.12
  - A detailed and complete table of modeling inputs showing the item and the input value for both the base and as-designed scenarios. The area of the buildings should be included. 5.13
  - The output of the model showing the monthly and annual energy consumption, totalized and by major end use system. 5.14
  - Code energy use intensity and proposed mitigated building energy use intensity, demonstrating compliance with Stretch Code requirements. 5.15
  - Project modeling files are to be submitted to the DOER with the submittal on a flash drive or may be transmitted via electronic file transfer to paul.ormond@massmail.state.ma.us. 5.16
  - Separate "side calcs" may be required for non-building energy consuming site improvements which are not included in the building energy modeling software (e.g. parking lot lighting and parking garage ventilation). 5.17

- Estimate area of roof potentially usable for solar development (e.g. 'Usable Roof Area" (URA)). Estimate resulting power production and associated GHG reduction. Estimate total project GHG reduction both with and without solar PV. 5.18

- A description of the proposed project building usage and size, including a site plan and elevation views, should be included. In order to expedite the review, a table similar to the example below should be included for each proposed building: 5.19

Example
Building A (one table per building)

Conditioned Space		
Usage	**Area (sq ft)**	**% total**
Office	460,000	90%
Retail	15,000	3%
Residential	35,000	7%
Total	**510,000**	

5.19 cont.

- Consider comparing modeled baseline and mitigation EUIs to prototype code buildings developed by Pactific Northwest National Labs. Data for Massachusetts buildings is located here: https://www.energycodes.gov/state-and-national-cost-effectiveness-ansiashraeies-standard-901-2013. Data for Climate Zone 5A buildings is located here https://www.energycodes.gov/sites/default/files/documents/BECP_901_2013_Progress_Indicator_0_0.pdf and here http://www.energycodes.gov/sites/default/files/documents/2013EndUseTables.zip

5.20

Sincerely,

Paul F. Ormond, P.E.
Energy Efficiency Engineer
Massachusetts Department of Energy Resources

The Commonwealth of Massachusetts

William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

June 15, 2016

Secretary Matthew A. Beaton
Executive Office of Energy and Environmental Affairs
100 Cambridge Street
Boston, MA 02114

ATTN: Alex Strysky, MEPA Office

RE: *The Back Bay/South End Gateway Project at MBTA Back Bay Station, 145 & 165 Dartmouth Street AKA 100 Clarendon Street, Over I-90, Boston (Back Bay), MA; MHC# RC.60158,* **EEA#15502**

Dear Secretary Beaton:

Staff of the Massachusetts Historical Commission (MHC) have received the Environmental Notification Form (ENF) submitted for the above referenced project. After review of the information submitted, MHC staff have the following comments.

The proposed project site is adjacent to the Back Bay Historic District (BOS.BT), the South End District (BOS.AB), and the YWCA Building (BOS.2368), all of which are listed in the State and National Registers of Historic Places. The proposed project site is also adjacent to the Park Square – Stuart Street Historic District (BOS.ZF), an area that in MHC's staff's opinion meets the criteria for listing in the National Register of Historic Places. The site is also adjacent to the South End Landmark District (BOS.AC) which is listed in the State Register of Historic Places.

The project site is also in close proximity to numerous other significant historic districts and buildings. The historic buildings in close proximity include, but are not limited to, Trinity Church (BOS.2623) and the Boston Public Library – McKim Building (BOS.2624) both of which are State and National Historic Landmarks and are listed in the State and National Registers of Historic Places. Other significant historic buildings in close proximity include the New Old South Church (BOS.2653), Trinity Rectory (BOS.2624), Youth's Companion Building (BOS.2377), and the Armory of the First Corp of Cadets (BOS.2371). The project site is also in close proximity to the Bay Village Historic District (BOS.BQ), Back Bay Architectural District (BOS.BW), and St. Botolph Street Area Architectural District (BOS.BV) all of which are listed in the State Register of Historic Places.

The ENF only listed the Hancock Garage (BOS.2366) as a historic resource in the area of project impacts. It is included the Inventory of Historic and Archaeological Assets of the Commonwealth. The ENF did not identify on a map or a list the historic resources within the vicinity of the proposed project site. The scope of the Environmental Impact Report should include a historic resources assessment of historic properties within a ¼ mile of the project site. 6.1

MHC is also concerned that the size, scale, and massing of the three proposed towers appears to be inappropriate for the surrounding area. The ENF submitted does not contain adequate visual studies to 6.2

220 Morrissey Boulevard, Boston, Massachusetts 02125
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www.sec.state.ma.us/mhc

determine the potential effect of size, scale, and massing of the new buildings on the character and setting of the State and National Register listed properties. MHC requests pedestrian-level perspectives of the new construction from the above referenced historic properties and districts in order to assist the MHC in determining what effect the size, scale, and massing will have on the nearby historic properties. 6.2 cont.

MHC requests that the proponent conduct shadow studies in order to assist in determining the effects of shadows on the historic properties and districts noted above. The shadow studies should provide façade illustrations of the shadows on the facades of historic buildings. 6.3

The ENF states that the Preferred Alternative "also considers two different development plans for the Garage West Parcel in response to the potential closure of the On-Ramp." If the Garage West Alternate Scheme is proposed, the closure of the On-Ramp to I-90 will then trigger the review of the entire project under Section 106 of the National Historic Preservation Act of 1966 (36 CFR 800). The proposed project may require one or more air rights development agreements from Massachusetts Department of Transportation (MassDOT). If the project will entail air-rights development over I-90, it will require Federal Highway Administration (FHWA) approval as well. 6.4

These comments are offered to assist in compliance with Section 106 of the National Historic Preservation Act of 1966 (36 CFR 800), M.G.L. Chapter 9, sections 26-27C (950 CMR 71.00), and MEPA (301 CMR 11). Please do not hesitate to contact Elizabeth Sherva of my staff if you have any questions.

Sincerely,

Brona Simon

Brona Simon
State Historic Preservation Officer
Executive Director
Massachusetts Historical Commission

xc: Michael A. Cantalupa, Boston Properties
John McVann, FHWA
Carol Almeida, FHWA Air Rights
Jeffrey Shrimpton, MassDOT
Boston Landmarks Commission
Seth Latrell, VHB
Greg Galer, Boston Preservation Alliance

MASSACHUSETTS WATER RESOURCES AUTHORITY

Charlestown Navy Yard
100 First Avenue, Building 39
Boston, MA 02129

Frederick A. Laskey
Executive Director

Telephone: (617) 242-6000
Fax: (617) 788-4899
TTY: (617) 788-4971

May 6, 2016

Matthew A. Beaton, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge St, Suite 900
Attn: MEPA Office, Alex Strysky
Boston, MA 02114

Subject: EOEEA #15502 – Environmental Notification Form
The Back Bay/South End Gateway Project, Boston, MA

Dear Secretary Beaton:

The Massachusetts Water Resources Authority (MWRA) appreciates the opportunity to comment on the Environmental Notification Form (ENF) submitted by BP Hancock LLC through its affiliate, Boston Properties Limited Partnership, (the "Proponent") for the Back Bay/South End Gateway (the "Project") in Boston. The Proponent proposes a mixed-use redevelopment project encompassing four distinct sites comprising up to approximately 1.26 million square feet in a new office building with ground floor retail, two new residential buildings, a one to two-story vertical retail expansion of the existing Back Bay/South End Massachusetts Bay Transportation Authority (MBTA) Station building and the partial redevelopment of the existing 100 Clarendon Street Parking Garage. Located primarily over the I-90 Extension of the Massachusetts Turnpike and the track and concourse levels of the MBTA Station, and in part over a modest amount of terra firma, the 5.2-acre site is roughly bounded by Dartmouth Street to the west, Stuart Street and Trinity Place to the north, Trinity Place and Clarendon Street to the east, and the southern property line of the MBTA Station to the south at the "Project Site".

MWRA comments focus on issues related to wastewater flows and the need for infiltration and inflow ("I/I") removal, and discharge permitting from the Toxic Reduction and Control (TRAC) Group.

Wastewater Flows I/I Removal

The ENF reports that the Project will increase wastewater flow from the Project Site by 158,418 gallons per day ("gpd"), from the existing 2,104 gpd to 160,552 gpd. Various Boston Water Sewer Commission ("BWSC") sanitary sewers and storm drains are located in the streets surrounding the Project Site to collect the Project's wastewater and stormwater flows. All of the BWSC sewers and storm drains eventually tie into BWSC combined sewers, including the West Side Interceptor on Beacon Street to the north and the New Boston Main Interceptor to the south. Both of these interceptor systems can surcharge and overflow during large storms, potentially contributing to combined sewer overflow ("CSO") discharges to MWRA's Boston Marginal Conduit ("BMC") and Prison Point CSO treatment facility or to MWRA's Union Park CSO treatment facility, respectively. The Prison Point facility discharges treated CSO to Boston Inner Harbor, and the BMC itself can overflow, sending untreated

CSO to the Charles River Basin, in larger storms. The Union Park facility discharges treated CSO to Fort Point Channel.

To avoid increasing system surcharging and contributing to greater CSO discharges, which could compromise the environmental benefits of MWRA's $898 million CSO control program, the Proponent should offset the Project's new wastewater flows with 4:1 I/I removal, in accordance with MassDEP I/I regulations and BWSC policy. To assure that potential impacts are mitigated, for each gallon of new wastewater flow, the Proponent should remove 4 gallons of I/I from a hydraulically related sewer system. In the Draft Environmental Impact Report, the Proponent should describe its proposed connections to BWSC's sewer and storm drain systems and its 4:1 I/I removal plan. 7.1

TRAC Discharge Permitting

It appears that this project will require a MWRA Construction Site Dewatering Discharge Permit during the construction phase, pursuant to 360 C.M.R. 10.091-10.094. For assistance in obtaining this permit, both the Proponent and the Contractor (the individual that will conduct the construction) should contact Stephen Buczko, Industrial Coordinator within the TRAC Group at (617) 305-5619. The Proponent and Contractor will need this permit before they may discharge groundwater into the sanitary sewer system. 7.2

The Proponent shall ensure that groundwater and storm water collecting in tunnels found in at the site are not discharged to the sanitary sewer system. If tunnel washing is necessary for the covered street portions of the project, a separate piping system will need to be constructed for the tunnel washing wastewater and the groundwater and storm water discharges. 7.3 The Proponent must also comply with 360 C.M.R. 10.016, if it intends to install gas/oil separator(s) in the garages that are planned for the site. 7.4 In addition to complying with 360 C.M.R. 10.000, the Proponent shall conform to the regulations of the Board of State Examiners of Plumbers and Gas Fitters, 248 C.M.R. 2.00 (State Plumbing Code), and all other applicable laws. 7.5 Please note that the installation of proposed gas/oil separator(s) will require MWRA approval and may not be back filled until inspected and approved by MWRA and the Local Plumbing Inspector. For assistance in obtaining an inspection for each building, the Proponent should contact Mr. Steve Howard, Source Coordinator within the TRAC Department at (617) 305-5675. 7.6

If you have any questions please do not hesitate to contact me at (617) 788-1165.

Sincerely,

Marianne Connolly

Marianne Connolly
Senior Program Manager
Environmental Review and Compliance

cc: Solomon Wondimu, MWRA E&C
David Kubiak, MWRA E&C
Kattia Thomas, MWRA TRAC

C:MEPA:15502BackBaySouthEndGatewayENF.docx

JOSH ZAKIM
BOSTON CITY COUNCILOR
DISTRICT 8

Matthew Beaton, Secretary
Executive Office of Environmental and Energy Affairs
Attn: MEPA Office
Alex Strysky, EOEEA #15502
100 Cambridge St. Suite 1900
Boston, MA 02114

May 17, 2016

Dear Secretary Beaton:

I am writing today to register my comments regarding the Back Bay/South End Gateway Project. I want to begin by saying that Boston Properties has done a good job of recognizing the importance of Back Bay Station as an entry point into the city, and as a connector of historic neighborhoods. Their design reflects a desire to treat the station as the important transportation hub that it is, and as a space for potential growth in our city. They have taken positive preliminary steps to address some of the management and safety concerns that have been an issue at the station up until now, and are moving forward with cosmetic changes that are much needed. 8.1

My primary concern about this proposal is that it falls in the center of several large projects that are either underway or slated to begin in the very near future. These developments will have tremendous impacts on the neighborhood, both immediately and several years down the line. There will be significant repercussions for the neighborhood from the construction, and I want to make sure that proper steps are taken to minimize the effects on current residents. 8.2
Furthermore, the sum of all of this development in the area will significantly change the flow of traffic, increase pedestrian movement, and impact the capacity of the MBTA. Boston Properties has touched on how the Back Bay/South End Gateway project will contribute to these factors, but I would like to see it addressed from a more holistic perspective, examining this project in the context of all the others in the surrounding area. 8.3

As the Back Bay Station renovation moves forward, I also want to make sure that Boston Properties addresses concerns with respect to wind and shadow studies, and how they impact Copley Square and the front of the Public Library. These are two issues that my office hears about regularly, and I think the neighbors would appreciate more in-depth analysis. 8.4

Boston City Hall - One City Hall Square - Boston, MA 02201
josh.zakim@boston.gov

I look forward to seeing how this project evolves as the conversation moves forward. Please do not hesitate to contact me if you have any questions. You can reach me at 617-635-4225 or email Josh.Zakim@boston.gov.

Respectfully,

Josh Zakim

Boston Water and Sewer Commission

980 Harrison Avenue
Boston, MA 02119-2540
617-989-7000

May 4, 2016

Secretary Matthew A. Beaton
Executive Office of Energy and Environmental Affairs
Attention: MEPA Office
Alex Strysky, EEA No. 15502
100 Cambridge Street, Suite 900
Boston, MA 02114

and

Christopher Tracy
Senior Project Manager
Boston Redevelopment Authority
One City Hall Square
Boston, MA 02201

Re: Back Bay/South End Gateway Project
Environmental Notification Form/Project Notification Form

Dear Secretary Beaton and Mr. Tracy:

The Boston Water and Sewer Commission (Commission) has reviewed the Environmental Notification Form (ENF) and the Project Notification Form (PNF) for the proposed Back Bay/South End Gateway Project in the Back Bay and South End Districts of Boston.

The proposed 5.2 acre project site consists of four distinct air rights parcels: Garage West Parcel, Garage East Parcel, Station East Parcel and Station West Parcel, situated over Interstate 90 (Mass Turnpike Extension) and the track and concourse levels of the Massachusetts Bay Transportation Authority's (MBTA) Back Bay Station. The proponent, BP Hancock LLC, proposes a 1.26 million square foot (sf) mixed use development including a new office building with ground floor retail, two new residential buildings, a one and two-story vertical retail expansion of the existing station and the partial redevelopment of the 100 Clarendon Street Parking Garage as follows:

- Garage West Parcel includes the demolition of the westernmost parking drum and the construction of a new 26-story building containing approximately 575,000 sf of office space, 27,000 sf of ground floor retail, and 200,000 gsf of reconstructed parking garage. The reconfigured garage will contain parking spaces to serve all uses in the project.
- Garage East Parcel includes the demolition of the easternmost parking drum and the construction of a new 28-story building containing approximately 240 residential units in approximately 215,000 sf.

- Station East Parcel involves the relocation of the existing bus drop-off location, the removal of the existing MBTA ventilation tower and the construction of a new 34-story building, containing approximately 360 residential units in approximately 377,000 sf, with approximately 8,500 sf of ground and second floor retail.
- Station West Parcel includes a vertical expansion of the existing station to create between approximately 30,000 and 65,000 sf of additional retail space.

The site is bounded by Dartmouth Street to the west, Stuart Street and Trinity Place to the north, Trinity Place and Clarendon Street to the east and the southern property line of Back Bay station to the south.

According to the ENF/PNF, the proposed water demand is 176,574 gallons per day (gpd). The Commission owns and maintains a 10-inch Southern High water main in Stuart Street, a 12-inch Southern High water main in Trinity Place, a 12-inch Southern High water main in a Commission easement through the property between Trinity Place and Clarendon Street, a 12-inch Southern High water main in Clarendon Street and a 12-inch Southern Low water main in Dartmouth Street.

According to the ENF/PNF, the proposed sewage generation is 160,522 gpd. For sewage and storm drainage service, the site is served by a 10-inch sanitary sewer and a 15-inch storm drain in Stuart Street, an 18-inch by 33-inch sanitary sewer and an 18-inch by 18-inch storm drain in Trinity Place, an 18-inch by 18-inch sanitary sewer and a 15-inch storm drain in Clarendon Street, and a 10-inch and a 12-inch sanitary sewer and a 12-inch and a 15-inch storm drain in Dartmouth Street.

The Commission has the following comments regarding the proposed project:

General

1. Prior to demolition of any buildings, all water, sewer and storm drain connections to the buildings must be cut and capped at the main pipe in accordance with the Commission's requirements. The proponent must then complete a Termination Verification Approval Form for a Demolition Permit, available from the Commission and submit the completed form to the City of Boston's Inspectional Services Department before a demolition permit will be issued. 9.1

2. All new or relocated water mains, sewers and storm drains must be designed and constructed at BP Hancock LLC's expense. They must be designed and constructed in conformance with the Commission's design standards, Water Distribution System and Sewer Use Regulations, and Requirements for Site Plans. To assure compliance with the Commission's requirements, the proponent must submit a site plan and a General Service Application to the Commission's Engineering Customer Service Department for review 9.2 9.3

and approval when the design of the new water and wastewater systems and the proposed service connections to those systems are 50 percent complete. The site plan should include the locations of new, relocated and existing water mains, sewers and drains which serve the site, proposed service connections as well as water meter locations. 9.3 cont.

3. The Department of Environmental Protection (DEP), in cooperation with the Massachusetts Water Resources Authority and its member communities, is implementing a coordinated approach to flow control in the MWRA regional wastewater system, particularly the removal of extraneous clean water (e.g., infiltration/inflow (I/I)) in the system. In April of 2014, the Massachusetts DEP promulgated new regulations regarding wastewater. The Commission has a National Pollutant Discharge Elimination System (NPDES) Permit for its combined sewer overflows and is subject to these new regulations [314 CMR 12.00, section 12.04(2)(d)]. This section requires all new sewer connections with design flows exceeding 15,000 gpd to mitigate the impacts of the development by removing four gallons of infiltration and inflow (I/I) for each new gallon of wastewater flow. In this regard, any new connection or expansion of an existing connection that exceeds 15,000 gallons per day of wastewater shall assist in the I/I reduction effort to ensure that the additional wastewater flows are offset by the removal of I/I. Currently, a minimum ratio of 4:1 for I/I removal to new wastewater flow added is used. The Commission supports the policy, and will require proponent to develop a consistent inflow reduction plan. The 4:1 requirement should be addressed at least 90 days prior to activation of water service and will be based on the estimated sewage generation provided on the project site plan. 9.4

4. The design of the project should comply with the City of Boston's Complete Streets Initiative, which requires incorporation of "green infrastructure" into street designs. Green infrastructure includes greenscapes, such as trees, shrubs, grasses and other landscape plantings, as well as rain gardens and vegetative swales, infiltration basins, and paving materials and permeable surfaces. The proponent must develop a maintenance plan for the proposed green infrastructure. For more information on the Complete Streets Initiative see the City's website at http://bostoncompletestreets.org/ 9.5

5. For any proposed masonry repair and cleaning BP Hancock LLC will be required to obtain from the Boston Air Pollution Control Commission a permit for Abrasive Blasting or Chemical Cleaning. In accordance with this permit BP Hancock LLC will be required to provide a detailed description as to how chemical mist and run-off will be contained and either treated before discharge to the sewer or drainage system or collected and disposed of lawfully off site. A copy of the description and any related site plans must be provided to the Commission's Engineering Customer Service Department for review before masonry repair and cleaning commences. BP Hancock LLC is advised that the 9.6

Commission may impose additional conditions and requirements before permitting the discharge of the treated wash water to enter the sewer or drainage system. 9.6 cont.

6. BP Hancock LLC should be aware that the US Environmental Protection Agency issued the Remediation General Permit (RGP) for Groundwater Remediation, Contaminated Construction Dewatering, and Miscellaneous Surface Water Discharges. If groundwater contaminated with petroleum products, for example, is encountered, BP Hancock LLC will be required to apply for a RGP to cover these discharges. 9.7

7. The project sites are located within Boston's Groundwater Conservation Overlay District (GCOD). The district is intended to promote the restoration of groundwater and reduce the impact of surface runoff. Projects constructed within the GCOD are required to include provisions for retaining stormwater and directing the stormwater to the groundwater table for recharge. 9.8

8. BP Hancock LLC is advised that the Commission will not allow buildings to be constructed over any of its water lines. Also, any plans to build over Commission sewer facilities are subject to review and approval by the Commission. The project must be designed so that access, including vehicular access, to the Commission's water and sewer lines for the purpose of operation and maintenance is not inhibited. 9.9

9. It is BP Hancock LLC's responsibility to evaluate the capacity of the water, sewer and storm drain systems serving the project site to determine if the systems are adequate to meet future project demands. With the site plan, BP Hancock LLC must include a detailed capacity analysis for the water, sewer and storm drain systems serving the project site, as well as an analysis of the impacts the proposed project will have on the Commission's water, sewer and storm drainage systems. 9.10

<u>Water</u>

1. BP Hancock LLC must provide separate estimates of peak and continuous maximum water demand for residential, commercial, industrial, irrigation of landscaped areas, and air-conditioning make-up water for the project with the site plan. Estimates should be based on full-site build-out of the proposed project. BP Hancock LLC should also provide the methodology used to estimate water demand for the proposed project. 9.11

2. BP Hancock LLC should explore opportunities for implementing water conservation measures in addition to those required by the State Plumbing Code. In particular, BP Hancock LLC should consider outdoor landscaping which requires minimal use of water to maintain. If BP Hancock LLC plans to install in-ground sprinkler systems, the Commission recommends that timers, soil moisture indicators and rainfall sensors be installed. The use of sensor-operated faucets and toilets in common areas of buildings should be considered. 9.12

3. BP Hancock LLC is required to obtain a Hydrant Permit for use of any hydrant during the construction phase of this project. The water used from the hydrant must be metered. BP Hancock LLC should contact the Commission's Meter Department for information on and to obtain a Hydrant Permit. 9.13

4. The Commission is utilizing a Fixed Radio Meter Reading System to obtain water meter readings. For new water meters, the Commission will provide a Meter Transmitter Unit (MTU) and connect the device to the meter. For information regarding the installation of MTUs, BP Hancock LLC should contact the Commission's Meter Department. 9.14

Sewage / Drainage

1. A Total Maximum Daily Load (TMDL) for Nutrients has been established for the Lower Charles River Watershed by the Massachusetts Department of Environmental Protection (MassDEP). In order to achieve the reductions in Phosphorus loading required by the TMDL, phosphorus concentrations in the lower Charles River from Boston must be reduced by 64%. To accomplish the necessary reductions in phosphorus, the Commission is requiring developers in the lower Charles River watershed to infiltrate stormwater discharging from impervious areas in compliance with MassDEP. BP Hancock LLC will be required to submit with the site plan a phosphorus reduction plan for the proposed development. BP Hancock LLC must fully investigate methods for retaining stormwater on-site before the Commission will consider a request to discharge stormwater to the Commission's system. The site plan should indicate how storm drainage from roof drains will be handled and the feasibility of retaining their stormwater discharge on-site. Under no circumstances will stormwater be allowed to discharge to a sanitary sewer. 9.15

   In conjunction with the Site Plan and the General Service Application BP Hancock LLC will be required to submit a Stormwater Pollution Prevention Plan. The plan must:

   - Identify best management practices for controlling erosion and for preventing the discharge of sediment and contaminated groundwater or stormwater runoff to the Commission's drainage system when the construction is underway. 9.16

   - Include a site map which shows, at a minimum, existing drainage patterns and areas used for storage or treatment of contaminated soils, groundwater or stormwater, and the location of major control or treatment structures to be utilized during construction. 9.17

   - Provide a stormwater management plan in compliance with the DEP standards mentioned above. The plan should include a description of the measures to control pollutants after construction is completed. 9.18

2. Developers of projects involving disturbances of land of one acre or more will be required to obtain an NPDES General Permit for Construction from the Environmental Protection Agency and the Massachusetts Department of Environmental Protection. BP Hancock LLC is responsible for determining if such a permit is required and for obtaining the permit. If such a permit is required, it is required that a copy of the permit and any pollution prevention plan prepared pursuant to the permit be provided to the Commission's Engineering Services Department, prior to the commencement of construction. The pollution prevention plan submitted pursuant to a NPDES Permit may be submitted in place of the pollution prevention plan required by the Commission provided the Plan addresses the same components identified in item 1 above. 9.19

3. The Commission encourages BP Hancock LLC to explore additional opportunities for protecting stormwater quality on site by minimizing sanding and the use of deicing chemicals, pesticides, and fertilizers. 9.20

4. The discharge of dewatering drainage to a sanitary sewer is prohibited by the Commission. BP Hancock LLC is advised that the discharge of any dewatering drainage to the storm drainage system requires a Drainage Discharge Permit from the Commission. If the dewatering drainage is contaminated with petroleum products, BP Hancock LLC will be required to obtain a Remediation General Permit from the Environmental Protection Agency (EPA) for the discharge. 9.21

5. BP Hancock LLC must fully investigate methods for retaining stormwater on-site before the Commission will consider a request to discharge stormwater to the Commission's system. The site plan should indicate how storm drainage from roof drains will be handled and the feasibility of retaining their stormwater discharge on-site. Under no circumstances will stormwater be allowed to discharge to a sanitary sewer. 9.22

6. The Massachusetts Department of Environmental Protection (MassDEP) established Stormwater Management Standards. The standards address water quality, water quantity and recharge. In addition to Commission standards, BP Hancock LLC will be required to meet MassDEP Stormwater Management Standards. 9.23

7. Sanitary sewage must be kept separate from stormwater and separate sanitary sewer and storm drain service connections must be provided. The Commission requires that existing stormwater and sanitary sewer service connections, which are to be re-used by the proposed project, be dye tested to confirm they are connected to the appropriate system. 9.24

8. The Commission requests that BP Hancock LLC install a permanent casting stating "Don't Dump: Drains to Charles River" next to any catch basin created or modified as

part of this project. BP Hancock LLC should contact the Commission's Operations Division for information regarding the purchase of the castings. 9.25

9. If a cafeteria or food service facility is built as part of this project, grease traps will be required in accordance with the Commission's Sewer Use Regulations. BP Hancock LLC is advised to consult with the Commission's Operations Department with regards to grease traps. 9.26

10. The enclosed floors of a parking garage must drain through oil separators into the sewer system in accordance with the Commission's Sewer Use Regulations. The Commission's Requirements for Site Plans, available by contacting the Engineering Services Department, include requirements for separators. 9.27

Thank you for the opportunity to comment on this project.

Yours truly,

For John P. Sullivan, P.E.
Chief Engineer

JPS/afh

C: Michael A. Cantalupa, BP Hancock LLC
M. Zlody, BED via e-mail
P. Larocque, BWSC via e-mail

CRWA
Saving the Charles River since 1965

May 23rd 2016

Secretary Matthew A. Beaton
Attn: Alex Strysky, Environmental Analyst
Executive Office of Energy and Environmental Affairs
MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: The Back Bay / South End Gateway Project EEA#15502

Dear Secretary Beaton:

Charles River Watershed Association (CRWA) has reviewed the Environmental Notification Form (ENF) on the above mentioned project and would like to submit the following comments.

CRWA is deeply concerned that the proponent has not even mentioned the requirements of the Total Maximum Daily Load (TMDL) for Nutrients in the Lower Charles River Basin that the proposed project is subject to, let alone providing information on the strategies being adopted to comply with the requirement. In addition to the above the project is expected to meet the 1 inch infiltration requirement as per Boston Water and Sewer Commission (BWSC) standards. The proponent therefore should quantifiably demonstrate in the Draft Environmental Impact Report (DEIR) how the project will comply with the TMDL as well as the BWSC standards. 10.1

<u>TMDL and Stormwater</u>

According to MA DEP's 2014 Integrated List of Waters, the Lower Charles River is impaired due to oil and grease, high pH, acute toxicity in sediments, *E. coli* bacteria, low dissolved oxygen, high chlorophyll-a, and high phosphorus levels. The Secretary should therefore require the proponent to use stormwater treatment technologies that would be expected to achieve >65% reduction in total phosphorus loads exported from the proposed development site. 10.2

The proponent notes that the project site is within the Groundwater Conservation Overlay District (GCOD)[1] which would require the project to infiltrate the 1st inch of runoff from the site. Instead of granting a relief from this requirement, the Secretary should require the proponent undertake an extensive analysis in the DEIR to show how the projects would meet the requirement. 10.3

[1] Pg. 14 ENF

Finally, with no designated pervious areas on site, it is unclear how the functionality of all impervious surfaces on site will be maintained during winter months. Snow cleared from roadways, parking spaces, and sidewalks needs to be stored somewhere until it melts. If left on the impervious surface, the number of parking spaces, width of roads or driveways, or safety and accessibility of sidewalks diminish. Prolonged contact with impervious surface and close proximity to fossil-fuel combusting vehicles would concentrate pollutants in the snowmelt, which would leave the site via the storm sewer. It would behoove the project proponent to design impervious areas on the site where snow could be stored in winter months and be filtered through the ground to recharge the local groundwater table when it melts in spring. The Secretary should require the project proponent to account for winter weather management in all calculations of the service capacity of the building, roadways, and parking areas on site. 10.4

Wastewater

CRWA would like to see the project proponent provide inflow/infiltration mitigation in the project neighborhood instead of paying a fee in lieu. The proponent would gain multiple benefits from developing a relationship with another landowner in the area that would allow them to manage stormwater and wastewater more cost-effectively on a neighborhood-scale as opposed to the site-scale. 10.5

The Secretary should require the project proponent to provide written justification if it is felt that local mitigation measures are not feasible. 10.6

Landlocked Tidelands and Public Benefits Determination

While the proponent has acknowledged that the project is located on landlocked and would be subject to Public Benefits Determination[2], there is no additional information provided on the proposed benefits. The DEIR should therefore provide further details on the historic tidelands delineation as well as what the proponent would offer as public benefits as part of the Chapter 91 license. 10.7

Climate Change Resiliency

The City of Boston has recently conducted its climate change vulnerability assessment in which they conclude that the frequency of intense storm events and heatwaves will intensify in the coming decades. The impact due to these events will be greater around the project site because of high imperviousness. In fact, this section of Boston already experiences frequent localized inland flooding, especially after intense precipitation events such as Nor'easter storms (1-2 events/year). In particular, we urge the Proponent to collaboratively determine with BWSC the precipitation range of the 10-year and 100-year/24-hour design storm, as it will help in sizing BMPs throughout the project area. 10.8

The Proponent should therefore look beyond site specific adaptation strategies and address flood resiliency more broadly. 10.9

Opportunity for Green Streets

Since the adjoining streets- Dartmouth, Stuart and Clarendon might be impacted by the proposed project, there is an opportunity to incorporate various "greenscape" elements of Boston's Complete Street Guidelines into the public right of way design. The DEIR should examine these opportunities in greater detail. 10.10

[2] Pg 16 ENF

Should you have any questions, please feel free to contact me at pmande@crwa.org or (781) 788-0007 ext. 232.

Sincerely,

Pallavi Mande,
Director of Blue Cities

Christopher Tracy (christopher.tracy@boston.gov)
Senior Project Manager
Boston Redevelopment Authority
One City Hall Square - Room 900
Boston, MA

Re: Back Bay/South End Gateway Project Comment Letter

Dear Mr. Tracy:

Thank you for the opportunity to comment on the Project Notification Form ("PNF") for the Back Bay/South End Gateway Project. This letter is being submitted on behalf of the Ellis South End Neighborhood Association ("The Ellis"). It should be noted that the public involvement has only occurred over the past six weeks – a relatively short time for the public to consider all of the ramifications for a project of such size and location. It is also important to note that the next meeting of the Citizens Advisory Committee ("CAC") scheduled to discuss the critical issues of parking, traffic and streetscape is June 15th – only two days before the comments are due – which provides little time for the public to offer any substantive comments. We appreciate, however, that Boston Properties and the BRA will continue to respond to comments as the project review process continues. 11.1 11.2 11.3

As has been voiced at the previous public meetings, concerns have been raised about the separate Back Bay Station renovation associated ventilation project and the impact on the commuters using the station. The inconvenience to the commuting public will not be insignificant. You have also heard comments from the public about the need to immediately address the poor ventilation system before the development project should even continue. Recent pronouncements from the government about the air quality for those living within short distances from highways recently need to be considered. We appreciate the commitment made by Secretary of Transportation Pollack to conduct public meetings beginning this summer to allow public involvement and, most importantly, for the questions and concerns raised by the public to be addressed. There have been concerns raised, however, by several residents that the two initiatives need to be made one. Can a realistic argument be made that the impact on the interior of the station to accommodate the construction project and the needs of the developer are separate? It would appear to be a difficult argument. 11.4

We will provide preliminary comments below based on what we understand have been raised by the public. First, however, some general observations on the impact to the Ellis neighborhood.

There are already three approved projects within what is only a two block area. Copley Place is underway but the timing of the projects at 40 Trinity Place and 380 Stuart Street remains unclear. More information about the timing of these projects must be provided to the public to allow for a better understanding of the implications for those currently using the station and garage.

This is a project that, we believe, will have the most significant impact on the South End with the Ellis neighborhood feeling the brunt of the initial impact from all the phases associated with the project. With the

proposed closure of the Clarendon Street ramp to I-90 and the demolition of the exit drum from the garage, more and more of the vehicles exiting the garage will find themselves on Columbus Avenue heading for a MASSPIKE entrance or points north and west while others will be crossing Columbus Avenue to head towards I-93.

During construction, pedestrian traffic will be pushed into narrow lanes dangerously close to vehicles on Dartmouth and Stuart Streets and, perhaps causing more to walk along Clarendon Street and Columbus Avenue to either avoid the construction or to access the station. This will be especially true once the Copley Place traffic plan eliminates one lane of traffic coming onto Dartmouth Street from Huntington Avenue. While the development of a traffic plan remains to be discussed, it is critical for the Boston Transportation Department ("BTD") to be a participant at every meeting of the CAC and those with the public. BTD is the governmental agency that is responsible for enforcing agreements with developers regarding traffic during the construction. Some have suggested that the area around the proposed project already suffers gridlock throughout the day. Would it not only be worsened without a clear and thoughtful traffic control plan discussed from the start of the review? BTD's expertise is needed throughout the project review phase. 11.5 11.6

Boston Properties has indicated it will work with the MBTA to find a new #39 bus staging area "nearby" once the bus turnaround is closed off for construction. With all of the other development projects expected to be underway, is there any other location other than some part of Columbus Avenue that would be available "nearby"? 11.7

We also understand that Boston Properties is exploring the construction of elevators accessible to AMTRAK passengers at the existing head-houses on the in-bound side of Columbus Avenue. Increasing the number of passengers with luggage crossing Columbus Avenue to access the station or hotels in the area as vehicles leave the garage is of concern. 11.8

The preliminary internal wind study may suggest minimal changes to the surrounding streets. Many, especially those who have avoided Clarendon Street near the former "new" John Hancock Building for years, have expressed doubts about the preliminary findings. Standing at the corner on Boylston and Clarendon Streets one will often begin to suddenly feel wind gusts that continue along Clarendon Street walking towards Columbus Avenue. The same can be said of those crossing Columbus Avenue at Clarendon heading towards Boylston Street. It may be true that the only accurate measurement of the impact of wind can be determined after all of the approved projects plus this one have been completed. 11.9

Specific questions/comments raised by members of the Ellis:

- How will access and egress work for the Orange Line, Commuter Rail and Amtrak? Will there be input from the riding public? 11.10
- As each piece of the project proceeds with more and more people coming to the station and buildings, where will the drop-offs be located? Will there be a need for more surface buses and not just Bus #39? It is unclear where a new turnaround for Bus #39 could be located anywhere in the vicinity of the station. The answer to the location of the new turnaround needs to be provided now – not after the project is underway. 11.11
- What assurances are there that station facilities can grow to meet state and city's goals to increase transit mode-share, reduce air pollution and lower energy consumption? 11.12
- How will the station be able to accommodate future security or ticketing procedures (especially for commuter rail and AMTRAK)? 11.13
- How will retail-related activities in the station impact transportation related circulation and operations? 11.14

• In what way would the reduction of public circulation space impact the ability of the station to handle emergencies and special event surges?	11.15
• What are provisions for improved sidewalk access to the station along Dartmouth Street, Clarendon Street? If the developer moves the shop facades out to the street line, what will be the impact on pedestrians?	11.16
• How does the increased use of curb and sidewalk space to serve the new development detract from existing or increased public transportation use?	11.17
• Boston Properties needs to address their commitment to affordable housing. The commitment should clearly state the inclusion of the units on-site rather than at some other location.	11.18
• The neighborhoods and the City have a right to a more functional, more accessible, more flexible, more beautiful station, sidewalks and streets than we have today. We need a station than preserves the legacy of the citizens in the 1970's and 1980's who stopped the South End Bypass and the Southwest Expressway and who put countless hours into the creation of the Southwest Corridor Park and, especially, Back Bay Station.	11.19
• It may be that a private developer can help make this happen, but the sales pitch so far is high on words and pictures and lacking in clarity and substance. Just look at the plans. The narrower sidewalks, the new curb cuts, the lack of provision for buses, elimination of the railroad waiting room and a darkened concourse crowded with retail stores, seem more like a Penn Station demolition than the creation of, in their words, a first-class, "airport quality" transit hub.	11.20
• The Stuart Street Zoning rules would emphasize retail along Stuart Street – Boston Properties has not done so. The lobby of an office building is not retail and is not a location that is welcoming outside of normal business hours.	11.21
• Will there be 24-hour public access to the station?	11.22
• Will the proposed station layout result in a reduction in available public space that would be sufficient to serve the needs of the projected increase in passengers, especially in high-volume periods?	11.23
• Has Boston Properties considered the use of overhead walkways to the station to minimize the impact on pedestrians?	11.24
• The idea of creating a new garage exit onto Dartmouth Street should be abandoned – it is much too dangerous.	11.25
• Can a project of this magnitude really proceed without the addition of any new parking spaces? With 3000 to 4000 persons coming to the site won't there be a need for more parking spaces?	11.26
• The PNF appears to narrow the width of the Dartmouth Street sidewalk as the office building is being brought out further than the existing structure. This will cause more pedestrian congestion, especially if there is a new garage exit onto Dartmouth Street. Are the additions to the sidewalk and within the station of retail-oriented activities really benefits to the public or will they simply result in less space for pedestrians and commuters?	11.27
• If the developer adds a second (and perhaps a third) story with retail activities to the station, can the developer really improve natural light and air?	11.28
• Isn't the elimination of the exit drum simply a benefit to the developer to allow for more retail space?	11.29

Thank you for your kind attention to our concerns. We fully expect there will be additional comments raised as the project progresses. We look forward to working with the Citizens Advisory Committee and others interested in the project to minimize the impact on the Ellis community.

Sincerely yours,

Betsy Hall
President
Ellis South End Neighborhood Association

June 16, 2016

Re: Back Bay South End Gateway

Mass State Environmental
Alexander.Strysky@massmail.state.ma.us

Dear Mr. Strysky:

The Neighborhood Association of the Back Bay thanks you for the opportunity to address some of our major questions about the Back Bay/South End Gateway project. We are appreciative that our two CAC members, Jackie Yessian and Elliott Lauffer, have so much experience and expertise. They will, over the course of the project discussions continue to offer our perspective and reflect on what impact ongoing development and construction have on all of the Back Bay.

Taken individually, any single project on Stuart Street may not have significant adverse impact. However, we are deeply concerned about the likely cumulative effects of 380 Stuart Street, 40 Trinity Place, Neiman Marcus Tower, and the three towers and one additional structure of the Back Bay /South End Gateway Project on three major areas: traffic, infrastructure and the environment as outlined below. 12.1

Traffic

Vehicular Traffic

Recent studies project an additional 80,000 cars and trucks in Boston within the next 14 years. When these six new towers are completed, traffic will certainly increase in the Back Bay.

We would request that the Boston Traffic Department estimate how additional vehicular traffic would affect, in particular the cross streets in the Back Bay. 12.2

What would further gridlock mean for emergency vehicles including fire equipment and ambulances seeking to access areas of the Back Bay during rush hours or trying to take Storrow Drive to Massachusetts General Hospital? 12.3

Many cross streets are currently at full capacity even with parking lanes cleared; afternoon gridlock occurs most of the year.

Given the current gridlock, what other alternatives are being explored? 12.4

Is a congestion tax a possibility? 12.5

Can we limit driving into the city on weekdays to alternating days of even/odd license plates? Will taxis or ride sharing vehicles be more regulated and limited? 12.6

Public Transporation – The MBTA

During the morning and evening commute, both the Green Line and the Orange Line already run at nearly full capacity.

Is the city and/or developers willing to contribute major funds to the MBTA to increase its carrying capacity? Are there other alternatives? 12.7

Are there plans to expand the Commuter Rail trains into Back Bay? Are there plans being discussed for commuters arriving at North Station to access the Back Bay when the Orange and Green lines are packed? 12.8

Without designated bus lanes would buses be able to move through gridlock? 12.9

Bicycles

Given the increase in cycling in the City and the fact that it may be the fastest way to get around, are there designated safe cycling lanes into and around the Stuart Street development area? 12.10

Besides, Back Bay Station is there bike storage? 12.11

Pedestrian Traffic

Are there plans to make sidewalks wide enough to allow for an increased number of commuters as well as travelers with luggage going to and from Back Bay Station? 12.12

Infrastructure

What are the plans to provide the additional electricity, natural gas, sewer lines, internet, telecommunications and trash collection that the new residents and businesses will require? 12.13

Who will pay for those improvements? 12.14

Environmental Concerns

Wind

Wind is already creating a dangerous situation around much of Stuart Street and Copley Square. Can we have additional measurements of the wind as it is now in all four seasons and as construction proceeds? 12.15

Given the Farmers Market as well as numerous holiday activities in Copley Square can we measure the center of the Square as well as all four corners? 12.16

Shadow

We would request studies to show the combined effect of all towers on year-round light in Trinity Church, the Commonwealth Avenue Mall, Copley Square and the interior courtyard of the Boston Public Library 12.17

Again, thank you for your consideration. The historical neighborhood of the Back Bay contains beautiful parks, iconic Boston buildings including Trinity Church, Old South Church, the Boston Public Library and many other historical buildings.

This neighborhood is appreciated daily not just by residents and commuters, but also by thousands of visitors from all over the world. It's important we keep it accessible, safe, and workable for everyone. 12.18

Planning, anticipating problems and seeking solutions prior to being overwhelmed is something we look forward to working with you to address.

Sincerely,

Vicki C. Smith
Chairman, NABB

Matthew A. Beaton, Secretary
Executive Office of Environmental and Energy Affairs
Attn: Alexander Strysky, MEPA Office, EOEEA #15502
100 Cambridge St., Suite 900
Boston, MA 02114

June 17, 2016

Dear Secretary Beaton,

Thank you for the opportunity to comment on the Environmental Notification Form for the Back Bay South End Gateway Project. As the representative of the Bay Village Neighborhood Association (BVNA) on the Boston Redevelopment Authority's Citizens Advisory Committee (CAC) for the project, I write on behalf of BVNA. For context, our neighborhood lies one block to the east of the proposed project site.

The four major points we'd like to make in regard to environmental review are as follows:

1) We're actively concerned about the potential traffic that would result from the Clarendon St on-ramp closure and the re-routing of traffic out of the large garage between Clarendon and Dartmouth. So we're very interested in seeing an **extensive traffic study** as part of the EIR/DPIR. We'd like to add an additional point to that study, at the un-signaled intersection of Arlington and Isabella St. A turn down the Isabella side-street would become the most direct route to I-90 from the garage's Clarendon Street exit if the on-ramp were closed. We already have serious concerns about the unsafe crosswalk at the corner of Isabella and Arlington, and additional through-traffic would be unwelcome on Isabella St., so we need a model of how much the traffic there would increase. The current proposed points of study include Stuart St/Arlington St [presumably also Columbus Ave/Arlington St at that intersection] and Arlington St/Marginal Rd/I-90, but not Isabella St/Arlington St. 13.1 13.2

2) The Proponent mentions that it expects the development to have little effect on area groundwater, given that so much of it will be over decking rather than terra firma. Nevertheless, they do briefly allude to constructing a stormwater infiltration system to help **recharge groundwater levels** in the vicinity. We are very interested in ensuring this is done, as any diminishment of groundwater levels remains of significant concern to all property-owners in the area. 13.3

3) The **ventilation system** for Back Bay Station is, notoriously, broken. While the MBTA is pursuing a plan to fix it as a separate project, with financial support from the Proponent, we think that air quality levels at all levels of the site should be subjected to particular scrutiny by the Office of Energy and Environmental Affairs. We believe they currently constitute a public health risk and a solution to this issue should be central to any assessment of the 'public benefit' of this air-rights development. 13.4

4) Furthermore, an academic study was recently conducted in Boston and published in April, showing that residents who live within 1500 ft of a public highway are at significantly elevated risk of cardiovascular disease because of the ultrafine particles in the air. It is only a

matter of time before the EPA formally regulates ultrafine particles, but in the meantime it's important for our state and local agencies to be proactive. New residential or office towers in such close vicinity to the highway as those in this project should be required to install **effective air filtration systems**, for the health of their occupants. And while thorough filtration may be difficult to install in the station itself, given the openness of the platforms to the outside air, partial mitigation through filtration at the concourse level would still be appropriate, as a public health measure. 13.5

Finally, we'd like to echo the letter submitted by CAC co-chair Elliot Laffer, specifically on the following points:

- The Proponent should be asked to rigorously demonstrate that **further parking** will not be required. 13.6
- The **planned garage exit** onto Dartmouth Street, in the event of no on-ramp closure, would be dangerous to pedestrians and an intolerable disruption to an accessible streetscape around the station. 13.7
- **Shadow on historic resources** (the Boston Public Library courtyard and front steps, the Trinity Church windows) should be specifically considered. 13.8
- **Wind studies** should also be done for each of the three individual towers proposed, in addition to the whole fully-developed scheme, as neither phasing nor a full build-out is guaranteed. Counter-intuitively, wind conditions can sometimes be worsened more by a single tower than by three close together. 13.9
- The **station layout** should be planned for growing public transit capacity. 13.10
- **A firm plan for relocating Bus 39** should be a requirement for moving forward with permissions for the Station East portion of the parcel. 13.11

We hope you will take all these comments into consideration as you make your scoping determination. Many thanks for your attention.

Sincerely,

Dr. P. MacKenzie Bok
Planning Co-Chair, Bay Village Neighborhood Association
35 Melrose St., Boston, MA 02116

P.S. The study cited in point #4 is attached under separate cover. A news article on the topic can be found at: https://www.bostonglobe.com/metro/2016/04/13/new-evidence-dangers-living-near-highways/hVyqTnY4iyn9YRoNSwWtGI/story.html

And at: https://nextcity.org/daily/entry/community-activists-want-new-chinatown-park-to-consider-air-pollution

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Association of modeled long-term personal exposure to ultrafine particles with inflammatory and coagulation biomarkers

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ABSTRACT

Background: Long-term exposure to fine particulate matter has been linked to cardiovascular disease and systemic inflammatory responses; however, evidence is limited regarding the effects of long-term exposure to ultrafine particulate matter (UFP, <100 nm). We used a cross-sectional study design to examine the association of long-term exposure to near-highway UFP with measures of systemic inflammation and coagulation.

Methods: We analyzed blood samples from 408 individuals aged 40–91 years living in three near-highway and three urban background areas in and near Boston, Massachusetts. We conducted mobile monitoring of particle number concentration (PNC) in each area, and used the data to develop and validate highly resolved spatiotemporal (hourly, 20 m) PNC regression models. These models were linked with participant time-activity data to determine individual time-activity adjusted (TAA) annual average PNC exposures. Multivariable regression modeling and stratification were used to assess the association between TAA-PNC and single peripheral blood measures of high-sensitivity *C*-reactive protein (hsCRP), interleukin-6 (IL-6), tumor-necrosis factor alpha receptor II (TNFRII) and fibrinogen.

Results: After adjusting for age, sex, education, body mass index, smoking and race/ethnicity, an interquartile-range (10,000 particles/cm^3) increase in TAA-PNC had a positive non-significant association with a 14.0% (95% CI: −4.6%, 36.2%) positive difference in hsCRP, an 8.9% (95% CI: −0.4%, 10.9%) positive difference in IL-6, and a 5.1% (95% CI: −0.4%, 10.9%) positive difference in TNFRII. Stratification by race/ethnicity revealed that TAA-PNC had larger effect estimates for all three inflammatory markers and was significantly associated with hsCRP and TNFRII in white non-Hispanic, but not East Asian participants. Fibrinogen had a negative non-significant association with TAA-PNC.

Conclusions: Our findings suggest an association between annual average near-highway TAA-PNC and subclinical inflammatory markers of CVD risk.

1. Introduction

Studies have shown associations of proximity to traffic with excess cardiovascular disease (CVD) risk and increases in biomarkers of systemic inflammation such as high sensitivity *C*-reactive protein (hsCRP) and interleukin-6 (IL-6) (Brugge et al., 2007; Hoffmann et al., 2009; Williams et al., 2009; Lanki et al., 2015; Brugge et al., 2013). Proximity may be a surrogate for exposure to traffic-related air pollutants (TRAPs) such as nitrogen oxides (NOx), nitrogen dioxide, black carbon, particulate matter <10 μm (PM_{10}), and ultrafine particles (UFP, <100 nm). Concentrations of these pollutants have been shown to be substantially elevated next to major roadways and highways (Karner et al., 2010; Padró-Martínez et al., 2012; Patton et al., 2014a).

Previous studies have associated UFP exposure with systemic inflammation and increased CVD risk. Animal studies show that UFP can promote inflammatory responses in the lungs as well as translocate to the circulatory system. This can lead to increases in atherosclerotic lesions, upregulation of genes for anti-oxidant responses to oxidative stress, and decreases in anti-inflammatory high density lipoprotein (Araujo et al., 2008; Araujo and Nel, 2009). Controlled human exposure

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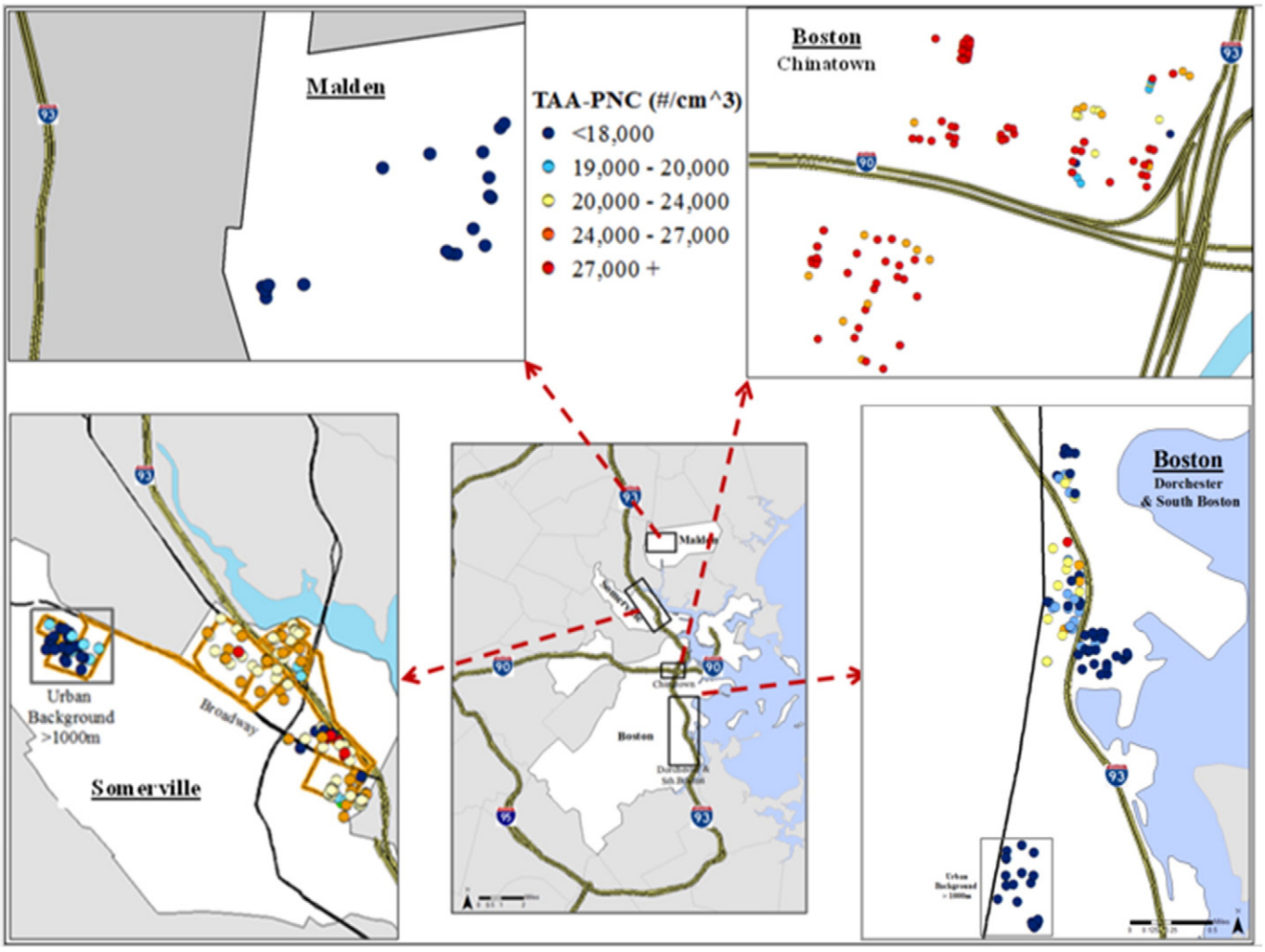

Fig. 1. Time-activity adjusted annual average particle number concentration (TAA-PNC) by study area.

studies of UFP found associations with inflammatory and coagulation responses in the lungs as well as in peripheral blood (Devlin et al., 2014; Nemmar et al., 2002; Samet et al., 2009). Panel studies on short-term effects of particle number concentration (PNC) have reported increases in CRP, IL-6, tumor-necrosis factor alpha receptor II (TNFRII) and markers of coagulation such as *D*-dimer and von Willebrand Factor (vWF) with same day UFP exposure and up to three-week lags (Delfino et al., 2008; Hertel et al., 2010; Fuller et al., 2015). One study reported significant associations with hsCRP and a suggestive association with fibrinogen (Ruckerl et al., 2014).

The few studies on the cardiovascular effects of long-term exposure (e.g., ≥ 1 year) to individual TRAPs have produced inconsistent results (Gan et al., 2011; Gan et al., 2014). In particular, until recently, there had been little evidence for effects of long-term UFP exposure on cardiovascular health, in part due to exposure modeling constraints. A study of the California Teachers Study Cohort (Ostro et al., 2015) found a significant association of long-term exposure to UFP mass and constituents with all-cause, CVD, and ischemic heart disease mortality. Exposure was estimated with a chemical transport model at 4 × 4 km resolution. A study using another chemical transport model to examine multiple PM sizes at 1 × 1 km resolution (Viehmann et al., 2015) found that long-term exposure to UFP was significantly associated with hsCRP and fibrinogen in crude models, and positively but insignificantly associated in adjusted models. While both studies found associations with long-term UFP, they utilized PNC models that could not capture within neighborhood (<1 × 1 km) near roadway PNC variability.

To our knowledge, there are no published studies that used intensive local monitoring of PNC to build highly spatiotemporally-resolved UFP models (20 m, hourly) and combined them with individual time-activity patterns in an epidemiological study. Assigning area ambient annual average at the residence introduces exposure misclassification for pollutants such as UFP that have high spatial and temporal variability (Buonanno et al., 2014; Gu et al., 2015; Lane et al., 2015). Given the substantial spatial and temporal variability of near roadway UFP concentrations in urban areas, highly resolved UFP exposure assessment should improve long-term epidemiological studies (HEI, 2013; Sioutas et al., 2005).

Our objectives were to develop individualized annual UFP exposure estimates and to evaluate associations with hsCRP, IL-6, TNFRII, and fibrinogen. These analyses were performed within the Community Assessment of Freeway Exposure and Health (CAFEH) study, a hypothesis driven cross-sectional, community based participatory research (CBPR) study evaluating cardiovascular health risks from exposure to UFP in near-roadway populations. We report here the association of annual average exposure to high resolution time activity adjusted (TAA) PNC with hsCRP, IL-6, TNFRII, and fibrinogen for study participants living in neighborhoods in the Boston area (Massachusetts, USA).

2. Material and methods

2.1. CAFEH study population

Participant recruitment was performed concurrently with air pollution monitoring in near-highway (≤500 m from Interstate Highways 90 and 93) and urban background areas (≥1000 m from Interstate Highways) including Somerville, Malden, and the Boston neighborhoods of Dorchester, South Boston, and Chinatown (Fig. 1). Individuals 40 + years of age completed an informed consent after being recruited in each neighborhood using a geographically-weighted, random-selection process, supplemented by a convenience sample of participants from senior housing developments in Dorchester and Somerville. The analysis reported here is of those participants who had a viable peripheral blood sample on all biomarkers and complete survey data ($n = 408$), of whom 327 were from the random sample and 81 were from the convenience sample. Details on study recruitment, questionnaire, clinics, blood storage and inflammatory assays have been previously published (Fuller et al., 2014). Here we present a brief summary, with more detail provided in Supplemental Text 1.

Recruitment was conducted in Somerville (near highway = 101 participants; urban background = 25 participants) from July 2009 to May 2010, in Dorchester (near highway = 75 participants; urban background = 21 participants) and South Boston (near highway = 15 participants) from September 2010 to April 2011, and in Chinatown (near highway = 133 participants) and its paired urban background neighborhood, Malden (40 participants), from June 2011 to February 2012. Recruitment of participants from high-rise buildings (only present in Chinatown) was restricted to residents who lived on one of the first four floors since we found no significant vertical differences in PNC up to 35 m (Wu et al., 2014).

Participants completed an in-home survey that included questions about demographics (e.g., age, sex, education, income, race/ethnicity, and employment status), recent illnesses, major cardiovascular diseases, hypertension, use of statins, insulin, or oral hypoglycemics, smoking status, and micro-environment time-activity. Peripheral blood was drawn at study clinics by registered nurses and analyzed for biomarkers using standard protocols. We measured height and weight for calculation of body mass index (BMI; in kg/m^2).

Geocoding of participant addresses was performed using a multi-stage process that included address verification by field staff during home visits. This was followed by parcel and street network geocoding accompanied by manual correction via orthophotos and apartment/multi-unit floor plans to reduce positional error (Lane et al., 2013; Brugge et al., 2013). We used ESRI ArcGIS v10.1 (ESRI, Redlands CA) software for all geographic information system (GIS) processes.

2.2. PNC monitoring, modeling and exposure assignment

Details on PNC monitoring, regression modeling and time-activity adjusted exposure assignment have been published (Padró-Martínez et al., 2012, Patton et al., 2014b; Patton et al., 2015; Lane et al., 2015). Here we present a brief summary with more detail in Supplemental Text 2. The Tufts Air Pollution Monitoring Laboratory (TAPL), a converted recreational vehicle equipped with fast-response monitoring instruments, was used to measure air pollutants. The TAPL was repeatedly driven over fixed routes in each study area during a range of hours of the day, days of the week and seasons. UFP were measured by a condensation particle counter (TSI Model 3775) as particle number concentration (PNC, 4–3000 nm). Multivariable regression modeling was used to build predictive models to estimate hourly natural log (LN) PNC at locations within the study areas. The PNC regression models utilized both spatial (side of and distance to highway, distance to nearest major road) and temporal (wind speed, wind direction, temperature, day of week, highway traffic volume and speed) variables to predict values. The models were used to estimate ambient PNC at the residence of each participant for each hour of the year during which air monitoring was performed.

These estimates of exposure to PNC were adjusted for time-activity based on survey data to reflect the amount of time participants spent in each of the five micro-environments (details in Lane et al., 2013 and Supplemental Text 2). Time-activity questions were used to assign hourly locations for the most recent weekday and weekend for unemployed participants and for the most recent workday and non-workday for employed participants. Time was assigned by microenvironments in one-hour increments for (i) inside homes, (ii) outside homes, (iii) work/school, (iv) other non-highway locations, and (v) time on highways. Micro-environment time-activity data was found to be consistent in a subset of participants ($n = 169$) that completed a second questionnaire an average of 5.4 months after the initial questionnaire and resulted in less than an hour of mean difference in microenvironment time allocation. We assigned exposures to each participant for every hour of the air monitoring year. We also adjusted for infiltration of PNC into residences (Fuller et al., 2013).

2.3. Statistical analysis

We evaluated associations of biomarkers (hsCRP, IL-6, TNFRII, and fibrinogen) with TAA-PNC. Because three of the biomarkers (hsCRP, IL-6 and TNFRII) were not normally distributed, they were first log-transformed. Fibrinogen was normally distributed, but also examined as a percent change for association with TAA-PNC to be consistent with the other biomarkers. Generalized linear models (GLMs) were used to

Table 1
Population characteristics with viable blood samples and complete data on covariates ($n = 408$).

Characteristic	n	% or mean ± SD
Age (years, mean ± SD)	408	61 ± 13
BMI (kg/m^2, mean ± SD)	408	27.4 ± 6.8
Underweight (<18.5)	14	3%
Normal weight (18.5–24.9)	168	41%
Overweight (25–29.9)	117	29%
Obese (30+)	109	27%
City/neighborhood		
Near highway (≤500 m)		
Somerville	100	24%
Dorchester/South Boston	90	22%
Chinatown	133	32%
Urban background (≥1000 m)		
Somerville	25	6%
Dorchester/South Boston	20	5%
Malden	40	10%
Sex		
Female	238	58%
Male	170	42%
Smoking		
Current	83	20%
Former	126	31%
Never	199	49%
Educational attainment		
<High school diploma	136	34%
High school diploma	123	30%
Undergraduate	99	24%
Graduate school	50	12%
Race/ethnicity		
White non-Hispanic	173	42%
East Asian	162	40%
Other	73	18%
Born in US		
Yes	179	44%
No	229	56%
Statin medication		
Yes	114	28%
No	294	72%
Diabetes medication		
Yes	33	9%
No	375	91%

test the association of TAA-PNC with LN hsCRP, LN IL-6, LN TNFRII (hereafter referred to as hsCRP, IL-6 and TNFRII) as well as fibrinogen. We approached interpretation of statistical outcomes based on 95% confidence intervals, with effect estimates. Estimates are reported as percent change in inflammatory biomarker levels for an interquartile-range (IQR) change in TAA-PNC. Statistical analyses were performed using SAS (Statistical Analysis Software, Cary, North Carolina) version 9.1.2.

We started with univariate analysis for association between TAA-PNC and each biomarker. Regression analyses were then adjusted for age (years), sex (female, male), BMI (continuous, as kg/m^2), smoking status (current, former, never), educational attainment (less than high school, high school diploma, undergraduate degree, graduate degree), race/ethnicity (detailed below) and nativity (born in the United States (US): yes, no). These variables are all known to be cardiovascular disease risk factors and/or predictors of some of our biomarkers of interest (McDade et al., 2011), including nativity (Corlin et al., 2014). For race/ethnicity, we had a large non-Hispanic white population and a large Chinese and Vietnamese population due to our recruitment in Chinatown, with more limited numbers for other racial/ethnic groups. Therefore, we grouped race/ethnicity into non-Hispanic white, East Asian (Chinese and Vietnamese), and other (African American, Haitian-Creole, white-Hispanic, Latino, Indian, Pakistani, Pacific Islander and Native American), a heterogeneous group comprised of multiple race/ethnicities each of limited sample size. Race/ethnicity and nativity were highly correlated with one another. For example, 100% of the East Asian participants were foreign born. Accordingly, we developed regression models to examine effects of race/ethnicity and nativity separately while adjusting for the other cardiovascular risk factors. Additionally, the differences in both TAA-PNC exposure concentrations and inflammatory markers between East Asian and white non-Hispanic populations led us to conduct a stratified analysis between these two groups.

2.4. Additional analysis

Sensitivity analyses were performed to examine potential effects of additional variables and constraints on the relationship between TAA-PNC and the biomarkers. We tested BMI as a categorical term in place of the linear term as: 1) underweight (≤18.5 kg/m^2) and normal weight (18.6–24.9 kg/m^2), combined due to low sample size in the underweight group; 2) overweight (25–29.9 kg/m^2); and 3) obese (≥30 kg/m^2). We also considered a quadratic term along with the continuous linear term to account for potential U-shaped associations. We evaluated the effects of including statin medication use, diabetes medication use (insulin or oral hypoglycemic), personal income in place of education, season of blood sample, and neighborhood in our models. We also stratified by CVD risk factors age, sex, BMI, nativity, race/ethnicity, smoking status, diabetes and statin medications. Additional stratification was by random vs. convenience sample and distance from highway. Because the exposure regression model predicted LN-transformed PNC at the residence, we

Table 2
Distribution of biomarkers of systemic inflammation (high sensitivity *C*-reactive protein, (hsCRP), interleukin-6 (IL-6) and tumor necrosis factor alpha receptor II (TNFRII)) and coagulation (fibrinogen) by population characteristics.

Characteristic	hsCRP (mg/L)	IL-6 (pg/mL)	TNFRII (pg/mL)	Fibrinogen (mg/dL)
	Median (IQR)	Median (IQR)	Median (IQR)	Median (IQR)
Total	1.27 (2.77)	1.28 (1.43)	2244 (1118)	448 (132)
City/neighborhood				
Near highway (<500 m)				
Somerville	2.02 (2.77)	1.74 (2.20)	2761 (1425)	470 (133)
Dorchester/South Boston	1.47 (3.91)	1.75 (1.92)	2155 (1018)	467 (124)
Chinatown	0.71 (1.63)	1.07 (0.90)	2004 (950)	425 (116)
Urban background (≥1000 m)				
Somerville	0.94 (1.02)	0.95 (0.87)	2252 (876)	410 (76)
Dorchester/South Boston	2.16 (5.40)	1.38 (1.31)	2137 (1038)	476 (287)
Malden	0.82 (1.32)	1.14 (0.78)	2315 (908)	492 (112)
Sex				
Female	1.18 (2.72)	1.22 (1.38)	2212 (1146)	456 (133)
Male	1.29 (2.73)	1.39 (1.56)	2349 (1001)	440 (131)
Age (quartiles)				
40–50 years	0.95 (2.06)	1.01 (1.10)	2100 (777)	424 (103)
51–60 years	1.58 (2.77)	1.22 (1.50)	2383 (778)	431 (137)
61–71 years	1.28 (2.79)	1.34 (1.80)	2509 (1199)	473 (120)
72–91 years	1.34 (2.83)	1.52 (1.71)	2762 (1334)	480 (147)
Smoking				
Current	1.40 (3.25)	1.44 (1.66)	2420 (1037)	460 (150)
Former	1.59 (2.78)	1.49 (2.06)	2440 (1427)	459 (140)
Never	0.91 (1.82)	1.16 (1.11)	2103 (1077)	439 (124)
Body mass index (kg/m^2)				
Under & normal weight (≤24.9)	0.66 (1.44)	1.01 (0.79)	2006 (846)	425 (114)
Overweight (25–29.9)	1.45 (2.26)	1.47 (1.47)	2462 (1012)	443 (116)
Obese (30+)	2.73 (4.71)	1.97 (2.25)	2590 (1517)	510 (179)
Race/ethnicity				
White non-Hispanic	1.61 (3.0)	1.63 (2.00)	2520 (1257)	454 (133)
East Asian	0.72 (1.53)	1.07 (0.80)	2042 (943)	435 (132)
Other	2.04 (4.06)	1.56 (1.39)	2183 (978)	473 (133)
Born in US				
Yes	1.81 (3.16)	1.69 (2.17)	2473 (1271)	467 (137)
No	0.82 (1.73)	1.14 (1.04)	2102 (1024)	439 (123)
Statin medication				
Yes	2.48 (5.51)	2.01 (2.41)	2775 (1634)	544 (151)
No	1.11 (2.10)	1.89 (1.24)	2176 (1005)	457 (124)
Diabetes medication				
Yes	2.06 (4.02)	1.75 (1.68)	2553 (1895)	506 (152)
No	1.27 (2.71)	1.31 (1.38)	2589 (1097)	447 (129)

Table 3
Distribution of time-activity adjusted annual average particle number concentration (TAA-PNC) by distance to highway groups and demographic variables.

Characteristic	TAA-PNC (10^4 particles/cm^3)[a]		
	Median	IQR	Min–max
Total	2.3	1.0	0.9–3.5
City/neighborhood			
Near highway (≤500 m)			
Somerville	2.4	0.3	2.0–3.1
Dorchester/South Boston	1.8	0.4	1.1–2.8
Chinatown	2.8	0.4	1.7–3.5
Urban background (≥1000 m)			
Somerville	1.8	0.2	1.6–2.0
Dorchester/South Boston	1.3	0.3	1.0–1.6
Malden	1.0	0.1	0.9–1.2
Sex			
Female	2.3	0.9	0.9–3.4
Male	2.2	1.1	0.9–3.5
Age (quartiles)			
40–50 years	2.2	0.9	0.9–3.3
51–60 years	2.3	0.8	1.0–3.3
61–71 years	2.2	1.2	0.9–3.4
72–91 years	2.6	1.0	0.9–3.5
Smoking			
Current	2.4	1.1	0.9–3.5
Former	2.2	0.8	0.9–3.2
Never	2.1	0.8	0.9–3.1
Body mass index (kg/m^2)			
Under & normal weight (≤24.9)	2.4	1.0	0.9–3.5
Overweight (25–29.9)	2.4	0.9	0.9–3.4
Obese (30+)	2.1	0.9	0.9–3.0
Education			
Less than high school diploma	2.6	0.7	0.9–3.5
High school diploma	2.4	0.9	0.9–3.4
Undergraduate	2.0	1.0	0.9–3.1
Graduate school	1.8	0.7	0.9–3.0
Race/ethnicity			
White non-Hispanic	2.0	0.7	0.9–3.1
East Asian	2.8	0.7	0.9–3.5
Other	2.2	0.7	1.0–3.1
Born in US			
Yes	2.0	0.8	0.9–3.1
No	2.6	0.8	0.9–3.5

[a] Significant figures for PNC are to the 0.1×10^4.

also evaluated associations for residential ambient annual average (RAA) PNC and LN-transformed TAA-PNC with the biomarkers.

To examine the shape of the exposure-response functions, we produced generalized additive models (GAMs) in R version 3.1 with locally-weighted scatterplot smoothing (LOESS) (R, Vienna, Austria; Trevor, 2013). Separate GAMs were produced with adjustment for CVD risk factors and for those factors plus race/ethnicity.

3. Results

The majority of the study population was female, above the age of 60 years, overweight or obese, current or former smokers, and born outside of the US (Table 1). Non-Hispanic white and East Asian participants constituted 42% and 40% of the population, respectively. East Asians were concentrated in the Chinatown and Malden study areas.

3.1. Biomarker concentrations by population characteristics

Differences in median blood biomarker concentrations by population characteristics are shown in Table 2. All four biomarkers were higher for participants who were older, a current or former smoker, born in the US, or using statin or diabetes medications. Biomarker levels were also higher in participants who were obese (25–29.9 kg/m^2) and overweight (25–29.9 kg/m^2). East Asian participants had lower median levels of all biomarkers than white non-Hispanics and the other race/ethnicity category. Sex was associated with a minor difference for IL-6, but not for any other biomarker.

3.2. TAA-PNC by population characteristics

There were differences in annual average TAA-PNC exposure by study area (Table 3 and Fig. 1). Chinatown participants had the highest median (28,000 particles/cm^3) and maximum (35,000 particles/cm^3) annual average exposures, while Malden had the lowest median (10,000 particles/cm^3) and minimum (9000 particles/cm^3) annual average exposures. Somerville participants experienced an exposure gradient based on proximity to Interstate-93 (median near highway annual average = 24.000 particles/cm^3; median urban background annual average = 18.000 particles/cm^3). Dorchester and South Boston participants had the lowest median near highway annual average TAA-PNC (18,000 particles/cm^3) out of the three near-highway neighborhoods, with an urban background median annual average of 13,000 particles/cm^3. Annual average TAA-PNC was higher among participants identifying as East Asian or born outside the US compared to those identifying as white non-Hispanics or born in the US. This is consistent with the preponderance of the East Asian population residing in Chinatown. Nevertheless, the range of TAA-PNC exposures for East Asians overlapped substantially with exposures for the rest of the study population. Additionally, median annual average TAA-PNC decreased with increasing educational attainment and was lowest among obese individuals (Table 3).

3.3. Association of TAA-PNC and biomarkers

In univariate analysis of the full population, there was almost no association between TAA-PNC and the inflammatory markers (Table 4). Bivariate analysis showed that adjusting for BMI, race/ethnicity, nativity and smoking status changed the effect estimate between TAA-PNC and all the biomarkers by >10%. Sex had a small effect on the relationship between TAA-PNC and IL-6, but not the other biomarkers. The descriptive statistics for biomarkers and TAA-PNC for racial and ethnic subpopulations (Tables 2 and 3) are consistent with the possibility of negative confounding, with unadjusted associations resulting in essentially null associations (Table 4). Consistent with negative confounding given patterns in Table 3, multivariable adjustment for age, sex, BMI, smoking status and education led to positive associations of TAA-PNC with

Table 4
Comparison of regression models for association between an interquartile-range change in time-activity adjusted annual average particle number concentration (IQR = 10.000 particles/cm^3) and biomarkers of systemic inflammation (hsCRP, IL-6 and TNFRII) and coagulation (fibrinogen).

Model	hsCRP	IL-6	TNFRII	Fibrinogen
	% change (95% CI)	% change (95% CI)	% change (95% CI)	% change (95% CI)
Unadjusted	−8.0% (−23.3%, 11.7%)	−2.1% (−12.9%, 10.2%)	−0.05% (−6.1%, 5.4%)	−3.3% (−7.0%, 0.4%)
Adjusted[a]	9.8% (−8.3%, 31.4%)	5.8% (−5.6%, 18.5%)	3.6% (−1.9%, 9.4%)	−1.9% (−5.5%, 1.6%)
Adjusted[b]	14.0% (−4.6%, 36.2%)	8.9% (−2.6%, 21.8%)	5.1% (−0.4%, 10.9%)	−1.9% (−5.5%, 1.6%)
Adjusted[c]	14.8% (−4.1%, 37.4%)	8.1% (−3.6%, 21.2%)	4.6% (−1.0%, 10.5%)	−2.1% (−5.7%, 1.5%)

[a] Adjusted for age, sex, continuous BMI, smoking status and education.
[b] Adjusted for age, sex, continuous BMI, smoking status, education and race/ethnicity.
[c] Adjusted for age, sex, continuous BMI, smoking status, education and nativity.

Table 5
Comparison of regression models for association between an interquartile-range change in time-activity adjusted annual average particle number concentration (IQR = 10.000 particles/cm^3) and biomarkers of systemic inflammation (hsCRP, IL-6 and TNFRII) and coagulation (fibrinogen) stratified into white non-Hispanic and East Asian participants.

Model	hsCRP	IL-6	TNFRII	Fibrinogen
	% change (95% CI)	% change (95% CI)	% change (95% CI)	% change (95% CI)
White non-Hispanic				
Unadjusted	36.3% (−0.9%, 73.5%)	28.7% (4.4%, 53.0%)	15.5% (7.3%, 7.8%)	2.3% (−5.6%, 10.2%)
Adjusted[a]	32.7% (3.7%, 67.2%)	22.6% (−0.2%, 45.5%)	16.8% (5.8%, 27.7%)	−0.02% (−0.7%, 0.7%)
East Asian				
Unadjusted	9.7% (−13.5%, 32.9%)	5.0% (−9.9%, 19.7%)	−0.3% (−7.9%, 1.3%)	−1.8% (−6.4%, −2.7%)
Adjusted[a]	6.1% (−18.3%, 31.0%)	2.6% (−12.2%, 17.3%)	0.1% (−1.2%, 1.4%)	−0.06% (−5.4%, 4.2%)

[a] Adjusted for age, sex, continuous BMI, smoking status and education.

hsCRP, IL-6 and TNFRII (adjustment a, Table 4). Separate adjustment by race/ethnicity (adjustment b, Table 4) and nativity (adjustment c, Table 4) increased the TAA-PNC effect estimates and strength of association for hsCRP, IL-6 and TNFRII, with the largest effect on hsCRP and IL-6. None of the associations achieved traditional thresholds for significance, but all had positive central estimates and some approached significance.

Table 5 shows results with the population stratified into white non-Hispanics and East Asians. In adjusted models, TAA-PNC was positively associated with IL-6 and significantly associated with hsCRP and TNFRII among white non-Hispanic participants. Effect estimates were similar in unadjusted and adjusted models. In adjusted models, East Asian participants had much smaller (and non-significant) associations between TAA-PNC and all three biomarkers of inflammation.

TAA-PNC was negatively associated with fibrinogen in unadjusted and adjusted analysis (Table 4). In adjusted models, stratification by race/ethnicity also resulted in little associations in non-Hispanic white participants. East Asians had a negative association that was attenuated following adjustment (Table 5).

3.4. Additional analyses

Statin and diabetes medication (insulin/oral hypoglycemic) use and season of blood draw were not significant independent predictors. Their inclusion modestly increased the effect estimates for the association between TAA-PNC and biomarkers of inflammation, but did not meaningfully change the relationships (Supplemental Table 1). BMI as a categorical term and as a quadratic term in place of linear BMI were also run in separate models and their inclusion did not meaningfully change the relationship between TAA-PNC and biomarkers. In a separate model we replaced TAA-PNC with the RAA-PNC which lowered effect estimates for hsCRP and TNFRII, but increased the effect estimate for IL-6.

Substituting personal income for educational attainment to account for socioeconomic status did not meaningfully change effect estimates of associations for biomarkers of inflammation or fibrinogen. Neighborhood was not a significant predictor for hsCRP, IL-6 or fibrinogen, but adjusting for neighborhood reduced the association between TAA-PNC and TNFRII to essentially null. Although our study was underpowered to fully explore interactions with TAA-PNC, we conducted a series of stratified analyses to further evaluate differences. In stratified analyses, associations differed by sex (IL-6, TNFRII and fibrinogen), age (hsCRP, IL-6), smoking (hsCRP, TNFRII), BMI (hsCRP, TNFRII), born in the US (IL-6, TNFRII), statin medication use (IL-6, TNFRII), and diabetes medication use (hsCRP, IL-6). Effects were generally greater in less healthy subpopulations. Log transformed TAA-PNC was examined and similar results were observed as for the non-transformed TAA-PNC (Supplemental Tables 3 and 4).

GAMs were built to examine the shape of the exposure-response curves. In unadjusted models, the curve for hsCRP was U-shaped, explaining in part the null findings in Table 3. However, adjusting for CVD risk factors and race/ethnicity in particular increased the slope at higher TAA-PNC levels, consistent with our stratified results by race/ethnicity and reinforcing the interpretability of our fully adjusted models (Fig. 2). For IL-6 and TNFRII, adjustment for CVD risk factors and race/ethnicity also increased the exposure-response function at higher concentrations. Fibrinogen had a negative exposure-response curve in the unadjusted and adjusted GAMs.

4. Discussion

We used exposure models with high spatial-temporal resolution joined with individual time-activity patterns and found positive non-significant associations between annual average UFP exposures and multiple biomarkers of inflammation (hsCRP, IL-6 and TNFRII). We also found a negative non-significant association with fibrinogen. Stratification by race/ethnicity showed that TAA-PNC had larger effect estimates and was significantly associated with hsCRP and TNFRII in white non-Hispanic, but not East Asian participants. The association with systematic inflammatory markers is consistent with either chronic induction of pulmonary inflammation leading to a secondary systemic inflammation response or a primary systemic inflammatory response through particle translocation into the circulatory system. Both of these are expected to lead to cytokine responses and production of proteins such as hsCRP, IL-6 and TNFRII (Araujo et al., 2008; Rückerl et al., 2011; Simkhovich et al., 2008). Our findings are also consistent with studies that found associations between short-term PNC exposure and increases in hsCRP, IL-6 and TNFRII (Delfino et al., 2008; Hertel et al., 2010; Fuller et al., 2014).

Our analysis adds to the small, but growing evidence for a role of long-term exposure to UFP in adverse cardiovascular health impacts. Our significant results for non-Hispanic white populations are consistent with findings from other recent studies evaluating cardiovascular effects or inflammatory markers among predominantly non-Hispanic white populations (Ostro et al., 2015; Viehmann et al., 2015).

We saw limited evidence of a negative association with fibrinogen, although associations were essentially null, especially in adjusted models stratifying by race/ethnicity. Fibrinogen is an acute-phase protein important to the coagulation cascade, but studies of its association with TRAPs are inconclusive. Studies of short-term exposure to particulate matter have found positive associations with fibrinogen (Ghio et al., 2003; Rückerl et al., 2007), null associations (Pope et al., 2004; Samet et al., 2009), and a negative association (Seaton et al., 1999). The lack of a positive association between TAA-PNC and fibrinogen in our analysis could be due to PNC having a different mechanism of action on coagulation compared to inflammation, although the two pathways are also interconnected (Levi et al., 2004). To better understand the mechanistic effects of PNC on coagulation, future studies could include analysis of biomarkers at various stages of the coagulation pathway such as plasmin, von Willebrand factor, and *D*-dimer, markers that have been more consistently associated with acute TRAP exposure (Riediker et al., 2004; Yue et al., 2007).

Our study differs from previous research on long-term residential UFP health impacts in that we used a more finely resolved spatial UFP model (20 m, compared to 1–4 km) that leveraged extensive ambient

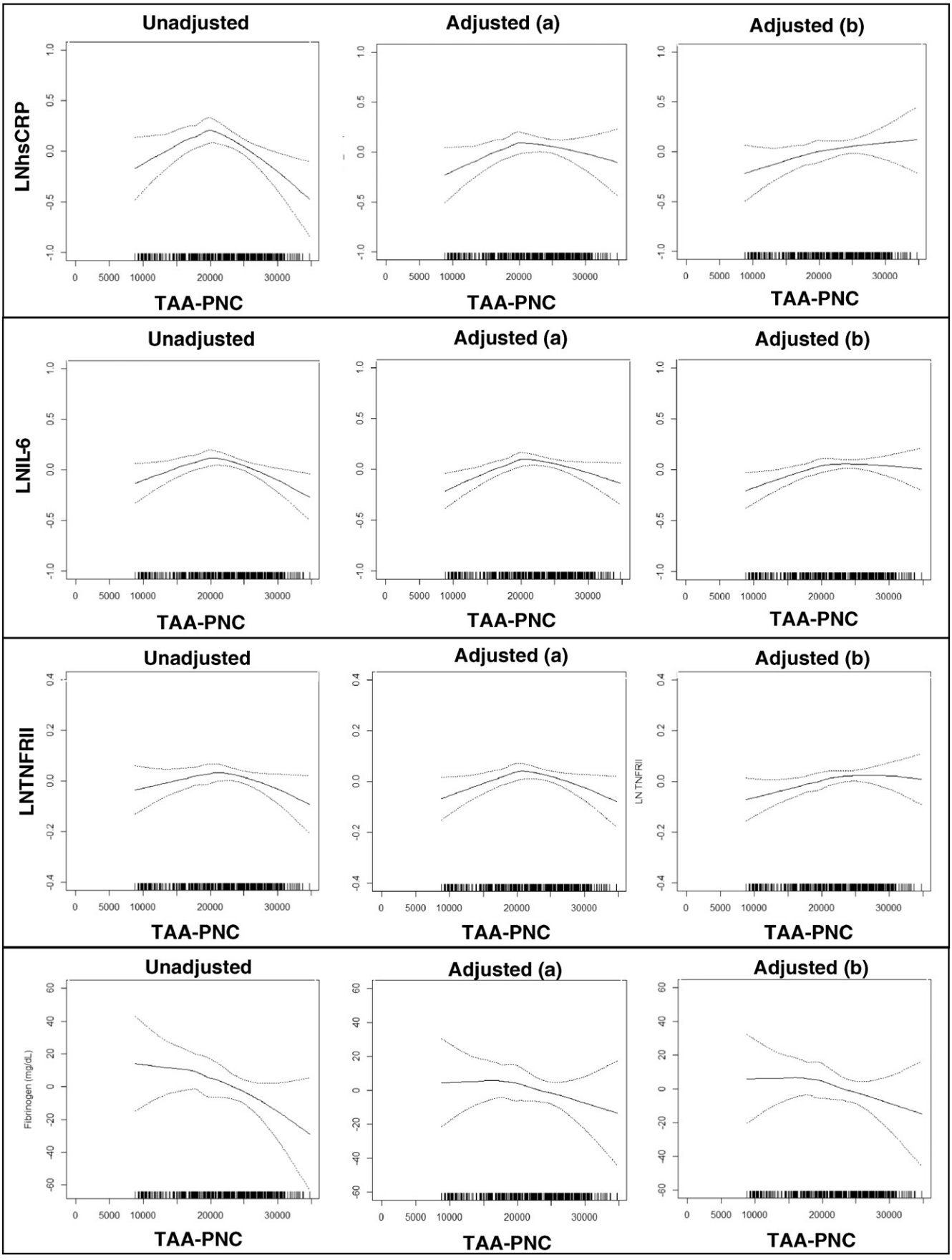

Fig. 2. Comparison of GAM with a LOESS TAA-PNC term for association with the biomarkers of systemic inflammation by additionally adjusting for race. Adjusted (a) for age, gender, BMI, smoking status and education. Adjusted (b) for age, gender, BMI, smoking status, education and race.

monitoring, combined with time-activity adjustment of exposures that may reduce exposure misclassification (Lane et al., 2015). We also had a diverse racial/ethnic study population, with a high percentage of East Asian participants (40%) who were not born in the US and who also tended to be the most highly exposed subpopulation. Interestingly, in our race/ethnicity stratified models for hsCRP, IL-6 and TNFRII (Table 5), we found white non-Hispanics had larger (and statistically significant) effect estimates compared to the East Asian participants. Previous studies have found differences in biomarkers of systemic inflammation by race/ethnicity (Corlin et al., 2014; Khera et al., 2005). Studies reported lower hsCRP concentrations in East Asian participants residing in the US compared to white participants (Albert et al., 2004; Kelley-Hedgepeth et al., 2008; Lakoski et al., 2006). Studies in Asia have also reported relatively low CRP levels (Ye et al., 2007). Similarly, in a prior analysis of the CAFEH study population, we found that East Asian participants had lower IL-6 and TNFRII as well as lower hsCRP concentrations compared to non-Hispanic white participants (Corlin et al., 2014). Studies have found that Chinese Americans have less CVD risk and lower inflammatory markers than other races/ethnicities (Palaniappan et al., 2004; Lakoski et al., 2006). A recent study found Chinese Americans had lower carotid intima-media thickness response to $PM_{2.5}$ exposures, irrespective of receiving higher exposures than white non-Hispanic and Latino race/ethnicities (Jones et al., 2015). It is possible that differences in systemic inflammatory markers by race/ethnicity lead to different response functions with ambient air pollutants. However, the mechanism remains unclear and could be related to differences in genetics, physical activity, nutrition and/or social cohesion.

We found differences in effect estimates by sex on the associations between TAA-PNC and TNFRII and fibrinogen. This agrees with previous literature of notable albeit non-uniform effect modification by sex on the relation of air pollution with inflammatory response (Clougherty, 2010). The lower association with TNFRII in women may reflect genetic differences that result in lower expression of TNFRII in female hearts compared to male hearts (Ramani et al., 2004). Differences in the relationship for fibrinogen may relate to differences in behaviors or activity patterns between men and women rather than genetic factors (Carter et al., 1997).

To help interpret our regression models, we can estimate the influence of both PNC and BMI on hsCRP in our study population. In linear multivariable models that adjusted for age, sex, BMI, smoking status and education, we found that a 10,000 particles/cm^3 change in TAA-PNC exposure was associated with a 14.0% change in hsCRP. Comparatively, a 1.8 kg/m^2 change in BMI would also be associated with a 14.0% change in hsCRP. To make this comparison more tangible, moving from exposure levels consistent with the urban background to exposure levels consistent with the near-highway neighborhood in Somerville (a change in median exposure from 18,000 to 24,000 particles/cm^3) would be associated with a change in mean hsCRP levels from 0.97 mg/L to 1.05 mg/L. In contrast, moving from a normal weight BMI of 22 kg/m^2 to an overweight BMI of 27 kg/m^2 equates to a change in mean hsCRP levels from 0.68 mg/L to 1.04 mg/L. Of note, our BMI effect estimates are slightly higher than those observed in another multi-ethnic study (Festa et al., 2001). Given that approximately 30 million Americans live within 300 m of a major roadway (US EPA, 2015), there could be significant public health implications from these small changes in hsCRP.

4.1. Strengths and limitations

Multiple aspects of the CAFEH study were strengthened by our collaborations with community partners. The initial impetus of the study originated as a request from the Somerville Transportation Equity Partnership. Community partners contributed to all aspects of the study, including overall study design, by providing expert local knowledge that helped us define study boundaries, design effective recruitment strategies, and improve geocoding by obtaining apartment floor plans through housing management. Community partners also collaborated with researchers on hiring and training of field staff, translation of documents, interpretation of results, writing of manuscripts and dissemination of findings.

The PNC regression model used here was developed from a dense mobile monitoring campaign that encompassed the residences of participants. This allowed us to model and estimate local hourly ambient PNC values. These values were subsequently adjusted for time-activity to produce individual TAA-PNC estimates, which may reduce exposure misclassification (Lane et al., 2015). TAA adjustment increased effect estimates in our analysis (Supplemental Table 4). Nevertheless, residual exposure misclassification likely remains due to the challenges in capturing all spatiotemporal contributors in a PNC regression model. Additional error may be due to inaccuracies in time-activity adjustment. However, our time activity adjustment was based on survey data that was highly reproducible (Lane et al., 2013), although it only covered five micro-environments.

CAFEH is a cross-sectional study; therefore we cannot determine the temporal nature of the exposure–response relationship or make causal inferences. In addition, our modest sample had considerable heterogeneity, especially for race/ethnicity, which complicated efforts to control for confounding. Our sample size also implies caution in interpreting the shape of the exposure-response functions in our GAMs, given substantially wider confidence intervals at the tails. Restricting the population to only random participants, however, did not substantially change our findings, increasing confidence generalizability.

PNC is correlated with other TRAPs such as road dust, other traffic-related coarse particles, particle-bound polycyclic aromatic hydrocarbons (pPAH), NOx, and CO (Johansson et al., 2007; Patton et al., 2014b), as well as traffic-related noise (Can et al., 2015). Exposures to these pollutants might confound or interact with PNC and each other (Karner et al., 2010; US EPA, 2015) and could explain portions of our observed associations. However, the mechanism by which gaseous pollutants like NOx influence cardiovascular health is less clear than for PNC. Further, $PM_{2.5}$ was shown to have little spatial variability throughout our study areas (Patton et al., 2014b).

5. Conclusions

We identified positive but non-significant associations of long-term TAA-PNC exposure with hsCRP, IL-6 and TNFRII, but not with fibrinogen, after adjusting for traditional CVD risk factors, including BMI and smoking status. Stratification by race/ethnicity resulted in stronger associations between TAA-PNC and biomarkers of inflammation among white non-Hispanic compared to East Asian participants. Adjustment by race/ethnicity also produced more interpretable exposure-response functions. Our findings reinforce the importance of studying near-highway PNC exposures and of examining differences in exposure patterns and associations among racial/ethnic sub-populations. Longitudinal cohort studies and multipollutant models will be needed to strengthen causal interpretation.

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Rodman, Marie Echevarria, and Barbara Anderson—for their dedication and hard work. We received analytical advice from David Arond, Mkaya M Mwamburi and Laura Corlin; as well as database support of Deena Wang. Luz Padró-Martínez, Jeffrey Trull, Eric Wilburn, Piers MacNaughton, Tim McAuley, Samantha Weaver, Caitlin Collins, and Jessica Perkins contributed to the mobile monitoring and PNC modeling effort. Funding for CAFEH was provided by the National Institute of Environmental Health Sciences (NIEHS) (Grant No. ES015462). Support for CAFEH was also provided by the Jonathan M. Tisch College of Citizenship and Public Service and the Tisch College Community Research Center at Tufts. Predoctoral support for KJL and APP was provided by the Environmental Protection Agency (EPA) Science to Achieve Results graduate fellowship program (Grant Nos.: FP-917349 and FP-917203). This manuscript has not been formally reviewed by the EPA. The views expressed in this manuscript are solely those of the authors, and EPA does not endorse any products or commercial services mentioned in this manuscript. MKS was supported by a JPB Environmental Health Fellowship award granted by The JPB Foundation and managed by the Harvard T.H. Chan School of Public Health.

Appendix A. Supplementary data

Supplementary data to this article can be found online at http://dx.doi.org/10.1016/j.envint.2016.03.013.

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June 17, 2016

Matthew Beaton, Secretary
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ATTN: MEPA Office
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Brian Golden, Director
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RE: Comments on the ENF and the PNF for the Back Bay/South End Gateway Project
MEPA: #15502

Dear Sirs:

WalkBoston reviewed the ENF and PNF for Back Bay/South End Gateway Project.

We are very interested in this project, which is superbly located to be served by public transportation, walking and biking. However, we have concerns about pedestrian access into, through and around the site which we would like to see addressed in the next project submissions. These are: 14.1

1. Relocation of the layover site for the Route 39 bus
   The proposal states that the layover site for the Route 39 bus will be located "off-site." Back Bay Station is one end of this bus route, which is one of the busiest in the MBTA system, serving Back Bay, the Fenway and Jamaica Plain. Buses congregate here and wait until schedules require them to return to the main route.

   This bus route is too important to the MBTA system and its many riders to shift the layover site to another location which could lead to a major change in the frequency of bus service. A layover location must be found nearby. 14.2

2. Sidewalks that surround the site
   Sidewalks along Stuart and Clarendon Streets have been designed at minimum widths for their functions. The MassDOT Design Guide calls for sidewalks in busy downtown areas of cities to be between 12 and 20 feet in width. These guidelines should be generously incorporated into the planning for this project. The City's Complete Streets Guideline Manual suggests that 8 feet is a minimum but prefers a width of ten feet. 14.3

   This is particularly important for the Dartmouth Street side of the project. Foot traffic on Dartmouth Street is already heavy and likely to increase, due to the new development and to moving the principal entrance to the station to the center of this frontage. The plan calls for a portion of the Dartmouth Street frontage to be as narrow as 8 feet at one point, and 13 feet otherwise. The 8' foot width, which appears along a planned ADA ramp into the first-floor retail area, is not adequate for this location. 14.4

Perhaps this width could be expanded by moving the ADA ramp into the retail area of the building or by selectively eliminating portions of the drop-off/taxi lane which extends from the station entrance to Stuart Street. Alternatively, perhaps a thoughtful reduction of the number of trees and their placement might be appropriate to widen the clear width of the walkway. 14.4 cont.

3. Garage exit on Dartmouth Street

One of the unfortunate consequences of the design for re-use of the Garage East and West portions of this project is the potential use of Dartmouth Street as one of the exits from the on-site garage. This appears to result from redesign of the existing garage which currently has two entrance and exit ramps.

The proposed new parking facility removes two the existing garage access ways – those leading in and out of the garage in drums connecting with Trinity Place . It retains the existing entrance and exit ramps on Clarendon Street. The design calls for no new entrance ramps. However, it calls for a new exit ramp that requires removal of the Turnpike on-ramp. If the Turnpike ramp is retained, the proponent maintains that there is a need for a replacement exit onto Dartmouth Street.

The proposed exit ramp onto Dartmouth Street is deeply consequential for pedestrian traffic. It is difficult to imagine a more inappropriate design than the insertion of a major vehicular exit from the garage onto the Dartmouth Street sidewalk, the primary pedestrian access route to and from Back Bay Station. Certainly there must be a better place to provide a garage exit than this, possibly by retaining one of the drums could be retained for exiting traffic directly onto Trinity Place. 14.5

4. The station area concourse

Back Bay Station was designed as a large arched hall, flanked on both sides by hallways leading to ticket and waiting areas. Each platform has its own stairways, escalators and /or elevators connecting the platform to the station concourse. Train platforms are split, with the Worcester/Amtrak Chicago line platforms near the north edge of the station concourse, and the New York/Amtrak Washington platforms near the south edge. Access to the Orange Line platform is directly in the center of the station, under the arched portion of the station structure. On either side, outside the arched hall, two wide concourses connect through the block between Dartmouth and Clarendon Streets.

Within the large arched hall, pedestrian movement is presently blocked for concourse movement by a fence that surrounds the major access stairways and escalators to and from the Orange Line. The proposal calls for a removal of some of this blockage and relocation of the two principal concourse pathways between Dartmouth and Clarendon Streets into the arched hall. The present concourses, outside the arched hall, are then repurposed for retail and other facilities.

The relocation or shrinking of the passenger concourses and repurposing the space occupied by the old ones raises a concern as to whether the new routes are sufficiently wide to handle projected growth in passenger volumes. Although it is uncertain what projections of passenger volumes might show, according to the project proponent, the 14.6

station already handles 30,000 passengers per day. The MBTA currently maintains there are 36,000 Orange Line passengers here, plus 17,000 commuter rail passengers. Amtrak may constitute an additional 2000 passengers. New projections of traffic should be undertaken to determine likely future volumes of people using the station. 14.6 cont.

With the knowledge of the likely future traffic of patrons of the Orange Line, the commuter rail lines and Amtrak, the plan must provide good access to and egress from the following locations:

- The Dartmouth Street entrance
- The Orange Line station (two stairways, escalators, one elevator)
- The underpass beneath Dartmouth Street to the Copley Place mall (one stairway)
- The commuter and Amtrak rail lines west toward Worcester and ultimately Chicago (two stairways, one elevator) serving 15 stations and communities
- The commuter and Amtrak rail lines that generally go south and follow the east coast to Providence, New York and Washington D.C. (two stairways, two escalators, one elevator) serving 47 stations and communities
- The proposed new passageway to Stuart Street and into the Garage West office structure
- Ticket machines for passes and Charlie cards for the subway lines.
- Amtrak ticket offices
- Commuter rail ticket offices
- Restrooms for the entire station concourse area
- Food and retail outlets proposed for the concourse level
- Food and retail proposed for the second level
- Food and retail outlets proposed for the third level
- Waiting areas including seating for passengers traveling by rail
- The existing and new parking garages in the Garage West/East areas
- The new residential building in the Station East area at the Clarendon Street end of the project

14.7

All but the last two of these movements take place primarily in a compressed space that extends about 100' from the main entrance on Dartmouth Street into the station. The proposal significantly diminishes this portion of the existing concourse, serving the movements listed above and lowering the space of the waiting area from 9,225 square feet (41 bays each roughly 15 feet square) to 6,075 square feet (27 bays, each roughly 15 feet square. It calls for eliminating the principal existing waiting area and replacing it with a large food service facility. All waiting passengers will be moved to backless benches located in busy pedestrian passageways, including the major entrance to the building. The proposal also calls for diminishing the size of the concourse by narrowing the existing passageways between Dartmouth and Clarendon Street and replacing them with retail space. It calls for new entrances to the proposed second and third levels in the midst of the existing waiting area. The proposal moves the ticketing area away from the waiting area and into new space along the proposed new passageway, where queuing to purchase tickets (now possible in the waiting area) will compete with pedestrian movement. It is hard to imagine that all these activities can be accommodated in the space planned. 14.8

A new design should be undertaken to accommodate the growing number of 14.9

pedestrians and waiting passengers as well as patrons of food and retail outlets who may choose to sit in this busy space. The existing waiting area should not be removed but instead enlarged to accommodate anticipated future use. Ticketing space should be provided close to passenger access areas. Access to and from the second and third levels should be moved away from the waiting area and into the space that is gained by closing the existing concourse passageways. Retail areas adjacent to the passenger waiting area should be scaled back to remove potential blockage of clear and very visible access to and from the stairways leading to transportation facilities below the concourse. Benches for rail passengers should not be relegated to busy portions of the concourse, especially where they might interfere with pedestrian traffic through the concourse.

14.9 cont.

5. Construction on the rail station platforms

The proposal calls for use of the station platforms for supports for the new high-rise building being built in the Station East portion of the project. These new obstructions narrow the platforms for waiting or alighting passengers and add complexity in an environment where moving to or from access points is already complicated. This true of both the Orange line platform, serving both directions for subway passengers and the southernmost railway platform serving commuter rail passengers to and from the south and southwest, including Providence, New York, Washington and the entire eastern seaboard.

Using the existing rail platforms for construction of these supports will obstruct passenger traffic during construction as well as after completion. Designs should be carefully integrated with existing obstructions such as columns to minimize interference with passenger traffic flow.

14.10

We are very concerned about the changes proposed for the station, the bus layover and the sidewalks and interior passageways. We would appreciate your consideration of our comments and look forward to your responses to them. Please feel free to contact WalkBoston with questions you may have.

Sincerely,

Wendy Landman
Executive Director

17 June 2016

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Re: Back Bay/South End Gateway Project

Gentlemen and Reviewers,

As a member of the Citizens Advisory Council, nominated by the Boston Society of Architects, and a resident of the Back Bay, I am submitting comments regarding the BBSE Gateway project.

As you know, the Boston Society of Architects/AIA is committed to advocacy on behalf of great design, and for sharing an appreciation for the built environment with the public. With more than 3,500 members, the BSA aims to a leader in educating designers, contractors, owners and the public about inspiring and environmentally responsible design, construction, operation and renovation of the built environment. The BSA believes that design responsibility extends beyond the design of high-performance buildings to include project siting and impacts on transportation, water, land, air and habitat, and provide healthier communities.

I believe that this mission and these commitments are a relevant framework for review of the proposed project. I believe that other CAC members, and the proponents of the project, share some of these same interests, which is appreciated.

However, The Boston Redevelopment Authority has asked for comments on Boston Properties' Project Notification Form now, in fact by today, well ahead of the completion of project presentations to the Civic Advisory Committee. This is prior to the promised, but not yet scheduled, public review of the Back Bay Station renovation project.

MEPA and Mass DOT are critically involved in this project, and have not yet conducted their reviews or, in the case of Mass DOT, confirmed or scheduled a public process for comment. Mass DOT has indicated that the review cannot be conducted until the Back Bay station has reached a 30% competed design point. Therefore, presentation about the project can be considered intentions, but not approved scope or program.

To date the CAC has heard progress reports, seen general renderings, heard varying statistics, options and data ranges for new population, potential construction phasing, transit routes and vehicular traffic.

possibilities for the station include renovation for the main arrivals and departures areas, introduction of more intensive retail, interior alterations, to added building height and increased retail for upper levels added to the the station.

Station

At Back Bay Station, work to date has been uneven. The quality of repair work on the original timbers laminated structure shows varied results. A pair of monumental original artworks commissioned for the station, paid by public funds through the Arts on the Line program, and executed by Stephen Antonakis, whose works are in the collections of the Metropolitan Museum of art, the Museum of Modern Art, and the Guggenheim Museum, have been removed. The Dartmouth Street glass façade is concealed behind advertising posters. Would private management propose the removal of original art, or bill boarding the facades for South Station, or MBTA and commuter stations? Clarity about the standards and obligations for this station is essential. Has MASS DOT approved these renovations? How will they be maintained, and how will the projects impact future transportation systems? How will the station and the systems accommodate new riders with inevitable increased demand? Because the CAC does not address the Back Bay station renovation, an integrated, confirmed and responsive public process to assess the State and MASS DOT issues as well as the city wide issues, is essential. 15.1

New Construction

Architecturally, the new towers remain only generally presented, with massing and emphasis on the complexity of the structural challenges that shape and restore the design, and focusing primarily on the Dartmouth Street office tower, its offset specifically designed to mitigate otherwise significant wind conditions.

Two residential towers on Clarendon Street have been generally outlined; a presentation on their grounds cape, or landscape, is forthcoming. Already the developers have said the site is “too tight” for an appreciable amount of outdoor green space. What is the plan for a humane and welcome presentation and urban setting for these large buildings? 15.2

Project Delivery

The timetable for the project implementation is unclear, and the related areas of access, such as the On Ramp to the Mass Pike, are undecided issues, which Mass DOT representatives indicate are not yet in their planning phases.

Issues I believe the CAC and community need addressed with more clarity, include:

- The MASS DOT approved plan for the station, its timetable, its balance of community-serving retail and public space, and its design. 15.3
- The specific management of auto transit routes, to create less impact on Copley Square, and neighborhoods and the already dense traffic. 15.4
- More about the design, and its intentions and expression. 15.5
- The ground level, particularly the amount and vitality of the landscape and green buffers that are essential to a humane and welcoming residential and commercial environment. Upper level terraces, which have been presented as amenities, are not urban settings for everyday use, not a substitute for ground level landscape and sitting areas. 15.6

- The future plans for transit improvement for the Back Bay Station—how does this project improve the Orange and commuter rail lines not further overcrowd them? How does this project ensure that new modes of transport are not precluded, but instead, enhanced? Will the complex structural gymnastics that the developer notes are needed for this project inhibit the viability of future infrastructure upgrades? 15.7
- An approach to improving the civic realm, in lieu of just conforming with the letter of the law. 15.8

The CAC has been presented with a shadow study that confirms that shadow will be added, but greater wind will not. Wind studies are often, sadly, predictively unreliable. More comparable information about how this setting will change the wind should be offered. The BRA has offered no comparisons between the early wind calculations for this site and wind elsewhere in the city—such comparable are needed. The great number of people who use this station deserve a better environment as they walk from the station to their destination—with light, and wind control. 15.9

- The impact on the Copley Square area
  This is a both a landmarks and civic question. This development location benefits from its proximity to some of the city's greatest landmarks: three historic neighborhoods, one of the country's greatest libraries, and one of the the nation's most iconic landmarks: Trinity Church. These unique resources revolve around Copley Square a much valued but limited landscape—and the only park that bridges two city districts. Adding more shadow to Copley Square may be legal, but it never could be described as civic, considerate, or beneficial. "As of right" does not mean it IS right. 15.10

- What are the more convincing public benefits of this project?
  I welcome responsible new development with opportunities for housing and public benefits, and seek to promote projects characterized by responsible planning, sustainability, service to the greater good, embracing good business practices, creating jobs: a balance of benefit and burden. A revised station, once confirmed, can be one, but beyond the station, more benefits need application to the immediate affected environment and community. 15.11

I encourage more specificity, emphasis on greater civic contributions, and improvements, as essential to this projects progress. The BRA and the state agencies are our voice to require the BEST design, the best environmental performance, not just the "conforming" compliances. 15.12

I urge leadership from the agencies to push design and quality standards beyond the merely legal and feasible to the platform of its setting—a city region long distinguished for its scale, architectural quality, and its enduring value to the entire community. I look forward to your response, with appreciation for the efforts of all those involved in this process. 15.13

Sincerely,

Ann M Beha FAIA

Padien, Daniel

From: Strysky, Alexander (ENV) <alexander.strysky@state.ma.us>
Sent: Thursday, June 16, 2016 4:41 PM
To: Padien, Daniel
Subject: FW: Back Bay Station Redevelopment

Alex Strysky
MEPA Office
100 Cambridge Street, 9th Floor
Boston, MA 02114

ph: (617) 626-1025
fx: (617) 626-1181

From: Tracy Pesanelli [mailto:pesanelli@gurobi.com]
Sent: Thursday, June 16, 2016 4:35 PM
To: christopher.tracy@boston.gov; Strysky, Alexander (EEA)
Cc: jyessian@gmail.com
Subject: Back Bay Station Redevelopment

Dear Sirs,

Last night, I attended a very informative presentation on the Back Bay / South End Gateway Project given by Boston City Properties. I do have a couple of questions/concerns?

1) I understand they are looking at creating a new office building as well as two residential towers. I understand the present garage will be redeveloped but I did not hear anything about adding any additional spots? This does not seem practical, where are all the additional cars that will be created by these new buildings going to park? 16.1

2) Also, along these lines, today both Clarendon and Dartmouth are saturated with traffic, is it reasonable to assume that either of these streets will be able to handle the additional volume of traffic that will surely be generated by these new towers….never mind the already approved projects at Copley Place and Trinity Place? 16.2

Thank you, I look forward to your response,
Tracy

Tracy Pesanelli
VP of Worldwide Sales
Gurobi Optimization, Inc.
Direct: 978-779-9957
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pesanelli@gurobi.com


GUROBI
OPTIMIZATION

90 Commonwealth Ave

Boston, MA 02116

May 30, 2016

Matthew A. Beaton, Secretary

Executive Office of Environmental and Energy Affairs

Attn: MEPA Office

Alex Strysky, EOEEA #15502

100 Cambridge St, Suite 900

Boston, MA 02114

Subject: Back Bay South End Gateway Project

Dear Secretary Beaton:

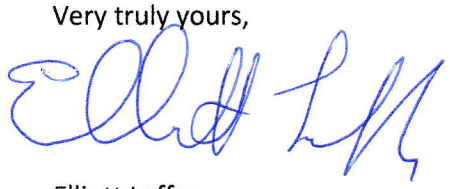
Thank you for the opportunity to comment on the Environmental Notification Form for the Back Bay South End Gateway. This is a project that, I believe, has the potential to have an important positive impact on a key site at the junction of the Back Bay and the South End. However, the planned site has many physical drawbacks that can make it difficult to construct without causing unacceptable negative impacts. Below I list a series of issues that I hope can be answered in the MEPA and concurrent BRA processes in ways that can mitigate these impacts. 17.1

1. Parking – While restricting new parking is often a way to reduce environmental impacts, in this case the proponent plans to add no additional spaces to accommodate demand from one office and two residential towers. At the same time, new towers at the adjacent 40 Trinity Place and Copley Place projects have been approved with no additional parking. While it is likely that the users of the new towers will be accommodated, what happens to vehicles that are now parking at the 100 Clarendon St and Copley Place garages? There is no space for additional parking on the streets. 17.2
2. Garage Exit – Under the base scheme, the proponent plans a garage exit onto Dartmouth Street. This is a very heavily used pedestrian pathway from the Back Bay to the Orange Line and commuter rail facilities at Back Bay Station. How are conflicts between the exiting traffic and pedestrians to be handled? In this transit oriented development, will the edge go to those on foot? 17.3
3. Shadows - The proponents have conducted preliminary shadow studies to show that they meet the standards for Copley Square in the newly adopted Stuart Street zoning. What is the shadow impact, if any, on the courtyard of the nearby Boston Public Library? 17.4

4. Wind – The proponent is in the process of conducting wind studies. Because there is a high likelihood that not all phases will be built simultaneously, and there may in fact be extended period when only part of the project is completed, what is the impact of the project at each interim phase? This is also important to study since the proponent is unsure of the order in which the phases will be constructed. 17.5
5. Transit Capacity – As the proponent has noted, the project is located at a transit hub that includes Orange Line, commuter rail, bus, and AMTRAK facilities, as well as the nearby Green Line. However, many MBTA lines have been operating close to capacity. Will there be transit capacity to handle this project along with the other approved projects in the area? 17.6
6. Bus 39 – This is the busiest bus route in the entire MBTA system, and it relies on the bus turnaround at Back Bay Station to hold multiple articulated buses to keep the route on schedule. The project includes a planned residential tower where the turnaround is now located. How will the Bus 39 operations be handled both during and after construction? It is unlikely that holding the buses on Clarendon Street will be an acceptable solution. 17.7

There will no doubt be other important questions to resolve so that the project will ultimately have a significant net positive impact. As a member of the Civic Advisory Committee, I look forward to working with the proponents and public agencies as they are answered. I hope that, through the MEPA process, you will be able to assure that these key questions are answered thoroughly.

Very truly yours,



Elliott Laffer

elaffer@aol.com

617-686-8469

Padien, Daniel

From: Strysky, Alexander (ENV) <alexander.strysky@state.ma.us>
Sent: Friday, June 17, 2016 8:47 AM
To: Padien, Daniel
Subject: FW: Back Bay Station Parcel and other developments - observations and questions. corrected copy I hope

Alex Strysky
MEPA Office
100 Cambridge Street, 9th Floor
Boston, MA 02114

ph: (617) 626-1025
fx: (617) 626-1181

From: Pamela Humphrey [mailto:pamela131humphrey@gmail.com]
Sent: Friday, June 17, 2016 3:40 AM
To: Strysky, Alexander (EEA); christopher.tracy@boston.gov
Cc: dtcnabb@nabbonline.com; Brian.Golden@boston.gov; william.brownsberger@masenate.gov; jay.livingstone@mahouse.gov; byron.rushing@mahouse.gov; aaron.michlewitz@malegislature.gov; michelle.wu@boston.gov; josh.zakim@boston.gov; annissa.essaibi-george@boston.gov; ayanna.pressley@boston.gov; bill.linehan@boston.gov; info@nabbonline.com
Subject: Back Bay Station Parcel and other developments - observations and questions. corrected copy I hope

Dear Members of Agencies tied to this project and others:

It is with deep regret that somehow I completely missed the significance of the Stuart Street zoning agreement. When seeing the development slides on what is being "imposed" (I use that word deliberately) on the Copley Street area (one of the few open spaces in the City - surrounded by iconic buildings and institutions) I was quite "blown away". It is astounding to me that the City has permitted such a vast amount of volume and mass in this area - within a block, and across the road from each other. I hear those referring it to a "gateway" to iconic and important neighborhoods. An attempt to gloss over the actual fact that it is a wall, separating the neighborhoods of Back Bay and the South End. Certainly the horse is out of the barn but it begs the question on how this could have happened without wild opposition. Indifference? Not paying sufficient attention? Opaque, confusing and uncoordinated process? Perhaps some of each.

These massive development projects, squeezed into every available open space and patch of land in the City is becoming a regular occurrence. The patch in front of Neiman Marcus is so small the answer was to go up to "the tallest residential building in the City" - as if that was worthy of praise.

I realize that we are a small City. That we will continue to have needs for development. However, because we are a small, iconic City the responsibility of Agencies who approve and govern these developments should, all the more, have the courage to have a bigger

vision other than just “bigger” and “more". I realize the pressures, economics…. however we once plowed ahead in earlier generations - City Hall Plaza being one, where a whole neighborhood disappeared in the name of “progress”. We are facing such circumstances now and I see NO lessons learned from that disaster in the current direction that is being taken.

The Seaport district is another great example. The area is filled with walls of buildings, grown like topsy.
+ sidewalks are often narrow
+ shadows are unlimited
+ the **City has made endless exceptions and set asides to developers to sidestep zoning, height and mass restrictions that are on the books**
+ Many of these set asides were done in the guise of “public benefit” spaces - in order to circumvent height/mass restrictions. Most are interior spaces. The Harbor Walk - which is praised as a wonderful public benefit -can’t even be seen any more for all the buildings lining it.
If there are open spaces and parks in the interior of the District I would love to know where they are - certainly not easily accessible as far as I can tell. So is the Harbor Walk “it”?
+The traffic in and out of the area is a major problem. Public transportation is insufficient. Bottlenecks (we are a small city!) are impossible. Who did the traffic study on this one? Who did the public transportation study?
+ the Chifaro project at the New England Aquarium - one of the few blocks remaining along the Greenway which conforms to Chapter 90A restricting height -is being challenged.

So on it goes.

Copley Square area:
In that I completely missed the boat on the building on the Neiman Marcus site and the one over the University Club, I forward questions on the above and current project - where, perhaps, the neighbors and those concerned might have some impact on the scope and issues surrounding it.

The following assume a considerable uptick in pedestrian and car traffic with the addition of these, close to each other, very large projects.
It also acknowledges that Dartmouth and Clarendon are the **primary two exits and entrances i**nto the immediate area-including exiting and off ramping to and from the Mass Pike.

+ **Pedestrian traffic:** critical times of the day the foot traffic in the area (and with the added traffic of the other new buildings in the block) is, and will be more so and significant. Dartmouth Street and Clarendon Streets are narrow. Particularly on Clarendon Street, individuals walk in the street to get around the crowds on the way to the BB station during rush hours. The residential buildings are being built in a way that, given this issue (Dartmouth has wider sidewalks-will they stay that way?) will become an even bigger problem. How do you plan to handle that? 18.1
+ **Drop off capability at both the Back Bay Station and the residential buildings:** The way that the drawings are currently drawn for this project - there is no, or extremely limited, drop off space for both the station and residential building l locations. Current plans suggest limited curb indent to accommodate some. It is extremely tight on that street and what little might be provided currently won’t be nearly enough given the increased traffic and gridlock on Clarendon and Dartmouth-particularly during rush hour. What is being 18.2

done? Will you consider internal drop off/turn around at the residential buildings rather than street curb drop off? Same at the Station along with bus entry/turnaround? 18.2 cont.

+**Bus 39 entry and drop off at Back Bay Station**: as currently designed there is no drop off/waiting space for this double length bus. Currently there is NO turn off or turn around space they way it is currently designed. Will there never be the need for additional busses using the Back Bay station for pick up/drop off in the future? Should we plan for that given limited bus stop capability in the area (current bus stops add to gridlock) and need to increase/encourage public transportation use? 18.3

+ **Entry and Exit into/out of garage: Current exit onto Clarendon stays? or does that become an entrance only?** - We now have heavily increased foot traffic. Exit onto Dartmouth would be - I don't want to even think about it. The least objectionable would be to exit onto Stuart Street, which provides several directional egresses to Mass Pike and Storrow Drive and is a wider street. What is the thinking about this and does anything work effectively that is currently not considered? 18.4

+ **There was public art in the Back Bay station.** It was, apparently in poor repair and is now stored. The city paid for this art for the Station. Whether one likes it or not it is by a well known artist whose work is in Moma and many other museums. What are we going to do about it? We are a city of the arts. 18.5

+ **Those "pesky" Green spaces and public benefits: Where are they in this - or in fact the other two developments?**

As mentioned in my preamble - the City has tended to accept interior spaces, or spaces above ground, as "public good benefits" and therefore, they are of limited benefit in fact. The project developers are committed to taking on the renovation of the Back Bay station - saving the City a lot of money in the process. HOWEVER, it is nice to be grateful but another to sell our soul for it by giving up important "humanizing" assets to counter this colossal density of development in a VERY small area in Copley Square. What are the plans? 18.6

+ **Shadows** - Copley Place is a wonderful place of sunshine and open air. Already, although, apparently within allowable limits, the Neiman Building is already creating shadows. Now what with these other two immense projects adding to it? 18.7

+**Flexibility in the renovation of the Back Bay Station:** what is being planned for future improvements and expansion of public transportation needs in the future? Will it be designed in a way that accommodates future expansion/upgrade so desperately needed and for sure will be needed in the future with the massive increase of population in this compact space. 18.8

+**Density created by these large buildings:** Clarity on the impact of the addition of huge numbers of people in this small area and future increased traffic that they will bring. It seems naive to believe that this won't be a huge problem. 18.9

+**Public transportation infrastructure:** It is short sighted to believe that any attempt to limit parking without proper public transportation infrastructure and increased capability will mitigate the impact of these dense building will have. Boston has a desperate need for upgrading of its infrastructure and has limited or no current funds to expand it to accommodate this influx of traffic and people. Do taxes from these projects cover what is needed in addition to other services? 18.10

What is the thinking to mitigate - which at the moment seems quite impossible. (The Orange Line, during rush hour has a hard time handling what currently exists).

+Traffic: The current off ramp from the Mass Pike as it approaches Dartmouth, under the current conditions is a gridlock during rush hours.

..The same is true on St. James as it enters the intersection at Dartmouth to the Pike.

..The two lane (**one lane for outbound to St. James from Stuart)**, between the hotel and John Hancock has loading dock entry and exit at the Hancock on it. The hotel also has much used commercial parking on the hotel side. IF the exit to this new development turns out to be onto Stuart, and partially onto this side street to get to the Mass Pike, that will increase traffic on this side street and Stuart multiple fold. How, during rush hour, and moving onto St. James is this possibly going to be handled? Can't imagine Marathon Monday let alone this. 18.11

..The one lane going from Stuart to St. James is also a MBTA bus turn in from Stuart to reach the bus stops on St. James. It frequently requires backing up going up to Stuart in order for busses to make the turn. The turn onto St. James for busses is also very tight. (ask the bus drivers). With this additional density how do you see handling the gridlock with this increased traffic caused by the density created by this and other buildings? 18.12

.. Dartmouth is **one lane** heading to Copley and the turnpike as well as going toward the South End.

This is a **VERY compact area** that the developers and city are requiring to handle all of this. What are your plans?**+Process:** The current process for approvals, community input, coordination of departments appears to be extremely disorganized and cumbersome. To what extent does the BRA, DOT, MBTA, Zoning and other agencies which review/approve/negotiate/decide set asides, uphold and create zoning laws on these projects coordinate? From a citizen perspective the communication systems and process seems poorly designed and managed. It appears to be a series of silos. Would very much like to be informed about your processes as a collective when dealing with development. I seem to hear a lot of "that is not our department". 18.13 18.14

+**Vision:** Boston is going through a huge development phase and there appears to be no indication of it slowing down any time soon.

Although there is talk/promise of the necessity to develop a **overarching, and well thought out Vision for the Boston of the future -** there is none. As a result buildings go up like topsy and on every available parcel, no matter how small. AND **we have NO money** for improving, increasing, extending and creating the infrastructure for public transportation. We only have to look at the Seaport District for the insufficient and poor public transportation planning for that area. How can the City expect, as a viable solution, that not providing sufficient parking, will limit or discourage cars when there isn't sufficient public transportation to get people here .

I get that additional taxes that these projects bring and they are certainly welcome. However, at the rate we are going we are going to face a rate of congestion and other issues, that will far outpace our ability to mitigate any time soon.

It also brings jobs - but don't workers have to live in Boston if they are union? Who can afford it? And we certainly don't have enough living here who qualify. Can affordable housing catch up? Imbedding the paltry amount in these buildings won't solve that problem.

So, given all this, where are we on the vision for development and growth for the CIty which does not create large future issues and problems? On the issues related to this particular development? AND, just 18.15

for consideration, does anyone have the courage to reboot the thinking on development before the very fabric of this special City - known for its size, livability, and character -is turned upside down?
P.S. I give you full permission to tell me I don't know what I am talking about. Would be very happy to be wrong!

18.15 cont.

31 May 2016

Secretary of Energy and Environmental Affairs
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
Alex Strysky, EEA No. 15502
100 Cambridge Street, Suite 900
Boston MA 02114

Back Bay/South End Gateway Project
While many of MEPA's responsibilities are minimal on this highly developed urban site, one of extraordinary importance to the citizens, businesses, Cities and Towns of Massachusetts stands out —the critical protection of the Commonwealth's transportation infrastructure.

The privatization of Back Bay Station, now leased to Boston Properties for 99 years, provides an exceptional opportunity to recover from years of neglect and prepare for a magnificent future. Now is the moment to get it right—a delicate balance of new retail and facilities that encourage the growth of public transportation access to Boston.

The MEPA filing, EEA No. 15502, covers the construction of new retail, office and residential towers on the site. It does not, however, detail the separate but critical changes to the station anticipated by Boston Properties and the MBTA.

The Secretary should require these internal and external changes to the Station and its immediate environment be analyzed and approved as an integral part of of this MEPA filing. Only by doing so can the Commonwealth's extraordinary investment over many years in the transportation network centered around Back Bay Station be preserved and enhanced over the 99-year term of the lease. 19.1

The Relationship of Back Bay Station to the Project
Back Bay Station is a transportation hub currently serving 55,000 people daily, who contribute to business activity as workers and consumers. Renovation plans should anticipate a doubling, even quintupling, the number of patrons. The Commonwealth's commitment to mode shift is being tested right here. Public transportation is environmental, practical and economical.

Back Bay is a walk-in station at the heart of Boston's High Spine and the developing Stuart Street Corridor. It provides layover for route #39, the bus route with the heaviest ridership in the MBTA system. This stop on the Orange Line is the fourth most heavily used rapid transit station in the MBTA network. Its prime location on the south and west Commuter Rail lines makes suburban access to Back Bay business and shops far preferable to a difficult automobile commute. And finally, serving more than one quarter of Amtrak's Boston bound passengers, Back Bay Station plays a critical role in reducing air travel along the Northeast Corridor.

The natural and human environment and the economy of Massachusetts require a fully functional transportation hub at this location.

Boston needs station improvements—a station that preserves the legacy of Governors Sargent and Dukakis, the citizens who stopped the South End Bypass and the Southwest Expressway and who put countless hours into the creation of the Southwest Corridor Park and, especially, Back Bay Station itself. This station is built on the legacy of A. Philip Randolph—whose statue graces the Waiting Room—and the Pullman Car Porters. The skill of the station architects, Kallman McKinnell and Wood, who were able to squeeze seven tracks and platforms into an extremely tight space with hardly an inch to spare must be respected. This station has been creatively set to accommodate the growing public transportation needs of this still-new century.

Questions which the Secretary should ask of the Developer:

- Will the proposed station layout, currently shown to eliminate the Commuter Rail/Amtrak Waiting Room as well as both primary circulation corridors, be able to serve Orange Line, commuter rail, Amtrak and bus patrons? 19.2
- Will the retail draw of shoppers to the station further compromise the station's ability to serve the region's transportation riders? 19.3
- Will the revised station be able to handle a doubling or quintupling of ridership that is likely on each of the seven tracks below, and is the developer prepared to make changes to the station, as required, to serve these new riders? 19.4
- Will income from the new retail provide sufficient financing to maintain and continuously update the station for the entire 99-year lease? 19.5
- How does the developer propose to deliver on its promise to improve natural light and air movement in the station if it adds a second, and possibly third, level of retail that will fully enclose the concourse? 19.6
- How will the multitude of drop-offs, pick-ups and especially bus connections to the station be improved? Particularly what will happen to the #39 bus if the existing turnaround is eliminated? 19.7
- When the developer moves the shop facades all the way out to the street line how will the sidewalks be able to handle the increased flow of pedestrians, cyclists, cabs, vans, cars and buses that will result from this Gateway project and from anticipated Back Bay development? 19.8

Back Bay Station was built to adapt and grow to serve the needs of the transit-riding public – those who come to work, to shop, to visit, to attend school and to otherwise enjoy and support Boston. Now is the time for the City and State to step up and assure the public interest will be preserved for the next 100 years.

Kenneth E. Kruckemeyer
12 Holyoke Street
Boston, MA 02116

Padien, Daniel

From: Padien, Daniel
Sent: Tuesday, May 31, 2016 12:00 PM
To: Melissa Schrock; Junghans, Mark
Cc: Lattrell, Seth
Subject: Gateway / Kressel Comment Letter and Request to Extend Comment Period / MEPA EEA# 15502 comment period.

Shirley Kressel comment letter and Request to Extend Comment Period / MEPA EEA# 15502 comment period.

From: Kressel Shirley [mailto:shirleykressel@comcast.net]
Sent: Tuesday, May 31, 2016 11:47 AM
To: Strysky, Alexander (EEA)
Cc: Livingstone, Jay - Rep. (HOU); Will Brownsberger 413C; Chang-Diaz Sonia; gloria fox; elizabeth malia; Aaron Michlewitz; linda dorcena forry; mayor@boston.gov; Ron Rakow; Tito Jackson; ayanna pressley; josh zakim; Michelle Wu; annissa essaibi-george; matthew omalley; Andrea Campbell; Matt Cahill; Jackie; Elliott Laffer; ab@annbeha.com; Ted Pietras; christopher.tracy@boston.gov; lauren.shurtleff@boston.gov; michael cantalupa >
Subject: MEPA EEA# 15502 comment letter

Matthew A. Beaton, Secretary
Executive Office of Energy and Environmental Affairs (OEEA)
100 Cambridge St., Suite 900 (9th Floor)
Boston, MA

Attn: Alexander Styrsky, MEPA analyst, via email (alexander.strysky@state.ma.us)

May 31, 2016

Subject: EEA # 15502
Back Bay / South End Gateway Project, 145 Dartmouth Street & 165 Dartmouth Street (aka 100 Clarendon Street), Boston
Proponent BP Hancock LLC through its affiliate Boston Properties Limited Partnership

Dear Secretary Beaton and Mr. Strysky:

I am writing to comment on the MEPA Environmental Notification Form (ENF) filed for the above project.

The proponent states that the project will seek tax and zoning relief under MGL Ch. 121A and 121B, as well as I-Cubed funding. These tax and regulatory waivers have very significant and long-lasting impacts on the city and the state. They are mentioned in the MEPA filing (screenshots attached) only by name, without any explanation of how the project would qualify for them, how they would be structured, and what would be the financial cost to the city and the state taxpayers. Without such full explanations of these waivers and their impacts, the BRA, state, City of Boston, CAC and public reviews of this project cannot be diligent and complete. I ask that MEPA mandate these disclosures at the outset, for public consideration as an integral part of the project review. 20.1

I request that the proponent be mandated to provide:
-- detailed calculations demonstrating the need for, and amount of, each granted and contemplated city and state tax subsidy (including MassDOT lease and other financial terms) 20.2
— information detailing the specific regulatory changes to be sought via Chapter 121B Urban Renewal Plan modifications, and 20.3
— details of the contemplated Ch. 121B Section 46(f) Demonstration Project, which would evidently involve eminent domain takings for what the proponent calls "title clearance." 20.4

I also note that, although the MEPA ENF was filed on April 14, the CAC members did not receive it from the BRA until May 27, mid-day Friday of the long Memorial Day weekend, the day after their most recent BRA-scheduled meeting; and today's May 31 deadline comes long before the next CAC meeting, scheduled for June 15. Thus, the CAC has had virtually no time to review the ENF before today's comment deadline. This timing, no doubt inadvertently, precluded the opportunity for a public CAC discussion of the ENF. 20.5

The BRA has extended its comment period of this complex project until June 17, and typically, MEPA review periods have been extended to match extended BRA deadlines. I ask that the MEPA comment period be extended to June 17, to allow opportunity for a more comprehensive, integrated and coordinated review process by the CAC, reviewing agencies, and the public, covering all facets of the project.

Thank you for your consideration of my comments.

Shirley Kressel

Boston Redevelopment Authority	▪ Review under Article 80, including Large Project Review, as required pursuant to Article 80B of the Zoning Code and PDA[3] Review, as required pursuant to Article 80C of the Zoning Code ▪ Green Building Report(s) and Resiliency Checklist(s) as Part of Article 80 Review ▪ Development Impact Project Agreement(s) pursuant to Article 80B-7 of the Boston Zoning Code ▪ Cooperation Agreement(s) ▪ Affordable Housing Agreement(s) ▪ Boston Residents Construction Employment Plan Agreement(s) ▪ Certification(s) of Consistency and Compliance ▪ M.G.L. c. 121A approval and attendant documentation and agreements (as required) ▪ M.G.L. c. 121B approval (as required)

Which MEPA review threshold(s) does the project meet or exceed (see 301 CMR 11.03)?

11.03(1)(b)6: May require approval in accordance with M.G.L. c. 121A of a New urban redevelopment project consisting of 100 or more dwelling units or 50,000 or more sf of non-residential space.

F. Does the project require approval of a new urban redevelopment project or a fundamental change in an existing urban redevelopment project under M.G.L.c.121A? _X_ Yes ___ No; if yes, describe:

The Project may require approval of a new urban redevelopment project under M.G.L. c. 121A.

G. Does the project require approval of a new urban renewal plan or a major modification of an existing urban renewal plan under M.G.L.c.121B? __ Yes _X*_ No; if yes, describe:

***Action in accordance with an existing Urban Renewal Plan or Approval of a Demonstration Project under M.G.L. c. 121B might be needed for title clearing purposes.**

Identify any financial assistance or land transfer from an Agency of the Commonwealth, including the Agency name and the amount of funding or land area in acres:

- One of more Air Rights Development Agreements with MassDOT
- Potential approval of Project under MGL 121A
- Potential approval, in accordance with an Urban Renewal Plan or Demonstration Project in accordance with M.G.L. Chapter 121B
- Potential I-Cubed Funding (Infrastructure Investment Incentive Program)

Shirley Kressel
27 Hereford Street
Boston, MA 02115

Strysky, Alexander (EEA)

From: Paula Griswold [PGriswold@macoalition.org]
Sent: Friday, June 17, 2016 5:56 PM
To: 'christopher.tracy@boston.gov'; Strysky, Alexander (EEA)
Cc: 'dtcnabb@nabbonline.com'
Subject: Questions related to Project Notification for the Back Bay Station Project Site

Dear Mr. Tracy and Mr. Strysky,

I appreciate the opportunity to submit questions related to this substantial proposed project.

Could you please provide information addressing the following:

- How will the planned design and uses enhance the use of public transit for the residents, and employees and customers of businesses/offices that are part of the proposed project, as well as residents of the surrounding neighborhoods, and employees and customers of other businesses/offices that are in the area? 21.1

- How will the project coordinate with MassDOT and the MBTA regarding the Back Bay Station design, especially given the schedules of the planning, design, and approvals of each 21.2

- How will the project affect traffic through the Bay Bay neighborhood (Newbury to Beacon, Arlington to Charlesgate) – both in the short term with construction and long term with ongoing use - as residents, employees, visitors/customers try to reach other major routes in and out of the city? 21.3

- What will be the total amount and flow of traffic, including the currently approved projects along Stuart Street? 21.4

- How can traffic be managed/modified to avoid impact on the residential streets of the Back Bay if the actual volume and flow does not match the assumptions during the planning process? 21.5

- How can public transit use be enhanced if the actual use does not match the assumptions during the planning process? 21.6

-What zoning relief has been requested or is being considered, including amendments to the PDA, and variances from the Stuart Street Zoning Requirements ? 21.7

Thank you for including the community in the planning process for this project, given the significant and potentially permanent impact on our city and our neighborhood. 21.8

Paula Griswold
329 Beacon Street Boston

Strysky, Alexander (EEA)

From: pam@lassiterconsulting com [pam@lassiterconsulting.com]
Sent: Friday, June 24, 2016 10:46 AM
To: Strysky, Alexander (EEA)
Subject: Feedback re Gateway/Back Bay Station project

Hi, Alexander,

Thank you for your environmental oversight of the Gateway/Back Bay Station project as it continues to develop. MEPA's involvement is critical. I'm a Back Bay resident and would like to share my thoughts post attending a Boston Properties presentation about this large undertaking.

I needed to leave the presentation after 1.5 hours, so let me share with you my main concern: the subjects that did *not* get addressed. (Maybe they were all covered in the last 30 min that I missed?) Most of the time was spent on the Back Bay Station and the conversion of the garage next to it. What was not discussed was the impact of the two giant buildings behind them, a tower and an office building, the elephants in the room. My guess is that they will create much more impact on our lives than the first two buildings re number of people coming in and out, traffic, weight on our Back Bay pilings, etc. (Trinity Church still is reacting to the John Hancock tower.) 22.1

They were proud that one of their towers will only cast one hour and 54 minutes more of extra shade across the city, overlapping with the shade cast by the Hancock tower for some of that time. That's still a big deal given the finite sun we have in Boston in general and during the precious summer time in particular. 22.2

Shutting down the Clarendon St entrance to the Turnpike sounded like their preference. They showed maps showing other ways people could exit from their buildings casually referring to use of Berkeley St, Newbury St, etc. These streets are already messes at rush hour. 22.3

The *Boston Globe* and other publications have recently reported occupancy is down at the Hancock Tower. This may not be the time to over-build on the commercial side so I can't support residential and office towers that are as large as they're proposing. Thank you for your help in keeping our city so livable and sustainable for the long term. 22.4

Pam Lassiter
330 Beacon Street
Boston, MA 02116

Padien, Daniel

From: Strysky, Alexander (ENV) <alexander.strysky@state.ma.us>
Sent: Friday, June 17, 2016 8:48 AM
To: Padien, Daniel
Subject: FW: Comments on MEPA #15502-- Back Bay/South End Station Gateway Project
Attachments: BB-SE Station 6-16-16.docx

Alex Strysky
MEPA Office
100 Cambridge Street, 9th Floor
Boston, MA 02114

ph: (617) 626-1025
fx: (617) 626-1181

-----Original Message-----
From: Ann Hershfang [mailto:annhershfang@gmail.com]
Sent: Thursday, June 16, 2016 9:25 PM
To: Beaton, Matthew (EEA)
Cc: Strysky, Alexander (EEA)
Subject: Comments on MEPA #15502-- Back Bay/South End Station Gateway Project

Dear Secretary Beaton,
Attached below are some of my many concerns about how the Back Bay/South End Gateway Project is dealing with changes inside the station. My understanding is that at an early public meeting MassDOT's Director of Development stated that the ongoing public meetings were for the buildings aspect of the project but the changes to the station itself would be handled by MassDOT and the MBTA without public involvement. I hope you will help reverse that intention.

Thank you,
Ann Hershfang

6-16-16

Proposed repurposing of Back Bay/South End Station

Shifting responsibility for maintaining the Back Bay/South End (BB/SE) Station from the MBTA to Boston Properties could be a very positive development. However, the plans for changes to the station, apparently under the aegis of MassDOT, MBTA and BRA, should not be allowed to proceed without public involvement, as was apparently stated by MassDOT's Director of Development. at an early meeting 23.1

We should remember that some 15 years ago the MBTA made plans for South Station that would have built towers above it and massive support posts coming down in the middle of, and destroying, the commuter rail and Amtrak waiting area. Citizen opposition prevented that plan and preserved a welcoming, comfortable waiting area. North Station also, the third major rail hub in Boston, was redesigned without significant citizen input and became vast, featureless and confusing, and almost possible to find the trains, ticket windows or waiting area. A similar mistake must be avoided for the Back Bay/South End Station.

Below are a few of my concerns about the current plans. I also support the matters raised in letters from Ken Kruckemeyer and WalkBoston. 23.2

Issues raised by changes proposed inside the station:

--the decrease of waiting space (and comfort) inside the BB/SE Station due to elimination of the commuter rail waiting area, 23.3

--a careful analysis as to whether the proposed public waiting areas will be adequate and comfortable enough to pleasantly accommodate rail users, transit riders, retail and food outlet shoppers, and through traffic, 23.4

-- circulation through the station, 23.5

--data about the number of current rail and transit users inside and outside, 23.6

-- projected increases in transit and rail users resulting from new construction,

--increased parking demand and facilities to accommodate the growth, 23.7

--access through the station between Dartmouth and Clarendon Streets, 23.8

--location of and impacts of building support posts on station platforms, 23.9

--plans to replace the neon artwork formerly at the entrances to the station. 23.10

Issues raised by changes outside the station:

--data about current traffic and pedestrian numbers on the sidewalks and roads,

--projections for traffic and pedestrian growth from the increased transit and rail passengers, and the many new buildings in the area, 23.11

--the Dartmouth Street sidewalk narrowed to 8 feet from its current generous width cannot possibly handle the pedestrian traffic, 23.12

--trees in planters at the sidewalk edge will only worsen the problem, 23.13

--removal of the protective overhang on Dartmouth St., 23.14

--impacts of eliminating the Clarendon Street ramp into the MassPike, 23.15

--cars exiting from the garage across the Dartmouth St. sidewalk in conflict with pedestrians, 23.16
--capacity of Clarendon, Dartmouth and Stuart Streets to serve future traffic,
--ability of existing roads and intersections around and near the station to accommodate the growth, as well as in Copley Square in general, 23.17
--vehicle circulation patterns from changes in garage entrances and exits and elimination of the Clarendon Street Turnpike on-ramp,
--impacts on Columbus Avenue and adjacent residential districts, 23.18
--location of the layover for the #39 bus, with its high ridership and long route, 23.19
--assurance that the fix of the ventilation problem will not spew the smoke out of the vent stacks at West Newton Streets onto Titus Sparrow Park and the Southwest Corridor Park. 23.20

Changes to this station should not be made without serious conversations with its users and the residents of adjacent communities. 23.21 It was the effort of those residents from 1969-1989 that defeated proposed interstates and saved commuter and Amtrak rail service into Back Bay/South End Station from being eliminated as planned by the State and City. The citizens then worked to redesign the rail ROW, design the BB/SE Station and create the Southwest Corridor Park. These efforts helped give the Copley Square area the vibrancy that is now bringing development plans for at least five new high-rises. Excluding the public from having input into the proposed changes is inappropriate and short-sighted. The BB/SE Station must remain a facility designed with and for the public.

That being said, after about 30 years, the station certainly needs perking up and better use of its space. The prospect of having it well maintained by Boston Properties is hopeful, ending its neglect by the MBTA. In general, from the presentations I have attended, Boston Properties seems to be doing a thoughtful job of development, with top-notch consultants. Here's hoping State and City agencies will follow their example.

Sincerely,

Ann Hershfang

Susan D. Prindle
140 Marlborough St.
Boston, MA 02116

June 16, 2016

Matthew A. Beaton, Secretary
Executive Office of Environmental and Energy Affairs
Attn: MEPA office
Alex Strysky, EOEEA #15502
100 Cambridge St.. Suite 1900
Boston, MA 02114

Re: Back Bay South End Gateway

Dear Secretary Beaton,

I appreciate the opportunity to comment on the proposed Gateway project. If completed, it will be a significant addition to the area, but one which could have unanticipated negative impacts on the surrounding historic structures and on adjacent neighborhoods. I would like to outline a few of my concerns:

Shadows on Copley Square. While I appreciate the fact that Boston Properties is respecting the Stuart Street Guidelines regarding Copley shadow, I hope that they will be asked to consider whether the loss of sunshine could be ameliorated by changes in the massing of the proposed structures. Once the sunshine is gone, the loss cannot be mitigated. Reduction in shadows on the Public Library Courtyard should also be carefully considered. 24.1

Wind is clearly the most significant environmental problem in building in the Stuart street area. Mr. Pelli has made a valiant attempt to mitigate wind shear around the office building, but the residential buildings, from what I have seen, are unrelieved vertical towers that may well exacerbate conditions on Clarendon Street, which are already dangerous. Any wind study should include intersections on Clarendon at Boylston and Newbury Streets, as well as intersections into the South End. 24.2

It is unclear how the wind studies will be managed if the project is built piecemeal. Will additional wind studies be required if the residential buildings are built before the office building or vice versa? 24.3

Copley Square is especially sensitive to high winds. Multiple points should be studied in the park. Areas that are comfortable for sitting should be maximized. Existing conditions should be verified here and in the Stuart Street area by real-world testing. 24.4

Urban Design. I believe that overhead pedestrian walkways are not the answer to moving people and cars simultaneously. Rather, the proponent could help Simon Properties improve the lighting and signage in the existing tunnel under Dartmouth. Widening the Dartmouth Street sidewalk and improving pedestrian safety and access should also be considered. The 25' setback required along Dartmouth St. is important to preserving the area's skyplane, already impacted by the proposed Simon Tower; this issue should be looked at carefully. On the plus side, I applaud the proponent's efforts to create permeability at the site. 24.5 24.6

The Stuart Street Zoning requires the creation of 2.5% more affordable units than is required by the applicable Mayor's Executive Order on Inclusionary Development. Given the crying need for low and moderate income housing in the city, Will Boston Properties be asked to comply with this requirement? 24.7

It has been the city's policy to rely on utility providers to attest that there is sufficient capacity in their systems to accommodate proposed new construction. Given the amount of new construction in the Stuart Street area, it would seem prudent to require more detailed proposals from the gas, electric, and water and sewer providers as to how they plan to upgrade their systems to accommodate the new demand. I believe this should be done before approving the project. 24.8

The issue of the impact of increased traffic in the surrounding neighborhoods is significant. Already we have noticed a perceptible increase in traffic on the cross streets in the Back Bay. The Stuart Street Guidelines ask that traffic be studied along Clarendon and Berkeley Streets all the way to the Storrow Drive intersection. Since 1/3 of the automobiles coming to the Gateway site are projected to come from this direction, it is important that this commitment be fulfilled. 24.9

The impact of the proposed closure of the Clarendon Street entrance on surface streets should be carefully studied before the city takes a position on the closure. The Turnpike is right to be concerned about merging and tie-ups, but moving cars to neighborhood streets is not an acceptable answer to their problem. Use changes in the proposed buildings (from residential to office, for example) would impact traffic counts; should such a change be proposed, amended traffic studies will be critical. 24.10

It is important to have real data on the existing garage use and its capacity, as well as those of surrounding garages. If adjacent garages are already full, how will existing parkers be accommodated? 24.11

Finally, there is a real question of whether the T can accommodate the number of passengers the new development will generate. Will the T be required to develop a plan to cope with the increased ridership? It is critical that the proposed station renovations be designed so that they do not impede vital improvements to mass transit. 24.12

Thank you again for the opportunity to comment.

Sincerely,

Susan D. Prindle

Cc:
State Senator Will Brownsberger
State Representative Byron Rushing
State Representative Jay Livingstone
City Councilor Josh Zakim

BACK BAY/SOUTH END GATEWAY PROJECT - A LOST OPPORTUNITY

Have we a failure of leadership at the BRA, City Hall, the Department of Transportation, even the Governor's Office?

We have now seen presentations of the vaunted Back Bay/South End Gateway Project.
What is missing? What is wrong? Is this anti pedestrian, anti transit, anti bus, anti bike, or just plain uninspired urban design? The problem as always seems to be an inability to think outside of the parcel…… outside of the box. The public and civic streetscape is either ignored, or there is even a private taking of public space and benefits. We need a planning team which can focus on civic values and public space is this and every project in Boston. 25.1

Let's look at this project from three aspects: 25.2

A. Problems in urban design. Lost opportunities.
B. Assets of the existing context.
C. Real solutions for a prosperous future… for the public, for the developers, and for our city.

A. PROBLEMS IN URBAN DESIGN

BAD PRECEDENTS

- There has already been a taking away of a public sidewalk and a public arcade in front of the Back Bay Station… this was replaced with a "burger joint". Sadly this seems to have set the impoverished tone for this project.
- The BRA's Copley Place tower project (now underway) will take away the horse sculptures and the open space. It will also cast a long shadow over the surrounding area and even Copley Square (as seen in the recent presentations for the Gateway Project). 25.3

PROPOSED

- Taking sidewalk width from the east side of Dartmouth Street.
- Taking arcade cover from commuters,shoppers, visitors to the city along the same side of Dartmouth Street… this starts at Back Bay Station and continues all the way to Saint James St. Proposed is a narrow sidewalk with no cover and a blank Garage wall overhead.
- The intersection of Stewart and Dartmouth is the intersection from hell. Pedestrian injuries are just waiting to happen…. cars barrel out of the turnpike ramp and roar past this pedestrian crossing. The Mayor's Vision Zero has become Zero Vision. There is no plan to ameliorate this condition, no leadership. 25.4
- Dartmouth Street renderings show a sea of asphalt from curb to curb between the now narrower sidewalks.
- The ultimate irony… the plan proposes to tear down the West Hancock garage to build the new tower, and then rebuild a new West Hancock Garage for cars again… this is outdated zoning. Even DOT should now by now: more parking = more cars on the street, more air pollution, a degraded pedestrian environment. All this with transit within 100 feet! And this rebuilt four story garage dominates Dartmouth Street in this non-design. We can hardly blame developer for the lack of BRA leadership. Without guidelines from the BRA (or with failed guidelines from the BRA) the developer has created an internal hidden mall...draining life from Dartmouth Street (and placing the pedestrian entrance to this mall facing the Stewart Street "automobile alley"). 25.5
- Even now when we know better, the plan contemplates a ramp dumping automobile traffic onto Dartmouth Street. Anti pedestrian, anti civic, anti environment.

- And what is with the crazy angles of the West Hancock Garage Tower? Across Stewart Street is the Copley Plaza block… a traditional four square dignified and tradition urban form. Again no guidelines from city/BRA…… no leadership. 25.6
- A wind tunnel test was done at a scale of 1 to 400. This is like placing a comb in front of a hair dryer. Guess what? The tests show no wind problems for a 40 story tower! Sensors everywhere on the model divert attention from the critical intersection of Dartmouth and Stewart. 25.7

All of this is destructive of civic and public values. This is **GRAY** development…there is no added value for the public. It becomes a dead environment. This un-plan drains value from both the public and the private spheres. We need **GREEN** and prosperous design in our city.

And we have not even touched on the plans for the Back Bay Station… architecture by amputation. (Please see Ken Kruckemeyer's excellent analysis of the station project… he says it better than anyone.)

In this project we can see the failure in leadership from the BRA, the Mayor's office, DOT, the Governor…… and even the City Council for approving six more years of this mindless BRA machine, with no public benefit and with toothless City Council oversight.

Where is the beautiful reformed BRA birthday cake the Mayor promised the city?

Instead of the cake…we are left with burnt muffins.

B. ASSETS OF THE DARTMOUTH STREET SPACE AND CORRIDOR.

- The Southwest Corridor is a gem… built over the tracks, it is Boston's High Line.. or perhaps our LOW LINE. It terminates in a public open space with cafe tables, city bikes, and pedestrian safety.
- The Back Bay Station. This is a true gateway… with the commuter rail to Rhode Island and Connecticut, and with the proposed North-South Rail Link to points north even to New Hampshire and Maine. Of course there is AMTRAK with access to the East Coast. And the Orange Line. The 39 bus. An underpass to Copley Place. And a head house to Clarendon Street from the tracks. (Again please see Kruckemeyer.)
- Back Bay Station - the Architectural Design: this station was designed as a Roman basilica with center and side aisles and clerestory daylighting ... Like the unloved City Hall, and the Hines, it is a true civic landmark reflecting the post war rebirth of the city. (There is now a book about this so-called Brutalist architecture.) It is monumental…… it is classic.
- THE LANDMARK BENCH..… here sit all walks of life… indigents, homeless, (they rarely but occasionally scream at each other), suits, panhandlers, our friend and artist Leon who greets all with smiles and therapeutic conversation, while selling newspapers. This is Boston's THREE PENNY OPERA. Is there a place for this opera in the new plans?
- Dartmouth street is fortunately wide… there is room for pedestrians, bikes, uber/taxi drop offs, even landscaping and green plants.
- The Copley Plaza block is a dignified neighbor whose context should not be ignored. 25.8
- Copley Square with its Farmers' Market, concerts, etc. And of course the historic surrounding architecture.
- Dartmouth Street even has connections north to Commonwealth Avenue Mall, bikeway, and Esplanade Concerts, the Charles River, fireworks.

- Transit is everywhere in the three block area from Columbus to Boylston - AMTRAK, commuter rail, Orange Line, the bus kiosk in Copley Square, the Logan Airport Shuttle, Hubway Bikes, (some) wide pedestrian sidewalks, and not one but four Green Line routes converge in this area. Eight transit modes.

C. OPPORTUNITIES, SOLUTIONS.

How best to create value for a prosperous future for this development and our city? We need a new template for development and planning that can plan to:

- Preserve the SOUTHWEST CORRIDOR LOWLINE… and extend it across to the Back Bay Station. 25.9
- Preserve the station porch and the THREE PENNY OPERA representing all walks of life in Boston. 25.10
- Preserve sidewalks…make these wider. Preserve cover and expand cover… two story arcades provide cover with adequate daylight. 25.11
- Bring life back to Dartmouth Street…place the developers mall (now buried inside the parcel) on the street edge in a restored arcade and above the arcade. Recess the West Hancock Garage inside the parcel to allow for retail and/or office space on the edge opening to the sidewalk arcade. Even better don't restore this outdated garage function. We now know: build parking and you attract more cars - a no-brainer. (With eight modes of transit in the area this is madness.) 25.12
- Transform Dartmouth Street into the Dartmouth Mall or Greenway. Think Depressed Central Artery… think Rose Fitzgerald Greenway, We can do better. No southbound lane (Clarendon) or delivery/fire lanes only … provide landscaping, benches, canopies, green plants, flowers. Add value, create a prosperous environment..attract visitors, tourists, shoppers, lunch time office workers, residents, and yes pan-handlers. Add real value to adjacent developments. 25.13
- Extend the Dartmouth Mall/Greenway to Copley Square and even to the Esplanade (at least long term). Instead of zero vision, apply Vision Zero to the intersection from hell at Dartmouth and Stewart Streets. Slow traffic. Divert traffic. Study depressing Stewart Street below the new Dartmouth Mall/ Greenway to allow for a pedestrian mall overpass. The ramps are already depressed until they emerge with their mindless 18 inch “sidewalks” (which everyone uses - dangerously). 25.14
- Imagine the unfolding view as you walk north on the Dartmouth Mall. This would preserve and enhance those civic values inherent in Boston’s development history. 25.15
- Use this Dartmouth Mall to more elegantly integrate the eight modes of transit present. 25.16
- Save the Copley Place horses…… bring them out to the Dartmouth Mall open space. 25.17
- And of course do not mindlessly dump vehicle’s onto dart with a new ramp from a (needlessly) restored West Hancock Garage.! 25.18
- Do a valid wind tunnel test… especially of the pedestrian zone at Dartmouth and Stewart Streets…… and scale up the model to say 1 to 40 for a meaningful result. Test for northwest winds which are the most brutal in the winter. In the Tower Design: one elevation rendering shows belt courses at about every 10 stories… this is a good start…… it can lead wind around the tower instead of down into the street….. add canopies to the arcades to further deflect northwest winds away from sidewalk arcades. 25.19
- Build a turnpike deck to the east of Clarendon onto which some of the proposed retail can be relocated. Perhaps use this deck for the 39 bus turn around. Note: there is already a head house for the MBTA east of Clarendon. Use this deck for some of the residential to reduce over all building heights. Development here would define the edge of Clarendon and protect pedestrians from the turnpike noise (think NYC Park Avenue built over the tracks) . 25.20
- Keep the Back Bay Station “basilica” form with its side aisles - at least at the entrance area. Preserve the clerestory daylighting at the second and third floors. Find more retail area east of the old station 25.21

core. Renegotiate with the developers to encourage retail further east and perhaps over a new deck east of Clarendon Street (it is wasted now). 25.22

- And keep a curved arch over the Clarendon Street station entrance to reflect the West end of the station (at a smaller scale). This will help people recognize the Back Bay Station for what it is. 25.23
- Ventilation of the station is welcome. Of course the ultimate answer is Electrification. Note how everything in interconnected. But we cannot take advantage of mutual benefits, until we learn to think outside of the box and outside of the parcel. We need multidisciplinary problem solving. 25.24

Where is the city spirit that built the Public Garden, the Esplanade, City Hall, the Depressed Central Artery? I know it is there down deep.

HOW DO WE DO ALL OF THIS?
We need a team that designs the public realm for this project. This team can address urban design, pedestrian planning, transit connections, and the civic environment. It can include liaison from the developers and critical stakeholders such as Walk Boston, Mass Bike, and consultants Arup Engineering, urban lighting designers, landscapers, etc. And of course BRA urban planners, some of whom can be assigned to this team, while some BRA staff should remain focused on the development parcels themselves.

You can do this Mister Mayor… you already have your "Greenovation" staff which focus on the broader environment. Assign some of this staff to address all of the many issues and opportunities outside the parcel boundaries and OUTSIDE THE BOX, within which the BRA administration is hopelessly trapped.

And finance? The difference between **GRAY** design and **GREEN** design is a huge gap in property assessments. Take out a bond and pay for it with the increased property values inherent in good urban design. And don't forget the developers, who will immediately see the value in a Dartmouth Mall, in integrated design, in better streetscapes, that attract more pedestrians and shoppers. They are not to blame for the present proposal… they need better leadership from the city.

And we need Governor Baker's leadership as well - find a way Governor to steer clear of this **Tea Party Transit** where public transit is all privatized. You inherited this mess. Find a way out. Work with the City and Boston Properties for a win-win solution. Your DOT can help move some of the retail east to a new deck over the turnpike - this would help preserve the public space in the landmark station lobby. Your architect, Arrow Street, is clearly pained at your instructions that debase our precious station. They would work hard to avoid the damage proposed presently. And please find a place for the "burger joint" that has stolen our public sidewalk and arcade.

Find a way!

Respectfully submitted in fondness for our city.

Gerry Ives

Working for Sierra Club, Gerry Ives made drawings in 1973 for alternate waterfront renewal, which included plans to depress the central artery (http://www.ivesarch.com/depressed-central-artery.html)

Du, Van

From: Strysky, Alexander (ENV) <alexander.strysky@state.ma.us>
Sent: Thursday, June 16, 2016 10:05 AM
To: Padien, Daniel
Subject: FW: Questions Related to Back Bay/South End Gateway Project

Hi Dan- The commenter refers to the NABB forum. What does NABB stand for and is that part of the BRA process?

Alex Strysky
MEPA Office
100 Cambridge Street, 9th Floor
Boston, MA 02114

ph: (617) 626-1025
fx: (617) 626-1181

-----Original Message-----
From: Anne Swanson [mailto:anneswanson@verizon.net]
Sent: Thursday, June 16, 2016 9:59 AM
To: christopher.tracy@boston.gov; Strysky, Alexander (EEA)
Cc: dtcnabb@nabbonline.com; Brian.Golden@boston.gov; Will Brownsberger; Livingstone, Jay - Rep. (HOU); Rushing, Byron - Rep. (HOU); Aaron Michlewitz.; michelle.wu; Josh Zakim; Annissa Essaibi-George; Ayanna.Pressley; Bill.Linehan; NABB
Subject: Questions Related to Back Bay/South End Gateway Project

After hearing the project description from Boston Properties and the related discussion at the NABB Forum, I have the following questions:

1. Why is Mass/DOT not yet prepared to review the Boston Properties proposal for renovation of Back Bay Station in light of current and future MBTA needs, plans, and capacity? 26.1

2. Why is such a massive project even under consideration for this site? 26.2

3. What will be the combined effect of shadows of all the proposed High Spine high-rise structures on fragile little historic Copley Square, which has a crumbling infrastructure that can hardly support the current environmental conditions and level of use by the public? 26.3

4. Will the water and sewer infrastructure support the increased population density resulting from three more high-rise buildings for residential and office space? 26.4

5. Will the water table be affected by the construction, which in turn protects the wood-pile foundations of three National Historic Landmarks and a luxury hotel in Copley Square: Boston Public Library, Old South Church, Trinity Church, and the Copley Plaza Hotel? 26.5

6. Will the High Spine of tall buildings actually divide and threaten our historic neighborhoods rather than connect them? 26.6

7. Will any public open green space be incorporated into the design? 26.7

8. Why were two neon sculptures by a distinguished artist removed from the MBTA station without any public process? 26.8

Anne Swanson
Resident
157 Beacon Street, Boston, MA 02116

June 13, 2016

Secretary of Energy and Environmental Affairs
Executive Office of Energy and Environmental Affairs (EEA)
ATTN: MEPA Offic
Alex Strysky, EEA No. 15502
100 Cambridge Street Suite 900
Boston MA 02114

Regarding the Back Bay/South End Gateway Project

As a neighbor to this Gateway project and a constant user of Back Bay Station, I would like to share my concerns about the Gateway project's impact on the Back Bay Station. The project plans to eliminate the current entrances to the station as well as the waiting room and pathways to the subway, all of which create serious questions about the efficient functioning of the station from the riders' perspective and its accessibility from surrounding streets. The Gateway plan also indicates that piers will be driven along parts of the train platforms, squeezing passengers into less space. And finally, the bus turn-around is eliminated with no provision for the popular # 39 bus. 27.1 27.2 27.3

I urge you to carefully review the Back Bay/South End Gateway Project to guarantee that the Back Bay Station with continue to serve the needs of the public. 27.4

Lynn V. Foster
103 Appleton Street
Boston MA 02116

Du, Van

From: Strysky, Alexander (ENV) <alexander.strysky@state.ma.us>
Sent: Monday, June 20, 2016 9:35 AM
To: Padien, Daniel
Subject: FW: Comments on Back Bay/South End Gateway Project

Follow Up Flag: Follow Up
Due By: Monday, June 20, 2016 9:41 AM
Flag Status: Flagged

Alex Strysky
MEPA Office
100 Cambridge Street, 9th Floor
Boston, MA 02114

ph: (617) 626-1025
fx: (617) 626-1181

From: H. Parker James [mailto:hpjames423@gmail.com]
Sent: Friday, June 17, 2016 7:30 PM
To: Strysky, Alexander (EEA)
Subject: Comments on Back Bay/South End Gateway Project

June 17, 2016

Dear Alexander Strysky:

I serve on both the NABB Development and Transportation Committee and the LivableStreets Advocacy Committee, but I am writing to you now as a Bostonian and a 35-year resident of the Back Bay.

With regard to the Back Bay/South End Gateway Project: generally speaking, I support this development, but I have the following concerns:

A. The Back Bay Station should be designed to function as a transit hub, not converted to a retail concourse. 28.1

- The Station needs to be redesigned in a manner that can accommodate much larger numbers of future. 28.2

- The public service area of the Back Bay Station should be expanded and improved both in terms of functionality and appearance. 28.3

- Boston Properties plans to privatize some 10,000 square feet of public service area should not be allowed to happen. 28.4

B. Much attention should be paid to improve the station's breathing environment. The diesel particulates in the air there are both unpleasant unhealthful. Improved ventilation is essential. 28.5

C. No garage entrance or exit ramps should be allowed on Dartmouth St. 28.6

D. The Clarendon St. side of the development should be redesigned in a more thoughtful manner.

-The Clarendon St. entrance to the Mass. Turnpike should be eliminated. 28.7

- The Clarendon St. façade of the parking garage should have some sort of architectural screening.

Thank you for your attention.

Sincerely,

Heyward Parker James

423 Marlborough St., #3

Boston, MA 02115

July 17, 2016

Back Bay / South End Project	Project Number 15502
Boston Redevelopment Authority	MEPA
Christopher Tracy, Senior Project Manager	Alexander Strysky, MEPA Analyst
Christopher.Tracy@boston.gov	Alexander.Strysky@massmail.state.ma.us

Dear Christopher Tracy and Alexander Strysky,

As a member of the Civic Advisory Committee (CAC) representing the Back Bay, I have participated in many meetings and heard many questions and comments about this project. I look forward to the responses to all our questions from the development team. I also look for responses from the BRA and the State, as the proponents are not in control of all of the relevant issues. MassDOT is the owner of the Back Bay Station and the Mass Pike, while Boston Properties is under contract to manage the concourse level of the station.

Coordination

Coordination among the multiple agencies controlling aspects of the site and operations on the site is imperative. To date, we have had little or no contact with the MBTA, MassDOT, BTD, Mass Pike, Amtrak, Federal Highways, for example. Such coordination is important for the station design, as well as the analysis of the traffic around and through the site. The station design establishes the context for the towers and possible second level over the station, therefore, it should be part of the early CAC discussion. The stated objective that the station be "airport level" quality is fine as far as it goes, but the CAC could provide positive input in this phase of the design, before the design is set. Many of the members regularly use the No. 39 bus, the Orange Line, the Commuter Rail, and Amtrak, therefore they are very familiar with the existing conditions. 29.1

Environmental Impacts

Environmental Impacts are of particular concern to Back Bay residents who have seen increasing wind, traffic, and shadow in and around Copley Square with the construction of the Clarendon, the Liberty Mutual Building, Exeter Towers, 888 Boylston, etc. Detailed environmental studies should be required and thoroughly examined with the CAC. 29.2

Wind impacts should be studied along Dartmouth and Clarendon Streets to the river, and to the north side of Boylston Street. How does the wind data relate to our perception of the conditions around the site? 29.3

Traffic impacts should be studied to the river to the north, east to Arlington and west to Mass Ave, and into the South End as appropriate. 29.4

Illustrate any shadow on nationally recognized historic buildings and public spaces, including shadows on the building facades, including the BPL Courtyard facade. 29.5

Quantification and qualitative analysis of Pedestrian circulation to and from, in and around the project is essential. And this information correlated with the various types of vehicular traffic is essential to the successful operation of the station. Currently the sidewalks are often overly crowded. Alternative studies to relieve the crowding should be discussed with the CAC. A garage outlet or inlet onto Dartmouth Street should be abandoned at this point and a base scheme proposed without it. 29.6

Air quality, particularly at intersections and between streetlights should be studied and reviewed with the Board of Health. 29.7

During Article 80 reviews, we consistently ask for data on the capacity of public transportation and have been disappointed in the responses. Since so much constriction has been approved in this small area of the Back Bay, the State should provide this information to the developer and the public. 29.8

Likewise, the capacity of public utilities, water, sewer, and power, as well as cable for TV and wifi, should be made public and analyzed in the next submission with respect to the proposed building uses. If additional capacity will be required, this should be identified in the next phase of the project and planned. 29.9

Urban Design

This project is situated on public air rights, which offers a unique opportunity/obligation to offer significant site-specific public benefits. Improvements to the public realm, such as comfortable sidewalks and adequate outdoor spaces, will be essential to the success of this block. 29.10

An idling bus is not everyone's idea of something belonging to their front yard, but since the No. 39 bus already has a home on Clarendon, it is appropriate to study design alternatives to use the space between the residential towers and Clarendon Street. 29.11

The suggested bridges above the adjacent streets were discussed at BCDC, whose guidelines discourage them. High quality, safe on-grade crossings should be developed instead to engage life on the street, which is most appropriate for this urban center. 29.12

The architecture of the proposed residential buildings is very sketchy. Suggest proposing elevation designs that are clearly residential, providing operable windows and individual outdoor balconies. 29.13

Recommend providing additional drawings to show the whole buildings from the Back Bay, Dartmouth, and Clarendon Streets. The drawing for the corner of Stuart and Dartmouth misses the top half of the building. 29.14

A proposal to include all of the affordable housing on site, and including the required funds from 40 Trinity's payment to the Housing Trust, should be developed and presented. 29.15

Public Benefits

Excellent publically accessible open space would a welcome public benefit, as would desirable improvements to Back Bay Station. To determine what would be desirable, please engage the CAC and the public very early in the decision-making, as soon as possible. This has been discussed although not scheduled. 29.16

Zoning

Please prepare a detailed list comparing the project with the Stuart Street Zoning and Guidelines and detailed explanation of all requested zoning relief, i.e. amend the PDA. A PDA amendment should not be used for relief from Stuart Street Zoning requirements. 29.17

Public Financing

Please provide a list of any potential tax relief for the project. 29.18

Summary of Key Questions

To facilitate communication on the prior discussion, I am summarizing it by listing a series of questions for your consideration.

Coordination

. How can we be assured that adequate coordination will take place between the different agencies involved with the project? In particular, when will the public get an opportunity to review MassDOT plans for the MBTA station and the Mass Pike plans for the Clarendon Street exit? 29.19

Environmental Impacts

. Will detailed, state-of-the art studies be conducted on wind, traffic, and shadow impacts in and around Copley Square that include all of the requested points? 29.20

. In particular,

. Will wind impacts be studied along Dartmouth and Clarendon Streets to the river and on the north side of Boylston Street? Will wind impacts on Copley Square Park be studied, particularly where the Farmer's Markets place tents and around the fountain? 29.21

. Will traffic impacts be studied to the river to the north, east to Arlington and west to Mass Ave, and into the South End as appropriate? 29.22

. Will any shadow impacts on nationally recognized historic buildings and public spaces be presented, including shadows on building facades, including the BPL Courtyard facade? 29.23

. Will the developer study shaping the buildings to completely eliminate new shadow on Copley Square? 29.24

. Will quantitative and qualitative analyses of pedestrian circulation to and from, in and around the project be provided? 29.25

. Will the pedestrian analysis be correlated with the traffic analyses? 29.26

. Will air quality, particularly at intersections and between streetlights be studied? 29.27

. Will we be provided with data on the capacity of public transportation to handle all the additional usage expected in the area? 29.28

. Similarly, how about the capacity of public utilities, water, sewer, and power as well as for cable for tv and wifi? 29.29

Urban Design

. Will the CAC be invited to evaluate proposed improvements for the public realm, such as comfortable sidewalks and adequate outdoor spaces to serve the uses on the site? 29.30

. Will design alternatives be discussed with the public and the CAC for the 39 bus? Could one of these include the use of the space between the residential towers and Clarendon Street? 29.31

. Will information be provided on producing safe, on-grade street crossings to engage life on the street, as appropriate in a vibrant urban environment? 29.32

. Will additional information be provided to show all elevations for residential buildings? 29.33

. Can additional drawings be provided that show the whole buildings from the Back Bay, Dartmouth, and Clarendon Streets? The current drawing for the corner of Stuart and Dartmouth misses the top half of the building. 29.34

. Can additional drawings be provided that show the view corridor both ways on Dartmouth Street, where the Stuart Street Zoning requires a setback. 29.35

. Can a proposal be offered that includes all of the affordable housing on site and that includes the funds required from the 40 Trinity, as well? 29.36

Public Benefits

. Will the public be engaged early in the process on plans concerning the publically accessible open space and the improvements to the Back Bay station? 29.37

Zoning

. Can you prepare a detailed list comparing the project with Stuart Street zoning and Stuart Street guidelines and offering a detailed explanation of all requested zoning relief? 29.38

Public Financing

. Can you list any potential tax relief that might be requested for the project? 29.39

Thank you for the opportunity to comment on this important project. I anticipate the resulting buildings and infrastructure improvements will benefit the neighboring communities and the City.

Jacquelin S. Yessian
160 Commonwealth Avenue Unit 603
Boston, MA 02116

Cc:

Brian.Golden@boston.gov
William.Brownsberger@masenate.gov
Jay.Livingstone@mahouse.gov
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Bill.Linehan@boston.gov
Info@nabbonline.com

APPENDIX N: Comment Letters on the PNF

BOSTON REDEVELOPMENT AUTHORITY

SCOPING DETERMINATION
BACK BAY SOUTH END GATEWAY PROJECT

SUBMISSION REQUIREMENTS
FOR DRAFT PROJECT IMPACT REPORT (DPIR)

PROPOSED PROJECT:	BACK BAY SOUTH END GATEWAY PROJECT
PROJECT SITE:	LOCATED PRIMARILY OVER ACTIVE TRANSPORTATION INFRASTRUCTURE, INCLUDING THE I-90 EXTENSION OF THE MASSACHUSETTS TURNPIKE (the "I-90") AND THE TRACK AND CONCOURSE LEVELS OF THE STATION, THE PROJECT IS ROUGHLY BOUNDED BY DARTMOUTH STREET TO THE WEST, STUART STREET AND TRINITY PLACE TO THE NORTH, TRINITY PLACE AND CLARENDON STREET TO THE EAST, AND THE SOUTHERN PROPERTY LINE OF THE STATION TO THE SOUTH
PROPONENT:	BP HANCOCK, LLC
DATE:	AUGUST 30, 2016

The Boston Redevelopment Authority ("BRA") is issuing this Scoping Determination pursuant to Section 80B-5 of the Boston Zoning Code ("Code"), in response to a Project Notification Form ("PNF") which BP Hancock, LLC (the "Proponent"), filed for the Back Bay South End Gateway project on March 29, 2016. Notice of the receipt by the BRA of the PNF was published in the Boston Herald on April 1, 2016, which initiated a public comment period with a closing date of May 31, 2016; the public comment period was subsequently extended until June 17, 2016. Comments received since then have subsequently been added as well.

On December 29, 2015, the Proponent filed a Letter of Intent in accordance with the Executive Order regarding Provision of Mitigation by Development Projects in Boston. On March 29, 2015 the Proponent filed a Project Notification Form (PNF) pursuant of Article 80 Large Project Review for a proposal, which includes the redevelopment of four distinct air rights development parcels situated above and adjacent to the MBTA's Back Bay Station. The Project is comprised of up to approximately 1.26 million square feet of mixed-use redevelopment, consisting of a new office building with ground floor retail, two new residential buildings, a one- and two-story vertical retail expansion of the existing Station building, and the partial redevelopment of the existing 100 Clarendon Street Parking Garage. This transformational development will deliver approximately 575,000 square feet of commercial office space, up to

approximately 100,000 square feet of retail and restaurant space and up to approximately 600 residential units, in addition to Project-related parking, loading and service uses, as well as improved access to the existing on-site public transit services.

Pursuant to Section 80B-5.3 of the Code, a Scoping Session was held on May 11, 2016 with the City's public agencies, where the proposal was reviewed and discussed. The PNF was sent to the City's public agencies pursuant to Section 80A-2 of the Code.

On March 14, 2016, letters soliciting nominations to the Citizens Advisory Committee (CAC) for the proposed project were delivered to City Councilor Josh Zakim, City Councilor Bill Linehan, City Council Michael Flaherty, City Councilor Ayanna Pressley, City Councilor Michelle Wu, City Councilor Annissa Essaibi-George, State Senator Scott Brownsberger, State Representative Byron Rushing, State Representative Jay Livingstone, and State Representative Aaron Michlewitz. Additional letters seeking recommendations were delivered to local stakeholders including: Tent City Apartments, Boston Society of Architects, Back Bay Association, Urban Land Institute Boston, South End Business Alliance, American Planning Association-Massachusetts Chapter, Bay Village Neighborhood Association, The Ellis South End Neighborhood Association, Boston Public Library, and the Neighborhood Association of the Back Bay.

The letters sought nominations or recommendations to the CAC by March 28, 2016.
BRA staff conferred with Mayor Walsh's Office of Neighborhood Services to finalize the nominees and the Mayor's Office approved the final list of members.

The Citizens Advisory Committee (CAC) members are:

-Brendan Ahern- South End Business Alliance
-Ann Beha – Boson Society of Architects
-MacKenzie Bok- Bay Village Neighborhood Association
-Damian Chaviano- Urban Land Institute
-James Cochener- Salty Pig Restaurant
-Jacquelyn Cox-Crite- Tent City Resident
-Cathy Doran- Greater Boston Convention and Visitors Bureau
-Jack Fitzgerald- Ellis South End Neighborhood Association
-Susan Gilmore- Back bay Resident
-Elliott Laffer (co-chair) - Neighborhood Association of the Back Bay
-Meg Mainzer Cohen- Back Bay Association
- Scott Mustard- St. Boltoph Neighborhood Association
- Mayra Negron-Rivera- IBA
- Ted Pietras (co-chair) – South End Business Alliance
- Russ Preston- Congress for New Urbanism
-Patrick Sarkis- Back Bay Association
-Jacqueline Yessian- Neighborhood Association of the Back Bay

The ex-officio members are:

- State Senator Scott Brownsberger

- State Representative Byron Rushing
- State Representative Aaron Michlewitz
- State Representative Jay Livingstone
- City Councilor Bill Linehan
- City Councilor Josh Zakim
- City Councilor Michelle Wu
- City Councilor Annissa Essaibi-George
- City Council Michael Flaherty
- City Councilor Ayanna Pressley

All CAC members were notified of and invited to the scoping session held on May 11, 2016.

A total of five CAC meetings and one CAC site walk, all of which were advertised via the BRA website and standard email notifications, have been held while under Article 80 Large Project review. The site walk was held at Back Bay Station and the surrounding area on May 12, 2016. The five CAC meetings were at held at the Boston Common Hotel and Conference Center at 40 Trinity Place and took place on:

-April 28, 2016
-May 26, 2016
-June 15, 2016
-June 29, 2016
-July 13, 2016

After the PNF was filed, the BRA hosted two public meetings while under Article 80 Large Project review. A Back Bay meeting was held on May 11, 2016 at the Boston Common Hotel and Conference Center at 40 Trinity Place. A South End meeting was held on May 18, 2016 at the Blackstone Community Center, 50 West Brookline St. Both meetings were advertised in the *Boston Guardian, Bay State Banner, South End News* as well as through the BRA website and Twitter handle.

Written comments in response to the PNF received by the BRA from agencies of the City of Boston and elected officials are included in **Appendix A** and must be answered in their entirety. Written comments in response to the PNF received by the BRA from the public are included in **Appendix B** and must be answered in their entirety. Written comments in response to the PNF received by the BRA from the Citizens Advisory Committee ("CAC") are included in **Appendix C** and must be answered in their entirety. The DPIR should include complete responses to all comments included in **Appendices A, B and C** within the framework of the criteria outlined in the Scoping Determination.

Comments received by the BRA from agencies and departments of the City of Boston are included in **Appendix A** and must be answered in their entirety.

Specifically, they are from:

- John Sullivan, Boston Water and Sewer Commission
- Josh Zakim, Boston City Council, District 8

- Todd Liming, Public Improvement Commission
- Tim Davis, BRA Housing Policy Manager
- Kristen McCosh, Mayor's Commission for Persons with Disabilities
- Byron Rushing, State Representative
- Katie Pederson, BRA Environmental Review/IGBC
- Christian Simonelli, Boston Groundwater Trust
- Vineet Gupta, Boston Transportation Department
- David Carlson/Corey Zehngebot/Lauren Shurtleff, BRA Planning and Urban Design
- Carrie Marsh, Boston Parks and Recreation Department

Public comments received by the BRA during the comment period are included in **Appendix B** and must be answered in their entirety.

The following public comments are included in **Appendix B**, among many others:

- The Ellis South End Neighborhood Association
- WalkBoston
- The Neighborhood Association of the Back Bay
- Bay Village Neighborhood Association, Inc
- LivableStreets Alliance
- 285 Columbus Lofts
- Hill House, Inc
- Parkland Management Advisory Council/Southwest Corridor Park

Citizens Advisory Committee member comments received by the BRA during the comment period are included in **Appendix C** and must be answered in their entirety.

Specifically, they are from:

- Elliott Laffer, Citizens Advisory Committee Member
- Jacqueline Yessian, Citizens Advisory Committee Member
- Ann Beha, Citizens Advisory Committee Member
- Susan Gilmore, Citizens Advisory Committee Member
- MacKenzie Bok, Citizens Advisory Committee Member

The Scoping Determination requests information that the BRA requires for its review of the Proposed Project in connection with Article 80 of the Code, Development Review and Approval and other applicable sections of the Code.

I. PROJECT DESCRIPTION

The proposal includes the redevelopment of four distinct air rights development parcels situated above and adjacent to the MBTA's Back Bay Station. The Project is comprised of up to approximately 1.26 million square feet of mixed-use redevelopment, consisting of a new office

building with ground floor retail, two new residential buildings, a one- and two-story vertical retail expansion of the existing Station building and the partial redevelopment of the existing 100 Clarendon Street Parking Garage. This transformational development will deliver approximately 575,000 square feet of commercial office space, up to approximately 100,000 square feet of retail and restaurant space and up to approximately 600 residential units, in addition to Project-related parking, loading and service uses, as well as improved access to the existing on-site public transit services (the "Proposed Project").

Located primarily over active transportation infrastructure, including the I-90 Extension of the Massachusetts Turnpike (the "I-90") and the track and concourse levels of the Station, the Project is roughly bounded by Dartmouth Street to the west, Stuart Street and Trinity Place to the north, Trinity Place and Clarendon Street to the east, and the southern property line of the Station to the south ("Project Site").

II. PREAMBLE

The Proposed Project is being reviewed pursuant to Article 80, Development Review and Approval, which sets forth a comprehensive procedure for project review of the following components: transportation, environmental protection, urban design, historic resources, infrastructure systems, site plan, tidelands, and Development Impact Project, if any. The Proponent is required to prepare and submit to the BRA a Draft Project Impact Report ("DPIR") that meets the requirements of the Scoping Determination by detailing the Proposed Project's impacts and proposed measures to mitigate, limit or minimize such impacts. The DPIR shall contain the information necessary to meet the specifications of Section 80B-3 (Scope of Large Project Review; Content of Reports) and Section 80B-4 (Standards for Large Project Review Approval), as required by the Scoping Determination. After submitting the DPIR, the Proponent shall publish notice of such submittal as required by Section 80A-2. Pursuant to Section 80B-4(c) (i) (3), the BRA shall issue a written Preliminary Adequacy Determination ("PAD") within ninety (90) days. Public comments, including the comments of public agencies, shall be transmitted in writing to the BRA no later than fifteen (15) days prior to the date by which the BRA must issue its PAD. The PAD shall indicate the additional steps, if any, necessary for the Proponent to satisfy the requirements of the Scoping Determination. If the BRA determines that the DPIR adequately describes the Proposed Project's impacts and, if appropriate, proposed measures to mitigate, limit or minimize such impacts, the PAD will announce such a determination and that the requirements of further review are waived pursuant to Section 80B-5.4(c) (iv). Section 80B-6 requires the Director of the BRA to issue a Certification of Compliance indicating the successful completion of the Article 80 development review requirements before the Commissioner of Inspectional Services can issue any building permit for the Proposed Project.

III. REVIEW/SUBMISSION REQUIREMENTS

In addition to full-size scale drawings, 15 copies of a bound booklet and an electronic copy (PDF format) containing all submission materials reduced to size 8-1/2" x 11", except where otherwise specified are required. The electronic copy should be submitted to the BRA via the following website: https://attachments.bostonredevelopmentauthority.org/. The booklet should be printed on both sides of the page. In addition, an adequate number of copies must be

available for community review. A copy of this Scoping Determination should be included in the booklet for reference.

A. General Information

1. Applicant/Proponent Information
   a. Development Team
      (1) Names
         (a) Proponent (including description of development entity and type of corporation, and the principals thereof)
         (b) Attorney
         (c) Project consultants and architects
      (2) Business address, telephone number, FAX number and e-mail, where available for each
      (3) Designated contact for each
   b. Legal Information
      (1) Legal judgments or actions pending concerning the Proposed Project
      (2) History of tax arrears on property owned in Boston by Applicant
      (3) Evidence of site control over Project Site, including current ownership and purchase options, if any, for all parcels in the Proposed Project, all restrictive covenants and contractual restrictions affecting the Proponent's right or ability to accomplish the Proposed Project, and the nature of the agreements for securing parcels not owned by the Applicant.
      (4) Nature and extent of any and all public easements into, through, or surrounding the site.
2. Project Site
   a. An area map identifying the location of the Proposed Project
   b. Description of metes and bounds of Project Site or certified survey of the Project Site.
   c. Current zoning

3. Project Description and Alternatives

   a. The DPIR shall contain a full description of the Proposed Project and its components, including, its size, physical characteristics, development schedule, costs, and proposed uses. This section of the DPIR shall also present analysis of the development context of the Proposed Project. Appropriate site and building plans to illustrate clearly the Proposed Project shall be required.
   b. A description of alternatives to the Proposed Project that were considered shall be presented and primary differences among the alternatives, particularly as they may affect environmental and traffic/transportation conditions, shall be discussed.

4. Public Benefits

   a. Anticipated employment levels including the following:
      (1) Estimated number of construction jobs
      (2) Estimated number of permanent jobs
   b. Current and/or future activities and program which benefit adjacent neighborhoods of Boston and the city at large, such as, child care programs, scholarships, internships, elderly services, education and job training programs, etc.
   c. Other public benefits, if any, to be provided.

5. Community Process

   a. A list of meetings held and proposed with interested parties, including public agencies, abutters, and business and community groups.
   b. Names and addresses of project area owners, abutters, and any community or business groups which, in the opinion of the applicant, may be substantially interested in or affected by the Proposed Project.

B. REGULATORY CONTROLS AND PERMITS

An updated listing of all anticipated permit1.1 ovals required from other municipal, state or federal agencies, including a proposed application schedule shall be included in the DPIR. 1.1

A statement on the applicability of the Massachusetts Environmental Policy Act (MEPA) should be provided. If the Proposed Project is subject to MEPA, all required documentation should be provided to the BRA, including, but not limited to, a copy of the Environmental Notification Form, decisions of the secretary of Environmental Affairs, and the proposed schedule for coordination with BRA procedure. 1.2

C. TRANSPORTATION COMPONENT

*The analysis included in the DPIR must utilize as its framework the scope as outlined in the comments of the Boston Transportation Department ("BTD"), dated June 17, 2016 and included in **Appendix A.***

The following overarching considerations inform the Boston Transportation Department's (BTD) review of the project:

- Need for coordination with development projects proposed in the Stuart Street corridor which are in varying stages of design and construction. 1.3
- Traffic impacts on local streets generated by the ramp closure alternative. 1.4
- Recognition of excellent transit-access to the site and consideration of "shared" traveling options. 1.5
- The creation of a public realm that is friendly for people walking or riding bicycles. 1.6

Given the complexity of the project and its potential long term impacts, BTD recommends that the proponent prepare a Draft Project Impact Report (DPIR) and provide new information and analysis below.

Ramp Access and Traffic Analysis

The PNF notes that the proponent is considering elimination of the existing I-90 ramp located below the Garage West parcel. In general, ramps to the highway system remove regional traffic away from local streets. In addition, multiple on-ramps distribute traffic accessing I-90 across local street reducing concentrated congestion, though they also have negative impact on the pedestrian and bicycling environment. The closing of the I-90 on-ramp will have far reaching impacts on trips generated by all proposed projects in the Stuart Street corridor and surrounding areas. BTD recommend the DPIR includes:

- A proposal to work with an inter-agency group, including BTD and MassDOT, to conduct a detailed "ramp alternatives" study. In addition to traffic analysis the study should include a conceptual constructability analysis, given the need to keep I-90 open and that the project will be phased. 1.7
- An analysis of the impacts of traffic generated from other proposed projects in the Stuart Street corridor if the on-ramp is closed. 1.8
- A public realm plan for Trinity Place and St. James Avenue (between Clarendon and Dartmouth Streets) that shows how pedestrian flow, on-street parking, shuttle and tour bus parking, hotel pick-up drop-off, and Copley Square event-staging can be managed with the expected additional traffic generated by the Garage West Alternative Scheme. 1.9

*The full text of the BTD Comments can be viewed in **Appendix A.***

D. ENVIRONMENTAL PROTECTION COMPONENT

*The DPIR must address the comments of the BRA Environmental Review/IGBC, dated June 14, 2016, included in **Appendix A** and must include the most up to date Article 37/Interagency Green Building Committee documents.*

Wind

The Proponent has stated that Proposed Project will four buildings, the tallest of which be approximately 388 feet in height and accordingly the Proponent shall be required to conduct a quantitative (wind tunnel) analysis for both existing (no-build) and build conditions. 1.10

The analysis shall determine potential pedestrian level winds adjacent to and in the vicinity of the Proposed Project site and shall identify any areas where wind velocities are expected to exceed acceptable levels, including the Boston Redevelopment Authority's guideline of an effective gust velocity of 31 miles per hour (mph) not to be exceeded more than 1% of the time. The analysis also shall determine the suitability of particular locations for various activities (e.g., walking, sitting, eating, etc.) as appropriate. 1.11

The Proponent shall be required to pay particular attention to public and other areas of pedestrian use, including, but not limited to, entrances to the Proposed Project and adjacent buildings, sidewalks adjacent to and in the vicinity of the Proposed Project buildings as well as parks, including but not limited to the Copley Square, the Southwest Corridor Park and Frieda Garcia Park, plazas and other open spaces and pedestrian areas near the Proposed Project. The Proponent shall be cognizant of the planning objectives emphasized in the Stuart Street Zoning District and in particular, in designing the buildings to be sensitive to the wind and shadow impacts on sidewalks and nearby public open spaces 1.12

Wind speeds shall be measured in miles per hour and for areas where wind speeds are projected to be dangerous or to exceed acceptable levels, measures to reduce wind speeds and to mitigate potential adverse impact(s) shall be identified and, if appropriate, tested. 1.13

Shadow

The Proponent conducted and included the results of a shadow analysis for the existing (no-build) and build conditions for the hours of 9:00 a.m., 12:00 noon, and 3:00 p.m. for the vernal equinox, summer solstice, autumnal equinox, and winter solstice and for 6:00 p.m. in the summer and fall, in the PNF.

The shadow impact analysis examined the existing shadows and illustrated the incremental effects of the Proposed Project on existing and proposed public open spaces, including but not limited to Copley Square Park (bounded by Boylston Street, Clarendon Street, St. James Avenue and Dartmouth Street, excluding land occupied by Trinity Church), the Southwest Corridor Park and Frieda Garcia Park, and pedestrian areas (including transit stops), sidewalks and pedestrian walkways adjacent to and in the vicinity of the Proposed Project.

The results indicate that the Proposed Project is not anticipated to create a significant net new shadow and in particular, the net new shadows are anticipated to be cast onto Copley Square Park for approximately one hour and 54 minutes, thus demonstrating compliance.

The full text of the BRA Environmental Review/IGBC Comments can be viewed in ***Appendix A.***

The DPIR must address the comments of the Boston Parks and Recreation Department, dated August 22, 2016 and included in ***Appendix A***

With regard to the Back Bay / South End Gateway project, this significant project will have impacts to open space in an area of the City already challenged by high density and limited open space resources. BPRD respectfully requests the consideration of a community contribution to mitigate impacts to open space in the neighborhood, such as capital improvements or maintenance for Copley Square. 1.14

The full text of the Boston Parks and Recreation Department Comments can be viewed in ***Appendix A.***

E. URBAN DESIGN/PLANNING COMPONENT

The DPIR must address the comments of the BRA's Urban Design and Planning Department, dated August 19, 2016 included in ***Appendix A****. In addition to this, the standard list of urban design materials should be included in the DPIR for the Proposed Project, included in* ***Appendix A****.*

Boston Properties proposes the redevelopment of the John Hancock Garage and Back Bay Station air rights, which lies toward the north of the block bounded by Columbus Avenue and Dartmouth, Stuart, and Clarendon Streets. This Project aims to create new, defined, and activated passages from Dartmouth to Stuart to Clarendon Streets. Green roofs lie atop several tower and podium components. The mix of active uses would enhance the mix of uses (office, residential, hotel, retail) already extant in the area. The architect is Pelli Clarke Pelli.

BRA Planning and Urban Design have appreciated working thus far with Boston Properties on the refurbishment of Back Bay Station and redevelopment of associated air rights parcels on what is poised to be a transformative development impacting the Back Bay, South End, and Bay Village neighborhoods. This is a project that requires considerable capital, vision, and persistence, and we recognize the hard work already expended by the development team, architects, consultants, and our colleagues at MassDOT and the MBTA. The Proponent's intent to renovate and restore the Station is laudable and represents a significant public benefit resulting from this project. The scoping comments below reflect some of the most salient issues at this moment in the design and development timeline. Due to the protracted and phased nature of this project, the BRA will continue to provide feedback throughout what is sure to be an iterative and collaborative process.

Moreover, the Proposed Project should meet the 'performance standard' of generally having the same or a lesser degree of environmental impacts than either the full 'as-of-right' build-out or existing conditions, whichever are most impactful. That is to say, criteria such as daylight, shadows, and wind should be at least neutral or improved on average, recognizing that some elements or points may be worse, but proving that the whole is better as a Project. We will expect in fact that mitigations or positive urban benefits will result from this Project and in balance far outweigh any negative impact. Specific shadow and wind investigations will be 1.15 1.16

requested - a separate category in this scoping - to determine what the impacts are regarding Copley Square and the Southwest Corridor Park, among others. We will expect that the Proposed Project as represented in the DPIR will have taken into account any necessary mitigating factors, for scenarios with densities and heights beyond those alternatives, discovered as a result of environmental and other studies by the Proponent. 1.16 Cont.

DPIR design alternatives or development should bring a high degree of innovation and achieve LEED Gold at a minimum, preferably Platinum. This Project should set the bar very high for projects in the Stuart Street Study Area, and incorporate bold energy, recycling, daylight/quality of environment, green roofs and plantings, innovative connections to the water, and transportation initiatives. 1.17

*The full text of the BRA's Urban Design and Planning Department Comments can be viewed in **Appendix A**.*

F. INFRASTRUCTURE SYSTEMS COMPONENT

*The DPIR must address the comments of the Boston Groundwater Trust, dated June 15, 2016 and included in **Appendix A**.*

As confirmed in a preliminary meeting and at the scoping session the GCOD requires both the installation of a recharge system and a demonstration that the project cannot cause a reduction in groundwater levels on site or on adjoining lots. In the case of the Back Bay/South End Gateway Project four separate parcels designated Garage West, Garage East, Station East, and Station West will all need to be addressed individually. As stated in the PNF, the proposed construction of the four separate parcels is anticipated to require various foundation types with construction of the four parcels occurring in different phases. Before GCOD zoning approval can be put in place, the proponent must provide the Authority and the Trust a letter stamped by a professional engineer registered in Massachusetts that details how each of the four parcels will accomplish what is stated in the PNF and meets the GCOD requirement for no reduction in groundwater levels on site or on adjoining lots. 1.18

*The full text of Boston Groundwater Trust Comments can be viewed in **Appendix A**.*

*The DPIR must address the comments of the Boston Water and Sewer Commission, dated October 1, 2015 and included in **Appendix A**.*

According to the ENP/PNF, the proposed water demand is 176,574 gallons per day (gpd). The Commission owns and maintains a 10-ince Southern High water main in Stuart Street, a 12-inch Southern High water main in Trinity Place, a 12-inch Southern High water main in a Commission easement through the property between Trinity Place and Clarendon Street, a 12-inch Southern High water main in Clarendon Street and 12-inch Southern Low water main in Dartmouth Street.

According to the ENF/PNF, the proposed sewage generation is 160,522 gpd. For sewage and storm drainage service, the site is served by a 10-inch sanitary sewer and a 15-inch storm drain in Stuart Street, a 18-inch by 33-inch sanitary sewer and an 18-inch by 18-inch storm drain in Trinity Place, an 18-inch by 18-inch sanitary sewer and 15-inch storm drain in Clarendon Street, and a 10-inch and 12- inch sanitary sewer and a 12-inch and a 15-inch storm drain in Dartmouth Street.

The full text of BWSC Comments can be viewed in ***Appendix A.***

G. DEVELOPMENT IMPACT PROJECT COMPONENT

Based on the square footage and uses outlined in the Project Notification Form, the Proposed Project will be subject to and be required to enter into a Development Impact Project ("DIP or Linkage") agreement, assuming the proposed project requires zoning relief. A full analysis of square footage and uses should be submitted in the DPIR. 1.19

H. PUBLIC NOTICE

The Proponent will be responsible for preparing and publishing in one more newspapers of general circulation in the City of Boston a Public Notice of the submission of the DPIR to the BRA as required by Section 80A-2. This Public Notice shall be published within five (5) days after the receipt of the DPIR by the BRA. Therefore, public comments shall be transmitted to the BRA within seventy five (75) days of the publication of this Public Notice. Sample forms of the Public Notice are attached as **Appendix D.** 1.20

Following publication of the Public Notice, the Proponent shall submit to the BRA a copy of the published Public Notice together with the date of publication. 1.21

THE GENERAL COURT OF MASSACHUSETTS
STATE HOUSE, BOSTON 02133-1053

June 14, 2016

Secretary Stephanie Pollack
Massachusetts Department of Transportation
Ten Park Plaza, Suite 4150
Boston, MA 02116

Dear Secretary Pollack,

We are following up to your meeting with Representative Rushing on May 11th regarding the renovation of Back Bay Station as part of the Back Bay South End Gateway Project.

As you know the station renovation and ventilation repair are not part of the Boston Redevelopment Authority's CAC process. We want to thank you for a agreeing to have the Massachusetts Department of Transportation lead a public process for the Back Bay Station redevelopment for both the interior station redesign and the repair of the ventilation system. 2.1

Boston Properties has begun the design process for the station renovation. The designs presented are a thoughtful start to reviving the architecturally significant station. These designs will be improved with the input of the main users of the station, the daily commuters and the station's neighbors. Furthermore, many residents in the neighborhood had been involved with the 1987 development of the station, and have much to add to the design process. 2.2

As we understand it, the ventilation repair design has not yet begun. It would be best to engage with the community before embarking on the design process. The adjacent neighborhoods -- especially those who live along the Southwest Corridor Park -- will be directly affected by environmental impacts of the project. 2.3

We look forward to working with you and the team at Boston Properties as the Back Bay Station project moves forward.

Yours truly,

Byron Rushing
State Representative
9th Suffolk District

Aaron Michlewitz
State Representative
3rd Suffolk District

Jay Livingstone
State Representative
8th Suffolk District

Bill Linehan
Boston City Council
District 2

Josh Zakim
Boston City Council
District 8

Same comment letter received for ENF

JOSH ZAKIM
BOSTON CITY COUNCILOR
DISTRICT 8

Matthew Beaton, Secretary
Executive Office of Environmental and Energy Affairs
Attn: MEPA Office
Alex Strysky, EOEEA #15502
100 Cambridge St. Suite 1900
Boston, MA 02114

May 17, 2016

Dear Secretary Beaton:

I am writing today to register my comments regarding the Back Bay/South End Gateway Project. I want to begin by saying that Boston Properties has done a good job of recognizing the importance of Back Bay Station as an entry point into the city, and as a connector of historic neighborhoods. Their design reflects a desire to treat the station as the important transportation hub that it is, and as a space for potential growth in our city. They have taken positive preliminary steps to address some of the management and safety concerns that have been an issue at the station up until now, and are moving forward with cosmetic changes that are much needed. 3.1

My primary concern about this proposal is that it falls in the center of several large projects that are either underway or slated to begin in the very near future. These developments will have tremendous impacts on the neighborhood, both immediately and several years down the line. There will be significant repercussions for the neighborhood from the construction, and I want to make sure that proper steps are taken to minimize the effects on current residents. 3.2

Furthermore, the sum of all of this development in the area will significantly change the flow of traffic, increase pedestrian movement, and impact the capacity of the MBTA. Boston Properties has touched on how the Back Bay/South End Gateway project will contribute to these factors, but I would like to see it addressed from a more holistic perspective, examining this project in the context of all the others in the surrounding area. 3.3

As the Back Bay Station renovation moves forward, I also want to make sure that Boston Properties addresses concerns with respect to wind and shadow studies, and how they impact Copley Square and the front of the Public Library. These are two issues that my office hears about regularly, and I think the neighbors would appreciate more in-depth analysis. 3.4

Boston City Hall - One City Hall Square - Boston, MA 02201
josh.zakim@boston.gov

I look forward to seeing how this project evolves as the conversation moves forward. Please do not hesitate to contact me if you have any questions. You can reach me at 617-635-4225 or email Josh.Zakim@boston.gov.

Respectfully,

Josh Zakim

BOSTON
TRANSPORTATION
DEPARTMENT

ONE CITY HALL SQUARE • ROOM 721
BOSTON, MASSACHUSETTS 02201
617-635-4680 • FAX 617-635-4295

June 17, 2016

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

RE: Project Notification Form: The Back Bay South End Gateway Project

Dear Mr. Golden,

Thank you for the opportunity to comment on the Back Bay South End Gateway Project. The Project includes the development of four distinct air-rights parcels comprising of office, retail and residential use, phased-in to total approximately 1.26 million square feet. No new parking is proposed as part of the project as the existing garage capacity of 2,013 spaces is expected to meet demand. In a separate but related project the proponent has assumed management responsibility for and committed to renovating the concourse of Back Bay station.

The following overarching considerations inform the Boston Transportation Department's (BTD) review of the project:

- Need for coordination with development projects proposed in the Stuart Street corridor which are in varying stages of design and construction. 4.1
- Traffic impacts on local streets generated by the ramp closure alternative. 4.2
- Recognition of excellent transit-access to the site and consideration of "shared" traveling options. 4.3
- The creation of a public realm that is friendly for people walking or riding bicycles. 4.4

Given the complexity of the project and it's potential long-term impacts, BTD recommends that the proponent prepare a Draft Project Impact Report (DPIR) and provide new information and analysis as described below.

Ramp Access and Traffic Analysis

The PNF notes that the proponent is considering elimination of the existing I-90 ramp located below the Garage West parcel. In general, ramps to the highway system remove regional traffic away from local streets. In addition, multiple on-ramps distribute traffic accessing I-90 across local streets reducing concentrated congestion, though they also have negative impact on the pedestrian and bicycling environment. The closing of the I-90 on-ramp will have far reaching impacts on trips generated by all proposed projects in the Stuart Street corridor and surrounding areas. BTD recommends the DPIR includes:

- A proposal to work with an inter-agency group, including BTD and MassDOT, to conduct a detailed "ramp alternatives" study. In addition to traffic analysis the study should include a conceptual constructability analysis, given the need to keep I-90 open and that the project will be phased. 4.5
- An analysis of the impacts of traffic generated from other proposed projects in the Stuart Street corridor if the on-ramp is closed. 4.6
- A public realm plan for Trinity Place and St. James Avenue (between Clarendon and Dartmouth Streets) that shows how pedestrian flow, on-street parking, shuttle and tour bus parking, hotel pick-up drop-off, and Copley Square event-staging can be managed with the expected additional traffic generated by the Garage West Alternative Scheme. 4.7

Public Transportation

BTD recognizes the significant investment by the proponent to renovate Back Bay station and to create new pedestrian connections from Stuart and Clarendon Streets. These public benefits will dramatically improve access to this regional facility. The PNF notes that transit mode-share for office and retail related trips will be in excess of 50%. BTD recommends that the DPIR includes:

- Analysis of the impact of additional transit trips generated by the project on Orange Line capacity relative to anticipated improvements in headways for the line. The analysis should include passenger-related platform occupancy and ingress / egress load factors. 4.8
- An analysis of the proposed relocation of the Route 39 bus terminus. How will transfers to the Orange Line be impacted? Where will Route 39 buses be staged to accommodate schedule adjustments? 4.9
- A proposal to directly connect building tenants with Massport's Back Bay – Logan Airport service. 4.10

Shared-Transportation and Bicycle Accommodation

The Gateway project provides opportunities to improve passenger transfers not only between Orange Line, commuter rail and Amtrak service but also for first- and last-mile journeys to and from Back Bay Station. The proponent should develop a new section in the DPIR that details their strategy to: 4.11

- Increase the provision of garage parking spaces for car-share service providers such as Zip Car.
- Increase the number of bike-share Hubway stations, locating new docks along Clarendon and Stuart Streets. 4.12
- Install an independent sheltered, secure and managed bike-parking facility for at least 350 bicycles. 4.13
- Provide dedicated pick-up / drop-off space for taxis, shuttles, and Transportation Network Companies (TNCs) such as Uber and Lyft. 4.14

- Install "transit screens" that provide real-time information on the availability of the full spectrum of transportation options servicing the buildings. 4.15

Public Realm

The project provides significant public realm improvements to support public street acitivity including wide sidewalks, new pedestrian connections improving access through the site, and continuous street walls fronted by retail. To add to the proposed features the DPIR should include:

- Details on the width of the pedestrian zone on crosswalks around the site. A minimum unobstructed width of 12 feet is preferred. Note that this width is in addition to the width of furniture and frontage zones. 4.16
- A design for a continuous sidewalk along Clarendon Street. Note that the garage ingress/egress curb cuts and the pull-in to the Back Bay Station should be designed to allow pedestrians on Clarendon Street to be able to continue walking safely without any diversions. 4.17
- Designs improving pedestrian access to Stanhope Street and Frieda Garcia Park from the site. 4.18
- Detailed configuration of the Columbus Avenue – Clarendon Street intersection to provide safer and more comfortable pedestrian crossings particularly for the pedestrian desire line to Back Bay Station from the South End and Bay Village. 4.19
- A proposal to work on a joint Stuart Street streetscape plan with the other developers in the corridor. 4.20

Parking and TDM Programs

The PNF states that in its reconstructed state, under a managed parking scenario, the Garage will not exceed the existing permitted capacity of 2,013 spaces as allowed by the Boston Air Pollution Control Commission. This total includes the 576 spaces currently permitted for use by the general public, and a projected supply to meet the needs of the proposed project. We note that the proponent has embraced the 0.4 spaces her KSF or dwelling unit parking-ratio guidelines adopted by the Boston Transportation Department. The DPIR should include details on the following: 4.21

- 5% of the total number of parking spaces should be fitted for electric vehicle charging
- Spaces set aside for car-share and vanpools should be located conveniently. 4.22
- Transit and Hubway pass subsidies should be institutionalized so that future managers of the development sites are aware of their commitments. 4.23
- Details on the expected turnover or utilization of parking spaces on an average day compared to garage utilization today. 4.24
- Description of how parking supply will vary as each phase of the project is built. 4.25

Loading

The PNF locates loading zones within the building footprint. Access to these loading bays by large semi-trucks should be designed-in during the conceptual design phase. In addition the DPIR should include a strategy of how urban packages delivery, which has seen a huge increase in small truck trips, will be accommodated. Will companies like Amazon or grocery stores be locating local pick-up "warehouses" in the development? 4.26

Construction Management Plan

As the projects in the DPIR advance, the proponents will be required to develop and submit a detailed Construction Management Plan (CMP) to BTD for review and approval. The CMP will address TDM measures for construction workers, proposed street occupancies, equipment staging, sidewalk and bike-lane relocations and hours of construction work. BTD will work with the proponents to execute the CMP. The DPIR should include a description of how:

- The construction of the project will be coordinated with the other proposed projects in the surrounding area. 4.27

Transportation Access Plan Agreement

Analysis performed in the DPIR will lead to a Transportation Access Plan Agreement (TAPA) for the Gateway Project, which will codify the project's transportation-related elements, including mitigation items. It is expected that the proponents will enter a project wide TAPA that sets an overall framework and individual TAPAs for developments on each parcel as and when they are phased in. 4.28

Site Plan

The proponents need to submit an engineered site plan within the context of the surrounding roadways at 1:20 scale depicting:

- Vehicular Access and Circulation
- Parking Layout and Circulation
- Pedestrian Access and Circulation
- Bicycle Access and Circulation
- Shuttle/Van Pool Pickup and Dropoff
- Parking Spaces for Car Sharing services
- Service and Loading*
- Roadways and Sidewalks
- Building Layout
- Bicycle Parking Locations and Types (covered, indoor, bike share, etc)
- Transit Stops and Connections
- Electric Vehicle Charging Stations

4.29

* *Trash compactors/dumpsters need to be depicted as well.*

The issues raised above should be addressed in the DPIR. BTD looks forward to working collaboratively with the proponents and the community in review of these projects and to address any outstanding concerns in the permitting process.

Sincerely,

Vineet Gupta
Director of Policy and Planning
Boston Transportation Department

Cc: John DeBenedictis, Director of Engineering

Mayor's Commission for Persons with Disabilities

Martin J. Walsh, Mayor

June 14, 2016

RE: Back Bay / South End Gateway, Boston MA 02116
Project Notification Form
Boston Redevelopment Authority

The Disability Commission has reviewed the Project Notification Form that was submitted for Back Bay / South End Gateway in Boston. Since the proposed project is planned to be a vibrant destination area with multiple uses, including retail, commercial, housing and as a major transportation access point, I would like to encourage a scheme that allows full and equal participation of persons with disabilities through *ideal design which meets as well as exceeds compliance* with accessibility building code requirements. It is crucial that the site layout, buildings, open spaces, parking, and circulation routes be developed with access in mind. 5.1

Therefore, in order for my Commission to give its full support to this project, I would like to ask that the following accessibility issues be considered and/or explained:

- **Accessible Residential Units:**
  - We would like to request more information on accessible units within the Project, including details about the amount, location, types and floor plans. 5.2
  - Will any of the accessible unit be deemed affordable? If not, please explain. 5.3
  - Will the Inclusionary Development Program residential units be provided on-site? If not, please indicate the location of the off-site IDP units. 5.4

- **Accessible Parking:**
  - Please provide more details on the proposed accessible drop-off area, including details on proposed layouts, widths, slopes, materials, areas of replacement or existing-to-remain. 5.5
  - How many accessible parking spaces will be provided in the remaining portion of the Garage? Please provide details on location and accessible route. 5.6
  - Is there a difference in allocation of parking in terms of visitor, residential, retail and commercial (office) parking spaces? If so, please explain and provide details on amount, location and accessible route. 5.7

- **Accessible Route:**
  - Are roof deck entrances from the residential units flush to grade? 5.8

- **Sidewalks:**
  - We support the proposed improvements to the running slopes at the Dartmouth Street/Stuart Street intersection and westerly-side of Clarendon Street, which would provide these heavily travelled portions of the Back Bay/South End more accessibility to persons of all abilities. 5.9
  - We support widening the sidewalks as much as possible if sidewalk cafés are likely to be proposed in the future. 5.10
  - Please confirm that the proposed realigned crosswalk through Dartmouth Street to Copley Place will be accessibly signalized with Accessible Pedestrian Signal (APS) devices. 5.11
  - Please confirm that reconstructed pedestrian ramps will feature yellow composite tactile warning panels cast in concrete, per City of Boston Complete Street Standards. 5.12

- **Construction:**
  - What is the timeline for the improvements proposed within the Project Scope? 5.13
  - What is the timeline for the separate Dartmouth Street Station Entrance Project and the associated proposed hardscape and streetscape improvements? 5.14
  - Do you anticipate any portion of the Project going through the Public Improvement Commission? If so, please identify and provide details. 5.15

- **Community Benefits:**
  - Accessibility extends past compliance through building code requirements. For example, by providing employment opportunities and an overall scheme that allows full and equal participation of persons with disabilities, makes the development an asset to the surrounding community. What opportunities (ex. employment, community support, social) will the development provide for persons with disabilities? 5.16

- **Wayfinding:**
  - Do you have a Wayfinding Package to better understand wayfinding strategies within the scope of the proposed project? 5.17

- **Variances:**
  - Do you anticipate filing for any variances with the Massachusetts Architectural Access Board? If so, please identify and explain. 5.18

Commission's General Statement on Access:

The Mayor's Commission for Persons with Disabilities supports barrier-free design and construction in all buildings throughout Boston, including renovation projects as well as new structures. We work with City departments and developers to ensure compliance with local, state, and federal building codes including Boston Complete Streets, Massachusetts Architectural Access Board (MGL, 521 CMR) and the Americans with Disabilities Act (ADAAG, 28 CFR). Designing or constructing structures that are non-compliant with these requirements is a violation of the law unless it can be demonstrated that it would be structurally infeasible to do so. 5.19

Priorities for accessibility other than building design and construction include: ensuring maintenance and upkeep of accessibility features; posting signage for way-finding; utilizing compliant barricades throughout construction; designating appropriate location and amount of accessible parking spaces; and removing barriers in existing buildings wherever "readily achievable" (*"easily accomplishable and able to be carried out without much difficulty or expense"*).

The Commission is available for technical assistance and design review to help achieve accessibility compliance and to ensure that all buildings, sidewalks, parks, and open spaces are usable and welcoming to all of Boston's diverse residents, including those with physical, sensory, intellectual, and communication disabilities.

Thank You.

Kristen McCosh, Commissioner
Mayor's Commission for Persons with Disabilities
kristen.mccosh@boston.gov
617-635-3682

Reviewed by:
Patricia Mendez, Architectural Access Specialist
Mayor's Commission for Persons with Disabilities
patricia.mendez@boston.gov
617-635-2529

Sarah Leung, Architectural Access Project Coordinator
Mayor's Commission for Persons with Disabilities
sarah.leung@boston.gov
617-635-3746

Same comment letter for ENF

Boston Water and Sewer Commission

980 Harrison Avenue
Boston, MA 02119-2540
617-989-7000

May 4, 2016

Secretary Matthew A. Beaton
Executive Office of Energy and Environmental Affairs
Attention: MEPA Office
Alex Strysky, EEA No. 15502
100 Cambridge Street, Suite 900
Boston, MA 02114

and

Christopher Tracy
Senior Project Manager
Boston Redevelopment Authority
One City Hall Square
Boston, MA 02201

Re: Back Bay/South End Gateway Project
Environmental Notification Form/Project Notification Form

Dear Secretary Beaton and Mr. Tracy:

The Boston Water and Sewer Commission (Commission) has reviewed the Environmental Notification Form (ENF) and the Project Notification Form (PNF) for the proposed Back Bay/South End Gateway Project in the Back Bay and South End Districts of Boston.

The proposed 5.2 acre project site consists of four distinct air rights parcels: Garage West Parcel, Garage East Parcel, Station East Parcel and Station West Parcel, situated over Interstate 90 (Mass Turnpike Extension) and the track and concourse levels of the Massachusetts Bay Transportation Authority's (MBTA) Back Bay Station. The proponent, BP Hancock LLC, proposes a 1.26 million square foot (sf) mixed use development including a new office building with ground floor retail, two new residential buildings, a one and two-story vertical retail expansion of the existing station and the partial redevelopment of the 100 Clarendon Street Parking Garage as follows:

- Garage West Parcel includes the demolition of the westernmost parking drum and the construction of a new 26-story building containing approximately 575,000 sf of office space, 27,000 sf of ground floor retail, and 200,000 gsf of reconstructed parking garage. The reconfigured garage will contain parking spaces to serve all uses in the project.
- Garage East Parcel includes the demolition of the easternmost parking drum and the construction of a new 28-story building containing approximately 240 residential units in approximately 215,000 sf.

- Station East Parcel involves the relocation of the existing bus drop-off location, the removal of the existing MBTA ventilation tower and the construction of a new 34-story building, containing approximately 360 residential units in approximately 377,000 sf, with approximately 8,500 sf of ground and second floor retail.
- Station West Parcel includes a vertical expansion of the existing station to create between approximately 30,000 and 65,000 sf of additional retail space.

The site is bounded by Dartmouth Street to the west, Stuart Street and Trinity Place to the north, Trinity Place and Clarendon Street to the east and the southern property line of Back Bay station to the south.

According to the ENF/PNF, the proposed water demand is 176,574 gallons per day (gpd). The Commission owns and maintains a 10-inch Southern High water main in Stuart Street, a 12-inch Southern High water main in Trinity Place, a 12-inch Southern High water main in a Commission easement through the property between Trinity Place and Clarendon Street, a 12-inch Southern High water main in Clarendon Street and a 12-inch Southern Low water main in Dartmouth Street.

According to the ENF/PNF, the proposed sewage generation is 160,522 gpd. For sewage and storm drainage service, the site is served by a 10-inch sanitary sewer and a 15-inch storm drain in Stuart Street, an 18-inch by 33-inch sanitary sewer and an 18-inch by 18-inch storm drain in Trinity Place, an 18-inch by 18-inch sanitary sewer and a 15-inch storm drain in Clarendon Street, and a 10-inch and a 12-inch sanitary sewer and a 12-inch and a 15-inch storm drain in Dartmouth Street.

The Commission has the following comments regarding the proposed project:

General

1. Prior to demolition of any buildings, all water, sewer and storm drain connections to the buildings must be cut and capped at the main pipe in accordance with the Commission's requirements. The proponent must then complete a Termination Verification Approval Form for a Demolition Permit, available from the Commission and submit the completed form to the City of Boston's Inspectional Services Department before a demolition permit will be issued. 6.1

2. All new or relocated water mains, sewers and storm drains must be designed and constructed at BP Hancock LLC's expense. They must be designed and constructed in conformance with the Commission's design standards, Water Distribution System and Sewer Use Regulations, and Requirements for Site Plans. To assure compliance with the Commission's requirements, the proponent must submit a site plan and a General Service Application to the Commission's Engineering Customer Service Department for review 6.2 6.3

and approval when the design of the new water and wastewater systems and the proposed service connections to those systems are 50 percent complete. The site plan should include the locations of new, relocated and existing water mains, sewers and drains which serve the site, proposed service connections as well as water meter locations. 6.3 cont.

3. The Department of Environmental Protection (DEP), in cooperation with the Massachusetts Water Resources Authority and its member communities, is implementing a coordinated approach to flow control in the MWRA regional wastewater system, particularly the removal of extraneous clean water (e.g., infiltration/inflow (I/I)) in the system. In April of 2014, the Massachusetts DEP promulgated new regulations regarding wastewater. The Commission has a National Pollutant Discharge Elimination System (NPDES) Permit for its combined sewer overflows and is subject to these new regulations [314 CMR 12.00, section 12.04(2)(d)]. This section requires all new sewer connections with design flows exceeding 15,000 gpd to mitigate the impacts of the development by removing four gallons of infiltration and inflow (I/I) for each new gallon of wastewater flow. In this regard, any new connection or expansion of an existing connection that exceeds 15,000 gallons per day of wastewater shall assist in the I/I reduction effort to ensure that the additional wastewater flows are offset by the removal of I/I. Currently, a minimum ratio of 4:1 for I/I removal to new wastewater flow added is used. The Commission supports the policy, and will require proponent to develop a consistent inflow reduction plan. The 4:1 requirement should be addressed at least 90 days prior to activation of water service and will be based on the estimated sewage generation provided on the project site plan. 6.4

4. The design of the project should comply with the City of Boston's Complete Streets Initiative, which requires incorporation of "green infrastructure" into street designs. Green infrastructure includes greenscapes, such as trees, shrubs, grasses and other landscape plantings, as well as rain gardens and vegetative swales, infiltration basins, and paving materials and permeable surfaces. The proponent must develop a maintenance plan for the proposed green infrastructure. For more information on the Complete Streets Initiative see the City's website at http://bostoncompletestreets.org/ 6.5

5. For any proposed masonry repair and cleaning BP Hancock LLC will be required to obtain from the Boston Air Pollution Control Commission a permit for Abrasive Blasting or Chemical Cleaning. In accordance with this permit BP Hancock LLC will be required to provide a detailed description as to how chemical mist and run-off will be contained and either treated before discharge to the sewer or drainage system or collected and disposed of lawfully off site. A copy of the description and any related site plans must be provided to the Commission's Engineering Customer Service Department for review before masonry repair and cleaning commences. BP Hancock LLC is advised that the 6.6

Commission may impose additional conditions and requirements before permitting the discharge of the treated wash water to enter the sewer or drainage system. 6.6 cont.

6. BP Hancock LLC should be aware that the US Environmental Protection Agency issued the Remediation General Permit (RGP) for Groundwater Remediation, Contaminated Construction Dewatering, and Miscellaneous Surface Water Discharges. If groundwater contaminated with petroleum products, for example, is encountered, BP Hancock LLC will be required to apply for a RGP to cover these discharges. 6.7

7. The project sites are located within Boston's Groundwater Conservation Overlay District (GCOD). The district is intended to promote the restoration of groundwater and reduce the impact of surface runoff. Projects constructed within the GCOD are required to include provisions for retaining stormwater and directing the stormwater to the groundwater table for recharge. 6.8

8. BP Hancock LLC is advised that the Commission will not allow buildings to be constructed over any of its water lines. Also, any plans to build over Commission sewer facilities are subject to review and approval by the Commission. The project must be designed so that access, including vehicular access, to the Commission's water and sewer lines for the purpose of operation and maintenance is not inhibited. 6.9

9. It is BP Hancock LLC's responsibility to evaluate the capacity of the water, sewer and storm drain systems serving the project site to determine if the systems are adequate to meet future project demands. With the site plan, BP Hancock LLC must include a detailed capacity analysis for the water, sewer and storm drain systems serving the project site, as well as an analysis of the impacts the proposed project will have on the Commission's water, sewer and storm drainage systems. 6.10

Water

1. BP Hancock LLC must provide separate estimates of peak and continuous maximum water demand for residential, commercial, industrial, irrigation of landscaped areas, and air-conditioning make-up water for the project with the site plan. Estimates should be based on full-site build-out of the proposed project. BP Hancock LLC should also provide the methodology used to estimate water demand for the proposed project. 6.11

2. BP Hancock LLC should explore opportunities for implementing water conservation measures in addition to those required by the State Plumbing Code. In particular, BP Hancock LLC should consider outdoor landscaping which requires minimal use of water to maintain. If BP Hancock LLC plans to install in-ground sprinkler systems, the Commission recommends that timers, soil moisture indicators and rainfall sensors be installed. The use of sensor-operated faucets and toilets in common areas of buildings should be considered. 6.12

3. BP Hancock LLC is required to obtain a Hydrant Permit for use of any hydrant during the construction phase of this project. The water used from the hydrant must be metered. BP Hancock LLC should contact the Commission's Meter Department for information on and to obtain a Hydrant Permit. 6.13

4. The Commission is utilizing a Fixed Radio Meter Reading System to obtain water meter readings. For new water meters, the Commission will provide a Meter Transmitter Unit (MTU) and connect the device to the meter. For information regarding the installation of MTUs, BP Hancock LLC should contact the Commission's Meter Department. 6.14

Sewage / Drainage

1. A Total Maximum Daily Load (TMDL) for Nutrients has been established for the Lower Charles River Watershed by the Massachusetts Department of Environmental Protection (MassDEP). In order to achieve the reductions in Phosphorus loading required by the TMDL, phosphorus concentrations in the lower Charles River from Boston must be reduced by 64%. To accomplish the necessary reductions in phosphorus, the Commission is requiring developers in the lower Charles River watershed to infiltrate stormwater discharging from impervious areas in compliance with MassDEP. BP Hancock LLC will be required to submit with the site plan a phosphorus reduction plan for the proposed development. BP Hancock LLC must fully investigate methods for retaining stormwater on-site before the Commission will consider a request to discharge stormwater to the Commission's system. The site plan should indicate how storm drainage from roof drains will be handled and the feasibility of retaining their stormwater discharge on-site. Under no circumstances will stormwater be allowed to discharge to a sanitary sewer. 6.15

   In conjunction with the Site Plan and the General Service Application BP Hancock LLC will be required to submit a Stormwater Pollution Prevention Plan. The plan must:

   - Identify best management practices for controlling erosion and for preventing the discharge of sediment and contaminated groundwater or stormwater runoff to the Commission's drainage system when the construction is underway. 6.16

   - Include a site map which shows, at a minimum, existing drainage patterns and areas used for storage or treatment of contaminated soils, groundwater or stormwater, and the location of major control or treatment structures to be utilized during construction. 6.17

   - Provide a stormwater management plan in compliance with the DEP standards mentioned above. The plan should include a description of the measures to control pollutants after construction is completed. 6.18

2. Developers of projects involving disturbances of land of one acre or more will be required to obtain an NPDES General Permit for Construction from the Environmental Protection Agency and the Massachusetts Department of Environmental Protection. BP Hancock LLC is responsible for determining if such a permit is required and for obtaining the permit. If such a permit is required, it is required that a copy of the permit and any pollution prevention plan prepared pursuant to the permit be provided to the Commission's Engineering Services Department, prior to the commencement of construction. The pollution prevention plan submitted pursuant to a NPDES Permit may be submitted in place of the pollution prevention plan required by the Commission provided the Plan addresses the same components identified in item 1 above. 6.19

3. The Commission encourages BP Hancock LLC to explore additional opportunities for protecting stormwater quality on site by minimizing sanding and the use of deicing chemicals, pesticides, and fertilizers. 6.20

4. The discharge of dewatering drainage to a sanitary sewer is prohibited by the Commission. BP Hancock LLC is advised that the discharge of any dewatering drainage to the storm drainage system requires a Drainage Discharge Permit from the Commission. If the dewatering drainage is contaminated with petroleum products, BP Hancock LLC will be required to obtain a Remediation General Permit from the Environmental Protection Agency (EPA) for the discharge. 6.21

5. BP Hancock LLC must fully investigate methods for retaining stormwater on-site before the Commission will consider a request to discharge stormwater to the Commission's system. The site plan should indicate how storm drainage from roof drains will be handled and the feasibility of retaining their stormwater discharge on-site. Under no circumstances will stormwater be allowed to discharge to a sanitary sewer. 6.22

6. The Massachusetts Department of Environmental Protection (MassDEP) established Stormwater Management Standards. The standards address water quality, water quantity and recharge. In addition to Commission standards, BP Hancock LLC will be required to meet MassDEP Stormwater Management Standards. 6.23

7. Sanitary sewage must be kept separate from stormwater and separate sanitary sewer and storm drain service connections must be provided. The Commission requires that existing stormwater and sanitary sewer service connections, which are to be re-used by the proposed project, be dye tested to confirm they are connected to the appropriate system. 6.24

8. The Commission requests that BP Hancock LLC install a permanent casting stating "Don't Dump: Drains to Charles River" next to any catch basin created or modified as

part of this project. BP Hancock LLC should contact the Commission's Operations Division for information regarding the purchase of the castings. 6.25

9. If a cafeteria or food service facility is built as part of this project, grease traps will be required in accordance with the Commission's Sewer Use Regulations. BP Hancock LLC is advised to consult with the Commission's Operations Department with regards to grease traps. 6.26

10. The enclosed floors of a parking garage must drain through oil separators into the sewer system in accordance with the Commission's Sewer Use Regulations. The Commission's Requirements for Site Plans, available by contacting the Engineering Services Department, include requirements for separators. 6.27

Thank you for the opportunity to comment on this project.

Yours truly,

For John P. Sullivan, P.E.
Chief Engineer

JPS/afh

C: Michael A. Cantalupa, BP Hancock LLC
M. Zlody, BED via e-mail
P. Larocque, BWSC via e-mail

Christopher Tracy <christopher.tracy@boston.gov>

Fwd: Back Bay/South Gateway Project - Project Notification Form (PNF)

1 message

Christopher Tracy <christopher.tracy@boston.gov> Wed, Jun 29, 2016 at 11:43 AM
To: Christopher Tracy <christopher.tracy@boston.gov>

---------- Forwarded message ----------
From: **Todd Liming** <todd.liming@boston.gov>
Date: Wed, Jun 15, 2016 at 1:45 PM
Subject: Re: Back Bay/South Gateway Project - Project Notification Form (PNF)
To: Christopher Tracy <christopher.tracy@boston.gov>

No . . . it was all verbal. If I remember correctly, they may need to grant pedestrian easements to comply with our required 5' minimum path of travel. All non-standard sidewalk installations, such as landscaping and specialty pavement, will require a license, maintenance, & indemnification (LMI) agreement. This specifies that they're responsible for these materials. I think the rest of what they're doing is pretty typical from PIC's perspective. 7.1

-Todd

On Wed, Jun 15, 2016 at 1:38 PM, Christopher Tracy <christopher.tracy@boston.gov> wrote:
> Thanks, is there anyway you have a copy of what you said?
>
> Sent from my iPhone
>
> On Jun 15, 2016, at 1:36 PM, Todd Liming <todd.liming@boston.gov> wrote:
>
> > Thanks, Chris. I met with the development team on 6/3 and passed along PIC's thoughts. They should be up to speed with us.
> >
> > **Todd M. Liming**, P.E.
> > Principal Civil Engineer
> > City of Boston Public Works Department
> > Public Improvement Commission
> > (617) 635-4960 || City Hall room 714
> > Todd.Liming@boston.gov
> > www.boston.gov/publicworks/PIC
> >
> > On Wed, Jun 15, 2016 at 9:57 AM, Christopher Tracy <christopher.tracy@boston.gov> wrote:
> > > FYI just a reminder for Public Works/PIC, thanks!
> > >
> > > Sent from my iPhone
> > >
> > > Begin forwarded message:
> > >
> > > **From:** Christopher Tracy <christopher.tracy@boston.gov>
> > > **Date:** June 13, 2016 at 2:03:02 PM EDT
> > > **To:** Christopher Tracy <christopher.tracy@boston.gov>
> > > **Cc:** Lauren Shurtleff <lauren.shurtleff@boston.gov>, Jonathan Greeley <jonathan.greeley@boston.gov>, Michael Christopher <michael.christopher@boston.gov>, Melissa Schrock <mschrock@bostonproperties.com>, Mike Cantalupa <mcantalupa@bostonproperties.com>
> > > **Subject: Fwd: Back Bay/South Gateway Project - Project Notification Form (PNF)**

BRA MEMORANDUM

TO: Chris Tracy

FROM: Katie Pedersen

DATE: June 14, 2016

RE: The Back Bay/South End Gateway Project
Boston, Massachusetts
Project Notification Form

I have reviewed the Project Notification Form (the "PNF") dated March 29, 2016 and submit the following comments for the Environmental Protection component. BP Hancock LLC c/o Boston Properties Limited Partnership (the "Proponent") is proposing a mixed-use redevelopment project incorporating four sites and containing approximately 1.26 million square feet, including a new office building (with ground floor retail), two new residential buildings, a retail expansion of the existing Back Bay/South End Massachusetts Bay Transportation Authority's ("MBTA") Station building (the "Station") and a partial redevelopment of the existing 100 Claredon Street Parking Garage (the "Proposed Project").

Wind

The Proponent has stated that Proposed Project will four buildings, the tallest of which be approximately 388 feet in height and accordingly the Proponent shall be required to conduct a quantitative (wind tunnel) analysis for both existing (no-build) and build conditions. 8.1

The analysis shall determine potential pedestrian level winds adjacent to and in the vicinity of the Proposed Project site and shall identify any areas where wind velocities are expected to exceed acceptable levels, including the Boston Redevelopment Authority's guideline of an effective gust velocity of 31 miles per hour (mph) not to be exceeded more than 1% of the time. 8.2 The analysis also shall determine the suitability of particular locations for various activities (e.g., walking, sitting, eating, etc.) as appropriate. 8.3

The Proponent shall be required to pay particular attention to public and other areas of pedestrian use, including, but not limited to, entrances to the Proposed Project and adjacent buildings, sidewalks adjacent to and in the vicinity of the Proposed Project buildings as well as parks, including but not limited to the Copley Square, the Southwest Corridor Park and Frieda Garcia Park, plazas and other open spaces and pedestrian areas near the Proposed Project. 8.4 The Proponent shall be cognizant of the planning objectives emphasized in the Stuart Street Zoning District and in particular, in designing the buildings to be sensitive to the wind and shadow impacts on sidewalks and nearby public open spaces 8.5

Wind speeds shall be measured in miles per hour and for areas where wind speeds are projected to be dangerous or to exceed acceptable levels, measures to reduce wind speeds and to mitigate potential adverse impact(s) shall be identified and, if appropriate, tested. 8.6

Shadow

The Proponent conducted and included the results of a shadow analysis for the existing (no-build) and build conditions for the hours of 9:00 a.m., 12:00 noon, and 3:00 p.m. for the vernal equinox, summer solstice, autumnal equinox, and winter solstice and for 6:00 p.m. in the summer and fall, in the PNF.

The shadow impact analysis examined the existing shadows and illustrated the incremental effects of the Proposed Project on existing and proposed public open spaces, including but not limited to Copley Square Park (bounded by Boylston Street, Clarendon Street, St. James Avenue and Dartmouth Street, excluding land occupied by Trinity Church), the Southwest Corridor Park and Frieda Garcia Park, and pedestrian areas (including transit stops), sidewalks and pedestrian walkways adjacent to and in the vicinity of the Proposed Project.

The results indicate that the Proposed Project is not anticipated to create a significant net new shadow and in particular, the net new shadows are anticipated to be cast onto Copley Square Park for approximately one hour and 54 minutes, thus demonstrating compliance.

Solar Glare

The Proponent shall be required to conduct a solar glare analysis. The analysis shall measure potential reflective glare from the Proposed Project onto potentially affected streets and public open spaces and sidewalk areas in order to determine the likelihood of visual impairment or discomfort due to reflective spot glare. Mitigation measures to eliminate any adverse reflective glare shall be identified. 8.7

Daylight

(Please refer to Urban Design's comments)

Air Quality

The Proponent shall be required to conduct an evaluation of the Proposed Project's impact on local and regional air quality from a significant stationary and perform a microscale analysis, which shall predict localized carbon monoxide concentrations, including identification of any locations projected to exceed the National or Massachusetts Ambient Air Quality Standards. The analysis is required for projects for which: 8.8

1) project traffic would impact intersections or roadway links currently operating at Level of Service ("LOS") D, E, or F or would cause LOS to decline to D, E, or F;

2) project traffic would increase traffic volumes on nearby roadways by 10% or more (unless the increase in traffic volume is less than 100 vehicles per hour); or,

3) the project will generate 3,000 or more new average daily trips on roadways providing access to a single location.

The Proponent shall be required to perform a mesoscale analysis, which shall predict the change in regional emissions of volatile organic compounds ("VOCs") and nitrogen oxides ("NOx") should be performed for projects that generate more than 10,000 vehicle trips per day. The above analyses shall be conducted in accordance with the modeling protocols established by the Massachusetts Department of Environmental Protection ("DEP") and the U.S. Environmental Protection Agency ("EPA"). Emissions from any parking facility constructed as part of the Proposed Project and from the Proposed Project's heating and mechanical systems must be estimated. In addition, carbon monoxide monitors shall be installed in all enclosed parking facilities and a description of the proposed ventilation system must be provided. Building/garage air intake and exhaust systems and specifications and an analysis of the impact of exhausts on pedestrians and any sensitive receptors must be identified and described. Finally, mitigation measures required to minimize or avoid any violation of state or federal ambient air quality standards must be described. 8.9 8.10 8.11

Noise

Noise impacts from the Proposed Project must be analyzed, including rooftop mechanical equipment and other noise sources (e.g., emergency generators), and a determination made of compliance with City of Boston noise regulations and applicable state and federal regulations and guidelines. Due to the close proximity to the residential areas, the Proponent shall be required to evaluate to determine conformance with the Interior Design Noise Level (not to exceed day night average sound level of 45 decibels) established by the U.S. Department of Housing and Urban Development (24 CFR Part 51, Subpart B). If deemed necessary, mitigation measures to reduce excessive noise levels to acceptable limits must be described. 8.12 8.13

Sustainable Design/Green Buildings

(Please see the Interagency Green Building Committee (IGBC) Article 37 Comment Letter)

Christopher Tracy <christopher.tracy@boston.gov>

Re: Back Bay/South Gateway Project - Project Notification Form (PNF)

1 message

Tim Davis <tim.davis@boston.gov> Mon, Jun 13, 2016 at 3:03 PM
To: Christopher Tracy <christopher.tracy@boston.gov>

Chris,

In the Back Bay/South End Gateway Project PNF, the proponent makes a very broad statement about providing affordable housing and does not clearly indicate whether the units at the site will be rental, homeownership, or a combination. I would like to see the proponent flesh out what they are proposing, given that our preference, especially for rentals, is that the IDP units are placed on site (in this case, 78). 9.1

For a rental property, both the contribution and off-site options would require approval from the BRA Board, only after a feasibility analysis is completed, with an eye towards providing a similar or superior affordable housing outcome as on-site. Homeownership projects in this neighborhood have more flexibility in terms of what they can do "as of right" to meet their IDP obligations. In either case, it is important that the developer more fully explains its housing and IDP plans, not only for appropriate review by BRA staff and board, but for review by the South End, Back Bay, and Bay Village neighborhoods. 9.2

Thank you,

Tim H. Davis
Housing Policy Manager
617.918.4302 (o) | 617.510.6123 (c)

BRA/EDIC
One City Hall Square | Boston, MA 02201
BostonRedevelopmentAuthority.org

On Mon, Jun 13, 2016 at 2:03 PM, Christopher Tracy <christopher.tracy@boston.gov> wrote:

> All,
> I am writing as a friendly reminder to all public agencies that the comment period for this proposal is set to close this Friday, June 17. Public agency comments will be critically important to crafting the Scoping Determination that the BRA plans on issuing to Boston Properties for this complex project in a very important location. **Therefore, I please ask your department to submit comments directly to me on or by this Friday, June 17.** The Project's PNF can be easily accessed via the link below. Thanks and please let me know if you have any questions at all.
>
> http://www.bostonredevelopmentauthority.org/projects/development-projects/back-bay-south-end-gateway-project
>
> Best,
> -Chris
>
> ---------- Forwarded message ----------
> From: **Christopher Tracy** <christopher.tracy@boston.gov>
> Date: Wed, May 25, 2016 at 10:08 AM
> Subject: Fwd: Back Bay/South Gateway Project - Project Notification Form (PNF)
> To: Christopher Tracy <christopher.tracy@boston.gov>

Boston
Groundwater Trust

229 Berkeley St, Fourth Floor, Boston, MA 02116
617.859.8439 voice
www.bostongroundwater.org

June 15th, 2016

Christopher Tracy, Senior Project Manager
Boston Redevelopment Authority
One City Hall Square
Boston, MA 02201-1007

Subject: Back Bay/South End Gateway Project Notification Form

Dear Mr. Tracy:

Thank you for the opportunity to comment on the project notification form (PNF) for the Back Bay/South End Gateway Project. The Boston Groundwater Trust was established by the Boston City Council to monitor groundwater levels in sections of Boston where the integrity of building foundations is threatened by low groundwater levels and to make recommendations for solving the problem. Therefore my comments are limited to groundwater related issues.

The project is located in the Groundwater Conservation Overlay District (GCOD) established under Article 32 of the Zoning Code. As stated in the PNF, confirmed in a preliminary meeting, and at the scoping session the project is proposed to be designed and constructed to comply with the requirements of Article 32.

As confirmed in a preliminary meeting and at the scoping session the GCOD requires both the installation of a recharge system and a demonstration that the project cannot cause a reduction in groundwater levels on site or on adjoining lots. In the case of the Back Bay/South End Gateway Project four separate parcels designated Garage West, Garage East, Station East, and Station West will all need to be addressed individually. As stated in the PNF, the proposed construction of the four separate parcels is anticipated to require various foundation types with construction of the four parcels occurring in different phases. Before the GCOD zoning approval can be put in place, the proponent must provide the Authority and the Trust a letter stamped by a professional engineer registered in Massachusetts that details how each of the four parcels will accomplish what is stated in the PNF and meets the GCOD requirement for no reduction in groundwater levels on site or on adjoining lots. 10.1

The PNF states that some local dewatering may be required during the construction processes. The PNF also states that the feasibility of recharging temporary dewatering effluent into the ground will be investigated during the design of the Project.

The PNF states that performance criteria will be established for maintenance of groundwater levels during construction in the vicinity of the Project. In addition the PNF also states that the contractor will be required to implement necessary steps during the work to not lower groundwater levels outside the limits of the Site and that geotechnical instrumentation will be installed and monitored before and during the foundation installation portion of the work to observe the performance of the adjacent buildings and structures.

The groundwater level data should be furnished to the Trust and the Authority on a weekly basis. In the event that groundwater levels drop below the observed pre-construction baseline levels during construction, provisions must be in place to halt construction and dewatering until the cause is found and remedied. I look forward to working with the proponents Engineer on reviewing the monitoring wells in the area to be read and reported. Reporting of the groundwater level data and provisions to halt construction and dewatering if groundwater levels outside the project site drop below baseline levels should mirror the plan developed by the projects Engineer for the 888 Boylston Street project. 10.2 10.3 10.4

I look forward to continuing to work with the proponent and the Authority to assure that this project can have only positive impacts on area groundwater levels.

Very truly yours,

Christian S. Simonelli

Christian Simonelli
Executive Director

CC: Kathleen Pederson BRA,
Maura Zlody, BED

June 17, 2016

Christopher Tracy, Senior Project Manager
Boston Redevelopment Authority
One City Hall Square, Boston, MA 02201

Matthew Beaton, Secretary
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
100 Cambridge Street, Suite 900 Boston MA 02114

Delivered via PDF to Christopher.Tracy@boston.gov and
Matthew.Beaton@state.ma.us

Re: ENF/PNF for Back Bay/South End Gateway Project
MEPA EEA No. 15502

Mr. Tracy and Mr. Beaton,

LivableStreets Alliance would like to take this opportunity to provide feedback and suggestions on the ENF and PNF for the Back Bay/South End Gateway Project.

Overall, we could be supportive of the project if a number of important items are addressed. This project could be an excellent example of true transit oriented development, providing Back Bay with new residential, office, and retail space while minimizing the addition of cars along with it. We appreciate
11.1 that the developer is looking to create a people-oriented place both inside and outside. Although some benefits of the project are already clear, such as much needed maintenance and upgrades to Back Bay Station, upgrades to the station itself as well as to the surrounding streetscape still require much work in order to fulfill the goal of a station which will serve riders better now and into the future and of streets that truly fulfill the complete streets policies that the developer aims to achieve.

Here are a number of items that we feel must be addressed:

Back Bay Station Design

11.2 **Back Bay Station renovations must properly serve current and future volumes of riders and visitors.** T ridership has been going up and will continue to do so, especially as the T and Amtrak add additional service. The proposed station design gives up a lot of public space to retail, and also lacks

LivableStreets Rethinking urban transportation
LivableStreets Alliance 70 Pacific St. / @Sidney Cambridge MA 02139 T: 617.621.1185 F: 617.876.2265 info@livablestreets.info livablestreets.info

clear open lanes of travel for people heading to and from the various points within the station. We are very concerned that people using the station will be squeezed into spaces that are too small or too obstructed, creating bottlenecks and commuter frustration. In particular, we are concerned that riders entering and exiting the station through the main entrance will be in conflict with those patrons waiting in the new waiting area in the main hall. We are also concerned that the proposed configuration of the fare gates to the Orange Line will not function well, particularly the ones adjacent to elevator access. Please ensure that there is no reduction in space for passengers waiting in the main level of the station and that as little impact as possible is made to the train platforms themselves. 11.2 cont. 11.3 11.4

All public entry doors into the station should be converted to motion sensing hinge or slider doors. These types of doors will best serve people in wheelchairs, with strollers, with luggage, etc. 11.5

The developer should install one additional elevator to each platform (Orange Line, Commuter Rail #2, Commuter Rail #1 & #3, Commuter Rail #5 & #7) prior to or during the initial tower development as requested by the community and the MBTA. These are very important for providing redundant access for when one of the existing elevators breaks down. 11.6

Add wayfinding signage inside and outside the station to help guide passengers to the various transportation connections and other major destinations in the area. For example, signage to the following would be very helpful: short and long-term bike parking, Hubway Station, local bus connections (adjacent to station and nearby -- in particular the Logan Airport Back Bay Shuttle), Copley Green Line Station, Copley Square, Southwest Corridor Park, etc. 11.7

Please consider providing a subsidized space for a bicycle repair shop connected to the larger planned bicycle parking area. This would be a very useful service for bicycle commuters and local residents. 11.8

Given Boston's renewed efforts to promote public artwork, the developer should provide a comprehensive public artwork plan that protects existing historical panels, plaques, and sculptures within Back Bay Station and commissions either the replacement of the lost neon artwork or other visual sculptural artwork to adorn the station arches and entries. We are significantly discouraged by the developers' removal and disposal of all of the neon artwork inside and outside of Back Bay Station instead of restoring the artwork. 11.9

Streetscape Design

Sidewalk widths around the station must be generous enough to properly serve the large and increasing numbers of people who access the station, retail, or future development. 11.10
8' clear width is not nearly enough in many places to serve the heavy commuter flows. In addition, planters should be very carefully located as to not block access for people getting into and out of vehicles at the curbside. 11.11

There should be no garage exit on Dartmouth St. Dartmouth St is the main pedestrian gateway to the station. The other parking garages on Dartmouth St today already create a lot of conflict between cars and pedestrians, and adding an access point for this garage would only make the situation on Dartmouth St even worse for pedestrians. 11.12

Make the crosswalk across Dartmouth St between the station entrance and Southwest Corridor Park as wide as possible. This is a very heavy desire line and a very heavily used crossing, and currently pedestrians and bicyclists must often squeeze between the break in the median or step over it. If necessary, install a bollard or two in the median break to prevent illegal vehicular U-turns. Also please ensure that the walk signal is automatic and that the wait for the walk signal is short (no more than 30 seconds.) 11.13

A replacement pedestrian overhang should be added to the project. Currently, the overhang along Dartmouth St between Stuart St and the main station entrance as well as along part of Stuart St serves as a way for pedestrians to escape rain and snow. That overhang will be eliminated in the current plans. Please add some kind of overhang or architectural element that would serve the same function as the current one. 11.14

Look for ways to minimize the impact of the pull-out for cars on Clarendon St. For example, please design it to be flush with the sidewalk using the same material as the sidewalk. Use bollards instead of curbs to keep cars out of areas they should be not in. This is another heavily used entrance to the station, and pedestrians must have priority here. Please be very respectful of pedestrian desire lines, and do not put obstacles or cars in the way of these lines. 11.15

MBTA bus stops must be carefully located as to be convenient for riders and should not hinder bus operations. In particular, the Route 39 bus currently uses the bus turnaround to store extra buses during much of the day to help keep on schedule. Space for bus layovers must be found since this turnaround is going away. (Note that since the Copley T Station is now ADA accessible, it may no longer be necessary for the Route 39 bus to directly serve Back Bay Station. This was the original reason why it did.) To keep sidewalk widths wide, to create room for bus shelters, and to make it easier for buses to maneuver, it may be desirable to have some bus stops not include bus pull-outs, and instead have buses stop in the travel lane. 11.16 11.17

All streets affected by this project should have bike facilities added, as specified in the 30 Year Boston Bike Network Plan, including protected lanes on Dartmouth St and a striped bike lane on Stuart St. Clarendon St should also receive at minimum a striped bike lane. This project could also set the stage for two-way bike traffic on Dartmouth St between the Charles River Esplanade and the Southwest Corridor, a highly desirable route which the City has expressed interest in making two-way for bikes. 11.18

Coordinate with the City of Boston to find a good location for the food trucks that currently locate at Trinity Pl and Stuart St, whether it is the same location or one nearby. Perhaps it would be possible to find a space where adjacent outdoor seating can be provided as well. 11.19

Carefully plan and sign curbside regulations for taxi/Uber/Lyft, private car drop-offs, and bus stops on all affected streets. Currently, many people double park on Dartmouth St in the northbound direction, and illegally park along the curb in the southbound direction. Also, please ensure that any new planting boxes and street furniture do not inhibit loading and unloading activities. 11.20

Other Issues

The BRA should work with both Boston Properties and Copley Simon to provide elevator access from the Dartmouth Street underpass up to the main Copley Mall level. Previous BRA permitting and project review failed to address this considerable stair only barrier for tourists with luggage, parents with strollers, and people unable to use stairs. Once elevators are installed, anyone would be able to walk indoors from Back Bay Station to Hynes Convention Center/Sheraton Hotel. 11.21

Please require the developer to provide affordable housing on-site, so that people of many income levels will be able to afford to live there. 11.22

Finally, we thank you for the elements of the design which appear to be well on the right track, including: 11.23

- Using low parking ratios when determining how much parking is needed, so that new car trips generated by the project are minimized
- Preserving and expanding indoor bike parking in the station
- Creating an additional entrance to the station from Stuart St/Trinity Pl
- Introducing new trees and plantings along the streets where there are very little today

Thank you for considering our comments as this project moves forward. Feel free to contact me any time with any questions you may have about our comments at charlie@livablestreets.info or 617-852-6125.

Sincerely,

Charlie Denison

Charlie Denison, Advocacy Committee Chair

CC: Stephanie Pollack, MassDOT Secretary <Stephanie.Pollack@state.ma.us>

Same comment leter for ENF

June 17, 2016

Matthew Beaton, Secretary
Executive Office of Energy and Environmental Affairs (EEA)
ATTN: MEPA Office
100 Cambridge Street, Suite 900
Boston MA 02114

Brian Golden, Director
Boston Redevelopment Authority
One City Hall Square
Boston, MA 02201-1007

RE: Comments on the ENF and the PNF for the Back Bay/South End Gateway Project
MEPA: #15502

Dear Sirs:

WalkBoston reviewed the ENF and PNF for Back Bay/South End Gateway Project.

We are very interested in this project, which is superbly located to be served by public transportation, walking and biking. However, we have concerns about pedestrian access into, through and around the site which we would like to see addressed in the next project submissions. These are: 12.1

1. Relocation of the layover site for the Route 39 bus
   The proposal states that the layover site for the Route 39 bus will be located "off-site." Back Bay Station is one end of this bus route, which is one of the busiest in the MBTA system, serving Back Bay, the Fenway and Jamaica Plain. Buses congregate here and wait until schedules require them to return to the main route.

   This bus route is too important to the MBTA system and its many riders to shift the layover site to another location which could lead to a major change in the frequency of bus service. A layover location must be found nearby. 12.2

2. Sidewalks that surround the site
   Sidewalks along Stuart and Clarendon Streets have been designed at minimum widths for their functions. The MassDOT Design Guide calls for sidewalks in busy downtown areas of cities to be between 12 and 20 feet in width. These guidelines should be generously incorporated into the planning for this project. The City's Complete Streets Guideline Manual suggests that 8 feet is a minimum but prefers a width of ten feet. 12.3

   This is particularly important for the Dartmouth Street side of the project. Foot traffic on Dartmouth Street is already heavy and likely to increase, due to the new development and to moving the principal entrance to the station to the center of this frontage. The plan calls for a portion of the Dartmouth Street frontage to be as narrow as 8 feet at one point, and 13 feet otherwise. The 8' foot width, which appears along a planned ADA ramp into the first-floor retail area, is not adequate for this location. 12.4

MAKING OUR COMMUNITIES MORE WALKABLE
Old City Hall | 45 School Street | Boston MA 02108 | T: 617.367.9255 | F: 617.367.9285 | info@walkboston.org | www.walkboston.or

Perhaps this width could be expanded by moving the ADA ramp into the retail area of the building or by selectively eliminating portions of the drop-off/taxi lane which extends from the station entrance to Stuart Street. Alternatively, perhaps a thoughtful reduction of the number of trees and their placement might be appropriate to widen the clear width of the walkway.

12.4 cont.

3. Garage exit on Dartmouth Street

One of the unfortunate consequences of the design for re-use of the Garage East and West portions of this project is the potential use of Dartmouth Street as one of the exits from the on-site garage. This appears to result from redesign of the existing garage which currently has two entrance and exit ramps.

The proposed new parking facility removes two the existing garage access ways – those leading in and out of the garage in drums connecting with Trinity Place . It retains the existing entrance and exit ramps on Clarendon Street. The design calls for no new entrance ramps. However, it calls for a new exit ramp that requires removal of the Turnpike on-ramp. If the Turnpike ramp is retained, the proponent maintains that there is a need for a replacement exit onto Dartmouth Street.

The proposed exit ramp onto Dartmouth Street is deeply consequential for pedestrian traffic. It is difficult to imagine a more inappropriate design than the insertion of a major vehicular exit from the garage onto the Dartmouth Street sidewalk, the primary pedestrian access route to and from Back Bay Station. Certainly there must be a better place to provide a garage exit than this, possibly by retaining one of the drums could be retained for exiting traffic directly onto Trinity Place.

12.5

4. The station area concourse

Back Bay Station was designed as a large arched hall, flanked on both sides by hallways leading to ticket and waiting areas. Each platform has its own stairways, escalators and /or elevators connecting the platform to the station concourse. Train platforms are split, with the Worcester/Amtrak Chicago line platforms near the north edge of the station concourse, and the New York/Amtrak Washington platforms near the south edge. Access to the Orange Line platform is directly in the center of the station, under the arched portion of the station structure. On either side, outside the arched hall, two wide concourses connect through the block between Dartmouth and Clarendon Streets.

Within the large arched hall, pedestrian movement is presently blocked for concourse movement by a fence that surrounds the major access stairways and escalators to and from the Orange Line. The proposal calls for a removal of some of this blockage and relocation of the two principal concourse pathways between Dartmouth and Clarendon Streets into the arched hall. The present concourses, outside the arched hall, are then repurposed for retail and other facilities.

The relocation or shrinking of the passenger concourses and repurposing the space occupied by the old ones raises a concern as to whether the new routes are sufficiently wide to handle projected growth in passenger volumes. Although it is uncertain what projections of passenger volumes might show, according to the project proponent, the

12.6

station already handles 30,000 passengers per day. The MBTA currently maintains there are 36,000 Orange Line passengers here, plus 17,000 commuter rail passengers. Amtrak may constitute an additional 2000 passengers. New projections of traffic should be undertaken to determine likely future volumes of people using the station. 12.6 cont.

With the knowledge of the likely future traffic of patrons of the Orange Line, the commuter rail lines and Amtrak, the plan must provide good access to and egress from the following locations:

- The Dartmouth Street entrance
- The Orange Line station (two stairways, escalators, one elevator)
- The underpass beneath Dartmouth Street to the Copley Place mall (one stairway)
- The commuter and Amtrak rail lines west toward Worcester and ultimately Chicago (two stairways, one elevator) serving 15 stations and communities
- The commuter and Amtrak rail lines that generally go south and follow the east coast to Providence, New York and Washington D.C. (two stairways, two escalators, one elevator) serving 47 stations and communities
- The proposed new passageway to Stuart Street and into the Garage West office structure
- Ticket machines for passes and Charlie cards for the subway lines.
- Amtrak ticket offices
- Commuter rail ticket offices
- Restrooms for the entire station concourse area
- Food and retail outlets proposed for the concourse level
- Food and retail proposed for the second level
- Food and retail outlets proposed for the third level
- Waiting areas including seating for passengers traveling by rail
- The existing and new parking garages in the Garage West/East areas
- The new residential building in the Station East area at the Clarendon Street end of the project

12.7

All but the last two of these movements take place primarily in a compressed space that extends about 100' from the main entrance on Dartmouth Street into the station. The proposal significantly diminishes this portion of the existing concourse, serving the movements listed above and lowering the space of the waiting area from 9,225 square feet (41 bays each roughly 15 feet square) to 6,075 square feet (27 bays, each roughly 15 feet square. It calls for eliminating the principal existing waiting area and replacing it with a large food service facility. All waiting passengers will be moved to backless benches located in busy pedestrian passageways, including the major entrance to the building. The proposal also calls for diminishing the size of the concourse by narrowing the existing passageways between Dartmouth and Clarendon Street and replacing them with retail space. It calls for new entrances to the proposed second and third levels in the midst of the existing waiting area. The proposal moves the ticketing area away from the waiting area and into new space along the proposed new passageway, where queuing to purchase tickets (now possible in the waiting area) will compete with pedestrian movement. It is hard to imagine that all these activities can be accommodated in the space planned. 12.8

A new design should be undertaken to accommodate the growing number of 12.9

pedestrians and waiting passengers as well as patrons of food and retail outlets who may choose to sit in this busy space. The existing waiting area should not be removed but instead enlarged to accommodate anticipated future use. Ticketing space should be provided close to passenger access areas. Access to and from the second and third levels should be moved away from the waiting area and into the space that is gained by closing the existing concourse passageways. Retail areas adjacent to the passenger waiting area should be scaled back to remove potential blockage of clear and very visible access to and from the stairways leading to transportation facilities below the concourse. Benches for rail passengers should not be relegated to busy portions of the concourse, especially where they might interfere with pedestrian traffic through the concourse.

12.9 cont.

5. Construction on the rail station platforms

The proposal calls for use of the station platforms for supports for the new high-rise building being built in the Station East portion of the project. These new obstructions narrow the platforms for waiting or alighting passengers and add complexity in an environment where moving to or from access points is already complicated. This true of both the Orange line platform, serving both directions for subway passengers and the southernmost railway platform serving commuter rail passengers to and from the south and southwest, including Providence, New York, Washington and the entire eastern seaboard.

Using the existing rail platforms for construction of these supports will obstruct passenger traffic during construction as well as after completion. Designs should be carefully integrated with existing obstructions such as columns to minimize interference with passenger traffic flow.

12.10

We are very concerned about the changes proposed for the station, the bus layover and the sidewalks and interior passageways. We would appreciate your consideration of our comments and look forward to your responses to them. Please feel free to contact WalkBoston with questions you may have.

Sincerely,

Wendy Landman
Executive Director

Christopher Tracy <christopher.tracy@boston.gov>

FW: Back Bay South End Gateway Proposal - Public Comments

1 message

Lauren Schmieg <lschmieg@hillhouseboston.org> Wed, Jun 22, 2016 at 2:22 PM
To: christopher.tracy@boston.gov
Cc: Lisa.A.Mullan@gmail.com

Hi Christopher,

Hill House recognizes that we may be late to the table in terms of submitting during the Open Public Comment period; however, we would like to be considered as part of the process, in that we are still actively looking for long-term indoor recreational space. As such, here is our official statement for consideration:

One of the major obstacles for families remaining in the city is access to recreational space—particularly in the colder winter months. 13.1

According to a recent census report, Boston is home to more than 100,000 school-aged children between the ages of 0-17. Back Bay and Beacon Hill, alone, have more than 1,600 households with children of that age group that are within the downtown Boston area—not to mention the additional families of the West End, South End, North End, and other adjacent neighborhoods who would truly benefit from protected recreational space in the colder months. That population grew more than 18% between 2005 and 2010 and is projected to grow more substantially in the coming years. However, with a strain on resources available to make urban living possible for families, without recreational space, families will buck that trend and move back to the suburbs—leaving Boston and diluting its family-friendly atmosphere.

Basketball City, one of the few unaffiliated indoor recreational spaces in the city, closed its doors in 2015. In a map circulated by the mayor's office in 2007, Basketball City was designated a critical recreational green space. As that space is removed as an option, downtown Boston families and schools have little-to-no options for indoor athletics. As a result, Hill House and many downtown schools will be forced to contract its programming, as they will no longer be able to offer indoor leagues and athletic clinics for its members and students.

Hill House proposes that part of the Back Bay South End Gateway is transformed into 30,000 square feet of indoor athletic space that can be used throughout the year—similar to the Chelsea Piers model in NYC. Hill House not only would run its current indoor athletic leagues and programs, but also expand its offerings to include programs such as volleyball, track & field, and others. Additionally, space could be utilized during the school hours for many of the downtown public and private schools that do not have access to large athletic space. Groups and business also could permit the space during low usage hours—providing additional revenue streams to the facility. 13.2

Currently, there are no large-scale public recreational facilities in the city, unlike most other major cities in the United States. In thinking in terms of how part of the space could be used for recreational purposes, Hill House envisions a year-round athletic facility that could provide space for many different types of private and public groups. The interior field house would be designed in that a variety of different types of athletics could be enjoyed, including soccer, basketball, volleyball, baseball, track & field, and football—just to name a few. 13.3

ABOUT HILL HOUSE: Founded in 1966, Hill House is an independent, non-profit community center that strives to be a

backyard in the city for families in Boston's downtown neighborhoods. We provide year-round programs, special events and outreach activities for children, teens, adults and seniors. Hill House administrators, Directors, instructors and volunteers work to foster a sense of community and improve the quality of life for Bostonians of all ages. www.hillhouseboston.org

Thank you and let me know if there is anything further we can provide in terms of our own thoughts on this project.

Best wishes,

Lauren

Lauren Hoops-Schmieg

Executive Director | Hill House, Inc.

t: 617 227 5838 ext. 18

f: 617 227 9251

e: lschmieg@hillhouseboston.org

your backyard in the city

From: Lisa Mullan [mailto:lisa.a.mullan@gmail.com]
Sent: Wednesday, June 15, 2016 4:43 PM
To: Lauren Schmieg
Subject: Fwd: Back Bay South End Gateway Proposal - Public Comments

---------- Forwarded message ----------
From: **Christopher Tracy** <christopher.tracy@boston.gov>
Date: Wed, Jun 15, 2016 at 4:26 PM
Subject: Back Bay South End Gateway Proposal - Public Comments
To: Christopher Tracy <christopher.tracy@boston.gov>
Cc: Lauren Shurtleff <lauren.shurtleff@boston.gov>, Melissa Schrock <mschrock@bostonproperties.com>

Hello All,

Thank you for attending a BRA sponsored meeting in regards to the Back Bay South Gateway Project that is currently under review for Article 80 Large Project.

I am writing now with a friendly reminder that the Open Public Comment period is set to close on Friday, June 17 at midnight. This does not mean the process is ending but for the purpose of our Scoping Determination, we need written comments received by this time. The Scoping Determination is the document that the BRA will give the Proponent that asks for more study and analysis on specific components of the project.

Christopher Tracy (christopher.tracy@boston.gov)
Senior Project Manager
Boston Redevelopment Authority
One City Hall Plaza, Room 900
Boston, MA 02201

June 17, 2016

Dear Mr. Tracy,

Thank you for the opportunity to comment on the Back Bay South End Gateway Project initial PNF. I write in my capacity as the Bay Village Neighborhood Association (BVNA) representative on the project CAC. I should note that we discussed the Gateway project at our June BVNA Executive Committee meeting, and that you will also receive a letter from Sarah Herlihy that emphasizes some of the key issues for BVNA. I will amplify and add to those comments.

Given the dizzying array of project aspects to comment on, I will proceed first with comments on BRA process, then with specific comments on each of the four project parcels, and finally with comments that concern the whole project.

1. BRA Process

I would like to echo BVNA's dismay at the fact that the Stuart Street Planning Guidelines are not more firmly shaping the project proposal. It makes an unfortunate mockery of residents' efforts if they spend extensive time on drafting detailed zoning that works for the area, only to see most development occur before those rules ever become official. While I realize the Proponent's Letter of Intent was filed before the Boston Zoning Commission formally adopted the new Stuart Street zoning this spring, the BRA Board did adopt the Stuart Street Guidelines back on October 15, 2015, so I'd urge you to hold the project to those guidelines in every respect possible. The Proponent has mentioned respects in which the project is adhering to the Stuart Street Guidelines (such as the number of hours of shadow on Copley Square); it has not, however, complied with various other requirements, such as: 25-foot massing set-backs, maximum floor plate size, percentages of retail frontage, LEED Gold certification, inclusion of daycare facilities, etc. These standards should be adhered to wherever possible, and the Proponent should certainly adhere to the 15.5% affordable housing ratio in the Stuart Street Zoning, rather than the citywide IDP ratio of 13%.

14.1

14.2

14.3

Indeed, the Proponent may wish to consider a considerably higher ratio of affordable housing for its residential towers if, as it indicates, it wishes to be eligible for a 121A agreement in lieu of paying regular property taxes. I believe that, in the form of permission to develop these air-rights, the Proponent is already receiving a significant private benefit in exchange for the public benefits that may be realized through the project. 121A agreements take money directly out of the city tax base for an extended period of time, and the only situation in which that could possibly be justifiable here would be to enable the development of a substantial quantity of low and middle-income affordable housing. As Boston Properties is well aware, given that it owns

neighboring properties such as 200 Clarendon and the Prudential, this parcel lies at the heart of a booming retail and office area and cannot reasonably be considered blighted.

I know that the determination of a 121A agreement is normally conducted separately from this zoning process, through a discussion between the Proponent, the BRA, and the City Assessor, but I'd like to note that this has the unfortunate effect of not placing all public benefits and subsidies on the table for the CAC to weigh side-by-side as it deliberates. 14.4

In a similar vein, like many CAC members, I'm concerned that the station renovation process has been hived off as separate from the Gateway Project. While I understand the issue of MassDOT jurisdiction, and have been cheered at the assurances that a public process—on both the station renovations (MassDOT) and the replacement of the ventilation system (MBTA)—will be forthcoming, I'd urge the city to ensure that these processes truly run in parallel. They are at the heart of this whole project, and of the public's experience of the area. 14.5

Indeed, the broken ventilation system in Back Bay Station is probably the public's most pressing concern about the site. I'd advocate strongly for its ongoing consideration as an element of the CAC's overall process, including contingency planning for if it requires further remedy. This is a public space and its air quality is a serious public health issue. A world in which this air-rights project goes forward, but the pledged $10 million ($5 million from MassDOT, $5 million from the Proponent) proves inadequate to get the station's ventilation system up to a high standard, would simply be unacceptable from a 'public benefit' perspective. 14.6

Finally, on the process front, I'd like to note that the work of the CAC thus far has felt rushed, and the remainder should be conducted with deliberate consideration. Any decisions taken and applied through re-zoning of the PDA will give the Proponent a reliable degree of certainty about what it can build, enabling it to secure project financing etc. But it will launch a period of uncertainty for the public—about what order the four parcels will be developed in, whether they will all be developed, etc. Intermediate states could easily persist for a decade or more, and conditions could change such that we later regret authorizing one structure or another. So it is imperative that we think about each building in isolation and assess it as though it were the only thing being built on the site. 14.7

2. Project Components

To that end, I will now offer assorted comments on each of the four parcels that make up the project in turn, beginning with the actual station.

A. Station West

Many Bay Village residents walk through the station each day on their way to work, and use it to catch both commuter rail and Amtrak trains, in addition to the Orange Line and the bus. At a recent BVNA meeting, members stressed the need for the station to feel like a public space, primarily aimed at being a station—not a mall. They were particularly concerned that it be easy to walk through (without being barraged by vendors), and that there be abundant waiting-area seating (that doesn't require a purchase). I share the concern that the new floor plan, while it desirably removes the cage around the Orange Line and allows people to walk directly under the

station arches, leaves too little space for circulation. I'd like to see some more of the planned ground floor retail space instead reserved for waiting and circulating. It seems to me that the new layout, as it stands, is rather like walking through the Prudential Mall – the Orange Line takes the place of the kiosks, and then there is a lane on either side, flanked by retail. When walking through the Prudential at peak times, it can be positively difficult to swim up-stream or even stop without ducking into a retail environment. I fear that people waiting on the benches for trains would feel, in the midst of rush-hour, as though they were moored on tiny islands. I'm also anxious that any pedestrian flow projections be done on the basis of anticipated increases in mass-transit and foot traffic over time. A comparison of the public, non-retail floor space in the present station concourse with that in the proposed design would be helpful in this regard. 14.8 14.9

My second set of concerns is about the architectural integrity of the historic station building. I'm concerned that we haven't seen sketches of the footbridges connecting the two sides of the proposed second-floor retail; I suspect that, seen from below, they will compromise the effect of looking down the line of arches that form the station ceiling. And both the second-floor retail and the construction of Station East on the Clarendon Street end will block natural light from entering the station. Additionally, by replacing the two large staircases down to the platforms with narrower ones, the new design would further restrict light and air at the platform level. I'd like to see a design that first and foremost considers what would make the station an excellent civic space, and that only builds retail back in around that image, rather than keeping such a consistent eye on maximizing retail. 14.10 14.11

This is particularly important because a public train station is really for every member of the public—not only those with money to spend. I'd like to ensure that there is adequate seating outside of retail options, and I think it's important that there be some guarantee that retail options will cater to an array of price ranges. I also don't see, despite assurances, where businesses like Eastern Bank or Harvard Vanguard are going to fit in this imagined retail scheme, so I'd like more clarity on that. 14.12

B. Station East

The potential Station East building is the closest to Bay Village. First, the positive: I'm enthusiastic both about an Orange Line head-house on that side of the station and about elevators up from the Commuter Rail platforms at the Columbus Ave exit. Those would be notable benefits for those of us who live on the Clarendon St. side of the Station. Regarding transit, however, we're very concerned about the relocated drop-off for Bus 39. So far the Proponent has only stated that it has an obligation to find an alternate site in the event of developing that parcel. Many Bostonians, including many Bay Villagers, use that bus, so we would want to know that the alternative location was safe and convenient. And we would be concerned about the potential traffic ramifications of its relocation to an on-street site with less space. The set of possible options need to be presented in the DPIR. 14.13 14.14

The proposed building also seems to cast substantial shadows over Frieda Garcia Park. And its effect on the skydome would be better captured if another point of analysis, further along Clarendon towards Columbus Ave, were added. I'll also note that we've received very little elaboration on the architectural detail of this building; it's the tallest of the three, yet most of the 14.15

attention has been focused on the Garage West design. If a building that tall is going to loom over the area, it ought to be distinguished. But I think its height should be up for discussion. 14.15 cont.

As I've made abundantly clear in our CAC meetings, I'm also concerned that Clarendon Street still feel like a proper entrance, rather than a back door to the station. It's a pity to permanently lose any ability to see the arc of the historic station from the Clarendon Street side; to compensate, the station entrance through the new tower would need to be architecturally distinguished, not merely well-signed. A two-floor element, and perhaps an echo of the arch, could both possibly serve that purpose. If all signage were removed, the design should still prompt a passer-by to wonder why the entrance looked grand, like it served a public purpose. As the PNF itself states, it should be a "new civic entrance." (2-7) 14.16

Through the entrance, the passage taking one into the station should be as wide as possible, so that it doesn't become a bottleneck, and not overwhelmed with retail. And while I understand the Proponent's thinking in bringing the building out towards Clarendon Street, I wonder if it would not be better to leave greater landscaped, outdoor space in front of the tower. That area is described as a "plaza" but is really just a drop-off lane; most of the landscaping is in a traffic island where people will not linger. 14.17

Indeed, from the perspective of Bay Village, a bus turnaround of reduced size and a small, pleasant park on the Station East site, with an outdoor Orange Line head-house and the original grand station entrance preserved, would likely be the preferred use (rather than any tower at all). Furthermore, we know that landing supports for that tower in the platforms below will negatively diminish the already-tight platform space. So for the development of a tower on the Station East site to be at all compelling, I think we would need to be convinced of its substantial public benefit—such as, for instance, its provision of a significant amount of affordable housing. 14.18

C. Garage West

Garage West has certainly had the most attention, from a design perspective. I think the staggered stacking is attractive, and I appreciate the effects it has on wind mitigation and the terraces it makes possible for some floors of occupants. I also appreciate that it was somewhat shortened due to shadow, in order to comply with the spirit of the Stuart Street Zoning. 14.19

I should note, however, that concerns remain about its shadow over certain local historic resources. I would appreciate if the DPIR provided greater detail about how long that patch of new shadow—which directly covers the (newly restored!) front windows of Trinity Church—lasts in the winter months. And it seems as though, before the Proponent counts the shadow as infringing on 'Copley Square', it has already been covering the front steps of the Boston Public Library for some time. There are also scattered references to it 'reaching towards' the BPL McKim building (and thus its courtyard); more clarity on the building's shadowing of the BPL would be appropriate. 14.20

The base scheme for Garage West contemplates a new managed garage exit onto Dartmouth Street. This would be a disaster for pedestrian traffic on Dartmouth Street and should be abandoned as a proposal. I recognize that the Proponent's view that it offers another argument for closing the on-ramp. But even in the event that MassDOT were wedded to keeping the on- 14.21

ramp open, I'd say that the Proponent should be required to construct an internal exit drum running down inside the garage to Trinity Place—and then to build a few more levels of parking into the Garage West building to compensate for the lost spaces—rather than the City permitting such an actively-managed exit onto Dartmouth Street. I have contended with the Clarendon Street one on numerous occasions; no matter how well managed, it makes for a street-level environment that's hostile to pedestrian strolling. 14.22

In light of the need to have garage traffic exit on Trinity Place, I could countenance a second-floor sky-bridge between 40 Trinity and the new indoor retail walkway into the station. Such a bridge would cut down on people trying to make that quick crossing at ground level. In general, however, I'll express concerns about sky-bridges below. 14.23

Finally, I want to echo the concern that the Stuart St. and Dartmouth St. corner, such a prime street-level retail opportunity, is instead dedicated to an office lobby. I wonder if a second office lobby couldn't be placed up the steps, at the level that connects with the station concourse, where some of the retail is currently sited. The PNF trumpets the 'permeability' of the highly transparent double-level glass that will encase the office lobbies, but an office space most pedestrians will never enter isn't really 'permeable'. I think this point is particularly worth making because I don't believe the massing set-backs prescribed by the Stuart Street Zoning for buildings over 155 feet on Dartmouth St. have been followed here. 14.24

D. Garage East

I have relatively little specific to say about this building; I do appreciate the Proponent's decision to shorten its height in order to prevent it from overshadowing Copley Square. Again, I will reiterate my firm view that it should have at least 15.5% in on-site affordable housing, in line with the Stuart Street Zoning. I will also note that it currently seems, in the PNF, to be rather an architectural after-thought. This should be corrected; though the shortest of the three proposed towers, it would be a visible, enduring building in its own right. Both the CAC and the BRA should demand that each of these towers be a well-designed, signature structure, as we would if they'd each been proposed separately. 14.25 14.26 14.27

3. Overall Comments

Finally, some overall comments on several themes:

A. On-Ramp, Traffic & Parking

Although Bay Village agrees that, of the three on-ramps in the area, the one off Clarendon Street is the least utilized, we're actively concerned about the potential traffic that would result from its closure. So we're very interested in seeing an extensive traffic study as part of the DPIR. We'd like to add a further un-signaled intersection to that study: the corner of Arlington and Isabella St. Clarendon to Columbus to Isabella to Arlington would become the most direct route to I-90 from the garage's Clarendon Street exit if the on-ramp were closed. We already have serious concerns about the unsafe crosswalk at the corner of Isabella and Arlington, and additional through-traffic would be unwelcome on Isabella St., so we need a model of how much the traffic there would increase. I'd also note that the traffic signal at Columbus Ave. & Arlington St., not 14.28 14.29 14.30

just the one at Stuart St. & Arlington St. (although they're the same intersection), should be specifically studied. 14.30 cont.

On the parking front: I'm sympathetic to low parking ratios for transit-oriented development. But the Proponents seem to be saying that they'll satisfy their project's parking requirements partly by displacing current use of the garage by off-site users. Where will those people go? Our low parking ratio assumptions need to be grounded in data, not optimism. I'd also note that individuals with high net worth are particularly likely to keep a car in the city, despite transit options, and that further affordable housing (and housing attainable by young non-car-owners) could actually be one way of making the proposed parking ratios more realistic. 14.31

B. Affordable Housing

It has been a theme throughout this letter, but I want to stress that living above the MBTA is a benefit to people of all incomes. It befits a development over such a hub station, where all walks of life meet, to be mixed-income above ground as well. Both the proposed residential towers should be urged to accommodate, at minimum, 15.5% on-site affordable housing. 14.32

C. Air Quality

In addition to the urgent need to fix the ventilation system (mentioned above), there is another concern about the site in regard to air quality. An academic study was recently conducted in Boston and published just this April, showing that residents who live within 1500 ft. of a public highway are at significantly elevated risk of cardiovascular disease because of the ultrafine particles in the air. It is only a matter of time before the EPA formally regulates ultrafine particles, but in the meantime it's important for our state and local agencies to be proactive. New residential or office towers in such close vicinity to the highway as those in this project should be required to install effective air filtration systems, for the health of their occupants. Though no expert myself, I believe such systems extend beyond the on-demand ventilation systems proposed in the PNF. And while thorough filtration may be difficult to install in the station itself, given the openness of the platforms to the outside air, partial mitigation through filtration at the concourse level would still be appropriate, as a public health measure. 14.33

D. Wind

The work behind the preliminary wind studies is impressive, and the preliminary results that the full-build scenario would actually mitigate wind effects in a number of locations are encouraging. However, as mentioned above, these towers could be built in any order, and some not at all, so we need some assessment in the DPIR of the wind effects of partial-build scenarios. 14.34

E. Groundwater

The Proponent mentions that it expects the development to have little effect on area groundwater, given that so much of it will be over decking rather than terra firma. Nevertheless, they do briefly allude to constructing a stormwater infiltration system to help recharge groundwater levels in the vicinity. Despite the disclaimers about the viability of catching all stormwater on the project site, this needs to be done to the greatest degree possible, as any diminishment of groundwater levels remains of significant concern to all property-owners in the area. 14.35

F. Earthquakes

This may seem unnecessarily alarmist, but so long as the PNF is discussing long-term flooding risks, it would be good to know how the proposed buildings would do under minor to middling seismic activity. Boston is overdue for a substantial earthquake (we last had a 6.0 one in 1755), and buildings over decking over our major transit infrastructure seem to merit particular attention in this regard. 14.36

G. Public space and sky bridges

I have already alluded to the importance of the station feeling like a public realm—one in which people are welcome regardless of means. I think it's important, going forward, that the CAC understand to what extent the station will be under the purview of private security; how 'public' the indoor walkways will be (as presumably they are not proper right-of-ways), etc. 14.37

I am very much against the sky-bridge from Garage West/40 Trinity to 200 Clarendon, for the same reason that others in Bay Village opposed the Liberty Mutual sky-bridge. Exclusive walkways, that can be seen from the ground but only accessed within private offices, fracture the sense of a public realm. And they diminish private investment and interest in streetscape, exterior-facing retail offerings, etc. One has only to try to walk, as an outdoor pedestrian, along the section of street that is crossed by the two sky-bridges from Copley Place to see that this is so. While I understand how it is a boon to private retail to have pedestrians traverse the city as a captive audience to an indoor retail environment, I don't think it's in our best civic interests. 14.38

H. Construction Mitigation

This letter is minutes from being due, so I have run myself out of time, but I want to express that Bay Village shares the Ellis Neighborhood's concerns about extended traffic and pedestrian disruptions due to construction work on all these parcels. The CAC process should result in a guarantee of suitable mitigation plans that will function well for the surrounding neighborhoods regardless of the order in which the parcels are developed. 14.39

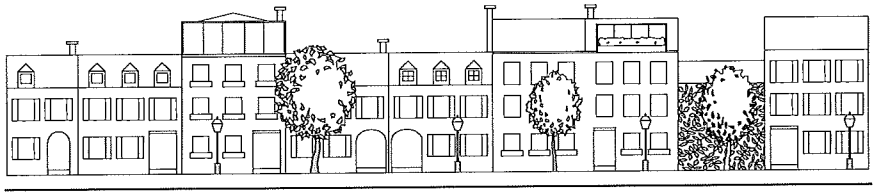
I am sorry for going on at such length, but I hope you will take these comments into consideration as you make your scoping determination. Many thanks for your attention, and for running such an informative process thus far.

Sincerely,

Dr. P. MacKenzie Bok

Planning Co-Chair
Bay Village Neighborhood Association

35 Melrose St.
Boston, MA 02116



BAY VILLAGE NEIGHBORHOOD ASSOCIATION, INC.

June 17, 2016

Via Electronic Mail (christopher.tracy@boston.gov)

Christopher Tracy
Senior Project Manager
Boston Redevelopment Authority
One City Hall Plaza, Room 900
Boston, MA 02109

Dear Mr. Tracy,

I am writing on behalf of the Bay Village Neighborhood Association ("BVNA") to provide comments regarding the proposed project outlined in the initial Project Notification Form ("PNF") submitted on March 29, 2016 for the Back Bay/South End Gateway Project ("Gateway Project"). We understand that there will be further opportunity for public comment on this project before the BRA process is complete.

At this point in the process, the BVNA is providing comment on four areas: (1) BRA process; (2) traffic & public transit; (3) public space; and (4) affordable housing.

1. BRA Process

The Gateway Project falls into the Stuart Street Study area. On October 15, 2015, following what it characterized as a "multi-year planning process":

> . . . the BRA Board adopted the Guidelines [recommended by the Stuart Street Study], which now serves as the document for all development projects in the study area to refer to for recommended dimensional requirements, performance standards, and community benefits. (source: BRA website)

The Gateway Project will require significant variance from the Guidelines recently adopted following the Stuart Street Study. The BVNA is concerned with the fact that the recently-adopted Guidelines are apparently being largely ignored with respect to the Gateway Project. These Guidelines resulted from what the BRA has represented was an extensive community process and involved the dedication of extensive volunteer time from Bay Village residents. While the BVNA understands that quality projects can occasionally require zoning relief, it

15.1

15.2

is concerned that the recently adopted Guidelines are apparently being cast aside with respect to this project. The BVNA urges the BRA to hold the Gateway Project to the recently adopted Stuart Street Study Guidelines in every respect possible. 15.2 cont.

2. Traffic & Transit

a. On-Ramp Closure & Traffic

The BVNA understands that various iterations of the Gateway Project anticipate limiting the number of on-ramps to the Massachusetts Turnpike in the vicinity of the project. Before this issue is resolved, the project proponent should be required to present a thorough assessment of the impact on area traffic of a ramp closing. 15.3

Bay Village does not want to lose the Arlington Street on-ramp to the Massachusetts Turnpike, but it is clear to residents that this on-ramp has no capacity for additional traffic. The portion of Arlington Street (between Park Square and Cortes Street) that provides access to the Arlington Street on-ramp is already dangerous, congested and noisy. 15.4

Bay Village would request not only that an extensive traffic study be required of the proponent, but that several specific issues relevant to Bay Village be addressed in that study, including: 15.5

i) Traffic coming down Arlington Street to the on-ramp. Cars coming down Arlington Street to the on-ramp frequently speed and there is currently no effective traffic calming mechanisms on Arlington Street. Traffic has increased significantly in the past few years with the addition of several large residential developments in the area. Clearly, if the Clarendon on-ramp were closed, traffic would divert to Arlington Street. The likely impact of that diversion and necessary mitigation should be studied. 15.6

ii) Impact on Isabella Street. Isabella Street is a primarily residential street not designed to handle large traffic volumes or speeding vehicles. The impact that a ramp closing would have on Isabella Street should be included in a required traffic study. 15.7

If the Clarendon Street ramp closes, many drivers will access the Arlington on-ramp by traveling down Clarendon Street to Columbus Avenue and then down Isabella Street to Arlington Street. The neighborhood already has serious concerns about the unsafe crosswalk at the corner of Isabella and Arlington Streets and congestion and unnecessary speed on Isabella Street by drivers "cutting through" to the on-ramp. Additional through-traffic

would have a significant negative impact on Isabella Street and would need to be addressed.

iii) Mitigation on Cortes Street. The residents on Cortes Street, many of whom reside in affordable housing, suffered the devastating loss of a "natural barrier" to the Massachusetts Turnpike when trees were removed in preparation for the ill-fated Columbus Center Project. The relevant agencies have paid only lip service to efforts at replacing this barrier, as evidenced by the dead and half-dead replacement trees planted as "mitigation."

If these residents are asked to bear the impact of additional traffic to the Arlington Street on-ramp, they should receive some actual mitigation in the form of real improvements to the "barrier" between Cortes Street and the Massachusetts Turnpike. A well-designed park here would mitigate the impact and provide a tangible benefit to all Boston residents. 15.8

b. Bus 39

The Route 39 bus currently relies on the area outside of the Dartmouth Street entrance to Back Bay station for pick-up and drop-off. The proposed development would eliminate this location for use as a bus for pick-up and drop-off. The proponent should be required to submit a concrete plan for an appropriate replacement site for this critical bus line before the project advances further. 15.9

In the BVNA's experience, services that are important for residents, such as the location for the Route 39 bus, are often deliberately left for negotiation at a later date and then conveniently be given short shrift at that later date. That should not happen with the site for this critical transportation line for downtown residents. 15.10

3. **Public Space/Ventilation**

While the BVNA understands that the presence of shops and restaurants in public spaces can provide the resources necessary to maintain clean, safe and modern public spaces, we are concerned that the current design does not dedicate enough resources, space or attention to providing quality public space for residents and visitors who use the station for bus, subway, commuter rail and Amtrak service. Commercial space should enhance, not limit, the quality of the public space. In particular, the BVNA is concerned that the current design sacrifices light and air in the station area in favor of commercial space. 15.11

A significant improvement in the air quality of Back Bay Station must be a required outcome of this project, irrespective of the ultimate cost or complexity of the solution. Simply put, failing to make this a requirement would ignore the 15.12

basic need of the commuting public for quality air. This project is likely the only opportunity to fix this critical issue health issue and should be a non-negotiable requirement. 15.12 cont.

4. Affordable Housing

The project proponent should satisfy the entirety of any affordable housing obligation with on-site affordable housing in the two proposed residential towers. We believe that keeping affordable housing on-site creates the type of mixed-income environment that makes Boston a great place to live and provides a breadth of opportunities to a diverse mix of residents. This project, in particular, provides a unique opportunity to provide affordable housing directly above a major public transit hub in Boston's urban center. 15.13

We have not addressed in this letter every concern raised by the Gateway Project. The BVNA's representative to the CAC, MacKenzie Bok, has submitted a more detailed letter addressing other concerns, including the Clarendon Street plans (which face Bay Village). We share the concerns raised in Dr. Bok's letter.

We appreciate your consideration of the BVNA's comments as you make your scoping determination. We look forward to being an active participant in the process as it continues, and invite proponents to come present at a BVNA meeting once the DPIR has been submitted.

Sincerely,

/s/ Sarah B. Herlihy

Sarah Herlihy, President
Bay Village Neighborhood
Association
617-755-3869 (m)
sbherlihy@yahoo.com

cc: The Honorable Martin J. Walsh (mayor@boston.gov and samuel.chambers@boston.gov)
Councillor Michelle Wu (Michelle.Wu@boston.gov)
Councillor Bill Linehan (Bill.Linehan@boston.gov)
Councillor Ayanna Pressley (Ayanna.Pressley@boston.gov)
Councillor Anissa Essaibi-George (A.E.George@boston.gov)
Rep. Aaron Michelwitz (aaron.m.michlewitz@mahouse.gov)
Sen. Joseph Boncore (Joseph.Boncore@masenate.gov)

Same comment letter for ENF

June 16, 2016

Re: Back Bay South End Gateway

Mass State Environmental
Alexander.Strysky@massmail.state.ma.us

Dear Mr. Strysky:

The Neighborhood Association of the Back Bay thanks you for the opportunity to address some of our major questions about the Back Bay/South End Gateway project. We are appreciative that our two CAC members, Jackie Yessian and Elliott Lauffer, have so much experience and expertise. They will, over the course of the project discussions continue to offer our perspective and reflect on what impact ongoing development and construction have on all of the Back Bay.

Taken individually, any single project on Stuart Street may not have significant adverse impact. However, we are deeply concerned about the likely cumulative effects of 380 Stuart Street, 40 Trinity Place, Neiman Marcus Tower, and the three towers and one additional structure of the Back Bay /South End Gateway Project on three major areas: traffic, infrastructure and the environment as outlined below. 16.1

Traffic

Vehicular Traffic

Recent studies project an additional 80,000 cars and trucks in Boston within the next 14 years. When these six new towers are completed, traffic will certainly increase in the Back Bay.

We would request that the Boston Traffic Department estimate how additional vehicular traffic would affect, in particular the cross streets in the Back Bay. 16.2

What would further gridlock mean for emergency vehicles including fire equipment and ambulances seeking to access areas of the Back Bay during rush hours or trying to take Storrow Drive to Massachusetts General Hospital? 16.3

Many cross streets are currently at full capacity even with parking lanes cleared; afternoon gridlock occurs most of the year.

Given the current gridlock, what other alternatives are being explored? 16.4

Is a congestion tax a possibility? 16.5

Can we limit driving into the city on weekdays to alternating days of even/odd license plates? Will taxis or ride sharing vehicles be more regulated and limited? 16.6

Public Transporation – The MBTA

During the morning and evening commute, both the Green Line and the Orange Line already run at nearly full capacity.

Is the city and/or developers willing to contribute major funds to the MBTA to increase its carrying capacity? Are there other alternatives? 16.7

Are there plans to expand the Commuter Rail trains into Back Bay? Are there plans being discussed for commuters arriving at North Station to access the Back Bay when the Orange and Green lines are packed? 16.8

Without designated bus lanes would buses be able to move through gridlock? 16.9

Bicycles

Given the increase in cycling in the City and the fact that it may be the fastest way to get around, are there designated safe cycling lanes into and around the Stuart Street development area? 16.10

Besides, Back Bay Station is there bike storage? 16.11

Pedestrian Traffic

Are there plans to make sidewalks wide enough to allow for an increased number of commuters as well as travelers with luggage going to and from Back Bay Station? 16.12

Infrastructure

What are the plans to provide the additional electricity, natural gas, sewer lines, internet, telecommunications and trash collection that the new residents and businesses will require? 16.13

Who will pay for those improvements? 16.14

Environmental Concerns

Wind

Wind is already creating a dangerous situation around much of Stuart Street and Copley Square. Can we have additional measurements of the wind as it is now in all four seasons and as construction proceeds? 16.15

Given the Farmers Market as well as numerous holiday activities in Copley Square can we measure the center of the Square as well as all four corners? 16.16

Shadow

We would request studies to show the combined effect of all towers on year-round light in Trinity Church, the Commonwealth Avenue Mall, Copley Square and the interior courtyard of the Boston Public Library 16.17

Again, thank you for your consideration. The historical neighborhood of the Back Bay contains beautiful parks, iconic Boston buildings including Trinity Church, Old South Church, the Boston Public Library and many other historical buildings.

This neighborhood is appreciated daily not just by residents and commuters, but also by thousands of visitors from all over the world. It’s important we keep it accessible, safe, and workable for everyone. 16.18

Planning, anticipating problems and seeking solutions prior to being overwhelmed is something we look forward to working with you to address.

Sincerely,

Vicki C. Smith
Chairman, NABB

Same comment letter for ENF

Christopher Tracy (christopher.tracy@boston.gov)
Senior Project Manager
Boston Redevelopment Authority
One City Hall Square - Room 900
Boston, MA

Re: Back Bay/South End Gateway Project Comment Letter

Dear Mr. Tracy:

Thank you for the opportunity to comment on the Project Notification Form ("PNF") for the Back Bay/South End Gateway Project. This letter is being submitted on behalf of the Ellis South End Neighborhood Association ("The Ellis"). It should be noted that the public involvement has only occurred over the past six weeks – a relatively short time for the public to consider all of the ramifications for a project of such size and location. 17.1

It is also important to note that the next meeting of the Citizens Advisory Committee ("CAC") scheduled to discuss the critical issues of parking, traffic and streetscape is June 15th – only two days before the comments are due – which provides little time for the public to offer any substantive comments. 17.2

We appreciate, however, that Boston Properties and the BRA will continue to respond to comments as the project review process continues. 17.3

As has been voiced at the previous public meetings, concerns have been raised about the separate Back Bay Station renovation associated ventilation project and the impact on the commuters using the station. The inconvenience to the commuting public will not be insignificant. You have also heard comments from the public about the need to immediately address the poor ventilation system before the development project should even continue. Recent pronouncements from the government about the air quality for those living within short distances from highways recently need to be considered. We appreciate the commitment made by Secretary of Transportation Pollack to conduct public meetings beginning this summer to allow public involvement and, most importantly, for the questions and concerns raised by the public to be addressed. There have been concerns raised, however, by several residents that the two initiatives need to be made one. Can a realistic argument be made that the impact on the interior of the station to accommodate the construction project and the needs of the developer are separate? It would appear to be a difficult argument. 17.4

We will provide preliminary comments below based on what we understand have been raised by the public. First, however, some general observations on the impact to the Ellis neighborhood.

There are already three approved projects within what is only a two block area. Copley Place is underway but the timing of the projects at 40 Trinity Place and 380 Stuart Street remains unclear. More information about the timing of these projects must be provided to the public to allow for a better understanding of the implications for those currently using the station and garage.

This is a project that, we believe, will have the most significant impact on the South End with the Ellis neighborhood feeling the brunt of the initial impact from all the phases associated with the project. With the

proposed closure of the Clarendon Street ramp to I-90 and the demolition of the exit drum from the garage, more and more of the vehicles exiting the garage will find themselves on Columbus Avenue heading for a MASSPIKE entrance or points north and west while others will be crossing Columbus Avenue to head towards I-93.

During construction, pedestrian traffic will be pushed into narrow lanes dangerously close to vehicles on Dartmouth and Stuart Streets and, perhaps causing more to walk along Clarendon Street and Columbus Avenue to either avoid the construction or to access the station. This will be especially true once the Copley Place traffic plan eliminates one lane of traffic coming onto Dartmouth Street from Huntington Avenue. While the development of a traffic plan remains to be discussed, it is critical for the Boston Transportation Department ("BTD") to be a participant at every meeting of the CAC and those with the public. BTD is the governmental agency that is responsible for enforcing agreements with developers regarding traffic during the construction. Some have suggested that the area around the proposed project already suffers gridlock throughout the day. Would it not only be worsened without a clear and thoughtful traffic control plan discussed from the start of the review? BTD's expertise is needed throughout the project review phase. 17.5 17.6

Boston Properties has indicated it will work with the MBTA to find a new #39 bus staging area "nearby" once the bus turnaround is closed off for construction. With all of the other development projects expected to be underway, is there any other location other than some part of Columbus Avenue that would be available "nearby"? 17.7

We also understand that Boston Properties is exploring the construction of elevators accessible to AMTRAK passengers at the existing head-houses on the in-bound side of Columbus Avenue. Increasing the number of passengers with luggage crossing Columbus Avenue to access the station or hotels in the area as vehicles leave the garage is of concern. 17.8

The preliminary internal wind study may suggest minimal changes to the surrounding streets. Many, especially those who have avoided Clarendon Street near the former "new" John Hancock Building for years, have expressed doubts about the preliminary findings. Standing at the corner on Boylston and Clarendon Streets one will often begin to suddenly feel wind gusts that continue along Clarendon Street walking towards Columbus Avenue. The same can be said of those crossing Columbus Avenue at Clarendon heading towards Boylston Street. It may be true that the only accurate measurement of the impact of wind can be determined after all of the approved projects plus this one have been completed. 17.9

Specific questions/comments raised by members of the Ellis:

- How will access and egress work for the Orange Line, Commuter Rail and Amtrak? Will there be input from the riding public? 17.10
- As each piece of the project proceeds with more and more people coming to the station and buildings, where will the drop-offs be located? Will there be a need for more surface buses and not just Bus #39? It is unclear where a new turnaround for Bus #39 could be located anywhere in the vicinity of the station. The answer to the location of the new turnaround needs to be provided now – not after the project is underway. 17.11
- What assurances are there that station facilities can grow to meet state and city's goals to increase transit mode-share, reduce air pollution and lower energy consumption? 17.12
- How will the station be able to accommodate future security or ticketing procedures (especially for commuter rail and AMTRAK)? 17.13
- How will retail-related activities in the station impact transportation related circulation and operations? 17.14

• In what way would the reduction of public circulation space impact the ability of the station to handle emergencies and special event surges?	17.15
• What are provisions for improved sidewalk access to the station along Dartmouth Street, Clarendon Street? If the developer moves the shop facades out to the street line, what will be the impact on pedestrians?	17.16
• How does the increased use of curb and sidewalk space to serve the new development detract from existing or increased public transportation use?	17.17
• Boston Properties needs to address their commitment to affordable housing. The commitment should clearly state the inclusion of the units on-site rather than at some other location.	17.18
• The neighborhoods and the City have a right to a more functional, more accessible, more flexible, more beautiful station, sidewalks and streets than we have today. We need a station than preserves the legacy of the citizens in the 1970's and 1980's who stopped the South End Bypass and the Southwest Expressway and who put countless hours into the creation of the Southwest Corridor Park and, especially, Back Bay Station.	17.19
• It may be that a private developer can help make this happen, but the sales pitch so far is high on words and pictures and lacking in clarity and substance. Just look at the plans. The narrower sidewalks, the new curb cuts, the lack of provision for buses, elimination of the railroad waiting room and a darkened concourse crowded with retail stores, seem more like a Penn Station demolition than the creation of, in their words, a first-class, "airport quality" transit hub.	17.20
• The Stuart Street Zoning rules would emphasize retail along Stuart Street – Boston Properties has not done so. The lobby of an office building is not retail and is not a location that is welcoming outside of normal business hours.	17.21
• Will there be 24-hour public access to the station?	17.22
• Will the proposed station layout result in a reduction in available public space that would be sufficient to serve the needs of the projected increase in passengers, especially in high-volume periods?	17.23
• Has Boston Properties considered the use of overhead walkways to the station to minimize the impact on pedestrians?	17.24
• The idea of creating a new garage exit onto Dartmouth Street should be abandoned – it is much too dangerous.	17.25
• Can a project of this magnitude really proceed without the addition of any new parking spaces? With 3000 to 4000 persons coming to the site won't there be a need for more parking spaces?	17.26
• The PNF appears to narrow the width of the Dartmouth Street sidewalk as the office building is being brought out further than the existing structure. This will cause more pedestrian congestion, especially if there is a new garage exit onto Dartmouth Street. Are the additions to the sidewalk and within the station of retail-oriented activities really benefits to the public or will they simply result in less space for pedestrians and commuters?	17.27
• If the developer adds a second (and perhaps a third) story with retail activities to the station, can the developer really improve natural light and air?	17.28
• Isn't the elimination of the exit drum simply a benefit to the developer to allow for more retail space?	17.29

Thank you for your kind attention to our concerns. We fully expect there will be additional comments raised as the project progresses. We look forward to working with the Citizens Advisory Committee and others interested in the project to minimize the impact on the Ellis community.

Sincerely yours,

Betsy Hall
President
Ellis South End Neighborhood Association

Same comment letter for ENF

17 June 2016

Christopher Tracy, Senior Project Manager
Boston Redevelopment Authority
One City Hall Square
Boston, MA 02201
Christopher.Tracy@boston.gov

Secretary of Energy and Environmental Affairs
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
Alex Strysky, EEA No. 15502
100 Cambridge Street, Suite 900
Boston MA 02114
Alexander.Strysky@state.ma.us

Re: Back Bay/South End Gateway Project

Gentlemen and Reviewers,

As a member of the Citizens Advisory Council, nominated by the Boston Society of Architects, and a resident of the Back Bay, I am submitting comments regarding the BBSE Gateway project.

As you know, the Boston Society of Architects/AIA is committed to advocacy on behalf of great design, and for sharing an appreciation for the built environment with the public. With more than 3,500 members, the BSA aims to a leader in educating designers, contractors, owners and the public about inspiring and environmentally responsible design, construction, operation and renovation of the built environment. The BSA believes that design responsibility extends beyond the design of high-performance buildings to include project siting and impacts on transportation, water, land, air and habitat, and provide healthier communities.

I believe that this mission and these commitments are a relevant framework for review of the proposed project. I believe that other CAC members, and the proponents of the project, share some of these same interests, which is appreciated.

However, The Boston Redevelopment Authority has asked for comments on Boston Properties' Project Notification Form now, in fact by today, well ahead of the completion of project presentations to the Civic Advisory Committee. This is prior to the promised, but not yet scheduled, public review of the Back Bay Station renovation project.

MEPA and Mass DOT are critically involved in this project, and have not yet conducted their reviews or, in the case of Mass DOT, confirmed or scheduled a public process for comment. Mass DOT has indicated that the review cannot be conducted until the Back Bay station has reached a 30% competed design point. Therefore, presentation about the project can be considered intentions, but not approved scope or program.

To date the CAC has heard progress reports, seen general renderings, heard varying statistics, options and data ranges for new population, potential construction phasing, transit routes and vehicular traffic.

possibilities for the station include renovation for the main arrivals and departures areas, introduction of more intensive retail, interior alterations, to added building height and increased retail for upper levels added to the the station.

Station

At Back Bay Station, work to date has been uneven. The quality of repair work on the original timbers laminated structure shows varied results. A pair of monumental original artworks commissioned for the station, paid by public funds through the Arts on the Line program, and executed by Stephen Antonakis, whose works are in the collections of the Metropolitan Museum of art, the Museum of Modern Art, and the Guggenheim Museum, have been removed. The Dartmouth Street glass façade is concealed behind advertising posters. Would private management propose the removal of original art, or bill boarding the facades for South Station, or MBTA and commuter stations? Clarity about the standards and obligations for this station is essential. Has MASS DOT approved these renovations? How will they be maintained, and how will the projects impact future transportation systems? How will the station and the systems accommodate new riders with inevitable increased demand? Because the CAC does not address the Back Bay station renovation, an integrated, confirmed and responsive public process to assess the State and MASS DOT issues as well as the city wide issues, is essential. 18.1

New Construction

Architecturally, the new towers remain only generally presented, with massing and emphasis on the complexity of the structural challenges that shape and restore the design, and focusing primarily on the Dartmouth Street office tower, its offset specifically designed to mitigate otherwise significant wind conditions.

Two residential towers on Clarendon Street have been generally outlined; a presentation on their grounds cape, or landscape, is forthcoming. Already the developers have said the site is “too tight” for an appreciable amount of outdoor green space. What is the plan for a humane and welcome presentation and urban setting for these large buildings? 18.2

Project Delivery

The timetable for the project implementation is unclear, and the related areas of access, such as the On Ramp to the Mass Pike, are undecided issues, which Mass DOT representatives indicate are not yet in their planning phases.

Issues I believe the CAC and community need addressed with more clarity, include:

- The MASS DOT approved plan for the station, its timetable, its balance of community-serving retail and public space, and its design. 18.3
- The specific management of auto transit routes, to create less impact on Copley Square, and neighborhoods and the already dense traffic. 18.4
- More about the design, and its intentions and expression. 18.5
- The ground level, particularly the amount and vitality of the landscape and green buffers that are essential to a humane and welcoming residential and commercial environment. Upper level terraces, which have been presented as amenities, are not urban settings for everyday use, not a substitute for ground level landscape and sitting areas. 18.6

- The future plans for transit improvement for the Back Bay Station—how does this project improve the Orange and commuter rail lines not further overcrowd them? How does this project ensure that new modes of transport are not precluded, but instead, enhanced? Will the complex structural gymnastics that the developer notes are needed for this project inhibit the viability of future infrastructure upgrades? 18.7
- An approach to improving the civic realm, in lieu of just conforming with the letter of the law. 18.8

The CAC has been presented with a shadow study that confirms that shadow will be added, but greater wind will not. Wind studies are often, sadly, predictively unreliable. More comparable information about how this setting will change the wind should be offered. The BRA has offered no comparisons between the early wind calculations for this site and wind elsewhere in the city—such comparable are needed. The great number of people who use this station deserve a better environment as they walk from the station to their destination—with light, and wind control. 18.9

- The impact on the Copley Square area
  This is a both a landmarks and civic question. This development location benefits from its proximity to some of the city's greatest landmarks: three historic neighborhoods, one of the country's greatest libraries, and one of the the nation's most iconic landmarks: Trinity Church. These unique resources revolve around Copley Square a much valued but limited landscape—and the only park that bridges two city districts. Adding more shadow to Copley Square may be legal, but it never could be described as civic, considerate, or beneficial. "As of right" does not mean it IS right. 18.10

- What are the more convincing public benefits of this project?
  I welcome responsible new development with opportunities for housing and public benefits, and seek to promote projects characterized by responsible planning, sustainability, service to the greater good, embracing good business practices, creating jobs: a balance of benefit and burden. A revised station, once confirmed, can be one, but beyond the station, more benefits need application to the immediate affected environment and community. 18.11

I encourage more specificity, emphasis on greater civic contributions, and improvements, as essential to this projects progress. The BRA and the state agencies are our voice to require the BEST design, the best environmental performance, not just the "conforming" compliances. 18.12

I urge leadership from the agencies to push design and quality standards beyond the merely legal and feasible to the platform of its setting—a city region long distinguished for its scale, architectural quality, and its enduring value to the entire community. I look forward to your response, with appreciation for the efforts of all those involved in this process. 18.13

Sincerely,

Ann M Beha FAIA

Same comment letter for ENF

Padien, Daniel

From: Strysky, Alexander (ENV) <alexander.strysky@state.ma.us>
Sent: Friday, June 17, 2016 8:48 AM
To: Padien, Daniel
Subject: FW: Comments on MEPA #15502-- Back Bay/South End Station Gateway Project
Attachments: BB-SE Station 6-16-16.docx

Alex Strysky
MEPA Office
100 Cambridge Street, 9th Floor
Boston, MA 02114

ph: (617) 626-1025
fx: (617) 626-1181

-----Original Message-----
From: Ann Hershfang [mailto:annhershfang@gmail.com]
Sent: Thursday, June 16, 2016 9:25 PM
To: Beaton, Matthew (EEA)
Cc: Strysky, Alexander (EEA)
Subject: Comments on MEPA #15502-- Back Bay/South End Station Gateway Project

Dear Secretary Beaton,
Attached below are some of my many concerns about how the Back Bay/South End Gateway Project is dealing with changes inside the station. My understanding is that at an early public meeting MassDOT's Director of Development stated that the ongoing public meetings were for the buildings aspect of the project but the changes to the station itself would be handled by MassDOT and the MBTA without public involvement. I hope you will help reverse that intention.

Thank you,
Ann Hershfang

6-16-16

Proposed repurposing of Back Bay/South End Station

Shifting responsibility for maintaining the Back Bay/South End (BB/SE) Station from the MBTA to Boston Properties could be a very positive development. However, the plans for changes to the station, apparently under the aegis of MassDOT, MBTA and BRA, should not be allowed to proceed without public involvement, as was apparently stated by MassDOT's Director of Development. at an early meeting 19.1

We should remember that some 15 years ago the MBTA made plans for South Station that would have built towers above it and massive support posts coming down in the middle of, and destroying, the commuter rail and Amtrak waiting area. Citizen opposition prevented that plan and preserved a welcoming, comfortable waiting area. North Station also, the third major rail hub in Boston, was redesigned without significant citizen input and became vast, featureless and confusing, and almost possible to find the trains, ticket windows or waiting area. A similar mistake must be avoided for the Back Bay/South End Station.

Below are a few of my concerns about the current plans. I also support the matters raised in letters from Ken Kruckemeyer and WalkBoston. 19.2

Issues raised by changes proposed inside the station:

--the decrease of waiting space (and comfort) inside the BB/SE Station due to elimination of the commuter rail waiting area, 19.3

--a careful analysis as to whether the proposed public waiting areas will be adequate and comfortable enough to pleasantly accommodate rail users, transit riders, retail and food outlet shoppers, and through traffic, 19.4

-- circulation through the station, 19.5

--data about the number of current rail and transit users inside and outside, 19.6

-- projected increases in transit and rail users resulting from new construction,

--increased parking demand and facilities to accommodate the growth, 19.7

--access through the station between Dartmouth and Clarendon Streets, 19.8

--location of and impacts of building support posts on station platforms, 19.9

--plans to replace the neon artwork formerly at the entrances to the station. 19.10

Issues raised by changes outside the station:

--data about current traffic and pedestrian numbers on the sidewalks and roads,

--projections for traffic and pedestrian growth from the increased transit and rail passengers, and the many new buildings in the area, 19.11

--the Dartmouth Street sidewalk narrowed to 8 feet from its current generous width cannot possibly handle the pedestrian traffic, 19.12

--trees in planters at the sidewalk edge will only worsen the problem, 19.13

--removal of the protective overhang on Dartmouth St., 19.14

--impacts of eliminating the Clarendon Street ramp into the MassPike, 19.15

--cars exiting from the garage across the Dartmouth St. sidewalk in conflict with pedestrians, 19.16
--capacity of Clarendon, Dartmouth and Stuart Streets to serve future traffic,
--ability of existing roads and intersections around and near the station to accommodate the growth, as well as in Copley Square in general, 19.17
--vehicle circulation patterns from changes in garage entrances and exits and elimination of the Clarendon Street Turnpike on-ramp,
--impacts on Columbus Avenue and adjacent residential districts, 19.18
--location of the layover for the #39 bus, with its high ridership and long route, 19.19
--assurance that the fix of the ventilation problem will not spew the smoke out of the vent stacks at West Newton Streets onto Titus Sparrow Park and the Southwest Corridor Park. 19.20

Changes to this station should not be made without serious conversations with its users and the residents of adjacent communities. 19.21 It was the effort of those residents from 1969-1989 that defeated proposed interstates and saved commuter and Amtrak rail service into Back Bay/South End Station from being eliminated as planned by the State and City. The citizens then worked to redesign the rail ROW, design the BB/SE Station and create the Southwest Corridor Park. These efforts helped give the Copley Square area the vibrancy that is now bringing development plans for at least five new high-rises. Excluding the public from having input into the proposed changes is inappropriate and short-sighted. The BB/SE Station must remain a facility designed with and for the public.

That being said, after about 30 years, the station certainly needs perking up and better use of its space. The prospect of having it well maintained by Boston Properties is hopeful, ending its neglect by the MBTA. In general, from the presentations I have attended, Boston Properties seems to be doing a thoughtful job of development, with top-notch consultants. Here's hoping State and City agencies will follow their example.

Sincerely,

Ann Hershfang

Christopher Tracy <christopher.tracy@boston.gov>

Re: Back Bay South End Gateway Proposal - Public Comments

1 message

jdevx@aol.com <jdevx@aol.com> Sat, Jun 18, 2016 at 12:30 PM
To: christopher.tracy@boston.gov

Dear Chris,

I know this is late and won't formally count, but I did attend one of the Boston Properties presentations on the Back bay South Gateway Project. As you might expect, I found it way over scale, size and density. Is there really a place for all the added tall, high density residential buildings, traffic and places for cars(?) in this already congested neighborhood ? And especially considering all the other nearby projects which are planned ? I think not. 20.1

I might add that their priorities for improvements at Back Bay Station are not what they should be. The very first problem that should have been addressed is the ventilation at track level, certainly before power washing, etc. 20.2

Hope the BRA treads very thoughtfully on this project.

Sincerely,

Anne F. Devereaux
780 Boylston St 15 G
Boston 02199

-----Original Message-----
From: Christopher Tracy <christopher.tracy@boston.gov>
To: Christopher Tracy <christopher.tracy@boston.gov>
Cc: Lauren Shurtleff <lauren.shurtleff@boston.gov>; Melissa Schrock <mschrock@bostonproperties.com>
Sent: Wed, Jun 15, 2016 4:26 pm
Subject: Back Bay South End Gateway Proposal - Public Comments

Hello All,
Thank you for attending a BRA sponsored meeting in regards to the Back Bay South Gateway Project that is currently under review for Article 80 Large Project.
I am writing now with a friendly reminder that the Open Public Comment period is set to close on Friday, June 17 at midnight. This does not mean the process is ending but for the purpose of our Scoping Determination, we need written comments received by this time. The Scoping Determination is the document that the BRA will give the Proponent that asks for more study and analysis on specific components of the project.
So once again, if your are inclined to write a public comment for this proposal please do DearDear Chris,
I know this is late, but I attended the so and email it directly to me by **Friday, June 17 at midnight.**
Thanks and please let me know if you have any questions at all.

-- Chris
Christopher Tracy
Senior Project Manager
Boston Redevelopment Authority
1 City Hall Sq
Boston MA 02201
617-918-4259

Same as comment letter for ENF

Du, Van

From: Strysky, Alexander (ENV) <alexander.strysky@state.ma.us>
Sent: Thursday, June 16, 2016 10:05 AM
To: Padien, Daniel
Subject: FW: Questions Related to Back Bay/South End Gateway Project

Hi Dan- The commenter refers to the NABB forum. What does NABB stand for and is that part of the BRA process?

Alex Strysky
MEPA Office
100 Cambridge Street, 9th Floor
Boston, MA 02114

ph: (617) 626-1025
fx: (617) 626-1181

-----Original Message-----
From: Anne Swanson [mailto:anneswanson@verizon.net]
Sent: Thursday, June 16, 2016 9:59 AM
To: christopher.tracy@boston.gov; Strysky, Alexander (EEA)
Cc: dtcnabb@nabbonline.com; Brian.Golden@boston.gov; Will Brownsberger; Livingstone, Jay - Rep. (HOU); Rushing, Byron - Rep. (HOU); Aaron Michlewitz.; michelle.wu; Josh Zakim; Annissa Essaibi-George; Ayanna.Pressley; Bill.Linehan; NABB
Subject: Questions Related to Back Bay/South End Gateway Project

After hearing the project description from Boston Properties and the related discussion at the NABB Forum, I have the following questions:

1. Why is Mass/DOT not yet prepared to review the Boston Properties proposal for renovation of Back Bay Station in light of current and future MBTA needs, plans, and capacity? 21.1

2. Why is such a massive project even under consideration for this site? 21.2

3. What will be the combined effect of shadows of all the proposed High Spine high-rise structures on fragile little historic Copley Square, which has a crumbling infrastructure that can hardly support the current environmental conditions and level of use by the public? 21.3

4. Will the water and sewer infrastructure support the increased population density resulting from three more high-rise buildings for residential and office space? 21.4

5. Will the water table be affected by the construction, which in turn protects the wood-pile foundations of three National Historic Landmarks and a luxury hotel in Copley Square: Boston Public Library, Old South Church, Trinity Church, and the Copley Plaza Hotel? 21.5

6. Will the High Spine of tall buildings actually divide and threaten our historic neighborhoods rather than connect them? 21.6

7. Will any public open green space be incorporated into the design? 21.7

8. Why were two neon sculptures by a distinguished artist removed from the MBTA station without any public process? 21.8

Anne Swanson
Resident
157 Beacon Street, Boston, MA 02116

Christopher Tracy <christopher.tracy@boston.gov>

Back Bay/ South End Gateway Project- Opposition to Bridges

1 message

Barry Solar <barry.solar@nemoves.com> Thu, Jun 16, 2016 at 7:15 AM
To: christopher.tracy@boston.gov, Alexander.strysky@massmail.state.ma.us

Gentlemen,

I live at 180 Beacon Street. I am a board member of NABB and co-chair of its Development and Transportation Committee.

For myself, and on behalf of NABB, I want to express strong opposition to the inclusion of any pedestrian bridges in the above project. 22.1

Such bridges violate all tenets of good urban planning. They destroy view corridors which are becoming especially precious in the area because of the number of major projects planned and permitted for this so-called "high spine" area. 22.2

The BCDC guidelines set forth other reasons why such bridges are not acceptable. 22.3

Barry L. Solar

180 Beacon St.

617-823-8855

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Christopher Tracy <christopher.tracy@boston.gov>

Re: Back Bay South End Gateway Proposal - Public Comments

1 message

Carla Nelson <carla.nelson30@gmail.com> Fri, Jun 17, 2016 at 11:37 AM
To: Christopher Tracy <christopher.tracy@boston.gov>

Hi Chris,
I have been attending some CAC meetings. I am the contact person for the Cosmopolitan Neighborhood.
My concerns are about keeping Boston a livable city so I am concerned about the effects of wind and shadow which impact walking and having sunny areas. I am under the impression that the studies done on the Dartmouth Project do not take into account the Simon Project over Neiman-marcus. It is not build yet but appears will be a negative effect on the wind and shadow issues. I attended CAC meetings for that project and the studies they presented were questionable. The wind around Trinity Church can be dangerous and sunlight is limited on the North Side of the church. I hope the Dartmouth Project will not add to the wind and shadow problems 23.1 23.2 23.3

Carla Nelson

On Wed, Jun 15, 2016 at 4:26 PM, Christopher Tracy <christopher.tracy@boston.gov> wrote:

> Hello All,
>
> Thank you for attending a BRA sponsored meeting in regards to the Back Bay South Gateway Project that is currently under review for Article 80 Large Project.
>
> I am writing now with a friendly reminder that the Open Public Comment period is set to close on Friday, June 17 at midnight. This does not mean the process is ending but for the purpose of our Scoping Determination, we need written comments received by this time. The Scoping Determination is the document that the BRA will give the Proponent that asks for more study and analysis on specific components of the project.
>
> So once again, if your are inclined to write a public comment for this proposal please do so and email it directly to me by **Friday, June 17 at midnight.**
>
> Thanks and please let me know if you have any questions at all.
>
> -- Chris
> **Christopher Tracy**
> **Senior Project Manager**
> **Boston Redevelopment Authority**
> **1 City Hall Sq**
> **Boston MA 02201**
> **617-918-4259**

Christopher Tracy <christopher.tracy@boston.gov>

Hello etc

1 message

Carol Card <carolcard@comcast.net> Thu, May 19, 2016 at 11:27 AM
To: Christopher.Tracy@boston.gov

Hi Christopher
Just wondering about the back bay project proposed phase order . 24.1
Which buildings will be first Etc.
I'm Especially interested in the time line for the east side building that will be next to our building where the current cents are. 24.2
Will there be any protection for the adjacent buildings from the dirt etc.
And one last ? Re :
Power washing at back bay station; I live at 285 Columbus and in our association meeting we were told that power washing in the bus turnaround is being done weekly. 24.3
I've seen it twice in 6 weeks ?! Is there a schedule for the whole turn around area for cleaning?
Thanks in advance for your help with this
Carol

Sent from my iPhone

Christopher Tracy <christopher.tracy@boston.gov>

Back Bay South End Gateway Project - Public Meeting 5/11/16

1 message

Hale, Christopher <CHale@statestreet.com> Fri, May 20, 2016 at 2:32 PM
To: "christopher.tracy@boston.gov" <christopher.tracy@boston.gov>
Cc: "Chris Hale at Home (cbucklandhale@gmail.com)" <cbucklandhale@gmail.com>

Christopher,

My wife and I are residents of Back Bay. We attended the presentation part of the Public Meeting on the Back Bay South End Gateway Project. Some comments:

1) Updates to Back Bay station look appropriate and are welcome. 25.1

2) The "stark useless forecourt" (as the proponents called it) of the Clarendon side of the site could be turned into a beautiful and inviting park, instead of a 350+ foot residential tower. [But that probably makes the whole project non-viable to the developers. ☺] 25.2

3) This project, coupled with what seemed like two others in the same area (tower going in front of Copley Place; and another on top of Trinity place?) gives one pause on the TOTAL impact on the neighborhood. Are we really expecting to gain that many residents? Copley Square is getting more and more shadowed and windier and windier – and the southern landscape view is being extinguished. 25.3 25.4

4) There were a bunch of numbers thrown out for benefits (not all of which I remember):

a. new tax revenue
   i. What is the source of this? Private residence (condo) ownership?
   ii. What tax incentives are being provided.
   iii. When is that full amount (16 million sticks in my mind) kick in – relative to the completion dates of each sub-project, 25.5

b. new jobs
   i. New – as in filling in actual new business – new retail, new restaurant, new cleaning services 25.6
      1. Or is that counting all the desk that will be in the office space, which could be a company relocating jobs, which may or may not be actual new positions.

c. , construction jobs. 25.7
   i. How do these spread out over the lifespan of the projects.

Chris Hale

160 Commonwealth Ave

Boston

Christopher Tracy <christopher.tracy@boston.gov>

Project Comment Submission: Back Bay/South End Gateway Project

1 message

no-reply@boston.gov <no-reply@boston.gov> Mon, Apr 4, 2016 at 11:58 AM
To: BRAWebContent@cityofboston.gov, Christopher.Tracy@boston.gov

CommentsSubmissionFormID: 777

Form inserted: 4/4/2016 11:58:34 AM

Form updated: 4/4/2016 11:58:34 AM

Document Name: Back Bay/South End Gateway Project

Document Name Path: /Development/Development Projects/Back Bay-South End Gateway Project

Origin Page Url: /projects/development-projects/back-bay-south-end-gateway-project

First Name: Deborah

Last Name: Hubert

Organization: Tent City Corporation Board Member

Email: dhubert824@gmail.com

Street Address: 130 Dartmouth Street

Address Line 2: Apt. 1003

City: Boston

State: MA

Phone: (857) 258-1661

Zip: 02116

Comments: I am interested in receiving information on how I can potentially become a CAC board member for this project. Additionally, if possible, I would like to attend your next scheduled board meeting. Sincerely, Deborah Hubert

26.1

PMContact: Christopher.Tracy@boston.gov

June 17, 2016

Christopher Tracy
Senior Project Manager
Boston Redevelopment Authority
Boston City Hall
Boston, MA 02201

Sent by email to Christopher.Tracy@boston.gov

Thank you for your continued support of the neighborhood process for the Back Bay Gateway Project.

What are the benefits for the use of this public land for the general public? The land could be used for mixed, middle or low income housing similar to Tent City across the street or Meth Union a few blocks away on Columbus Avenue. The lease of this public land has been granted with no public process. The use of it should include public benefit. 27.1

Building on space East of Back Bay Station, now used as a bus turn around, will limit increased access to the train tracks below. The presentations have not given how the next 99 years of increased train and T traffic are to be handled. 27.2

If there is private residential building on public land, it should include affordable housing within the structure. Linkage funds, as I understand the BRA summary, are for Commercial buildings. Residential space on public land should include at least 25% affordable housing throughout the structure. This should be agreed upon prior to any BRA approvals. 27.3

Thank you for presenting to the public answers to the many concerns. You mentioned at a meeting that the project would meet the Mayor's housing guidelines. Before approvals the public should know how those guidelines are going to be met. 27.4

Thanks,

Ed Tiffany

19 Braddock Park
Boston, MA 02116

Christopher Tracy <christopher.tracy@boston.gov>

Public Comments: Back Bay South End Gateway Project

1 message

Elliot Guerrero <elliotg.boston@gmail.com> Wed, May 18, 2016 at 10:57 PM
To: Christopher.Tracy@boston.gov

This email is in response to public meeting on 5/18/16 for proposed project titled Back Bay South End Gateway Project, for which I attended. In my limited understanding of the project, the information I've read prior to meeting and the information I heard from project team seemed generally as a favorable project proposal and I offer my constructive criticism for seeking public benefits and for project team consideration.

1. Weak Design Concept for Office Tower Massing
Was expecting to hear more significant reasoning for tower massing but Rafael basically said it was shaped by wind study, is that how we should design buildings. Given the importance and prominence of the site and location, the public expects an architectural design that is equally important/prominent for the location. Personally, I do not find the massing and materiality of office tower very interesting but if the design 'concept' was significant I might have been more open but as I've mentioned the design concept did not seem to have much depth beyond just offset glass. | 28.1

2. Too much glass on glass tower | 28.2

2. Street panoramic view seems weak in comparison to existing garage massing. | 28.3

3. Do not think it's a good idea to exit vehicles from garage onto Dartmouth Street. | 28.4

4. Existing ramp to I-90 should remain although I would guess it is underutilized | 28.5

5. Considering that the existing structure over train station can only carry 1 or 2 additional stories it does not seem feasable to sacrifice original design features of station for retail space that is not ground floor. | 28.6

6. There was a good graphic plan that shows amount of existing site dedicated to vehicles and I thought it would be followed up with graphic plan of proposed site areas dedicated to public spaces. Would like to see before and after of site areas illustrating area available for public at various and all times. | 28.7

7. Would have liked to hear more of the breakdown of market-rate housing, affordable housing, linkage payment and total budget. | 28.8

Respectfully,
Elliot Guerrero

Same comment letter for ENF

90 Commonwealth Ave

Boston, MA 02116

May 30, 2016

Matthew A. Beaton, Secretary

Executive Office of Environmental and Energy Affairs

Attn: MEPA Office

Alex Strysky, EOEEA #15502

100 Cambridge St, Suite 900

Boston, MA 02114

Subject: Back Bay South End Gateway Project

Dear Secretary Beaton:

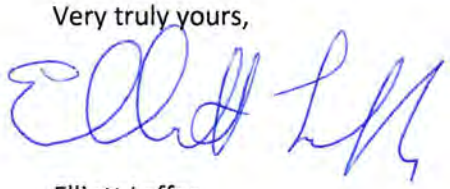
Thank you for the opportunity to comment on the Environmental Notification Form for the Back Bay South End Gateway. This is a project that, I believe, has the potential to have an important positive impact on a key site at the junction of the Back Bay and the South End. However, the planned site has many physical drawbacks that can make it difficult to construct without causing unacceptable negative impacts. Below I list a series of issues that I hope can be answered in the MEPA and concurrent BRA processes in ways that can mitigate these impacts. 29.1

1. Parking – While restricting new parking is often a way to reduce environmental impacts, in this case the proponent plans to add no additional spaces to accommodate demand from one office and two residential towers. At the same time, new towers at the adjacent 40 Trinity Place and Copley Place projects have been approved with no additional parking. While it is likely that the users of the new towers will be accommodated, what happens to vehicles that are now parking at the 100 Clarendon St and Copley Place garages? There is no space for additional parking on the streets. 29.2
2. Garage Exit – Under the base scheme, the proponent plans a garage exit onto Dartmouth Street. This is a very heavily used pedestrian pathway from the Back Bay to the Orange Line and commuter rail facilities at Back Bay Station. How are conflicts between the exiting traffic and pedestrians to be handled? In this transit oriented development, will the edge go to those on foot? 29.3
3. Shadows - The proponents have conducted preliminary shadow studies to show that they meet the standards for Copley Square in the newly adopted Stuart Street zoning. What is the shadow impact, if any, on the courtyard of the nearby Boston Public Library? 29.4

4. Wind – The proponent is in the process of conducting wind studies. Because there is a high likelihood that not all phases will be built simultaneously, and there may in fact be extended period when only part of the project is completed, what is the impact of the project at each interim phase? This is also important to study since the proponent is unsure of the order in which the phases will be constructed. 29.5
5. Transit Capacity – As the proponent has noted, the project is located at a transit hub that includes Orange Line, commuter rail, bus, and AMTRAK facilities, as well as the nearby Green Line. However, many MBTA lines have been operating close to capacity. Will there be transit capacity to handle this project along with the other approved projects in the area? 29.6
6. Bus 39 – This is the busiest bus route in the entire MBTA system, and it relies on the bus turnaround at Back Bay Station to hold multiple articulated buses to keep the route on schedule. The project includes a planned residential tower where the turnaround is now located. How will the Bus 39 operations be handled both during and after construction? It is unlikely that holding the buses on Clarendon Street will be an acceptable solution. 29.7

There will no doubt be other important questions to resolve so that the project will ultimately have a significant net positive impact. As a member of the Civic Advisory Committee, I look forward to working with the proponents and public agencies as they are answered. I hope that, through the MEPA process, you will be able to assure that these key questions are answered thoroughly.

Very truly yours,



Elliott Laffer

elaffer@aol.com

617-686-8469

Same comment letter for ENF

BACK BAY/SOUTH END GATEWAY PROJECT - A LOST OPPORTUNITY

Have we a failure of leadership at the BRA, City Hall, the Department of Transportation, even the Governor's Office?

We have now seen presentations of the vaunted Back Bay/South End Gateway Project.
What is missing? What is wrong? Is this anti pedestrian, anti transit, anti bus, anti bike, or just plain uninspired urban design? The problem as always seems to be an inability to think outside of the parcel…… outside of the box. The public and civic streetscape is either ignored, or there is even a private taking of public space and benefits. We need a planning team which can focus on civic values and public space is this and every project in Boston. 30.1

Let's look at this project from three aspects:

A. Problems in urban design. Lost opportunities.
B. Assets of the existing context.
C. Real solutions for a prosperous future… for the public, for the developers, and for our city. 30.2

A. PROBLEMS IN URBAN DESIGN

BAD PRECEDENTS

- There has already been a taking away of a public sidewalk and a public arcade in front of the Back Bay Station… this was replaced with a "burger joint". Sadly this seems to have set the impoverished tone for this project.
- The BRA's Copley Place tower project (now underway) will take away the horse sculptures and the open space. It will also cast a long shadow over the surrounding area and even Copley Square (as seen in the recent presentations for the Gateway Project). 30.3

PROPOSED

- Taking sidewalk width from the east side of Dartmouth Street.
- Taking arcade cover from commuters,shoppers, visitors to the city along the same side of Dartmouth Street… this starts at Back Bay Station and continues all the way to Saint James St. Proposed is a narrow sidewalk with no cover and a blank Garage wall overhead.
- The intersection of Stewart and Dartmouth is the intersection from hell. Pedestrian injuries are just waiting to happen…. cars barrel out of the turnpike ramp and roar past this pedestrian crossing. The Mayor's Vision Zero has become Zero Vision. There is no plan to ameliorate this condition, no leadership. 30.4
- Dartmouth Street renderings show a sea of asphalt from curb to curb between the now narrower sidewalks.
- The ultimate irony… the plan proposes to tear down the West Hancock garage to build the new tower, and then rebuild a new West Hancock Garage for cars again… this is outdated zoning. Even DOT should now by now: more parking = more cars on the street, more air pollution, a degraded pedestrian environment. All this with transit within 100 feet! And this rebuilt four story garage dominates Dartmouth Street in this non-design. We can hardly blame developer for the lack of BRA leadership. Without guidelines from the BRA (or with failed guidelines from the BRA) the developer has created an internal hidden mall...draining life from Dartmouth Street (and placing the pedestrian entrance to this mall facing the Stewart Street "automobile alley"). 30.5
- Even now when we know better, the plan contemplates a ramp dumping automobile traffic onto Dartmouth Street. Anti pedestrian, anti civic, anti environment.

- And what is with the crazy angles of the West Hancock Garage Tower? Across Stewart Street is the Copley Plaza block… a traditional four square dignified and tradition urban form. Again no guidelines from city/BRA…… no leadership. 30.6
- A wind tunnel test was done at a scale of 1 to 400. This is like placing a comb in front of a hair dryer. Guess what? The tests show no wind problems for a 40 story tower! Sensors everywhere on the model divert attention from the critical intersection of Dartmouth and Stewart. 30.7

All of this is destructive of civic and public values. This is **GRAY** development…there is no added value for the public. It becomes a dead environment. This un-plan drains value from both the public and the private spheres. We need **GREEN** and prosperous design in our city.

And we have not even touched on the plans for the Back Bay Station… architecture by amputation. (Please see Ken Kruckemeyer's excellent analysis of the station project… he says it better than anyone.)

In this project we can see the failure in leadership from the BRA, the Mayor's office, DOT, the Governor…… and even the City Council for approving six more years of this mindless BRA machine, with no public benefit and with toothless City Council oversight.

Where is the beautiful reformed BRA birthday cake the Mayor promised the city?

Instead of the cake…we are left with burnt muffins.

B. ASSETS OF THE DARTMOUTH STREET SPACE AND CORRIDOR.

- The Southwest Corridor is a gem… built over the tracks, it is Boston's High Line.. or perhaps our LOW LINE. It terminates in a public open space with cafe tables, city bikes, and pedestrian safety.
- The Back Bay Station. This is a true gateway… with the commuter rail to Rhode Island and Connecticut, and with the proposed North-South Rail Link to points north even to New Hampshire and Maine. Of course there is AMTRAK with access to the East Coast. And the Orange Line. The 39 bus. An underpass to Copley Place. And a head house to Clarendon Street from the tracks. (Again please see Kruckemeyer.)
- Back Bay Station - the Architectural Design: this station was designed as a Roman basilica with center and side aisles and clerestory daylighting ... Like the unloved City Hall, and the Hines, it is a true civic landmark reflecting the post war rebirth of the city. (There is now a book about this so-called Brutalist architecture.) It is monumental…… it is classic.
- THE LANDMARK BENCH..… here sit all walks of life… indigents, homeless, (they rarely but occasionally scream at each other), suits, panhandlers, our friend and artist Leon who greets all with smiles and therapeutic conversation, while selling newspapers. This is Boston's THREE PENNY OPERA. Is there a place for this opera in the new plans?
- Dartmouth street is fortunately wide… there is room for pedestrians, bikes, uber/taxi drop offs, even landscaping and green plants.
- The Copley Plaza block is a dignified neighbor whose context should not be ignored. 30.8
- Copley Square with its Farmers' Market, concerts, etc. And of course the historic surrounding architecture.
- Dartmouth Street even has connections north to Commonwealth Avenue Mall, bikeway, and Esplanade Concerts, the Charles River, fireworks.

- Transit is everywhere in the three block area from Columbus to Boylston - AMTRAK, commuter rail, Orange Line, the bus kiosk in Copley Square, the Logan Airport Shuttle, Hubway Bikes, (some) wide pedestrian sidewalks, and not one but four Green Line routes converge in this area. Eight transit modes.

C. OPPORTUNITIES, SOLUTIONS.

How best to create value for a prosperous future for this development and our city? We need a new template for development and planning that can plan to:

- Preserve the SOUTHWEST CORRIDOR LOWLINE… and extend it across to the Back Bay Station. 30.9
- Preserve the station porch and the THREE PENNY OPERA representing all walks of life in Boston. 30.10
- Preserve sidewalks…make these wider. Preserve cover and expand cover… two story arcades provide cover with adequate daylight. 30.11
- Bring life back to Dartmouth Street…place the developers mall (now buried inside the parcel) on the street edge in a restored arcade and above the arcade. Recess the West Hancock Garage inside the parcel to allow for retail and/or office space on the edge opening to the sidewalk arcade. Even better don't restore this outdated garage function. We now know: build parking and you attract more cars - a no-brainer. (With eight modes of transit in the area this is madness.) 30.12
- Transform Dartmouth Street into the Dartmouth Mall or Greenway. Think Depressed Central Artery… think Rose Fitzgerald Greenway, We can do better. No southbound lane (Clarendon) or delivery/fire lanes only … provide landscaping, benches, canopies, green plants, flowers. Add value, create a prosperous environment..attract visitors, tourists, shoppers, lunch time office workers, residents, and yes pan-handlers. Add real value to adjacent developments. 30.13
- Extend the Dartmouth Mall/Greenway to Copley Square and even to the Esplanade (at least long term). Instead of zero vision, apply Vision Zero to the intersection from hell at Dartmouth and Stewart Streets. Slow traffic. Divert traffic. Study depressing Stewart Street below the new Dartmouth Mall/ Greenway to allow for a pedestrian mall overpass. The ramps are already depressed until they emerge with their mindless 18 inch “sidewalks” (which everyone uses - dangerously). 30.14
- Imagine the unfolding view as you walk north on the Dartmouth Mall. This would preserve and enhance those civic values inherent in Boston’s development history. 30.15
- Use this Dartmouth Mall to more elegantly integrate the eight modes of transit present. 30.16
- Save the Copley Place horses…… bring them out to the Dartmouth Mall open space. 30.17
- And of course do not mindlessly dump vehicle’s onto dart with a new ramp from a (needlessly) restored West Hancock Garage.! 30.18
- Do a valid wind tunnel test… especially of the pedestrian zone at Dartmouth and Stewart Streets…… and scale up the model to say 1 to 40 for a meaningful result. Test for northwest winds which are the most brutal in the winter. In the Tower Design: one elevation rendering shows belt courses at about every 10 stories… this is a good start…… it can lead wind around the tower instead of down into the street….. add canopies to the arcades to further deflect northwest winds away from sidewalk arcades. 30.19
- Build a turnpike deck to the east of Clarendon onto which some of the proposed retail can be relocated. Perhaps use this deck for the 39 bus turn around. Note: there is already a head house for the MBTA east of Clarendon. Use this deck for some of the residential to reduce over all building heights. Development here would define the edge of Clarendon and protect pedestrians from the turnpike noise (think NYC Park Avenue built over the tracks) . 30.20
- Keep the Back Bay Station “basilica” form with its side aisles - at least at the entrance area. Preserve the clerestory daylighting at the second and third floors. Find more retail area east of the old station 30.21

core. Renegotiate with the developers to encourage retail further east and perhaps over a new deck east of Clarendon Street (it is wasted now). 30.22

- And keep a curved arch over the Clarendon Street station entrance to reflect the West end of the station (at a smaller scale). This will help people recognize the Back Bay Station for what it is. 30.23
- Ventilation of the station is welcome. Of course the ultimate answer is Electrification. Note how everything in interconnected. But we cannot take advantage of mutual benefits, until we learn to think outside of the box and outside of the parcel. We need multidisciplinary problem solving. 30.24

Where is the city spirit that built the Public Garden, the Esplanade, City Hall, the Depressed Central Artery? I know it is there down deep.

HOW DO WE DO ALL OF THIS?
We need a team that designs the public realm for this project. This team can address urban design, pedestrian planning, transit connections, and the civic environment. It can include liaison from the developers and critical stakeholders such as Walk Boston, Mass Bike, and consultants Arup Engineering, urban lighting designers, landscapers, etc. And of course BRA urban planners, some of whom can be assigned to this team, while some BRA staff should remain focused on the development parcels themselves.

You can do this Mister Mayor… you already have your "Greenovation" staff which focus on the broader environment. Assign some of this staff to address all of the many issues and opportunities outside the parcel boundaries and OUTSIDE THE BOX, within which the BRA administration is hopelessly trapped.

And finance? The difference between **GRAY** design and **GREEN** design is a huge gap in property assessments. Take out a bond and pay for it with the increased property values inherent in good urban design. And don't forget the developers, who will immediately see the value in a Dartmouth Mall, in integrated design, in better streetscapes, that attract more pedestrians and shoppers. They are not to blame for the present proposal… they need better leadership from the city.

And we need Governor Baker's leadership as well - find a way Governor to steer clear of this **Tea Party Transit** where public transit is all privatized. You inherited this mess. Find a way out. Work with the City and Boston Properties for a win-win solution. Your DOT can help move some of the retail east to a new deck over the turnpike - this would help preserve the public space in the landmark station lobby. Your architect, Arrow Street, is clearly pained at your instructions that debase our precious station. They would work hard to avoid the damage proposed presently. And please find a place for the "burger joint" that has stolen our public sidewalk and arcade.

Find a way!

Respectfully submitted in fondness for our city.

Gerry Ives

Working for Sierra Club, Gerry Ives made drawings in 1973 for alternate waterfront renewal, which included plans to depress the central artery (http://www.ivesarch.com/depressed-central-artery.html)

Same comment letter for ENF

Du, Van

From: Strysky, Alexander (ENV) <alexander.strysky@state.ma.us>
Sent: Monday, June 20, 2016 9:35 AM
To: Padien, Daniel
Subject: FW: Comments on Back Bay/South End Gateway Project

Follow Up Flag: Follow Up
Due By: Monday, June 20, 2016 9:41 AM
Flag Status: Flagged

Alex Strysky
MEPA Office
100 Cambridge Street, 9th Floor
Boston, MA 02114

ph: (617) 626-1025
fx: (617) 626-1181

From: H. Parker James [mailto:hpjames423@gmail.com]
Sent: Friday, June 17, 2016 7:30 PM
To: Strysky, Alexander (EEA)
Subject: Comments on Back Bay/South End Gateway Project

June 17, 2016

Dear Alexander Strysky:

I serve on both the NABB Development and Transportation Committee and the LivableStreets Advocacy Committee, but I am writing to you now as a Bostonian and a 35-year resident of the Back Bay.

With regard to the Back Bay/South End Gateway Project: generally speaking, I support this development, but I have the following concerns:

A. The Back Bay Station should be designed to function as a transit hub, not converted to a retail concourse. 31.1

- The Station needs to be redesigned in a manner that can accommodate much larger numbers of future. 31.2

- The public service area of the Back Bay Station should be expanded and improved both in terms of functionality and appearance. 31.3

- Boston Properties plans to privatize some 10,000 square feet of public service area should not be allowed to happen. 31.4

B. Much attention should be paid to improve the station's breathing environment. The diesel particulates in the air there are both unpleasant unhealthful. Improved ventilation is essential. 31.5

C. No garage entrance or exit ramps should be allowed on Dartmouth St. 31.6

D. The Clarendon St. side of the development should be redesigned in a more thoughtful manner.

-The Clarendon St. entrance to the Mass. Turnpike should be eliminated. 31.7

- The Clarendon St. façade of the parking garage should have some sort of architectural screening.

Thank you for your attention.

Sincerely,

Heyward Parker James

423 Marlborough St., #3

Boston, MA 02115

Same comment letter for ENF

July 17, 2016

Back Bay / South End Project
Boston Redevelopment Authority
Christopher Tracy, Senior Project Manager
Christopher.Tracy@boston.gov

Project Number 15502
MEPA
Alexander Strysky, MEPA Analyst
Alexander.Strysky@massmail.state.ma.us

Dear Christopher Tracy and Alexander Strysky,

As a member of the Civic Advisory Committee (CAC) representing the Back Bay, I have participated in many meetings and heard many questions and comments about this project. I look forward to the responses to all our questions from the development team. I also look for responses from the BRA and the State, as the proponents are not in control of all of the relevant issues. MassDOT is the owner of the Back Bay Station and the Mass Pike, while Boston Properties is under contract to manage the concourse level of the station.

Coordination

Coordination among the multiple agencies controlling aspects of the site and operations on the site is imperative. To date, we have had little or no contact with the MBTA, MassDOT, BTD, Mass Pike, Amtrak, Federal Highways, for example. Such coordination is important for the station design, as well as the analysis of the traffic around and through the site. The station design establishes the context for the towers and possible second level over the station, therefore, it should be part of the early CAC discussion. The stated objective that the station be "airport level" quality is fine as far as it goes, but the CAC could provide positive input in this phase of the design, before the design is set. Many of the members regularly use the No. 39 bus, the Orange Line, the Commuter Rail, and Amtrak, therefore they are very familiar with the existing conditions. 32.1

Environmental Impacts

Environmental Impacts are of particular concern to Back Bay residents who have seen increasing wind, traffic, and shadow in and around Copley Square with the construction of the Clarendon, the Liberty Mutual Building, Exeter Towers, 888 Boylston, etc. Detailed environmental studies should be required and thoroughly examined with the CAC. 32.2

Wind impacts should be studied along Dartmouth and Clarendon Streets to the river, and to the north side of Boylston Street. How does the wind data relate to our perception of the conditions around the site? 32.3

Traffic impacts should be studied to the river to the north, east to Arlington and west to Mass Ave, and into the South End as appropriate. 32.4

Illustrate any shadow on nationally recognized historic buildings and public spaces, including shadows on the building facades, including the BPL Courtyard facade. 32.5

Quantification and qualitative analysis of Pedestrian circulation to and from, in and around the project is essential. And this information correlated with the various types of vehicular traffic is essential to the successful operation of the station. Currently the sidewalks are often overly crowded. Alternative studies to relieve the crowding should be discussed with the CAC. A garage outlet or inlet onto Dartmouth Street should be abandoned at this point and a base scheme proposed without it. 32.6

Air quality, particularly at intersections and between streetlights should be studied and reviewed with the Board of Health. 32.7

During Article 80 reviews, we consistently ask for data on the capacity of public transportation and have been disappointed in the responses. Since so much constriction has been approved in this small area of the Back Bay, the State should provide this information to the developer and the public. 32.8

Likewise, the capacity of public utilities, water, sewer, and power, as well as cable for TV and wifi, should be made public and analyzed in the next submission with respect to the proposed building uses. If additional capacity will be required, this should be identified in the next phase of the project and planned. 32.9

Urban Design

This project is situated on public air rights, which offers a unique opportunity/obligation to offer significant site-specific public benefits. Improvements to the public realm, such as comfortable sidewalks and adequate outdoor spaces, will be essential to the success of this block. 32.10

An idling bus is not everyone's idea of something belonging to their front yard, but since the No. 39 bus already has a home on Clarendon, it is appropriate to study design alternatives to use the space between the residential towers and Clarendon Street. 32.11

The suggested bridges above the adjacent streets were discussed at BCDC, whose guidelines discourage them. High quality, safe on-grade crossings should be developed instead to engage life on the street, which is most appropriate for this urban center. 32.12

The architecture of the proposed residential buildings is very sketchy. Suggest proposing elevation designs that are clearly residential, providing operable windows and individual outdoor balconies. 32.13

Recommend providing additional drawings to show the whole buildings from the Back Bay, Dartmouth, and Clarendon Streets. The drawing for the corner of Stuart and Dartmouth misses the top half of the building. 32.14

A proposal to include all of the affordable housing on site, and including the required funds from 40 Trinity's payment to the Housing Trust, should be developed and presented. 32.15

Public Benefits

Excellent publically accessible open space would a welcome public benefit, as would desirable improvements to Back Bay Station. To determine what would be desirable, please engage the CAC and the public very early in the decision-making, as soon as possible. This has been discussed although not scheduled. 32.16

Zoning

Please prepare a detailed list comparing the project with the Stuart Street Zoning and Guidelines and detailed explanation of all requested zoning relief, i.e. amend the PDA. A PDA amendment should not be used for relief from Stuart Street Zoning requirements. 32.17

Public Financing

Please provide a list of any potential tax relief for the project. 32.18

Summary of Key Questions

To facilitate communication on the prior discussion, I am summarizing it by listing a series of questions for your consideration.

Coordination

. How can we be assured that adequate coordination will take place between the different agencies involved with the project? In particular, when will the public get an opportunity to review MassDOT plans for the MBTA station and the Mass Pike plans for the Clarendon Street exit? 32.19

Environmental Impacts

. Will detailed, state-of-the art studies be conducted on wind, traffic, and shadow impacts in and around Copley Square that include all of the requested points? 32.20

. In particular,

. Will wind impacts be studied along Dartmouth and Clarendon Streets to the river and on the north side of Boylston Street? Will wind impacts on Copley Square Park be studied, particularly where the Farmer's Markets place tents and around the fountain? 32.21

. Will traffic impacts be studied to the river to the north, east to Arlington and west to Mass Ave, and into the South End as appropriate? 32.22

. Will any shadow impacts on nationally recognized historic buildings and public spaces be presented, including shadows on building facades, including the BPL Courtyard facade? 32.23

. Will the developer study shaping the buildings to completely eliminate new shadow on Copley Square? 32.24

. Will quantitative and qualitative analyses of pedestrian circulation to and from, in and around the project be provided? 32.25

. Will the pedestrian analysis be correlated with the traffic analyses? 32.26

. Will air quality, particularly at intersections and between streetlights be studied? 32.27

. Will we be provided with data on the capacity of public transportation to handle all the additional usage expected in the area? 32.28

. Similarly, how about the capacity of public utilities, water, sewer, and power as well as for cable for tv and wifi? 32.29

Urban Design

. Will the CAC be invited to evaluate proposed improvements for the public realm, such as comfortable sidewalks and adequate outdoor spaces to serve the uses on the site? 32.30

. Will design alternatives be discussed with the public and the CAC for the 39 bus? Could one of these include the use of the space between the residential towers and Clarendon Street? 32.31

. Will information be provided on producing safe, on-grade street crossings to engage life on the street, as appropriate in a vibrant urban environment? 32.32

. Will additional information be provided to show all elevations for residential buildings? 32.33

. Can additional drawings be provided that show the whole buildings from the Back Bay, Dartmouth, and Clarendon Streets? The current drawing for the corner of Stuart and Dartmouth misses the top half of the building. 32.34

. Can additional drawings be provided that show the view corridor both ways on Dartmouth Street, where the Stuart Street Zoning requires a setback. 32.35

. Can a proposal be offered that includes all of the affordable housing on site and that includes the funds required from the 40 Trinity, as well? 32.36

Public Benefits

. Will the public be engaged early in the process on plans concerning the publically accessible open space and the improvements to the Back Bay station? 32.37

Zoning

. Can you prepare a detailed list comparing the project with Stuart Street zoning and Stuart Street guidelines and offering a detailed explanation of all requested zoning relief? 32.38

Public Financing

. Can you list any potential tax relief that might be requested for the project? 32.39

Thank you for the opportunity to comment on this important project. I anticipate the resulting buildings and infrastructure improvements will benefit the neighboring communities and the City.

Jacquelin S. Yessian
160 Commonwealth Avenue Unit 603
Boston, MA 02116

Cc:

Brian.Golden@boston.gov
William.Brownsberger@masenate.gov
Jay.Livingstone@mahouse.gov
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285 Columbus Lofts
285 Columbus Avenue
Boston, MA 02116

285 COLUMBUS LOFTS

C/O John Corey, Unit 803
(617) 266-0407
john@johncorey.me

June 17, 2016

Boston Redevelopment Authority
Re: Back Bay / South End Gateway Project

285 Columbus Avenue, known as the "285 Columbus Lofts," is located in the Landmark District at the corner of Columbus Avenue and Clarendon Street. 285 was formerly the Red Cross Building, and was converted to condos in 2008. As one of the only residential abutting neighbors to the extensive Gateway project, we want to voice our concerns as a community.

285 was constructed in 1924, and has had a rich history. Although the building has been renovated and modernized over the years, we are extremely concerned that our building, and its 92-year-old foundation, may be irreparably damaged by the close proximity to the specific challenges of the Station East site. We feel the BRA should require Boston Properties to undertake further study that would alleviate our concern for the structural integrity of our beautiful and historic building. 33.1

Furthermore, if approved, we are concerned that the substantial construction will have great impact on our quality of life. We would like to know what procedures Boston Properties will put in place to mitigate noise, dirt, dust, and debris that this project will create for our residential community. In addition, we want to be assured that Boston Properties minimizes disruptions to our community and does its' utmost to insure our safety. 33.2

Back Bay Station is a busy and thriving station in the heart of Boston. As abutters, and neighbors, we are enthusiastic about potential updates and modernization, but we have concerns that the scope and scale may be excessive when considered in context of the other approved projects in our immediate neighborhood. This area is a developmental hotspot, with not only this proposal, but also the Copley Residential Tower, and 40 Trinity Place projects. We are concerned that the population density will increase to levels that will become unbalanced in relation to the amount of public, and green space available to the area. With the increased density, it would be beneficial to increase green space, and public space within the project site. As a major transportation hub we strongly urge the BRA to heavily weigh both green space, and public space into the Back Bay Station Proposal. Although the proposal of Back Bay Station increases the efficiency of accessing train platforms, that does not discount the fact that public space is reduced. With the addition of more retail shops, proposed office area, and multiple residential towers already approved in the area, the demand on Back Bay Station is only going to increase in every respect; therefore, the lack of green space and public space is only going to be magnified. We think the remaining space in the rear of Back Bay station should be dedicated to green space for the public to use in various capacities. This would also help reduce noise and pollution. An additional added benefit would be the arched roof architecture being visible from the street, which is a hallmark of the station. 33.3 33.4 33.5 33.6

Property liens need to be closely examined regarding the shared alley/driveway enabling loading dock access to 285, and the rules and regulations that would govern this alley/driveway. The current proposal eliminates a safe pedestrian path to and from one side of our building. 33.7

Building a residential tower directly behind 285 in such close proximity will also cause significant loss of light. We have tremendous privacy concerns with the windows of the new tower directly facing our residential windows. Views from the upper floors will also be negatively impacted, if not lost all together. Light trespass from the Station East Tower into the residential windows of our building is also a concern. 33.8

We understand that Boston Properties is seeking Blight Status for the Back Bay South End Gateway Project. While we agree that the station is experiencing normal issues associated with aging and evolving user needs, it is not structurally unsound; therefore, it does not qualify the project for blight status. 33.9

Again, we are excited about many aspects of this proposed project; however, we want to ensure that the proposed project gets the necessary feedback back from the community so the potential end result will be the best for the city and the community.

Thank You for Your Consideration,

John Corey
The 285 Columbus Lofts

Christopher Tracy <christopher.tracy@boston.gov>

GATEWAY PROJECT

1 message

john forbes-deWinter <forbesdewinter@yahoo.com> Mon, May 23, 2016 at 10:30 AM
Reply-To: john forbes-deWinter <forbesdewinter@yahoo.com>
To: "christopher.tracy@boston.gov" <christopher.tracy@boston.gov>

I read with interest the proposal for the Back Bay/South End Gateway Project. Great idea! Great Proposal! The project would certainly improve that area of town. I'm 100% for the project, except for one flaw, that overwhelming orange "T" logo. The buildings are crisp and clean; that T sign detracts from the façade and the entire project. When you look at the buildings, your attention is not drawn to the building, but your attention is immediately drawn to that T sign. That sign cheapens the project. Everyone knows where the T entrance is located. In cities all over the world, much larger that Boston, New York, London Paris, Rome, Hong Kong, Tokyo, and hundreds of other cities, there are small signs directing passengers to an unobtrusive staircase that leads to the platforms. A large sign is not needed, it's a gaping eyesore, and it's in your face. Please proceed with the project, but please, please remove that ugly sign. Thank you. 34.1 34.2

Christopher Tracy <christopher.tracy@boston.gov>

Comment on Back Bay South End Gateway Project

1 message

JOSEPH GERTNER <josephgertner@icloud.com> Fri, Jun 17, 2016 at 10:33 PM
To: christopher.tracy@boston.gov
Cc: Jackie Yessian <jyessian@gmail.com>

During the public meeting at the French Library on Tuesday June 14th, 2016 representatives of Boston Properties made clear:
1) that their management of the MBTA/Amtrak station is not intended to be a profit center, but is undertaken as a public service in exchange for the development rights.
2) that decisions on whether and when to proceed with the new buildings will depend on market conditions prevailing at the time.
My question is: for how long does Boston Properties intend to keep running the station if no residential or commercial development work is started by the target date. 35.1

Joseph Gertner

Sent from my iPhone
Joseph Gertner
+1 (617) 834-3946

16 June 2016

Christopher Tracy, Senior Project Manager
Boston Redevelopment Authority
One City Hall Square
Boston, MA 02201
PDF to Christopher.Tracy@boston.gov

Secretary of Energy and Environmental Affairs
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
Alex Strysky, EEA No. 15502
100 Cambridge Street, Suite 900
Boston MA 02114
PDF to Alexander.Strysky@state.ma.us

Re: Back Bay/South End Gateway Project

The Boston Redevelopment Authority has asked for comments on Boston Properties' Project Notification Form for their proposed Back Bay/South End Gateway Project. Responses from the public and city agencies are due on June 17th. This is well ahead of the completion of project presentations to the Civic Advisory Committee. It is also prior to the promised, but not yet scheduled, public review of changes to Back Bay Station proposed by the same developer.

The success of this project, additional development in the Stuart Street Corridor, and ultimately the prosperity of the City of Boston will rely heavily upon the ability of Back Bay Station to serve the growing transportation needs of the district. But, the modifications to the station currently proposed by Boston Properties appear to reduce its functionality and to inhibit its ability to serve anticipated demand. 36.1

Neither the BRA, nor the Commonwealth should grant approval of the Back Bay/South End Gateway project until the public is assured that Back Bay Station will serve the growth of public transportation to this district. Segmentation of these two interlinked projects should not be allowed. If the Gateway project were to be built first, the public function of the station could be severely limited. Similarly, if the station modifications were to proceed as currently drawn, development of the Gateway and the district will be highly constrained. 36.2

The ability of Back Bay Station to accommodate growth
Back Bay Station was designed and constructed in 1987 to accommodate the growing public transportation needs of the Back Bay. Its clear side aisles provide pedestrian access from the adjacent urban district and local buses to the Orange

Line in the central space, and on either side to regional commuter rail and Amtrak intercity service. The Waiting Room for railroad service includes seating, ticketing, toilets, food retail and a statue commemorating A. Philip Randolph and the Pullman Car Porters.

Boston Properties plans to insert approximately 15,000 square feet of retail into the station. All circulation and waiting will move into the central space. The side aisles and waiting room will be replaced with stores. Some additional floor area is gained in the central space by filling in the openings around the stairs and escalators which, in turn, diminishes security, wayfinding, light and air to the platform. The net result would be a highly constrained station with reduced flexibility and redundancy, and less ability to adapt to increased ridership, new ticketing, or improved security. 36.3

The Boston Properties lease with MassDOT for control and maintenance of the station and for air rights above and adjacent is for 99 years. The modifications to the station and the Gateway buildings must not only be privately successful, but must serve the public's transportation needs as they grow and change for all of those 99 years. 36.4

There are seven tracks that bring passengers into and out of Back Bay Station. The Commonwealth and the City are both committed to a dramatic mode-shift toward public transportation and transit-oriented development. The MBTA will put new Orange Line cars in service in 2019, which will improve headways from 6 to 4 minutes. Rapid transit on 2-minute headways, typical of many systems, would more than triple current ridership. With new signals and vehicles, the robust commuter rail network to the south and west can be expected to multiply patronage by six. More frequent and reliable Amtrak service will substitute for air travel along the northeast Corridor. Certainly Back Bay does not want to miss out on direct train service to New York because the station is unable to handle the demand.

Based on numbers from the MBTA, the station currently handles approximately 55,000 transit, commuter rail and Amtrak patrons per weekday. Based on numbers from other systems in the United States and around the world, it is easy to predict the station will need to accommodate a patronage of at least 200,000 per weekday using existing technology.

Next Steps for the proposed Gateway project

The developer has already provided two schemes for the entire site, dependent upon whether the Clarendon Street entrance to the MassPike is eliminated. The BRA and MEPA Scopes should also require the developer to provide additional schemes, developed via a public process, to achieve the developer's air-rights objectives while fully preserving and improving the functionality of Back Bay Station. (An example of the possible interconnection: one alternative might be to locate new station-oriented retail with access directly from the Stuart/Dartmouth intersection through to the station. Retail in the Garage-West portion of the site now occupied by Harvard Vanguard would obviate the need to insert retail in the station itself.) 36.5

Back Bay Station must have the ability to grow and adapt to the public transportation needs of the region. It is essential, therefore, that no approval be given to this project by the City of Boston and the Commonwealth of Massachusetts until the success of the station is assured.

Kenneth E. Kruckemeyer
12 Holyoke Street
Boston, MA 02116

Christopher Tracy <christopher.tracy@boston.gov>

Project Comment Submission: Back Bay/South End Gateway Project

1 message

no-reply@boston.gov <no-reply@boston.gov> Fri, Apr 22, 2016 at 5:24 PM
To: BRAWebContent@cityofboston.gov, Christopher.Tracy@boston.gov

CommentsSubmissionFormID: 837

Form inserted: 4/22/2016 5:24:02 PM

Form updated: 4/22/2016 5:24:02 PM

Document Name: Back Bay/South End Gateway Project

Document Name Path: /Development/Development Projects/Back Bay-South End Gateway Project

Origin Page Url: /projects/development-projects/back-bay-south-end-gateway-project

First Name: Lisa

Last Name: Newell

Organization: N/A

Email: LisaNewell1666@yahoo.com

Street Address: 41 Summer Street Apt. #1R

Address Line 2:

City: Everett

State: MA

Phone: (857) 258-6241

Zip: 02149

Comments: Hello, my name is Lisa Newell. I am interested in knowing about upcoming Lotteries (residential) so that I may apply for any in the near future. I am handicapped with a Spinal Cord Injury and I am having difficulties finding an apartment that attends to a Disabled persons needs ex: Elevator and disability apparatuses that I require in order to be safe in my apartment. So, if you could I would appreciate all and any applications for an apartment Lottery to be mailed to my temporary address at: Lisa Newell, 41 Summer Street Apt. #1R, Everett, Mass. 02149. As of right now I am being discriminated against by my Landlord and his Daughter and would like to try to find a Handicapped accessible apartment right away. The stress and pressure that I am forgoing by the Landlord and his family is Physically and Mentally tormenting and I wish to find a serene and peaceful atmosphere. Thank you so much, Sincerely, Lisa (857)258-6241 37.1

PMContact: Christopher.Tracy@boston.gov

Same comment letter for ENF

June 13, 2016

Secretary of Energy and Environmental Affairs
Executive Office of Energy and Environmental Affairs (EEA)
ATTN: MEPA Offic
Alex Strysky, EEA No. 15502
100 Cambridge Street Suite 900
Boston MA 02114

Regarding the Back Bay/South End Gateway Project

As a neighbor to this Gateway project and a constant user of Back Bay Station, I would like to share my concerns about the Gateway project's impact on the Back Bay Station. The project plans to eliminate the current entrances to the station as well as the waiting room and pathways to the subway, all of which create serious questions about the efficient functioning of the station from the riders' perspective and its accessibility from surrounding streets. The Gateway plan also indicates that piers will be driven along parts of the train platforms, squeezing passengers into less space. And finally, the bus turn-around is eliminated with no provision for the popular # 39 bus. 38.1 38.2 38.3

I urge you to carefully review the Back Bay/South End Gateway Project to guarantee that the Back Bay Station with continue to serve the needs of the public. 38.4

Lynn V. Foster
103 Appleton Street
Boston MA 02116

Christopher Tracy <christopher.tracy@boston.gov>

Back Bay South End Gateway Project

1 message

Martyn Roetter <mroetter@gmail.com> Sat, Jun 18, 2016 at 12:26 AM
To: christopher.tracy@boston.gov
Cc: tcnabb@nabbonline.com, Will Brownsberger <william.brownsberger@masenate.gov>, "Livingstone, Jay - Rep. (HOU)" <jay.livingstone@mahouse.gov>, "Rushing, Byron - Rep. (HOU)" <byron.rushing@mahouse.gov>, Aaron Michlewitz <aaron.m.michlewitz@mahouse.gov>, "michelle.wu" <michelle.wu@boston.gov>, Josh Zakim <josh.zakim@boston.gov>, Annissa Essaibi-George <annissa.essaibi-george@boston.gov>, "Ayanna.Pressley" <ayanna.pressley@boston.gov>, "Bill.Linehan" <bill.linehan@boston.gov>, David Carlson <david.carlson@boston.gov>, NABB <info@nabbonline.com>, Brian.golden@boston.gov

To: Christoper Tracy, Senior Project Manager

Dear Christopher,

The comments I make below are not meant to be conclusive or exhaustive. This project is very complex with many moving and still undecided parts. It will be many years before it is completed. Major choices have yet to be made, and hence major uncertainties remain about the final configuration and the path the project will eventually take and the intermediate stages it may occupy along the way. It is also apparent that this project will inevitably overlap in impact and timing with other major construction projects in the area, further complicating attempts to grasp all its possible consequences, positive and negative, short- and long-term.

I hope it will be possible to develop and implement some useful and practical ideas in appreciation of the potential for improvements that can be implemented in the short term to enhance the external and internal environment of the Back Bay Station and visitors', regular travelers' and others' experiences within and while entering and leaving it. Improvements might be directed at waiting, such as places to sit and even work or find amusement (Internet access), as well as the availability and clarity of the information travelers need, the ease of their passage to and from the trains, ticketing, "ambiance" etc. I note in particular that the future of the 39 bus, i.e. where it will stop to deliver passengers to and pick them up from the station is an important, and still to my knowledge open question. 39.1

Below are a number of thoughts and observations that have come to mind (the order in which they are presented has nothing to do with their relative priorities, but is simply the order in which they have occurred to me). I realize that at least some of them may already be the subjects of active investigation or ongoing or planned initiatives.

1. MassDOT (MBTA and MTA) as well as BTD should participate actively throughout the process. 39.2

2. A public process for the improvements to the station, including the ventilation, should be undertaken by the State. Successful examples of train stations with housing, retail, and office uses, such as St. Pancras in London, should be explored for lessons learned. For example, the importance of cultural experiences to enhance the travel experience should not be under-appreciated. While the train station is not formally part of the project it would be reprehensible for the impact of this project on passengers and the transport experience not to be given serious consideration. 39.3

For Boston Properties

3. Since this Gateway project is very complex and anticipated to be of long duration, while Boston Properties has indicated that the two projects (Gateway and Station) are separable, it would be desirable to document all potential interim states, particularly regarding public benefits. One specific concern is the residential housing about which there is little visibility at the moment regarding its configuration (e.g. types and numbers of units, affordable housing etc.). 39.4

4. Parking is always an issue in Boston, which raises the question of the advisability of planning no additional parking, given the great increase in residents and workers on this site. Granting neighborhood parking permits to residents would be undesirable since it would exacerbate an already heavily oversubscribed situation. Also a new exit from the parking garage onto Dartmouth Street could exacerbate already difficult interactions between vehicles and pedestrians. 39.5

5. The multiple potential bridges envisaged in the project should be vetted early in the process, since urban bridges harm street life. In particular there should be no new bridge cross Stuart Street. The existing bridge is one too many. 39.6

6. There should be further detailed study of the shadow impacts, not only on Copley Square Park and the Commonwealth Avenue Mall, but also on the facades of our historic buildings, such as the Boston Public Library on Dartmouth Street and the Courtyard, Trinity Church, etc. 39.7

7. The eventual mix of retail and office is market-dependent, and market conditions change. Nevertheless it is important to shed as much light as possible on this issue at the outset to avoid changes to the PDA in the near future. One point in particular is that the Harvard Vanguard facility on this site should be retained given its very convenient location. 39.8

8. The criteria for affordable housing for this site, the goal for which is greater for a Stuart Street site than the Mayor's initiative, should be a subject for early discussion. Since this is public land there is precedence for increasing the number of affordable units. One question is whether the offsite affordable housing units from 40 Trinity could be located within one of the two new residential buildings proposed for this site. 39.9

9. A question I have heard raised by others is whether a school could be included on this site, in order to establish an elementary school in the Back Bay. Constructing purpose-built space for the Snowden School on the site might allow the existing Snowden High School to be repurposed for an elementary school. 39.10

10.The consequences of the potential loss of the Stuart Street access to the Mass Pike should be carefully considered. Traffic along Berkeley Street going to Storrow Drive and eventually Route 93 and the Mass Pike is already problematic for long periods during the day, e.g. especially at the intersections with Beacon Street and Back Street. These problems might be exacerbated further if vehicles that now use the Stuart Street access to the Mass Pike westbound are directed towards Storrow Drive (see also 4 above in which a path to the Mass Pike via Dartmouth Street is envisaged). 39.11

11.Wind impacts are a perennial concern in this area. Wind monitoring throughout the district should be implemented to inform assessment of the realism or level of accuracy of the findings of the wind study modeling that has been undertaken and to design mitigation solutions, if relevant. Clarendon Street is already impassible for some people under certain conditions. This project should be designed to improve the situation. Wind studies need to show how project phasing would affect the wind impacts, taking account of the other large projects that will be undertaken in the area. 39.12

12. It would also be helpful if information regarding all financial considerations, including requests for tax abatements and public expenditures, were made public in a timely way so that it is possible to understand the cost benefit tradeoffs of this ambitious and complicated project. 39.13

Thank you for your attention.

Sincerely,

--
Martyn Roetter
144 Beacon Street
Boston, MA 02116-1449 USA
tel: +1 617 820-5205
fax: +1 617 820-5223
Cell: +1 617 216 1988
Twitter@mroetter
Skype ID: martynroetter

Sent from my iPhone

Sources: GSMA, "Mobile World Economy 2016"; SA; NSR; Credit Suisse
(CAGR- Compound Annual Growth Rate)

image.png
8K

Christopher Tracy <christopher.tracy@boston.gov>

Fatal Gap in Your Proposal For Back Bay Station

1 message

Ned Flaherty <Ned_Flaherty@msn.com> Fri, Jun 17, 2016 at 11:58 PM
To: "Mayor@Boston.gov" <Mayor@boston.gov>, "Heather.Campisano@boston.gov" <Heather.Campisano@boston.gov>, "Jonathan.Greeley@boston.gov" <Jonathan.Greeley@boston.gov>, "David.Carlson@boston.gov" <David.Carlson@boston.gov>, "Lauren.Shurtleff@boston.gov" <Lauren.Shurtleff@boston.gov>, "Christopher.Tracy@boston.gov" <Christopher.Tracy@boston.gov>, "Teresa.Polhemus@boston.gov" <Teresa.Polhemus@boston.gov>

Governor Charlie Baker

Mayor Marty Walsh
BRA Chief of Staff Heather Campisano (617-918-4404)
BRA Development Review Director Jonathan Greeley (617-918-4486)
BRA Urban Design Deputy Director David Carlson, AIA (617-981-4284)
BRA Senior Planner Lauren Shurtleff (617-918-4353)
BRA Senior Project Manager Christopher Tracy (617-918-4259)
BRA Secretary's Office Executive Director Teresa Polhemus (617-918-4475)

RE: Fatal Gap in Your Proposal for Back Bay Station *(145 - 165 Dartmouth Street & 100 Clarendon Street)*

Dear Governor Baker, Mayor Walsh, and Boston Redevelopment Authority Staff:

The most critical component in any government-sponsored project scope is total financial disclosure: expenses, revenues, profits, and TPC (Total Public Cost).

Since this proposal's inception, citizens have repeatedly asked Governor Baker and Mayor Walsh to add finances to the scope so that taxpayers see what it is they are being asked to fund. Despite staffer promises that TPC had been added to the scope, all of the enormous public costs — tax breaks, tax waivers, grants, loans, bail-outs, etc. — are still totally missing. This proposal from Governor Baker and Mayor Walsh brags endlessly about benefits, but is utterly silent about costs, which makes it a meaningless, lopsided half-truth. 40.1

Their approach is incomplete, insincere, and dishonest.

No one can conduct an accurate public review without full disclosure of the costs, revenues, profit, and Total Public Cost. It is like asking a traveler to buy a vacation without knowing the cost, or asking for a judge's ruling based on one side of a case but not the other, or asking for a medical cure without any diagnosis. Pretending to conduct a review without that data is deceptive, is dishonest, and is impossible.

Evaluation by government agencies, review committees, and taxpaying citizens requires full itemization of Total Public Cost, because benefits and drawbacks become irrelevant when evaluated alone in a vacuum. The conclusions about a proposal are a function of its finances, and only Total Public Cost reveals whether a proposal's overall worthiness is positive, negative, or mediocre.

Boston Properties is a public company on the New York Stock Exchange. It is highly profitable. BP and its affiliates collect about $2.5 billion in annual revenue from about 200 subsidiaries, with a $1 billion unsecured line of credit. It is exempt from federal income tax.

Just a few months ago, Governor Baker and Mayor Walsh gave this proponent another set of enormous public subsidies that last a taxpayer's lifetime, but they were so ashamed of the amounts that they kept the Total Public Cost a secret. As a result, at 80 Causeway Street, taxpayers are already secretly funding 3 of BP's skyscrapers, and in a repeat robbery of the public treasury, BP now wants taxpayers to secretly fund 3 more skyscrapers on Dartmouth & Clarendon Streets.

This proposal would be built upon ***public*** property, and built in ***public*** air space, and paid for with ***public*** dollars, so for taxpayers, enormous — and secret — public costs are inexcusable — and intolerable. 40.2

I urge Governor Baker and Mayor Walsh to:

1. Immediately add financial disclosure (expenses, revenue, profit, Total Public Cost) to the scope, as promised. 40.3
2. Immediately explain how much these 6 skyscrapers will cost taxpayers

after the 99 year lease ends. 40.3 cont.

Ned Flaherty

75 Clarendon Street, #508
Boston, MA 02116-6051
617-574-8808

Christopher Tracy <christopher.tracy@boston.gov>

Back Bay South End Gateway Proposal - Public Comments

1 message

nina garfinkle <ngarf@verizon.net> Thu, Jun 16, 2016 at 10:38 AM
To: Christopher Tracy <christopher.tracy@boston.gov>
Cc: Lauren Shurtleff <lauren.shurtleff@boston.gov>, Melissa Schrock <mschrock@bostonproperties.com>, sloane bob <bsloane@walkboston.org>, Douglas Jackie <jackie@livablestreets.info>

Christopher,
Thanks for the email reminder!

I'm happy management of the station will improve. Based on the current plans, I'm very concerned there is not enough room for circulation and waiting—for the current number of users and nor for the projected numbers. I understand the desire to make retail support it, but if there isn't enough room for people, the retail will fail as well. 41.1

There were some very smart things built into the original design [heated seats since you can't close off the cold weather, protective areas to guard against rain and wind for people, beautiful sculpture that was a beacon/landmark to help direct people to and delight others. I suggest you reach out to Ken Kruckemeyer who could share some of the thinking that many may not know of. It could make the difference between a great space and debacle. 41.2

Some of the specific issues I'm concerned about are below.

Station signage and usage
- Bring back old light sculpture-great landmark and easy to direct people to. Helped create a "great public space"
- Use icons for "tickets" and "$" so foreigners can understand
- Need a T sign perpendicular to station that sticks out so people can see it from stuart and dartmouth
- Clearly visible track numbers/signage
- Waiting area vs Circulation area [these can not be shared areas]
- Easier doors to open [properly balanced] not two to go through making it hard for people [cold and birds will come in though the tracks regardless]
- Intermodal connections/ease of transfers

41.3

Crossings
- How does it align with SWCP
- Curb cuts and cuts in medians should be WAY wider [put a bollard if worried about u-turns]. Walkers are always having to line up to cross the street. need room for bikes to come through from SWCP, will help get peds across faster leaving more time for cars. Also a great place for people to perch if needed while waiting for the light [elderly, handicapped, etc.]
- Narrow Stuart street so traffic flows better[equal to block in from of john hancock] the block below and crossing distance is shorter.
- Car exit on stuart street —OK to inconvenience 550 drivers in a TOD/ ped environment
- When there is a driveway, not only should the sidewalk be level across it, but the paving should continue the sidewalk so the drivers realize they are crossing a pedestrian area. Great visual cue.

41.4

Where will the following be:
- Newsstand guy
- free news boxes
- taxis
- busses
- hubway
- trash cans
- food trucks

and how/where will people be able to interact and gather to use all these services without disturbing circulation

41.5

Thanks for taking all of this into consideration, I'm hoping you can address them directly before, or in the next round of drawings
-Nina Garfinkle
South End Resident, board of WalkBoston and LivableStreets

Nina Garfinkle | Garfinkle Design | www.ninagarfinkle.com
7 Holyoke Street, Boston MA 02116
T: 617.424.9115 | M: 617.733.4321 | nina@ninagarfinkle.com

On 15 Jun, 2016, at 4:26 PM, Christopher Tracy <christopher.tracy@boston.gov> wrote:

Hello All,

Thank you for attending a BRA sponsored meeting in regards to the Back Bay South Gateway Project that is currently under review for Article 80 Large Project.

I am writing now with a friendly reminder that the Open Public Comment period is set to close on Friday, June 17 at midnight. This does not mean the process is ending but for the purpose of our Scoping Determination, we need written comments received by this time. The Scoping Determination is the document that the BRA will give the Proponent that asks for more study and analysis on specific components of the project.

So once again, if your are inclined to write a public comment for this proposal please do so and email it directly to me by **Friday, June 17 at midnight.**

Thanks and please let me know if you have any questions at all.

-- Chris

Christopher Tracy
Senior Project Manager
Boston Redevelopment Authority
1 City Hall Sq
Boston MA 02201
617-918-4259

Same comment letter for ENF

Padien, Daniel

From: Strysky, Alexander (ENV) <alexander.strysky@state.ma.us>
Sent: Friday, June 17, 2016 8:47 AM
To: Padien, Daniel
Subject: FW: Back Bay Station Parcel and other developments - observations and questions. corrected copy I hope

Alex Strysky
MEPA Office
100 Cambridge Street, 9th Floor
Boston, MA 02114

ph: (617) 626-1025
fx: (617) 626-1181

From: Pamela Humphrey [mailto:pamela131humphrey@gmail.com]
Sent: Friday, June 17, 2016 3:40 AM
To: Strysky, Alexander (EEA); christopher.tracy@boston.gov
Cc: dtcnabb@nabbonline.com; Brian.Golden@boston.gov; william.brownsberger@masenate.gov; jay.livingstone@mahouse.gov; byron.rushing@mahouse.gov; aaron.michlewitz@malegislature.gov; michelle.wu@boston.gov; josh.zakim@boston.gov; annissa.essaibi-george@boston.gov; ayanna.pressley@boston.gov; bill.linehan@boston.gov; info@nabbonline.com
Subject: Back Bay Station Parcel and other developments - observations and questions. corrected copy I hope

Dear Members of Agencies tied to this project and others:

It is with deep regret that somehow I completely missed the significance of the Stuart Street zoning agreement. When seeing the development slides on what is being "imposed" (I use that word deliberately) on the Copley Street area (one of the few open spaces in the City - surrounded by iconic buildings and institutions) I was quite "blown away". It is astounding to me that the City has permitted such a vast amount of volume and mass in this area - within a block, and across the road from each other. I hear those referring it to a "gateway" to iconic and important neighborhoods. An attempt to gloss over the actual fact that it is a wall, separating the neighborhoods of Back Bay and the South End. Certainly the horse is out of the barn but it begs the question on how this could have happened without wild opposition. Indifference? Not paying sufficient attention? Opaque, confusing and uncoordinated process? Perhaps some of each.

These massive development projects, squeezed into every available open space and patch of land in the City is becoming a regular occurrence. The patch in front of Neiman Marcus is so small the answer was to go up to "the tallest residential building in the City" - as if that was worthy of praise.

I realize that we are a small City. That we will continue to have needs for development. However, because we are a small, iconic City the responsibility of Agencies who approve and govern these developments should, all the more, have the courage to have a bigger

vision other than just “bigger” and “more". I realize the pressures, economics…. however we once plowed ahead in earlier generations - City Hall Plaza being one, where a whole neighborhood disappeared in the name of “progress”. We are facing such circumstances now and I see NO lessons learned from that disaster in the current direction that is being taken.

The Seaport district is another great example. The area is filled with walls of buildings, grown like topsy.
+ sidewalks are often narrow
+ shadows are unlimited
+ the **City has made endless exceptions and set asides to developers to sidestep zoning, height and mass restrictions that are on the books**
+ Many of these set asides were done in the guise of “public benefit” spaces - in order to circumvent height/mass restrictions. Most are interior spaces. The Harbor Walk - which is praised as a wonderful public benefit -can’t even be seen any more for all the buildings lining it.
If there are open spaces and parks in the interior of the District I would love to know where they are - certainly not easily accessible as far as I can tell. So is the Harbor Walk “it”?
+The traffic in and out of the area is a major problem. Public transportation is insufficient. Bottlenecks (we are a small city!) are impossible. Who did the traffic study on this one? Who did the public transportation study?
+ the Chifaro project at the New England Aquarium - one of the few blocks remaining along the Greenway which conforms to Chapter 90A restricting height -is being challenged.

So on it goes.

Copley Square area:
In that I completely missed the boat on the building on the Neiman Marcus site and the one over the University Club, I forward questions on the above and current project - where, perhaps, the neighbors and those concerned might have some impact on the scope and issues surrounding it.

The following assume a considerable uptick in pedestrian and car traffic with the addition of these, close to each other, very large projects.
It also acknowledges that Dartmouth and Clarendon are the **primary two exits and entrances i**nto the immediate area-including exiting and off ramping to and from the Mass Pike.

+ **Pedestrian traffic:** critical times of the day the foot traffic in the area (and with the added traffic of the other new buildings in the block) is, and will be more so and significant. Dartmouth Street and Clarendon Streets are narrow. Particularly on Clarendon Street, individuals walk in the street to get around the crowds on the way to the BB station during rush hours. The residential buildings are being built in a way that, given this issue (Dartmouth has wider sidewalks-will they stay that way?) will become an even bigger problem. How do you plan to handle that? 42.1
+ **Drop off capability at both the Back Bay Station and the residential buildings:** The way that the drawings are currently drawn for this project - there is no, or extremely limited, drop off space for both the station and residential building l locations. Current plans suggest limited curb indent to accommodate some. It is extremely tight on that street and what little might be provided currently won’t be nearly enough given the increased traffic and gridlock on Clarendon and Dartmouth-particularly during rush hour. What is being 42.2

done? Will you consider internal drop off/turn around at the residential buildings rather than street curb drop off? Same at the Station along with bus entry/turnaround? 42.2 cont.

+**Bus 39 entry and drop off at Back Bay Station**: as currently designed there is no drop off/waiting space for this double length bus. Currently there is NO turn off or turn around space they way it is currently designed. Will there never be the need for additional busses using the Back Bay station for pick up/drop off in the future? Should we plan for that given limited bus stop capability in the area (current bus stops add to gridlock) and need to increase/encourage public transportation use? 42.3

+ **Entry and Exit into/out of garage: Current exit onto Clarendon stays? or does that become an entrance only?** - We now have heavily increased foot traffic. Exit onto Dartmouth would be - I don't want to even think about it. The least objectionable would be to exit onto Stuart Street, which provides several directional egresses to Mass Pike and Storrow Drive and is a wider street. What is the thinking about this and does anything work effectively that is currently not considered? 42.4

+ **There was public art in the Back Bay station.** It was, apparently in poor repair and is now stored. The city paid for this art for the Station. Whether one likes it or not it is by a well known artist whose work is in Moma and many other museums. What are we going to do about it? We are a city of the arts. 42.5

+ **Those "pesky" Green spaces and public benefits: Where are they in this - or in fact the other two developments?**

As mentioned in my preamble - the City has tended to accept interior spaces, or spaces above ground, as "public good benefits" and therefore, they are of limited benefit in fact. The project developers are committed to taking on the renovation of the Back Bay station - saving the City a lot of money in the process. HOWEVER, it is nice to be grateful but another to sell our soul for it by giving up important "humanizing" assets to counter this colossal density of development in a VERY small area in Copley Square. What are the plans? 42.6

+ **Shadows** - Copley Place is a wonderful place of sunshine and open air. Already, although, apparently within allowable limits, the Neiman Building is already creating shadows. Now what with these other two immense projects adding to it? 42.7

+**Flexibility in the renovation of the Back Bay Station:** what is being planned for future improvements and expansion of public transportation needs in the future? Will it be designed in a way that accommodates future expansion/upgrade so desperately needed and for sure will be needed in the future with the massive increase of population in this compact space. 42.8

+**Density created by these large buildings:** Clarity on the impact of the addition of huge numbers of people in this small area and future increased traffic that they will bring. It seems naive to believe that this won't be a huge problem. 42.9

+**Public transportation infrastructure:** It is short sighted to believe that any attempt to limit parking without proper public transportation infrastructure and increased capability will mitigate the impact of these dense building will have. Boston has a desperate need for upgrading of its infrastructure and has limited or no current funds to expand it to accommodate this influx of traffic and people. Do taxes from these projects cover what is needed in addition to other services? 42.10

What is the thinking to mitigate - which at the moment seems quite impossible. (The Orange Line, during rush hour has a hard time handling what currently exists).

+Traffic: The current off ramp from the Mass Pike as it approaches Dartmouth, under the current conditions is a gridlock during rush hours.

..The same is true on St. James as it enters the intersection at Dartmouth to the Pike.

..The two lane (**one lane for outbound to St. James from Stuart)**, between the hotel and John Hancock has loading dock entry and exit at the Hancock on it. The hotel also has much used commercial parking on the hotel side. IF the exit to this new development turns out to be onto Stuart, and partially onto this side street to get to the Mass Pike, that will increase traffic on this side street and Stuart multiple fold. How, during rush hour, and moving onto St. James is this possibly going to be handled? Can't imagine Marathon Monday let alone this. 42.11

..The one lane going from Stuart to St. James is also a MBTA bus turn in from Stuart to reach the bus stops on St. James. It frequently requires backing up going up to Stuart in order for busses to make the turn. The turn onto St. James for busses is also very tight. (ask the bus drivers). With this additional density how do you see handling the gridlock with this increased traffic caused by the density created by this and other buildings? 42.12

.. Dartmouth is **one lane** heading to Copley and the turnpike as well as going toward the South End.

This is a **VERY compact area** that the developers and city are requiring to handle all of this. What are your plans?**+Process:** The current process for approvals, community input, coordination of departments appears to be extremely disorganized and cumbersome. To what extent does the BRA, DOT, MBTA, Zoning and other agencies which review/approve/negotiate/decide set asides, uphold and create zoning laws on these projects coordinate? From a citizen perspective the communication systems and process seems poorly designed and managed. It appears to be a series of silos. Would very much like to be informed about your processes as a collective when dealing with development. I seem to hear a lot of "that is not our department". 42.13 42.14

+**Vision:** Boston is going through a huge development phase and there appears to be no indication of it slowing down any time soon.

Although there is talk/promise of the necessity to develop a **overarching, and well thought out Vision for the Boston of the future -** there is none. As a result buildings go up like topsy and on every available parcel, no matter how small. AND **we have NO money** for improving, increasing, extending and creating the infrastructure for public transportation. We only have to look at the Seaport District for the insufficient and poor public transportation planning for that area. How can the City expect, as a viable solution, that not providing sufficient parking, will limit or discourage cars when there isn't sufficient public transportation to get people here .

I get that additional taxes that these projects bring and they are certainly welcome. However, at the rate we are going we are going to face a rate of congestion and other issues, that will far outpace our ability to mitigate any time soon.

It also brings jobs - but don't workers have to live in Boston if they are union? Who can afford it? And we certainly don't have enough living here who qualify. Can affordable housing catch up? Imbedding the paltry amount in these buildings won't solve that problem.

So, given all this, where are we on the vision for development and growth for the CIty which does not create large future issues and problems? On the issues related to this particular development? AND, just 42.15

for consideration, does anyone have the courage to reboot the thinking on development before the very fabric of this special City - known for its size, livability, and character -is turned upside down?
P.S. I give you full permission to tell me I don't know what I am talking about. Would be very happy to be wrong!

42.15 cont.

Christopher Tracy <christopher.tracy@boston.gov>

Fwd: Clarendon Street/Back Bay Station project

1 message

Lauren Shurtleff <lauren.shurtleff@boston.gov> Wed, Jun 8, 2016 at 9:10 AM
To: Christopher Tracy <christopher.tracy@boston.gov>, Jonathan Greeley <jonathan.greeley@boston.gov>, Lara Mérida <lara.merida@boston.gov>

fyi

---------- Forwarded message ----------
From: **Pamela Humphrey** <pamela131humphrey@gmail.com>
Date: Tue, Jun 7, 2016 at 6:31 PM
Subject: Clarendon Street/Back Bay Station project
To: Lauren.shurtleff@boston.gov, William.tuttle@state.ma.us

Dear Lauren and William: It is extraordinary to me that the process over the Back Bay Station has failed to provide for community input, before the fact, as far as I know. I believe, correct me if I am wrong, that the deal was arranged between MassDOT and the developer. The mass of the project, the apparent lack of community benefit (the affordable housing is a given - what about outdoor space etc.). This, and the building approved at Nieman Marcus (touted as the highest residential building in the city as if that were an asset) are dividing two distinct and valued residential neighborhoods and, no matter what "mitigation" they come up with the traffic issues and congestion on Clarendon and Dartmouth will be horrific. These are narrow streets and heavily trafficked already and are central to connecting two important neighborhoods.

The set asides that the BRA and zoning allow to increase space and heights of buildings in Boston to get away from restrictions (the Seaport an great example) are beyond disturbing for a city such as ours. There is so little outdoor space, much of the "public benefit" space is indoors! At the Seaport they use the excuse of the waterfront walk- which can't be seen because of the building density- as fulfilling the public space requirement. There are no internal parks for people in the district for people to "breath" and enjoy, relax, and most sidewalks are so narrow you can't put outdoor seating. When I look at the density and heights of these two buildings, dividing two important residential neighborhoods in our area I want to weep. Makes me sick at the lack of development and, in this case, neighborhood engagement in the planning. The BRA and Zoning deal with it on a parcel by parcel basis and before we know it we have these monsters being built all over the place. The lack of any kind of landscaped area as a buffer and benefit to the public for these buildings is another example of over reaching in my book. Indoor space, no matter how anyone wants to justify it at "benefit to the public" is hardly that....this is a city known for its outdoor spaces and the feeling of being walkable and livable. Indoor space does not answer to that and surrounds us further with concrete, steel and glass, squeezing our neighborhoods with walls and towers. 43.1 43.2

We have restrictions on the books which are simply maneuvered and bypassed. We are turning into NYC. There is currently a fight about this on the Greenway with Chifaro's building. They are trying to bypass Chapter 90a which restricts heights there and on it goes all over the city.

I get development. What I can't accept is the lack of planning. This city is growing like topsy and will look like it, with all its accompanying traffic and destruction of neighborhood character with no overarching plan. AND what restrictions that there are for height and mass are being set aside and maneuvered around, if not plain being ignored. It leaves reaction time of neighbors and citizens to a very narrow window to plans that have been in the works for months/years. We are most often left with a "done deal" and then scramble to mitigate impact. 43.3

What is going on here in the City? Does anyone have the where-with-all to have some kind of coherent process, between and among agencies, that leaves us protecting what we have while planning for the future? What am I missing? Or is this just government , tunnel vision (my turf) bureaucracies as usual? 43.4

Sincerely,
Pamela Petri-Humphrey

--

Christopher Tracy <christopher.tracy@boston.gov>

Re: Proposed Redevelopment - Back Bay Station

1 message

Paul Johnson <team@futureurbansolutions.org> Sat, Jun 18, 2016 at 4:36 PM
To: "mcantalupa@bostonproperties.com" <mcantalupa@bostonproperties.com>
Cc: "christopher.tracy@boston.gov" <christopher.tracy@boston.gov>

Gentlemen,

The enclosed letter was drafted hastily under the B R A imposed time and date submission criteria, as such, the resulting original document sent late Friday night contains several errors. I have corrected the errors, without altering the spirit of the content. I ask your understanding and encourage your use of the corrected document, directly below, for official purposes :

BP Back Bay Redevelopment Proposal letter; Sumbmiitted 6/17/16 at 11:57 pm-

CORRECTED VERSION

Attention:

Mike Cantalupa- Boston Properties

c.c. **B P Hancock, LLC and affiliates**
c.c. **Boston Properties Limited Partnership and affiliates**
800 Boylston Street
Suite number: 1900
Boston, Massachusetts 02199

c.c. **Christopher Tracy**
Boston Redevelopment Authority
One City Hall Square
Ninth Floor
Boston, Massachusetts 02199

Dear Mike,

I am writing to document some of the real data required for the People of Boston to make an informed decision whether to support your firm's proposed large scale redevelopment of the land and air space adjacent to the Back Bay MBTA Station.

I work closely with well known, area professionals in the fields of Urban Development, Environmental Protection and Law, from area institutions such as Massachusetts Institute of Technology, Harvard

University and Tufts University, as well as, current and former elected officials of the City of Boston and the Commonwealth of Massachusetts.

We are requesting and expecting your firm to produce, within the near future, the following:

A) <u>ONE, full scope, comprehensive Transportation Impact Study:</u>

This study should include an analysis of the transportation impact from ALL proposed and approved new structures to potentially be built proximate to Back Bay Station. In other words, the study should include your proposal, of (3) new structures *and* any approved additional new structures yet to be built by other firms. 44.1

This study should include a realistic, empirical data driven analysis regarding the increased influx of people and vehicles, into and out of the Back Bay Station Transit Hub. 44.2
(We consider the relative information provided thus far by your firm to be greatly uninformed and or disingenuous).

This study should include meaningful, applicable data which will outline the following impacts:

<u>Vehicles :</u>

- Perdestrian safety
- Cyclist safety
- Carbon emissions
- Passenger vehicle traffic congestion
- Passenger vehicle parking
- Construction worker vehicle traffic congestion
- Construction worker vehicle parking
- Heavy equipment vehicle traffic congestion
- Heavy equipment vehicle parking
- Delivery Vehicle traffic congestion
- Delivery vehicle parking
- Livery vehicle traffic congestion
- Livery vehicle parking
- Overall increased vehicle traffic impact, over the potential decade of disruptive construction, on the people who currently live and work in the surrounding neighborhoods from an environmental, congestion and quality of life perspective.
- Permanent increased vehicle traffic and environmental implications.

44.3

It is generally accepted by most knowledgeable urban planning and environmental professionals, as well as most rational people that, by and large, the reduction of fossil fuel based vehicles is urgently required for the good of humankind and planet earth. We are curious to know if your firm agrees with this near universal conclusion ? 44.4

<u>Subway Usage:</u>

- Realistic, competently informed metrics relative to additional subway passengers during the hours of 7 am - 9:30 am and 4:30 pm - 6:00 pm, Monday through Friday, 52 weeks per year.
- Usage impacts on MBTA capital equipment based on large scale, ongoing increases in passenger trips, growing exponentially during the construction and completion of each new structure.
- Increase in usage of power to operate MBTA equipment.
- Increase in costs to MBTA, absorbed by fare paying passengers and tax payers who do not live or work in the area proximate to Back Bay Station.

44.5

- Efficacy of all above subway impacts, absent a material increase in operational capacity. 44.5 cont

Amtrak and MBTA Commuter Rail Impact studies : 44.6

(see " Subway Usage ")

Environmental Impact :

- **Massive potential increase in Carbon Emissions to the Back Bay and South End...**
- Increased refuse due to increase in transit users and customers for fast food and drink, such as, but not limited to **Styrofoam cups which take over 500 years to decompose.** 44.7

The above listed items and possibly many others should be thoroughly studied and clearly understood since your proposed project alone would add nearly 4000 new weekday residents, who will commute to and consume goods and services within the one square block surrounding Back Bay Station.

B) Detailed Affordable Housing Disclosure:

To date, some might say arrogantly so, your firm has disclosed little to no meaningful information as to a specific number of affordable housing units to be built as a result of your proposed project:

Of interest would be the following:

A clear accounting of the number of housing units affordable to Boston Citizens, based on their income levels, the location of said units and proximity to a subway stop for the following House Hold Sizes:

- Individual :
  That earns 0 - 30% of the Boston AMI, 30 - 60% of Boston AMI, 60 - 100% of Boston AMI.
- Household of four:
  That earns 0 - 30% of the Boston AMI, 30 - 60% of Boston AMI, 60 - 100% of Boston AMI.
- Household of six:
  That earns 0 - 30% of the Boston AMI, 30 - 60% of Boston AMI, 60 - 100% of Boston AMI. 44.8

We look forward to the timely receipt of authentic information relative to these questions and concerns about your proposed redevelopment project that will potentially monopolize all of the public land and airspace surrounding Back Bay Station for the next century.

Sincerely,

Paul Johnson,
Future Urban Solutions Group
Boston, Massachusetts

From: Paul Johnson
Sent: Friday, June 17, 2016 11:57:31 PM
To: mcantalupa@bostonproperties.com
Cc: christopher.tracy@boston.gov

Subject: Proposed Redevelopment - Back Bay Station

Attention:

Mike Cantalupa- Boston Properties

c.c. **B P Hancock, LLC and any affiliates**

c.c. **Boston Properties Limited Partnership and any affiliates**

800 Boylston Street

Suite number: 1900

Boston, Massachusetts 02199

c.c. **Christopher Tracy**

Boston Redevelopment Authority

One City Hall Square

Ninth Floor

Boston, Massachusetts 02199

Dear Sirs,

I am writing to document some of the factual data required for the citizens of Boston to make an informed decision whether to support or oppose your proposed large scale redevelopment of the land and air space adjacent to the Back Bay MBTA Station.

I work closely with well known, area professionals in the fields of Urban Development, Environmental Protection and Law from area institutions such as Massachusetts Institute of Technology, Harvard University and Tufts University as well as current and former elected officials of the City of Boston and the Commonwealth of Massachusetts.

We are requesting and expecting you to produce, within the near future, the following:

A) <u>ONE, full scope, comprehensive Transportation Impact Study:</u>

This study should include an analysis of the impact from ALL proposed and approved new structures to be potentially built proximate to Back Bay Station. In other words, the study should include your proposal, (3) structures and any approved additional structures yet to be built by other firms.

This study should include a realistic, empirical data driven analysis regarding the influx of people into and out of the Back Bay Station Transit Hub.

(We consider the relative information provided thus far by your firm to be greatly uninformed and or disingenuous).

This study should include meaningful, realistic data which will impact :

Vehicles :

- Perdestrian safety

- Cyclist safety

- Carbon emissions

- Passenger vehicle traffic congestion

- Passenger vehicle parking

- Construction vehicle traffic congestion

- Construction vehicle parking

- Delivery Vehicle traffic congestion

- Delivery vehicle parking

- Livery vehicle traffic congestion

- Livery vehicle parking

- Overall increased vehicle traffic impact on the people who live and work in the area from an environmental, congestion and quality of life perspective.

Subway Usage:

To include:

- Realistic, informed estimation of additional subway passengers during 6 am - 9:30 am and 4:30 pm - 6:00 pm, Monday through Friday 52 weeks per year.

- Usage taxation on MBTA capital equipment based on large scale, ongoing increases in passenger

trips growing exponentially during the construction and completion of each of each new structure.

- Increase in usage of power to operate equipment.

- Increase in costs absorbed by the MBTA to fare paying passengers and tax payers who do not live or work in the area proximate to Back Bay Station.

Amtrak and MBTA Commuter Rail Impact studies :

To include (see " Subway Usage ")

Environmental Impact :

- Increased refuse due to massive increase in transit users and customers for fast food and drink, such as, but not limited to **Styrofoam cups which take <u>over 500</u> years to decompose.**

The above listed items and possibly many others should be thoroughly studied and clearly understood since your proposed project alone would add nearly 5000 new weekday residents, who will commute to and consume goods and services on, the one square block surrounding Back Bay Station.

B) <u>Detailed Affordable Housing Disclosure:</u>

To date, some might say arrogantly so, your firm has disclosed little to know meaningful information as to a specific amount of affordable housing to be built as a result of your proposed project:

Of interest would be the following:

A clear accounting of the number of housing units, their location and proximity to a subway stop for Boston Residents of the following house Hold Sizes:

- Individual that earns 0 - 30% of the Boston AMI, 30 - 60% of BVoston AMI, 60-100% of Boston AMI.

- Household of four that earns 0 - 30% of the Boston AMI, 30- 60% of Boston AMI, 60-100% Boston

AMI

- Household of six that earns 0 - 30% of Boston AMI, 30 - 60% of Boston AMI, 60 - 100 % of Boston AMI.

We look forward to the reciept of authentic information related to these question/concerns relative to you proposed project which will potentially monopolize all of the builable land and airspace surrounding Back Bay Station for the next century.

Sincerely,

Paul Johnson

Future Urban Solutions Group

Boston, Massachusetts

Christopher Tracy <christopher.tracy@boston.gov>

Questions related to Project Notification for the Back Bay Station Project Site

1 message

Paula Griswold <PGriswold@macoalition.org> Fri, Jun 17, 2016 at 5:55 PM
To: "christopher.tracy@boston.gov" <christopher.tracy@boston.gov>, "Alexander.Strysky@massmail.state.ma.us" <Alexander.Strysky@massmail.state.ma.us>
Cc: "dtcnabb@nabbonline.com" <dtcnabb@nabbonline.com>

Dear Mr. Tracy and Mr. Strysky,

I appreciate the opportunity to submit questions related to this substantial proposed project.

Could you please provide information addressing the following:

- How will the planned design and uses enhance the use of public transit for the residents, and employees and customers of businesses/offices that are part of the proposed project, as well as residents of the surrounding neighborhoods, and employees and customers of other businesses/offices that are in the area? | 45.1

- How will the project coordinate with MassDOT and the MBTA regarding the Back Bay Station design, especially given the schedules of the planning, design, and approvals of each | 45.2

- How will the project affect traffic through the Bay Bay neighborhood (Newbury to Beacon, Arlington to Charlesgate) – both in the short term with construction and long term with ongoing use - as residents, employees, visitors/customers try to reach other major routes in and out of the city? | 45.3

- What will be the total amount and flow of traffic, including the currently approved projects along Stuart Street? | 45.4

- How can traffic be managed/modified to avoid impact on the residential streets of the Back Bay if the actual volume and flow does not match the assumptions during the planning process? | 45.5

- How can public transit use be enhanced if the actual use does not match the assumptions during the planning process? | 45.6

-What zoning relief has been requested or is being considered, including amendments to the PDA, and variances from the Stuart Street Zoning Requirements ? | 45.7

Thank you for including the community in the planning process for this project, given the significant and potentially permanent impact on our city and our neighborhood. | 45.8

Paula Griswold

329 Beacon Street Boston

Padien, Daniel

From: Padien, Daniel
Sent: Tuesday, May 31, 2016 12:00 PM
To: Melissa Schrock; Junghans, Mark
Cc: Lattrell, Seth
Subject: Gateway / Kressel Comment Letter and Request to Extend Comment Period / MEPA EEA# 15502 comment period.

Shirley Kressel comment letter and Request to Extend Comment Period / MEPA EEA# 15502 comment period.

From: Kressel Shirley [mailto:shirleykressel@comcast.net]
Sent: Tuesday, May 31, 2016 11:47 AM
To: Strysky, Alexander (EEA)
Cc: Livingstone, Jay - Rep. (HOU); Will Brownsberger 413C; Chang-Diaz Sonia; gloria fox; elizabeth malia; Aaron Michlewitz; linda dorcena forry; mayor@boston.gov; Ron Rakow; Tito Jackson; ayanna pressley; josh zakim; Michelle Wu; annissa essaibi-george; matthew omalley; Andrea Campbell; Matt Cahill; Jackie; Elliott Laffer; ab@annbeha.com; Ted Pietras; christopher.tracy@boston.gov; lauren.shurtleff@boston.gov; michael cantalupa >
Subject: MEPA EEA# 15502 comment letter

Matthew A. Beaton, Secretary
Executive Office of Energy and Environmental Affairs (OEEA)
100 Cambridge St., Suite 900 (9th Floor)
Boston, MA

Attn: Alexander Styrsky, MEPA analyst, via email (alexander.strysky@state.ma.us)

May 31, 2016

Subject: EEA # 15502
Back Bay / South End Gateway Project, 145 Dartmouth Street & 165 Dartmouth Street (aka 100 Clarendon Street), Boston
Proponent BP Hancock LLC through its affiliate Boston Properties Limited Partnership

Dear Secretary Beaton and Mr. Strysky:

I am writing to comment on the MEPA Environmental Notification Form (ENF) filed for the above project.

The proponent states that the project will seek tax and zoning relief under MGL Ch. 121A and 121B, as well as I-Cubed funding. These tax and regulatory waivers have very significant and long-lasting impacts on the city and the state. They are mentioned in the MEPA filing (screenshots attached) only by name, without any explanation of how the project would qualify for them, how they would be structured, and what would be the financial cost to the city and the state taxpayers. Without such full explanations of these waivers and their impacts, the BRA, state, City of Boston, CAC and public reviews of this project cannot be diligent and complete. I ask that MEPA mandate these disclosures at the outset, for public consideration as an integral part of the project review. 18.1

I request that the proponent be mandated to provide:
-- detailed calculations demonstrating the need for, and amount of, each granted and contemplated city and state tax subsidy (including MassDOT lease and other financial terms) 18.2
— information detailing the specific regulatory changes to be sought via Chapter 121B Urban Renewal Plan modifications, and 18.3
— details of the contemplated Ch. 121B Section 46(f) Demonstration Project, which would evidently involve eminent domain takings for what the proponent calls "title clearance." 18.4

I also note that, although the MEPA ENF was filed on April 14, the CAC members did not receive it from the BRA until May 27, mid-day Friday of the long Memorial Day weekend, the day after their most recent BRA-scheduled meeting; and today's May 31 deadline comes long before the next CAC meeting, scheduled for June 15. Thus, the CAC has had virtually no time to review the ENF before today's comment deadline. This timing, no doubt inadvertently, precluded the opportunity for a public CAC discussion of the ENF. 18.5

The BRA has extended its comment period of this complex project until June 17, and typically, MEPA review periods have been extended to match extended BRA deadlines. I ask that the MEPA comment period be extended to June 17, to allow opportunity for a more comprehensive, integrated and coordinated review process by the CAC, reviewing agencies, and the public, covering all facets of the project.

Thank you for your consideration of my comments.

Shirley Kressel

Boston Redevelopment Authority

- Review under Article 80, including Large Project Review, as required pursuant to Article 80B of the Zoning Code and PDA[3] Review, as required pursuant to Article 80C of the Zoning Code
- Green Building Report(s) and Resiliency Checklist(s) as Part of Article 80 Review
- Development Impact Project Agreement(s) pursuant to Article 80B-7 of the Boston Zoning Code
- Cooperation Agreement(s)
- Affordable Housing Agreement(s)
- Boston Residents Construction Employment Plan Agreement(s)
- Certification(s) of Consistency and Compliance
- M.G.L. c. 121A approval and attendant documentation and agreements (as required)
- M.G.L. c. 121B approval (as required)

Which MEPA review threshold(s) does the project meet or exceed (see 301 CMR 11.03)?

11.03(1)(b)6: May require approval in accordance with M.G.L. c. 121A of a New urban redevelopment project consisting of 100 or more dwelling units or 50,000 or more sf of non-residential space.

F. Does the project require approval of a new urban redevelopment project or a fundamental change in an existing urban redevelopment project under M.G.L.c.121A? _X_ Yes ___ No; if yes, describe:

The Project may require approval of a new urban redevelopment project under M.G.L. c. 121A.

G. Does the project require approval of a new urban renewal plan or a major modification of an existing urban renewal plan under M.G.L.c.121B? __ Yes _X*_ No; if yes, describe:

***Action in accordance with an existing Urban Renewal Plan or Approval of a Demonstration Project under M.G.L. c. 121B might be needed for title clearing purposes.**

Identify any financial assistance or land transfer from an Agency of the Commonwealth, including the Agency name and the amount of funding or land area in acres:

- One of more Air Rights Development Agreements with MassDOT
- Potential approval of Project under MGL 121A
- Potential approval, in accordance with an Urban Renewal Plan or Demonstration Project in accordance with M.G.L. Chapter 121B
- Potential I-Cubed Funding (Infrastructure Investment Incentive Program)

Shirley Kressel
27 Hereford Street
Boston, MA 02115

Christopher Tracy <christopher.tracy@boston.gov>

Back Bay/South End Gateway Project

1 message

Susan Gilmore <suzeboston@gmail.com> Fri, Jun 17, 2016 at 8:48 PM
To: lauren.shurtleff@boston.gov, christopher.tracy@boston.gov

This week has been crazy (son's graduation, office move, home move to prepare for renovation) and I am finally getting around to responding. In the interest of time, I will keep my comments short and sweet.

This project is yet another step in improving the area around the train station and creating a sense of arrival for daily commuters and travelers to the city. As I think about the project and the impact to the area, I am focused on the following: 47.1

As we think about the project and its impact, we need to incorporate the impact of the other projects including Copley Place, 380 Stuart and 40 Trinity. We also need to understand not only the end state impact but the impacts during the long-term construction period. 47.2

I am interested in understanding fully the parking and traffic impacts. There are some critical decisions that need to be made to include the handling of the ramp, parking, the future of the drums and the traffic flow and the impacts to the neighborhoods. The city currently has quite a bit of traffic and I think we need to understand how changes from this project will impact the future traffic, parking and safety. 47.3

We need to understand the wind impacts. It was very encouraging to hear that the construction of these buildings can have a positive impact - I think we would benefit from further discussion and insight on this topic. 47.4

The discussion of parking is also important - with all the projects planned, it seems we should expect more people in the area with a possible need for more parking, at least in the short term - I think we need to be mindful of the neighborhood impact. We need to understand the current and future supply and demand. 47.5

I think we need to understand what public transportation enhancements will be made and if they are sufficient to accommodate increased demand. 47.6

I am interested in knowing more about the office building on the corner of stuart and Dartmouth and its relationship to the train station and the other development parcels. 47.7

Thank you - have a great weekend - see you at the end of June.

Sent from my iPad

Same comment letter for ENF

Susan D. Prindle
140 Marlborough St.
Boston, MA 02116

June 16, 2016

Matthew A. Beaton, Secretary
Executive Office of Environmental and Energy Affairs
Attn: MEPA office
Alex Strysky, EOEEA #15502
100 Cambridge St.. Suite 1900
Boston, MA 02114

Re: Back Bay South End Gateway

Dear Secretary Beaton,

I appreciate the opportunity to comment on the proposed Gateway project. If completed, it will be a significant addition to the area, but one which could have unanticipated negative impacts on the surrounding historic structures and on adjacent neighborhoods. I would like to outline a few of my concerns:

Shadows on Copley Square. While I appreciate the fact that Boston Properties is respecting the Stuart Street Guidelines regarding Copley shadow, I hope that they will be asked to consider whether the loss of sunshine could be ameliorated by changes in the massing of the proposed structures. Once the sunshine is gone, the loss cannot be mitigated. Reduction in shadows on the Public Library Courtyard should also be carefully considered. 48.1

Wind is clearly the most significant environmental problem in building in the Stuart street area. Mr. Pelli has made a valiant attempt to mitigate wind shear around the office building, but the residential buildings, from what I have seen, are unrelieved vertical towers that may well exacerbate conditions on Clarendon Street, which are already dangerous. Any wind study should include intersections on Clarendon at Boylston and Newbury Streets, as well as intersections into the South End. 48.2

It is unclear how the wind studies will be managed if the project is built piecemeal. Will additional wind studies be required if the residential buildings are built before the office building or vice versa? 48.3

Copley Square is especially sensitive to high winds. Multiple points should be studied in the park. Areas that are comfortable for sitting should be maximized. Existing conditions should be verified here and in the Stuart Street area by real-world testing. 48.4

Urban Design. I believe that overhead pedestrian walkways are not the answer to moving people and cars simultaneously. Rather, the proponent could help Simon Properties improve the lighting and signage in the existing tunnel under Dartmouth. Widening the Dartmouth Street sidewalk and improving pedestrian safety and access should also be considered. The 25' setback required along Dartmouth St. is important to preserving the area's skyplane, already impacted by the proposed Simon Tower; this issue should be looked at carefully. On the plus side, I applaud the proponent's efforts to create permeability at the site. 48.5 48.6

The Stuart Street Zoning requires the creation of 2.5% more affordable units than is required by the applicable Mayor's Executive Order on Inclusionary Development. Given the crying need for low and moderate income housing in the city, Will Boston Properties be asked to comply with this requirement? 48.7

It has been the city's policy to rely on utility providers to attest that there is sufficient capacity in their systems to accommodate proposed new construction. Given the amount of new construction in the Stuart Street area, it would seem prudent to require more detailed proposals from the gas, electric, and water and sewer providers as to how they plan to upgrade their systems to accommodate the new demand. I believe this should be done before approving the project. 48.8

The issue of the impact of increased traffic in the surrounding neighborhoods is significant. Already we have noticed a perceptible increase in traffic on the cross streets in the Back Bay. The Stuart Street Guidelines ask that traffic be studied along Clarendon and Berkeley Streets all the way to the Storrow Drive intersection. Since 1/3 of the automobiles coming to the Gateway site are projected to come from this direction, it is important that this commitment be fulfilled. 48.9

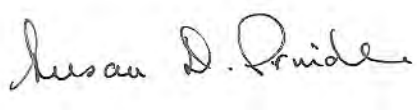
The impact of the proposed closure of the Clarendon Street entrance on surface streets should be carefully studied before the city takes a position on the closure. The Turnpike is right to be concerned about merging and tie-ups, but moving cars to neighborhood streets is not an acceptable answer to their problem. Use changes in the proposed buildings (from residential to office, for example) would impact traffic counts; should such a change be proposed, amended traffic studies will be critical. 48.10

It is important to have real data on the existing garage use and its capacity, as well as those of surrounding garages. If adjacent garages are already full, how will existing parkers be accommodated? 48.11

Finally, there is a real question of whether the T can accommodate the number of passengers the new development will generate. Will the T be required to develop a plan to cope with the increased ridership? It is critical that the proposed station renovations be designed so that they do not impede vital improvements to mass transit. 48.12

Thank you again for the opportunity to comment.

Sincerely,



Susan D. Prindle

Cc:
State Senator Will Brownsberger
State Representative Byron Rushing
State Representative Jay Livingstone
City Councilor Josh Zakim

Same comment letter for ENF

Padien, Daniel

From: Strysky, Alexander (ENV) <alexander.strysky@state.ma.us>
Sent: Thursday, June 16, 2016 4:41 PM
To: Padien, Daniel
Subject: FW: Back Bay Station Redevelopment

Alex Strysky
MEPA Office
100 Cambridge Street, 9th Floor
Boston, MA 02114

ph: (617) 626-1025
fx: (617) 626-1181

From: Tracy Pesanelli [mailto:pesanelli@gurobi.com]
Sent: Thursday, June 16, 2016 4:35 PM
To: christopher.tracy@boston.gov; Strysky, Alexander (EEA)
Cc: jyessian@gmail.com
Subject: Back Bay Station Redevelopment

Dear Sirs,

Last night, I attended a very informative presentation on the Back Bay / South End Gateway Project given by Boston City Properties. I do have a couple of questions/concerns?

1) I understand they are looking at creating a new office building as well as two residential towers. I understand the present garage will be redeveloped but I did not hear anything about adding any additional spots? This does not seem practical, where are all the additional cars that will be created by these new buildings going to park? 49.1

2) Also, along these lines, today both Clarendon and Dartmouth are saturated with traffic, is it reasonable to assume that either of these streets will be able to handle the additional volume of traffic that will surely be generated by these new towers….never mind the already approved projects at Copley Place and Trinity Place? 49.2

Thank you, I look forward to your response,
Tracy

Tracy Pesanelli
VP of Worldwide Sales
Gurobi Optimization, Inc.
Direct: 978-779-9957
Cell: 978-618-5538
pesanelli@gurobi.com


GUROBI
OPTIMIZATION

Christopher Tracy <christopher.tracy@boston.gov>

Fwd: Back Bay Station

1 message

Tuttle, William (DOT) <William.Tuttle@dot.state.ma.us> Wed, May 11, 2016 at 5:01 PM
To: Lauren Shurtleff <Lauren.Shurtleff@boston.gov>, "christopher.tracy@boston.gov" <christopher.tracy@boston.gov>, "Kersten, James A. (DOT)" <james.a.kersten@state.ma.us>, "Colon, Rick (DOT)" <rick.colon@state.ma.us>, "mschrock@bostonproperties.com" <mschrock@bostonproperties.com>

FYI.

Sent from my Verizon Wireless 4G LTE smartphone

-------- Original message --------
From: William Clendaniel
Date:05/11/2016 3:58 PM (GMT-05:00)
To: "Tuttle, William (DOT)"
Subject: Back Bay Station

Mr. Tuttle,
I attended the first CAC meeting as a member of the public. I am a near neighbor and both use and/or walk by the station virtually every day.
Many of us were upset to learn that there appears to be no public process for commenting on the proposed changes to the station. I find many of them attractive, but clearly what happens there greatly impacts the Boston Properties (BP) gateway project next door to say nothing of the neighborhood. The two projects need to be reviewed by the public together. 50.1
The composition of the retail in the expanded station directly impacts the neighborhood and also relates to what the gateway project may do along Stuart Street. The station's streetscape/landscaping needs to relate to the gateway project. The users of the BP buildings, either office or residential, are going to use the station and thus impact its design. The two projects really can't be separated from an urban design point of view. 50.2
Another critical piece of both the station and gateway projects is their relationship to MBTA capacity. Three residential towers have already been approved along Stuart Street and across from the station. BP proposes two more in the gateway project as well as office space. No new parking is provided. Clearly all those who live and work in these six new buildings are going to use the MBTA, either daily or otherwise, and yet it is already over-capacity at rush hour and its antiquated equipment causes frequent problems. MassDOT should provide the BRA and the CAC with information about how the MBTA will handle this influx of customers. 50.3
I look forward to your participation in the third CAC meeting on May 26.

Bill Clendaniel
24 Dartmouth Street

--
Bill Clendaniel

Christopher Tracy <christopher.tracy@boston.gov>

Back Bay/South End Gateway project - Community Benefits inquiry

1 message

Yan Medice <Yan@womenslunchplace.org> Tue, May 31, 2016 at 12:25 PM
To: "Christopher.Tracy@boston.gov" <Christopher.Tracy@boston.gov>

Dear Chris,

I'm writing to ask about Community Benefits associated with the Back Bay/South End Gateway project and whether Women's Lunch Place may be considered for funding, and if there is an application process. 51.1

We're located in the basement of the Church of the Covenant and we serve over 1,300 women experiencing homelessness and poverty.

Thank you for your attention!

Best regards,

Yan

Yan Medice

Corporate and Foundation Relations Manager

Women's Lunch Place

67 Newbury Street

Boston, MA 02116

617-449-7191

www.womenslunchplace.org

Christopher Tracy <christopher.tracy@boston.gov>

Project Comment Submission: Back Bay/South End Gateway Project

1 message

no-reply@boston.gov <no-reply@boston.gov> Tue, May 31, 2016 at 1:27 PM
To: BRAWebContent@cityofboston.gov, Christopher.Tracy@boston.gov

CommentsSubmissionFormID: 1014

Form inserted: 5/31/2016 1:26:57 PM

Form updated: 5/31/2016 1:26:57 PM

Document Name: Back Bay/South End Gateway Project

Document Name Path: /Development/Development Projects/Back Bay-South End Gateway Project

Origin Page Url: /projects/development-projects/back-bay-south-end-gateway-project

First Name: Yuri

Last Name: Ostrovsky

Organization:

Email: yo@alum.mit.edu

Street Address: 285 columbus ave #301

Address Line 2:

City: Boston

State: MA

Phone: (617) 401-7780

Zip: 02116

Comments: As a resident of the building immediately adjacent and looking upon the planned tower construction in the current bus turn-around behind Back Bay station (285 Columbus Ave), I and my fellow residents have grave concerns about the impact of several aspects of the construction project: 1. The impact on natural lighting for units facing the construction. 2. The privacy implications, with windows facing our windows in very close proximity. 3. The impact of loud construction literally a few dozen feet or less from our units, potentially lasting for years. 4. The impact of construction pounding on the structural integrity of our building, a somewhat historical building with an old foundation, which already shakes from train movement. 5. The impact on our access to our rear loading dock, which currently has an easement with the MBTA property. Having attended the public comment meeting recently, these concerns did not seem to have been considered. Moreover, it was very unclear when this particular construction might be scheduled to start, so residents have no clear idea of when to register their concerns. The impact on our building will be dramatic. At the very least, their should be talk of mitigation alternatives. The lack of this acknowledgment brings up grave concerns, and I can speak for at least several of my co-residents. Thank you for your consideration. 52.1 52.2

PMContact: Christopher.Tracy@boston.gov

Comments by Robert Timmerman PE, CEM, LEED AP on proposed Back Bay Station

To the BRA:

1. Philosophical: how much continued development is desirable: development is driving out the middle class, leaving the rich, who can afford the rents; and the poor, who cannot afford to move. The middle class has to live in less expensive housing outside Boston, adding to passengers on the MBTA. Does Boston need the development over Back Bay Station? 53.1
2. Communication: The BRA's communication with the public is poor. This author was not able to get the time and place for the first public meeting on this project from the BRA office. All the person answering the phone could suggest was to go on the Web. Whatever happened to being able to call up an agency and get an answer? 53.2
3. Is this area really a blighted area, with a bank and a medical office building on the site, and Copley Place across Dartmouth Street? 53.3

To the Developer—Boston Properties:

1. When are they going to fix sidewalk in front of station? It is a hazard to walk on now. 53.4
2. Traffic and parking: The front of Back Bay Station is congested now. What will happen when more offices, residential and commercial development is added? The area is very hazardous for bicycles—what will be done to make it safer for bicycles? 53.5
3. What will happen to Harvard Vanguard offices? This office moved from New England Power Building to it's present location when the New England Power Building was redeveloped. Moving the office any distance from its present location will inconvenience a lot of patients and staff. Harvard Vanguard should not have to pick up the tab for the move. It should be scheduled so as not to inconvenience staff or patients. 53.6
4. Water and Sewer: are present water and sewer lines adequate for additional loading? This area is at the top of a rise, sewage might flow out of the building adequately, but additional loading may create flooding downstream at changes in grade. If sewers are not adequate, what will developer do about them? Are present water mains adequate, both for normal water supply, and for fire protection? If not, what will developer do about them? 53.7
5. Gas: is the present gas supply adequate to provide heat, or fuel for a potential congeneration plant. If not, what will developer do about it? 53.8
6. Energy (Mr. Timmerman's qualifications on energy are listed in the attached brief resume):
    a. Is the electric power supply adequate? If not, what will the developer do about it. 53.9
    b. This project will be energy-intensive. What steps will the developer take, over and above what is shown on their website, to reduce energy use. The website describes little more than PV, vertical axis wind, and cogeneration. While valuable, these are not new technologies. There was enough activity in solar energy in spring of 1966 to permit this author to write a class paper on Solar Energy for a graduate course in Energy Conversion in Spring 1966. Solar thermal was prevalent in the 1970s and 1980s in New England, but has faded with the advent of PV. Vertical axis wind turbines are new, and should be explored, with the caveats that they produce noise that may be objectionable to humans, and may be hazardous to birds. Cogeneration has been around in industrial settings since 53.10

the late 1890s, and was the subject of the Author's design project for his Master's Degree at Cornell in 1966, but is still worthy of consideration if heat and power loads can be matched.

c. What steps will the developer take to reduce electric power use, especially utility power used for electric heating? The attached graphs show the large percentage of primary energy used for heating in Massachusetts. Note that over 50% of the energy used by buildings is for heating, and well over 50% of the CO2 production from buildings is due to heating. Electric heat, with a fuel to heat efficiency of under around 50% for New England is the least efficient heat source available. It is commonly used for electric reheat in VAV air conditioning systems, and would likely be used for radiant heat in Back Bay Station, due to less maintenance than gas radiant heat. Electric heat would make the buildings less efficient than they could be. While the 1,000,000 KWH renewable power generated in Boston Properties buildings is impressive, an electric heating load of 1000 kW throughout the development operating for 1000 hours per year (typical of radiant heat and reheat) would use up that 1,000,000 KWHR, resulting in no net renewable power. 53.11

d. What additional innovations in energy technology does Boston Properties propose to employ in this development? This large development will use a lot of energy; the developer should be willing to take risks on new energy technology to reduce the amount of energy used. Examples of technology that could be used would include: 53.12

   i. A microgrid using cogeneration to provide some of the energy for the development.
   ii. Recycling the excess heat from the office building to provide winter heating for the Back Bay railroad station.
   iii. Limited use of ground coupled heat pumps (with the ground coupling possibly integrated into the foundations).
   iv. Refrigeration for cooling the buildings partially provided by CO2, which has 0 ozone depletion, has a global warming coefficient of 1 (in comparison with a GWC of 1300 for R-134a, a common refrigerant for conventional water chillers), and is non-toxic (except for displacement of oxygen) and non-flammable.
   v. Use of evaporative condensers with alternate refrigerants, such as CO2. These devices condense the refrigerant directly from the compressor, without an intermediate heat exchanger, or cooling water loop, reducing the condensing temperature and eliminating the pumping power of the tower water loop. This equipment is widely used in industrial refrigeration systems.

e. An investment of 5% of the combined mechanical and electrical construction budget in new technology would be advisable. Some of this investment could be in the form of additional engineering fees to investigate the new technology and provide high quality designs, and some in hardware. While this may seem to be risky, good engineering would reduce the risk, and probably make the investment pay off.

Attachments:

Energy work of Robert W. Timmerman PE
Primary Energy use in New England

Energy Work of Robert W. Timmerman PE, CEM, LEED AP

RWTimmerman@gmail.com

Education: B.S. Cornell University June 14,1965
M.E. Cornell University (Mech Eng) June 13, 1966

Engineering Registration: Pennsylvania, by examination
March 26, 1971, number PE 017133E
Massachusetts, 28400 EN-M

LEED Accredited Professional: U.S. Green Building Council May 2002
Certified Energy Manager: Association of Energy Engineers current

Patents

4,124,177 On use of power plant waste heat for heating buildings 11/7/78
4,168,030 On use of power plant waste heat for heating buildings 9/18/79
4,253,517 On use of power plant waste heat for heating buildings 3/3/81

Papers:

4 on innovative energy systems

Selected Energy Experience:

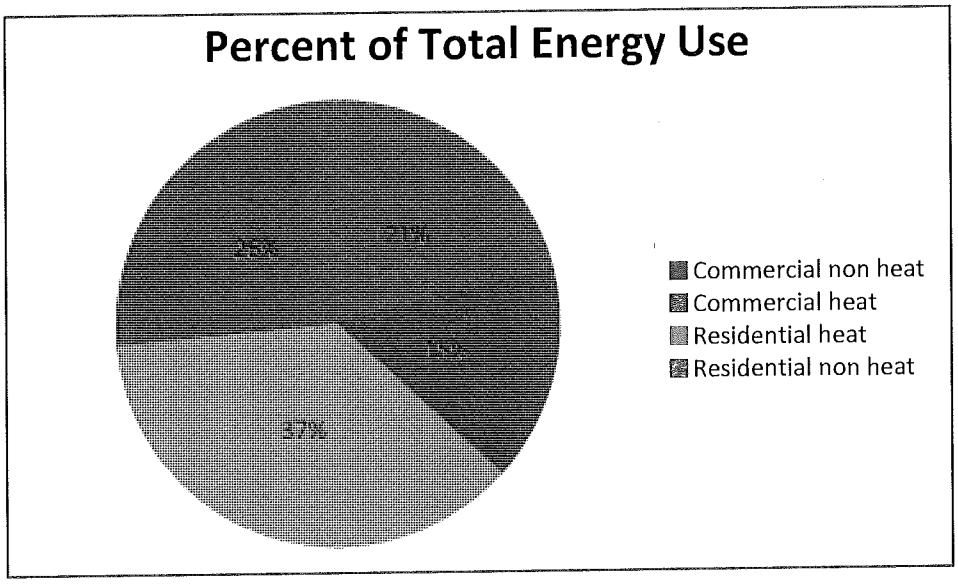
- Developed series of conservation measures to reduce the energy use of a 330,000 square foot office building recently completed by Brookfield Properties at 77 K Street NW in Washington, DC by 8%, in order to qualify for LEED, at a cost of about $5 per square foot in order to qualify for LEED. A description of the system can be found on Brookfield's web site.

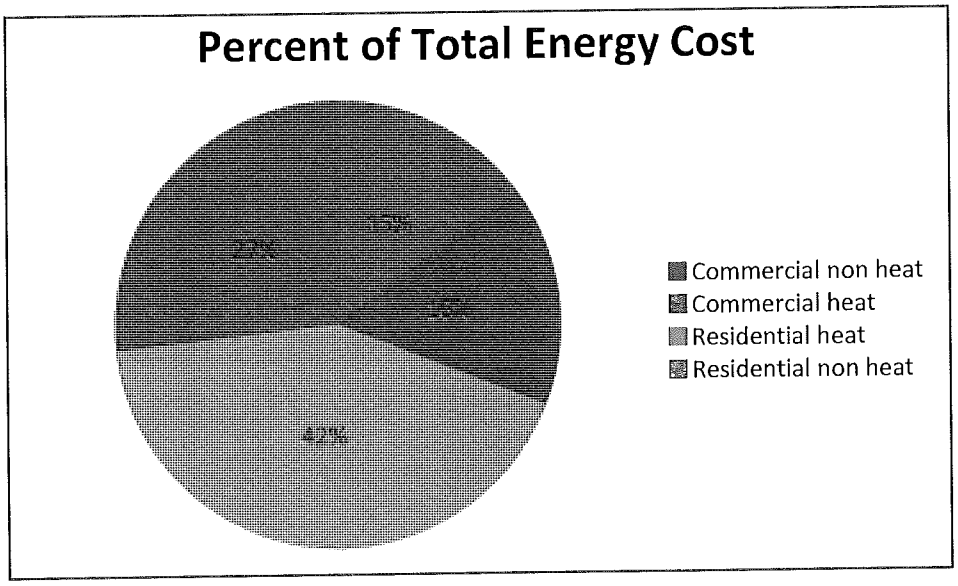
- Developed technology for using power plant waste heat for district heating, which allows existing power plants to supply heat to the system without major retrofits, and imposes no parasitic efficiency penalty on the power plants. Without subsidies, the system could save 0.75 million barrels per day oil equivalent approximately 4% of U.S. energy use) and 50 million tons of CO2 per year in the US. A prototype of this system heats the office building of a utility with the waste heat from their power plant.

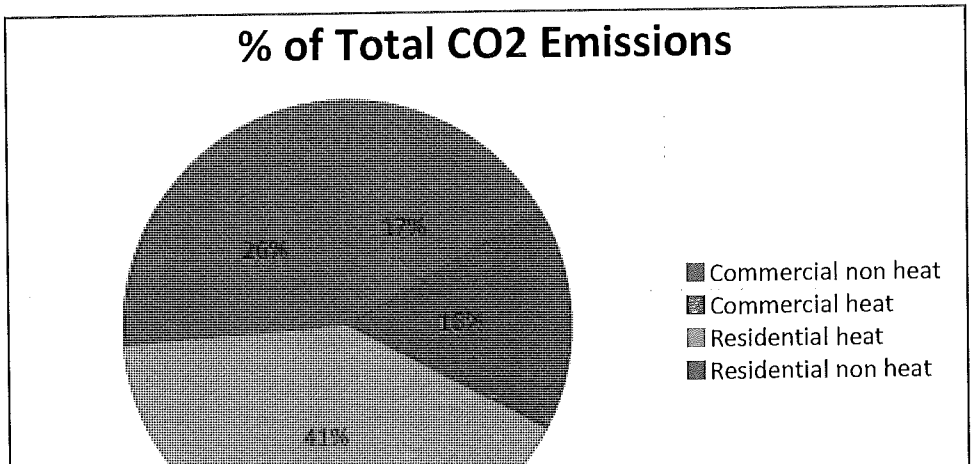
- Designed seasonal solar thermal storage system for the University of Massachusetts in Amherst. This system would collect and store solar heat all year round, to heat the Boyden Gym and the Mullins Arena on the U. Mass campus totaling 400,000 square feet. Modeled energy use of buildings, prepared plans and specifications for mechanical plant, underground hot water piping, and building retrofits.

Relative Source Energy Data for Commercial and Residential Buildings in Massachusetts

Robert W. Timmerman PE RWTimmerman@gmail.com







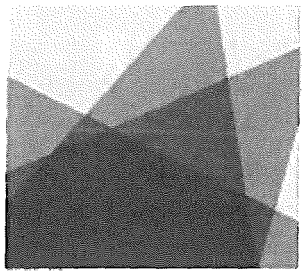
Data Sources:

Commercial: EIA 2003 (latest available) Commercial Building Energy Consumption Survey, with results adjusted by the ratio of Massachusetts residential use to New England residential use.

Residential: Preliminary results of EIA 2009 Residential Building Energy Use Survey, with results specific to Massachusetts.

Fraction of energy used for heating estimated for both electricity and gas as EIA does not break it out.

Electric power is based on Source Energy, that it, energy input to the power plants.



August 19, 2016

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

Dear Mr. Golden:

On behalf of ArtsBoston's 175 arts member groups, tens of thousands of audience members, and community partners who realize that a vibrant cultural life is essential to Boston's position as a world-class city, we are honored to ask for an investment of $75,000 from the BRA's community benefit funds relating to the Back Bay/South End Gateway Project. 54.1

This support will enable ArtsBoston to complete and launch a facilities improvement and programming plan for ArtsBoston's iconic Copley Square cultural information and ticketing booth. It would leverage a planning investment from the Massachusetts Cultural Facilities Fund, as well as $50,000 in community benefit funds from the BRA's John Hancock building project at 380 Stuart Street. As a longstanding neighbor of Back Bay Station, ArtsBoston and its Copley Square booth represent an important resource for residents, workers, and visitors, and a high profile partner in efforts to transform this critical welcoming point for two of Boston's most dynamic areas. 54.2

ArtsBoston is the Greater Boston region's largest and most high-impact arts service organization, a 501(c)(3) corporation that is celebrated its 40th Anniversary in 2015. For four decades, ArtsBoston has played a critical role in making Boston's arts scene affordable and accessible. Our Copley Square booth has been instrumental to that work since it first opened in 1994. Originally conceived as a second downtown home for BosTix, ArtsBoston's discount ticketing program (the other being our Faneuil Hall Marketplace booth, which opened in 1978), the Copley Square booth is a bricks and mortar gateway to Boston arts community, and a highly visible profile location for people to learn about what's happening across the city. The Copley booth features an award-winning design by renowned Boston architect Graham Gund, and evokes the classical elegance of its setting, complementing the great buildings that are its neighbors and creating another reason for people to visit Copley Square.

The Copley booth helps member groups like Lyric Stage Company, Boston Ballet, and Handel and Haydn Society, who welcome its presence as a means to engage tourists, residents, and workers in the Back Bay, the Fenway, and the South End. As Spiro Veloudos, Producing Artistic Director of Lyric Stage Company observes: "Since our theatre is tucked away just a block away from the Copley booth, we really rely on the booth and its staff to get the word out about our shows. People might not know us, but having a presence at the booth puts our theatre and our shows in a highly visible place. Plus it provides easy and affordable access for people who want to give Lyric Stage a try."

Over 20+ years, ArtsBoston has sold more than 825,000 half-price tickets to performances and other events from our Copley Square booth, generating $22.5 million in revenues for groups ranging from Lyric Stage and the resident companies of the Boston Center for the Arts, to the internationally known

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ArtsBoston.org

Boston Symphony Orchestra, to local fan favorite Wheelock Family Theatre. The booth is both a beacon drawing people into Boston's arts scene and an economic engine that drives revenues that arts groups of all sizes and in all disciplines can reinvest in their work onstage and in the community.

It is imperative, however, that ArtsBoston make some capital improvements at our Copley Square booth, which has not undergone any extensive renovations since it was built. ArtsBoston completed a successful $500,000 renovation of our Faneuil Hall booth in 2011, including the addition of eye-catching digital poster displays. The "bones" of the Copley Square booth are good: its design is still current, and its core structural integrity remains sound. As such, we are not anticipating nearly as extensive—or expensive—a facilities investment as was needed at Faneuil Hall. In our preliminary assessment, however, we have identified several deferred maintenance issues that need to be addressed, ranging from wiring to HVAC systems; aesthetic and practical issues relating to the poster displays; and exterior and site damage. The planning and renovation process will go beyond bricks and mortar to address opportunities for the booth to activate its beautiful corner of Copley Square with more interactive displays that draw in passers-by and give more people a taste of everything Boston's arts scene has to offer.

We would be grateful for an infusion of BRA's community benefit funds to leverage that time and support, as well as the planning grant from the Massachusetts Cultural Facilities Fund and BRA investment from 380 Stuart Street. Our vision is for a refurbished, invigorated booth presence that celebrates the combined efforts of all of these partners to weave arts and culture more strongly into the fabric of our urban landscape. We want to build on the past impact of the Copley booth and position it as strongly as possible for its ongoing importance to the future of Boston's arts organizations, the Back Bay and South End neighborhoods, and the residents and visitors who value our cultural scene as an essential element of our city's life.

If you have questions about this request or require additional information, please do not hesitate to contact me at 617-262-8637 or catherinep@artsboston.org.

Sincerely,

Catherine Peterson
Executive Director

Cc: Christopher Tracey, Boston Redevelopment Authority
Michael Cantalupa, Boston Properties
Susan Tracy, Strategy Group

BRA Urban Design and Planning Scoping Comments:

To: Boston Properties
Date: August 19, 2016
Subject: Back Bay South End Gateway Project Scoping Comments

Boston Properties proposes the redevelopment of the John Hancock Garage and Back Bay Station air rights, which lies toward the north of the block bounded by Columbus Avenue and Dartmouth, Stuart, and Clarendon Streets. This Project aims to create new, defined, and activated passages from Dartmouth to Stuart to Clarendon Streets. Green roofs lie atop several tower and podium components. The mix of active uses would enhance the mix of uses (office, residential, hotel, retail) already extant in the area. The architect is Pelli Clarke Pelli.

BRA Planning and Urban Design have appreciated working thus far with Boston Properties on the refurbishment of Back Bay Station and redevelopment of associated air rights parcels on what is poised to be a transformative development impacting the Back Bay, South End, and Bay Village neighborhoods. This is a project that requires considerable capital, vision, and persistence, and we recognize the hard work already expended by the development team, architects, consultants, and our colleagues at MassDOT and the MBTA. The Proponent's intent to renovate and restore the Station is laudable and represents a significant public benefit resulting from this project. The scoping comments below reflect some of the most salient issues at this moment in the design and development timeline. Due to the protracted and phased nature of this project, the BRA will continue to provide feedback throughout what is sure to be an iterative and collaborative process. 55.1

Moreover, the Proposed Project should meet the 'performance standard' of generally having the same or a lesser degree of environmental impacts than either the full 'as-of-right' build-out or existing conditions, whichever are most impactful. That is to say, criteria such as daylight, shadows, and wind should be at least neutral or improved on average, recognizing that some elements or points may be worse, but proving that the whole is better as a Project. We will expect in fact that mitigations or positive urban benefits will result from this Project and in balance far outweigh any negative impact. Specific shadow and wind investigations will be requested - a separate category in this scoping - to determine what the impacts are regarding Copley Square and the Southwest Corridor Park, among others. We will expect that the Proposed Project as represented in the DPIR will have taken into account any necessary mitigating factors, for scenarios with densities and heights beyond those alternatives, discovered as a result of environmental and other studies by the Proponent. 55.2 55.3 55.4 55.5

DPIR design alternatives or development should bring a high degree of innovation and achieve LEED Gold at a minimum, preferably Platinum. This Project should set the bar very high for projects in the Stuart Street Study Area, and incorporate bold energy, recycling, daylight/quality of environment, green roofs and plantings, innovative connections to the water, and transportation initiatives. 55.6

General Urban Design and Planning Comments

The Boston Civic Design Commission (BCDC) voted to review the Proposed Project on June 7, 2016 and saw a preliminary presentation. The Commissioners present were generally supportive of the Project, but mixed in their comments; the Project was referred to Design Committee. When sufficient progress in preparation of a Preferred Alternative in the DPIR in response to the Scoping Document has been made on the design pursuant to preliminary BCDC, CAC, and BRA staff comments, BCDC Design Committee meetings should be scheduled by contacting David Carlson, Executive Director of the BCDC. Minutes from the Back Bay Garage portion of the June 55.7

BCDC meeting are attached.

It should be noted that we will expect a design, rather than a conceptual diagram, however well conceived, which will allow more in-depth comment at the DPIR stage. We reserve the right to comment at that stage toward the submission of an FPIR. In general, we will ask for studies related to any and all requested alternatives, with certain modifications, as well as comparisons to both existing conditions and an 'as-of-right' alternative. We will expect that the Proposed Project as represented in the DPIR will have taken into account any necessary mitigating factors, for scenarios with densities and heights beyond those alternatives, discovered as a result of environmental and other studies by the Proponent. 55.8 55.9

Issues, some grouped by themes, are listed below, starting with the general:

- The project is exemplary in its strong adherence to the Stuart Street Design Guidelines, which includes "Creating a vibrant street level pedestrian experience" as a core objective. To that end, the BRA recommends that resources be focused on the design of at-grade crossings for pedestrians around the entire perimeter of the project and for enhancement to the existing underground tunnel connecting Back Bay Station to Copley Place. 55.10

- Similarly, a key urban design objective for the project as defined in the PNF is the following: "Design multiple ground level pedestrian through-block connections to create permeability through the Site, and connectivity to surrounding Back Bay and South End and Bay Village neighborhoods." This should be accomplished through exterior enhancements and through ground level interior building porosity, where possible. 55.11

- While Dartmouth Street is the recognized "front door," there should still be a celebrated civic entrance to the Station from Clarendon Street. A recessed "door" must still have a perceptual presence directly on Clarendon Street, using innovative design strategies, public art, landscaping, and/or other public realm improvements. 55.12

- Greater consideration to the Clarendon Street entrance must be made going forward, in combination with an improved streetscape design for Clarendon Street. Opportunities for additional open space and the relationship to the immediate context should inform design strategies on the Clarendon side. 55.13

- Added vitality to the Clarendon Street corridor will be enhanced by the placement of two new residential properties, and therefore should be reflected in the ground level design for those buildings. At the same time, the drop-off zone in front of the new Station entrance should only supply the amount of space needed for the residences. The proposed additional drop-off lane for the Station would be better repurposed as either landscaped space or a shared space, in line with the other goals of the project. 55.14

- While the Dartmouth Street Entrance is being respectfully refurbished, additional enhancements to the surrounding streetscape are warranted. As a terminus to the Southwest Corridor Park, the project is to carry the spirit of well-designed open space and pedestrian primacy across the street and into the Station. 55.15

- The Proposed Project repeatedly champions building porosity and neighborhood connectivity. This is already demonstrated with two crossings in place at street level and below grade to assist with station traffic across Dartmouth Street into Copley Place and the Southwest Corridor. For this reason, we are concerned that an additional connection that is elevated would take away from the street life on Dartmouth Street. We do not see this as 55.16

a necessary connection, as it would diminish the goal of activating the corridor. If an elevated pedestrian bridge across Dartmouth Street is to be pursued, further evidence needs to be presented showing how this would have a positive impact on the public realm. 55.16 cont.

- The safety and security of pedestrians are better served by improved crosswalk design, which may include tabled intersections and other enhanced crossings (see Boston's Complete Street Guidelines). 55.17

- The existing underground connection is a latent design opportunity that should be enhanced in tandem with the refurbishment of the Station. This tunnel is rightfully designed to privilege transit riders whose volumes far exceed users of the garage and whose numbers are projected to grow. As Boston's recent planning efforts (Go Boston 2030 and Imagine Boston 2030) plan for growth, it is increasingly important that the space of the street be multimodal to accommodate various users. 55.18

- To facilitate improved at-grade crossings and pedestrian mobility generally, BRA Urban Design supports the closure of the I-90 ramp should the Commonwealth deem it acceptable, as it will allow for vehicles to exit from Trinity Place rather than Dartmouth Street. 55.19

- Though an engineering challenge, structure must be threaded with minimal impacts to the already constrained rail platform below. We recommend that any impacts to the platform should be counterbalanced by improvements to the platform seating and design configuration, as well as improvements to the underground tunnel connecting the platform across Dartmouth Street to Copley Place. 55.20

- The corner of the Garage West parcel (at the intersection of Stuart and Dartmouth Streets) is the dominant and most visible corner of the project and will need further design refinement. The impacts of the garage plinth can and should be ameliorated through façade strategies, but the design of the retail and streetscape is most important. Large pedestrian volumes make the design of ample sidewalk widths and high quality public realm improvements paramount. Moreover, it is crucial that the design works with the proposed reconfigured intersection design. 55.21

- Tremendous work has been done to remove some major elements/interfaces of the existing garage. The amount of parking, in general, should be minimized. Submit information which justifies the scale and amount of parking proposed by analyzing both current levels of use and projected future levels with an expectation of expanded alternative modes of transit. 55.22
  The BRA expects that all revised transportation elements will be designed in harmony with the architectural treatments and integrated into the design. 55.23
  Since retention of the above-grade garage floors cannot be avoided, garage uses are ideally completely covered, with active program uses, if possible, on all sides fronting primary streets. Treatment of any remaining directly visible portions of the garage will be presumed to be transformative, and should be of a high architectural character with robustly convincing detail. 55.24

- The architectural expression of the tower elements should be clarified. They should be sufficiently differentiated, and shaped as part of the skyline, but not necessarily read as one 'complex'. Consider the view studies requested in the list of materials later to achieve a massing and orientation, which begins to break the scale of the towers and podium elements down to that of the appropriate scale-giving datum elements in the area. This 55.25

effect will be most noticeable from the intermediate range of direct views, including views from nearby neighborhoods, the Southwest Corridor, Columbus Avenue, and Clarendon and Dartmouth Streets. The grouping of towers will act as a signifier of Back Bay Station in the Boston cityscape. 55.25 cont.

- Special attention should be paid to public art, both indoor and outdoor. The Proposed Project presents an opportunity to connect interior and exterior space, and we encourage the Proponent to consult with local artists during the design period to allow for an integrated aesthetic effect. 55.26

- To reiterate comments from the Boston Transportation Department, the relocation and accordant redesign of the MBTA Bus No. 39 stop must be clarified. The design of this stop must include adequate space for passenger queuing and general pedestrian circulation. 55.27

- It is critical that wind impacts to public spaces be minimized using trees and other windbreak strategies, including the formal shaping of the building(s) and public spaces themselves. Regarding potential future studies, all wind tunnel test points shall be approved by BRA staff before conduction of testing. Wind analysis may be requested at points within several blocks of the property(ies) in question; where contiguous or proximate to open space, analysis may extend to likely bounds of no impact. Depending upon results of the wind tunnel testing, the BRA reserves the right to request further study, including further tunnel work, or a delta analysis if results are unclear. 55.28

- Project shadows appear to be in compliance with the Stuart Street Design Guidelines, but will continue to be studied as part of standard design review processes. All shadow analysis should be provided in electronic rather than paper form, except as conclusion discussions, using continuous dawn-to-dusk shadow animations. Do not duplicate studies for months in which the information is identical (i.e., a single animation for November/January, or May/July). All net new shadows, in general, shall be defined as outlined elsewhere either by a contrasting tone or different color and shall be clearly shown to their full plan extent, whether on street, park, or rooftop. A specific shadow analysis should assess the time range of any new impacts on the Southwest Corridor Park, defining rough extent and duration in terms of hours and time of year. Particular attention should be given to the period from March 21st to October 21st. If overall duration is greater than one hour, provide an overlap study, which defines any area impacted by shadows for a period greater than one hour. 55.29

<u>Respect and adherence to Stuart Street Guidelines:</u>

- The project largely complies with the Guidelines established during the Stuart Street Planning Study and later codified as zoning in Article 48: Stuart Street District. Moreover, the spirit and intent behind the Guidelines is directly expressed in the project.

- Certain project elements deviate from the zoning, primarily at the Garage West parcel:
    - Service and parking areas must be set back a minimum of 20' from the building face; because of the garage dimensions, this will only be between 1 and 4'. Our recommendation to abate this will be to continue to explore creative options for screening the garage. 55.30
    - The maximum floor plate for commercial uses is 30,000-SF; the project proposes two floors above the garage that are approximately 36,000-SF and 38,000-SF, respectively. The remaining commercial floors are in compliance, with an average square footage ranging from approximately 22,000-SF to 26,000-SF. 55.31

- The project exceeds the recommended 25' setback on Dartmouth Street; the massing of the building varies from 15-27'. We urge the proponent to prioritize the pedestrian experience in the design of the streetscape, as noted elsewhere in this comment letter. 55.32
- The LEED target of Gold is instead projected to be Silver for the Garage East, Station East, and Station West parcels. The commercial tower (Garage West) is projected to achieve LEED Gold equivalence. 55.33

- The BRA recognizes that the zoning for this project will be pursued through an amendment to the existing PDA for the garage, as envisioned during the Stuart Street Planning Study. 55.34

Back Bay Station Design:

Though Back Bay Station proper is not under the express purview of BRA Planning and Urban Design staff, we nevertheless include the following comments: 55.35

- Improved connectivity and porosity to/from the Station is desirable. In particular, the new station entrance on the Stuart Street side should be designed with visibility and accessibility in mind.

- The strong pedestrian connection and axial procession through the Station should be continued strongly through to the Clarendon Street side. 55.36

- Minimizing clutter (ticketing machines, signage, retail kiosks) in the Station should be a primary design driver, particularly in the central hall. 55.37

- Any proposed additional retail should not interrupt the sense of space from a connective standpoint. Additionally, the proposed retail should not reduce the effective daylighting produced by the upper hall and clerestory areas. Neither should the simplicity and purity of the restored station's space be compromised by upper encroachments or penetrations. 55.38

- Embracing new technology to facilitate expedited ticketing and gating is desirable insofar as the resultant space should allow for improved circulation and well-placed and numerous accommodations for seating. 55.39

We reserve the right to add additional concerns during the course of the process of combined BRA Staff, CAC, and BCDC review, which may affect the responses detailed in the DPIR. The following urban design materials for the Proposed Project's schematic design must be submitted for the DPIR: 55.40

1. Written description of program elements and space allocation (in square feet) for each element, as well as Project totals.

2. Neighborhood plan, elevations and sections at an appropriate scale (1"=100' or larger as determined by the BRA) showing relationships of the proposed project to the neighborhood context: 55.41
   a. Massing
   b. Building height
   c. Scaling elements

d. Open space
e. Major topographic features
f. Pedestrian and vehicular circulation
g. Land use

55.41 cont.

3. Color, or black and white 8"x10" photographs of the site and neighborhood. 55.42
4. Sketches and diagrams to clarify design issues and massing options. 55.43
5. Eye-level perspective (reproducible line or other approved drawings) showing the proposal (including main entries and public areas) in the context of the surrounding area. Views should display a particular emphasis on important viewing areas such as key intersections, pathways, or public parks/attractions. Some of these viewpoints have already been suggested and used in presentations to the public. Long-ranged (distanced) views of the proposed project must also be studied to assess the impact on the skyline or other view lines. At least one bird's-eye perspective should also be included. All perspectives should show (in separate comparative sketches) at least both the build and no-build conditions; any alternatives proposed should be compared as well. The BRA should approve the view locations before analysis is begun. View studies should be cognizant of light and shadow, massing and bulk. 55.44
6. Additional aerial or skyline views of the project, if and as requested. 55.45
7. Site sections at 1"=20' or larger (or other scale approved by the BRA) showing relationships to adjacent buildings and spaces. 55.46
8. Site plan(s) at an appropriate scale (1"=20' or larger, or as approved by the BRA) showing:
   a. General relationships of proposed and existing adjacent buildings and open spaces
   b. Open spaces defined by buildings on adjacent parcels and across streets
   c. General location of pedestrian ways, driveways, parking, service areas, streets, and major landscape features
   d. Pedestrian, handicapped, vehicular and service access and flow through the parcel and to adjacent areas
   e. Survey information, such as existing elevations, benchmarks, and utilities

   55.47

   f. Phasing possibilities
   g. Construction limits

f. Massing model (ultimately in basswood) at 1":40'0" for use in the Authority's Downtown Model. 55.48
g. Study model(s) at 1" = 16' or 1" = 20' showing preliminary concept of setbacks, cornice lines, fenestration, facade composition, etc. are recommended. 55.49
h. Drawings at an appropriate scale (e.g., 1":16'0", or as determined by BRA) describing architectural massing, facade design and proposed materials including:
   a. Building and site improvement plans
   b. Neighborhood elevations, sections, and/or plans showing the
   c. Development in the context of the surrounding area
   d. Sections showing organization of functions and spaces, and relationships to adjacent spaces and structures
   e. Preliminary building plans showing ground floor and typical upper floor(s).
   f. Phasing, if any, of the Proposed Project

   55.50

i. A written and/or graphic description of the building materials and its texture, color, and general fenestration patterns is required for the proposed development. 55.51
j. Electronic files describing the site and Proposed Project. 55.52
k. Full responses, which may be in the formats listed above (and more), to any urban design-related issues raised in preliminary reviews or specifically included in the BRA scoping determination, preliminary adequacy determination, or other document requesting 55.53

additional information leading up to BRA Board action, inclusive of material required for Boston Civic Design Commission review. 55.53 cont.

l. Proposed schedule for submission of all design or development-related materials. 55.54

m. Diagrammatic sections through the neighborhood (to the extent not covered in item #2 above) cutting north-south and east-west at the scale and distance indicated above. 55.55

n. True-scale three-dimensional graphic representations of the area indicated above either as aerial perspective or isometric views showing all buildings, streets, parks, and natural features. 55.56

Daylight Component

If not defined elsewhere, a daylight analysis for both build and no-build conditions shall be conducted by measuring the percentage of skydome that is obstructed by the Proposed Project building(s) and evaluating the net change in obstruction. If alternative massing studies are requested or result as part of the Article 80 development review process, daylight analysis of such alternatives shall also be conducted for comparison. The study should treat three elements as controls for data comparisons: existing conditions, the 'as-of-right' (defined in this case as the recent Stuart Street zoning), and context examples. The areas of interest include Dartmouth, Stuart, and Clarendon Street, and Trinity Place. Daylight analyses should be taken for each major building facade fronting these public ways. The midpoint of each public accessway or roadway should be taken as the study point. The BRADA program must be used for this analysis. 55.57

If a Proponent wishes to substitute a more contemporary computer program for the 1985 BRADA program, its equivalency must first be demonstrated to the satisfaction of BRA staff before it is utilized for inclusion in the DPIR, and it must be commonly available to Boston development team users. 55.58

Infrastructure Systems Component

An infrastructure impact analysis must be performed.

The discussion of Proposed Project impacts on infrastructure systems should be organized system-by-system as suggested below. The applicant's submission must include an evaluation of the Proposed Project's impact on the capacity and adequacy of existing water, sewerage, energy (including gas and steam), and electrical communications (including telephone, fire alarm, computer, cable, etc.) utility systems, and the need reasonably attributable to the proposed project for additional systems facilities. 55.59

Any system upgrading or connection requiring a significant public or utility investment, creating a significant disruption in vehicular or pedestrian circulation, or affecting any public or neighborhood park or streetscape improvements, comprises an impact which must be mitigated. The DPIR must describe anticipated impacts in this regard, including specific mitigation measures, and must include nearby Proposed Project (i.e. 40 Trinity, 380 Stuart, Copley Expansion, et al.) build-out figures in the analysis. The standard scope for infrastructure analysis is given below: 55.60

1. Utility Systems and Water Quality

a. Estimated water consumption and sewage generation from the Proposed Project and the basis for each estimate. Include separate calculations for air conditioning system make-up water 55.61

b. Description of the capacity and adequacy of water and sewer systems and an evaluation of the impacts of the Proposed Project on those systems; sewer and storm drain systems should include a tributary flow analysis as part of this description | 55.62

c. Identification of measures to conserve resources, including any provisions for recycling or 'green' strategies, including green roofs | 55.63

d. Description of the Proposed Project's impacts on the water quality of Boston Harbor or other water bodies that could be affected by the Project, if applicable | 55.64

e. Description of mitigation measures to reduce or eliminate impacts on water quality | 55.65

f. Description of impact of on-site storm drainage on water quality | 55.66

g. Information on how the Proposed Project will conform to requirements of the Ground Water Trust under Article 32, if applicable, by providing additional recharge opportunities | 55.67

h. Detail methods of protection proposed for infrastructure conduits and other artifacts, including the MBTA tunnels and station structures, and BSWC sewer lines and water mains, during construction | 55.68

i. Detail the energy source of the interior space heating; how obtained, and, if applicable, plans for reuse of condensate. | 55.69

Thorough consultation with the planners and engineers of the utilities will be required, and should be referenced in the Infrastructure Component section. | 55.70

2. Energy Systems

a. Description of energy requirements of the project and evaluation of project impacts on resources and supply | 55.71

b. Description of measures to conserve energy usage and consideration of the feasibility of including solar energy provisions or other on-site energy provisions, including wind, geothermal, and cogeneration. | 55.72

Additional constraints or information required are described below. Any other system (emergency systems, gas, steam, optic fiber, cable, etc.) impacted by this development should also be described in brief. | 55.73

The location of transformer and other vaults required for electrical distribution or ventilation must | 55.74

be chosen to minimize disruption to pedestrian paths and public improvements both when operating normally and when being serviced, and must be described. If necessary, storm drain and sewage systems should be separated or separations provided for in the design of connections. | 55.74 cont.

This proposal calls for the radical modification of older air rights Projects that were basically the reconstruction and repair of railroad and highway infrastructure. The balance of the notion of 'embedded energy' as balanced with the long-term energy savings proposed by this Project should be discussed. The Proponent should investigate energy strategies that take advantage of this scale of construction, including those that incorporate green roof strategies as well as solar orientation and materials/systems that maximize efficiencies, daylighting strategies, wind, solar, and geothermal systems, and cogeneration. | 55.75

Excerpted from the minutes of the BCDC of June 7, 2016:

The next item was a presentation of the **Back Bay / South End Gateway Project**. Mike Cantalupa (MC) of Boston Properties introduced the Project while the team struggled with setup, giving some of the history. They had considered this potential project, and approached MDOT regarding the Station, since they were already renegotiating the Hancock Garage lease. Boston Properties are not station management folks, but were willing to take that on...if the MBTA cleaned up the blue haze on the train platform. They agreed to match the cost of that up to $5 million. MC then noted the development sites on an aerial overlay. Rafael Pelli (RP) of Pelli Clarke Pelli presented the design and project. He first introduced Jim Batchelor of Arrowstreet (working on the station design for the MBTA) and Cody Klein (CK) of The Office of James Burnett (landscape architects). RP showed a series of historic aerial views, noting earlier stations, then later views from the era of heroic highway building. As PCP precedent, he noted the transformation of the area in Bilbao they worked on, now most famous for the Gehry museum design.

RP showed a massing diagram, noting that they would be taking down about a third of the garage and the two drums. RP: The proposed buildings are where they are because of structure - where they can land program and structure. They are not touching the highway. (Shows structure, extrusions, and basic floorplates. A structural scheme as massing blocks.) The guidelines in the Stuart Street study, because of their shadow analysis, brought the tower heights down to 330', 365', 370'. They will exist at a medium scale; the Hancock will still be dominant. The office building could be massive, with large floors and rebuilt parking below. We use those datums to express levels, then we express the corners, with terraces and balconies going up. And we are carving vertically into the residential buildings. There will be intensely designed, occupiable

spaces - we see that as important. (Shows a Sasaki green roof design for Boston Properties in Washington. Shows the office tower elevation in context along Dartmouth.) We have a preliminary idea about screening the garage. Resolution at the base is important. We are cutting a portion of the existing platform to connect to the corner and Stuart. (As precedent, shows a building they did between Lexington and 3rd Avenue in NYC. Shows a before and after view. Notes the exaggeration of the twisting at the corner. Shows a view of the existing corner structural deck, and then the proposed condition, with retail all along the edge.) The entry to the station platform level is now from Stuart. (Shows views looking at the Clarendon side, before and after, at a distance - then closer. Goes through plans.) At the Stuart grade, we are taking down the concrete extended deck. The second level is at the level of the station off of Dartmouth, with a connection.

BCDC Questions

Andrea Leers (AL): And parking? RP: The existing ramp is still off Clarendon. For an additional adit/exit to replace the drums - In our plan, if the turnpike ramp remains open, they will need to exit onto Dartmouth. If the ramp is removed, they will exit onto Trinity. Michael Davis (MD): And the bridge across Trinity? RP: That was requested by 40 Trinity. There is other potential. MD: You should read our position paper. MC: If it's done in any district, this is the place to do it; there are three already. AL asked about the nature of that and what could happen in that area; a discussion ensues. Kirk Sykes (KS): What was the idea of pulling the residential building back from Clarendon? RP noted where the structure lands. RP: Also, we don't have the capacity to build much on that deck. Deneen Crosby (DC) asked about the view of the Hancock from the Southwest Corridor (it's hidden).

JB talked about the Station air rights: Noted info is in your packets; station improvements are underway. For air rights over the station itself, a 1-2 stories addition is possible. (Shows an image with a setback from Dartmouth.) Dartmouth is greener, with 20' setback. An alternative adds another floor. William Rawn (WR) asked about its section/location. JB: That alternative spans over the station; the one-story version does not, but connects through. (JB shows a plan with terraces on the roof along Dartmouth, noting the elevators, and interior bridges across.) David Manfredi (DM): Entrances...are these restaurants? Or entries on the street, or in the station? JB: We think there's a connection to the street, but the nature of the retail does not necessarily include a restaurant. The upper floor, at 35,000 SF, has more terraces in the front.

CK: I'll focus on different areas. We will realign and signalize the pedestrian crossing across Dartmouth at the station entry. We will use Complete Street principles. We plan to add street trees, even with the structured deck. Accessibility is tricky; it's easier at the corner. We'll have pedestrian zones on Clarendon, too.

AL: Congratulations, about figuring out how to do this. The locations and base strategy are all intelligently thought out. The concourse, the corner down to the sidewalk...are all good. Go for it, in all the new places. But leave the station alone. Adding stuff to that, when you have all the space in the world, seems superfluous. And Trinity Place needs work to resolve. At the corner, just think - how much architecture can we stand here!? But overall, it's good. DM: I agree. There are a lot of good decisions. A lot of very smart things - on Stuart, on the residential pads. I have the same question Kirk asked about the Clarendon setback; it seems like a leftover space. I struggle with even the 1-story addition on the station, and what it does to the original concept. I think you've found space elsewhere - it's thoughtful, a positive impact on the public realm.

MD: We'll want to look closely at the streetscapes. The corner is a huge benefit. Retail in the station could work better; it's not good now. That would be a huge benefit. I'm not convinced of what else you add. KS: On the station, the question is the amount of benefit. Activating that...I could get my head around a different thought...like Champions Way. Clarendon is a messy place; your building can do a lot to resolve that. On the garage - is a screen? RP: Right, it's not enclosed. DM: But you have a new building behind it.... KS: I'm open to it being open, but don't want to lose inventive treatment. There are five levels of stuff...above that, could you set that back? MC: The building is up as much as we can to take advantage of the structure. KS: If it were

tiered up differently, you could do more over the station.

WR: I agree with what everyone said about *preserving* the station. I think we have to be careful about structured parking coming above grade. The genesis of the floating boxes, the datum line.... A part of me thinks that the boxes make it heavier. I would like to see other precedents of that. RP: We have earlier studies where they weren't cranked. But it also allows terraces at each setback. And, we've done wind tunnel analysis; the cranks serve as a windbreak, and indicated improvements over existing conditions. On the north and south, it's not as dramatic. Just at the edges...the expression made it stronger. It's not intended to be tectonic. AL: One of the things working against that is the wider base. I would like to think of it with less of that. It comes to a wide base quickly. There's not enough tall part for the wide part. You have some structural flexibility.... RP explained the strategy: We tried that; we didn't think it was as effective pulling it back. [It could go down, but then the pro forma...] We didn't think of this as a tower.

The Back Bay / South End Gateway Project was sent to Design Committee. Public comments were heard. Elliot Laffer noted that the bridge across Trinity Place makes it more of an alley. And Dartmouth would be disastrous. And the garage ramp exit there, across all the pedestrians, is also bad. Melissa Shrock of Boston Properties: The other exit is still functional, but it all heads toward the South End. We can't do that. But if the current Turnpike on-ramp closes, that allows a superior solution. KS: Bring a traffic engineer to subcommittee. An Unidentified Citizen: The garage is really ugly. Whatever you can do to screen it.... On Clarendon, it really overhangs. Look at how wide these streets are! We are a city of small streets...now canyons. The trains - it's difficult to get around. The streetscape here is critical.

Martin J. Walsh
Mayor

Article 37 Interagency Green Building Committee

September 13, 2016

Mr. Michael Cantalupa
BP Hancock LLC
c/o Boston Properties Limited Partnership
800 Boylston Street, Suite 1900
Boston, MA 02199

Re: The Back Bay/ South End Gateway Project
Boston Zoning Code Article 37, Green Buildings

Dear Mr. Cantalupa:

The Boston Interagency Green Building Committee (IGBC) has reviewed for compliance with Boston Zoning Article 37, Green Buildings, your March 29, 2016 Project Notification Form (PNF) with LEED Checklists, Sustainability Narrative and Climate Change Preparedness and Resiliency Checklist.

The PNF indicates that the project will use the LEED 2009 for New Construction and Major Renovations rating system for both the Garage East Parcel and the Station East Parcel with the intent to achieve LEED Silver with 57 points (for both parcels) and the LEED 2009 for Core and Shell rating system for both the Garden West Parcel and the Station West Parcel, with the intent to achieve LEED Gold for the Garden West Parcel with 65 points and LEED Silver for Station West with the intent to achieve 50 points. The IGBC accepts the rating system selections and encourages the project team to continue to pursue additional LEED credits, including but not limited to the feasibility of implementing features of the WELL Building Standard. 56.1

In support of the City of Boston's Greenhouse (GHG) emissions reduction goals, the IGBC requests that the project make full use of utility and state-funded energy efficiency and clean/renewable energy programs designed to minimize energy use, GHG emissions and adverse environmental impacts. 56.2

The Boston Redevelopment Authority (BRA) and the City of Boston plan to update the performance criteria for climate change based projections presented in the recently released *Climate Change and Sea Level Rise Projections for Boston (2016)*, a report prepared by the Boston Research Advisory Group for the Climate Ready Boston project. The projections have a higher upper range for sea-level rise than the current set of performance criteria.

Please note that prior to the Inspectional Services Department's (ISD) issuance of a building permit, all projects must demonstrate compliance with Article 37 and have obtained approval of the requisite submissions from the IGBC. In order to demonstrate compliance, the IGBC requires that you provide an updated submission including a Design Green Building Report (Design Report). The Design Report shall provide a comprehensive narrative describing in detail proposed strategies and paths that will be used to meet LEED prerequisites and achieve the selected credits. 56.3

Please refer to the Boston Redevelopment Authority's Article 37 Green Building and Climate Resiliency Guidelines for information on submission requirements and review procedures. (http://www.bostonredevelopmentauthority.org/planning/planning-initiatives/article-37-green-building-guidelines).

Sincerely,

Article 37 Interagency Green Building Committee