

December 19, 2012

**NEW YORK STATE URBAN DEVELOPMENT CORPORATION
d/b/a EMPIRE STATE DEVELOPMENT**

**NOTICE OF PUBLIC SCOPING AND INTENT TO PREPARE A DRAFT SUPPLEMENTAL
ENVIRONMENTAL IMPACT STATEMENT**

Notice is hereby given pursuant to the New York State Environmental Quality Review Act (SEQRA), codified in Article 8 of the Environmental Conservation Law, and its implementing regulations (6 NYCRR Part 617), that the New York State Urban Development Corporation d/b/a Empire State Development (ESD) intends to prepare a Draft Supplemental Environmental Impact Statement (DSEIS) for Phase II of the Atlantic Yards Arena and Redevelopment Project (the Project) in Kings County, New York.

In an Order dated July 13, 2011, the Supreme Court for New York County directed ESD to prepare a Supplemental Environmental Impact Statement (SEIS) to assess the environmental impacts of delay in Phase II construction of the Project. In 2012, that Order was affirmed by the Appellate Division of State Supreme Court.

The attached draft scope of work has been prepared to identify issues to be addressed in the DSEIS. The draft scope of work describes the Project, the procedural and environmental review history of the Project and its approvals, the Project's development phases and the proposed scope of analysis for the preparation of the DSEIS.

A public scoping meeting will be scheduled to obtain comments on the draft scope of work for the DSEIS. Once the date for the public meeting has been decided, a notice providing details of the public scoping meeting will be advertised no less than 30 and no more than 45 days before the meeting. The notice will also include information about the submission deadline for written comments. Copies of the draft scope of analysis may be obtained from ESD's Web site, <http://www.esd.ny.gov/AtlanticYards>, or may be requested through the contact information provided below. Comments on the draft scope of work may be presented by members of the public or any interested party at the public scoping meeting or submitted in writing to: Atlantic Yards, 633 Third Avenue, 37th floor, New York, NY 10017, atlanticyards@esd.ny.gov.

This notice and the draft scope of work have been sent to the following potentially involved or interested agencies:

Metropolitan Transportation Authority
Long Island Rail Road

NYS Department of Environmental Conservation
NYS Office of Parks, Recreation & Historic Preservation
Mayor of the City of New York
Office of the Deputy Mayor for Economic Development and Rebuilding
NYC Economic Development Corporation
NYC Department of Transportation
NYC Department of City Planning, Brooklyn Office
NYC Department of Environmental Protection
NYC Department of Education
NYC Housing Development Corporation
NYC Landmarks Preservation Commission
NYC Department of Housing Preservation & Development
Brooklyn Borough President's Office
Brooklyn Community Boards 2, 6 and 8

**Draft Scope of Work for a
Supplemental Environmental Impact Statement for the
Atlantic Yards Arena and Redevelopment Project**

A. INTRODUCTION

In November 2006, the New York State Urban Development Corporation, a public benefit corporation of New York State doing business as Empire State Development Corporation (ESD), in cooperation with the Metropolitan Transportation Authority (MTA) and the City of New York (the City), prepared the Final Environmental Impact Statement (FEIS) for the Atlantic Yards Arena and Redevelopment Project (the Project) in Brooklyn. The FEIS was prepared under the State Environmental Quality Review Act (SEQRA), codified at New York Environmental Conservation Law Article 8, and its implementing regulations adopted by the New York State Department of Environmental Conservation (NYSDEC) and codified at Title 6 of the New York Code of Rules and Regulations (N.Y.C.R.R.) Part 617 (the SEQRA Regulations), with ESD as the lead agency. In December 2006, ESD adopted its SEQRA findings. In December 2006, ESD also affirmed a Modified General Project Plan (the 2006 MGPP) for the Project.

The 2006 MGPP and FEIS described and examined the Project in two phases (Phase I and Phase II). Phase I is comprised of an Arena, four other buildings (Buildings 1, 2, 3 and 4) and a new subway entrance on the Arena Block, which is located at the southeast corner of Atlantic and Flatbush Avenues, in the area bounded by Atlantic, Sixth and Flatbush Avenues and Dean Street. Phase I also includes a building on Site 5, which is located at the southwest corner of Atlantic and Flatbush Avenues, and a new rail yard and associated facilities for the Long Island Rail Road (LIRR) south of Atlantic Avenue in an area spanning portions of the Arena Block to Vanderbilt Avenue. Phase I also includes parking facilities located on the Arena Block, Site 5 and south of Atlantic Avenue between Sixth and Vanderbilt Avenues, including temporary parking facilities on Block 1129, between Vanderbilt Avenue, Carlton Avenue, Pacific Street, and Dean Street. Phase II comprises a platform over the new LIRR yard, 11 buildings (Buildings 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 and 15) south of Atlantic Avenue between Sixth and Vanderbilt Avenues, below-grade parking facilities in that area, and 8 acres of publicly accessible open space in that area. Phase I includes all components of the Project west of 6th Avenue and some components east of 6th Avenue; all Phase II components are east of 6th Avenue.

In June 2009, ESD approved a resolution adopting certain modifications to the 2006 MGPP as set forth in a second Modified General Project Plan (2009 MGPP). A Technical Memorandum (2009 Technical Memorandum) was prepared that described the proposed modifications, changes related to design development, changes to the Project's schedule, and changes in background conditions and assessed whether the Project as envisioned would result in any new or different significant adverse environmental impacts not previously identified in the FEIS. The 2009 Technical Memorandum discussed shifts in completion years for Phase I of the Project from 2010 to 2014, and full build-out from 2016 to 2019. In addition, the 2009 Technical Memorandum assessed the potential for a delayed completion of Building 1 (the commercial building on the Arena Block) as well as a post-2019 build-out scenario for the Project, for which 2024 was selected as a hypothetical completion year.

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In 2010, a second Technical Memorandum (the 2010 Technical Analysis) was prepared to comply with an Order of the Supreme Court for New York County dated November 9, 2010. The 2010 Technical Analysis evaluated the potential for new significant adverse environmental impacts not previously disclosed in the FEIS from a prolonged delay beyond the 2024 hypothetical completion year assessed in the 2009 Technical Memorandum. For analysis purposes, the potential post-2024 condition was assumed to extend to 2035.

In 2009 (on the basis of the FEIS and 2009 Technical Memorandum) and then in 2010 (on the basis of the FEIS, 2009 Technical Memorandum, 2010 Technical Analysis and other documents), ESD determined that a Supplemental Environmental Impact Statement (SEIS) was not required or warranted in connection with the 2009 MGPP. However, those determinations were challenged in a proceeding before the Supreme Court for New York County. In an Order dated July 13, 2011, the Court rejected the SEQRA challenges to Phase I of the Project, “[g]iven the extent to which construction of Phase I has already occurred, under a plan which has been subjected to and withstood challenge,” noting that “this is not a case in which the Project has been implemented without any prior ‘valid environmental review.’” However, the Order, while allowing Phase I of the Project to proceed, remanded “the matter...to ESD for further environmental review consistent with this decision, including preparation of a Supplemental Environmental Impact Statement assessing the environmental impacts of delay in Phase II construction of the Project; the conduct of further environmental review proceedings pursuant to SEQRA in connection with the SEIS, including a public hearing if required by SEQRA; and further findings on whether to approve the MGPP for Phase II of the Project.” In 2012, that Order was affirmed by the Appellate Division of State Supreme Court.

Scoping is the first step in the preparation of an SEIS, and provides an early opportunity for the public and other agencies to be involved in the SEIS process. It is intended to determine the range of issues and considerations to be evaluated in the EIS. This draft scope for the SEIS has been prepared to describe the Project, present the proposed framework for the SEIS analysis, and discuss the procedures to be followed in the preparation of the SEIS. The 2012 *CEQR Technical Review Manual* will serve as a general guide on the methodologies and impact criteria for evaluating potential effects on the various environmental areas of analysis.

B. PROJECT BACKGROUND

2006 FEIS

The Project analyzed in the 2006 FEIS involved the redevelopment of 22 acres in the Atlantic Terminal area of Brooklyn, New York. The project site is roughly bounded by Flatbush and 4th Avenues to the west, Vanderbilt Avenue to the east, Atlantic Avenue to the north, and Dean and Pacific Streets to the south (see **Figure 1**). The Project is a land use improvement and civic project of ESD, and would eliminate blighted conditions in the area by implementing development that would include a new Arena for the New Jersey Nets National Basketball Association team (which is now completed), along with commercial office and retail, possible hotel, open space, and residential uses, including affordable housing. The Project would also partially relocate, platform over, and improve the LIRR Vanderbilt Yard (rail yard), which, together with a New York City Transit (NYCT) yard for retired buses, occupies approximately nine acres of the project site. (The buses have been removed since completion of the FEIS.)

The FEIS analyzed two build years for the Project: 2010 (assuming completion of Phase I), which included development of the entire program slated for the project site west of 6th Avenue, the new LIRR rail yard and new parking facilities; and 2016 (assuming completion of Phase II),

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when the buildings at the eastern end of the project site—together with the Phase I development—were assumed to be developed and occupied. At full Build-Out, the approved Project would comprise the 150-foot-tall Arena and 16 other buildings with maximum heights ranging from approximately 184 feet to approximately 620 feet.

The FEIS examined two variations of the project program, reflecting what was anticipated as the range of reasonable worst-case development scenarios for the programming of three of the Project's 17 buildings: (1) a residential mixed-use variation containing approximately 336,000 gross square feet (gsf) of commercial office space, 165,000 gsf of hotel use (approximately 180 rooms), 247,000 gsf of retail space, and up to 6.4 million gsf of residential use (approximately 6,430 units); and (2) a commercial mixed-use variation, which would permit more commercial office use in three buildings closest to Downtown Brooklyn and would contain approximately 1.6 million gsf of commercial office space, 247,000 gsf of retail space, and up to approximately 5.3 million gsf of residential use (approximately 5,325 units). Both variations would provide eight acres of publicly accessible open space, and an enclosed, publicly accessible Urban Room. Both variations also assumed that community facility uses would occupy portions of the retail and residential space. In addition, both program variations included approximately 3,670 parking spaces (see **Table 1** and **Figures 2 and 3**). Finally, both variations included as part of the Project a new subway entrance at the southeast corner of Atlantic and Flatbush Avenues, which would provide direct pedestrian access at the western end of the project site to the Atlantic Avenue/Pacific Street subway complex. In addition, the Project as described in the FEIS also would include several roadway and pedestrian circulation changes near the project site.

Table 1
FEIS Residential and Commercial
Mixed-Use Variation Programs for 2010 and 2016

Uses [†]	Residential Mixed-Use Variation	Commercial Mixed-Use Variation
FEIS Analysis Year: 2010 (Phase I: Development of Arena Block and Site 5)		
Residential	2,085,000 gsf (2,110 units)	994,000 gsf (1,005 units)
Hotel (180 rooms)	165,000 gsf	0 gsf
Retail	91,000 gsf	91,000 gsf
Commercial	336,000 gsf	1,606,000 gsf
Arena	850,000 gsf	850,000 gsf
Parking (spaces)	2,346 spaces	2,346 spaces
Private Open Space	±1 acres	±1 acres
Publicly Accessible Open Space	0 acres	0 acres
FEIS Analysis Year: 2016 (Phase I and Phase II: Full Build-Out)		
Residential ¹	6,363,000 gsf (6,430 units)	5,272,000 gsf (5,325 units)
Hotel (180 rooms)	165,000 gsf	0 gsf
Retail ¹	247,000 gsf	247,000 gsf
Commercial	336,000 gsf	1,606,000 gsf
Arena	850,000 gsf	850,000 gsf
Parking (spaces)	3,670 spaces	3,670 spaces
Private Open Space	±1 acres	±1 acres
Publicly Accessible Open Space	8 acres	8 acres
Notes:		
¹ A portion of the retail and residential space is expected to house community facilities.		
[†] An additional 100,000 gsf, not included in this table, may be built for a public school at the project site.		

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2009 MODIFICATIONS

In June 2009, ESD approved a resolution adopting certain modifications to the 2006 MGPP in a revised Modified General Project Plan (the 2009 MGPP). In response to difficult economic conditions, the 2009 MGPP allowed the project sponsors (affiliates of Forest City Ratner Companies) to acquire the air rights over the rail yard and certain other areas of the Project site in stages, rather than all at once at the outset of the Project. In addition, certain design changes were made to the Project, such as the elimination of the private open space on the roof of the Arena; a height reduction of Building 1 to 511 feet so that this structure would match the height of the nearby Williamsburg Savings Bank building; changes to the arena footprint and design layout that resulted in a relocation of 100 parking spaces off the Arena Block; reconfiguration of the LIRR rail yard including a partial relocation of the LIRR drill track; retaining the existing 6th Avenue Bridge; and crosswalk widenings and other changes to lay-by lanes on the Arena Block.

PROJECT STATUS

Since approval of the project in December 2006, a number of project-related construction and design tasks have been undertaken. Key areas of construction include: clearance of most of the buildings on the Project site; completion and opening of the Arena, which is now known as Barclays Center; completion and opening of the new subway entrance on the Arena Block; the re-routing of water, sewer and utility lines around the Arena Block; a new water main on Atlantic Avenue; roadway modifications; work on the new LIRR rail yard and the new Carlton Avenue Bridge spanning the rail yard, construction of a surface parking lot on Block 1129; and commencement of the design of the first residential building (Building 2) on the Arena Block (on which ground was broken on December 18, 2012). Concurrently, ESD and the project sponsors have implemented many of the commitments and mitigation measures described in the FEIS and *Amended 2009 Memorandum of Environmental Commitments* (MEC) and have provided relocation assistance to residents and businesses displaced from the project site. ESD maintains an active website to provide updates on the Project and a venue for public information on the Project's construction.

Progress to date on key construction and mitigation tasks includes:

- **Site Clearance:** Abatement and demolition work has been completed across most of the project site.
- **Water and Sewer Improvements:** The water and sewer infrastructure work for Phase I of the Project has been substantially completed, including new sewer pipe installation along Flatbush Avenue, installation of a new water main on the west side of Flatbush Avenue, installation of a new trunk water main and associated distribution main along Atlantic Avenue, and the relocation of certain storm water drains and discharges.
- **Street Network and Roadway Improvements:** Portions of Pacific Street and 5th Avenue have been permanently closed, and the new traffic flow has been implemented. Traffic flow on Pacific Street between 4th and Flatbush Avenues has been reversed from one-way westbound to one-way eastbound. The segment of 4th Avenue between Atlantic and Flatbush Avenues has been converted to one-way southbound to improve traffic flow at the Flatbush Avenue/Atlantic Avenue/4th Avenue intersection. Curb extensions have been completed at various locations along Atlantic Avenue, Flatbush Avenue, Dean Street, Pacific Street and 4th Avenue. Work has begun on raised medians along Atlantic Avenue east of Flatbush Avenue.

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- **Rail Yard Reconfiguration:** Construction of the temporary LIRR rail yard has been completed. Work in anticipation of the new LIRR permanent rail yard is underway. Work related to the demolition and reconstruction of the Carlton Avenue Bridge, necessary for construction of the new yard and the bridge has been opened to traffic.
- **Subway Entrance:** The new subway entrance at the southeast corner of Atlantic and Flatbush Avenues has been completed and is operational.
- **Arena Construction:** Arena construction has been completed, and the arena was opened in September 2012.
- **Construction Impact Mitigation:** ESD has been monitoring the conformity of construction to the requirements of the MEC. Maintenance and Protection of Traffic (MPT) Plans have been implemented to minimize traffic disruption during construction. The project sponsors have offered double-glazed or storm windows and air conditioning units to all affected sensitive uses as identified in the FEIS (e.g., residential, community facility, houses of worship) to mitigate the project's noise impacts during construction. New York City Department of Buildings (DOB)-approved rodent control measures have been implemented on the project site. Measures such as vibration monitoring and Phase 1B archaeological studies have been taken to protect historic resources during construction. Construction equipment has been required to use low-sulfur fuel and diesel particulate filters.
- **Relocation:** Former project site residents and businesses have been provided with relocation offers by the project sponsors, and the majority of the buildings on the project site have been vacated.
- **Barclays Center Transportation Demand Management Final Plan (TDM Final Plan):** A TDM Draft Plan was presented to the local community and public officials in late May 2012 in preparation for the opening of the Arena. The primary goals of the Plan are to encourage transit use and to reduce the effects of auto use on the community. The Plan outlines measures to inform Arena patrons of mass transit options; enhance mass transit service during post-game peak hours; develop event day operational plans; reduce on-site parking on Block 1129 in the Arena-opening condition; encourage bicycling as a means to and from the Arena with the provision of free, secured bike parking for event ticket holders; and develop a coordinated parking system within the area. The public comment period on the Draft Plan closed on July 3, 2012 and a Final Plan was accepted by ESD in August 2012. Additionally, a program will be undertaken to observe transportation conditions and to assess the effectiveness of the TDM Plan. This program will include travel pattern surveys of event attendees and post-opening traffic study analysis at approximately 56 intersections in the vicinity of the Arena in early 2013. The Barclays Center TDM Final Plan may be adjusted as a result of data received from the program.

C. PREPARATION OF THE SEIS

As noted above, the Court has ordered ESD to prepare an SEIS assessing the environmental impacts of delay in Phase II construction of the Project, in compliance with SEQRA procedures. The proposed scope for this SEIS is described below. ESD requests public comment on the thoroughness and adequacy of this proposed scope, and whether it is consistent with the Court's Order.

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TASK 1. PROJECT DESCRIPTION

The first chapter of the SEIS will describe Phase I and Phase II of the Project and review Project modifications and timeline changes since issuance of the 2006 FEIS. It will indicate that the project site plan and design remain substantially the same as the project approved in 2006 and that the design changes that have occurred are all within in the design guidelines approved in 2006. The SEIS will describe the background and need for the SEIS. This chapter will discuss the Court Order, described above, allowing Phase I of the Project to proceed and ordering the preparation of an SEIS to assess the environmental impacts of a potential delay in Phase II construction. The chapter will explain that no significant changes to Phase II of the Project were approved in the 2009 MGPP and that the purpose of the SEIS is to determine whether construction of Phase II with a potential 2035 “build year” (the year of assumed construction completion is called the “build year” in SEQRA documents) would have new or different significant environmental impacts than construction of Phase II with the 2016 build year that had been used in the FEIS. The chapter will explain that the SEIS will also examine whether the mitigation for Phase II imposed by ESD in 2006 (based on the FEIS and its 2016 build year) should be adjusted to account for a potential delay in the build year for Phase II, and whether any additional mitigation should be imposed on Phase II to account for any new or different environmental impacts from the potential delay in Phase II construction.

TASK 2. ANALYSIS FRAMEWORK

This chapter will outline the analysis framework to be utilized to comply with the Court’s Order. It will identify the analysis years and project phasing, and describe the program and sequencing that will be assessed in the SEIS. In addition, the chapter provides an overview of the analytical framework used to guide the SEIS technical analyses presented in subsequent chapters of the document.

The Phase II development is to include 4,324 dwelling units and 156,007 square feet of local retail in 11 buildings to be located on blocks 1120, 1121, 1128 and 1129 to the east of 6th Avenue. The local retail space may also house community facility uses, and Phase II may also include a New York City public school. The SEIS analysis will assume that the Phase II program will be the same as approved in the 2006 MGPP and 2009 MGPP, but will assume a later Build Year (the “Extended Build-Out Scenario”). With respect to potential operational impacts, the SEIS will assume the outside 2035 analysis year as the Phase II Build Year. In addition, the SEIS will include a detailed construction-period analysis for Phase II using three construction phasing scenarios (discussed below) that consider concentrated periods of construction as well as less concentrated but more continuous construction for an extended period of time.

DEFINING THE BASELINE CONDITIONS

Background conditions and the status of known development projects anticipated for completion through 2035 will be updated for the study areas examined in the FEIS. Updates to the No Build list (that is, the list of development projects that would be built with or without the Project) will be made through review of various sources, including DOB permits, identification of construction sites, and review of project lists compiled by various organizations and agencies including Downtown Brooklyn Council, New York City Economic Development Corporation, New York City Department of City Planning, and New York City Department of Housing Preservation and Development.

Because the Court’s Order is limited to the consideration of a delay in the Phase II construction activity, Phase I of the Project—including the Arena and the other Project buildings west of 6th

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Avenue and the new roadway configurations for the area and the parking plans for Phase I of the Project—will be assumed to be constructed and to be part of the background condition. Thus, all Phase I elements of the Project, including associated mitigation measures as well as any recent changes to the traffic network, will be assumed as part of the baseline conditions for the Future Without Phase II (2035).

The SEIS will analyze those technical areas that may be affected by changes to background conditions related to delayed Phase II completion or for which Phase II mitigation commitments were made in the FEIS (in order to determine whether such Phase II mitigation would remain adequate under the Extended Build-Out Scenario). Background conditions will be updated to include the following:

- The most recent available enrollment and capacity data for public schools and publicly funded day care centers and enrollment projections for public schools;
- An updated open space inventory and conditions survey as well as projected population demands for open space resources based on latest available 2010 Census data;
- New traffic counts at analyzed intersections and pedestrian counts at analyzed sidewalks, corner reservoir areas and crosswalks to account for the passage of time and for new vehicular and pedestrian demand and circulation patterns;
- New pedestrian counts at analyzed subway station elements to account for the passage of time and operations at the Project's new subway entrance;
- Current subway and local bus line haul data from the MTA to account for the passage of time and operations of the Project's new subway entrance;
- New noise measurements at locations surrounding the project site, using L_{10} , and $L_{eq(1)}$ noise descriptors to assess changes in noise levels due to new traffic circulation patterns.

Background conditions related to transportation analyses will be developed in coordination with and supplemented by a data collection program to be conducted during the initial season of Nets basketball games at the Arena, which is part of the Barclays Center TDM Final Plan, as described above.

OPERATIONAL IMPACTS ASSESSMENT

The SEIS chapters examining the relevant technical areas will provide a description of “Existing Conditions” for 2013 and assessments of future conditions in 2035 without Phase II (“Future Without Phase II”) and with Phase II (“Future With Phase II”). The SEIS will assess the environmental impacts of the Future With Phase II compared to the Future Without Phase II, assuming a 2035 Build Year. Mitigation measures proposed for the Extended Build-Out Scenario will be compared to those identified in 2006 FEIS for full Build-Out (discussed below in Task 3). Differences between the two will be discussed including the need for new measures or adjustments to the FEIS mitigation.

Analysis Areas Not Included For Detailed Impact Assessment

There are technical areas of analyses that would not be affected by a delayed completion and operation of the Phase II development. The analyses not included for detailed assessment in the SEIS and the rationales for screening out these analysis areas are noted below.

Land Use, Zoning, and Public Policy—Because the Phase II program remains unchanged from that assessed in the 2006 FEIS and there are no new or proposed modifications to the previous land use, zoning, and public policy determinations, there would be no changes to the FEIS

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conclusion that upon completion the Project would not result in significant adverse impacts with respect to land use, zoning, and public policy as a result of the Extended Build-Out Scenario. *Cultural Resources*—The delay in the completion of the Phase II Build-Out would not result in different effects to archaeological or architectural resources that were not previously identified in the FEIS. Delayed construction would not change the stipulations in the Letter of Resolution among ESD, the project sponsors, and the New York State Office of Parks, Recreation and Historic Preservation. Therefore, the Extended Build-Out Scenario would not have any significant adverse impacts on cultural resources that were not previously identified in the FEIS.

Urban Design and Visual Resources—Because the Phase II buildings' bulk, uses, the type or arrangement of the buildings, and open space layout remains unchanged from that assessed in the 2006 FEIS and there are no new or proposed modifications, the delayed completion of the Phase II Build-Out would not affect the conclusions of the 2006 FEIS.

Shadows—The FEIS identified significant adverse shadow impacts on an open space resource at the Atlantic Terminal Houses and mitigation was developed to improve that open space. Also, incremental shadows on the Church of the Redeemer from the Project building on Site 5 would reduce light through its stained glass windows. The project sponsors and the Church reached an agreement to undertake measures to offset and address the shadow impacts. The Extended Build-Out Scenario would not affect the Phase II massing envelopes as described in the FEIS and therefore, would not result in any new shadows as a result of the Extended Build-Out Scenario. The stipulations in the Amended Memorandum of Environmental Commitments with respect to the Atlantic Terminal Houses open space and the Church of Redeemer would not be affected by a delayed Phase II Build-Out.

Hazardous Materials—The delay in the completion of the Phase II Build-Out would not affect the conclusions in the 2006 FEIS for hazardous materials. Construction and development of the Phase II components would have the same potential for exposure and require the same commitments as described in the FEIS and Amended Memorandum of Environmental Commitments. *Infrastructure*—A delay in the completion of Phase II would not affect the Project's Phase II programming in a manner that would alter the infrastructure demands of the Project, nor would it obviate the project sponsors' obligations for the provision of adequate infrastructure including water supply, sanitary sewerage, measures to control stormwater runoff, solid waste management, and energy.

Air Quality (Stationary Sources)—Because the Phase II program remains unchanged from that assessed in the 2006 FEIS, no changes are expected related to the stationary sources' location or emissions intensity. Due to more stringent regulations and more efficient technologies, emissions from stationary and other sources are expected to be lower in future years than that assumed in the 2006 FEIS, and consequently, background concentrations are expected to be lower as well. Thus, the stationary source impacts are expected to be the same or lower than those presented in the 2006 FEIS, and the delay in the completion of the Phase II Build-Out would not affect the conclusions of the FEIS.

Public Health—The delay in the completion of the Phase II Build-Out would not affect the FEIS conclusions that the Project would not result in significant adverse environmental impacts with respect to public health.

CONSTRUCTION PERIOD IMPACTS ASSESSMENT

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The SEIS will include a detailed construction-period analysis for Phase II using three construction phasing scenarios (discussed below in Task 4) that consider concentrated periods of construction as well as less concentrated but more continuous construction for an extended period of time. Mitigation measures proposed to address significant adverse impacts from construction related to the Phase II Build-Out will be compared to those identified in 2006 FEIS. Differences between the two will be discussed including the need, if any, for new measures or adjustments to the FEIS mitigation.

Analysis Areas Not Included For Detailed Assessment

There are technical areas of the construction analyses that would not be affected by the extended construction period for the Phase II development. Those analyses not included for detailed construction assessment in the SEIS, and the rationales for screening out these analysis areas are noted below.

Cultural Resources—An extended construction period for the Phase II Build-Out would not result in different effects to archaeological or architectural resources that were not previously identified in the FEIS. Delayed construction and modifications to the construction sequencing would not change the stipulations in the Letter of Resolution among ESD, the project sponsors, and the New York State Office of Parks, Recreation and Historic Preservation. The project sponsors would continue to implement a Construction Protection Plan (CPP) to avoid construction-related impacts on historic resources within 90 feet of Project construction. Therefore, construction of the Extended Build-Out Scenario would not have any significant adverse construction impacts on cultural resources that were not previously identified in the FEIS.

Shadows—Delayed construction and modifications to the construction sequencing of the Phase II Build-Out would not affect the Phase II massing envelopes as described in the FEIS and therefore, would not result in any new shadows as a result of the Extended Build-Out Scenario.

Hazardous Materials—The delay in the construction of the Phase II Build-Out would not affect the conclusions in the 2006 FEIS for hazardous materials impacts from construction activities. Construction and development of the Phase II components would have the same potential for exposure and require the same commitments as described in the FEIS and Amended Memorandum of Environmental Commitments. While the Extended Build-Out Scenario would affect the timing of the construction of the buildings, it would not result in changes to the footprint of the Project site or commitments to implement a Construction Health and Safety Plan, community air monitoring plan during excavation, and other remediation measures; and thus, the delayed construction would not affect the analysis presented in the FEIS.

Infrastructure—A delay in the construction of the Phase II Build-Out would not affect the Project's Phase II programming in a manner that would alter the infrastructure demands of the Project during construction, nor would it obviate the project sponsors' obligations for the provision of adequate infrastructure including water supply, sanitary sewerage, measures to control stormwater runoff, solid waste management, and energy during construction.

Public Health—The delay in the construction and modifications to the construction sequencing of the Phase II Build-Out would not affect the FEIS conclusions that the Project would not result in significant adverse construction-related environmental impacts with respect to public health.

TASK 3. OPERATIONAL ANALYSIS

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SOCIOECONOMIC CONDITIONS

The updated analysis will determine whether changed background conditions and the Extended Build-Out Scenario would result in any significant adverse impacts not previously disclosed. While the project commitments related to the provision of on-site affordable housing and its associated qualifying income tiers remain unchanged since the FEIS, the SEIS will discuss whether the Extended Build-Out Scenario would alter any conclusions in the FEIS. The updated analyses will be conducted pursuant to the 2012 *CEQR Technical Manual* methodology.

COMMUNITY FACILITIES AND SERVICES

The Community Facilities and Services chapter will provide an updated analysis of public schools and publicly funded day care facilities. These facilities are included in the analysis because the 2006 FEIS and the Amended Environmental Commitments Memorandum identified mitigation commitments for impacts to these facilities as a result of the Phase II development. To partially mitigate the significant adverse impacts on public schools, the Project sponsors committed to offer space for the construction of an elementary and intermediate public school in one of the Phase II buildings by the New York City School Construction Authority. Additionally, because the Project would increase the demand for publicly funded child care facilities in the study area, the Project sponsors are obligated to arrange for the long-term operation of a licensed child care center that can accommodate at least 100 children with publicly funded vouchers and to assess child care enrollment and capacity in the study area as the Project progresses, and work with the Administration for Children's Services to meet project-generated demand through the provision of additional child care capacity either on-site or in the vicinity of the site.

The updated analyses of both public schools and publicly funded day care centers will compile the most recent available enrollment and capacity data and will project conditions in the Future With Phase II based on the updated list of development projects and, in the case of public schools, the most recent available enrollment projections. The updated analyses will be conducted pursuant to the 2012 *CEQR Technical Manual* methodology.

The updated analyses will determine whether the changed background conditions and the Extended Build-Out Scenario would result in any significant adverse impacts not previously disclosed and whether any additional mitigation measures beyond those identified in the FEIS and the Amended Environmental Commitments Memorandum, or changes to the implementation timeline would be warranted.

OPEN SPACE

The FEIS identified a temporary significant adverse open space impact in the non-residential (¼-mile) study area during Phase II construction. This temporary open space impact would continue for a longer duration under the Extended Build-Out Scenario but would be addressed upon completion of the Phase II open space. Moreover, as each of the Phase II buildings is completed, the adjacent open space would be provided in conformance with the 2006 Design Guidelines, thereby offsetting some of this temporary open space impact. The SEIS analysis will include updates to the area's open space inventory and conditions, and project new population demands for open space resources. The assessment will determine whether changed background conditions and the Extended Build-Out Scenario would result in any impacts not previously disclosed, and whether any additional mitigation measures would be warranted.

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TRANSPORTATION

The Transportation analyses will focus on the effects of the Phase II development with a 2035 completion year. As noted above, the Phase II development would include 4,324 dwelling units and 156,007 square feet of local retail in 11 buildings to be located on blocks 1120, 1121, 1128 and 1129 to the east of 6th Avenue. The Phase I development on the Arena Block and Site 5 is expected to be completed prior to the completion year and will be reflected in the future baseline condition with updated programming information for the B2 building currently under construction. Two program variations for Phase I development were assessed in the 2006 FEIS; a residential mixed-use scenario with 2,110 dwelling units, 336,000 gsf of office space, and an 180-room hotel, and a commercial mixed-use scenario with 1,005 dwelling units and 1,606,000 gsf of office space. Both of these scenarios would also include the arena, 91,000 gsf of local retail space and 3,670 on-site parking spaces. The commercial mixed-use variation was analyzed for the weekday peak hours in the FEIS as it would generate a greater amount of travel demand during these periods, whereas the residential mixed-use variation was analyzed for the Saturday peak periods. The SEIS Future Without Phase II transportation analyses will therefore reflect the commercial mixed-use variation for weekday peak hours and the residential mixed-use variation for any Saturday peak hours analyzed, consistent with the FEIS analyses. The SEIS analyses will conform to the methodologies and criteria in the 2012 *CEQR Technical Manual*.

Traffic

- The Phase II development program being analyzed would primarily consist of residential, local retail and community facility uses. As per typical *CEQR Technical Manual* requirements for this type of development, the SEIS traffic analysis will focus on the weekday AM and PM residential commuter peak periods as well as the weekday and Saturday midday periods, which are peak periods for retail activity. Although the substantial amount of travel demand generated by the Arena itself will be reflected in the Future Without Phase II condition, an analysis of the weekday pre-game peak hour will also be included to assess the potential effects of Phase II residential commuter demand during a period of peak arena activity. The weekday and Saturday post-game peak periods for arena demand that were analyzed in the FEIS will not be included.
- The traffic analysis study area will consist of those intersections at which the development of Phase II would result in the addition of 50 or more peak hour vehicle trips, as well as any other intersections analyzed in the 2006 FEIS that were identified as being significantly adversely impacted by project-generated traffic in one or more peak hours in the FEIS. The specific number of intersections to be analyzed for the SEIS will be determined based on the assignment of Phase II vehicle trips and a review of the impact assessment in the FEIS.
- Travel demand that would be generated by the Arena in the Future Without Phase II will be based on the travel demand forecast in the 2006 FEIS and validated/refined using survey data to be collected during the first Nets season played at the Arena. Current census and American Community Survey data, and standard references including the 2012 *CEQR Technical Manual*, will be used to update the travel demand forecast for other Phase I components (residential and commercial) as well as forecast demand from other significant development sites planned in the vicinity of the study area by the 2035 analysis year. The Future Without Phase II traffic network will also reflect all changes to the street network, including project site street closures, planned as part of the Phase I

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development. Mitigation measures accepted for all Future Without Phase II projects and other NYCDOT initiatives will be included in the Future Without Phase II network, as applicable. The on-going event day traffic program will also be discussed.

- Along with demand from Phase I development and any other significant Future Without Phase II development projects, the 2035 Future Without Phase II traffic network will also include background growth based on a rate of 0.25 percent per year for years one through five, and 0.125 percent per year for subsequent years, as recommended in the 2012 *CEQR Technical Manual* for areas in the vicinity of Downtown Brooklyn. New vehicle trips from Phase II development will be applied to this 2035 Future Without Phase II baseline condition to assess the potential for significant adverse traffic impacts.

Transit

The subway station analysis in the 2006 FEIS examined conditions at a total of six stations where project-generated demand is expected to exceed the *CEQR Technical Manual* analysis threshold of 200 trips per hour: the Atlantic Avenue IRT (2,3,4,5), Atlantic Avenue BMT (B,Q) and Pacific Street BMT (D,N,R) stations (collectively referred to in the FEIS as the Atlantic Avenue/Pacific Street station complex); the Bergen Street IRT (2,3) station; the Lafayette Avenue IND (C) station; and the Fulton Street IND (G) station. The project sponsors, subsequent to the FEIS, made arrangements to have the Atlantic Avenue/Pacific Street station renamed Atlantic Avenue – Barclays Center station. Conditions at each of these stations were analyzed in the FEIS for the weekday 8-9 AM and 5-6 PM commuter peak periods, and the weekday 7-8 PM (pre-game) peak hour for an event at the arena.

Phase I development in the Future Without Phase II condition includes construction of a major new on-site street-level entrance and other internal circulation improvements at the southern end of the Atlantic Avenue – Barclays Center station complex. These improvements are expected to attract the majority of new project-generated demand from both Phase I and Phase II development, as well as some non-project demand that would otherwise use existing subway station stairways, corridors and fare arrays. Along with demand from the Phase I development and any other significant Future Without Phase II development projects, the 2035 Future Without Phase II transit (subway and bus) analyses will also include background growth based on a rate of 0.25 percent per year for years one through five, and 0.125 percent per year for subsequent years, as recommended in the 2012 *CEQR Technical Manual* for areas in the vicinity of Downtown Brooklyn.

- Based on the travel demand forecast in the 2006 FEIS, the residential and local retail development associated with Phase II would not result in the addition of 200 or more trips per hour in any peak period at the Bergen Street IRT, Lafayette Avenue IND and Fulton Street IND stations. Therefore, the analysis of subway station conditions in the SEIS will focus on the three stations comprising the Atlantic Avenue – Barclays Center station complex, with conditions at these stations analyzed for the weekday 8-9 AM and 5-6 PM commuter peak hours and the weekday 7-8 PM (pre-game) peak hour, consistent with the subway station analysis in the FEIS. An analysis of subway line haul conditions during the weekday AM and PM peak hours will also be provided, consistent with the line haul analysis in the FEIS.
- Analysis of local bus conditions in the SEIS will include those bus routes located within ¼-mile of the Phase II development sites. The analysis will focus on conditions in the peak direction at the maximum load point for each route during the weekday 8-9 AM and 5-6 PM commuter peak hours, consistent with the analysis in the FEIS.

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Pedestrians

- Pedestrian demand generated by Phase II development is expected to be most concentrated on those sidewalks, corner areas and crosswalks located immediately adjacent to the development sites as well as along pathways between these sites and the new entrance to the Atlantic Avenue–Barclays Center station complex. The pedestrian analysis in the SEIS will therefore focus on sidewalks, corner areas and crosswalks adjacent to blocks 1120, 1121, 1128 and 1129, as well as those adjacent to the Arena Block that would be used by Phase II subway users. Pedestrian facilities adjacent to Site 5 and along the Sixth Avenue corridor that were analyzed in the FEIS will not be analyzed in the SEIS, as these facilities are not expected to be used by appreciable numbers of Phase II pedestrians. The SEIS analysis of pedestrian conditions will focus on the weekday AM and PM commuter peak periods as well as the Saturday 1-2 PM midday peak period for retail demand. Although the substantial amount of travel demand generated by the arena itself will be reflected in the Future Without Phase II condition, an analysis of the weekday 7-8 PM pre-game peak hour will also be included to assess the potential effects of Phase II residential commuter demand during a period of peak arena activity.
- Along with the Phase I improvements to the Atlantic Avenue–Barclays Center station complex, demand from Phase I development and any other significant Future Without Phase II development projects, the 2035 Future Without Phase II pedestrian analysis will also include background growth based on a rate of 0.25 percent per year for years one through five, and 0.125 percent per year for subsequent years, as recommended in the 2012 *CEQR Technical Manual* for areas in the vicinity of Downtown Brooklyn. Pedestrian demand from Phase II development will be applied to this 2035 Future Without Phase II baseline condition to assess the potential for significant adverse pedestrian impacts.

Parking

Under both the commercial and residential variations, sufficient parking spaces will be provided on-site to accommodate all of the anticipated demand from the Atlantic Yards Project's commercial and residential components, as well as a portion of the demand from the Arena. Updated parking forecasts for the Phase II development will be prepared to document that on-site parking capacity would remain sufficient to accommodate this demand during the overnight peak period for residential demand and the weekday and Saturday midday peak periods for retail demand.

AIR QUALITY (MOBILE SOURCES)

Operational analyses will be limited to potential impacts that may be worse than presented in the FEIS due to changes in the Project's completion schedule.

Compared to the FEIS, emissions from on-road (mobile sources) due to changes in the project's construction schedule are not anticipated to be significant. If potential increases in concentrations relative to the FEIS analysis are expected or if locations with potentially higher traffic volumes than the reasonable worst-case analyses presented in the FEIS are identified, detailed mobile source analyses will be prepared for carbon monoxide (CO) and particulate matter (PM), as necessary.

NOISE

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A summary of the environmental analysis findings to date as they relate to operational noise impacts will be provided. This chapter of the SEIS will be updated to account for passage of time and changes to the traffic network configuration. The analysis for Phase II will address: 1) the effect of Phase II on noise levels in the adjacent community and 2) noise levels in the Phase II buildings. The analysis will include the following tasks:

- *Noise descriptors and Noise Receptors.* Consistent with CEQR requirements, the L_{10} , and $L_{eq(1)}$ noise descriptors will be used for the noise analysis. The 12 noise receptors used for the detailed noise analysis in the FEIS will again be used for the SEIS analysis.
- *Determine existing noise levels.* Existing noise levels will be determined primarily by field measurements. Measurements will be made during a maximum of seven time periods—the weekday AM peak, weekday midday, weekday PM peak, weekday evening, weekday late night, Saturday midday, and Saturday PM peak. At some locations continuous 24-hour noise measurements, rather than spot 20-minute measurements will be made. Measurements will be made using a Type I noise analyzer and will include measurements of L_{eq} , L_1 , L_{10} , L_{50} , and L_{90} noise levels. Where necessary, measurements will be supplemented by mathematical model results to determine an appropriate base of existing noise levels.
- *Determine future noise levels with and without Phase II for 2035.* A screening analysis will be performed using proportional modeling techniques to determine whether there are any locations where there would be the potential for significant adverse noise impacts. For those locations with the potential for significant adverse noise impacts, a detailed analysis will be performed using the TNM model.
- *Determine compliance with CEQR interior noise level requirements.* An analysis will be performed to determine the level of building attenuation necessary to achieve compliance with CEQR interior level requirements.
- *Examine mitigation measures.* Recommendations of measures to attain acceptable interior noise levels and to reduce noise impacts to within acceptable levels will be made, if practicable.

This chapter will also compare any proposed mitigation measures for the full Build-Out of the Project to those identified in the FEIS.

NEIGHBORHOOD CHARACTER

A summary of the environmental analysis findings to date as they relate to operational impacts on neighborhood character will be provided.

This chapter will provide an analysis to determine whether changed background conditions and the Extended Build-Out Scenario would result in any impacts not previously disclosed, and whether any mitigation measures would be required.

TASK 4: CONSTRUCTION IMPACTS

The 2006 FEIS found that construction would be disruptive to the surrounding area and nearby residential buildings during the period of construction. Overall, the 2006 FEIS analysis found that there would be significant adverse impacts during Phase II construction with respect to construction-related traffic impacts on the local street network, construction-related noise impacts, the demolition of an historic building, the former LIRR Stables at 700 Atlantic Avenue

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(the former Ward Bread Bakery complex at 800 Pacific Street has already been demolished), open space, and local neighborhood character.

The SEIS will assess the potential for impacts during the Phase II construction period through 2035 under the following construction scenarios:

- A. 2035 Year Completion – Continuous sequential phasing of Phase II construction;
- B. 2035 Year Completion – Continuous sequential phasing of Phase II construction, with Block 1129 in earlier build-out;
- C. 2035 Year Completion – Start and stop sequential phasing of Phase II construction with intense construction activities.

The potential change in construction phasing will be examined to confirm that the greatest potential for significant adverse impacts are captured. It is possible that some or all of the buildings planned for Phase II would be constructed using prefabricated, or modular, construction techniques, in that steel-frame modules would be built offsite in a factory and then transported to the site, assembled together, and finished. Construction schedules, phasing plans, staging plans, and anticipated construction procedures (i.e., standard vs. modular construction) will be developed for Phase II. Representative snap shots of the development area over the course of the construction period will be prepared to show locations of completed/occupied sites, locations and logistics of on-going construction activities, and access/egress locations of permanent and temporary parking facilities. For the purposes of analyzing the reasonable worst-case development scenarios for construction, construction impacts will be evaluated for the periods when maximum potential impacts are expected during construction activity. The construction analysis will, where relevant, discuss differences in potential impacts related to on-site standard and modular construction techniques. Technical areas that will be the focus of the analysis include:

LAND USE, ZONING, AND PUBLIC POLICY

This section will assess whether Phase II construction activities related to the various Extended Build-Out scenarios would result in any land use, zoning, and public policy impacts not previously disclosed in the FEIS, and whether any additional or different mitigation measures would be required. Sites not under active construction would be maintained under existing conditions such as the continued existence of the open rail yard or would have interim uses such as for construction parking and staging areas or surface parking for a prolonged period. The duration and geographical extent of any identified impacts will be provided.

SOCIOECONOMIC CONDITIONS

A summary of the environmental analysis findings to date as they relate to construction impacts on socioeconomic conditions will be provided. This section will then provide an analysis of whether the extended Phase II construction activities could affect socioeconomic conditions in the area surrounding the project site. Current land and building occupancy/vacancy in the ¼-mile study area, visual conditions on site during construction, and the schedule for building demolition and occupancy will be described. These current conditions, construction period visual conditions, and building and occupancy schedules will serve as the basis for an assessment regarding the effects of the construction of the Extended Build-Out Scenario on existing businesses and residents surrounding the project site. Specifically, the analysis will consider whether a delay in construction of Phase 2 under the Extended Build-Out scenarios would create conditions that would lead to substantial residential or business disinvestment in the areas surrounding the project site or whether construction activities associated with the various Extended Build-Out

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scenarios would create conditions that could lead to substantial residential or business disinvestment. The assessment will be supported by case studies of other locations within New York City that have experienced extended construction activities and/or construction delays in order to determine whether such activities have led to changes in property values or neighborhood conditions that in turn resulted in significant adverse socioeconomic impacts due to disinvestment in the immediately surrounding neighborhoods. This section will also provide an analysis of the Phase II construction period benefits for both the residential mixed-use and commercial mixed-use scenarios, as well as any potential changes in construction benefits due to the incorporation of modular construction techniques. The results of this analysis will be compared to the analysis presented in the FEIS.

COMMUNITY FACILITIES

A summary of the environmental analysis findings to date as they relate to construction impacts on existing community facilities in the study area will be provided. The Project includes space for both a public school and a public child care facility. This section will examine whether the timing of the construction of these facilities under the extended construction scenarios could affect the adequacy of public school seats and public day care spots in the study areas examined in the FEIS and subsequent Technical Memoranda.

OPEN SPACE

A summary of the environmental analysis findings to date as they relate to construction impacts on open space will be provided. The offsetting of construction-period Phase II open space resulting from the MGPP and Design Guideline requirements to provide open space adjacent to each building as the building is completed will be discussed.

This section will analyze the impacts of construction phasing on the provision of on-site open space, including any proposed interim open space. The differences between phasing for interim open space under the Extended Build-Out construction scenarios will be discussed in comparison to the FEIS. Using the 2012 *CEQR Technical Manual* methodologies for indirect assessment of open space, a quantitative analysis of the potential impacts of the various construction phasing scenarios on study area open space ratios will be conducted. The quantified analysis will be performed for discrete snap shots taken upon completion of construction on each of the four blocks that comprise the Phase II site and will estimate changes in open space ratios for these snapshots. Descriptions of proposed interim open spaces will also be provided.

URBAN DESIGN AND VISUAL RESOURCES

A summary of the environmental analysis findings to date as they relate to construction impacts on urban design and visual resources will be provided. The FEIS characterized the Project site as an area with a below-grade open rail yard, commercial/warehousing uses, bus storage, and low-rise building forms that differed from the surrounding area. Since the FEIS, most of the buildings on the Project's Phase II footprint have been removed but the below-grade open rail yard still comprises a significant area of the Phase II Project site. Under the Extended Build-Out construction scenarios, there would be incremental realization of the Project as buildings are completed. Nonetheless, sites not under active construction would be maintained under existing conditions such as the continued existence of the open rail yard or would have interim uses such as for construction parking and staging or surface parking for an extended period. A preliminary assessment of urban design and visual resources will be prepared for the Phase II construction period, following the guidelines of the 2012 *CEQR Technical Manual*. The preliminary assessment will evaluate whether any of the potential construction scenarios would create a

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change to the pedestrian experience that is sufficiently significant—in comparison to the Project as evaluated in the FEIS—to require greater explanation and further study. If warranted based on the preliminary assessment, a detailed analysis of urban design and visual resources will also be prepared. The study area for this analysis will be consistent with the study area analyzed in the 2006 FEIS. If required, the detailed analysis will include photographs of existing conditions within the study area, and illustrative representations of the construction period scenarios. The proposed visual aesthetic treatments on and around the Project site (with particular emphasis on parcels fronting Dean Street) will be discussed. The analysis will consider the degree to which the construction period scenarios with the extended interim uses on the Project site, in combination with changes in background conditions since the FEIS, would result in a change to the built environment's arrangement, appearance, or functionality in comparison to the scenario analyzed in the FEIS, such that the change would negatively affect a pedestrian's experience of the area. The analysis of urban design and visual resources will be organized around the snapshots depicting conditions at various stages of construction.

TRANSPORTATION

Detailed weekday and weekend construction trip estimates and daily profiles will be developed based on the construction schedules and worker/truck delivery projections. Anticipated construction logistics, site access, general maintenance and protection of traffic, and construction worker parking accommodations will be discussed and considered in the evaluation of potential transportation impacts during construction, including differences between on-site standard and modular construction techniques.

Traffic

Peak construction traffic scenarios will be selected for analysis based on the trip estimates discussed above, considering varying roadway conditions, worker parking, truck access, and operational traffic expected from completed components of the Phase II project. A comparison of the cumulative construction-generated and operational traffic for various analysis snapshots to the operational traffic expected from the completion of the Phase II project will also be provided. Assignment of the projected construction and operational trips will be prepared and compared to the Phase II completion traffic analysis results to determine the appropriate study areas for the construction traffic impact analysis. Using the assumptions and methodology detailed in the FEIS, updated where appropriate for background growth and 2012 *CEQR Technical Manual* guidance, significant adverse traffic impacts anticipated to occur during construction will be identified. Mitigation measures recommended as part of the operational analysis or other practicable improvement measures (including those identified in the FEIS) will be examined for their appropriateness to mitigate traffic impacts during construction.

Transit

Similar to the FEIS, a qualitative assessment of construction worker trip-making via transit will be provided. Temporary relocation of area bus stops will also be addressed.

Pedestrians

As with the FEIS, pedestrian bridges and temporary walkways are expected to be maintained throughout Phase II construction to facilitate pedestrian flow surrounding the construction sites. As such, a qualitative assessment of pedestrian trips generated by the projected construction workers will be provided. In addition, the potential effects of reduced walkway capacities on pedestrian flow along key pedestrian corridors during critical periods (e.g., when Arena patrons are leaving events and are en route to nearby parking facilities) will be assessed.

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Parking

An estimate of construction worker parking demand and a description of available permanent and temporary parking resources for various stages of Phase II construction will be developed and compared to the amount of parking provided by the project sponsors, to determine the potential effects the construction worker parking demand may have on the area's parking resources.

AIR QUALITY

A quantitative air quality analysis will be conducted to determine the potential for air quality impacts due to on-site construction activities and project-generated traffic (mobile sources) on local roadways. Differences in air quality emissions and potential impacts between on-site standard and modular construction techniques will be discussed. The analysis will include the following tasks:

Mobile Source Analysis

- The mobile source analysis will be performed for nearby roadway intersections using information provided in the traffic analysis. The concentration increments are expected to be less than those predicted in the FEIS. Screening and/or detailed dispersion modeling will be prepared as necessary. The pollutants of concern include CO and PM. Nitrogen Dioxide (NO₂) will be discussed qualitatively.

On-Site Analysis

- *Identify Scenarios for Analysis.* A detailed profile of emissions throughout project construction will be prepared, including all on-site engines averaged on an annual and short term (24 hours or less) basis for each of the three construction scenarios identified in the framework for analysis. Reasonable worst-case analysis periods will be determined based on the highest emissions and accounting for the location of sources and sensitive receptors in all construction periods. The analysis will include one annual period and one short-term period representing one of the 2035 year completion scenarios. The effects of construction activities on occupied/completed sites will also be examined for each of these analyses.
- *Dispersion Analysis.* For each reasonable worst-case period identified for analysis, a dispersion analysis will be prepared, and the resulting worst-case concentrations will be presented. Air pollutant sources will include non-road engines (e.g., cranes, excavators) and on-road engines operating on-site, as well as on-site activities that generate fugitive dust (e.g., excavation, demolition). The pollutants of concern include CO, PM, and NO₂. Annual average NO₂ will be included in the quantitative analysis and 1-hour average NO₂ will be discussed qualitatively.

Impact Determination

- *Total Combined Impact.* For pollutants subjected to quantitative analysis, the combined air quality impact from both mobile and stationary sources will be determined by combining results from both analyses by time period and location.
- *Analysis of Results.* For pollutants subjected to quantitative analysis, the potential for significant impacts will be determined by a comparison of the combined total concentrations to the National Ambient Air Quality Standards (NAAQS), and by comparison of the predicted increase in concentrations to applicable CEQR thresholds.
- *Mitigation.* If new significant adverse impacts are identified, mitigation measures will be identified and analyzed.

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NOISE

The analysis will include the following tasks:

- *Noise descriptors and Noise Receptors.* Consistent with CEQR requirements, the $L_{eq(1)}$ noise descriptors will be used for the construction noise analysis. The 25 noise receptors previously used for the detailed construction noise analysis in the FEIS will again be used for this supplement analysis.
- *Determine existing noise levels.* Existing noise levels will be determined primarily by field measurements. Measurements will be made during the quietest weekday daytime period at each of the 25 receptor sites. In addition, measurements will be made during the quietest nighttime/weekend time periods at sites which would be affected by nighttime and weekend construction activities. At some locations continuous 24-hour noise measurements, rather than spot 20-minute measurements will be made. Measurements will be made using a Type I noise analyzer and would include measurements of L_{eq} , L_1 , L_{10} , L_{50} , and L_{90} noise levels. Where necessary, measurements will be supplemented by mathematical model results to determine an appropriate base of existing noise levels.
- *Determine future noise levels with construction.* Detailed noise analyses will be performed using the same modeling approach used in the FEIS to determine noise levels with construction activities. Detailed noise calculations will be performed for each of the three construction build scenarios. A maximum of one time period (i.e. day) in each year of construction will be selected for analysis for each of these build scenarios. Typically, the selected time period is during the 3-month span during which the most construction equipment is expected to be operating on site. This determination will be based on a detailed construction equipment and activity schedule. The detailed calculations will include predictions at multiple elevations at each of the receptors. The detailed analyses will be performed using the Cadna and TNM models.
- *Compare the change in predicted noise levels with impact criteria.* The change in noise levels during the construction period for each of the various build scenarios to be subject to detailed construction noise analyses will be compared to CEQR noise impact criteria to determine the locations where significant construction noise impacts are predicted to occur. For each receptor site, the duration of predicted significant impacts for each of the construction scenarios will be determined.
- *Examine mitigation measures.* Assess FEIS commitments and identify recommendations regarding mitigation measures that are effective, feasible and practicable.

Lastly, differences in potential noise impacts between on-site standard and modular construction techniques will be discussed.

NEIGHBORHOOD CHARACTER

A summary of the environmental analysis findings as they relate to construction impacts on neighborhood character will be provided. At the time that the FEIS was published, the Project site still largely reflected its early industrial character with its below-grade open rail yard, commercial/warehousing uses, bus storage, and low-rise buildings that differed from the surrounding neighborhoods with their more active mixed-use developments. The FEIS concluded that the Project's construction activities would have significant adverse localized neighborhood character impacts in the immediate vicinity of the Project site, particularly the quiet character of Dean and Pacific Streets directly across from the Project site. Those impacts would be localized

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and would not alter the character of the larger neighborhoods surrounding the Project site. A number of mitigation measures to reduce the construction impacts were imposed as part of the Project's Environmental Commitments. Under the Extended Build-Out construction scenarios, there would be incremental realization of the Project as buildings are completed and occupied by its permanent intended uses. Construction activities would not occur on every Project block at the same time and concurrent construction activities would be of varying intensities. Nonetheless, sites not under active construction would be maintained under existing conditions such as the continued existence of the open rail yard or would have interim uses such as for construction parking and staging areas or surface parking for a prolonged period. Pulling from other construction analysis areas, this section will provide a determination of whether construction activities related to the various Extended Build-Out scenarios would result in any neighborhood impacts not previously disclosed in the FEIS, and whether any additional or different mitigation measures would be required. Specifically, the assessment will consider whether a delay in construction of Phase 2 under the Extended Build Out scenarios would create conditions that would lead to substantial residential or business disinvestment in the areas surrounding the project site and whether construction activities associated with the various Extended Build-Out scenarios would create an environment that could lead to residential or business disinvestment. The assessment will be supported by case studies of other locations within New York City that have experienced extended construction activities and/or construction delays in order to determine whether such activities have led to changes in property values or neighborhood conditions that, in turn, led to disinvestment in the immediately surrounding neighborhoods. The duration and geographical extent of any identified impacts from the Extended Build-Out scenarios will be provided.

TASK 5: ALTERNATIVES

This chapter will evaluate Project alternatives that are currently under consideration by ESD and the project sponsors:

- **Reduced Parking Alternative**—This alternative would consider modified parking requirements that would reduce the amount of accessory parking provided for Phase II residential uses. In the event that the number of on-site parking spaces provided for arena patrons would be fewer under the Reduced Parking Alternative than was assumed in the FEIS, an analysis of parking conditions during the weekday evening (pre-game) period would be included for this alternative in addition to the weekday overnight and weekday and Saturday midday periods being analyzed for the Project.
- Alternatives that would avoid or minimize any identified new or additional significant adverse impacts of the Extended Build-Out Scenario beyond those identified in the FEIS will be examined.

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