A. IDENTIFICATION OF THE PROPOSED PROJECT

Atlantic Yards Development Company, LLC, and Brooklyn Arena, LLC, affiliates of the Forest City Ratner Companies (the project sponsors), in cooperation with the Empire State Development Corporation (ESDC), the Metropolitan Transportation Authority (MTA), and the City of New York (the City), propose a master plan to develop a major mixed-use development in the Atlantic Terminal area of Brooklyn, adjacent to Downtown Brooklyn. The proposed project would occupy an approximately 22-acre area, 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 1-1). The proposed project would introduce a mix of uses arranged to concentrate the greatest activity closest to Brooklyn's major transportation hub, which is adjacent to the western end of the site. This end of the project site would contain a new arena for the New Jersey Nets National Basketball Association Team (the Nets), along with commercial office and retail, hotel, and residential uses. Farther to the east, the proposed project would be primarily residential and would provide eight acres of publicly accessible open space along with a number of local retail and community services. The project would also expand, platform over, and improve the MTA/Long Island Rail Road (MTA/LIRR) Vanderbilt Yard, which, together with a New York City Transit (NYCT) yard for retired buses, occupy approximately nine acres of the project site in an open cut (rail yard). As part of this improvement, the project would rebuild the Carlton and 6th Avenue Bridges between Atlantic and Pacific Streets.

The arena would host a variety of events. The arena would seat 18,000 persons for basketball games. While there is the potential for additional seating capacity for non-game events (to 19,925 seats if wheelchair seating is replaced by regular seating), Americans with Disabilities Act (ADA) accessibility, production equipment, and line of sight, operational and staging requirements would in almost all instances limit attendance at non-basketball events to well under 18,000. As contemplated, the Nets would relocate from its current home in New Jersey to Brooklyn, New York. At full build-out, the proposed project would comprise, in addition to the 150-foot-tall arena, 16 buildings with maximum heights ranging from approximately 184 feet to approximately 620 feet. Two variations of the project program are under consideration to allow for flexibility in the program of three of the proposed 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 residential 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, with one additional acre of private open space on the roof of the arena. Both variations would provide community facility uses occupying portions of the retail and residential space. Both the residential mixed-use and commercial mixed-use variations would include approximately 3,670 parking spaces. Both variations would also open a new

subway entrance at the corner of Atlantic and Flatbush Avenues, which would provide direct pedestrian access at the western end of the project site between the proposed project and the Atlantic Avenue/Pacific Street subway complex.

The site is occupied by generally low-rise buildings, between one and six stories, along with vacant land and the rail yard. Many of the buildings are partially or completely vacant. MTA owns the rail yard; the remaining properties are owned by the City of New York and by private entities, including the project sponsors. The new development would require the demolition of all site structures with the exception of the rail yard, and it would close 5th Avenue between Atlantic and Flatbush Avenues, Pacific Street from Flatbush to 6th Avenues and Pacific Street from Carlton to Vanderbilt Avenues, in order to create development areas suitable for the proposed project.

If approved, construction of the proposed project would begin on the western end of the project site and move generally eastward over time. The arena and subway entrance would open for the 2009 basketball season. However, the several buildings surrounding the arena would not be completed until 2010, so the EIS considers a first phase in 2010 containing the entire program slated for the project site west of 6th Avenue. The buildings at the eastern end of the project site are anticipated to be developed and occupied by 2016, which is the second analysis year in this EIS (see Chapter 2, "Procedural and Analytical Framework").

The proposed project is subject to environmental review under State Environmental Quality Review Act (SEQRA) and City Environmental Quality Review (CEQR) regulations and guidelines. ESDC is the SEQRA lead agency for this proposal. Implementation of the proposed project would be pursuant to the Atlantic Yards General Project Plan (GPP) and several other actions by the New York State Urban Development Corporation (UDC), a public benefit corporation of New York State, doing business as the Empire State Development Corporation (ESDC). These actions would include, as necessary, acquisition of portions of the project site through condemnation (a substantial portion of the project site is already controlled by the project sponsors), disposition of the assembled parcels, and overrides of certain local laws and regulations, including aspects of the City's *Zoning Resolution*, and certain zoning-related portions of the Atlantic Terminal Urban Renewal Area (ATURA) Plan. ESDC would also acquire portions of the City streets to be closed and City-owned properties through exercise of eminent domain and, with the consent of the City, would override the City Map to permit development on these streets. The proposed project is both a land use improvement and civic project as defined by the UDC Act. In addition, it is located in significant part on property owned by the MTA, a public benefit corporation of New York State. Accordingly, ESDC has determined that the project approvals will follow the procedures set forth in the UDC Act, rather than the City's Uniform Land Use Review Procedure (ULURP), for consideration and approval of a UDC project.

MTA/LIRR, MTA/NYCT and the City—through the Mayor's Office of Economic Development and Rebuilding—are involved agencies in a coordinated SEQRA review. In addition, MTA must approve the relocation and upgrading of the rail yard and other property dispositions. The City must approve funding for the project and may approve the disposition of City property. See Chapter 2, "Procedural and Analytical Framework," for a list of discretionary approvals.

B. PROJECT PURPOSE AND NEED

PURPOSE OF THE PROPOSED PROJECT

The overarching goal of the proposed project is to transform a blighted area into a vibrant mixed-use community. The proposed project aims to provide a state-of-the-art arena, necessary affordable and market-rate housing, first-class office space, publicly accessible open space, local

retail and community services, a hotel (under one variation of the project program), a new subway entrance, and an improved rail yard. The proposed project's buildings would contribute to the Brooklyn skyline and the open space would connect the surrounding neighborhoods, which are currently separated by the open rail yard and a major avenue (Atlantic Avenue). More specifically, the proposed project is intended to:

1. Enhance the vitality of the Atlantic Terminal area:

    - Provide new residential, retail, office, and hotel space that will capitalize on the project's proximity to one of the major subway hubs in New York City and to recent commercial development in Downtown Brooklyn; and
    - Remove the physical and visual barrier created by the existing below-grade rail yard that separates the neighborhoods of Boerum Hill, Downtown Brooklyn, Fort Greene, Clinton Hill, Prospect Heights, and Park Slope;
    - Eliminate blighted conditions on the project site, including dilapidated and structurally unsound buildings, debris-filled vacant lots, and underutilized properties;
    - Remediate environmental conditions;
    - Contribute to the Brooklyn skyline and streetscape with distinctive buildings conforming to design guidelines regarding building forms, façades, street treatments, sidewalk widths, and open space configurations; and
    - Foster and support growth through: (a) the creation of jobs and economic activity during construction and operation of the new arena, residential, commercial office, hotel, and retail development; and (b) the introduction of new households, which will stimulate the local economy by purchasing goods and services from local businesses.

2. Provide for new development to support the current and future residents of the Atlantic Terminal area and the borough as a whole:

    - Contribute to New York City's effort to meet the short- and long-term demand for affordable and market-rate housing by providing approximately 6,430 housing units, including 4,500 rental units, 50 percent of such rentals being affordable to low-, moderate-, and middle-income families;
    - Create a first-class sports and entertainment venue to meet the needs and demands of the New York City area—primarily Brooklyn, which, with a population of approximately 2.4 million is equivalent in size to the fourth largest city in the United States. In addition to promoting the prominence of Brooklyn and New York City as a market for a national professional sports team, the arena would be a valuable facility for college and local academic institutions, which currently lack adequate athletic facilities;
    - Create publicly accessible active and passive open space with amenities encouraging year-round use of the open space; and
    - In coordination with local community groups, provide community facility spaces, including a health care center and an intergenerational facility, offering child care, youth, and senior center services.

3. Improve railroad and subway facilities and pedestrian access and safety:

    - Replace the open rail yard with an enclosed, state-of-the-art LIRR storage, service, and inspection facility. The proposed project would expand rail yard capacity, provide direct

rail access to the rail yard from Atlantic Terminal through a new West Portal, build a new drill track to allow for the switching of 10-car trains, install new toilet manifolds for unrestricted servicing, and add signal, interlocking, and switching systems;

- Platform over the new rail yard to increase pedestrian connections between neighborhoods; and
- Improve subway and pedestrian safety by opening a subway station entrance on the south side of Atlantic Avenue at Flatbush Avenue, which would eliminate the need for pedestrians approaching the subway station from the south to cross Atlantic Avenue. The new entrance would provide a direct subway connection to the arena.

C. PROJECT PLANNING

DEVELOPMENT HISTORY

Downtown Brooklyn's urban development began early in the 19th century, when the area was divided into lots and developed with residential uses. The creation of the United States District Court in 1865, followed by the opening of the Brooklyn Bridge in 1883, spurred significant growth in Downtown Brooklyn. Residential neighborhoods were developing in the surrounding area, including Boerum Hill, Fort Greene, Park Slope, and Prospect Heights. Boerum Hill, located west and south of the intersection of Flatbush and Atlantic Avenues, was largely developed between 1840 and 1870. By the middle of the 19th century, development was beginning to push eastward into Fort Greene. The neighborhood of Prospect Heights was developed after Prospect Park was completed in the 1870s.

By the late 19th century, the area adjacent to Flatbush and Atlantic Avenues had become a crossroads composed of working class housing, an active industrial district along the rail yard on Atlantic Avenue, and a bustling commercial area resulting from the growth of two of the borough's oldest commercial thoroughfares, Fulton Street and Atlantic Avenue. In 1892, LIRR built its Flatbush Terminal (now called Atlantic Terminal) at the northeast corner of Flatbush and Atlantic Avenues. The Carlton Freight Yard on the south side of Atlantic Avenue between Carlton and 6th Avenues had served Brooklyn until 1904-06 when it was then extended east to Vanderbilt Avenue and west almost to 5th Avenue and became known as the Vanderbilt Yard. The rail yard replaced a number of industrial, commercial, and residential uses on the project site. Soon after, a new and larger LIRR Atlantic Terminal for commuters opened in 1907.

In 1908, the Interborough Rapid Transit (IRT) subway line was extended into Brooklyn, and its stop at the intersection of Flatbush and Atlantic Avenues made the area even more accessible. This accessibility boosted the area's prosperity in the early part of the 20th century, evidenced by the construction of the Brooklyn Academy of Music (BAM) in 1908 and the Williamsburgh Savings Bank Building in 1927-29. The construction of these iconic buildings at this new transportation hub appeared to set the stage for greater and denser development based on its excellent transportation services. But, the Great Depression halted development of this type and magnitude; instead, this area became home to a less desirable meat packing industry (the Fort Greene meat market), which was located along Fort Greene Place and Atlantic Avenue just to the east of LIRR Atlantic Terminal.

Following World War II, the elevated train lines were demolished and replaced with subways in an attempt to improve conditions in the area and restart the transit-based development that had ended so abruptly with the Great Depression. In this case, however, timing was a problem. Construction of the new infrastructure coincided with major post-War trends towards the relocation of industry outside the nation's inner cities, which devastated the manufacturing sectors throughout the borough. Coupled with the ensuing citywide middle-class exodus to the suburbs, the state of housing in many

neighborhoods suffered a decline, including housing close to the project site. Rowhouses became rooming houses, many were abandoned, and in the weaker neighborhoods, a pattern of disinvestment, including arson, began. This pattern intensified through the 1960s and 1970s.

On the project site, many of the active industrial (factories) and commercial (stores) uses became auto-repair shops, gas stations, parking lots, and vacant lots. The loss of active uses on the site, combined with the below-grade open rail yard, created a physical tear in the urban fabric separating the residential and commercial neighborhoods surrounding the project site. Also during this period, the Fort Greene Meat Market (north of Atlantic Avenue) could not meet new federal meat packing standards and was forced to cease operations, leaving behind a large number of abandoned and structurally unsound buildings.

PLANNING CONTEXT

FOCUS ON RENEWAL (1960-2000)

The situation in the area surrounding (and including) the project site, as well as other areas of Brooklyn and throughout the city continued to worsen into the 1970s. Buildings were abandoned and burned, and the city lost more than 800,000 residents. City policy focused on stemming the tide of disinvestment, first through urban renewal, supported by a range of subsidized housing programs available at the time primarily through the federal government. Beginning in the late 1970s, under Mayor Koch, the City began an aggressive program of housing renewal. Using a range of financing options and funding sources, the City developed a variety of programs, all geared to support the reclamation of its damaged neighborhoods. These programs used properties acquired primarily by foreclosure on properties in tax arrears and also through condemnation, and they were responsible for preserving, renovating, and rebuilding more than 150,000 housing units. This effort resulted in marked improvements in several low-income neighborhoods, including Bedford-Stuyvesant, Bushwick, and East New York. Today, nearly all of the *in rem* (tax-foreclosed) properties have been reclaimed—in August 2005, the New York City Department of Housing Preservation and Development (HPD) issued its last major RFP (Request for Proposals) for developers to create housing on City-owned land taken *in rem*.

During this period, the City continued to use the planning and development powers of urban renewal as a tool for reversing the decline in its communities. In the late 1960s/early 1970s, several urban renewal plans were mapped in Downtown Brooklyn. Of these, the ATURA Plan (1968) applied directly to portions of the project site (see Figure 1-2). All of the blocks touching Atlantic Avenue on the project site form the southern boundary of the urban renewal area, which extends northward in an irregular shape to Hanson Place/Greene Avenue, and encompasses all or portions of the four blocks on both sides of Flatbush Avenue between Pacific Street and Lafayette Avenue. ATURA, which has been amended 10 times in the past 35 years, began as an ambitious plan to move the Fort Greene Meat Market to Sunset Park, demolish deteriorating housing and replace it with 2,400 units; and build a new Baruch College campus to span the rail yard on the project site and Atlantic Avenue; a high school (also over the LIRR tracks), other schools, parks, and shopping. Over the years, the plan underwent a number of changes, reflecting the improving real estate market in the area in the 1980s and the realities of the public's inability to fund major construction projects, such as the Baruch College plan. Today, virtually all of the urban renewal area north of Atlantic Avenue has been redeveloped. Some 1,300 housing units have been built, either directly by a public agency (i.e., the New York City Housing Authority [NYCHA] and the New York City Housing Development Corporation [HDC]) or by a non-profit entity using public subsidies. Major retail development has taken place along Atlantic Avenue at and near Flatbush Avenue, and a large office building, the Bank of New York Tower, sits above a shopping mall above the LIRR Atlantic Terminal. Only the

blocks on the southern side of Atlantic Avenue, hampered by the difficulty in building over the LIRR rail yard (which the urban renewal plan recognized in its Fourth Amendment [1976] when it removed the railroad sites from the list of properties to be acquired), have resisted development. At this point, the project site's depressed rail yard and dilapidated, vacant, and underutilized properties perpetuate a visual and physical barrier between the redeveloped areas to the north of Atlantic Avenue and the neighborhoods to the south.

TRANSIT-ORIENTED DEVELOPMENT TO SUPPORT ECONOMIC GROWTH

The disinvestment in the city's neighborhoods during the 1970s was paralleled in the city's commercial centers. Although manufacturing had been on the decline since the Great Depression, after World War II the city's employment had steadily increased through the expansion of white-collar businesses. The 1960s saw strong growth of all the city's office-oriented central business districts, and employment reached an all-time high in 1969. From this peak, the economy stagnated, the city's reputation as a safe, fun place to live and work diminished, and a number of national headquarters moved out—most to the suburbs, such as Stamford and Northern New Jersey, but also to other locations in the country. The newer locations could offer cheaper, more modern, and more efficient space than was widely available in the city.

As the economy began to recover in the late 1970s, new and expanding businesses faced an extremely tight office market in which there had been no new construction for nearly a decade and few projects were being proposed. Some of the city's most venerable financial firms began to move back-office space to cheaper locations, such as Northern New Jersey and Long Island. The City began to look to Downtown Brooklyn to provide opportunities for modern, efficient, back-office space. Downtown Brooklyn had enjoyed the boom times of the 1960s, with office construction and the expansion of the Fulton Street retail center. But, like the rest of the city, it had fallen on hard times. Still, it had the strong core of government and court offices, offered excellent transit access, and had available properties, although not all of these were zoned for high-density commercial use. In 1983, the Regional Plan Association produced a report on the potential for economic revival in Downtown Brooklyn. This report was based on its earlier Second Regional Plan of 1969, which encouraged regional sub-centers in order to ensure efficient use of existing transportation infrastructure and job retention. The City initiated a clear policy to foster commercial development in Downtown Brooklyn and selected other outer borough locations with excellent transit service.

From the mid-1980s to today, with the aid of benefit packages, bond financing, tax incentives, urban renewal, and zoning changes, Downtown Brooklyn has seen many changes, including construction of several million square feet (sf) of office development in large, modern towers; the institution of the MetroTech Urban Renewal Area and development of MetroTech Center; the first major new hotel in Brooklyn since the 1920s and expansions of the Civic Center (new courthouses, the renovation of Borough Hall, and the relocation of several government agency headquarters [e.g., NYCT, Fire Department, 911 Emergency Response]); and the expansion of several institutions, such as Long Island University, Polytechnic University, New York City College of Technology, and Brooklyn Law School.

Commercial renovation and new development also occurred south of the center of Downtown Brooklyn along Flatbush Avenue as part of the Brooklyn Center Urban Renewal Area (BCURA) and ATURA. Notable BCURA redevelopment includes the seven-story Telephone Building (395 Flatbush Avenue Extension), the seven-story Con Edison building (on the southwest corner of Flatbush/Fulton), the Mark Morris Dance Theater, and the redevelopment of the BAM Harvey Theater and the Strand Building (which also houses Urban Glass). Most of this redevelopment replaced run-down theaters and focused on creating affordable back-office space for larger corporations based in Manhattan (also called services centers or support offices). As noted above, the large, prominent ATURA site at the intersection of Flatbush and Atlantic Avenues

has been developed with the 10-story, 396,000-sf Bank of New York Tower, above a five-story, 375,000-sf shopping mall, all atop the LIRR Atlantic Terminal.

Although the City sponsored several zoning actions to foster growth in Downtown Brooklyn, the two that have affected ATURA and the project site most directly are the establishment of the Special Downtown Brooklyn District in 2001 (revised in 2004) and the adoption of the Downtown Brooklyn Development Plan in 2004.

The City Planning Commission first designated the Special Downtown Brooklyn District in 2001. Special purpose districts are created to achieve specific planning and urban design objectives tailored to defined areas that would typically not occur with generalized zoning and standard development. The Special Downtown Brooklyn District was created to foster development and strengthen the business core of Downtown Brooklyn; to preserve the historic architectural character of development and the pedestrian orientation of ground-floor uses along certain corridors; and to provide new public amenities. The special district established a transitional contextual buffer between the downtown commercial core and the lower-scale adjacent residential communities; Blocks 927 and 1118 of the project site are located within this special district.

The Downtown Brooklyn Development Plan rezoned an area in Downtown Brooklyn roughly bounded by Tillary Street to the north, Schermerhorn Street to the south, Adams Street to the west, and Ashland Place to the east. This plan, created as a collaborative effort between the New York City Department of City Planning (DCP), HPD, and the New York City Economic Development Corporation (EDC), consisted of a series of zoning map and zoning text changes (including revisions of the Special Downtown Brooklyn District), urban renewal area amendments, disposition of City-owned property, and a number of special permits. The plan supports the expansion of the commercial core by allowing high-density uses in an area as far south as Pacific Street; Blocks 927 and 1118 of the project site are located within the area of this comprehensive development plan. In addition to providing for additional development, this rezoning includes provisions to create sensible transitions between the higher-density downtown and the adjacent low-scale residential neighborhoods. This proposed plan is projected to stimulate new development, including office, residential, retail, community facility and cultural space, and parking.

TODAY'S CHALLENGE FOR ECONOMIC GROWTH

Accommodating economic growth in the city is today's challenge. According to the latest forecasts from the New York Metropolitan Transportation Council (NYMTC), the agency responsible for coordinating such forecasts throughout the region, New York City will add approximately 500,000 jobs, 465,000 residents, and 170,000 households between 2005 and 2015; for the full forecast period (2002 to 2030), NYMTC predicts the addition of approximately 1.1 million jobs, 1.2 million residents, and 540,000 households (see Table 1-1). The forecasts for Brooklyn are also formidable: from 2005 to 2015, Brooklyn is predicted to add 60,000 jobs, 90,000 residents, and 40,000 households; from 2002 to 2030, Brooklyn is expected to add approximately 162,000 jobs, 330,000 residents, and 120,000 households.

These projected increases translate into a strong need for space to accommodate growth. The net employment growth in Brooklyn, which the forecasts represent, is likely to be predominantly in the office and retail sectors. Using a general rule of 1 employee per 250 sf of floor area, Brooklyn's predicted employment increase of 60,000 from 2005 to 2015 will create the need for 15 million sf of additional development. The demand from 2002 to 2030 would translate to a demand for 40.5 million sf.[1]

[1] The New York City Department of City Planning (DCP) uses 1 employee per 250 square feet as a

Table 1-1
2002-2030 Employment and Population Forecasts for NYC and Brooklyn
(in thousands)

	1980	2002	2005	2010	2015	2030
Employment						
New York City	3,626.6	4,145.2	4,177.1	4,460.4	4,650.7	5,243.1
Brooklyn	485.7	584.6	590.5	621.6	650.0	746.8
Population						
New York City	7,071.6	8,072.0	8,209.3	8,411.7	8,674.1	9,492.4
Brooklyn	2,231.0	2,465.3	2,475.7	2,515.3	2,565.9	2,797.5
Households						
New York City	2,788.5	3,054.0	3,089.3	3,163.2	3,263.1	3,591.5
Brooklyn	828.3	888.1	896.7	915.1	936.5	1,005.3

Note: 1980 employment, population, and household figures are included for reference purposes, because this year was generally the low point in recent history in the City and the borough.

Source: New York Metropolitan Transportation Council, Technical Memorandum, Task 4.1.2, County Level Demographic and Socioeconomic Forecasts, 2002-2030, prepared by Urbanomics, June 15, 2005. Forecasts accepted by consensus of NYMTC's Program, Finance and Administration Committee, Resolution 190, September 23, 2004.

As for population, the NYMTC projections of population include those predicted to live in independent households and those who would live in group quarters. Therefore, household estimates can be roughly translated to the estimated demand for housing units. In Brooklyn, this demand is predicted to be for 40,000 additional units between 2005 and 2015, and 120,000 units from 2002 to 2030. Based on traditional socioeconomic patterns in the borough, it can also be assumed that a sizable portion of the demand for housing will be for affordable housing.

The difficulty of accommodating anticipated strong growth in the City is well recognized. According to a report released in June 2001 by the Group of 35, a severe lack of commercial space poses a serious threat to New York City's long-term growth.[1] To address the impending shortage, the report recommends implementing a five-part commercial development strategy which includes: (1) removing existing regulatory barriers to office development; (2) establishing three new "Central Business Districts" (Downtown Brooklyn, Long Island City, and Midtown Manhattan's Far West Side); (3) creating smaller business districts in all five boroughs; (4) offering subsidies to biotechnology and high-tech companies to lure companies to New York; and (5) accommodating the growth needs of the City's manufacturing sector, as appropriate. The 2001 report based its concerns on an earlier set of population and employment projections. The most recent set of projections, which contain real-time data for 2000 and 2002, actually projects greater employment and population growth.

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general estimate of the space needs for office-type employment. Other types of employment, e.g., retail, services, manufacturing, warehousing, may require more space per employee. Thus, the estimate of commercial space required in Brooklyn to meet projected demand could be greater than 15 million square feet over the next ten years.

[1] The Group of 35 was a high-level panel created by United States Senator Charles E. Schumer that included chief executives and leaders in business, biotechnology, real estate, academia, labor, and government.

As with the demand for commercial space, the demand for new housing in Brooklyn over the next 10 years is very high, and the longer-term projections are even more pressing. If the challenge of the 1970s and 1980s was to resurrect the City's deteriorating, abandoned, and burnt-out neighborhoods and bring back the population that had fled, the challenge is now to find a way to provide affordable housing to accommodate a strongly growing population in a tight housing market. Beginning in 1980 and accelerating to today, the City's population has grown by more than a million people, and it continues to expand. The demand for new housing has increased dramatically, with the result that although residential building permits reached a new high in the City in 2005 (exceeding the number issued in 1973, the previous high year), and although the majority of those permits were for housing throughout all boroughs, low-, moderate-, and middle-income New Yorkers face a very tight market with escalating prices.

In response to these markedly different conditions, the City has developed the *Housing Marketplace Plan: Creating Housing for the Next Generation*. Initiated in 2002, the program began with a five-year goal of producing 65,000 units. Just recently, this has been expanded to a 10-year goal of 130,000 units. HPD, the agency entrusted with the program, has been working with other government agencies to find land and opportunities for the construction and preservation of affordable housing. The Mayor and Comptroller have proposed the creation of the New York City Housing Trust Fund, which will be funded by $130 million in revenues from Battery Park City. They have also established an Acquisition Fund to obtain properties suitable for affordable housing.

The City has also taken steps to address the housing problem through the private sector. It has undertaken a number of major rezoning actions (e.g., Greenpoint Williamsburg rezoning, Hudson Yards rezoning, and West Chelsea rezoning) to make available, as appropriate, more floor area for residential development and, at the same time, to preserve or create affordable housing. Known as the inclusionary housing program, this zoning mechanism, which had been limited to high-density areas in Manhattan, is now applied more broadly in certain medium-density zoning districts. The program offers additional floor area to developers in exchange for including low-, moderate-, and middle-income units in the mix, at a rate of 20 to 30 percent, depending on the income level of the tenants. In addition, in recognition that not only the lowest-income New Yorkers are caught in the housing squeeze, HDC has expanded its successful "80-20" program to a "50-30-20" program. The original program offered tax-exempt bond financing for projects in which 20 percent of the units would be devoted to low-income householders. The new program allows similar benefits for a mix of 50 percent market-rate, 30 percent middle-income, and 20 percent low-income householders.

FIRST-CLASS SPORTS VENUE

After the Dodgers baseball team left in 1957, Brooklyn, a very large city in its own right, had no major league sports team. A 73-year tradition of baseball, played to an enthusiastic and loyal fan base, ended abruptly. From time to time, ideas have been proposed for making Brooklyn home to a major professional team (including the return of the Dodgers), but nothing transpired. Without both a site and a team, these aspirations could not become reality.

In 1974, the City prepared a preliminary feasibility study for the Brooklyn Sports Complex. The report considered program concepts and potential sites for a 15,000-seat arena that could accommodate professional basketball and other sports, along with additional sports facilities (depending on the site) for local school and college athletic programs, and would also provide community athletic facilities, such as swimming, bowling, ice and roller skating, dancing, and gymnastics. The Office of Downtown Brooklyn Development suggested several sites in

Downtown Brooklyn and at Fulton Ferry. The Brooklyn Office of DCP suggested other sites, which ranged from Spring Creek (current site of Gateway Estates development and shopping center) and Broadway Junction above the MTA Yards, both near the Queens border, to the Brooklyn Army Terminal piers (partially on piers over the water) and Steeplechase Park in Coney Island, which is now home to the Brooklyn Cyclones baseball team (the New York Mets minor league "A" Division team) in KeySpan Park, which opened in 2001.

Downtown Brooklyn as the location for the Brooklyn Sports Complex was given particular attention in the study, "because of its function as the hub of Brooklyn, because of the investment and development activity that might be generated by a new sports complex, and because of the critical need of downtown education institutions for additional athletic facilities." Of the five downtown sites considered, plus Fulton Ferry, only two appeared to meet the key criteria for size and accessibility. Both sites were listed in ATURA. One is the current site of the Bank of New York Tower and the two shopping centers: Atlantic Center and Atlantic Terminal. The other is the site currently being proposed for the Atlantic Yards Arena. In the 1974 report, the arena site extended from the corner of Flatbush and Atlantic Avenues eastward along Atlantic Avenue to Carlton Avenue. The site extended southward along Flatbush Avenue to Dean Street, continued eastward to 6th Avenue, then northward to Pacific Street and eastward to Carlton Avenue. In short, the site encompassed the arena block and Block 1120.

The desire for a first-class professional team continues to be strong in Brooklyn. The overall benefit of an arena for such a team as a focal point for investment and development in Downtown Brooklyn remains an opportunity. The site that could accommodate such development, identified more than 30 years ago, is still underutilized today. What is different now is the presence of a developer and team owner willing to locate an arena and related development on the project site.

Sites Considered for the Arena and Related Development

Before focusing on the project site, the project sponsors considered several other options. All sites were in Brooklyn, because the sponsor/team owner is committed to Brooklyn as the home for the Nets. The analysis addressed candidate sites according to the following siting criteria:

- The site should be large enough to accommodate an arena with a minimum footprint of 240,000 sf. In addition, the project site footprint should also allow for other mixed-use development. Recent experience with new arenas, such as the MCI Arena in Washington, D.C., and San Diego's PETCO Park (the signature component of its "Ballpark District"), has shown that these facilities thrive in combination with a strong mix of urban land uses, e.g., offices, shops, restaurants, and housing.
- The site should be readily accessible to mass transit, which could serve the arena patrons, workers, residents, and other visitors who would travel to the site regularly.
- The site should be close to or within a Central Business District, so that the office component of the mixed-use development would add to the critical mass of business activity.
- The site should have access to appropriate infrastructure—transportation, roads, sewer, water, etc.—to support the mixed-use development.
- The site should be large enough and close enough to major arterial roadways to accommodate truck deliveries for a range of arena events.
- The site shape and size should be adequate to provide security and access control around and beneath the arena and related development.

Consideration of sites for the arena and related development began with the alternative sites set forth in the 1974 Brooklyn Sports Complex report and also included the Brooklyn Navy Yard. The Navy Yard, a complex of 40 buildings with approximately 3.5 million square feet of space, was acquired from the federal government for use in attracting and retaining small industry. This location was rejected because there were no sites readily available without the displacement and demolition of active industrial uses (it is currently 98 percent occupied with over 200 diverse businesses employing over 4,500 workers); the area is not close to mass transit; and it would not offer synergies of co-location with other active uses. Moreover, the Brooklyn Navy Yard is a critical component of the Mayor's industrial business retention policy and is the subject of a 10-year capital improvement and expansion plan. In fact, in October 2006 the City broke ground on the largest expansion program of the Yard since World War II to accommodate approximately 402,000 additional square feet of industrial space and a 60,000-square-foot supermarket.

Four of the 11 sites considered in the 1974 study were too small for the arena, let alone related development (i.e., Sites 2, 3a, b, and c in Downtown), and others are no longer available. The discussion below addresses the seven sites mentioned in the study large enough to accommodate the footprint of an arena. The sites that are no longer available include the Coney Island site, which is now home to KeySpan Park; the Spring Creek site, which now contains mixed-used development, including a large and expanding shopping center; the Fulton Ferry site in DUMBO, which is now a City park slated to become part of Brooklyn Bridge Park (recently approved); and Site 1b in Downtown Brooklyn, which encompasses the Atlantic Terminal/Bank of New York Tower building and Atlantic Center—two major, recently completed ATURA developments.

Two studies published after the 1974 Brooklyn Sports Complex report—a 1984 study authored by the Pratt Institute Center for Community and Environmental Development (*The Brooklyn Sports Study: Phase 1 Locational Analysis*) and a 1994 study commissioned by the Brooklyn Sports Foundation and Temporary State Commission on Brooklyn Recreational Facilities (*Brooklyn Sportsplex Development Plan*)—identified Coney Island as a recommended location for future Brooklyn sports facilities. As indicated above, one of the Coney Island sites identified for potential sports use has been occupied since 2001 by KeySpan Park, home to the Brooklyn Cyclones minor league baseball team. Although it is conceivable that an arena could be built at another location on Coney Island (e.g., immediately west of KeySpan Park or on a site designated in the 1984 study as the Gateway site, located between Coney Island Creek and the Belt Parkway), these locations are deficient for a variety of reasons.

In general, Coney Island is less transit-accessible and more remote than the proposed project site. The proposed project's arena would be centrally located for Brooklyn and the region and would be accessible via 12 subway lines, 11 bus routes, and the LIRR. The convergence of multiple transit lines would make it easy for visitors to reach the arena from a variety of origin points without having to transfer lines or transportation modes. In contrast, Coney Island is located at the southernmost tip of Brooklyn, and there are only 4 subway lines and 6 bus routes located in the vicinity of the potential arena sites identified in prior planning studies. It is likely that a majority of visitors to Coney Island—particularly those traveling from the northern and eastern portions of Brooklyn, the west side of Manhattan, and Nassau County—would be required to make one or more transit transfers to reach the arena. This inconvenience would likely result in a higher share of automobile trips through the area's limited number of access corridors. Travel time would be expected to be greater to the Coney Island site by both auto and transit for most arena patrons.

The anticipated programming of the proposed arena makes geographic centrality and transit accessibility vitally important. As described in the 1994 plan, the Brooklyn Sportsplex previously envisioned for Coney Island would have promoted primarily amateur sports activities, with a small

number of commercial events interspersed in order to generate revenue. The maximum capacity of the Sportsplex was described as 12,300, and the commercial events were anticipated to draw approximately 8,000 spectators. In contrast, the proposed project's arena would host the Nets professional basketball team as well as a variety of commercial and community events. The proposed arena would seat 18,000 for basketball games. In total, the arena is anticipated to host approximately 225 events per year. The number and variety of events and the capacity of the proposed arena make it likely that the proposed arena would draw visitors from a wider geographic area than the Sportsplex proposed for Coney Island. Therefore, it is important that the proposed arena be located on a site that is readily accessible to a broad visitor population.

Finally, the Coney Island sites identified in prior planning studies are not large enough in size or central enough in their location to successfully support a comprehensive mixed-use development. As described above, recent experience with new arenas has shown that these facilities thrive in combination with a strong mix of urban land uses, including offices, shops, restaurants, and housing. The Coney Island sites do not presently offer such a varied mix of uses, nor do they present enough space for construction of new uses that would be synergistic with the arena.

The 1974 report also cited the Brooklyn Army Terminal and Broadway Junction, neither of which would be suitable. The Brooklyn Army Terminal, an industrial complex designed by Cass Gilbert and built in 18 months to serve as a military depot in World War I, is listed on the National Register of Historic Places. Also, under the aegis of EDC, the buildings are tenanted with manufacturing and other industrial businesses. This location is unsuitable for an arena, and it would not be possible to create a planned mixed-use development there without displacing manufacturing tenants and either destroying a designated historic resource that has undergone successful adaptive re-use of its structures, or building out over the water, with related environmental consequences. The Brooklyn Army Terminal was acquired from the federal government for the purpose of retaining industrial businesses in the city. Similar to the Brooklyn Navy Yard, there are limited sites available without the displacement and demolition of active industrial uses (it is currently 90 percent occupied with over 70 businesses employing over 3,000 workers); the area is not close to mass transit; and it would not offer synergies of co-location with other active uses. The site at Broadway Junction, at the intersection of the East New York and Bushwick neighborhoods, is not centrally located and not as well-served by public transit or major arterial streets. The site itself is occupied by an at-grade, active rail yard/maintenance facility and bus depot. Platforming over the at-grade facility would result in the base of the structure being at least 20 feet above the street level and would create urban design and operational issues. Additionally, several of the streets leading to the site are burdened with elevated subway and commuter rail lines, which would limit the ability of the project to implement necessary roadway and infrastructure improvements.

This leaves only Site 1a, which, as noted above, covers the proposed arena site plus the block on the south side of Atlantic Avenue between 6th Avenue and Carlton Avenue. Although ultimately project sponsors concluded that this site plus the two blocks to the east (from Carlton to Vanderbilt Avenues between Atlantic Avenue and Dean Street) would be best for the proposed project, they considered variations in this general location in response to community suggestions. One was to build the arena on a span over Atlantic Avenue. This would require that the base of the arena be at least 20 feet above street level, so that the entire structure would appear larger than an at-grade building and would hover over the street and be visible from long distances. The elevation of the arena would create serious operational problems—loading/unloading would be a major hardship and keeping the arena secure when it sits above an active major thoroughfare would also be problematic.

The project planners also considered the possibility of building the arena at grade in the bed of Atlantic Avenue while relocating the street to the south above the Vanderbilt Yard. While the challenge of building over an active railway tunnel and relocating major utilities could be met, this alternative would not produce a footprint large enough for both the arena and related development. The realignment of the street would break up the site, so that development parcels would be fragmented. This arrangement would also inhibit implementation of a comprehensive master plan, with cohesive design and a site plan that provides substantial contiguous publicly accessible open space. Furthermore, this realignment would bring Atlantic Avenue, one of the borough's major thoroughfares, farther from the commercial uses to the north and closer to the residential neighborhoods to the south.

It was clear after consideration of alternative sites that only the project site would be large enough to accommodate a cohesive, comprehensive development containing the arena and a mix of synergistic uses, while offering extraordinary transportation access, proximity to a Central Business District, and substantial publicly accessible open space designed to foster pedestrian activity and promote connections with the surrounding neighborhoods.

IMPROVING TRANSIT

Subway Improvements

The confluence of 10 subway lines at Atlantic and Flatbush Avenues did not occur as a grand plan; rather, construction of the transit lines was incremental and took place over decades, beginning in the late 19th century. Many of the lines were originally elevated and not moved below grade until after World War II. Thus, the Atlantic Avenue subway station and the LIRR Atlantic Terminal have been the subject of a number of after-the-fact improvement plans. These have been successful in rationalizing passenger movements within the station and improving train operations. The proposed project offers the opportunity to provide an easy subway connection across Atlantic Avenue to serve the project site and neighborhoods to the south while creating an enclosed and convenient space, large enough to accommodate the major flows of people to and from the transit center.

Improvements to the LIRR Rail Yards and Operations

The location of the LIRR Atlantic Terminal provides excellent commuter service to Downtown Brooklyn and the project site. However, Vanderbilt Yard, which has been in existence in one form or another for more than 100 years, is not optimal in its current configuration to handle the demands of modern commuter rail operations. For example, there is no direct rail connection between the rail yard and the terminal. Trains leaving the terminal and heading for the rail yard have to move eastward under Atlantic Avenue, then stop and reverse direction to move onto a track leading to the rail yard. Once there, the trains are stored on parallel tracks that are too close to one another to allow toilet servicing of any but the trains on the outer tracks. To clean the cars and empty waste, the trains must be moved in and out of position until each train has had its turn on an outer track. The proposed project offers an opportunity to improve and modernize the rail yard.

NEEDS AND OPPORTUNITIES

In summary, the considerable planning efforts that focused on the project area have identified the following basic needs:

- To remove the blighted conditions on the project site, replacing them with productive land uses, including those parcels which will complete the development of ATURA.
- To remove the barrier between neighborhoods that the project site now creates by introducing compatible uses, platforming over the rail yard open cut, and organizing the project site with many opportunities for pedestrians to move through and around it.
- To accommodate long-term demand for substantial housing and commercial space with transit-oriented development that would make best use of the major transportation hub at Flatbush and Atlantic Avenues.
- To provide affordable housing and support all residential use with appropriate amenities, such as substantial open space and an intergenerational community center.
- To improve pedestrian access to connections to the Atlantic Avenue subway station, particularly from the south side of Atlantic Avenue.
- To modernize the rail yard so that it would connect directly to the LIRR Atlantic Terminal, better accommodate LIRR's new multiple unit (MU) electric trains, and facilitate efficient cleaning and maintenance of equipment.
- To perform environmental remediation.

The project has the potential to meet these needs, for the following reasons:

- The project site, which is greatly underutilized, is 22 acres—large enough to accommodate substantial development—and is located at one of the largest transportation hubs in the City, with 12 subway lines, 11 bus routes, and the LIRR Atlantic Terminal.
- Transit-oriented development on the project site would include dense commercial and residential uses and a first-class arena. The ability to surround the arena with these mixed uses makes the project site an active destination even when the arena is not in use.
- The density of residential use that can be accommodated on the project site offers an opportunity for development of a substantial number of affordable housing units and community facilities to support the new residents and residents in the surrounding area.
- The project site is large enough that the residential development can be sited to provide eight acres of publicly accessible open space, and include a number of pedestrian and bicycle paths traversing the site east-west and north-south, thereby creating connections among neighborhoods.
- The creation of the arena block from three separate blocks creates an opportunity to provide a number of improvements for access to the subway. As described below, the proposal includes the "Urban Room"—a large, glass-enclosed publicly accessible space, accessible from the subway and street—and several improvements to circulation within the station.
- Building over the rail yard to accommodate the development plan offers two opportunities for substantial public improvements: (1) to renovate and modernize the rail yard; and (2) to remove the open cut and the long bleak wall on Atlantic Avenue that have inhibited development and connections among the neighborhoods surrounding the project site.
- The presence of a developer and owner of the Nets offers the opportunity to bring a major-league team to Brooklyn.

D. DESCRIPTION OF PROPOSED PROJECT

INTRODUCTION

The project site sits at a major cross roads, adjacent to a major transportation hub, close to Downtown Brooklyn, at the intersection of two of the borough's busiest traffic corridors (Atlantic and Flatbush Avenues), and at the junction of—but not within—several thriving neighborhoods. The proposed project would be a significant addition to the area, and would transform what is currently an underutilized and blighted area with a development that incorporates world-class architecture, a dynamic streetscape, and significant public amenities for the entire borough. It would also provide a first-class arena and bring a major-league sports team back to Brooklyn.

As shown in Figures 1-3 and 1-4, both the residential and commercial mixed-use variations of the proposed project would develop an approximately 22-acre site along Atlantic Avenue extending from 4th Avenue to Vanderbilt Avenue. Development of the project site would require the complete redevelopment of the rail yard; a reconfigured and upgraded rail yard would allow for both the continuation and expansion of rail yard operations and a new platform over this rail yard would support substantial portions of the proposed development on the project site. The approximately 8 million-gsf mixed-use development would include housing, commercial office space, eight acres of publicly accessible open space, local retail and community facility space at street level, and a new hotel (the hotel use would only be included in the residential mixed-use variation; the commercial mixed-use variation would substitute office use for the hotel use). The arena, sited at the prominent intersection of Atlantic and Flatbush Avenues, would have a capacity of approximately 18,000 seats and serve as the home of the Nets; the arena would also host concerts and other events throughout the year. The arena would seat 18,000 persons for basketball games. While there is the potential for additional seating capacity for non-game events (to 19,925 seats if wheelchair seating is replaced by regular seating), ADA accessibility, production equipment, and line of sight, operational and staging requirements would in almost all instances limit attendance at non-basketball events to well under 18,000 Non-game events are expected to attract fewer spectators than basketball events, with attendance ranging from 5,000 persons to 15,000 persons. Overall, the arena is expected to host approximately 225 events per year.

The proposed project has been designed and organized with a series of urban design and public planning objectives in mind, including: taking advantage of the project site's close proximity to one of the City's largest transit hubs and its location along two major thoroughfares to introduce new high-density development into Brooklyn; providing transitions in use and scale to reflect the varied character of the adjacent neighborhoods and Downtown Brooklyn; creating connections among the various neighborhoods surrounding the project site by creating visual, pedestrian, and bicycle corridors through the project site's proposed open space component; and improving access to mass transit. The proposed project would concentrate its density, height, and commercial uses at the western end of the project site to reflect the higher-density commercial uses associated with Downtown Brooklyn to the north and capitalize on the excellent access to mass transit. The residential uses predominant on the eastern end of the project site would reflect the residential nature of the adjoining neighborhoods to the north and south.

Expanded descriptions of the proposed project's elements, including the proposed arena, access and circulation improvements, and proposed open space and recreational facilities, are provided below.

EXISTING CONDITIONS ON THE PROJECT SITE

The project site is an approximately 22-acre area, 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. The project site comprises the following parcels: Block 927: Lots 1,16; Block 1118: Lots 1, 5, 6, 21-25, 27; Block 1119: Lots 1, 7, 64; Block 1120: Lots 1, 19, 28, 35; Block 1121: Lots 1, 42, 47; Block 1127: Lots 1, 10-13, 18-22, 29, 30, 33, 43, 45-48, 50, 51, 54-56, 1001-1021 (formerly Lot 35), 1101-1131 (formerly Lot 27); Block 1128: Lots 1, 2, 4, 85-89; and Block 1129: Lots 1, 3-6, 13, 21, 25, 39, 43-46, 49, 50, 54, 62, 76, 81 (see Figure 1-5). Sections of Pacific Street between Flatbush and 6th Avenues and between Vanderbilt and Carlton Avenues and 5th Avenue between Flatbush and Atlantic Avenues (inclusive of the small traffic island) would also be incorporated as part of the project site.

The project site is located at the convergence of several street grids and at the intersection of three major arterials: Atlantic Avenue, Flatbush Avenue, and 4th Avenue. Despite its location on these major arterials and the presence of 10 subway lines and the LIRR Atlantic Terminal just across the street, the project site contains few commercial or residential uses, none at the density anticipated when development first responded to the area's excellent transportation service. Table 1-2 provides the street addresses, use types, and ownership information for the lots comprising the project site.

Table 1-2
Parcels to be Acquired for the Proposed Project

Lot	Address	Street	Use Type	Ownership
Block 1118				
1	181	Flatbush Avenue	Transportation (Auto repair) [Vacant]	Project Sponsors
5	177	Flatbush Avenue	Commercial (Restaurant)	Project Sponsors
6	175	Flatbush Avenue	Industrial/Storage [Vacant]	City
21	608	Atlantic Avenue	Industrial/Storage [Vacant][8]	Project Sponsors
22	610	Atlantic Avenue	Industrial/Storage [Vacant][8]	Project Sponsors
23	612	Atlantic Avenue	Industrial/Storage [Vacant][8]	Project Sponsors
24	614	Atlantic Avenue	Industrial/Storage [Vacant][8]	Project Sponsors
25	616	Atlantic Avenue	Industrial/Storage [Vacant][8]	Project Sponsors
27	618	Atlantic Avenue	Industrial/Storage [Vacant][8]	Project Sponsors
Block 1119				
1	622	Atlantic Avenue	Transportation (Truck rental) [Vacant]	Project Sponsors
7	630	Atlantic Avenue	LIRR Rail Storage Yard	MTA/LIRR
64	NA	5th Avenue	Transportation (Truck rental) [Vacant]	Project Sponsors
Block 1120				
1	676	Atlantic Avenue	LIRR Rail Storage Yard	MTA/LIRR[1]
19	700	Atlantic Avenue	Industrial/Storage	Private
28	728	Atlantic Avenue	Industrial/Storage	Private
35	730-740	Atlantic Avenue	Vacant Lot	Project Sponsors[3]
Block 1121				
1	NA	Carlton Avenue	LIRR Rail Storage Yard	MTA/LIRR[1]
42	516	Vanderbilt Avenue	Transportation (Gas station)	Private[2]
47	524	Vanderbilt Avenue	Transportation (Gas station/Auto repair) [Vacant]	Project Sponsors[2]
Block 1127				
1	195	Flatbush Avenue	Transportation (Gas station)	Project Sponsors
10	193	Flatbush Avenue	Residential and Commercial [Vacant]	Project Sponsors
11	191	Flatbush Avenue	Residential and Commercial [Vacant]	Project Sponsors
12	189	Flatbush Avenue	Residential [Vacant]	Project Sponsors
13	185	Flatbush Avenue	Vacant Lot	Project Sponsors
18	618	Pacific Street	Residential [Vacant]	Project Sponsors*
19	620	Pacific Street	Transportation (Auto repair) [Vacant][8]	Project Sponsors
20	622	Pacific Street	Transportation (Auto repair) [Vacant][8]	Project Sponsors
21	624	Pacific Street	Residential and [Vacant] Commercial	Project Sponsors
22	626	Pacific Street	Industrial [Vacant]	Project Sponsors
1101-1131(27)	636	Pacific Street	Condominium Building	Project Sponsors[4]
29	640	Pacific Street	Industrial [Vacant]	Project Sponsors
30	642/644/646	Pacific Street	Residential and Art Studio [Vacant]	Project Sponsors

Table 1-2 (cont'd)
Parcels to be Acquired for the Proposed Project

Lot	Address	Street	Use Type	Ownership
Block 1127 (cont'd)				
33	648	Pacific Street	FDNY Equipment Cleaning/Storage Facility	City (FDNY)
1001-1021 (35)	24	6th Avenue	Condominium Building	Project Sponsors[4]
43	483-485	Dean Street	Residential [Vacant] and Commercial	Project Sponsors
45	481	Dean Street	Residential	Private
46	479	Dean Street	Residential	Project Sponsors
47	477	Dean Street	Parking Lot	Private
48	475	Dean Street	Residential	Project Sponsors[5]
50	473	Dean Street	Residential	Project Sponsors
51	467	Dean Street	Institutional (Union office)	Private
54	465	Dean Street	Commercial [Vacant]	Project Sponsors
55	463	Dean Street	Residential [Vacant][8]	Project Sponsors
56	461	Dean Street	Residential [Vacant][8]	Project Sponsors
Block 1128				
1	NA	6th Avenue	Vacant Lot	Project Sponsors*
2	NA	6th Avenue	Vacant Lot	Project Sponsors*
4	25	6th Avenue	Commercial/Storage	Private
85	495	Dean Street	Residential	Private
86	493	Dean Street	Residential	Private
87	491	Dean Street	Residential [Vacant]	Private
88	489	Dean Street	Residential [Vacant]	Project Sponsors
89	487	Dean Street	Residential and Commercial	Private
Block 1129				
1	551	Carlton Avenue	Vacant Lot	Project Sponsors
3	549	Carlton Avenue	Vacant Lot	Project Sponsors
4	547	Carlton Avenue	Parking Lot	Private
5	545	Carlton Avenue	Parking Lot	Private[6]
6	543	Pacific Street	Parking Lot	Private[6]
13	752-766	Pacific Street	Industrial	Private[7]
21	768	Pacific Street	Community Facility	Private
25	800	Pacific Street	Industrial/Storage [Vacant]	Project Sponsors
39	802	Pacific Street	Industrial/Storage	Private
43	810	Pacific Street	Residential	Project Sponsors
44	812	Pacific Street	Residential	Private
45	814	Pacific Street	Industrial [Vacant]	Project Sponsors
46	818	Pacific Street	Residential	Project Sponsors
49	540	Vanderbilt Avenue	Residential	Project Sponsors
50	542	Vanderbilt Avenue	Transportation (Auto repair) [Vacant]	Project Sponsors
54	546	Vanderbilt Avenue	Industrial/Storage [Vacant]	Project Sponsors
62	645	Dean Street	Industrial (Framing shop)	Project Sponsors*
76	603	Dean Street	Community Facility	Private
81	545	Dean Street	Industrial/Storage [Vacant][8]	Project Sponsors
Block 927				
1	15	4th Avenue	Commercial	Private
16	617	Pacific Street	Commercial	Project Sponsors

Notes:

* Parcels under contract with the project sponsors.

1. Block 1120, Lot 1 and Block 1121, Lot 1 are owned by the MTA/LIRR. The project sponsors would purchase the development air rights, not the fee interest in these properties.
2. For Block 1121, Lots 42 and 47, MTA/LIRR would ultimately retain some fee interests in certain land on this block; the project sponsors would retain fee interest in the air space above those parcels.
3. Lot 35 on Block 1120 is owned by 730 Equity Corporation; the project sponsors assumed the ground lease for the property in fall 2005.
4. Lots 1101-1131 (27) and 1001-1021 (35) on Block 1127 are residential condominium buildings. As of October 1, 2006, the project sponsors had purchased all but one of the 31 units on Lot 27 and all but one of the 21 units on Lot 35; the remaining unit on Lot 35 was under contract with the project sponsors.
5. All of the units in the six-condominium building on Block 1127, Lot 48 are under contract by the project sponsors. The single-story building on the lot is owned by Peter Williams Enterprises.
6. According to the NYC Department of Finance, Lots 5 and 6 are owned by 535 Carlton Avenue Realty Corporation. The lots are leased by Pacific Street Park Corporation. The project sponsors contracted to purchase the tenant's interest in the ground lease for the lots, subject to the fee owner's consent to assignment, which cannot be unreasonably withheld. The closing of that assignment occurred in March 2006, but the fee owner has disputed the validity of the assignment. The dispute is now being litigated.
7. According to the NYC Department of Finance, lot 13 is owned by Pacific Carlton Development Corporation. The lot is leased by 752 Pacific, LLC ("752 Pacific"). The project sponsors contracted to purchase the tenant's interest in the ground lease for the property, subject to the fee owner's consent to assignment, which cannot be unreasonably withheld. The closing of that assignment occurred in March 2006, but the fee owner has disputed the validity of the assignment. The dispute is now being litigated.
8. These buildings were demolished in spring 2006 because of their dangerously deteriorated condition.

Sources: Forest City Ratner Companies (FCRC), October 2006; Real Property Assessment Data (RPAD) from the New York City Department of Finance.

PROPOSED PROJECT COMPONENTS

As discussed in Chapter 2, "Procedural and Analytical Framework," the proposed project has several elements that would be developed or implemented over a period of time. Two analysis years—2010 and 2016—are considered for the proposed project. The programs for both the residential and commercial mixed-use variations, as illustrated in Table 1-3 and described below, form the basis for the impact studies in this EIS.

Table 1-3
Comparison of Residential and Commercial Mixed-Use Variation Programs for 2010 and 2016

Proposed Uses	Residential Mixed-Use Variation	Commercial Mixed-Use Variation
Analysis Year: 2010 (Phase I: Development of Arena Block and Site 5)		
Residential[1]	2,085,000 gsf (2,110 units)	994,000 gsf (1,005 units)
Hotel (180 rooms)	165,000 gsf	0 gsf
Retail[1]	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
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	3,670spaces
Private Open Space	±1 acres	±1 acres
Publicly Accessible Open Space	8 acres	8 acres

Note: [1] A portion of the retail and residential space is anticipated to house community facilities.

To allow the project to respond to market forces and to address needs for housing and commercial office space, the project would permit some flexibility in the development program for portions of the site within or close to the Special Downtown Brooklyn District. The differences between the residential and commercial mixed-use variations are only found in the proposed development programs of Buildings 1 and 2 and on Site 5 and in the amounts of square footage allocated to residential, commercial (office), and hotel use within the three buildings (see Figures 1-3 and 1-4 and Table 1-3). The Site 5 program has been modified from a mixed-use residential/commercial development to either an all-residential or all-commercial use; the street-level retail use would remain under either development scenario. All of the other components of the proposed project, consisting of the arena, the publicly accessible open space, parking facilities, and the programs for Buildings 3 through 15, are the same for either variation. Both variations would total approximately 8 million gsf of mixed-use development.

PROJECT PHASING

As the proposed project would have several elements that would be developed or implemented over a period of time, two analysis years, 2010 and 2016, are considered in this document for the proposed project (see Chapter 2, "Analytical and Procedural Framework"). All Phase I (2010) buildings and other improvements—which include the arena, Buildings 1 through 4 and the

building on Site 5, as well as the new subway entrance—other than the rail yard and any interim parking, would be located on the western end of the project site on Blocks 927 (Site 5), 1118, 1119, and 1127. Rail yard improvements/construction staging, and interim parking would occur on the eastern portion of the site in Phase I. The rail yard would be platformed and the remaining 11 buildings would be built on the eastern portion of the project site (Blocks 1120, 1121, 1128, and 1129) during Phase II (2016).

RESIDENTIAL USES

As noted earlier, the proposed residential uses would help meet the expected housing demand for Brooklyn and the city as a whole, and the density of the proposed project allows for a substantial number of affordable units to be included as part of the development program. Residential use is planned for each building in the residential mixed-use variation, totaling an estimated 4,500 rental units and 1,930 condominium units. The project sponsors have committed that 50 percent of the rental units would be administered under an affordable housing program and that 30 percent of the units built on the arena block during Phase I would be affordable. Based upon the square footage of the residential rental program, it is estimated that there would be a total of approximately 4,500 rental units, of which 2,250 would be affordable units (see Table 1-4). Affordable units would be reserved for households making between 30 percent and 160 percent of citywide Area Median Income (AMI) and 50 percent of these units (on a square foot basis) would be two- and three-bedroom units. Rent for the units administered under this affordable housing program would be targeted at 30 percent of household income. Income band levels are based on AMI, which is set annually for metropolitan areas and non-metropolitan counties by the United States Department of Housing and Urban Development (HUD). As of April 7, 2006 the AMI for the New York City metropolitan area was $70,900 for a family of four. Ten (10) percent (450) of the total rental units would be reserved for senior residents. The affordable program would be subject to adjustment to accommodate the requirements of any city, state, or federal affordable housing program utilized for this housing. Notwithstanding such adjustments, income bands and distribution of units across income bands would be subject to approval by the City, the number of affordable units would not be less than 2,250, and the affordable units would be constructed in accordance with the phasing described above.

Table 1-4
Income Bands for Proposed Project Affordable Housing Units
(Based on Family Size of 4.0 Persons per Household)

	AMI Income Range	Number of Affordable Units	Minimum Income for Family of 4	Maximum Income for Family of 4
Income Band 1	30-40%	225	$ 21,270	$ 28,360
Income Band 2	41-50%	675	$ 28,361	$ 35,450
Income Band 3	60-100%	450	$ 42,540	$ 70,900
Income Band 4	101-140%	450	$ 70,901	$ 99,260
Income Band 5	141-160%	450	$ 99,261	$ 113,440

Notes:
1. All dollar values are presented in 2006 dollars.
2, Income bands and distribution of units across income bands are subject to approval by the City.
3. Income minimums and maximums are based on the Area Median Income (AMI) which is set annually for metropolitan areas and non-metropolitan counties by the US Department of Housing and Urban Development (HUD). As of April 7, 2006 the AMI for the New York City metropolitan area was $70,900 for a family of four.

Sources: FCRC; AKRF, Inc.

The commercial mixed-use variation would have the same number of rental and affordable units; the total number of condominiums would be 825 units. Under this variation, there would be no residential uses in Buildings 1 or 2 or on Site 5.

A small portion of the residential space (both variations) would house community facilities.

HOTEL USE

The residential mixed-use variation would include a full-service 180-room hotel (approximately 165,000 gsf) in Building 1. The commercial mixed-use variation would not include a hotel component.

COMMERCIAL (OFFICE AND RETAIL) USES

As noted above, the proposed office component would help satisfy the expected need for additional office space. The residential mixed-use variation would include approximately 336,000 gsf of Class A commercial office space in Building 1. The commercial mixed-use variation would include approximately 1.6 million gsf of commercial office space in Buildings 1 and 2 and on Site 5. Both variations would include an approximately 247,000-gsf retail component consisting of retail and eating establishments primarily serving the local population and tenants on the project site. A component of this retail space would also be for use as a community facility. These retail uses, which are expected to be the same for both variations, would be located on the ground floor, possibly extending to the second floor, in a number of the proposed buildings. The retail spaces would not have footprints large enough to house "big box" retail.

NETS ARENA AND THE URBAN ROOM

One of the primary civic components of the proposed project is the arena for the Nets (see Figures 1-6 through 1-10). The proposed arena would be located on the arena block, bounded by Dean Street and Atlantic, Flatbush, and 6th Avenues. The approximately 850,000-sf arena would be approximately 150 feet tall and include approximately one acre of private open space on its roof (see open space description below). The roof would also contain approximately three acres of landscaped green space, a sustainable design feature that reduces stormwater runoff, but would not be accessible. This arena would be a modern facility, designed to provide suites and general seating with optimal sightlines to the court. Of the NBA arenas built since 2000, none have been smaller than 750,000 square feet. The arena would also comply with the NBA recommendations that there be no parking or loading area beneath the arena bowl for security reasons.

The seating bowl for the arena has been designed to provide optimal sightlines for a variety of events. For basketball games, the arena would have a capacity of 18,000 seats; for non-basketball events—such as concerts, family shows, and community shows—the arena would have varying capacities depending on the event floor layout and equipment required to service these events. While there is the potential for additional seating capacity for non-game events (to 19,925 seats if wheelchair seating is replaced by regular seating), ADA accessibility, production equipment, and line of sight, operational and staging requirements would in almost all instances limit attendance at non-basketball events to well under 18,000. Non-game events are expected to attract fewer spectators than basketball events, with attendance generally ranging from 5,000 persons to 15,000 persons.

Non-game events have different production specifications and space requirements that would render unusable certain sections of seating. Stage size, placement and height, degrees of

sightline visibility, backdrop pieces, camera platforms, floor seating placement, tables around the stage and spot light platform requirements are a few of the common variables that significantly affect capacity. Some events such as touring concerts would also require the disassembling and removal of permanent seating in specific areas to accommodate traveling platforms and equipment. The most common concert configuration is the "End Stage 270 Degree Concert," which has a stage at one end of the floor with approximately 270 degrees of potential seating in front of the stage and 90 degrees of lost seating behind the stage due to platforms and equipment staging. Under this typical configuration, the arena capacity would be reduced to approximately 15,000 seats. Other events such as community events, collegiate competitions, and graduations would be expected to have smaller attendances.

The arena is expected to host approximately 225 events per year. Of these, a minimum of 10 events would be made available for use by community groups at a reasonable cost (generally the cost of operation) with any net proceeds to the sponsor from these events to be donated to not-for-profit organizations. The project sponsors have also committed to developing a foundation that would be used to fund not-for-profits and sports events that could be held at the arena. Additionally, the project sponsors would set aside for community use (and free of charge) for every Nets home game one box and four seats in the lower bowl and 50 seats in the Upper Bowl. Discount ticket prices would be made available to senior citizens. The project sponsors, as part of their community outreach, would also provide tickets to the valedictorians at each of the Brooklyn high schools on New York State's Underperforming Schools List (currently, 88) to attend a game of their choice the next season, which would total approximately 350 tickets a year.

A prominent feature of the pedestrian experience on the arena block is the "Urban Room," which would be located at the southeast corner of Flatbush Avenue and Atlantic Avenue at the base of Building 1 (see Figure 1-6). The "Urban Room," would consist of a large, at least 10,000-sf publicly accessible atrium that would serve as a dramatic gateway to the arena and provide a place for people to congregate. The Urban Room would serve multiple purposes depending on the time of day and the activities taking place. On weekday mornings, the Urban Room would serve as the principal access to mass transit for the neighborhoods to the south, east, and west of Atlantic Avenue. On evenings and weekends (and when there are no arena events), the Urban Room would be activated by the restaurant on the second level mezzanine and the hotel uses. Thus, this glass-enclosed space is expected to serve as an entrance to the office space and hotel in Building 1, the restaurant and cafe, the arena (its ticket booths would be located here), and a new access point to the subway via an underground connection. There would be approximately 10,000 square feet of space that would be available for the public. The Urban Room would serve as its own destination when programmed with small concerts, cultural events, art shows, and readings that would be open to the public. Within the Urban Room, a café would be centrally located on the street level for ease of access for pedestrians going to and from the subway and the street during both event and non-event periods. The second level mezzanine of the Urban Room would be accessed externally by a grand stoop at the corner of Atlantic and Flatbush Avenues or internally by a stair and an elevator.

The entrance to the enclosed, below-grade loading areas for the arena and Building 1 would be located on Dean Street. All security screening and loading dock activities would take place internally within this enclosed, below-grade area. This area would accommodate eight loading berths and have adequate truck maneuvering space to allow for head-in and head-out operations. There would be sufficient internal reservoir space that there would be no anticipated on-street queuing of delivery vehicles. All deliveries would be pre-scheduled. No arena functions other

than parking are planned east of 6th Avenue. The arena is anticipated to be open in time for the 2009 NBA season (in October).

OPEN SPACE AND COMMUNITY FACILITIES

When completed, the proposed project would include eight acres of publicly accessible open space on the project site. This open space would be an integral part of the mixed-use development (see Figure 1-11). In addition, approximately one acre of private open space would be located on a portion of the arena roof.

On Block 1120, the space between Pacific Street and the buildings would be landscaped, creating a green corridor along the Pacific Street block with the residential buildings serving as a backdrop to the landscaped edge. The open space would have a variety of both active and passive spaces and planted and paved areas, and would incorporate features such as playing fields, water features, walking paths, seating areas, and extensive landscaping throughout. The open space has been designed, and the buildings around the open space have been arranged, to promote public access to and use of the space by the general public.

The open space would continue along the Pacific Street corridor eastward on Blocks 1121 and 1129 through the introduction of an undulating walking path, preserving this corridor as a pedestrian thoroughfare east of the arena block. In the north-south direction, the open space would extend to Atlantic Avenue across from the terminus of each of the neighborhood streets to the north, linking the site to the area to the north both visually, through the creation of landscaped view corridors at the end of each street, and functionally, through the introduction of walking paths into the park at each of these points. The publicly accessible open space would be available for public use from 7:00 AM to 10:30 PM from May through September, and from 7:00 AM to the later of 8:00 PM and sunset in other months, seven days a week. This open space would be owned by a conservancy or other not-for-profit entity established by the project sponsors, which would be responsible for maintenance, operation and security of this public amenity. In addition, some of the residential buildings constructed during Phase II would have private rooftop open space.

A dedicated southbound bicycle path would enter the project site along Atlantic Avenue at Cumberland Street and would continue southbound between Buildings 6 and 7 (see Figure 1-11). The route would turn east running along Pacific Street where it would reenter the project site at a pedestrian pathway at Carlton Avenue. As presently conceived, it would continue southeast around Building 14 to Dean Street. The bike path would continue eastward along Dean Street toward Vanderbilt Avenue where it would connect with the larger city bicycle network. In addition, the proposed project would include a bicycle station in a ground floor retail space on the arena block. The 4,000-sf bicycle station would include storage for approximately 400 bicycles, space for a repair shop, an accessory retail shop, and amenities such as lockers, restrooms, and a security desk to service the needs of its users.

A central community facility element would be an intergenerational community center located in the base of one of the buildings on Block 1120 (programming and exact site location to be determined); this approximately 15,000-sf community center would replace a portion of the retail space. The intergenerational facility would consist of child care, and youth and senior centers in one building with an atrium. The childcare center would have a capacity to accommodate at least 100 children and would be publicly funded or accept Agency for Child Development (ACD) vouchers.

The proposed project would also include a 20,000-sf health care facility that would provide a broad range of health care services to the community. Services at this proposed facility (program being developed) could include primary care and preventative services, specialty care, diagnostic testing and ancillary services and related support services to improve the management of prevalent chronic diseases. This health center would occupy a portion of the residential space and would be constructed during Phase I.

PARKING

The proposed project would provide approximately 2,346 parking spaces upon the completion of Phase I, comprising 750 permanent spaces (350 spaces on the arena block and 400 spaces on Site 5), 652 spaces of interim parking on Block 1120, and 944 spaces of interim parking on Block 1129 (not including the temporary spaces reserved for construction workers). Upon Phase II completion, the proposed project would provide up to 3,670 below-grade attended parking spaces on the project site. As currently envisioned, these would include: approximately 350 spaces below the arena with access from Dean Street; 400 spaces on Site 5 with access from Pacific Street; 350 spaces on Block 1120 with access from 6th Avenue; 450 spaces on Block 1120 with access from Carlton Avenue; 150 spaces below Building 15 on Block 1128 with access from Pacific Street; and 1,970 spaces on Block 1129 with access from Dean Street and Carlton and Vanderbilt Avenues (see Figure 1-12).

The reconfiguration of 6th Avenue between Atlantic and Flatbush Avenue—under both program variations—would result in the loss of angled police parking in front of the New York Police Department (NYPD) 78th Precinct House. The project sponsors would provide off-street parking within the project site at a location proximate and convenient to the 78th Precinct, for the up to 24 vehicles that would be displaced.

LIRR RAIL YARD IMPROVEMENTS

While less apparent than the above-grade elements of the proposed project, the renovated rail yard is an important component of the significant package of public improvements provided by the proposed project. In order to allow at-grade development on the entire project site, the proposed project would include a relocated, improved, and covered rail yard. The new design would streamline train movement between the rail yard and the LIRR Atlantic Terminal and would also add to the rail yard's capacity. The new rail yard would facilitate the use of LIRR's new, longer MU electric train fleet.

A reconfigured and upgraded rail yard would be built below street grade on the eastern end of the existing rail yard footprint to allow for both the continuance of LIRR rail yard operations and the operation of the arena. In order to provide for the continuance of LIRR Atlantic Branch operations during construction of the arena, construction would be staged to provide a temporary storage yard in Block 1121 prior to the completion of the improved rail yard.

Because of ADA requirements, new rail cars accommodate fewer passengers than older cars, and thus longer trains are needed to accommodate the same number of passengers. The new rail yard would consist of longer 8- and 10-car tracks, facilitating the use of these longer trains (see Figure 1-13). Additionally, the new rail yard would provide a drill track; provide wider areas between tracks for servicing; relocate and replace the existing electrical substation; and provide more modern switching, signal, and toilet servicing equipment. These improvements would modernize the rail yard equipment and improve train circulation within the rail yard and between the rail yards and Atlantic Terminal. Additionally, parking for 30 cars and five trucks would be provided

and located within Block 1120 post-construction or another location satisfactory to LIRR, and usable storage space would be provided in Blocks 1120 and 1121 consistent with the needs of LIRR.

The west end of the improved rail yard would include a new portal (West Portal) which would provide a direct route to and from the LIRR Atlantic Terminal to the storage yard. The West Portal would also provide an emergency detour route for passenger train egress from the LIRR Atlantic Terminal, adding flexibility in the event of an emergency on the main line. The project sponsors would be responsible for the entire cost of the upgraded rail yard, although a portion of the state and City contributions to the project may be utilized for this purpose.

ACCESS AND CIRCULATION RECONFIGURATIONS

The proposed project would involve a number of access and circulation reconfigurations (see Figure 1-14). Roadway reconfigurations would include restriping and additional lay-by lanes. Pedestrian circulation reconfigurations would include wider sidewalks and a new subway entrance. These changes include the following:

- Pacific Street between Flatbush Avenue and 6th Avenue and 5th Avenue between Flatbush and Atlantic Avenues would be closed to vehicular traffic in order to provide a large contiguous footprint necessary to accommodate the arena, the Urban Room, and a direct below-grade connection from the arena block to the Atlantic Avenue/Pacific Street subway complex;
- Pacific Street between Vanderbilt and Carlton Avenues would be closed to vehicular traffic to create a substantial portion of the publicly accessible active and passive open space and to accommodate water features that are a major sustainable design element—serving as detention and retention basins as part of the project's comprehensive stormwater management system;
- The sidewalks along Flatbush Avenue between Atlantic Avenue and Dean Street would be set back 10 feet to provide a lay-by lane adjacent to the site to decrease congestion at this intersection;
- The sidewalks along Atlantic Avenue between Flatbush Avenue and 6th Avenue would be set back to provide an additional eastbound travel lane and a lay-by lane adjacent to the project site;
- 6th Avenue between Atlantic Avenue and Flatbush Avenue would be converted to two-way travel, with the segment between Pacific Street and Flatbush Avenue widened from 34 to 40 feet, and a lay-by lane between Atlantic Avenue and Dean Street would be provided adjacent to the project site;
- Pacific Street between 6th Avenue and Carlton Avenue would be widened from 34 to 38 feet; and
- Providing 20-foot-wide sidewalks along the south side of Atlantic Avenue from Flatbush Avenue to Vanderbilt Avenue and along the east side of Flatbush Avenue between Atlantic Avenue and Dean Street by setting the proposed buildings back from the street line.

The proposed project would also improve transit access for pedestrians. New subway entrances and connections would improve transit access from the south side of Atlantic Avenue since transit passengers would no longer have to cross Atlantic Avenue to gain access to the subway.

The new subway connections would be designed to facilitate circulation through the subway station (see Figures 1-15a through 1-15c). The specific subway connection improvements would include the following:

1. A plaza and the proposed Urban Room would be built at the southeast corner of the intersection of Atlantic Avenue and Flatbush Avenue. The Urban Room would serve as the main subway entrance from the arena and would include escalators, stairways and passageways leading to the subway; an elevator would also be included to comply with ADA guidelines.
2. A new ramp from the new control area beneath the Urban Room would connect to an existing but unused passage under the IRT subway to provide access to the IRT subway trains (2, 3, 4, and 5) located along Flatbush Avenue.
3. Access to the Brooklyn-Manhattan Transit (BMT) subway trains (B and Q) from the new control area would be via a rehabilitated and unused escalator shaft at the south of the original BMT station that then connects to the existing platform via a new stairway.

Additionally, the proposed project would also include the renovation and re-opening of an existing, but currently closed, emergency transit egress stairs located on the sidewalk in front of Site 5.

PROPOSED DESIGN

The creation of the arena block on the western portion of the project site by joining Blocks 1118, 1119, and 1127 and closing portions of Pacific Street and 5th Avenue would allow for the footprint space needed to house the arena component and the higher-density uses of the proposed project (see Figure 1-16). The closure of these streets would also allow the higher-density commercial and residential uses of the proposed project to surround the arena with a buffer of active street uses and to facilitate the concentration of development adjacent to Brooklyn largest transit hub. This arena block would be located at a unique and prominent location in Brooklyn in terms of transportation accessibility (both vehicular and transit). As the project site is located at the convergence of several street grids, the area is characterized by blocks of irregular shapes and sizes.

On the eastern end of the project site, Blocks 1121 and 1129 would be combined by the closing of Pacific Street between Carlton and Vanderbilt Avenues. The creation of this larger block would allow for greater flexibility in the placement of buildings on the project site and for a cohesive design that maximizes the amount of usable and contiguous open space, which would not otherwise be possible. It would also accommodate water features that serve as detention and retention basins, which are part of the project's comprehensive stormwater management system. The proposed design would also promote pedestrian connections, as discussed below.

DESIGN GUIDELINE ELEMENTS

In order to establish an overall framework for the design and development of the project site, the proposed project would follow urban design goals and principals set forth in a set of Design Guidelines, developed in close consultation with ESDC and DCP staff. The Design Guidelines are attached as an exhibit to the GPP. The Design Guidelines were supported by the New York City Planning Commission (CPC) in its recommendations on the project and have been modified since issuance of the DEIS to reflect CPC's recommendations (see Appendix I).

These design goals and principles are grouped into Building Organization, Building Articulation, Open Space and Streetscape.

Building Organization—In organizing the placement of the buildings on the project site, particular focus would be on:

- Concentrating density near the Atlantic/Flatbush subway hub;
- Creating an undulating skyline along Atlantic Avenue;
- Stepping down in scale as the project meets Dean Street; and
- Creating a visual relationship between Building 1, the Site 5 Building and the Williamsburgh Savings Bank Building.

Building Articulation—In designing the building form, particular focus would be on:

- Creating development envelopes that establish a street wall presence and physical separation between the buildings;
- Breaking down the building scale through the introduction of required setbacks and horizontal and vertical architectural breaks;
- Achieving additional articulation through variation in materials and window detailing; and
- Giving identified buildings within the master plan particular prominence through requirements for distinctive design.

Open Space—In designing the open space, considerations would include:

- Creating a cohesive, continuous and inviting open space with a range of uses and activities throughout;
- Using the open space to connect the surrounding neighborhoods from north to south by continuing the existing street grid system into the open space as pedestrian corridors; and
- Balancing the desire to create an open space protected from Atlantic Avenue with promoting access and use by the neighborhood's residents and workers.

Streetscape—Incorporate design elements along the project's street frontages that would include:

- Creating an active, transparent streetscape through the introduction of local retail and significant glazing requirements throughout the project, with a focus on the Atlantic Avenue corridor; and
- Enlivening the Atlantic Avenue and Flatbush Avenue intersection with public amenities and a comprehensive graphic and signage scheme.

ARENA BLOCK AND SITE 5

The buildings housing the taller, denser, and more intense uses would be concentrated at the western end of the project site—the arena block and Site 5—to capitalize on its location next to the LIRR Atlantic Terminal transportation hub, the Flatbush Avenue/Atlantic Avenue intersection, and the profile of the Williamsburgh Savings Bank Building (see Figures 1-17 and 1-18 for elevations of the residential mixed-use variation and the commercial mixed-use variation, respectively).

Buildings 1 through 4 would surround the arena, providing a frame for the approximately 150-foot-tall arena structure. The ground-floor uses in these structures would activate the street level at this location when the arena is not hosting events. The proposed project's largest building, Building 1, would reflect the prominence of this location in Brooklyn, both in the skyline and along the borough's major corridors, through its design, materials, and overall height (see Figure 1-19). The building is intended to be an identifiable architectural statement. It would have a distinctive profile in the Brooklyn skyline as the tallest building in Brooklyn at 620 feet. In response to CPC recommendations for the proposed project, the building envelope has been narrowed. While shorter than Building 1, and with slimmer floor plates, the other three buildings on the arena block would be tall as well, with heights of 219 feet (Building 3 at Dean Street and 6th Avenue), 322 feet (Building 2 at Flatbush Avenue and Dean Street), and 511 feet (Building 4 at Atlantic and 6th Avenues). Building 3 has been reduced in height (from 428 to 219 feet) and size from that analyzed in the DEIS in response to CPC recommendations. Although Buildings 1 through 4 would partially mask the arena, a portion of the Atlantic Avenue and Flatbush Avenue façades would be designed to provide clear views into a portion of the arena bowl from the surrounding streets. The building on Site 5, facing both Building 1 and the Willamsburgh Savings Bank Building from across Flatbush Avenue, would be 247 feet tall. As with Building 3, the Site 5 building has been reduced in height (from 350 to 247 feet) and size from that analyzed in the DEIS in response to CPC recommendations.

The proposed building heights are the same for both the residential mixed-use and commercial mixed-use variations. However, Buildings 1 and 2 and the building on Site 5 of the commercial mixed-use variation would contain larger floor plates typical of office development.

Materials

As discussed above, Building 1 is designed to have a significant presence along Flatbush and Atlantic Avenues. This building would have an exterior clad in a series of sculptural panels with wave-like, rippled qualities activating the façade. The glass-enclosed Urban Room would be located at the base of this building; the upper floors of this building would be undulating curved forms faced in glass, metal panels, and masonry. Intended to be less of a focal point than Building 1 and the Urban Room, the other buildings on the arena block and the building on Site 5 would be faced with masonry and articulated metal panels with deeply recessed windows; the ground floors of these buildings are required to have a high percentage of transparent materials under the Design Guidelines (see "Streetscape" discussion below).

Streetscape

The triangular western end of the arena block would form the gateway to the project site at the intersection of Flatbush and Atlantic Avenues. The streetscape of the arena block would include decorative paving, landscaping, and other public amenities at ground level. The Urban Room and proposed streetscape elements of the arena block would enhance the urban design of the project site, creating a new neighborhood context along the Atlantic Avenue and Flatbush Avenue corridors in keeping with the stature of these corridors as two of the principal (and widest) routes through the borough. The proposed buildings would, for the most part, have their front walls either on or within 10 feet of widened sidewalks adjacent to the project site, reinforcing this urban edge. Sidewalks on Flatbush and Atlantic Avenues would be a minimum of 20 feet wide, created by building setbacks, to provide for a safe pedestrian environment. The widened sidewalks would be lined by uses that have windows, lobbies, or storefronts. The wall facing the street would be articulated, and recess areas would incorporate landscaping to provide

visual interest and to facilitate pedestrian movement in and out of the buildings. The ground floors of the buildings would be lined with local retail, including potential restaurant uses, continuing the strong Atlantic Avenue and Flatbush Avenue retail corridors to the west and south, respectively, on to the project site (see Figures 1-6 through 1-9). This ground-level presence is intended to enliven the streetscape for residents, workers, and visitors even when the arena is not hosting an event.

Unlike most arena facilities where activity is hidden from the outside, the proposed project would seek to provide some visual connection to the indoor activity on the most public faces of the building—along Atlantic and Flatbush Avenues and the Urban Room. The arena is designed to allow passersby to see into the bowl to see the scoreboard from the Urban Room and Flatbush Avenue. The signage and lighting for the arena would be concentrated at the Urban Room and along Atlantic and Flatbush Avenues, across the street from existing commercial uses, giving life and vitality to the streets along the project site blocks where none exists today (see Figure 1-20).

Portions of the façades of the arena, the Urban Room, and Building 1 along Flatbush and Atlantic Avenues would contain illuminated transparent signage, ranging in height from 40 feet on the arena to 60 feet on Building 1 to the top of the façade of the Urban Room. Opaque signage along Atlantic and Flatbush Avenues would have smaller signage zones and surface area limitations. Most of the project lighting would be in keeping with lighting in recently developed areas of Brooklyn and would be consistent with the active uses and sports events that would take place in the arena. Signage would be visible to the east and west on Atlantic Avenue, to the north and south on Flatbush Avenue, and on small portions of Pacific and Dean Streets south of Flatbush Avenue. While the signage would be illuminated and highly visible at certain times, most residential areas would not have direct views of the signage.

RESIDENTIAL COMMUNITY (PROJECT SITE EAST OF 6TH AVENUE)

The Atlantic Avenue corridor would be significantly changed. The existing low-rise buildings and open rail yard would be replaced by a series of undulating towers ranging in height from 219 feet for Building 6 (reduced from 334 feet in the DEIS in response to CPC recommendations) to the 460-foot height of Building 7 at the intersection of Carlton and Atlantic Avenues (see Figure 1-16). While the heights would vary from building to building, with lower buildings interspersed between higher ones, there would be a general trend of higher buildings to the west and lower buildings to the east. The average height of buildings would decline eastward along Atlantic Avenue, from approximately 485 feet on the arena block, to approximately 360 feet on Block 1120, to approximately 340 feet on Block 1121, providing for a general reduction in scale as the project site moves farther away from the denser uses associated with Downtown Brooklyn and in recognition of the lower-density uses to the east and south. The buildings fronting Atlantic Avenue would be built to a greater height than adjacent buildings. On the other hand, these heights are designed to reference existing tall structures, most notably NYCHA's 31-story development, Atlantic Terminal Houses, just north of Atlantic Avenue at Carlton Avenue, the 10-story Newswalk (former Daily News Building) at 700 Pacific Street on Block 1128 one block south of Block 1120, and the commercial buildings in Downtown Brooklyn. Following this trend, the approximately 272-foot-tall Building 15, located on the western end of Block 1128 along 6th Avenue and just south of Building 5, would be taller than three of the other four proposed buildings (Buildings 11 through 14, Building 12 the exception) located along Dean Street to the east.

The tallest portion of the buildings on Block 1120, where the project site is only one block deep, would be located along the wide thoroughfare of Atlantic Avenue. The main footprint of these buildings would be located entirely within the northern half of the block more than 100 feet from Pacific Street; elements of the buildings would project southward at a lower height creating an undulating southern façade, but in no case would any portion of the buildings be closer than 25 feet to Pacific Street except for Building 5, which could extend closer to Pacific Street.

The building envelopes step down from the Atlantic Avenue frontage between 6th Avenue and Vanderbilt Avenue and would have a different character along the southern edge of the project site along Dean Street (see Figure 1-21). The four residential buildings fronting on Dean Street between Carlton and Vanderbilt Avenues would be designed to introduce a lower scale into the proposed project. The design of the lower levels of these buildings is intended to acknowledge the existing townhouses along Dean Street. Dean Street would be lined with trees in this location, and the placement of buildings along the street would give this street a lower-density character in keeping with the neighborhoods to the south. These buildings—Buildings 11 through 14—would have residential uses on the ground floor fronting Dean Street and lobby entrances to the larger residential elements which are set back to the interior of the block. These taller portions of the residential buildings would be set back a minimum of 55 to 60 feet from the southern boundary of the project site. These buildings would, similar to the Atlantic Avenue buildings, have a variety of heights, but would all be much lower than the buildings along Atlantic Avenue, ranging from 184 feet (Building 14) to 287 feet (Building 12) at their highest points and would meet the Dean Street frontage at heights ranging from 30 to 105 feet. Similarly, the height of Building 15 would decrease from Pacific Street to Dean Street.

Materials

The buildings that comprise the residential community are anticipated to have a more uniform rectilinear treatment than the Phase I building forms, and would incorporate masonry materials in keeping with the nature of the materials commonly used in residential buildings in the area.

Publicly Accessible Open Space

Upon completion, the proposed project would include the creation of eight acres of publicly accessible open space on Blocks 1120, 1121, and 1129. This open space would be an integral part of the mixed-use development, facilitating connections between the residential neighborhoods to the north and south of the project site, and filling in the existing gap in the neighborhood fabric. Open space would be added incrementally between 2010 and 2016 as buildings east of 6th Avenue (Phase II) are constructed.

The proposed open space would account for approximately 36 percent of the entire project site acreage. The open space has been designed, and the buildings around the open space have been arranged, to create contiguous open space on the project site and to promote public access to, and use of, this space. This open space would include a number of entrances, each of which would be at least 60 feet wide (comparable to the width of a neighborhood street) with an axis leading to a visible interior focal destination and/or through the block to the opposite street. The entrances to this at-grade open space would not have fences or gates.

The proposed open space was designed to maximize the number of users; thus, most of the open space (90 percent) is reserved for passive uses such as walkways, seating, and open lawn spaces capable of serving large numbers of users, as compared to tennis courts, baseball diamonds, and soccer fields. The remaining 10 percent would be designated for active uses. To further optimize

the use of the open space and enrich the public experience, complementary types of retail and community facility uses (the intergenerational facility) are expected to line the perimeter of the open space (see Figure 1-22 and discussion under "Streetscape" below). Major landscape elements would be located where they would maximize their exposure to the midday sun throughout the year. In addition, some of the residential buildings constructed during Phase II would have private rooftop open space.

On Block 1120, much of the planned open space would be located adjacent to and along Pacific Street, with wide openings/passageways between Buildings 5, 6, and 7 (see Figure 1-23). These openings, or passageways, would create landscaped connections to, and align the open space with, the Fort Greene street grid to the north of Atlantic Avenue and create north-south visual and physical connections. These open spaces would contain a variety of elements, which may include plazas with planting beds, seating, a children's playground, a lawn area, and a half basketball court, or other recreational amenities. The north side of Pacific Street on this block would be designed with border plantings or other landscaping features that would maintain the wide views into and out of the publicly accessible open space.

Blocks 1121 and 1129 would be combined into a large block form (with the intervening Pacific Street closed to vehicular traffic and incorporated into open space) in order to create a unified, publicly accessible open space. As noted above, the area created by the Pacific Street closure between Carlton and Vanderbilt Avenues would also allow for a contiguous footprint to accommodate a major sustainable design element—water features that serve as detention and retention basins as part of a comprehensive stormwater management system. There would be several open space access points: two points along Atlantic Avenue, aligned to the Fort Greene street grid to the north; three points along Dean Street; and one point at each end of the through-block pedestrian pathway that would align itself with the closed portion of Pacific Street at Carlton and Vanderbilt Avenues. This east-west pathway would consist of a wide walkway lined with trees and benches and would be delineated with a cobbled edge. As currently conceived, it would wind around several active and passive open space features, including a lawn surrounded by trees; a water feature surrounded by plantings, paths, benches, café terraces, and other amenities which could include children's playgrounds; and an active play area with volleyball, bocce, and benches for viewing (see Figure 1-24). There would be another through-block path running north-south to connect Dean Street and Atlantic Avenue near the end of Clermont Avenue; trees, seating, and water features would line this pathway (see Figure 1-25).

A bicycle path would also be included as another open space amenity that would further link the project site to the surrounding area and would create a greater sense of the public accessibility of the open space. The dedicated southbound bicycle path would be part of the City's Bicycle Network Development Program and part of the larger citywide network of bicycle lanes and paths (see Chapter 12, "Traffic and Parking"). The bike path would enter the project site along Atlantic Avenue at Cumberland Street. The path would continue southbound between Buildings 6 and 7. The route would turn east running along Pacific Street. The path would reenter the project site at a pedestrian pathway at Carlton Avenue. As presently conceived, it would continue southeast around Building 14 to Dean Street. The bike path would continue eastward along Dean Street toward Vanderbilt Avenue where it would connect with the larger network. The path would be approximately 5 feet wide within the boundaries of the project site. Although the bicycle path goes through a small portion of the project's open space component, it would be designed to pose minimal conflicts with pedestrians or passive use of the space.

The proposed project's open space component is described in greater detail in Chapter 6, "Open Space and Recreational Facilities."

Streetscape

The existing streetscape is characterized by the below-grade rail yard, industrial buildings in various states of disrepair, some residential buildings, and vacant buildings and lots, and street-level activity is virtually non-existent. Portions of the planned open space, as discussed above, would act as walkways, fostering additional connections between Prospect Heights and the neighborhoods to the north: Fort Greene and Clinton Hill. These pedestrian pathways would be aligned with and act as extensions of the streets to the north, namely South Oxford Street, Cumberland Street, and Clermont Avenue, extending the activity associated with these neighborhood streets southward. Despite the closure of certain streets to vehicular traffic (including Pacific Street), the proposed project would foster and increase connectivity between the neighborhoods surrounding the project site by creating inviting open space, walkways, and a bike path connection, promoting pedestrian activity and biking through the site (see Figures 1-26a and 1-26b for entrances to the Pacific Street pathway at Carlton and Vanderbilt Avenues, respectively).

The proposed project would increase street-level activity on the project site by creating eight acres of at-grade active and passive open space (see discussion above) and providing complementary active uses (including local retail and community facility uses) on the ground floors of the residential buildings. The street-level uses of the buildings lining Atlantic, Vanderbilt, and 6th Avenues would be predominantly local retail to strengthen and continue the Atlantic Avenue retail corridor to the west and promote street-level activity. These retail spaces are expected to contain restaurants, delis, boutiques, and local services.

As described above, the residential buildings fronting on Dean Street between Carlton and Vanderbilt Avenues would be designed to introduce a lower scale into the proposed project, and are intended to complement the existing townhouses along Dean Street (see Figure 1-27).

The residential blocks would have lighting and signage that would be similar to the lighting and signage on residential buildings with ground-floor retail throughout New York City. There would be no special roof or façade lighting.

Public Safety

The proposed project would implement its own site security plan, which includes measures such as the deployment of security staff and monitoring and screening procedures. Private security staff and security systems would be provided for the project: additional security personnel at arena events, screening of office tenants and visitors, and private security for the residential and open space components of the proposed project.

The project sponsors have consulted with the FDNY regarding access needs of emergency vehicles and other safety considerations, such as evacuation plans for places of public gathering and fire protection and security measures. The project sponsors also met with NYPD to review the overall project and public safety and security measures.

SUSTAINABLE DESIGN MEASURES

Green building design, or sustainable design, strives to reduce a building's impact on its occupants and the environment. Sustainable design integrates architectural elements and engineering systems to optimize performance of proposed buildings and their interaction with

the environment. The proposed project would include a number of sustainable design features, as discussed below.

Leadership in Energy and Environmental Design (LEED) Certification

The proposed project would incorporate measures to achieve Leadership in Energy and Environmental Design (LEED) certification—at a minimum—for the arena and all 16 buildings on the project site, with a goal of a higher LEED Silver certification where feasible and practicable. The LEED rating system, developed by the non-profit U.S. Green Building Council, is a standard ensuring a high degree of environmental stewardship, considering energy efficiency, minimization of waste sent to landfills, and other sustainability best practices in building design and operation. In addition, the project sponsors have stated their intention to participate as a pilot project in a LEED for Neighborhood Development (LEED-ND) program, which is currently being developed.

Energy Consumption Reduction and Demand Control

It is anticipated that, as part of the LEED certification, the proposed project would achieve a minimum 10 percent project-wide energy savings beyond the requirements of the New York State Energy Conservation and Construction Code as of September 2006. This would be achieved by including some combination of the following technologies or appropriate substitutes, which vary by building use and occupancy, to reduce energy consumption and control peak electric demand loads:

- High-efficiency HVAC (heating, ventilating, and air conditioning) systems chosen to meet Energy Star performance or better and following the Federal Energy Management Program's (FEMP's) procurement guidelines, including such measures as heat recovery, high efficiency cooling systems (e.g., PTACs), heat pumps and fan coil units, variable speed frequency drives for fans, carbon monoxide monitoring in the arena, office, and parking areas, and high-efficiency chillers, boilers, motors, and pumps;
- More efficient building envelopes, using high-performance glazing and insulation;
- Energy Star Lighting and Energy Efficient Systems Controls including high-efficiency lighting design, fluorescent lamping, high efficiency ballasts, metal halide lighting in arena, High Intensity Discharge (HID) and Light Emitting Diode (LED) lighting, daylight harvesting and daylight dimming at the arena concourses, occupancy sensors, automated/dimming controls and bi-level lighting;
- Energy Star Appliances such as refrigerators, clothes washers, ventless dryers, dishwashers, computers, and heating and cooling equipment would be used in residential units;
- Renewable energy, possibly through the use of such features as solar powered outdoor lighting, solar powered irrigation pumps, and green power purchasing; and
- Water conservation measures would also result in energy savings due to reduction in domestic water heating and pumping.

Water Use and Stormwater Management

The proposed project would use high-efficiency water fixtures such as sensing flow restrictors, low flow toilets, faucets and showers, dual flush or low flow toilets, drip irrigation, and in the arena, waterless urinals.

The proposed project would use a mix of storm water retention and detention systems that would hold over 900,000 gallons of water in underground and in-building tanks and open space water features that retain water on the project site. Water captured from rainwater runoff would be reused for open space irrigation on site and for cooling tower make-up water. This system would reduce the stormwater outflow into the combined storm and sewer system during wet weather and release the water into the system during dry weather. In addition, the existing municipal sewer system in and around the project site would be upgraded to meet New York City Department of Environmental Protection (DEP) standards.

In addition, the feasibility of reusing rainwater for applications such as limited toilet flushing or laundry would be explored.

Landscape Design

The proposed publicly accessible open space and the arena's green roof would absorb some of the rainwater runoff that would otherwise flow directly into the City's water drainage system. The open space would include native, adapted, non-invasive and drought-resistant landscape species, vegetative filters, drip irrigation, and integrated pest management measures. To minimize urban heat island effect, canopy trees and high-albedo paving would be incorporated into the design. The landscape design would also include recycled content in the soil, fill, exterior pathways, and outdoor furnishings.

Clean Air Measures

All of the buildings on the project site would have heating systems that burn natural gas exclusively, and would utilize burners that reduce nitrogen oxide emissions. The proposed project would use alternative fuel or hybrid shuttle buses for the arena's remote parking program and electric-powered on-site maintenance vehicles. As discussed earlier, a bicycle station would be located on the Arena block located next to the transit hub and existing routes, promoting the use of bicycles in the community. In addition, bicycle storage would be provided in each of the residential buildings.

Sustainable Construction and Materials

The proposed project would include the use of recycled content in construction materials, low Volatile Organic Compound (VOC)- emitting materials, locally and regionally available materials, and renewable materials such as wheat board, bamboo, and other fast-growing woods. In addition, wood certified by the Forest Stewardship Council would be used when practical. Construction waste would be recycled, where practicable, with a goal of achieving a recovery rate of 75 percent or higher.

There would be a number of measures that would be implemented during construction to reduce air emissions. The measures are outlined in Chapter 17, "Construction Impacts."

E. CONSTRUCTION SCHEDULE

If approved, the proposed arena and new subway entrance are expected to be completed by fall 2009 for opening day of the Nets 2009 season. Construction of the other buildings on the arena block and Site 5, as well as the improved rail yard, is expected to be completed by 2010. It is expected that the entire proposed development would occur by 2016. The likely construction schedule for development at the site and an estimate of activity on-site is described in Chapter 17, "Construction Impacts." ✷