

Kingsbridge Armory Project

Draft Scope of Work for an Environmental Impact Statement

A. PROJECT DESCRIPTION

PROPOSED PROJECT

The Kingsbridge Armory project is a proposed redevelopment of the Armory building—a historic landmark which is substantially vacant—with approximately 897,860 square feet of new uses, primarily retail and public parking with a cinema, fitness club, restaurant space, and community facility space. A new public open space would be developed adjacent to the Armory building on the project site, at the intersection of West Kingsbridge Road and Reservoir Avenue.

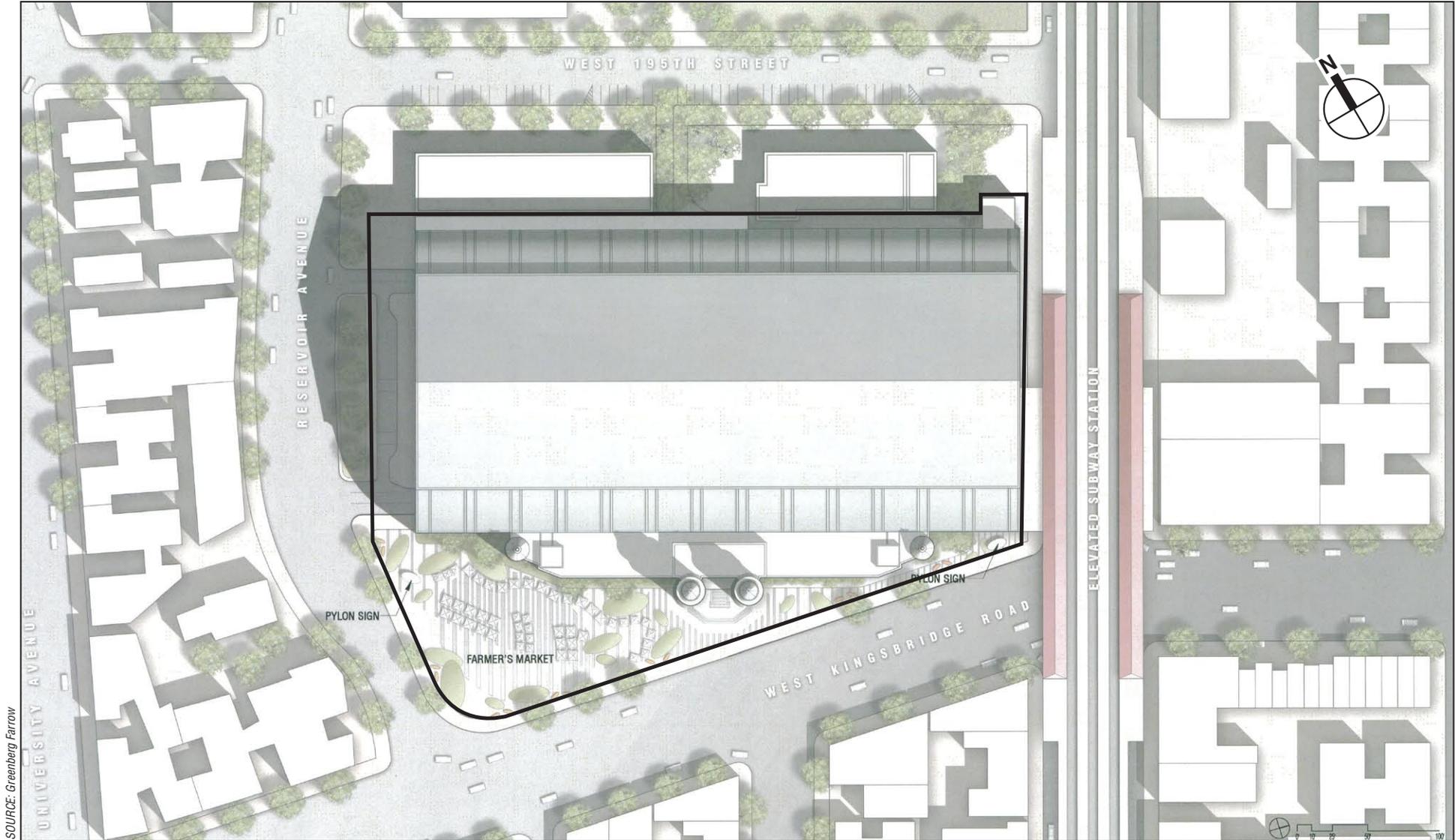
The proposed project would be located in the Kingsbridge Heights neighborhood of the Bronx on Block 3247, Lot 10 and a portion of Lot 2. The project site occupies most of the block bounded by West 195th Street, Reservoir Avenue, West Kingsbridge Road, and Jerome Avenue (see Figure 1). The site is largely occupied by the Armory building, which is substantially vacant, apart from the storage of graffiti removal trucks by the Mayor's Office's "Graffiti Free NYC" program. In addition to the Armory building, the project site includes small landscaped areas east, south, and west of the Armory building and the portion of Reservoir Avenue southwest of the Armory building.

The proposed project would redevelop the Kingsbridge Armory with approximately 897,860 feet of new development, including approximately 57,485 square feet of entertainment uses (a cinema), 27,000 square feet of community facilities, 33,240 square feet of space for a fitness club, and 377,235 square feet of retail and restaurant space, including both neighborhood and destination retail (see Figure 2).¹ In addition, approximately 437 public parking spaces, approximately 164,285 square feet, would be provided in the Armory's basement levels. A new, approximately one-acre public open space would be developed adjacent to the Armory building on the project site, at the intersection of West Kingsbridge Road and Reservoir Avenue. To create the public open space, a portion of Reservoir Avenue southwest of the Armory building would be demapped. The project is expected to be complete and operational in 2013.

The proposed project would support the economic revitalization of the Kingsbridge Heights neighborhood of the Bronx by converting the large, substantially vacant Armory building into productive use. The Kingsbridge Armory proposed development would create new employment opportunities for the local residents, and create economic and fiscal benefits to the City in the form of economic revitalization and tax revenue. In addition, the project provides for a new, approximately one-acre public open space, which would serve the surrounding neighborhood.

For the purpose of analyzing the potential environmental impacts of the proposed actions described below, this Draft Scope of Work for the Draft Environmental Impact Statement (DEIS) considers the proposed project to be the reasonable worst-case development scenario.

¹ Overall development area includes 238,615 square feet of service, mechanical, loading, and common area space.



SOURCE: Greenberg Farrow

NOTE: For Illustrative Purposes Only

 Project Site



SOURCE: Greenberg Farrow

NOTE: For Illustrative Purposes Only

PROPOSED ACTIONS

The proposed project involves the disposition of City-owned property to a private developer. Disposition will require approval through the Uniform Land Use Review Procedure (ULURP) under City Charter Section 197(c) and separate Borough Board and Mayoral approval pursuant to City Charter Section 384(b)(4). In addition, discretionary actions will be required:

- A change to the City Map to close a portion of Reservoir Avenue, to create a new public open space, and to close a portion of West 195th Street between Jerome and Reservoir Avenues; and
- A zoning map amendment to rezone the project block from R6 to C4-4.

The project may also seek financing from New York City Industrial Development Agency (IDA) and/or the Empire State Development Corporation (ESDC). Since the Armory is a New York City Landmark (NYCL), the proposed changes to the building will require a Certificate of Appropriateness (CofA) from the New York City Landmarks Preservation Commission (LPC).

B. CITY ENVIRONMENTAL QUALITY REVIEW

Because the proposed project requires discretionary approvals from the New York City Planning Commission (CPC), it is subject to City Environmental Quality Review (CEQR). The Office of the Deputy Mayor for Economic Development is the CEQR lead agency for the proposed project. As described in the EAS, the proposed project may potentially result in significant adverse environmental impacts, particularly in the areas of historic resources, neighborhood character, and traffic, requiring that an Environmental Impact Statement (EIS) be prepared.

SCOPING

Scoping is the first step in EIS preparation and provides an early opportunity for the public and other agencies to be involved in the EIS process. It is intended to determine the range of issues and considerations to be evaluated in the EIS. This Draft Scope of Work for the DEIS has therefore been prepared to describe the proposed actions, outline a reasonable worst-case development scenario, present the proposed content of the EIS, and discuss the analytical procedures to be followed. For the purpose of analyzing the potential environmental impacts of the proposed actions, this Draft Scope of Work considers the proposed project to be the reasonable worst-case development scenario.

A public scoping meeting will be held on Thursday, October 2, 2008 at the Bronx Library Center, 310 East Kingsbridge Road in the Auditorium, Bronx, New York. The period for submitting written comments will remain open until 5:00 P.M. Friday, October 17, 2008. The final Scope of Work for the EIS will incorporate all relevant comments made on the draft scope and will revise the extent or methodologies of the studies, as appropriate, in response to comments made during scoping. The DEIS will be prepared in accordance with the final Scope of Work for an EIS.

C. PROPOSED SCOPE OF THE ENVIRONMENTAL IMPACT STATEMENT

The EIS will be prepared in conformance with all applicable laws and regulations, including SEQRA (Article 8 of the New York State Environmental Conservation Law) and its implementing regulations found at 6 NYCRR Part 617, New York City Executive Order No. 91 of 1977, as amended, and the Rules of Procedure for City Environmental Quality Review (CEQR), found at Title 62, Chapter 5 of the Rules of the City of New York. The EIS will follow the guidance of the *CEQR Technical Manual*, dated October 2001.

The EIS will contain:

- A description of the proposed action and its environmental setting;

- A statement of the environmental impacts of the proposed action, including its short- and long-term effects and typical associated environmental effects;
- An identification of any adverse environmental effects that cannot be avoided if the project is implemented;
- A discussion of reasonable alternatives to the proposed action, including a No Build alternative;
- An identification of irreversible and irretrievable commitments of resources that would be involved in the proposed action should it be implemented; and
- A description of mitigation proposed to minimize to the greatest extent practical any significant adverse environmental impacts.

The EIS will describe the existing conditions of the project site and the surrounding area and the conditions of the project site and surrounding area in 2013, the year in which the project is expected to be complete. The EIS will also consider other future development projects and changes to the surrounding area that are anticipated to occur in the future with or without the proposed actions (referred to as the No Build scenario). The potential impacts of the proposed actions on the project site and the surrounding area will be determined through a comparison of conditions in the future without the proposed actions to conditions in the future with the proposed actions.

Because the project site is not located within the state and city's Coastal Zone, an assessment of the project's consistency with the Waterfront Revitalization Program (WRP) is not required. Similarly, this scope assumes that a natural resources assessment is not required, as the project site is substantially devoid of natural resources, and does not contain any built resources that are known to contain or may be used as a habitat by a protected species. Since the proposed redevelopment of the Armory would not increase the height of the existing Amory building and would not create any new structures outside the building, this scope assumes that a shadows analysis is not required.

TASK 1: PROJECT DESCRIPTION

The first chapter of the EIS introduces the reader to the project and sets the context in which to assess impacts. The chapter will contain a project description (including a brief description of the history of the Kingsbridge Armory, and the components of the proposed mixed-use development); a statement of purpose and need for the proposed actions; a detailed description of the proposed actions necessary to achieve the project; a description of the development program and project design; and a discussion of approvals required, procedures to be followed, and the role of the EIS in the process. A detailed description of the No Build scenario will also be provided. This chapter is the key to understanding the proposed action and its impacts, and gives the public and decision-makers a base from which to evaluate the project against both the Build and the No Build options.

The project description will consist of a discussion of key project elements, such as land use plans, site plans and elevations, access and circulation to the public parking garage, cinema, and other proposed uses, and any project commitments. The section on required approvals will describe all public actions required to develop the project.

The role of public agencies in the approval process will also be described. The role of the EIS as a full disclosure document to aid in decision-making will be identified and its relationship to any other approval procedures will be described.

TASK 2: LAND USE, ZONING, AND PUBLIC POLICY

As described in the EAS, the project site is predominantly occupied by the ±360,000-square-foot Armory building, which is substantially vacant. In addition to the Armory building, the project site includes small

landscaped areas east, south, and west of the Armory building and the portion of Reservoir Avenue southwest of the Armory building.

The zoning of the project site is R6. The area surrounding the project site is bounded by, to the north, two buildings adjacent to the Armory's north façade, which are currently being used by the National Guard for military recruiting and a garage; the elevated subway line above Jerome Avenue, smaller commercial buildings, and an automotive repair shop to the east; smaller commercial buildings to the south; and residential apartment buildings, a church, an automotive repair shop to the west. The zoning districts in the surrounding area include residential, commercial, and manufacturing districts, specifically R6, R7-1, R8, C4-4, and M1-1.

According to the *City Environmental Quality Review (CEQR) Technical Manual*, a detailed assessment of land use, zoning, and public policy is appropriate if an action would be expected to result in a significant change in land use. The proposed project would require several discretionary actions, including the disposition of a ±249,386-square-foot parcel of land; rezoning the site from R6 to C4-4; the closing and demapping of a portion of Reservoir Avenue to create a new one-acre public open space, and closing a portion of the south side of West 195th Street between Jerome and Reservoir Avenues. The proposed project would redevelop the Kingsbridge Armory with approximately 897,860 square feet of new uses, including approximately: 57,485 square feet of entertainment uses (a cinema); 27,000 square feet of community facilities; 33,240 square feet of space for a fitness club; and 377,235 square feet of retail and restaurant space, including both neighborhood and destination retail.² In addition, approximately 437 parking spaces would be provided in basement levels.

These actions and the anticipated development would result in a major change in land use and zoning on the project site, and therefore warrant a detailed assessment. The EIS will:

- A. Provide a brief development history of the project site and surrounding area, including a discussion of the history of the Kingsbridge Armory. Describe conditions on the project site, including existing conditions and the underlying zoning.
- B. For the purpose of environmental analysis, the land use study area will extend approximately ¼-mile from the borders of the project site.
- C. Describe predominant land use patterns, including a description of recent development trends. Existing land use patterns will be highlighted.
- D. Describe the existing zoning and recent zoning actions in the study area.
- E. Describe other public policies that apply to the project site and the study area, including specific development projects and plans for public improvements.
- F. Prepare a list of future projects in the study area and describe how these projects might affect land use patterns and development trends in the study area in the future without the project. Also, identify pending zoning actions (including those associated with proposed No Build projects) or other public policy actions that could affect land use patterns and trends in the study area as they relate to the proposed project.
- G. Assess impacts of the proposed project on land use and land use trends, zoning, and public policy. Discuss potential changes associated with the addition of the proposed project to the study area. The impact assessment will be based on a comparison with the No Build scenario described above.

² Overall development area includes 238,615 square feet of service, mechanical, loading, and common area space.

TASK 3: SOCIOECONOMIC CONDITIONS

The purpose of the socioeconomic assessment is to disclose market changes that would be created by the proposed project and identify whether such changes could result in significant adverse impacts on neighborhood character. The proposed project would redevelop the Armory building, which is currently vacant, with a substantial amount of retail, entertainment, fitness club, community facility, and restaurant uses as well as public parking and a new public open space. The proposed project exceeds the 200,000-square-foot commercial use threshold requiring analysis under CEQR. Therefore, the analysis will follow the guidelines of the 2001 *CEQR Technical Manual* in assessing the five principal issues of concern with respect to socioeconomic conditions: (1) direct residential displacement; (2) direct business and institutional displacement; (3) indirect residential displacement; (4) indirect business and institutional displacement; and (5) adverse effects on a specific industry.

The proposed project would redevelop a building that is substantially vacant; the Armory has no existing residential, business, or institutional tenants. In accordance with the *CEQR Technical Manual* guidelines, the assessment of each area of concern will begin with a screening assessment or preliminary assessment. If necessary, a detailed analysis will be conducted for those areas in which the preliminary assessment cannot definitively rule out the potential for significant adverse impacts. Therefore, a preliminary assessment may be sufficient to conclude that the proposed project would not result in significant adverse impacts due to direct residential or business and institutional displacement. Similarly, a preliminary assessment may be sufficient to conclude that the proposed project would not result in indirect residential displacement impacts. As detailed below, the analysis will focus on the potential for the proposed project to result in significant adverse indirect business displacement impacts due to increased commercial rents and competition.

Indirect Business and Institutional Displacement due to Rent Increases

Using the most recent available data from public and private sources such as the New York State Department of Labor, the US Census Bureau, and ESRI, the analysis will describe existing economic activity in the approximately ¼-mile study area, including the number and types of businesses and institutions and employment by key sectors. The analysis also will describe characteristics of the existing commercial and manufacturing buildings in the study area, based on visual inspections, Department of Finance Real Property Assessment Division (RPAD) data, local real estate listings, and discussions with local real estate brokers. In accordance with *CEQR Technical Manual* guidelines, the analysis will use these data to consider whether the proposed action would have the potential to result in significant indirect business or institutional displacement impacts by altering existing economic patterns in the study area or by altering or accelerating an ongoing economic trend.

Indirect Business Displacement due to Competition

As described in the *CEQR Technical Manual*, a significant adverse socioeconomic conditions impact could occur if a proposed project threatened the competitive condition of one or more anchor retailers in a neighborhood retail shopping street or shopping center, or of a group of stores that would, in turn, undermine the overall competitive condition of a neighborhood shopping street or shopping center. The proposed expansion would introduce a substantial amount of new retail activity to the area, which may have the potential to affect existing commercial retail establishments through indirect business displacement.

Potential competitive impacts on individual stores do not constitute an environmental impact based on CEQR criteria. However, to the extent that a proposed retail development may affect a broader shopping area that constitutes an integral element defining the character of a neighborhood, environmental impacts need to be assessed. Because the proposed project is located near one of the Bronx's major retail

centers—Fordham Road—an analysis of the project’s potential effects on this area, as well as a broader primary trade area, will be provided.

The approach to analyzing the potential for indirect business displacement due to competition is based on an assessment of the demand for retail space by retail sector, comparing it to the available and future supply of retail space by retail sector, and presenting a quantitative analysis of existing versus potential expenditures. The assessment will entail the following steps:

- A. Present general data on the retail environment in New York City and Bronx County. Establish the overall need for new retail uses in the Bronx with this information, including trends in overall retail and department store sales, retail trade employment, and comparisons with other general retail statistics.
- B. Provide a description of the project’s anticipated retail uses. This description will be based on the anticipated stores, and for the remaining space, a projected retail mix will be established that will enable evaluation of the potential consequences of the retail program.
- C. Establish a trade area for the proposed project. Based on available information regarding the nature and size of tenants that are likely to occupy the proposed retail space, establish a reasonable primary trade area for the project.
- D. Develop a demographic profile of the trade area to estimate retail demand. Conduct a demographic analysis of the population within the study area using Census data. This analysis will include a delineation of population, household, income, auto-ownership, and other characteristics for 1990 and 2000. Income data will be adjusted to current dollars using the consumer price index for the New York area. Research household spending expenditure potential found in the trade area for the range of goods likely to be offered at the proposed retail center. Based on these data, estimate retail demand by retail sector for the study area population. Assess the retail environment of the trade area in terms of the proportion of retail expenditure potential being captured by the current retail supply.
- E. Develop a profile of the retail uses in the trade area. Within the study area, conduct land use inventories of retail uses and concentrations of such uses, categorized by the retail sectors they currently serve. Supplement retail surveys with discussions with local merchants, business groups, and/or planning and economic development officials to obtain a more complete picture of the retail market conditions and trends. Retail sales in the trade area will be estimated from on-line national planning data services, such as ESRI Business Analyst.
- F. Estimate sales of comparable goods at existing retail facilities in the trade area, and estimate the percentage of trade area expenditures captured by the existing retail inventory.
- G. Identify changes that may be expected in the future without the proposed project. Specifically, identify any large-scale projects within the trade area that could be expected to increase the population and expenditure potential of the trade area or any proposals for other large-scale retail developments. This information will be developed in conjunction with the Bronx office of the New York City Department of City Planning (DCP) and with other relevant public agencies.
- H. Establish the future with the proposed action conditions by applying relevant sales per square foot from published sources, such as *Dollars & Cents of Shopping Centers* (ULI) and *Chain Store Age*, to square footage data for the proposed project. This scenario will be presented in the same format as that for the No Build scenario.
- I. Assess the potential for impacts. Conduct an analysis of the demand (expenditures) versus the supply (sales) within appropriate retail sectors, and assess impacts on major existing retail anchors or groups of stores that serve as an anchor for neighborhood shopping. If, in the future with the proposed project, the retail supply is significantly greater than the analyzed demand, the

analysis would then assess the potential for the proposed project to affect neighborhood character in the vicinity of major retail concentrations.

TASK 4: COMMUNITY FACILITIES AND SERVICES

Community facilities are public or publicly-funded facilities such as schools, hospitals, libraries, day care centers, and fire and police protection. Consistent with the *CEQR Technical Manual*, a community facilities and services analysis will look at the project's potential effect on the provision of services provided by such facilities. Since the proposed project does not include a residential component, and would not directly displace any facilities, it does not meet the *CEQR Technical Manual's* thresholds for detailed analyses of public schools, libraries, health care facilities, day care centers, and fire and police protection services. Therefore, the community facilities analysis will be a screening-level assessment.

TASK 5: OPEN SPACE AND RECREATIONAL FACILITIES

The proposed redevelopment of the Kingsbridge Armory would include the creation of a new one-acre public open space at the intersection of West Kingsbridge Road and Reservoir Avenue. In addition, the proposed project, with over 500 workers, will exceed the CEQR threshold requiring an open space analysis. The open space analysis will determine whether the project will affect the quantitative and qualitative measures of open space adequacy within the ¼-mile study area recommended for commercial projects in the *CEQR Technical Manual*. The open space analysis will:

- A. Inventory existing open space and recreational facilities within a ¼-mile radius of the project site. Tally open space acreage for passive, publicly accessible recreational facilities. All Census block groups with at least 50 percent of their area falling within these study areas will be included in the open space study areas;
- B. Estimate employment in the open space study area using reverse journey-to-work data.
- C. In conformance with *CEQR Technical Manual* methodologies, assess the adequacy of existing publicly accessible open space facilities.
- D. Assess expected changes in future levels of open space supply and demand in the Build year, based on other planned development projects within the study area and public open space expected to be developed. Develop open space ratios for future conditions and compare them with existing ratios to determine changes in future levels of adequacy.
- E. Based on the worker population added by the proposed project and the open space to be provided as part of the development, assess the project's effects on open space supply and demand. The assessment of project impacts will be based on a comparison of open space ratios with the project and open space ratios in the future without the project.

TASK 6: HISTORIC RESOURCES

The project site is occupied by the Kingsbridge Armory—also known as the Eighth Regiment Armory—which is a New York City Landmark (NYCL) and is also listed on the State and National Registers of Historic Places (S/NR). Since the Armory is a NYCL, the proposed changes to the building will require a Certificate of Appropriateness (CofA) from the New York City Landmarks Preservation Commission (LPC). Therefore, an analysis will be undertaken to examine the effect of the proposed project on architectural resources.

Since the proposed project would result in subsurface disturbance on the project site and the extent of historic fill and disturbance episodes in this area is unclear, the *CEQR Technical Manual* guidelines recommend an assessment of archaeological resources.

The following tasks will be undertaken as part of the historic resources analysis:

- A. Define the project's study area for archaeological resources. This is the area where in-ground disturbance would occur that could affect archaeological resources;
- B. Consult with LPC to determine the potential archaeological sensitivity of the archaeology study area. Should LPC request a Phase 1A Archaeological Assessment of the archaeology study area, it shall be undertaken as requested.
- C. Identify and describe any designated architectural resources, including historic districts, within the project's study area for architectural resources. The architectural study area will be defined for this analysis as the project site and the area within approximately 400 feet of the project site. Historic resources include New York City Landmarks and Historic Districts, properties pending New York City Landmark designation, sites listed on or determined eligible for inclusion on the State and/or National Register of Historic Places, and National Historic Landmarks.
- D. Based on visits to the architectural resources study area by an architectural historian, survey standing structures in the study area to identify any properties that appear to meet eligibility criteria for New York City Landmark designation or listing on the State and/or National Registers. Prepare Historic Resource Inventory Forms ("blue forms") for properties that appear to meet S/NR and/or NYCL eligibility criteria for submission to LPC for determinations of eligibility.
- E. Add any properties determined by LPC to be eligible for NYCL designation or S/NR listing to the list of architectural resources to be assessed for potential project impacts. Prepare a map indicating the location of all designated and potential architectural resources within the study area.
- F. Assess the effects of planned development projects expected to be built by the project's build year in the future without the proposed project.
- G. Assess the project's impacts on any designated or potential architectural resources, including visual and contextual impacts as well as any direct physical impacts. The analysis of the proposed changes to the Armory building will draw from LPC's CofA statement, as available, as well as any reports or other correspondence from LPC. If necessary, assess any direct physical impacts of the proposed project on archaeological resources.
- H. Where appropriate, develop mitigation measures to avoid and/or reduce any adverse effects on architectural and archaeological resources in consultation with LPC.
- I. Should the project pursue IDA and/or ESDC financing, then the project would also consult with the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) regarding historic resources.

TASK 7: URBAN DESIGN AND VISUAL RESOURCES

The proposed development of the project site would redevelop the existing Armory building with a variety of retail, entertainment, community facility, restaurant, and public parking uses. It would also demap a portion of the city street network and create a new public open space. As described in the EAS, the *CEQR Technical Manual* recommends a detailed assessment of urban design and visual resources when a proposed action would demap an active street, would change block form, or would result in structures substantially different in height, bulk, size, scale, use, or arrangement than what exists. The proposed project meets this threshold for analysis, and therefore would be expected to affect the urban design character of the site and of the surrounding area. Therefore, this analysis will consider the effects of the proposed project on the character of the surrounding area. The urban design and visual resources analysis will:

- A. Based on field visits, describe the site and the urban design and visual resources of the surrounding area, using photographs and text as appropriate. The study area for the urban design analysis will be 400 feet from the project site's boundaries. A description of existing natural features, block forms, streetscape elements, street patterns and street hierarchy, as well as building bulk, use, type, and arrangement of the study area will be included as per the *CEQR Technical Manual*. A description of visual resources in the area will also be provided.
- B. Based on planned development projects, describe the changes expected in the urban design and visual character of the study area that are expected in the future without the project.
- C. Assess the changes in urban design characteristics and visual resources that are expected to result from the project on the project site—including building alterations, signage, and new open space—and in the study area, in comparison to the No Build scenario, and evaluate the significance of the change.

TASK 8: NEIGHBORHOOD CHARACTER

The character of a neighborhood is established by numerous factors, including land use patterns, the characteristics of its population and economic activities, the scale of its development, the design of its buildings, the presence of notable landmarks, and a variety of other physical features that include noise levels, traffic, and pedestrian patterns. The proposed project represents a dramatic change to the use of the Armory building, and will affect the character of the surrounding area. Therefore, the EIS analysis will consist of the following tasks:

- A. Based on the other EIS sections, summarize the predominant factors that contribute to defining the character of the neighborhood.
- B. Based on planned development projects, public policy initiatives, and planned public improvements, changes that can be expected in the character of the neighborhood in the future without the project will be described.
- C. The project's impact on neighborhood character will be assessed and summarized, in comparison to the No Build scenario.

TASK 9: HAZARDOUS MATERIALS

A Phase I Environmental Site Assessment (ESA) and a Phase II Site Investigation Report have been prepared for the project site. As described in these reports, the Armory building was formerly used for military and training operations. In addition, three 275-gallon above-ground fuel storage tanks (ASTs) are currently located within the Armory building. For these reasons, a detailed hazardous materials analysis is warranted.

This section will analyze the project's potential to have environmental impacts regarding hazardous materials at the project site. The hazardous materials chapter for the EIS will include a detailed discussion of current environmental conditions on the project site and will examine how the proposed action will affect these conditions. The discussion of current environmental conditions will rely on information provided in the Phase I ESA and Phase II documents that have been previously prepared for the project site. The hazardous materials chapter will include a discussion of the proposed action's potential to result in significant adverse hazardous materials impacts and, if necessary, will include a description of any remediation measures that would be necessary to avoid impacts. Based on a review of the Phase I ESA and Phase II Site Investigation Report prepared for the site, the New York City Department of Environmental Protection (DEP) has requested that additional testing be conducted to further characterize subsurface conditions at the project site. Results of this testing will also be discussed in the chapter.

TASK 10: INFRASTRUCTURE, SOLID WASTE, AND ENERGY

As described in the *CEQR Technical Manual*, because of the size of the City's water supply system and because the City is committed to maintaining adequate water supply and pressure for all users, few actions would have the potential to result in significant adverse impact on the water supply system. Similarly, an evaluation of potential solid waste or energy impacts is not generally necessary unless a project is unusually large. Therefore, although the project's proposed uses may increase the demand on water supply and energy, and increase the generation of stormwater, sewage, and solid waste, it would not be expected to create an adverse impact on these services. However, as recommended by the *CEQR Technical Manual*, the project's potential demand on water supply and energy and potential generation of stormwater, sewage, and solid waste will be disclosed.

Water Supply

- A. The existing water supply system will be described, and any planned changes to the system will be discussed. Average and peak water demand for the project will be projected. The effects of the incremental demand on the system will be assessed to determine if there is sufficient capacity to maintain adequate supply and pressure.

Storm Water

- B. Describe the existing storm water drainage system on the project site and amount of storm water generated by the site. Assess future storm water generation from the proposed project and assess its potential for impacts.

Sewage

- C. The existing sewer system serving the development site will be described based on information obtained from the New York City Department of Environmental Protection (DEP). The existing flows to the water pollution control plant (WPCP) that serves the site will be obtained for the latest 12-month period. The average dry weather monthly flow will be presented.
- D. Sanitary sewage generation for the project will be estimated. The effects of the incremental demand on the system will be assessed to determine if there will be any impact on operations of the WPCP.

Solid Waste

- E. Existing and future New York City solid waste disposal practices will be described, including the collection system and status of landfilling, recycling, and other disposal methods.
- F. The impacts of the project's solid waste generation on the City's collection needs and disposal capacity will be assessed.

Energy

- G. The energy systems that would supply the project with electricity and/or natural gas will be described.
- H. The energy usage for the project will be estimated, based on square footage. The effect of this new demand on the energy supply systems will be assessed.

TASK 11: TRAFFIC AND PARKING

This section will analyze the project's potential to have environmental impacts relating to traffic and parking. The specific elements of this analysis are as follows:

- A. Develop trip generation estimates for each component of the proposed development. These estimates will be based on standard references, the *CEQR Technical Manual*, and rates developed from previous studies. The estimated daily trips will be distributed for the weekday and weekend peak hours by travel mode. The peak hour trips by mode will then be assigned to available modes of transportation. Trips associated with No Build projects will also be estimated.
- B. Define the primary and secondary traffic study areas encompassing the intersections to be analyzed. The primary traffic study area includes 11 intersections closest to the project site, through which the concentration of project-generated traffic would be most intense. In general, the primary study area will include intersections along East and West Kingsbridge Road, 195th Street, Reservoir Avenue, and Jerome Avenue. The secondary traffic study area includes four intersections further away from the project site, at which a significant volume of project-generated traffic is expected to pass and/or where background traffic conditions are heavily trafficked or are known congestion points. The primary and secondary study area intersections are shown in Figure 3, and are listed as follows:
- East Kingsbridge Road and Grand Concourse;
 - East Kingsbridge Road and Creston Avenue;
 - East Kingsbridge Road and Morris Avenue;
 - East Kingsbridge Road and Jerome Avenue;
 - West Kingsbridge Road and Davidson Avenue;
 - West Kingsbridge Road and Reservoir/Aqueduct Avenue;
 - West Kingsbridge Road and University Avenue;
 - West Kingsbridge Road and Webb Avenue;
 - West Kingsbridge Road and Sedgwick Avenue;
 - West Kingsbridge Road and Bailey Avenue;
 - West 195th Street and Reservoir Avenue;
 - West 195th Street and Jerome Avenue;
 - East Fordham Road and East Kingsbridge Road;
 - East Fordham Road and Jerome Avenue; and
 - West Fordham Road and University Avenue.

The site access driveways also will be analyzed as part of the Build condition.

- C. Conduct new traffic counts. Four peak traffic hours will be analyzed: the weekday AM, midday, PM, and Saturday midday peak hours. New counts will be obtained via a blend of 24-hour Automatic Traffic Recorder (ATR) machine counts and manual through and turning counts at all intersection analysis locations. The 24-hour ATR counts will be conducted for a full week at up to seven locations (see Figure 3), while the intersection counts will be conducted for one mid-week day and one Saturday, and adjusted for traffic variations indicated in the ATR data, if necessary.
- D. Tabulate the traffic count data, identify the specific weekday AM, midday, PM, and Saturday midday peak hours, and prepare balanced traffic volume maps for the four peak traffic analysis hours.
- E. Inventory street widths, street directions, number of travel lanes and lane widths, traffic restrictions, parking regulations, signal phasing and timing plans, location of bus stops, midblock driveways, and other data needed to conduct the traffic analyses. Official signal timing plans will be obtained from the New York City Department of Transportation (DOT) and discrepancies from field-observed signal timings will be noted and DOT will be advised.

- F. Conduct travel time and delay runs for each of the traffic analysis peak hours along the principal routes in the area that would be used by traffic approaching and leaving the project sites, including locations at which air quality analyses are to be conducted. Existing speed data will be tabulated.
- G. Conduct intersection capacity and level-of-service (LOS) analyses using 2000 *Highway Capacity Manual* procedures, resulting in volume-to-capacity (v/c) ratios, average vehicle delays, and LOS by lane group and for the overall intersection. LOS will be presented in graphical and tabular formats.
- H. Determine traffic volumes under the future No Build condition and prepare balanced No Build traffic volume maps. This will include an annual background traffic growth rate as specified in the *CEQR Technical Manual*, plus traffic expected to be generated by expected significant development projects elsewhere in the primary and secondary traffic study areas. The definition of No Build development projects will be identified in conjunction with EDC and DCP. The traffic projections for background conditions will be obtained either from those projects' EISs or from a trip generation analysis to be conducted for them for the No Build condition within this EIS.
- I. Prepare the trip generation estimates for the expected No Build development projects and assign project-generated vehicle trips to the roadway network and through each of the intersections being analyzed, and develop No Build traffic volume maps.
- J. Conduct intersection capacity and LOS analyses for future No Build conditions using 2000 *Highway Capacity Manual* procedures, resulting in volume-to-capacity (v/c) ratios, average vehicle delays, and LOS by lane group and for the overall intersection. LOS results will be presented in graphical and tabular formats.
- K. Prepare trip generation estimates and assign project-generated vehicle trips to the roadway network and through each of the intersections being analyzed. Combined with future No Build traffic volumes, they will then reflect future Build traffic volumes. Vehicular traffic will be assigned to the access driveways proposed for the site.
- L. Conduct intersection capacity and LOS analyses for Build conditions using 2000 *Highway Capacity Manual* procedures, resulting in volume-to-capacity (v/c) ratios, average vehicle delays, and LOS by lane group and for the overall intersection. LOS results will be presented in graphical and tabular formats. Significant traffic impacts will be identified as per *CEQR Technical Manual* guidelines. For Build conditions, the proposed site access driveways will be analyzed.
- M. Identify and evaluate traffic capacity improvements needed to mitigate significant traffic impacts.
- N. Prepare travel speed data for air quality analyses for No Build, Build, and Mitigated Build conditions.
- O. Conduct an inventory of on-street and off-street parking spaces within a ¼-mile radius of the project site. This will include a mapping of parking lots and garages, a tabulation of their capacities and occupancies on a typical weekday and Saturday, an inventory of curbside parking regulations and their legal and illegal use, and a quantification of the number of available on-street spaces that are legally available for use by future development in the area.
- P. Project parking usage and availability under No Build conditions using the annual background traffic growth rate and new parking facilities (if any) expected to be operational in the future and their expected occupancy levels.
- Q. Develop parking accumulation estimates for the proposed Build condition based on the amount of parking proposed for the development's retail and other components, and develop profiles of in/out activity by hour of the day.

- R. Identify projected parking shortfalls, if any, and identify measures to alleviate such shortfalls.
- S. Assess vehicle/pedestrian safety conditions by reviewing the most recent three years of accident data from NYSDOT for intersections in the vicinity of the proposed project site. High accident locations will be identified in accordance with criteria prescribed by the *CEQR Technical Manual*. If the proposed project is anticipated to generate notable vehicular and pedestrian traffic at such locations, future safety conditions will be evaluated. Where appropriate, mitigation or improvement measures will be recommended to avoid or mitigate any safety impacts.

TASK 12: TRANSIT AND PEDESTRIANS

The *CEQR Technical Manual* specifies that if an action would result in more than 200 peak hour transit and pedestrian trips, quantified analyses will be warranted. Although the proposed development is large in scale, the anticipated mix of uses is more conducive to generating vehicular and local walk trips, with peak trip-making occurring primarily outside of the commuter peak periods. Background transit demand is substantially lower outside of the commuter peak periods, and there are numerous nearby available transit options. Therefore, a preliminary assessment may be sufficient to conclude that the proposed project would not result in significant adverse transit impacts. A detailed analysis will be performed, however, if the proposed action generates 200 or more peak hour trips at a particular subway station or bus route.

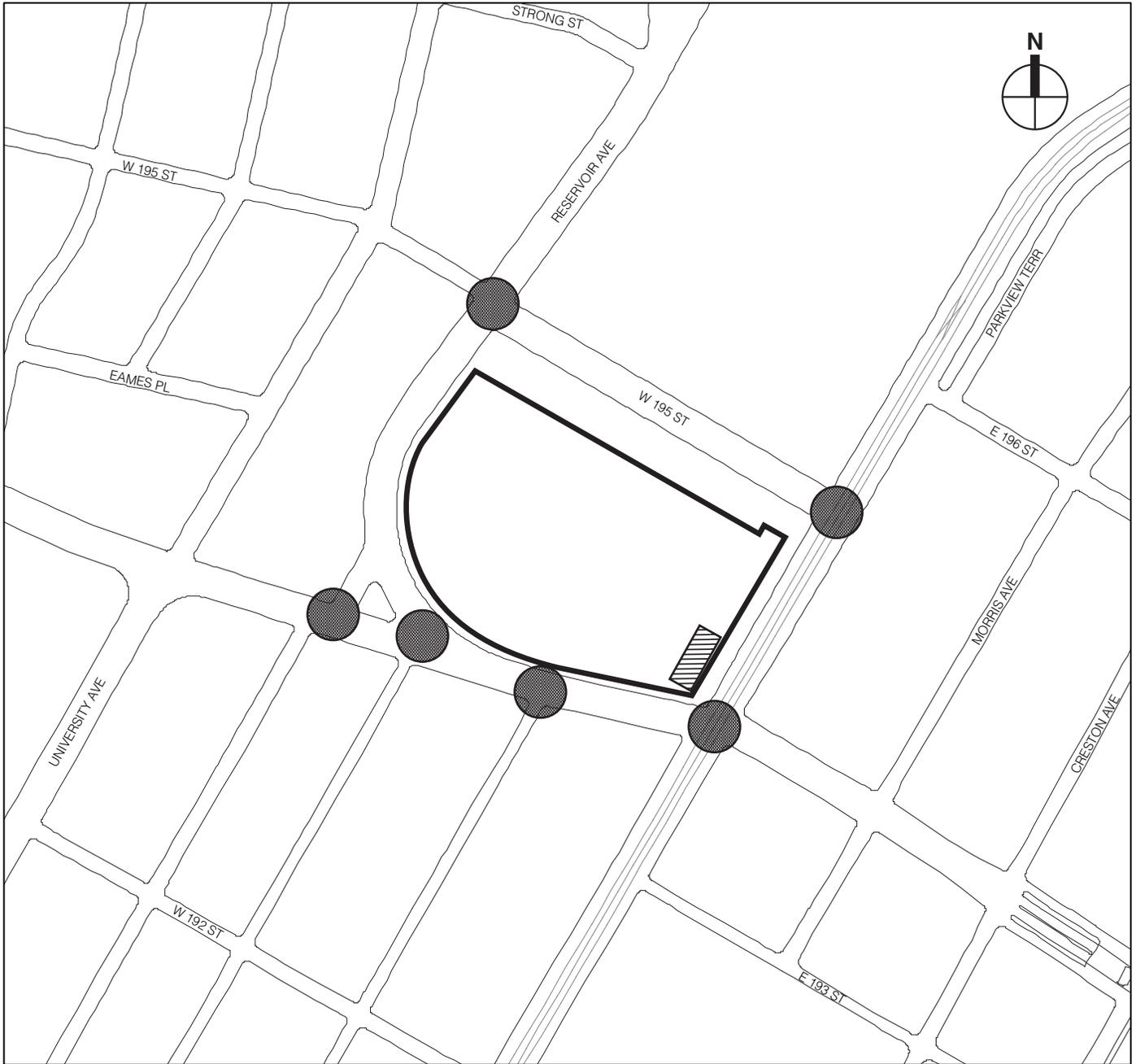
A detailed study of the existing pedestrian infrastructure in the vicinity of the project site, however, is needed to quantify the projected increases in foot traffic and evaluate the ability of the existing sidewalks, corner reservoirs, and crosswalks to accommodate the future demand. This section will analyze the project's potential to have environmental impacts relating to transit services and pedestrians. The specific elements of this analysis are as follows:

- A. The transit analysis will include a description of nearby transit facilities. Transit service to the project site is available via New York City Transit (NYCT) subways and buses.
- B. The proposed project would generate pedestrian traffic along likely routes between the project site and connecting transit service and the adjacent neighborhoods. A quantified analysis of sidewalk, corner, and crosswalk conditions would be conducted at key intersections during the same four time periods analyzed for traffic (see Figure 4). In addition, the latest three years of accident data from the New York State Department of Transportation (NYSDOT) will be summarized to identify high vehicular-pedestrian accident locations and evaluate pedestrian safety with the proposed project.
- C. For the pedestrian analysis, original data will be gathered to develop existing baseline conditions. A detailed future conditions analysis will be conducted for the project's build year, incorporating the four time periods evaluated for traffic and parking.
- D. If significant impacts are identified, mitigation measures will be proposed.

TASK 13: AIR QUALITY

The air quality analysis will address the following issues with respect to the potential for air quality impacts: impacts from vehicular traffic and the proposed parking facilities ("mobile sources"), and the effects of the project's heating, ventilation, and air conditioning (HVAC) system on buildings in the surrounding area ("stationary sources").

In addition, if it is determined that the proposed project would result in increased numbers of diesel-powered vehicles that could potentially result in local increases of respirable PM concentrations, an analysis of particulate matter (PM₁₀ and PM_{2.5}) will be conducted. The City has developed and is employing interim guidance criteria for projects that are prepared under CEQR. In addition, the New



-  *Project Site*
-  *Pedestrian Analysis Location*
-  *Subway Stairway Analysis Location*

York State Department of Environmental Conservation (DEC) has developed a policy that provides guidance on assessing PM_{2.5} impacts and determining when mitigation is necessary. These criteria and screening level thresholds will be used to determine whether a quantified PM_{2.5} analysis is required, and for evaluating the potential PM_{2.5} impacts.

Mobile Source Analyses

- A. Gather existing air quality data. Collect and summarize existing ambient air quality data for the study area. Specifically, ambient air quality monitoring data published by DEC will be compiled for the analysis of existing conditions.
- B. Determine receptor locations for microscale analysis. Select critical intersection locations in the study area, based on data obtained from the project's traffic analysis as well as the traffic planners and engineers for the project. At each intersection, analyze multiple receptor sites.
- C. Select dispersion model. The United States Environmental Protection Agency (EPA)'s CAL3QHC screening model will be used. EPA's CAL3QHCR refined intersection CO model will be used at intersections that are found to exceed CO standards or *de minimis* criteria using the CAL3QHC screening model. If a CAL3QHCR analysis is required, five recent years of meteorological data from La Guardia Airport and concurrent upper air data from Brookhaven, New York will be used for the simulation program.
- D. Select emission calculation methodology and "worst-case" meteorological conditions. Vehicular cruise and idle emissions for the dispersion modeling will be computed using EPA's MOBILE6.2 model. For the "worst-case" analysis (at screening locations), conservative meteorological conditions to be assumed in the dispersion modeling are a 1 meter per second wind speed, Class D stability, and a 0.70 persistence factor.
- E. At each mobile source microscale receptor site, calculate maximum 1- and 8-hour CO concentrations for existing conditions, the future conditions without the project, and the future conditions with the project. Concentrations will be determined for two peak periods. No field monitoring will be included as part of these analyses.
- F. Assess the potential CO impacts associated with the proposed underground parking facility. Information on the design of the parking garage will be employed to determine potential off-site impacts from these vented emissions. A temperature of 43°F will be assumed in the analysis, and a point source screening analysis will be used. Cumulative impacts from on-street sources and emissions from the parking facility will be calculated where appropriate. Future CO pollutant levels will be compared with standards and applicable *de minimis* criteria, to determine potential significant adverse project impacts.
- G. Examine mitigation measures. Analyses will be performed to examine and quantify ameliorative measures to minimize any significant adverse impacts of the proposed project.
- H. Determine the consistency of the proposed project with the strategies contained in the SIP for the area. At any receptor sites where violations of standards occur, analyses will be performed to determine what mitigation measures would be required to attain standards.

Stationary Source Analyses

- I. A stationary source screening analysis will be performed to determine the potential for significant pollutant concentrations from fossil fuel-fired HVAC systems. The screening analysis will use the procedures outlined in the *CEQR Technical Manual*.

TASK 14: NOISE

According to *CEQR Technical Manual* guidelines, a detailed noise analysis is recommended if a proposed action would be within 1,500 feet of existing rail activity and would have a direct line of sight to that rail

facility; or would cause a stationary source to be operating within 1,500 feet of a receptor (such as a park), with a direct line of sight to that receptor. The project site is located near an elevated rail line. The proposed project would substantially increase the volume of vehicular traffic in the area and would be located next to a public open space. Therefore, a detailed noise analysis will be provided.

The noise study will examine impacts on sensitive land uses (including nearby residences, parks, and schools) that would be affected by changes in traffic resulting from the proposed project. The proposed scope of work includes the selection of receptor sites, measurement of existing noise levels, prediction of future noise levels both with and without the proposed project, impact evaluation, specifying building attenuation needed to satisfy CEQR building attenuation requirements, and the examination of noise abatement measures (where necessary). The methodologies used for this analysis will be consistent with the methodologies contained in the *CEQR Technical Manual*. The traffic noise model (TNM) will be utilized where appropriate.

- A. Selection of appropriate noise descriptors. Appropriate noise descriptors to describe the noise environment and the impact of the proposed project will be selected. Current city criteria regarding noise descriptors will be followed. Consequently, the 1-hour equivalent ($L_{eq(1)}$), and where appropriate, the L_{10} noise levels will be examined.
- B. Selection of reception locations for detailed analysis. Receptor sites analyzed will include locations where the proposed project would have the greatest potential to affect ambient noise levels.
- C. Determination of existing noise levels. Existing noise levels will be determined primarily based on noise monitoring. Measurements will be made during the following time periods: weekday and weekend midday, PM, and nighttime. Hourly L_{eq} , L_1 , L_{10} , L_{50} , and L_{90} values will be recorded. Measured noise levels will be supplemented by mathematically modeled values where necessary.
- D. Determination of future noise levels without the proposed project. At each receptor location identified above, noise levels without the proposed project will be determined using existing noise levels, acoustical fundamentals, and mathematical models. The methodology used will allow for variations in vehicle/truck mixes.
- E. Determination of future noise levels with the proposed project. At each receptor location identified above, noise levels with the proposed project will be determined using existing noise levels, acoustical fundamentals, and mathematical models. The methodology used will allow for variations in vehicle/truck mixes.
- F. Comparison of noise levels with standards, guidelines, and other impact evaluation criteria. Existing noise levels and future noise levels, both with and without the proposed project, will be compared with various noise standards, guidelines, and other noise criteria. In addition, future noise levels with the proposed project will be compared with future noise levels without the proposed project to determine project impacts (i.e., based on the criteria contained in the *CEQR Technical Manual*, a change of 3-5 dBA or more would be considered a significant impact).
- G. Examine mitigation measures. When and if necessary, recommendation of measures to attain acceptable interior noise levels and to reduce noise impacts to acceptable levels will be made.
- H. Building attenuation. Measures to be utilized to obtain interior noise levels that satisfy CEQR requirements will be identified.

TASK 15: CONSTRUCTION

The EIS will assess the project's potential construction-related impacts. The likely construction schedule for development at the site and an estimate of activity on-site will be described. Construction impacts will

be evaluated according to the *CEQR Technical Manual* guidelines. The construction assessment for the proposed project will generally be qualitative, focusing on areas where construction activities may pose specific environmental problems. Suggestions on how to mitigate potential impacts will also be included. Technical areas to be analyzed include:

- A. *Historic Resources*. Any potential construction-period impacts on historic resources, particularly the Armory building, will be considered.
- B. *Transportation Systems*. This assessment will consider potential losses in lanes, sidewalks, and other transportation services during the various phases of construction, identify the peak construction time period, and quantify the volume of construction trucks and construction workers expected to travel to and from the project site by auto or taxi. The amount of parking needed by construction workers will be estimated and an evaluation of the ability of area streets and off-street parking facilities to accommodate this demand will be made qualitatively, as will the remainder of the construction-period transportation systems analysis.
- C. *Air Quality*. The construction air quality impact section will contain a qualitative discussion of both mobile air source emissions from construction equipment and worker and delivery vehicles, and fugitive dust emissions. It will discuss measures to reduce impacts.
- D. *Noise*. The construction noise impact section will contain a qualitative discussion of noise from each phase of construction activity and potential effects on adjacent land uses. Measures to minimize construction noise impacts will be presented, as necessary.
- E. *Hazardous Materials*. In coordination with the work performed for hazardous materials, above, summarize actions to be taken during project construction to limit exposure of construction workers to potential contaminants. Construction of the proposed project would involve a variety of earth-moving and excavating activities, and construction activities in these areas could encounter contaminated soil or groundwater. The range of remedial and health and safety measures that would be employed prior to and/or during construction would vary with the types, levels, and extent of contamination identified. All work with the potential to generate dust (e.g., excavation) would be done in accordance with appropriate health and safety requirements to protect workers (who have the greatest potential for exposure because of their close proximity to the work areas) and the public.
- F. *Other Technical Areas*. As appropriate, other areas of environmental assessment will be discussed for potential construction-related impacts.

TASK 16: PUBLIC HEALTH

According to the guidelines of the *CEQR Technical Manual*, public health concerns for which a public health assessment may be warranted include: increased vehicular traffic or emissions from stationary sources resulting in significant adverse air quality impacts; increased exposure to heavy metals and other contaminants in soil/dust resulting in significant adverse hazardous materials or air quality impacts; the presence of contamination from historic spills or releases of substances that might have affected or might affect ground water to be used as a source of drinking water; solid waste management practices that could attract vermin and result in an increase in pest populations; potentially significant adverse impacts to sensitive receptors from noise and odors; and actions for which the potential impact(s) result in an exceedance of accepted federal, state, or local standards. Depending on the results of the hazardous materials, air quality, and noise assessments, a public health analysis may be warranted. If so, this analysis will be provided.

TASK 17: MITIGATION

Where significant project impacts have been identified in the analyses discussed above, measures will be assessed to mitigate those impacts. This task summarizes the findings and prepares the mitigation chapter for the EIS. Where impacts cannot be mitigated, they will be described as unavoidable adverse impacts.

TASK 18: ALTERNATIVES

The specific alternatives to be analyzed are typically finalized as project impacts become clarified. However, they will at least include the No Build Alternative, which describes the conditions that would exist if the proposed project was not implemented, and a No Unmitigated Impacts Alternative, which assesses a change in density or program design in order to avoid the potential for any unmitigated significant adverse impacts that may be associated with the proposed project. The alternatives analysis is qualitative, except where impacts of the project have been identified. The level of analysis depends on an assessment of project impacts determined by the analysis connected with the appropriate tasks.

TASK 19: EXECUTIVE SUMMARY

Once the EIS technical sections have been prepared, a concise executive summary will be drafted. The executive summary will utilize relevant material from the body of the EIS to describe the proposed project, its environmental impacts, measures to mitigate those impacts, and alternatives to the proposed action. *