

Draft Scope of Work for an Environmental Impact Statement for Memorial Sloan-Kettering Cancer Center Ambulatory Care Center and CUNY—Hunter College Science and Health Professions Building

A. INTRODUCTION

Memorial Sloan-Kettering Cancer Center (MSK) and the City University of New York (CUNY) are partnering to acquire a 66,111-square-foot City-owned site on the east end of a block bounded by York Avenue, Franklin Delano Roosevelt (FDR) Drive, and East 73rd and 74th Streets (Block 1485, Lot 15) on the Upper East Side of Manhattan. MSK proposes to build a new ambulatory care center (MSK ACC), while CUNY proposes to build the Hunter College Science and Health Professions Building (CUNY-Hunter Building).

As described in greater detail below, the actions necessary for the proposed project include a disposition of City property, a rezoning of the project site from M3-2 to C1-9, a zoning text amendment, a special permit pursuant to the zoning text amendment, and a special permit pursuant to the designation of the site as a Large Scale General Development (LSGD) for various bulk waivers. These actions are subject to the Uniform Land Use Review Procedure (ULURP) and require City Environmental Quality Review (CEQR) and Mayoral and Borough Board approval pursuant to New York City Charter Section 384(b)(4). In addition, CUNY has already requested funding from the Dormitory Authority of the State of New York (DASNY) and it is possible that MSK will also request funding from DASNY. For purposes of State Environmental Quality Review (SEQR), DASNY's proposed actions are Authorization of the Issuance of Bonds and/or Authorization of the Expenditure of Bond Proceeds. The lead agency for the environmental review will be the Office of Deputy Mayor for Economic Development (ODMED), and DASNY will be an involved agency. A coordinated review will be conducted for this Type I action.

As lead agency, ODMED has determined that the proposed project has the potential to result in significant adverse impacts, and, therefore, an Environmental Impact Statement (EIS) will be prepared. This Draft Scope of Work describes the proposed actions, the proposed development plan and its purpose and need, and the environmental review process. It also identifies the analysis framework to be used in the EIS and presents the analyses and work items to be undertaken for the EIS. As described below, a public meeting to receive comments on this Draft Scope of Work has been scheduled for November 1, 2012 at 6:30 P.M. at the Kaye Playhouse at Hunter College (located on the north side of East 68th Street, just west of Lexington Avenue). The period for submitting written comments will remain open until 5:00 P.M., Wednesday, November 14, 2012. After considering comments received during the public comment period, a Final Scope of Work will be prepared to direct the content and preparation of the Draft EIS (DEIS).

B. PROJECT DESCRIPTION

PROJECT SITE

In May 2011, the New York City Economic Development Corporation (EDC), on behalf of the New York City Department of Sanitation (DSNY), issued an RFP to redevelop a former DSNY

MSK ACC and CUNY-Hunter

garage site with the creation or expansion of a health care, educational or scientific research facility. MSK and CUNY partnered to respond.

The site, now the project site, is largely vacant with standing remnants of the walls of the former garage structure. The western portion of the project site is occupied by a surface public parking lot with a capacity of 128 cars.

East 74th Street, the northern border of the site, dead ends at a wall that divides it from the FDR Drive, and East 73rd Street, the southern border of the site, ends in an access lane to the southbound FDR Drive service road.

SITE PLAN

The proposed site plan would provide for the 730,133-gross-square-foot MSK ACC Building to be located through-block on the eastern portion of the site and the 362,655-gross-square-foot CUNY-Hunter Building to be located through block on the western portion of the site. The main entrance for both buildings would be on East 74th Street. In addition to pedestrian entrances for both buildings, MSK would have a lay-by lane where patients could be dropped off; it would also provide valet parking for the on-site accessory garage with 200 to 225 spaces. The service entrances for both buildings would be on East 73rd Street, and both buildings would be designed to allow trucks to maneuver inside the buildings. In addition, MSK would have two ambulance bays as well as a pedestrian entrance for staff on East 73rd Street. The proposed buildings would be built to an overall FAR of 12.0, which would be 793,332 square feet (sf) of zoning floor area (zfa), with full lot coverage over the project site.

MSK ACC BUILDING

The MSK ACC Building would stand approximately 23 stories (approximately 450 feet) tall on a footprint of 39,667 square feet. In a gross floor area of 730,133 square feet, it would contain state-of-the-art ambulatory care facilities, including clinics for dermatological, breast, and prostate cancers; consultation rooms; infusion rooms; medical/surgical clinic; interventional radiology clinic; a bone marrow transplant clinic; academic offices; a pharmacy; and conference rooms, as well as 200 to 225 accessory parking spaces on the lower levels of the site for patients and visitors.

The MSK ACC would be expected to treat approximately 1,335 patients daily.

CUNY-HUNTER BUILDING

The CUNY-Hunter building would stand approximately 18 stories (approximately 340 feet) tall on a footprint of 26,444 square feet. In its gross floor area of 362,655 square feet, it would house teaching and research laboratories, class rooms, a learning center, a 350-seat lecture hall, faculty offices, and a vivarium to house research animals.

Approximately 1,130 undergraduates and 1,219 graduate students would come to classes and laboratories in this building. In addition students from the main Hunter College campus at Lexington Avenue and East 68th Street would attend lectures in the lecture hall.

C. PROPOSED ACTIONS

CITY ACTIONS

The discretionary approvals being requested for the proposed project include a disposition of City property, a zoning map amendment and zoning text amendment as well as special permits, all of which are subject to City Planning Commission and City Council approval.

- Disposition—The City of New York would dispose of the project site to the New York City Land Development Corporation and then to the NYCEDC for subsequent disposal to MSK and the City University Construction Fund (CUCF). The CUCF is a public benefit corporation established by New York State to provide facilities and support the educational purposes of CUNY.
- The disposition requires Mayor and Manhattan Borough Board approval pursuant to New York City Charter Section 384(b)(4).
- Rezoning—The project site is presently zoned M3-2 which allows a maximum floor area ratio (FAR) of 2.0 (132,222 sf of zoning floor area) and a maximum base height of 60 feet before setting back. It prohibits all community facilities including ambulatory diagnosis and treatment centers and schools. The project site would be rezoned from M3-2 to C1-9 to permit Use Group 3 and 4 developed to FAR 10 (661,110 sf of zfa) with up to an additional FAR 2 (132,222 sf of zfa) through provision of a qualifying plaza. Ambulatory diagnostic and treatment centers and schools are permitted as-of-right in C1-9 districts. MSK would provide 200 to 225 as-of-right accessory parking spaces in its building.
- Zoning text amendment—A text amendment would establish a new special permit that would allow up to an additional FAR 2 for support of off-site public improvements.
- Special permit—Approval of the special permit established by the zoning text amendment for use on the project site would allow the project allow development of the project site to FAR 12.
- LSGD—Approval to develop the project site as a Large Scale General Development (LSGD) pursuant to ZRCNY Sec. 74-74 et seq., which would include special permits to waive yard, court and height and setback regulations.

OTHER AGENCY APPROVALS

NEW YORK STATE DEPARTMENT OF HEALTH

A Certificate of Need is required from the New York State Department of Health for the proposed MSK ACC.

DORMITORY AUTHORITY OF THE STATE OF NEW YORK

MSK may seek funding through DASNY. CUNY expects to use funding through DASNY. Therefore, DASNY would be an involved agency. For purposes of State Environmental Quality Review (SEQR), DASNY's proposed actions are Authorization of the Issuance of Bonds and/or Authorization of the Expenditure of Bond Proceeds.

D. PROJECT PURPOSE AND NEED

In addition to the purposes and needs for each institution, which are described below, both institutions believe that there would be significant operational synergies with neighboring

MSK ACC and CUNY-Hunter

healthcare and research institutions; these synergies would benefit the population of New York City as well as enhance the City's position as a center of medical and academic excellence.

MSK

MSK is the world's oldest and largest private cancer treatment center. MSK has devoted more than a century to patient care as well as to innovative research, including the training of future generations of oncologists. It has made significant contributions to new and better therapies for the treatment of cancer.

In recent years, MSK has expanded with new construction and renovations designed to meet the growing needs of its patients and research programs. Aside from its main campus and satellite facilities on Manhattan's Upper East Side, MSK has developed a network of state-of-the-art outpatient cancer treatment facilities that bring expert care closer to patients living throughout the greater New York area.

The MSK ACC Building would contain state-of-the-art ambulatory care facilities, including clinics for dermatological, breast, and prostate cancers; consultation rooms; infusion rooms; medical/surgical clinic; interventional radiology clinic; bone marrow transplant clinic; academic offices; a pharmacy; and conference rooms as well as 200 to 225 parking spaces on the lower levels of the site for patients and visitors.

This proposed Building would support two of the institution's strategic objectives. First, it would provide additional space to accommodate the anticipated growth in the number of patients, allowing MSK to continue to maintain a leadership role in the treatment and cure of cancer. Second, it would allow MSK to create an intensive outpatient environment that supports transfer of care from an inpatient to a more efficient ambulatory care setting. Keeping the site close to the main campus will allow for the appropriate coordination of care between out-patient clinical services and in-patient treatment, when needed.

Among the most important changes MSK anticipates in health care delivery is the transition to performing bone marrow transplants on an outpatient basis and the increased use of interventional radiology. In terms of bone marrow transplants, many hospitals have already moved to outpatient and hotel environments, enabling them to provide care at lower costs. It is unlikely that MSK's inpatient focused transplantation program will continue to be attractive to insurers with its heavy inpatient use and current cost structure.

In addition to enhancing access to clinical care, opening the MSK ACC Building would enable innovation, recruit talent, and offer financial sustainability for MSK.

HUNTER

CUNY is the nation's largest urban public university, comprising 24 institutions: 11 senior colleges, seven community colleges, the William E. Macaulay Honors College at CUNY, the Graduate School and University Center, the CUNY School of Law, the CUNY Graduate School of Journalism, the CUNY School of Professional Studies, and the CUNY School of Public Health. Serving more than 271,000 degree-credit students and nearly 270,000 continuing and professional education students, CUNY confers 35,000 degrees each year—more than 1.1 million associate, baccalaureate, masters, and doctoral degrees since 1967. CUNY plays a crucial role in the life and economy of the City and State and employs more than 39,000 faculty and staff. As of 2007, 54 percent of undergraduates and 46 percent of all college students in New York City were attending CUNY.

CUNY's history dates to the formation of the Free Academy in 1847 by Townsend Harris. The Free Academy later became the City College of New York, the oldest institution among the CUNY colleges. From this grew a system of senior colleges, community colleges, as well as graduate schools and professional programs. CUNY was established in 1961 as the umbrella institution encompassing the municipal colleges and a new graduate school. Providing first-rate academic opportunities for students of all backgrounds has been CUNY's mission since its founding.

Hunter is the largest college in the CUNY system. Founded in 1870, it is also one of the oldest public colleges in the country. Currently, over 22,000 students attend Hunter, pursuing both undergraduate and graduate degrees in more than 170 different programs of study. Hunter College is famous for the diversity of its student body. For over 140 years, it has provided educational opportunities for women and minorities, and today, students from every walk of life and every corner of the world convene at Hunter.

Hunter is a proud leader in the sciences and medicine. Its professors win research grants in record amounts—more than \$31 million in 2010 alone. Its graduates—largely products of City high schools—go on to careers in health care and scientific research in extraordinary numbers, well above the national average.

To maintain and build on its excellence in science, advanced research, and the health professions, Hunter proposes to build a new Science and Health Professions building near its main campus on the Upper East Side of Manhattan. Currently, Hunter's basic sciences and health sciences are located at two different campuses. Basic sciences and advanced research are located on Hunter's main campus at East 68th Street and Lexington Avenue in facilities that date to 1939; and health sciences and nursing are located on East 25th Street and First Avenue in a physical plant inherited from Bellevue Hospital in 1967.¹ The proposed CUNY-Hunter Building would allow Hunter to consolidate its related Science and Health Professions programs under one roof in a state-of-the-art facility. It would provide professors and students with the modern classrooms, laboratories and cutting-edge equipment they need to continue pushing the frontiers of teaching and scientific research. As well, the facility will allow Hunter scientists and health professionals to maintain close ties with the Upper East Side's world-renowned medical and research institutions.

¹ It is noted that this proposed project – the MSK Ambulatory Care Center and CUNY-Hunter College Science and Health Professions Building – is separate and independent from an anticipated proposal by DSNY to redevelop the Brookdale site on East 25th Street and First Avenue with a DSNY garage. According to DSNY, the Positive Declaration and Draft Scope of Work for the DSNY garage project are expected to be published in the fourth quarter of 2012. As such, each project will be subject to environmental review and a separate Environmental Impact Statement (EIS) will be appropriately prepared for each. There is no common purpose or goal for the two projects, one being a medical treatment building and a research/academic facility with the other being a DSNY garage. Because of this lack of common purpose it is not necessary for them to be completed at or around the same time. The former DSNY garage on East 73rd Street has already been demolished without regard to having a relocation site available. The two projects are approximately 2.5 miles (50 City blocks) apart and, therefore, not geographically near each other. No cumulative or synergistic impacts would be anticipated due to their physical separation and their dissimilarities of function. Each project belongs to a separate entity or entities – MSK and CUNY-Hunter at East 73rd Street and DSNY on East 25th Street. Overall the projects are separate and distinct and the approval of one would not commit the City to approving the other.

E. ANALYSIS FRAMEWORK

SCOPE OF ENVIRONMENTAL ANALYSIS

The DEIS will be prepared in accordance with the guidelines presented in the 2012 *CEQR Technical Manual*. For each technical attachment to the EAS, the analysis will include a description of existing conditions, an assessment of conditions in the future without the proposed actions, and an assessment of future conditions with the proposed project.

BASELINE CONDITIONS

EXISTING CONDITIONS

The analysis framework will begin with an assessment of existing conditions on the project site and in the relevant study area because these can be directly measured and observed. The assessment of existing conditions does not represent the condition against which the proposed project is measured, but serves as a starting point for the projection of future conditions with and without the proposed actions and the analysis of project impacts.

THE FUTURE WITHOUT THE PROPOSED ACTIONS

The future without the proposed actions (the “Without Action” condition) will describe a future baseline condition to which the changes that are expected to result from the proposed actions are compared. For each technical analysis, approved or designated development projects within the appropriate study area that are likely to be completed by the 2019 analysis year are considered.

In the future without the proposed actions, it is anticipated that no development would take place on the project site. It would remain largely vacant with a parking lot occupying the western edge of the site.

F. PROJECT POPULATION

MSK ACC BUILDING

With the proposed project it is anticipated that approximately 1,620 staff would work at the MSK ACC Building, with an estimated 1,335 patients and 2,670 visitors per day.

MSK ACC	Population (persons)
Staff	1,620
Patients	1,335
Visitors and Family	2,670
Total	5,625

MSK estimates that 95 percent of the staff would be in the building daily.

CUNY-HUNTER BUILDING

With the proposed project it is anticipated that approximately 1,130 undergraduate students, 1,219 graduate students, 658 faculty and staff and 48 visitors would come to the Hunter College Science and Health Professions Building. The faculty and staff are divided into 153 faculty, 114 adjunct faculty, 209 research staff, and 71 support staff.

CUNY-Hunter Building	Population (persons)
Undergraduate Students	1,130
Graduate Students	1,219
Faculty	267
Staff	280
Visitors	48
Total	2,944

In addition Hunter expects that the 350-seat auditorium would be used by students from the main Hunter College campus at Lexington Avenue and East 68th Street.

PROBABLE IMPACTS OF THE PROPOSED ACTIONS

The identification of potential environmental impacts will be based upon the comparison of the Without Action condition to the future with the proposed actions (With Action condition). In certain technical areas this comparison can be quantified and the severity of impact rated in accordance with the State Environmental Quality Review Act (SEQRA), the City’s Executive Order No. 91 of 1977, as amended, and Title 62 of the Rules of the City of New York, Chapter 5 (CEQR), as well as the relevant guidelines of the *CEQR Technical Manual*. In other technical areas, the analysis is qualitative in nature. The methodology for each analysis is presented at the start of each technical analysis chapter.

G. ENVIRONMENTAL REVIEW PROCESS

ODMED, as lead agency in the environmental review, determined that the proposed project has the potential to result in significant environmental impacts and, therefore, pursuant to CEQR procedures, issued a positive declaration directing that an EIS be prepared in conformance with all applicable laws and regulations, including SEQRA, the City’s Executive Order No. 91 of 1977, as amended, and Title 62 of the Rules of the City of New York, Chapter 5 (CEQR), as well as the relevant guidelines of the *CEQR Technical Manual*. This Draft Scope of Work was prepared in accordance with those laws and regulations and the *CEQR Technical Manual*.

In accordance with SEQRA and CEQR, this Draft Scope of Work was distributed for public review on October 2, 2012. A public meeting will be held November 1, 2012 at 6:30 P.M. at the Kaye Playhouse at Hunter College (located on the north side of East 68th Street, just west of Lexington Avenue), New York, NY. The period for submitting written comments will remain open until 5:00 P.M. on Wednesday, November 14, 2012. After considering comments received during the public comment period, a Final Scope of Work will be prepared to direct the content and preparation of the DEIS. Based on the screening questions provided as part of the environmental assessment statement (EAS Part II: Technical Analysis) ODMED determined that the proposed project will not have the potential for significant adverse impacts in the following areas: socioeconomic conditions, community facilities and services, natural resources, solid waste and sanitation services, and energy. Therefore, the analyses contained in the DEIS will focus on those areas where impacts are anticipated.

As the next step in the process, once the lead agency has determined that the DEIS is complete, it will be subject to additional public review. At a date to be announced later, a public hearing on the DEIS will be held in conjunction with the public hearing on the ULURP application for the project. A Final EIS (FEIS) will then be prepared to respond to comments, as appropriate. The

lead agency and involved agencies will make CEQR findings based on the FEIS, before making a decision on project approval.

As described in greater detail below, the EIS will contain:

- A description of the proposed actions and the proposed project and their environmental setting;
- An analysis of the potential for adverse environmental impacts to result from the project;
- A description of mitigation measures proposed to eliminate or minimize any adverse environmental impacts disclosed in the EIS;
- An identification of any adverse environmental effects that cannot be avoided if the proposed project is implemented;
- A discussion of alternatives to the proposed actions and project; and
- A discussion of any irreversible and irretrievable commitments of resources to develop the project.

H. ENVIRONMENTAL IMPACT STATEMENT SCOPE OF WORK

TASK 1. PROJECT DESCRIPTION

The Project Description introduces the reader to the proposed project and provides the data from which impacts are assessed. The chapter will contain a brief history of the uses on the project site; the purpose and need for the project for each institution; the proposed development program for each institution; a description of the design of the proposed building; figures to depict the proposed development; and a discussion of the approvals required.

Estimates of patients, visitors and employees will be provided for the MSK program and an estimate of the faculty, staff, and students will be provided for the CUNY-Hunter program.

Appropriate data from the ULURP application will be used. The role of the lead agency for CEQR will also be described. The need for environmental requirements (e.g., E-designations or restrictive declarations) necessary to develop the proposed project will also be identified. The framework for the analysis will also be described, including procedures to be followed, the Without Action condition (which in this case would be a continuation of the existing condition), and the single analysis year for all technical areas except construction.

TASK 2. LAND USE, ZONING AND PUBLIC POLICY

This analysis will consider the proposed project's effects in terms of land use compatibility and trends in zoning and public policy. The context for the zoning map amendment and the need for the zoning text change will be described along with any other land use actions required. Because the project site is located within the Coastal Zone designated by New York State and City, a review of the project's compliance with the New York City Waterfront Revitalization Program (WRP) as well as the State Coastal Management Program will be included. In addition, consistency with the State Smart Growth Public Infrastructure Policy Act (SSGPIPA) will be considered. In general, this chapter provides a context for other analyses in the EIS. It will:

- Describe predominant land use patterns in the study area, including recent development trends. The study area will include the portions of the blocks immediately surrounding the project site and land uses within approximately 400 feet.

- Provide a zoning map and discuss existing zoning and recent zoning actions on the project site and in the study area.
- Summarize other public policies that may apply to the project site and study area.
- Describe conditions on the project site absent the proposed actions. Prepare a list of other projects expected to be built in the study area that would be completed before or concurrently with the proposed project. Describe the effects of these projects on land use patterns and development trends. Also, describe any pending zoning actions or other public policy actions that could affect land use patterns and trends in the study area, including plans for public improvements.
- Describe the proposed actions and provide an assessment of the impacts of the proposed actions and project on land use and land use trends, zoning, and public policy. Consider the effects related to issues of compatibility with surrounding land use, consistency with zoning and other public policy initiatives, and the effect of the project on development trends and conditions in the area. Assess the project's compatibility with the WRP, PlaNYC 2030, the State Coastal Management Program, and the State Smart Growth Program.

TASK 3. OPEN SPACE

Open space is defined as publicly or privately owned land that is publicly accessible and operates, functions, or is available for leisure, play, or sport, or is set aside for the protection and/or enhancement of the natural environment. An analysis of open space is required to determine whether or not a proposed project would have direct effects resulting from the elimination or alteration of open space, and/or indirect effects resulting from overtaking available open space. In accordance with the *CEQR Technical Manual*, an open space analysis is required because the proposed actions are expected to result in a worker population greater than 125, the CEQR threshold for areas of the city that are underserved in terms of open space.

The methodology set forth in the *CEQR Technical Manual* requires an inventory of publicly accessible open spaces within ¼ mile of the project site, noting their facilities, condition, and level of use. The study will also project conditions in the future without the proposed project, and assess open space impacts as a result of the proposed project based on quantified ratios and qualitative factors.

TASK 4. SHADOWS

The *CEQR Technical Manual* requires a shadows assessment for proposed actions that would result in new structures (or additions to existing structures) greater than 50 feet in height or located adjacent to, or across the street from, a sunlight-sensitive resource. Such resources include publicly accessible open spaces, important sunlight-sensitive natural features, or historic resources with sun-sensitive features.

The proposed actions would result in new buildings on the project site that would be taller than 50 feet in height, and the project site is located across the FDR Drive from a well-used, albeit narrow, section of the East River Esplanade. Therefore, a shadows assessment will be performed to determine how the project-generated shadow would affect the Esplanade and if it would reach other sunlight-sensitive resources. The shadows assessment will be coordinated with the open space and historic and cultural resources analyses, and will include the following tasks:

- Develop a base map illustrating the project site in relationship to publicly accessible open spaces, historic resources with sunlight-dependent features, and natural features in the area.

- Determine the longest possible shadow that could result from the proposed project to determine whether it could reach any sunlight-sensitive resources other than the Esplanade at any time of year.
- Develop a three-dimensional computer model of the elements of the base map developed in the preliminary assessment.
- Develop a three-dimensional representation of the proposed project.
- Using three-dimensional computer modeling software, determine the extent and duration of new shadows that would be cast on sunlight-sensitive resources as a result of the proposed actions on four representative days of the year.
- Document the analysis with graphics comparing shadows resulting from the Without Action condition with shadows resulting from the proposed project, with incremental shadow highlighted in a contrasting color. Include a summary table listing the entry and exit times and total duration of incremental shadow on each applicable representative day for each affected resource.
- Assess the significance of any shadow impacts on sunlight-sensitive resources. If any significant adverse shadow impacts are identified, identify and assess potential mitigation strategies.

TASK 5. HISTORIC AND CULTURAL RESOURCES

Historic and cultural resources include archaeological (buried) resources and architectural (historic standing structure) resources. The project site (Block 1485, Lots 15) was previously disturbed by construction and then demolition of the DSNY garage. The project site is currently vacant except for wall remnants, demolition debris and a surface parking lot. While the project would require excavation, the potential for any remaining archaeological resources appears to be slight. In accordance with the *CEQR Technical Manual*, the New York City Landmarks Preservation Commission (LPC) was consulted regarding the site's potential archaeological sensitivity. Also, the project will be reviewed in conformance with the New York State Historic Preservation Act of 1980 (SHPA), especially section 14.09 of the Parks, Recreation and Historic Preservation Law (PRHPL). Accordingly, the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) will also be consulted. In a letter dated September 4, 2012 LPC determined that there are no areas of archaeological sensitivity on the project site, therefore, no further work will be required with respect to archaeological resources. However, if required by OPRHP, a Phase 1A archaeological study will be performed.

Following the guidelines in the *CEQR Technical Manual*, this historic and cultural resources analysis will identify and briefly describe known architectural resources within a 400-foot study area surrounding the project site. Although the project site is vacant, there are structures in the study area which may be potential resources (properties that appear to meet S/NR or NYCL criteria but have not yet been reviewed). A field survey will be conducted to determine whether there are any potential architectural resources in the study area; any potential architectural resources will be mapped and briefly described in the analysis. Impacts on any architectural resources that are expected in the future without the proposed actions as a result of other expected development projects will be qualitatively discussed. This analysis will also assess the project's potential impacts, including visual and contextual changes as well as any direct physical impacts, on any designated and potential architectural resources. If applicable, measures to avoid, minimize, or mitigate any adverse impacts on architectural resources will be developed.

TASK 6. URBAN DESIGN AND VISUAL RESOURCES

According to the guidance of the *CEQR Technical Manual*, if a project requires actions that would result in physical changes to a project site beyond those allowable by existing zoning and which could be observed by a pedestrian from street level, a preliminary assessment of urban design and visual resources should be prepared. Since the proposed project would require land use approvals relating to bulk and possibly setbacks that would result in physical differences to what would be allowed under existing zoning and those differences could be observed by a pedestrian from street level, a preliminary assessment of urban design and visual resources will be prepared.

The preliminary assessment will determine whether the proposed project would create a change to the pedestrian experience that is sufficiently significant to require greater explanation and further study. The study area for the preliminary assessment of urban design and visual resources will be consistent with that of the study area for the analysis of land use, zoning and public policy. The preliminary assessment will include a concise narrative of the existing project area, the future with the proposed project, and the future without the proposed actions. The preliminary assessment will present photographs, zoning and floor area calculations, building heights, project drawings and site plans, and view corridor assessments.

A detailed analysis will be prepared if warranted based on the preliminary assessment. As described in the *CEQR Technical Manual*, examples of projects that may require a detailed analysis are those that would make substantial alterations to the streetscape of a neighborhood by noticeably changing the scale of buildings, potentially obstruct view corridors, or compete with icons in the skyline. The detailed analysis would describe the project site and the urban design and visual resources of the surrounding area. The analysis would describe the potential changes that could occur to urban design and visual resources in the future with the proposed project, in comparison to the future without the proposed actions, focusing on the changes that could negatively affect a pedestrian's experience of the area. If necessary, mitigation measures to avoid or reduce potential significant adverse impacts will be identified.

TASK 7. HAZARDOUS MATERIALS

The EIS will address the potential presence of hazardous materials on the project site. Previous investigations and remedial activities conducted by others at the site between 1998 and 2011 identified petroleum contamination in soil and groundwater, including the presence of free product on the water table. The EIS will include a summary of the Phase I Environmental Site Assessment (ESA), the Phase II Environmental Site Investigation results, and previous monitoring reports completed by others, and will include any necessary recommendations for additional testing or other activities that would be required either prior to or during construction and/or operation of the project, including a discussion of any necessary remedial or related measures. The EIS will include a general discussion of the health and safety measures that would be implemented during project construction. Any appropriate remediation measures specific to the proposed uses on the project site, including those recommended by NYCDEP, will be provided in the EIS.

This section of the EIS will also include an overview of hazardous materials (e.g., radiation sources, chemotherapy drugs, medical wastes), if any, that would be associated with operation of the MSK facility as well as the CUNY-Hunter laboratories with a brief summary of the procedures/requirements for ensuring they are each managed safely.

TASK 8. WATER AND SEWER INFRASTRUCTURE

WATER SUPPLY

According to the *CEQR Technical Manual*, an analysis of an action's impact on the water supply system should be conducted only for actions that would have exceptionally large demand for water, such as power plants, very large cooling systems, or large developments (e.g., those that use more than 1 million gallons per day). In addition, actions located at the extremities of the water distribution system should be analyzed. The proposed project does not meet any of these criteria, and therefore an analysis of water supply is not warranted. However, the water demand for the Existing, Without Action and With Action conditions will be calculated and presented.

WASTEWATER AND STORMWATER CONVEYANCE AND TREATMENT

According to the guidelines of the *CEQR Technical Manual*, a preliminary analysis of wastewater and stormwater conveyance and treatment is warranted if a project is located in a combined sewer area and would have an incremental increase above the Without Action condition of 1,000 residential units or 250,000 square feet of commercial, public facility and institution and/or community facility space in Manhattan. Since the proposed project will provide over 250,000 square feet of institutional use, an analysis of wastewater and stormwater conveyance and treatment will be performed and will include the following:

- The existing stormwater drainage system and surfaces (pervious or impervious) on the project site will be described, and the amount of stormwater generated on the site will be estimated using DEP's volume calculation worksheet. Drainage areas with direct discharges and overland flow will be presented.
- The existing sewer system serving the project site will be described based on records obtained from DEP. Records obtained will include sewer network maps, drainage plans, capacity information for sewer infrastructure components, and other information for sewer infrastructure components, and other information as warranted (such as sewer backup complaints/repair history). The existing flows to the Waste Water Treatment Plant (WWTP) that serves the project site (Wards Island WWTP) will be obtained for the latest 12-month period, and the average dry weather monthly flow will be presented. Existing capacity information for pump stations, regulators, etc. within the affected drainage area will be presented.
- Any changes to the site's stormwater drainage system and surface area expected in the future without the proposed project will be described.
- Any changes to the sewer system expected to occur in the future without the proposed project will be described based on information provided by DEP.
- Assess future stormwater generation from the proposed project and the project's potential to impact the existing sewer system. The assessment will discuss any planned sustainability elements and best management practices (BMPs) that are intended to reduce storm water runoff from the project site. Any changes to the site's proposed surface area (pervious or impervious) will be described, and runoff coefficients and runoff for each surface type/area will be presented.
- The preliminary sewer assessment is undertaken by calculating existing and future water demands and sanitary sewage generation based on use generation rates set forth in the *CEQR Technical Manual*. The estimated amount of sewage generated from the proposed project

conservatively includes all of the project site's water consumption excluding air conditioning, which is typically not discharged into the sewer system. The DEP volume calculation worksheet is then used to calculate the overall combined sanitary sewage and stormwater runoff volume discharged to the sewer system for four rainfall volume scenarios with varying durations. Stormwater runoff volumes are determined by estimating the project site's pervious and impervious surfaces. The ability of the City's sewer infrastructure to handle the proposed project's anticipated demand is assessed by comparing the change in flows and volumes to the combined sewer system due to the proposed project.

- A more detailed assessment may be required if increased sanitary or stormwater discharges from the proposed project are predicted to affect the capacity of the existing sewer system, exacerbate Combined Sewer Overflow (CSO) volumes/frequencies, or contribute greater pollutant loadings in stormwater discharged to receiving water bodies. The scope of a more detailed analysis, if necessary, will be developed based on conclusions from the preliminary infrastructure assessment (described above) and in coordination with DEP.

TASK 9. TRANSPORTATION

Based on the *CEQR Technical Manual*, detailed transportation analyses may be warranted if a proposed action is anticipated to result in an incremental increase of 50 or more peak hour vehicles trips, 200 or more peak hour subway or bus trips, or 200 or more peak hour pedestrian trips. As currently contemplated, the proposed actions are expected to result in peak hour trip generation that would exceed these thresholds; therefore, detailed analyses of traffic, transit, and pedestrian operations, as well as assessments of vehicular and pedestrian safety and the area's parking supply and utilization, are warranted. Although completion of the CUNY-Hunter Building may lag the MSK ACC Building completion by a few years, this scope of work assumes that the project's potential operational impacts will be analyzed as one phase. The specific transportation analysis tasks to be undertaken as part of this environmental review are outlined below.

TRAVEL DEMAND PROJECTIONS AND SCREENING ASSESSMENTS

To determine the scale of the detailed transportation impact analyses, trip generation estimates will be developed for the proposed MSK ACC and CUNY-Hunter Buildings. These estimates will rely primarily on information provided by MSK on anticipated population of hospital staff, patients, and visitors and by CUNY-Hunter on anticipated population of faculty, students, administrators/staff, and visitors. Travel characteristics of the different user groups (i.e., work shifts, temporal distribution, and modal split) and the buildings' operational characteristics (building hours, programming details, etc.) will also be identified via a combination of available information from MSK and CUNY-Hunter, as well as travel data from approved studies of other similar uses, and consideration of newly available subway service via the Second Avenue Subway.

Based on the results of the trip generation estimates, "Level 1" and "Level 2" screening assessments will be prepared in accordance with the *CEQR Technical Manual*. The Level 1 screening assessment will compare the projected peak hour trips against the CEQR analysis thresholds described above. For analysis areas (traffic, transit, and pedestrians) that are expected to generate more peak hour trips than these thresholds, a Level 2 screening assessment, involving the distribution and assignment of the projected peak hour trips onto the transportation network, would be undertaken. The trip assignment will need to account for the appropriate on- and off-site parking assumptions, as well as anticipated pick-up/drop-off, ambulance, and truck

delivery activities on East 73rd and East 74th Streets. (As currently contemplated, loading facilities for both proposed buildings would be accessed from the north side of East 73rd Street. Delivery vehicles would be able to head into the respective loading areas and maneuver into designated bays, After completion of delivery activities, these vehicles would head out directly onto westbound East 73rd Street.)

Based on the results of the Level 2 screening assessment, the appropriate study areas for detailed traffic, transit, and pedestrian analyses will be identified. The trip estimates and results of the Level 1 and Level 2 screening assessments will be summarized in a Travel Demand Factors (TDF) memo for review and comment by the lead agency and DOT for concurrence on travel demand assumptions and detailed analysis study areas. The specific detailed analyses that will then be prepared are described below.

TRAFFIC AND PARKING ANALYSES

The project site is bounded by the FDR Drive southbound roadway to the east, York Avenue to the west, East 74th Street to the north, and East 73rd Street to the south. Given the project site's access to the FDR Drive and the local street network, it is anticipated that the trip estimates and assignments described above would result in the need for a weekday peak period (AM, midday, and PM) detailed traffic impact study for a study area comprising up to 19 intersections. Additional intersections that may be identified as warranted for analysis will be added to the traffic study area. Existing traffic data will be collected for these locations by a combination of manual and machine counts in accordance with CEQR procedures. Operational characteristics at the study area intersections during the analysis peak hours will be documented with a field inventory of roadway configurations, lane widths and utilization, curbside regulations, traffic congestion/queuing, and signal phasing/timing (to be confirmed with DOT official signal timing data). If a mobile source air quality analysis is determined to be warranted based on the results of the Level 2 screening assessment, additional data on travel time and delays will also be collected.

Using the collected baseline data, existing peak hour balanced traffic networks will be developed for the detailed analysis of intersection levels-of-service (LOS). This analysis will be prepared in accordance with the 2012 *CEQR Technical Manual* and 2000 *Highway Capacity Manual* (HCM) procedures using the latest approved *Highway Capacity Software* (HCS). Building on the existing traffic volumes, background growth and traffic attributed to other approved or as-of-right projects, as well as any anticipated changes to the area's roadway network, will be compiled to project future baseline traffic volumes and establish the Without Action condition. Project-generated peak hour trips will then be overlaid onto the future Without Action condition traffic networks to create the future condition with the proposed project traffic networks. Operating conditions for the Without Action and proposed project traffic volumes at the study area intersections will be analyzed in the same manner as described for existing conditions. The analysis results for the Without Action condition and conditions with the proposed project will then be compared to the impact criteria outlined in the *CEQR Technical Manual* to determine the potential for significant adverse traffic impacts. Where impacts are identified, practical mitigation measures (i.e., signal timing adjustments, parking restrictions, lane restriping, etc.) will be explored to alleviate these impacts. Because the MSK ACC Building would be operational prior to the future analysis year, if mitigation measures are necessary, an interim impact/mitigation analysis will also be prepared to determine the need to advance some or all of the mitigation measures identified for the condition with the proposed project.

For parking, since there are very limited on-street resources, the on-street parking analysis will be limited to an inventory of curbside regulations within ¼-mile of the project site. It is expected that the proposed project's parking demand will be accommodated on-site and/or at nearby off-street public parking facilities. To address the effects of the projects parking demand on the area's parking resources, a ¼-mile off-street parking study will be prepared to determine the potential for a parking shortfall.

TRANSIT AND PEDESTRIAN ANALYSES

Currently, trips made by public transportation to and from the project site are served by the Lexington Avenue No. 6 train at the 68th Street and 77th Street subway stations and by the York Avenue M31, First/Second Avenue M15, and Crosstown M66, M72, and M79 bus routes. By the project's build year, additional subway service is expected to be available with the completion and opening of the Second Avenue Subway's 72nd Street station, which is scheduled for completion in 2016. Based on the development program, the trip estimates and distribution of transit trips to these area public transportation services are expected to result in the need for detailed analysis of stairway and control area elements at one or more of the three nearby subway stations and line-haul conditions of the M66 and M72 bus routes. The detailed transit analysis will be prepared in the same manner as described for the traffic analysis, but only for the AM and PM commuter peak periods. Where impacts are identified, practical mitigation measures will be discussed.

Trips made by various modes of transportation, except for autos that park on-site and pick-ups/drop-offs that take place within an internal lay-by area, will traverse area sidewalks, corner reservoirs, and crosswalks as pedestrian trips. Based on the Level 2 screening assessment described above, it is anticipated that an equivalent of up to four intersections (consisting of the intersection corners, crosswalks, and connecting sidewalks) would be included for a detailed pedestrian analysis. This analysis will be prepared in accordance with the 2012 *CEQR Technical Manual* and 2010 *Highway Capacity Manual* (HCM) procedures using the latest approved analysis templates. Where impacts are identified, practical mitigation measures (i.e., street furniture removal, crosswalk widening, corner extension, etc.) will be explored to alleviate these impacts. Additional pedestrian analysis locations that may be identified as warranted for analysis will be added to the pedestrian study area.

VEHICULAR AND PEDESTRIAN SAFETY ASSESSMENT

Accident data for the study area intersections and other nearby sensitive locations from the most recent three-year period will be obtained from the New York State Department of Transportation (NYSDOT). These data will be analyzed to determine if any of the studied locations may be classified per CEQR criteria as high vehicle crash or high pedestrian/bike accident locations and whether trips and changes resulting from the proposed project would adversely affect vehicular and pedestrian safety in the area. If any high crash locations are identified, feasible improvement measures will be explored to address potential safety issues.

TASK 10. AIR QUALITY

The air quality studies for the proposed actions will include both mobile and stationary source analyses. The mobile source air quality impact analysis will assess the potential for PM and CO from traffic-generated emissions. The stationary source air quality impact analysis will address the effects of emissions from combustion sources of emissions on pollutant levels.

MOBILE SOURCE ANALYSIS

Based on preliminary estimates of trip generation, it is expected that the number of project-generated vehicles would exceed the *CEQR Technical Manual* CO and/or PM_{2.5} screening thresholds during a peak hour at one or more intersections in the study area, requiring a detailed analysis of mobile source air quality impacts. Using computerized dispersion modeling techniques, the effects of project-generated traffic on CO and PM_{2.5} levels at critical intersection locations will be determined. In addition, the impact of the proposed parking garages on air quality will be analyzed, and the results from that analysis will be combined with the intersection analyses, where applicable.

The work program will consist of predicting (using computerized dispersion modeling techniques) the effects of traffic under both the Without Action and With Action conditions on PM_{2.5} and CO levels at intersection locations within the study area, and, if significant impacts are predicted to occur due to the action, developing feasible traffic measures to alleviate those impacts. The analysis methodology is as follows: selection of appropriate sites for intersection analysis, calculation of vehicular emissions, calculation of pollutant concentration levels using dispersion models that have been approved by the applicable air quality review agencies (i.e., U.S. Environmental Protection Agency [EPA], NYSDEC, and DEP), and the determination of impacts. Specifically:

- Collect and summarize existing ambient air quality data for the study area. Ambient air quality monitoring data published by the NYSDEC will be compiled for the analysis of existing conditions.
- Calculate emission factors. Select emission calculation methodology and “worst-case” meteorological conditions. Compute vehicular cruise and idle emission factors for the intersection modeling using the EPA-developed MOBILE6.2.03 model (or the MOVES mode, as applicable) and applicable assumptions based on guidance by EPA, NYSDEC and DEP. Compute re-suspended road dust emission factors based on the EPA procedure defined in AP-42.
- Select appropriate background levels. Select appropriate CO background levels for the study area.
- Select appropriate analysis sites. Based on the background and project-increment traffic volumes and levels of service, select intersections for analysis, representing locations with the worst potential total and incremental pollution impacts. At intersections that exceed *CEQR Technical Manual* thresholds, those locations with the highest vehicle increments and/or highest level of congestion will be selected for analysis.
- Use EPA’s first-level CAL3QHC intersection model to predict the maximum change in CO concentrations, and the refined CAL3QHCR intersection model to predict the maximum change in PM_{2.5}. At each analysis site calculate for each peak period the maximum 1- and 8-hour average CO concentrations for: (i) Without Action conditions; and (ii) the future with the proposed project. For selected intersections, the maximum 24-hour and annual average PM_{2.5} concentrations will be determined for: (i) Without Action conditions; and (ii) the future with the proposed project.
- Perform an analysis of CO for the proposed project’s parking facility. The analysis will use the procedures outlined in the *CEQR Technical Manual* for assessing potential impacts from proposed parking facilities. Cumulative impacts from on-street sources and emissions from parking garages will be calculated, where appropriate.

- Compare with benchmarks and evaluate impacts. Evaluate potential impacts by comparing predicted future CO pollutant levels with standards, the predicted CO increment with *de minimis* criteria, and the PM_{2.5} increments with the City's interim guidance criteria. If significant adverse impacts due to CO concentrations are predicted, refine results by performing detailed dispersion analysis at affected locations using EPA's refined CAL3QHCR intersection model and compare refined results to benchmarks.
- For locations where significant adverse impacts are predicted, measures to alleviate such impacts will be examined. In the event that a significant adverse impact is identified, feasible traffic mitigation measures will be evaluated.
- Provide a qualitative discussion of the effects of project related traffic on NO₂ concentrations at affected roadways.

STATIONARY SOURCE ANALYSIS

HVAC Analysis

- A screening analysis will be performed to determine whether emissions from any onsite fuel-fired heating, ventilation and air conditioning (HVAC) equipment (for example, boilers or hot-water heaters) would be significant. The screening analysis will use the procedures outlined in the *CEQR Technical Manual* that consider the distance of the HVAC exhaust to the nearest building of equal or greater height, the proposed building size, the height of the exhaust stack and the type(s) of fuel used. The screening analysis will also be performed to determine whether there are any potential significant adverse impacts with respect to the new 1-hour nitrogen dioxide (NO₂) and 1-hour sulfur dioxide (SO₂) ambient air quality standards.
- If the screening analyses for the proposed project's HVAC systems indicate that there would be a potential for significant adverse air quality impacts, a more detailed stationary source analysis will be performed using EPA's AERMOD model. For this analysis, five years of meteorological data from La Guardia Airport and concurrent upper air data from Brookhaven, New York will be utilized for the simulation program. Concentrations of nitrogen dioxide, sulfur dioxide, and particulate matter (PM₁₀) will be determined at sensitive receptor sites. Predicted values will be added to ambient background concentrations and compared with national ambient air quality standards. Predicted concentrations of PM_{2.5} at sensitive receptor sites will be compared to the City's interim guidance criteria for PM_{2.5}. In the event that violations of standards are predicted, design measures to reduce pollutant levels to within standards will be proposed.

Laboratory Spill Analysis

- The EIS will assess the potential impacts for an accidental spill in the project's fume hoods exhausting to the atmosphere. The analysis will be performed using a list of chemicals that would likely be used at the proposed site, or using a typical list of chemicals for similar facilities. The analysis will be based on procedures and methodologies described in the *CEQR Technical Manual*. Chemical evaporation rates will be calculated using the Shell Development Company (M.T. Fleisher, An Evaporation/Air Dispersion Model for Chemical Spills on Land, December 1980), an examination of recirculation potential using the methodology described by D.J. Wilson in *A Design Procedure for Estimating Air Intake Contamination from Nearby Exhaust Vents* (ASHRAE TRANS 89, Part 2A, pp.136-152, 1983), and the determination of maximum pollutant concentrations at elevated receptors

downwind of the fume exhausts using the latest EPA INPUFF model (W.B. Peterson, *Estimating Concentrations Downwind From an Instantaneous Puff Release*, EPA 600/3-82-078, August 1978). One set of design parameters will be evaluated. Maximum concentrations from an accidental chemical spill will be compared to the short term Exposure Levels (STELs) or ceiling levels recommended by the U.S. Occupational Safety and Health Administration (OSHA) for the chemicals examined. Where necessary, recommendations will be made to reduce any potential levels of concern.

Analysis of Con Edison East 74th Street Plant

- The project site is in the vicinity of the Con Edison East 74th Street Steam Plant. An analysis will be performed to determine the potential for significant adverse air quality impacts on the proposed project. The methodology and assumptions for performing this analysis will be submitted to DEP for review.
- In the event that a potential significant impact is identified, a refined analysis would be performed using the USEPA AERMOD model. For this analysis, five years of meteorological data from La Guardia Airport and concurrent upper air data from Brookhaven, New York will be utilized for the simulation program. Concentrations of nitrogen dioxide, sulfur dioxide, and particulate matter (PM₁₀) will be determined at sensitive receptor sites. Predicted values will be added to ambient background concentrations and compared with national and state ambient air quality standards. Predicted concentrations of PM_{2.5} at sensitive receptor sites will be compared to the City's interim guidance criteria for PM_{2.5}. In the event that a potential significant impact is identified, further refined analysis would be performed, or measures to minimize or avoid impacts would need to be stipulated.

Other Industrial Sources

- If manufacturing or processing facilities other than Con Edison are identified within 400 feet of the project site, or if any emissions from processing or manufacturing facilities within 400 feet of the project site are on file with DEP or NYSDEC, an industrial stationary source air quality analysis as detailed in the *CEQR Technical Manual* will be performed. The *CEQR Technical Manual's* industrial source screening procedures will be used to estimate the short-term and annual concentrations of critical pollutants at sensitive receptor sites. Predicted worst-case impacts on the project will be compared with the short-term guideline concentrations (SGC) and annual guideline concentrations (AGC) reported in NYSDEC's DAR-1 AGC/SGC Tables guidance document to determine the potential for significant impacts. In the event that exceedances of guidance concentrations are predicted, more refined dispersion modeling (using EPA's AERMOD dispersion model) may be employed as a separate task, or measures to reduce pollutants to within guidance levels will be examined.

TASK 11. GREENHOUSE GASES

According to the *CEQR Technical Manual*, a greenhouse gas (GHG) consistency assessment is appropriate for projects in New York City being reviewed in an EIS that would result in development of 350,000 square feet or greater. Therefore, GHG emissions from the proposed project will be quantified and an assessment of consistency with the City's GHG reduction goal will be performed. Project GHG emissions will be estimated for one worst case development plan and one analysis year and reported as carbon dioxide equivalent (CO_{2e}) metric tons per year. The quantified assessment will include operational emissions (emissions from the

operation of the buildings in the project, including direct and indirect emissions), and mobile source emissions. The construction phase or the extraction or production of materials or fuels needed to construct the project is not likely to be a significant part of total project emissions. Therefore, emissions resulting from construction activity and construction materials will be assessed qualitatively. The project would not fundamentally change the city's solid waste management system. Therefore a quantified assessment of emissions due to solid waste management is not warranted. Features of the project that demonstrate consistency with the City's GHG reduction goal will be described. The GHG analysis will consist of the following subtasks:

- Direct and Indirect Operational Emissions—emissions from on-site boilers used for heat and hot water would be quantified, as well as emissions from purchased electricity generated off-site and consumed on-site. Emissions would be based on the carbon intensity factors specified in the *CEQR Technical Manual* or project specific information on energy use.
- Indirect Mobile Source Emissions—emissions from vehicle trips to or from the proposed project will be quantified using trip distances and emission factors provided in the *CEQR Technical Manual*.
- Emissions from construction and emissions associated with the extraction or production of construction materials will be qualitatively discussed. Opportunities for reducing GHG emissions associated with construction will be considered.
- Features of the proposed project that reduce energy use and GHG emissions will be discussed and quantified to the extent that information from the project team is available.
- To determine the consistency with the City's overall GHG reduction goal, consistency with the City's goals will be assessed as relevant to the proposed project, addressing the project's carbon intensity based upon its density, fuel choices, geographic setting, avoided GHG emissions, and building energy efficiency. The City's goals include improved building energy efficiency, use of clean power, transit-oriented development and sustainable transportation, and the reduction of construction-associated emissions. This section will outline potential measures that could reduce energy use and GHG emissions associated with the proposed project, and will identify the measures that would be implemented as part of the proposed project, and measures still under consideration. To the extent that information is available, the potential of these measures to reduce GHG emissions will be discussed. Overall, the project design, location, and incorporated measures relevant to GHG emissions will be assessed for consistency with the City's GHG reduction goal.

TASK 12. NOISE

The *CEQR Technical Manual* requires that the noise study address whether the proposed project would result in a significant increase in noise levels (particularly at sensitive land uses such as residences and institutions) and what level of building attenuation is necessary to provide acceptable interior noise levels within the proposed buildings.

The proposed project would generate vehicular trips, but given the background conditions and the anticipated project-generated traffic it is not expected that project-generated traffic would be likely to result in significant noise impacts—except on East 74th street where traffic is very light and therefore a detailed analysis is necessary. For CEQR purposes, it is assumed that outdoor mechanical equipment would be designed to meet applicable regulations and no detailed analysis of potential noise impacts due to outdoor mechanical equipment will be required.

The noise analysis will examine the level of building attenuation necessary to meet CEQR interior noise levels requirements. The building attenuation study will be an assessment of noise levels in the surrounding area associated primarily with traffic and nearby uses and their potential effects on the proposed project.

Specifically, the analysis will include the following:

- Select appropriate noise descriptors. Appropriate noise descriptors to describe the existing noise environment will be selected. The L_{eq} and L_{10} levels will be the primary noise descriptors used for the EIS analysis. Other noise descriptors including the L_1 , L_{10} , L_{50} , L_{90} , L_{min} , and L_{max} levels will be examined when appropriate.
- Based on the traffic studies (see Task 9, “Transportation”), perform a screening analysis to determine whether there are any locations (other than East 74th Street) where there is the potential for the proposed project to result in significant noise impacts (i.e., doubling of Noise PCEs) due to project generated traffic.
- Select receptor locations for building attenuation analysis (including the FDR Drive adjacent to the project site) and the East 74th street mobile source noise analysis purposes. Receptor locations will be selected to assess noise sources adjacent to the project site, including vehicle traffic on local streets and the FDR Drive, and will include locations adjacent to the proposed project area and other locations if Noise PCE’s double beyond the project block.
- Perform 20-minute measurements at each receptor locations during typical weekday AM, midday, and PM peak periods. L_1 , L_{10} , L_{50} , L_{90} , L_{min} , and L_{max} values will be recorded. Where site access and security permits, a 24-hour continuous measurement may be performed in lieu of a 20-minute measurement.
- Data analysis and reduction. The results of the noise measurement program will be analyzed and tabulated.
- Determine future noise levels without the proposed actions. At the East 74th Street mobile source noise analysis receptor location, the Without Action noise levels will be determined for the analysis year using existing noise levels, acoustical fundamentals and either proportional modeling or the Traffic Noise Model (TNM).
- Determine future noise levels with the proposed actions. At the East 74th Street mobile source noise analysis receptor location, noise levels with the proposed actions will be determined analysis year using existing noise levels, acoustical fundamentals and either proportional modeling or the TNM.
- Compare noise levels with CEQR impact evaluation criteria. Existing noise levels and future noise levels, both with and without the proposed actions, will be compared with the CEQR noise impact criteria to determine project impacts.
- Determine the level of attenuation necessary to satisfy CEQR criteria. The level of building attenuation necessary to satisfy CEQR requirements is a function of exterior noise levels and will be determined. Measured values will be compared to appropriate standards and guideline levels. As necessary, recommendations regarding general noise attenuation measures needed for the proposed project to achieve compliance with standards and guideline levels will be made.

TASK 13. PUBLIC HEALTH

According to the *CEQR Technical Manual*, public health is the organized effort of society to protect and improve the health and well-being of the population through monitoring; assessment and surveillance; health promotion; prevention of disease, injury, disorder, disability and premature death; and reducing inequalities in health status. The goal of CEQR with respect to public health is to determine whether adverse impacts on public health may occur as a result of a proposed project, and if so, to identify measures to mitigate such effects.

According to the guidelines of the *CEQR Technical Manual*, a public health analysis is not warranted if a project does not result in a significant unmitigated adverse impact in other CEQR analysis areas, such as air quality, water quality, hazardous materials, or noise. If unmitigated significant adverse impacts are identified in any one of these technical areas, and the lead agency determines that a public health assessment is warranted, an analysis will be provided for that specific technical area.

TASK 14. NEIGHBORHOOD CHARACTER

Neighborhood character is determined by a number of factors, such as land use, urban design, visual resources, historic resources, socioeconomic conditions, traffic, and noise. Methodologies outlined in the *CEQR Technical Manual* will be used to provide an assessment of neighborhood character. This analysis will consist of the following:

- Based on other technical analyses, describe the predominant factors that contribute to defining the character of the neighborhood surrounding the project site.
- Based on planned development projects, public policy initiatives, and planned public improvements, summarize changes that can be expected in the character of the area in the future without the proposed actions.
- Assess and summarize the proposed project's effects on neighborhood character using the analysis of impacts as presented in other pertinent analyses (particularly urban design and visual resources, historic resources, socioeconomic conditions, traffic, and noise).

TASK 15. CONSTRUCTION

Construction impacts, though temporary, can have a disruptive and noticeable effect on the adjacent community, as well as people passing through the area. Construction activity could affect transportation conditions, community noise patterns, air quality conditions, and mitigation of hazardous materials. This task will describe the construction schedule and logistics, discuss anticipated on-site activities, and provide estimates of construction workers and truck deliveries.

Based on the projected construction activities and equipment in the context of duration, location of emissions relative to nearby sensitive locations, and the implementation of air emissions controls and noise reductions measures, a detailed qualitative air quality and noise analysis will be provided to assess the potential impacts of construction activities.

- Duration – In terms of air emissions and noise levels, the most intense construction activities are demolition, excavation, and foundation work, where a number of large non-road diesel engines would be employed. Based on the anticipated construction schedule, these activities are anticipated to take less than 24 months.
- Location of Sensitive Receptors – The nearest sensitive receptor location is an existing residential building (530 East 73rd Street) located approximately 65 feet away south of the

project site. However, there are currently no sensitive receptors immediately east of the project site (FDR Drive), immediately north of the project site (Con Edison plant) and immediately west of the project site (commercial buildings, auto body repair shop, and parking garage). Although the Hospital for Special Surgery would be built in the adjacent lots west of the project site, based on the anticipated completion year for this building and the anticipated construction schedule for the proposed project, the hospital would unlikely be occupied before the completion of the proposed project's most intense construction activities (demolition, excavation, and foundation work). To the extent practicable, construction equipment would be located away from the residential building to the south of the project site.

- Air Emissions Controls/Noise Reduction Measures – A variety of air emissions control measures would be implemented to the extent practicable and feasible to ensure that the construction of the proposed project would result in the lowest practicable diesel particulate matter emission. These measures would include diesel equipment reduction, clean fuel, best available tailpipe reduction technologies, utilization of new equipment, source location, dust control, and idle restriction. In addition, noise control measures would be implemented to minimize construction noise and reduce potential impacts associated with the construction of the proposed project. These measures would include a variety of source and path controls as specified in the New York City Noise Control Codes.

Technical areas to be analyzed include:

- Transportation Systems – This assessment will consider losses in lanes, sidewalks, off-street parking on the project site, and effects on other transportation services, if any, during the construction periods, and identify the increase in vehicle trips from construction workers and equipment. Based on the trip projections of activities associated with peak construction and completed portions of the proposed project, an assessment of potential impacts during construction and how they are compared to the project's operational impacts will be provided. This scope assumes that this assessment can be made via a qualitative comparison using the impact findings from the operational analysis and would not require a separate detailed analysis. Similar to other recently approved EISs, construction trip projections will be developed to inform the necessary impact analyses. If quantified analyses are determined to be warranted and specific mitigation measures are required, they will be discussed in the EIS.
- Air Quality – The construction air quality impact section will contain a qualitative discussion of both mobile source emissions from construction equipment and worker and delivery vehicles, and fugitive dust emissions. It will discuss measures to reduce impacts and may include components such as: diesel equipment reduction; clean fuel; best available tailpipe reduction technologies; utilization of equipment that meets specified emission standards; and fugitive dust control measures, among others.
- Noise – The construction noise impact section will contain a qualitative discussion of noise from each phase of construction activity. Appropriate recommendations will be made to comply with DEP Rules for Citywide Construction Noise Mitigation and the New York City Noise Control Code.
- Hazardous Materials – In coordination with the hazardous materials summary, determine whether the construction of the project has the potential to expose construction workers to contaminants.

- Other Technical Areas – As appropriate, discuss other areas of environmental assessment for potential construction-related impacts.

TASK 16. MITIGATION

Where significant impacts have been identified in the analyses discussed above, measures will be described to mitigate those impacts. Where impacts cannot be mitigated, they will be described as unavoidable adverse impacts.

TASK 17. ALTERNATIVES

The purpose of an alternatives analysis is to examine reasonable and practicable options that avoid or reduce project-related significant adverse impacts while achieving the goals and objectives of the proposed project. The specific alternatives to be analyzed are typically finalized as project impacts are clarified. CEQR requires an analysis of a Without Action Alternative (without the proposed actions), which in this case assumes that the existing use on the site would continue. Other alternatives to be analyzed could possibly involve different design alternatives and/or a different zoning text amendment or map change. The analyses will be primarily qualitative, except where specific project impacts have been identified (e.g., traffic intersections with significant adverse impacts). However, the qualitative analysis will be of sufficient detail to allow comparisons of associated environmental impacts and attainment of project goals and objectives.

TASK 18. SUMMARY CHAPTERS

Several summary chapters will be prepared, focusing on various aspects of the SEIS, as set forth in the regulations and the *CEQR Technical Manual*. They are as follows:

1. *Executive Summary*. Once the EIS technical sections have been prepared, a concise executive summary will be drafted. The executive summary will use relevant material from the body of the EIS to describe the proposed actions, environmental impacts, measures to mitigate those impacts, and alternatives to the proposed actions.
2. *Unavoidable Adverse Impacts*. Those impacts, if any, that could not be avoided and could not be practicably mitigated will be described in this chapter.
3. *Growth-Inducing Aspects of the Proposed Actions*. This chapter will focus on whether the proposed actions would have the potential to induce new development within the surrounding area.
4. *Irreversible and Irrecoverable Commitments of Resources*. This chapter focuses on those resources, such as energy and construction materials, that would be irretrievably committed should the proposed project be built. *