

A. INTRODUCTION

The Proposed Actions would involve construction activities on the Project Site for approximately 48 months, including approximately 36 months for construction of the new residential buildings and school and another 12 months for conversion of the existing school to residential use. This chapter describes the schedule and methods of construction for the Proposed Project and assesses the potential for construction-period impacts in the area around the Project Site. It also identifies measures to avoid, reduce, or mitigate the potential for impacts during construction.

PRINCIPAL CONCLUSIONS

No significant adverse impacts are anticipated due to construction activities on the Project Site. However, construction activities have the potential to result in temporary adverse effects. As described above, construction activities would be most intensive during the demolition, excavation, and core and shell phases. Once interior construction commences, effects on traffic, air quality, and noise would be much more limited.

As described in the sections above, 44th Street Development LLC and SCA would adhere to all applicable codes and regulations to avoid or minimize the adverse effects of construction on adjacent sensitive receptors, including P.S. 51. During construction, 44th Street Development LLC and SCA would work closely with P.S. 51 and the Department of Education (DOE) to develop a project Safety Plan and to create an environment with minimal disruptions on the school community.

If necessary and warranted, 44th Street Development LLC and SCA would also prepare a Maintenance and Protection of Traffic Plan in consultation with the New York City Department of Transportation to maintain vehicle access on surrounding streets during construction.

B. THE FUTURE WITHOUT THE PROPOSED ACTIONS

Absent the Proposed Actions, the existing uses would remain on-site and construction activities would not occur. Thus, there would not be construction-related traffic, air quality emissions, or noise. If archaeological resources exist within the Project Site, they would be undisturbed, and construction protection measures would not be required for the continued operation of the existing P.S. 51, a State and National Register-eligible historic resource. Since there would not be subsurface disturbance of the Project Site, environmental conditions identified in Chapter 11, “Hazardous Materials” would not be remediated.

C. PROBABLE IMPACTS OF THE PROPOSED ACTIONS

OVERVIEW OF CONSTRUCTION ACTIVITIES

CONSTRUCTION STAGES AND ACTIVITIES

Residential Buildings

Construction of the residential buildings would involve four phases: 1) demolition; 2) excavation and foundations; 3) shell and core construction; and 4) interior construction and finishing. The phases are described below.

- **Demolition:** Construction would begin with demolition of existing structures on the Project Site, except the existing P.S. 51, which would remain. Demolition would include implementation of a Remedial Work Plan to address hazardous materials currently existing on the site. Demolition of existing buildings, environmental remediation, and grading of the sites, would occur over a period of approximately 6 months.
- **Excavation and Foundations:** Excavation for the foundations and below-grade construction is expected to last approximately 9 to 12 months. Soil would be excavated from the Project Site and removed by truck to a licensed landfill or recycling facility. Where bedrock is shallow it is likely that solid rock excavation would be necessary. While the specific methods used for rock excavation cannot be determined until a subcontractor is selected, excavation typically includes rock drilling and/or controlled blasting, and the use of heavy excavation equipment and cranes to remove broken rock from the site. During this period, piles would be driven, as necessary, to support the buildings, and pile caps would be formed and concrete poured to build the foundations for the buildings.

Blasting in New York City is tightly regulated and restricted. All blasting would conform to Fire Department of New York City (FDNY) regulations and any other applicable regulations. The regulations are intended to prevent endangering the public and to minimize vibrations that could affect nearby buildings. Blasting would involve the use of timed multiple charges with limited blast intensity, which would reduce potential impacts, and blastmats would be placed over the blasting areas. In consultation with the New York City Landmarks Preservation Commission (LPC) and New York State Office of Parks, Recreation, and Historic Preservation (OPRHP), measures would also be taken to protect historic resources from any potential effects during excavation. These measures would include the development of a specific construction protection plan (CPP), which is described in below in the “Historic Resources” section.

Foundation work would typically include the use of bobcats, rockbreakers, loaders, pumps, motorized concrete buggies, concrete pumps, jack hammers, pneumatic compressors, and a variety of small, mostly hand-held tools, as well as dump trucks and concrete trucks. Excavated material would be disposed of off-site via trucks. This phase of work would also include construction of a deck over the Amtrak rail cut.

- **Core and Shell Construction:** This stage of construction would last approximately 18 to 24 months. Construction of the exterior enclosure, or “shell,” of the building would include construction of the building’s framework (installation of beams and columns), floor decks, facade (exterior walls and cladding), and roof construction. These activities would require the use of tower cranes, compressors, personnel and material hoists, front-end loaders,

concrete pumps, on-site bending jigs, welding machines, and a variety of hand-held tools, in addition to the delivery trucks bringing construction materials to the site.

- **Interior Construction and Finishing:** This stage would include the construction of interior walls, installation of lighting fixtures and interior finishes (flooring, painting, etc.), as well as mechanical and electrical work, such as the installation of elevators. Mechanical and other interior work would last approximately 24 months and is anticipated to overlap with the shell and core construction phase. Equipment used during interior construction would include exterior hoists, pneumatic equipment, delivery trucks, and a variety of small hand-held tools.

Construction of New P.S. 51

The New York City School Construction Authority (SCA) would undertake construction of the new P.S. 51 and playground on the Project Site, which would occur simultaneous with the construction of residential buildings. The school would be built of masonry. The first step would be to prepare the site for construction using a 25 to 30 ton excavator for large earth moving, and a small mini-excavator for finishing the excavation. Then the piles would be driven to support the buildings. Pile caps would be formed and concrete poured to build the foundations for the buildings. In addition to the excavator and mini excavator, a pile driver and generator would be used. To construct the shell of the buildings two methods are likely to be used. The traditional method is block walls for the multi-story school. This type of construction requires masons and laborers to build the walls, floors, and roof. A rough terrain fork lift would be used to move the masonry around the site and into position for the masons. Mortar mixers would also be used. With the second method, large pre-cast concrete planks would be brought to the site on tractor trailers. The pre-cast elements would be lifted by large cranes from the bed of the tractor trailers and secured into place. At this point in the construction, electric service may be provided, and generators would no longer be needed. The interior fit-out is the most labor intensive part of constructing the buildings. Interior finishing involves electrical installation; heating, ventilation, and air conditioning; sheet rocking; painting; and furnishing. Mostly small hand tools are used for interior finishing, but a high number of deliveries for materials, such as sheet rock, ceiling tiles, flooring and interior electrical, mechanical and plumbing fixtures are required. Overall, construction of the new P.S. 51 is expected to last approximately 24 months.

Renovation and Reuse of Existing P.S. 51

Once the new P.S. 51 is completed, the existing P.S. 51 would be renovated for residential use. This would include restoration and repair of the building's facades, construction of interior walls, installation of new mechanical equipment, and installation of lighting fixtures and interior finishes. Equipment used during interior construction would include exterior hoists, pneumatic equipment, delivery trucks, and a variety of small hand-held tools. Renovation of the existing P.S. 51 is expected to last approximately 12 months.

SCHEDULE

Construction is anticipated to last approximately 48-months. The first phase of construction would include the remediation of hazardous materials, demolition of buildings on the Project Site (except for the existing P.S. 51, which would remain), and excavation. Construction of foundations and the deck over the rail cut would follow, and then the superstructure (core and shell) of the residential buildings and school would be erected. Nearing the end of the core and shell phase, interior work would begin. The final phase of construction would be the renovation

West 44th Street and Eleventh Avenue Rezoning

of the existing P.S. 51 for residential use, which would not commence until the new P.S. 51 is completed. **Table 19-1** shows the preliminary construction schedule for the project.

Table 19-1
Preliminary Construction Schedule

| Task | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 | Q16 |
|---|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|
| Residential Buildings | | | | | | | | | | | | | | | | |
| Demolition | | | | | | | | | | | | | | | | |
| Excavation and Foundations | | | | | | | | | | | | | | | | |
| Core and Shell Construction | | | | | | | | | | | | | | | | |
| Interior Construction and Finishing | | | | | | | | | | | | | | | | |
| New P.S. 51 Construction | | | | | | | | | | | | | | | | |
| Renovation and Reuse of Existing P.S. 51 | | | | | | | | | | | | | | | | |
| Sources: 44th Street Development LLC | | | | | | | | | | | | | | | | |

WORKFORCE AND WORK HOURS

At its peak, which would occur in the third year of construction (the 9th through 12th quarters), there would be approximately 1,000 workers on-site during an average work day.

Construction activities for the buildings would take place in accordance with New York City laws and regulations which allow construction activities to take place between 7 AM and 6 PM. Construction work would begin at 7 AM on weekdays, with most workers arriving between 6 AM and 7 AM. Typically, work would end at 3:30 PM, but could be extended until 6 PM for such tasks as finishing a concrete pour for a pad, or completing the bolting of a steel frame erected that day. Extended workday activities would not include all construction workers on site, but only those involved in the specific task. Extended workdays would occur during foundation and superstructure tasks, and limited extended workdays could occur during other tasks over the course of construction.

During construction, weekend work may occur. Weekend work requires a permit from the New York City Department of Buildings (DOB) and, in certain instances, approval of a noise mitigation plan from the New York City Department of Environmental Protection (NYCDEP) under the City's Noise Code. The New York City Noise Control Code, as amended in December 2005 and effective July 1, 2007 limits construction (absent special circumstances as described below) to weekdays between the hours of 7 AM and 6 PM, and sets noise limits for certain specific pieces of construction equipment. Construction activities occurring after hours (weekdays between 6 PM and 7 AM and on weekends) may be permitted only to accommodate: (i) emergency conditions; (ii) public safety; (iii) construction projects by or on behalf of City agencies; (iv) construction activities with minimal noise impacts; and (v) undue hardship resulting from unique site characteristics, unforeseen conditions, scheduling conflicts and/or financial considerations. In such cases, the numbers of workers and pieces of equipment in operation would be limited to those needed to complete the particular authorized task. Therefore, the level of activity for any weekend work would be less than a normal workday. The typical weekend workday would be on Saturday, beginning with worker arrival and site preparation at 7 AM, and ending with site cleanup at 5 PM.

A few tasks may have to be completed without interruption, and the work can extend past 6 PM. In certain situations, concrete must be poured continuously to form one structure without joints. This type of concrete pour is usually associated with foundations, which would require a minimum of 12 hours or more to complete.

DELIVERIES AND ACCESS

At its peak, which would occur in the third year of construction (the 9th through 12th quarters), there would be approximately 125 daily truck deliveries to the Project Site.

Access to the Project Site would be controlled throughout the construction period. The work areas would be fenced off, and limited access points for workers and trucks would be provided. Typically, worker vehicles would not be allowed into the construction area. Material deliveries to the site would be controlled and scheduled to the extent feasible such that unscheduled deliveries would be minimized. Flagmen would be posted at construction gates to control access during work hours, and security personnel would patrol the site during non-work hours.

Construction staging would occur on-site, when feasible, or within the adjacent curbside lane of West 44th Street, Eleventh Avenue, and West 45th Street. However, rerouting of vehicular traffic is not anticipated since at least one moving lane would be maintained on these streets. Sidewalks immediately adjacent to the Project Site may also be closed during construction, but access to the existing P.S. 51 would be maintained when school is in session. Where sidewalks are closed, pedestrians would either walk on the opposite side of the street or in a protected area within a portion of the roadway or the Project Site. The New York City Department of Transportation (NYCDOT) would be consulted to determine the appropriate protection measures to ensure vehicular and pedestrian safety during construction.

POTENTIAL ENVIRONMENTAL IMPACTS OF CONSTRUCTION ACTIONS

LAND USE AND NEIGHBORHOOD CHARACTER

Construction would cause some disruptions to activities in the surrounding area. Although construction would occur over four years, most disruptions would be temporary in nature and would not occur for the entire construction period. In addition, the location of the construction activity would move over the course of the construction period. Construction activities would be similar to construction activities at other large sites in the City, and the hours of the construction would be regulated by the New York City Noise Code.

In general, construction would not alter surrounding land uses. During the construction, access to all adjacent businesses, residences, and other uses would be maintained according to the regulations established by the New York City Department of Buildings. When work would take place within building shells, effects on the surrounding uses would be substantially reduced as compared to excavation and foundation activities. Construction management practices would be developed and implemented to minimize the effects of construction-related changes in access to land uses in the vicinity of the development parcels. Other changes, such as sidewalk closures, would also affect people living and working in the surrounding area, but implementation of the construction management practices would minimize the effects of these closures.

SOCIOECONOMIC CONDITIONS

Construction activities could include lane and/or sidewalk closures along the Project Site's block faces for different stages of construction. However, the Project Site would be vacated of businesses prior to construction. Access to businesses across West 44th Street, Eleventh Avenue, and West 45th Street, and along Tenth Avenue would be maintained. Therefore, construction activities would not result in significant adverse impacts on local businesses.

West 44th Street and Eleventh Avenue Rezoning

Construction would create major direct benefits resulting from expenditures on labor, materials, and services, as well as substantial indirect benefits created by expenditures by material suppliers, construction workers, and other employees involved in the direct activity. Construction would also contribute to increased tax revenues for the City and state, including those from personal income taxes.

COMMUNITY FACILITIES

Construction activities on the Project Site would result in some interruptions to activities in the surrounding area and would include limited curb lane and/or sidewalk closures for different stages of construction. However, access to the existing P.S. 51 would be maintained when school is in session, and all of the affected streets would remain accessible to emergency vehicles. Coordination with both the New York City Police Department (NYPD) and the New York City Fire Department (FDNY) would be undertaken throughout the construction period to ensure that unimpeded emergency access and adequate emergency response could be achieved.

Access to the existing P.S. 51 playground would be limited or eliminated during periods of construction. The new P.S. 51 would occupy portions of the existing playground; therefore, these areas would be lost once excavation for the new school commences. The remainder of the playground may serve as staging for the new school and other proposed uses on the Project Site.

As described above, construction activities would comply with the New York City Noise Control Code, which regulates hours of construction and noise levels for equipment used on site. At times, certain construction activities, such as excavation and exterior construction, may be adversely affect the existing P.S. 51. In later stages of construction, when work would take place within building shells, effects on P.S. 51 would be substantially reduced. There may be some inconvenience associated with construction of the project as construction hours would coincide with school hours. 44th Street Development LLC would work with the P.S. 51 community to develop a safety plan and to create an environment with minimal disruptive impacts on the school community.

OPEN SPACE

There are no publicly-accessible open spaces within the Project Site, and construction activities would not limit access to open space resources in the vicinity of the Project Site. At limited times, activities such as excavation and foundation construction may generate noise that would impair the enjoyment of open space resources.

HISTORIC RESOURCE

Since the proposed development of the Project Site would involve subsurface disturbance of the Project Site, which could affect any historic-period archaeological resources that still exist in this area, further investigation in the form of Phase 1B archaeological testing is recommended in the rear yards of historic Lots 8-11, 54-57, 61A, 61, 61-½, 63, and 64 and in the original P.S. 51 building's side yard areas in order to further assess the site's potential to yield archaeological resources. This testing would be completed before the start of construction of the Proposed Project. In advance of testing, an archaeological testing protocol would be prepared in consultation with the New York City Landmarks Preservation Commission (LPC). With this testing and compliance with any LPC directive based on the results of such testing, no significant adverse impacts to archaeological resources are expected to occur with the Proposed Actions.

To avoid the potential for adverse physical impacts to P.S. 51 and the former Houbigant Building during construction—such as ground-borne vibrations, falling debris, and damage from heavy machinery—the Proposed Project would develop and implement a Construction Protection Plan (CPP) in consultation with the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) and LPC prior to construction. The CPP would follow the requirements established in the DOB’s *TPPN #10/88*, concerning procedures for the avoidance of damage to adjacent historic structures from nearby construction. It would also follow the guidelines set forth in Section 523 of the *CEQR Technical Manual*, including conforming to LPC’s *Guidelines for Construction Adjacent to a Historic Landmark and Protection Programs for Landmark Buildings*.

TRAFFIC

During construction, trips would be generated by the workers traveling to and from the Project Site and from construction vehicles and delivery trucks. The volume of trips would vary by stage of construction, but peak activity is anticipated in the third year of construction when there would be up to 1,000 daily workers and 125 daily deliveries to the Project Site.

Construction workers would typically arrive at the Project Site between 6 AM and 8 AM and would depart between 2 PM and 5 PM. The majority (80 percent) of the trips would take place between 6 AM and 7 AM for arrival and 3 PM and 4 PM for departure on a regular day. Based on surveys conducted at the New York Times Building in 2006, construction workers that travel within or commute to and from Manhattan primarily use public transportation (approximately 70 percent) while 30 percent travel by auto. For construction trucks, deliveries would occur throughout the day with the peak overlapping with construction worker arrival traffic. It is estimated that construction activities would generate up to 175 vehicle trips in the morning peak (6AM to 7AM) and 113 vehicle trips in the afternoon peak (3PM to 4PM). In the morning peak, approximately 62 vehicle trips would be deliveries to and from the Project Site while typically there would not be deliveries at the end of the work day during the afternoon peak hour.

Delivery vehicles would travel to and from the Project Site using NYCDOT designated truck routes with local access along Tenth and Eleventh Avenues as well as West 44th and West 45th Streets. Since parking would not be provided on-site for construction workers, they would travel to and from nearby parking facilities and would then walk to the Project Site. Therefore, construction traffic would be dispersed throughout the area around the Project Site.

Automated traffic recorder (ATR) counts were performed in the vicinity of the Project Site for a one week period in November 2008. These counts show that vehicular traffic is 15 percent lower on West 44th Street and Tenth Avenue and 50 percent lower on Eleventh Avenue between 6 AM and 7 AM than between 8 AM and 9 AM, the typical AM peak hour for commuter traffic. Similarly, traffic is 5 to 15 percent lower from 3 PM to 4 PM than between 5PM to 6 PM, which is the typical PM peak hour for commuter traffic; however, the ATRs did record higher volumes on Tenth and Eleventh Avenues between 3 PM and 4 PM than between 5 PM and 6PM on one or more days during the counts.

As noted in Chapter 15, “Traffic and Parking,” the Proposed Actions would result in significant adverse traffic impacts once operational, but all of these impacts can be fully mitigated. Peak construction activities would generate fewer vehicle trips, and construction-related traffic would be more widely dispersed. However, construction activities have the potential to adversely affect traffic operations since certain locations are already operating at poor levels-of-service.

Delivery of material, truck holding and staging would occur on Eleventh Avenue and West 44th and West 45th Streets. As is feasible, deliveries and other construction vehicle activities would take place during off-peak travel hours. As a result of the anticipated future levels of traffic and typical arrivals and departures of construction trips, substantial interruptions of traffic would not be expected during the construction period for the Proposed Project. While truck staging is expected on both the north side of West 44th Street, the south side of West 45th Street, and the west side of Eleventh Avenue, moving lanes of traffic would be available at all times. To the extent that there would be disruptions in traffic flow from construction, the changes would be short-term.

Construction activities would generate a peak demand for 161 parking spaces, which would occur from weekday morning to the afternoon. As described in Chapter 15, "Traffic and Parking," the Proposed Actions would result in the removal of an existing 300-space public parking lot on the Project Site, which would result in a shortfall of public parking in the ¼-mile study area during the weekday midday hours. According to the *CEQR Technical Manual*, for Proposed Actions within the Manhattan Central Business District (CBD) (the area south of 61st Street), the inability of the Proposed Project or the surrounding area to accommodate projected future parking demands would generally be considered a parking shortfall, but is not deemed to be a significant impact. The unsatisfied demand for parking spaces in the study area in the midday peak hour would result in vehicles parking outside the immediate area and motorists walking longer distances to their destination or taking mass transit.

TRANSIT AND PEDESTRIANS

Construction activities would not affect subway operations since no subway routes or stations are located on or adjacent to the Project Site. Bus service would be maintained near the Project Site during construction, and bus stops would not need to be relocated. Construction of the Proposed Project is expected to result in up to 454 new subway trips and 186 new bus trips from construction workers accessing the Project Site during the construction peak hours (6 AM to 7 AM and 3 PM to 4 PM).

The peak hours for construction trips would not coincide with the peak commuter hours at nearby subway stations. Furthermore, analysis presented in Chapter 16, "Transit and Pedestrians," showed that the stairways and turnstiles at the nearest subway station would operate at LOS C or better during the AM and PM peak commuter hours with completion of the Proposed Project. Therefore, it is expected that adequate capacity would be available to support construction-period trips.

The incremental increase in bus trips associated with construction would be distributed among the seven bus routes in the area, and therefore, the Proposed Actions would be unlikely result in significant bus line haul impacts.

Construction activities would generate fewer pedestrian trips than once the Proposed Project is operational. Analysis presented in Chapter 16, "Transit and Pedestrians," showed that operation of the Proposed Project would not result in significant adverse pedestrian impacts. Therefore, it is expected that adequate capacity would be available to support construction-period pedestrian trips, particularly since they would arrive and depart outside the typical commuter peak hours.

A deck would be constructed over the rail cut on the Project Site to allow for the development of two residential buildings. The rail cut is used by Amtrak for service on its Empire Line. As with other projects constructed over active railroad right-of-way, activities associated with the deck and residential buildings above would be closely coordinated with and approved by Amtrak. As

there are two tracks along this right-of-way, it is anticipated that the tracks would alternate closing temporarily to allow for excavation, construction of foundation walls, and construction of the deck. In addition, flagmen would be present along the right-of-way during construction.

During construction, where temporary sidewalk closures may be required, adequate protection or temporary sidewalks and appropriate signage would be provided in accordance with NYCDOT requirements.

AIR QUALITY

During construction of the Proposed Project, emissions from on-site construction equipment and on-road construction-related vehicles, and their effect on background traffic, have the potential to affect air quality. In general, most construction engines are diesel-powered, and produce relatively high levels of sulfur oxides (SO₂), nitrogen oxides (NO_x) and particulate matter (PM_{2.5} and PM₁₀). Construction activities also emit fugitive dust.

Technologies have been developed to substantially reduce SO₂ and PM emissions. These include ultra low-sulfur diesel fuel (ULSD), diesel particulate filters (DPFs), and Tier 1, 2, and 3 engines. These technologies have become more readily available in New York City as they are required for large, ongoing public projects, and it is anticipated that some contractors working on the Project Site would use vehicles that include these technologies to reduce SO₂ and PM emissions. Furthermore, as early in the construction period as practicable, diesel-powered equipment would be replaced with electrical-powered equipment, such as electric scissor lifts and electric articulating forklifts (i.e., early electrification). It is expected that the SCA would employ best available technologies and utilize ultra low-sulfur diesel fuel for construction vehicles in accordance with City and State requirements in connection with construction of the new school building, which will be constructed by the SCA and owned by the City of New York.

All necessary measures would be implemented to ensure that the New York City Air Pollution Control Code regulating construction-related dust emissions is followed. Appropriate fugitive dust control measures, including watering of exposed areas and dust covers for trucks, would be employed, and to reduce the resulting concentration increments at sensitive receptors, large emissions sources and activities, such as concrete trucks and pumps, would be located away from P.S. 51 and its playground to the extent practicable. Additional measures would be taken in accordance with applicable laws, regulations, and building codes. These include the restriction of on-site vehicle idle time to three minutes for all vehicles not using the engine to operate a loading, unloading, or processing device (e.g., concrete mixing trucks).

Under both New York State Environmental Quality Review Act (SEQRA) and New York City Environmental Quality Review (CEQR) requirements, the determination of the significance of impacts is based on an assessment of the predicted intensity, duration, geographic extent, and the number of people who would be affected by the predicted impacts. Guidelines for assessing potential impacts from NO_x, CO, and PM_{2.5} are discussed in Chapter 17, "Air Quality." While it is possible that the construction activities may exceed certain thresholds used for assessing the potential for significant adverse air quality impacts, any exceedance would be limited in extent, duration, and severity.

NOISE

Impacts on community noise levels during construction can result from noise from equipment operation and from vehicles traveling to and from the site. Noise and vibration levels at a given location are dependent on the kind and number of pieces of construction equipment being operated, the acoustical utilization factor of the equipment (i.e., the percentage of time a piece of equipment is operating), the distance from the construction site, and any shielding effects (from structures such as buildings, walls, or barriers). Noise levels caused by construction activities would vary widely, depending on the phase of construction and the location of the construction relative to receptor locations.

A wide variety of measures can be used to minimize construction noise and reduce potential noise impacts. A noise mitigation plan is required as part of the New York City Noise Control Code, and would include:

- source controls;
- path controls; and
- receptor controls.

In terms of source controls (i.e., reducing noise levels at the source or during most sensitive time periods), the following measures for construction would be implemented:

- The contractors would utilize equipment that meets the sound level standards for equipment (specified in Subchapter 5 of the New York City Noise Control Code) from the start of construction activities and use a wide range of equipment, including construction trucks, which produce lower noise levels than typical construction equipment.
- As early in the construction period as practicable, diesel-powered equipment would be replaced with electrical-powered equipment, such as electric scissor lifts and electric articulating forklifts (i.e., early electrification).

In terms of path controls (e.g., placement of equipment, implementation of barriers between equipment and sensitive receptors), the following measures for construction would be implemented to the extent feasible:

- Noisy equipment, such as generators, cranes, trailers, concrete pumps, concrete trucks, and dump trucks, would be located away from and shielded from sensitive receptor locations, such as parks, residences, and institutions. For example, during the early construction phases of work, delivery and dump trucks, as well as many construction equipment operations, would be located and take place below grade to take advantage of shielding benefits.
- Noise barriers would be utilized in consultation with the New York City Department of Environmental Protection (NYCDEP) to provide shielding if noise complaints are received from nearby residences.

For impact determination purposes, significant adverse noise impacts are based on whether maximum predicted incremental noise levels at sensitive receptor locations off-site would be greater than the impact criteria suggested in the *CEQR Technical Manual* for two consecutive years or more. The impact criteria are explained in detail in Chapter 18, "Noise." While increases exceeding the CEQR impact criteria for one year or less may be noisy and intrusive, they are not considered to be significant adverse noise impacts. The existing P.S. 51 already has double-glazed windows, which would greatly reduce interior noise levels compared with exterior noise levels. While limited night work may occur, such activities must meet the permitting

requirements of the New York City Noise Control Code. Therefore, generally, any exceedences of the CEQR criteria at sensitive locations would occur during daytime hours, and no long-term, significant adverse noise impacts are expected from construction activities.

NATURAL RESOURCES

As described in Chapter 10, “Natural Resources,” the Project Site is fully developed and is not viable habitat for species of concern. Construction of the new buildings would result in the removal or capping of contaminated soils and historic fill. As discussed in Chapter 11, “Hazardous Materials,” implementation of the measures during construction activities would minimize the potential for significant adverse impacts to groundwater quality.

Construction activities within the Project Site have the potential to temporarily affect the water quality from stormwater discharge. Construction activities would comply with the New York Guidelines for Urban Erosion and Sediment Control and the New York State Management Design Manual. Best management measures implemented during construction would include erosion and sediment control measures as part of a stormwater pollution prevention plan (SWPPP) and would minimize potential impacts associated with stormwater runoff.

INFRASTRUCTURE

Prior to the start of construction, all utilities that may be present on site and may be affected by construction activities would be relocated in accordance with all applicable New York City regulations.

The proposed buildings would receive some combination of electric and gas service via extensions of the existing Con Edison underground distribution system. During the superstructure stage of construction, some sidewalk and on-street construction activities would be required to connect the proposed buildings to existing utility networks. This may require short-term sidewalk excavations ranging from approximately 50 to 150 feet in length. The construction activities that would be required to connect the proposed development to existing energy systems are part of Consolidated Edison’s normal operations for providing services to new customers, and occur on a regular basis throughout the city.

As described above, construction activities would be undertaken in accordance with an approved SWPPP, which would minimize potential impacts associated with stormwater discharge

HAZARDOUS MATERIALS

There is a potential for adverse impacts during construction activities resulting from the presence of subsurface contamination from past on- and off-site activities. Demolition and excavation activities could disturb hazardous materials and increase pathways for human exposure. However, impacts would be avoided by performing these activities in accordance with the following:

- To characterize subsurface conditions prior to construction activities, a Phase II subsurface investigation, including the collection and laboratory analysis of soil and groundwater samples, would be conducted. Prior to conducting this testing, a Sampling Protocol including a Health and Safety Plan (HASP) would be submitted to NYCDEP for review and approval. Following receipt of the sampling results, a site-specific Remedial Action Plan (RAP)/environmental construction health and safety plan (CHASP), to be implemented during construction, would be prepared and submitted for NYCDEP approval. The

RAP/CHASP would specify procedures for managing any underground storage tanks and any encountered contamination (including procedures for stockpiling and off-site transportation and disposal) and appropriate health and safety procedures including the need for dust and organic vapor monitoring.

- Prior to any demolition activities, all known on-site petroleum storage tanks would be properly closed and removed in accordance with all applicable regulations. Any unregistered tanks would be registered with the New York State Department of Environmental Conservation (NYSDEC). If applicable, spill reporting would be conducted, and contaminated soil/groundwater handled and disposed of in accordance with applicable requirements.
- Unless there is documentation of previous asbestos surveys or abatement, a comprehensive asbestos survey of the affected areas would be conducted prior to demolition. If materials prove to contain asbestos, they would be properly removed and disposed of in accordance with all applicable regulations by a licensed asbestos abatement contractor.
- Any demolition activities with the potential to disturb lead-based paint would be performed in accordance with the applicable Occupational Safety and Health Administration regulation (OSHA 29 CFR 1926.62 - Lead Exposure in Construction).
- Prior to demolition or renovation, fluorescent light fixtures and other electrical equipment requiring disposal would be managed in accordance with applicable requirements.
- Any excavated soil requiring off-site disposal would be managed in accordance with applicable requirements, and, as necessary, tested in accordance with the requirements of the intended receiving facility. Transportation of all material leaving the site would be in accordance with applicable requirements covering licensing of haulers and trucks, placarding, truck routes, manifesting, etc.

The Land Disposition Agreement (LDA) between the New York City Department of Housing Preservation and Development and 44th Street Development LLC would include provisions related to hazardous materials mitigation. In connection with the disposition of City-owned property to the developers, a restrictive declaration would be recorded to restrict future use and/or development to a manner which is consistent with the hazardous materials mitigation systems. The provisions of the restrictive declaration would be designed to control land use and ensure long term maintenance and operations of engineering controls, which are part of the hazardous material mitigation systems. The restrictive declaration is a covenant, which binds the present owners, and all successors, and serves as notice to any future owner of the conditions and restrictions that are continuously binding on the land.

The SCA is an Involved Agency and would be responsible for the design and construction of the school facility on the Project Site. Under the terms of its enabling legislation, the SCA must comply with the requirements of SEQRA. Therefore, the SCA would conduct a Phase II Environmental Site Investigation to confirm subsurface conditions. Based on the findings of the Phase II Environmental Site Investigation, the SCA would develop management plans (e.g., soil management plan, groundwater management plan, construction HASP, etc.) to address any hazardous materials that may be encountered during construction of the school. The management plans prepared by SCA would be separate from the RAP and CHASP prepared by 44th Street Development LLC for the remainder of the Proposed Project and would include comparable measures to protect the health and safety of construction workers, school staff and students, and the public in general during construction and at the time of occupancy. At a minimum, the design of the new school would include a vapor barrier and an active sub-slab

depressurization system (SSDS) to prevent potential migration of organic vapors and methane into the proposed school building. Additionally, for areas of the school where exposed soils may exist (i.e., landscaped areas), a twenty-four (24) inch thick layer of certified-clean fill would be placed over the soils.

CONCLUSION

No significant adverse impacts are anticipated due to construction activities on the Project Site. However, construction activities have the potential to result in temporary adverse effects. As described above, construction activities would be most intensive during the demolition, excavation, and core and shell phases. Once interior construction commences, effects on traffic, air quality, and noise would be much more limited.

As described in the sections above, 44th Street Development LLC and SCA would adhere to all applicable codes and regulations to avoid or minimize the adverse effects of construction on adjacent sensitive receptors, including P.S. 51. During construction, 44th Street Development LLC and SCA would work closely with P.S. 51 and the Department of Education (DOE) to develop a project Safety Plan and to create an environment with minimal disruptions on the school community.

If necessary and warranted, 44th Street Development LLC and SCA would also prepare a Maintenance and Protection of Traffic Plan in consultation with the New York City Department of Transportation to maintain vehicle access on surrounding streets during construction. *