

3.18 NOISE

INTRODUCTION

The proposed action would not result in significant adverse impacts related to noise. As described in Chapter 3.1, “Project Description,” it would generate new, medium to high density residential and commercial uses in an area historically occupied by similar land uses. As part of the proposed action, (E) designations would be placed on the zoning map for all projected and potential development sites where there is the potential for significant adverse noise impacts. Residential, commercial and community facility development on lots mapped with an (E) designation would be required to provide sufficient noise attenuation to maintain interior noise levels of 45 dBA or lower. The (E) designations on the projected and potential development sites would preclude the potential for the proposed action to result in significant adverse noise impacts.

An analysis was prepared to evaluate the potential effect of the proposed action on noise levels at existing and potential future noise sensitive locations in the surrounding area. Existing noise levels are predominantly the result of vehicular traffic. At some locations, the Metro-North railroad also contributed to noise levels. Future noise sensitive locations include areas that may be redeveloped for residential, commercial and community facility uses.

In order to assess the potential for significant adverse noise impacts, an analysis was conducted that considered changes in noise due to increases in traffic and the introduction of sensitive receptors into an area with existing ambient noise levels classified as “Marginally Unacceptable” and “Clearly Unacceptable,” as defined in the *CEQR Technical Manual*. The noise analysis addresses two factors: 1) the change in noise levels from the existing condition in the area as a result of the proposed action; and 2) the location of new sensitive receptors and the degree to which window/wall attenuation would provide acceptable interior noise levels.

No stationary sources of noise were identified within the project corridor. As a result further analysis of stationary source noise was not conducted.

3.18.1 NOISE FUNDAMENTALS

Noise is “unwanted sound” and, by this definition, the perception of noise is a subjective process. Noise in the environment can be characterized by three distinguishing characteristics: loudness, pitch, and time variation.

- The loudness or magnitude of noise is a measure of its intensity, and it is measured in units called decibels (dB). The decibel unit is based on a logarithmic scale, and it compresses a large range of sound pressures into manageable numbers. For example, on the decibel scale, environmental noise ranges from 40 dB from the rustling of leaves to over 80 dB from a truck passage and up to 100 dB at the front rows of a rock concert. The louder the sound, the greater is its decibel value.

- Pitch describes the character and frequency content of noise. Measured in Hertz (Hz), the pitch is used to identify annoying characteristics of noise and help in determining appropriate mitigation to minimize annoyance. The human ear is sensitive to noise frequencies between 20 Hz (low-pitched noise) and 20,000 Hz (high-pitched noise). For example, a noise may be characterized as a low-pitched “rumble” from stereo sub-woofers or a high-pitched “whine” from a train whistle or a train wheel squeal.
- Time variation describes the pattern of the sound over the observation period. Time variation of environmental noise can be characterized as: 1) continuous, such as noise from a building ventilation fan; 2) intermittent, such as noise from a train passage; or 3) impulsive, like noise from a car backfire. Time variation is used in combination with loudness and pitch to determine the sound energy exposure from a particular noise during a period of time, such as a 24-hour day.

3.18.2 HUMAN PERCEPTION OF NOISE AND NOISE DESCRIPTORS

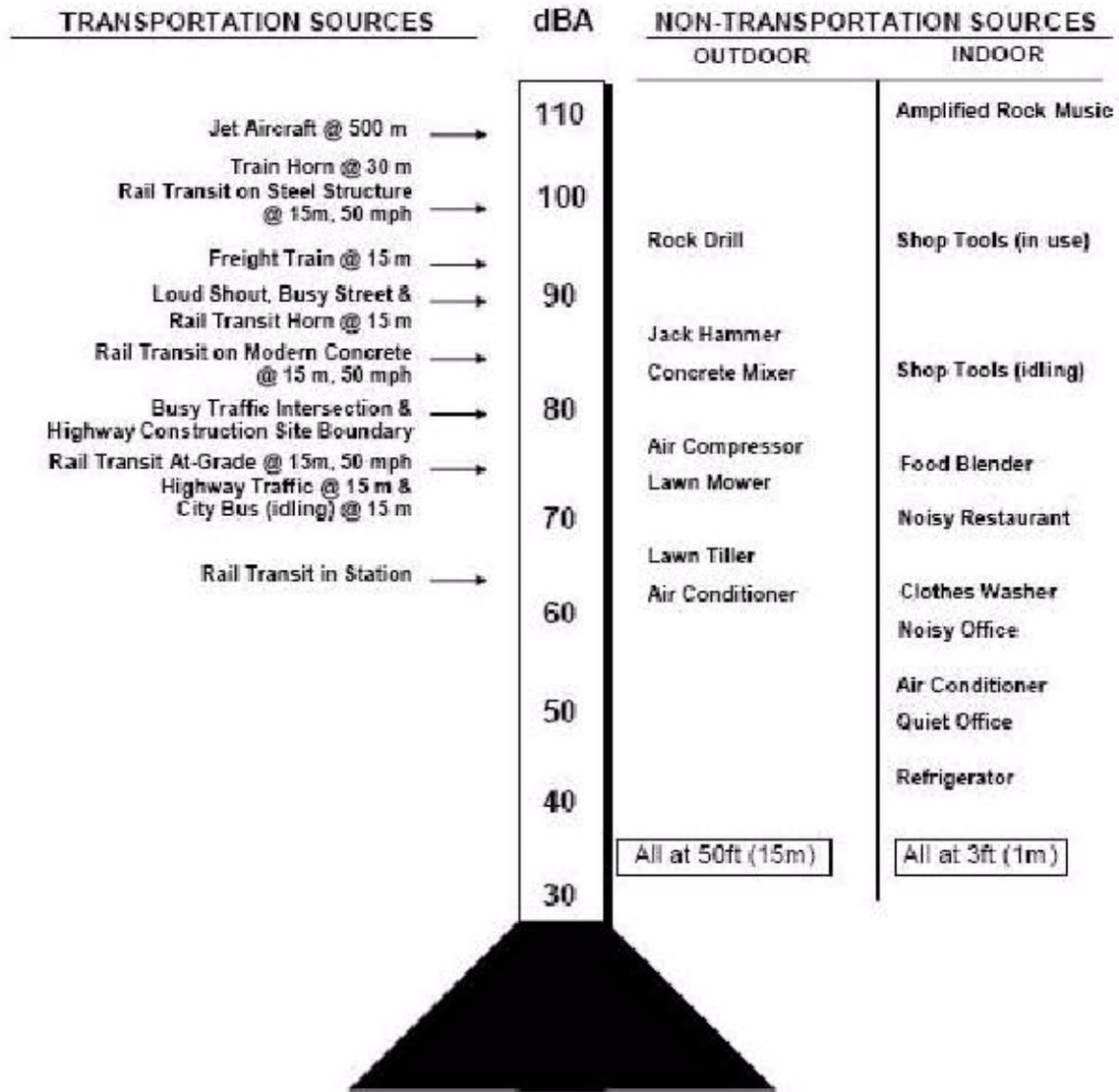
Since the human ear does not respond equally to all frequencies, measured sound levels (in decibel units at standard frequency bands) are often adjusted or weighted to correspond to the frequency response of human hearing. The weighted sound level is expressed in units called “A”-weighted decibels (dBA) and is measured with a calibrated noise meter. A 10 dBA increase in noise level is generally perceived as a doubling of loudness, while a 3 dBA increase in noise is just barely perceptible to the human ear. Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived. A change in sound level of 5 dBA is subjectively noticeable. Typical A-weighted noise levels in the environment lie in the range of 0 dBA (approximate threshold of hearing) to 120 dBA (jet aircraft at 500 feet) (see Figure.3.18-1).

The following A-weighted noise descriptors (noise metrics) are typically used to determine impacts from noise sources.

- L_{eq} represents the level of a constant noise containing the same acoustical energy as a fluctuating noise (e.g., highway traffic) observed during a given interval, typically one hour. The L_{eq} is commonly used to describe energy average levels at places with primarily daytime uses such as offices, schools, and churches. L_{eq} (1 h) represents the cumulative noise exposure from all events averaged over one hour.
- L_{90} : Noise level in dBA exceeded 90 percent of the observation time. L_{90} is often considered to represent the “background” noise in a community.
- L_{10} : Noise level in dBA exceeded 10 percent of the observation time. This unit is used in CEQR regulations and establishes threshold levels for acceptable noise exposure.

Outdoor A-weighted sound levels were used in the measurements and analysis of the noise effects from the proposed action, as dBA correlates well with the human perception of noise. Noise descriptors selected for this analysis were the one-hour equivalent continuous noise level (L_{eq} (1h) in dBA), and the noise level exceeded 10 percent of the time (L_{10} in dBA).

Common Indoor and Outdoor Noise Levels



m = meters; mph = miles per hour.

Sources: FTA Report DOT-T-95-16. "Transit Noise and Vibration Impact Assessment: Final Report". April 1995

Figure 3.18-1 - Common Indoor and Outdoor Noise Levels

Criteria

The New York City Department of Environmental Protection (NYCDEP) Division of Noise Abatement sets standards for external noise exposure. These standards are classified into four main categories: “Acceptable”; “Marginally Acceptable”; “Marginally Unacceptable”; and “Clearly Unacceptable” (see Table 3.18-1). The 2001 *CEQR Technical Manual* provides guidance for assessing project-generated noise impacts at sensitive receptors based on the category of external noise exposure at these receptor sites. These guidelines are used in this analysis to determine the applicable interior noise levels of sensitive uses, including potential future residential sites based on external noise exposure. For example, at a potential residential site located within areas with “Marginally Unacceptable” external noise levels, a minimum of 30 to 35 dBA reduction below daytime external noise level would be required according to CEQR guidelines to satisfy the interior noise level criteria.

Under the *CEQR Technical Manual*, increases in daytime noise levels as a result of the proposed action are not considered significant unless the resulting noise levels exceed 65 dBA. At night and during the day where the No-action noise levels exceed 65 dBA, a 3dBA increase from the No-action condition is considered a significant adverse impact. In addition, the introduction of sensitive uses such as residences into an area with noise levels above 70 dBA constitutes a significant adverse impact unless interior noise levels for the buildings are attenuated to 45 dBA.

Table 3.18-1, Noise Exposure Standards for Use in City Environmental Impact Reviews

Receptor type	Time period	Acceptable General External Exposure	Airport Exposure ³	Marginally Acceptable General External Exposure	Airport Exposure ³	Marginally Unacceptable General External Exposure	Airport Exposure ³	Clearly Unacceptable General External Exposure	Airport Exposure ³
1. Outdoor area requiring serenity and quiet ²		$L_{10} \leq 55$ dBA	----- $L_{dn} \leq 60$ dBA -----						
2. Hospital, Nursing Home		$L_{10} \leq 55$ dBA		$55 < L_{10} \leq 65$ dBA		$65 < L_{10} \leq 80$ dBA	-- (I) $65 < L_{dn} \leq 70$ dBA, (II) 70 dBA $\leq L_{dn}$ -----	$L_{10} > 80$ dBA	----- $L_{dn} \leq 75$ dBA -----
3. Residence, residential hotel or motel	7 AM - 10 PM	$L_{10} \leq 65$ dBA		$65 < L_{10} \leq 70$ dBA		$70 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
	10 PM - 7 AM	$L_{10} \leq 55$ dBA		$55 < L_{10} \leq 70$ dBA		$70 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
4. School, museum, library, court, house of worship, transient hotel or motel, public meeting room, auditorium, out-patient health facility		Same as Residential Day (7 AM – 10 PM)		Same as Residential Day (7 AM – 10 PM)		Same as Residential Day (7 AM – 10 PM)		Same as Residential Day (7 AM – 10 PM)	
		Same as Residential Day (7 AM – 10 PM)		Same as Residential Day (7 AM – 10 PM)		Same as Residential Day (7 AM – 10 PM)		Same as Residential Day (7 AM – 10 PM)	
5. Commercial or office		Same as Residential Day (7 AM – 10 PM)	Same as Residential Day (7 AM – 10 PM)		Same as Residential Day (7 AM – 10 PM)	Same as Residential Day (7 AM – 10 PM)			
6. Industrial, public areas only ⁴	Note 4	Note 4		Note 4		Note 4	Note 4		

Source:
 New York City Department of Environmental Protection (adopted by DEP for use in CEQR-1983)

Notes:

(I) In addition, any new activity shall not increase the ambient noise level by 3 dBA or more:

- Measurements and projections of noise exposures are to be made at appropriate heights above site boundaries as given by ANSI Standards; all values are for the worst hour in the time period.
- Tracts of land where serenity and quiet are extraordinarily important and serve an important public need and where the preservation of these qualities is essential of the area to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks or open spaces dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet. Examples are grounds for ambulatory hospital patients and patients and residents of sanitariums and old-age homes.
- One may use FAA-approved Land contours supplied by the Port Authority, or the noise contours may be computed from the federally approved INM Computer Model using flight data supplied by the Port Authority of New York and New Jersey.
- External Noise Exposure standards for industrial areas of sounds produced by industrial operations other than operating motor vehicles or other transportation facilities are spelled out in the New York City Zoning Resolution, Sections 42-20 and 42-21. The referenced standards apply to M1, M2, and M3 manufacturing districts and to adjoining residence districts (performance standards are octave band standards).

3.18.3 TRAFFIC NOISE ASSESSMENT

EXISTING CONDITIONS

Noise Monitoring Locations

Information about land use in the rezoning area and trip assignment for potential future uses was reviewed to select monitoring sites and assess future noise impacts on sensitive sites. The fifteen monitoring sites depicted on Figure 3.18-2 are representative of the sensitive land uses in the area and of locations where additional new vehicle trips are expected, which could result in an increase in noise. Measured noise levels represent the existing noise exposure conditions at these locations. Noise monitoring was performed on two weekdays (November 9 and 15, 2006) and on three weekend days (November 4, 11 and 18, 2006.). The time periods chosen for noise monitoring included AM peak (7 AM to 9 AM), Midday Peak (11 AM to 1 PM), PM peak (4 PM to 6 PM) and weekend Saturday (12 PM – 2 PM). These time periods are the peak hours when the majority of existing and future project-generated traffic, would be passing these locations. Weekend monitoring takes into account heavy retail and residential traffic while weekday AM and PM monitoring takes into account the peak work week and school traffic. The duration of the measurements varied from 15 to 20 minutes and simultaneous traffic counts were taken. In addition to $L_{eq}(h)$ and L_{10} noise levels, other statistical noise descriptors (L_{50} , L_{90} , L_{max} and L_{min}) were also sampled at all locations for all time periods. For the Proposed Action, the analysis of potential noise impacts utilized the L_{10} and $L_{eq}(h)$ descriptors. Other noise descriptors collected during the monitoring program were collected to assist in the characterization of the existing noise environment.

The monitored noise levels are summarized in Table 3.18-2.

Equipment Used in Noise Monitoring

Noise measurements were taken with a Larson & Davis Model 820 Type I sound level meter. A windscreen was placed over the microphone for all measurements. The meter was properly calibrated for all measurements using a Larson & Davis Model Cal250 calibrator. There were no significant variances between the beginning and ending calibration measurements. Weather conditions during all measurements consisted of sunny skies and temperatures of approximately 50 - 60 degrees Fahrenheit.

Results of Baseline Noise Measurements

The results of baseline noise measurements are presented in Table 3.18-2. Daytime noise levels at all of the receptor sites are fairly typical of noise levels in the study area. A steady background noise exists at all locations due to consistent traffic movement on nearby streets. The background noise level L_{90} (lowest average minimum level) is in the range of 56.5 to 70.8 dBA. The highest L_{10} monitored noise level was measured during the AM peak period at site S10 (120 West 125th Street) and it is represented by a noise level of 80.0 dBA. This level of exposure places this site,

along with thirteen others under the CEQR defined “Marginally Unacceptable” category. Site 13 (311 West 126th Street) with a monitored noise level of 69.2 would be placed in the CEQR defined “Marginally Acceptable” category. The categorization of these monitoring sites is based on the results of baseline noise monitoring and *CEQR Technical Manual* noise exposure standards (see Table 3.18-1).

Noise measurements for the $L_{eq}(h)$ and L_{10} noise descriptors were also conducted at an elevated location on the platform of the existing Metro-North Railroad at Park Avenue. The platform measurement was conducted to identify the contribution of the elevated train to the surrounding noise environment. This monitoring took place on Tuesday, April 10, 2007 during the AM, Midday, and PM peak periods. Monitoring was conducted for one hour. Monitoring during the peak weekday periods is a conservative approach since there would be substantially more train traffic during peak weekday than the peak weekend period. The monitored $L_{eq}(h)$ noise levels at the elevated platform were, 80.8 dBA, 73.5 dBA and 82.5 dBA for the AM, Midday and PM peak periods, respectively. The monitored L_{10} noise levels at the elevated platform were 85.3 dBA, 75.7 dBA and 86.0 dBA for the AM, Midday and PM peak periods, respectively.

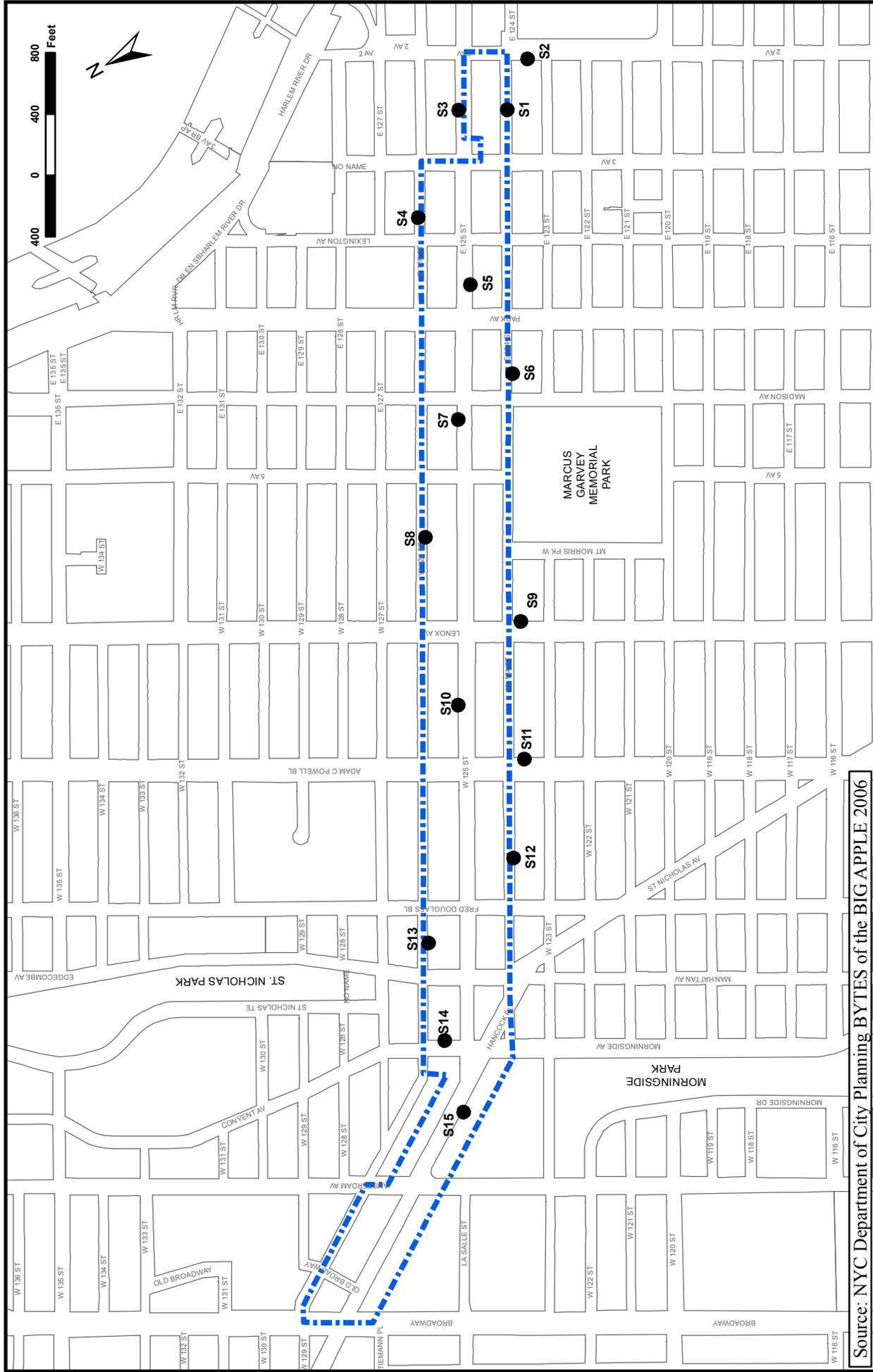


Figure 3.18-2- Locations of Noise Monitoring Sites
125th Street Corridor Rezoning and Related Actions EIS
 NYC Department of City Planning

Legend
 ● Noise Monitoring Location
 Proposed Rezoning Area

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

Table 3.18-2, Existing Short-term Noise Levels at Monitoring Sites S1 through S15 during November 4 through 18, 2006

Site #	Location	Measurement Times*	Existing Noise Levels				CEQR Noise Exposure Category*
			Leq	L ₁₀	L ₅₀	L ₉₀	
S1	221 East 124th Street	7:00 - 9:00 AM	68.6	72.0	65.9	61.0	Marginally Unacceptable
		12:00 - 2PM	67.8	69.6	63.9	58.9	
		4:00 - 6:00 PM	75.8	78.0	73.2	67.1	
		12:00 - 2:00 PM	70.4	72.9	69.2	65.2	
S2	2425 2nd Avenue	7:00 - 9:00 AM	74.7	77.6	73.5	70.1	Marginally Unacceptable
		12:00 - 2PM	72.4	75.0	70.9	68.0	
		4:00 - 6:00 PM	75.5	78.2	74.0	70.2	
		12:00 - 2:00 PM	62.9	64.8	61.4	58.3	
S3	231 East 125th Street	7:00 - 9:00 AM	76.0	79.0	74.5	68.6	Marginally Unacceptable
		12:00 - 2PM	73.2	74.7	69.6	66.2	
		4:00 - 6:00 PM	77.6	79.5	72.4	67.6	
		12:00 - 2:00 PM	70.6	73.7	67.3	63.9	
S4	145 East 126th Street	7:00 - 9:00 AM	69.9	72.8	67.5	63.8	Marginally Unacceptable
		12:00 - 2PM	68.5	71.5	64.7	61.5	
		4:00 - 6:00 PM	70.2	73.5	64.7	61.7	
		12:00 - 2:00 PM	66.8	69.0	66.1	61.0	
S5	116 East 125th Street	7:00 - 9:00 AM	76.0	77.9	73.4	68.5	Marginally Unacceptable
		12:00 - 2PM	75.1	78.2	72.4	68.5	
		4:00 - 6:00 PM	75.0	77.0	73.7	70.8	
		12:00 - 2:00 PM	73.4	76.1	72.2	67.4	
S6	55 East 124th Street	7:00 - 9:00 AM	70.9	75.0	66.5	61.5	Marginally Unacceptable
		12:00 - 2PM	67.9	71.0	65.8	62.9	
		4:00 - 6:00 PM	71.5	75.4	67.6	60.8	
		12:00 - 2:00 PM	66.3	69.3	62.5	59.0	
S7	35 East 125th Street	7:00 - 9:00 AM	76.6	79.7	74.0	68.2	Marginally Unacceptable
		12:00 - 2PM	73.1	75.8	71.2	66.9	
		4:00 - 6:00 PM	72.8	75.2	71.3	68.5	
		12:00 - 2:00 PM	71.6	73.6	68.7	64.7	
S8	9 East 126th Street	7:00 - 9:00 AM	68.9	72.8	62.9	58.5	Marginally Unacceptable
		12:00 - 2PM	67.0	70.8	61.8	56.5	
		4:00 - 6:00 PM	66.9	70.9	61.4	56.5	
		12:00 - 2:00 PM	65.4	68.6	62.3	58.3	
S9	274 Lenox Avenue	7:00 - 9:00 AM	70.9	73.5	69.1	64.5	Marginally Unacceptable
		12:00 - 2PM	69.3	72.3	67.6	64.4	

Site #	Location	Measurement Times*	Existing Noise Levels				CEQR Noise Exposure Category*
			Leq	L ₁₀	L ₅₀	L ₉₀	
		4:00 - 6:00 PM	71.5	74.4	70.1	65.1	
		12:00 - 2:00 PM	67.0	69.7	65.3	61.5	
S10	120 West 125th Street	7:00 - 9:00 AM	77.2	80.0	72.0	67.9	Marginally Unacceptable
		12:00 - 2PM	70.2	73.1	67.5	63.9	
		4:00 - 6:00 PM	71.0	74.0	69.1	65.8	
		12:00 - 2:00 PM	69.8	72.7	67.8	63.8	
S11	2075 Adam Clayton Powell Blvd	7:00 - 9:00 AM	69.2	72.5	67.8	61.5	Marginally Unacceptable
		12:00 - 2PM	69.4	72.6	67.0	62.3	
		4:00 - 6:00 PM	70.5	73.6	68.6	64.0	
		12:00 - 2:00 PM	67.8	70.2	65.8	60.7	
S12	243 West 124th Street	7:00 - 9:00 AM	68.3	70.4	65.3	59.2	Marginally Unacceptable
		12:00 - 2PM	69.5	72.6	64.4	60.3	
		4:00 - 6:00 PM	65.7	68.5	64.4	61.1	
		12:00 - 2:00 PM	66.4	69.4	62.4	59.2	
S13	311 West 126th Street	7:00 - 9:00 AM	64.7	66.7	62.4	60.2	Marginally Acceptable
		12:00 - 2PM	62.8	64.8	60.4	58.6	
		4:00 - 6:00 PM	66.3	69.2	62.7	59.9	
		12:00 - 2:00 PM	62.9	65.5	61.5	59.7	
S14	145 Morningside Avenue	7:00 - 9:00 AM	69.1	71.4	67.1	63.1	Marginally Unacceptable
		12:00 - 2PM	69.7	71.2	67.6	64.1	
		4:00 - 6:00 PM	70.3	71.2	66.4	63.4	
		12:00 - 2:00 PM	66.1	68.8	65.2	61.3	
S15	429 125th Street	7:00 - 9:00 AM	70.1	72.9	68.9	66.1	Marginally Unacceptable
		12:00 - 2PM	71.7	74.9	70.3	65.7	
		4:00 - 6:00 PM	68.5	70.8	66.9	63.8	
		12:00 - 2:00 PM	69.9	72.7	67.8	64.6	

* Noise exposure category classification was based on the highest noise level measured during any of the four time periods

3.18.4 FUTURE WITHOUT THE PROPOSED ACTION

As per *CEQR Technical Manual* Guidelines, in order to predict the noise levels in the future without the proposed action, monitored noise levels were projected by using a proportional modeling technique to take into account the increases in traffic associated with area growth. First, future traffic volumes were obtained by adding future 2017 No Action traffic volumes to the existing baseline conditions. Then, vehicular traffic volumes under the existing and future No Action conditions were converted into Passenger Car Equivalent (PCE) values. For this conversion, one medium truck is estimated to generate the noise equivalent of 13 cars, one bus is

estimated to generate the noise equivalent of 18 cars, and one heavy truck generated the noise equivalent of 47 cars. Future No Action noise levels are calculated using the following equation:

$$\text{Future No Action Noise Level} = 10 * \log \left(\frac{\text{NoAction PCE}}{\text{Existing PCE}} \right) + \text{Existing Noise Level}$$

As indicated in Table 3.18-2, the individual existing L₁₀ noise levels range from the “Marginally Acceptable” to the “Marginally Unacceptable” category at the monitored sites. Future No Action noise levels at fourteen of the fifteen monitoring sites as shown in Table 3.18-3 would be higher than the existing noise levels, with increases in the range of 0.2 to 1.8 dBA. Changes of this magnitude would be below the threshold of human perception.

3.18.5 FUTURE WITH THE PROPOSED ACTION

In order to predict noise levels in the future with the proposed action, the additional increase in traffic noise associated with the proposed action was added to the future No Action traffic noise condition. Future proposed action traffic volumes utilized in the mobile source noise analyses were based on unmitigated traffic conditions. Using the methodology previously used to calculate No Action traffic noise, there would be no perceptible increases in traffic noise levels at the Projected and Potential Development Sites as a result of increases in traffic associated with the proposed action (see Table 3.18-3). At site S3, where the greatest increase in traffic volumes is expected, and at sites S5, S7, S9, S10, S11 and S15, the increase in noise level conditions in the future with the proposed action compared to the future no action condition noise levels is predicted to be in the range of 0.1 dB to 0.8 dB. This increase at these locations would be considered insignificant and imperceptible. At the remaining eight monitoring sites (S1, S2, S4, S6, S8, S12, S13 and S14), the increase in future traffic volume would result in no increase in noise levels over the future no action condition. As result of the proposed action, the increase in the proposed action noise level over the no action noise level would not exceed the 3 dBA CEQR threshold at any of the receptor sites. Therefore, significant adverse noise impacts from mobile sources are not predicted to occur.

Table 3.18-3, Existing and Future Traffic Noise Levels (L_{eq}) at Monitored Sites

Noise Site #	Site Description	Peak Traffic Time Period	Existing PCEs ¹	Future No Action PCEs ¹	Future Proposed Action PCEs ¹	Existing Noise Level (dBA)	Predicted Future No Action Noise Level (dBA)	Proposed Action Noise Level (dBA)	Future Proposed Action Minus Future No Action (dBA)	Impact (Yes/No)
S1	221 East 124th Street	PM	4050	4256	4256	75.8	76.0	76.0	0.0	No
S2	2425 2nd Avenue	PM	4694	5258	5258	75.5	76.0	76.0	0.0	No
S3	231 East 125th Street	PM	5063	7675	9159	77.6	79.4	80.2	0.8	No
S4	145 East 126th Street	PM	1920	2653	2653	70.2	71.6	71.6	0.0	No
S5	116 East 125th Street	AM	6289	8476	9319	76.0	77.3	77.7	0.4	No
S6	55 East 124th Street	PM	669	704	704	71.5	71.7	71.7	0.0	No
S7	35 East 125th Street	AM	6597	8492	9267	76.6	77.7	78.1	0.4	No
S8	9 East 126th Street	AM	1596	1707	1707	68.9	69.2	69.2	0.0	No
S9	274 Lenox Avenue	PM	2848	3106	3157	71.5	71.9	72.0	0.1	No
S10	120 West 125th Street	AM	5954	7629	8318	77.2	78.3	78.7	0.4	No
S11	2075 Adam Clayton Powell Blvd	PM	2661	2898	2971	70.5	70.9	71.0	0.1	No
S12	243 West 124th St	MD	1333	1333	1333	69.5	69.5	69.5	0.0	No
S13	311 West 126th Street	PM	596	659	659	66.3	66.7	66.7	0.0	No
S14	145 Morningside Avenue	PM	846	1048	1054	70.3	71.2	71.2	0.0	No
S15	429 125th Street	MD	5349	6337	6526	71.7	72.4	72.5	0.1	No

1. For impact assessment, the highest measured hourly level for the entire day, AM Peak (7:00 am to 9:00 am), Midday Peak (12:00 pm to 2:00 pm) PM Peak (4:00 pm to 6:00 pm) and Saturday (12:00 pm to 2:00 pm), was used for each location to calculate change in noise level from calculated PCE's for the existing, the no-build and the build conditions.

Table 3.18-4, Required Attenuation Values To Achieve Acceptable Interior Noise Levels

	<i>Marginally Acceptable</i>	<i>Marginally Unacceptable</i>		<i>Clearly Unacceptable</i>		
Noise level with proposed action	$65 < L_{10} \leq 70$	$70 < L_{10} \leq 75$	$75 < L_{10} \leq 80$	$80 < L_{10} \leq 85$	$85 < L_{10} \leq 90$	$90 < L_{10} \leq 95$
Attenuation	25 dBA	30 dBA	35 dBA	40 dBA	45 dBA	50 dBA

Source: New York City Department of Environmental Protection

3.18.6 SENSITIVE RECEPTOR ASSESSMENT

The proposed action would introduce new sensitive receptors into an area with high existing ambient noise levels. As indicated in Table 3.18-1, the existing noise levels range from "Marginally Acceptable" to "Marginally Unacceptable" at the sites where residential, commercial or community facility use is part of the projected development.

The existing L_{10} noise levels at 14 of the 15 monitoring sites and the future noise levels at all of the 48 projected and potential development sites would exceed 70 dBA. These sites would be suitable for residential, commercial and community facility uses only by providing window-wall attenuation ranging from 30 dBA to 40 dBA for the exterior facade of the affected development in order to achieve a 45 dBA interior noise level (Table 3.18-4). An (E) designation for these sites would preclude the potential for significant adverse noise impacts. Window/wall attenuation requirements base on future Action noise levels are shown in Table 3.18-5 for the fifteen noise monitoring sites. To properly assess potential impacts on the development sites, the attenuation requirements predicted for the monitoring sites were used and applied as shown in Tables 3.18-6 and 3.18-7. The corresponding required (E) designations for the projected and potential development sites are described below and also shown in Tables 3.18-6 and 3.18-7. The closed window condition at these sites can be maintained only by providing an alternate means of ventilation for the interior spaces. Details of window insulation are the following:

- Sound attenuation of 30 dBA would be needed for sites where future noise levels would be between 70 and 75 dBA. This can be achieved through installing ¼ inch laminated single-glazed windows or double-glazed windows with 1/8 inch glass panes with ¼ inch air space between them mounted in a heavy frame.
- Sound attenuation of 35 dBA would be required for sites where future noise levels would be between 75 and 80 dBA. This can be achieved through installing double glazed windows on a heavy frame in masonry structures or windows consisting of laminated glass.

- Sound attenuation of 40 dBA would be required where future noise levels would be between 80 and 85 dBA. This requires the use of noise attenuation measures that typically exceed standard practice for new construction. Achieving the 40 dBA attenuation would require the placement of acoustically well-sealed 0.25” laminated storm sash 1.5” to 3” from single glazed window on wood or metal frame.

Table 3.18-5, Required Window Attenuation Values for Monitored sites S1 through S15*

<u>Noise Site</u>	<u>L₁₀ (No Action)¹</u>	<u>Change in noise level due to change in Traffic PCEs</u>	<u>Build L₁₀ Noise Levels</u>	<u>Required Window Attenuation dBA</u>
		<u>Proposed Action</u>	<u>Proposed Action</u>	<u>Proposed Action</u>
S1	78.2	0.0	78.2	35
S2	78.7	0.0	78.7	35
S3	81.3	0.8	82.1	40
S4	74.9	0.0	74.9	30
S5	79.2	0.4	79.6	35
S6	75.6	0.0	75.6	35
S7	80.8	0.4	81.2	40
S8	73.1	0.0	73.1	30
S9	74.8	0.1	74.9	35 ²
S10	81.1	0.4	81.5	40
S11	74.0	0.1	74.1	30
S12	72.6	0.0	72.6	30
S13	69.6	0.0	69.6	30 ²
S14	72.1	0.0	72.1	30
S15	75.6	0.1	75.7	35

* The E designation associated with these build L₁₀ noise levels would preclude the potential for adverse noise impacts.

¹ As stated in the CEQR Technical Manual " L₁₀ values can be calculated by adding the difference between the L₁₀ and L_{eq} descriptors found to exist in the measurement program to the calculated no action L_{eq} noise level." For example, for Site 1 the difference between L₁₀ and L_{eq} in the measurement program is 78.0-75.8=2.2. Future calculated no-action L₁₀ is 76.0 + 2.2 = 78.2

² The required window attenuation for monitoring sites ,9 and 13 were conservatively increased since the Build L10 noise levels were close to the next attenuation category.

For projected and potential development site locations including block and lot numbers and attenuation requirements, see Table 3.18-6 (Projected Development Sites) and 3.18-7 (Potential Development Sites).

Table 3.18-6, Required Attenuation Values for Projected Developmental Sites^{1, 2, 3}

<u>Dev. Site Number</u>	<u>Address</u>	<u>Block Number</u>	<u>Lot(s) Number</u>	<u>Build Max L10 (dBA)</u>	<u>Attenuation Required</u>	
<u>1</u>	<u>321 WEST 125 STREET</u>	<u>S10, S14</u>	<u>1952</u>	<u>19</u>	<u>81.5</u>	<u>35</u>
	<u>319 WEST 125 STREET</u>	<u>S10, S14</u>	<u>1952</u>	<u>21</u>	<u>81.5</u>	<u>35</u>
	<u>317 WEST 125 STREET</u>	<u>S10, S14</u>	<u>1952</u>	<u>22</u>	<u>81.5</u>	<u>35</u>
<u>2</u>	<u>2329 FRED DOUGLASS BLVD</u>	<u>S10, S13</u>	<u>1952</u>	<u>29</u>	<u>81.5</u>	<u>30, 40 OSF</u>
<u>3</u>	<u>362 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1951</u>	<u>7</u>	<u>81.5</u>	<u>30, 40 ONF</u>
<u>4</u>	<u>350 WEST 125 STREET</u>	<u>S10, S14</u>	<u>1951</u>	<u>51</u>	<u>81.5</u>	<u>35</u>
<u>5</u>	<u>324 WEST 125 STREET</u>	<u>S10, S14</u>	<u>1951</u>	<u>43</u>	<u>81.5</u>	<u>30, 40 ONF</u>
<u>6</u>	<u>2100 AC POWELL BLVD</u>	<u>S10, S11</u>	<u>1931</u>	<u>27</u>	<u>81.5</u>	<u>30, 40 OSF</u>
<u>7</u>	<u>260 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1930</u>	<u>55</u>	<u>81.5</u>	<u>30, 40 ONF</u>
	<u>260 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1930</u>	<u>55</u>	<u>81.5</u>	<u>30, 40 ONF</u>
<u>8</u>	<u>256 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1930</u>	<u>53</u>	<u>81.5</u>	<u>30, 40 ONF</u>
	<u>256 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1930</u>	<u>53</u>	<u>81.5</u>	<u>30, 40 ONF</u>
	<u>252 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1930</u>	<u>51</u>	<u>81.5</u>	<u>30, 40 ONF</u>
	<u>250 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1930</u>	<u>50</u>	<u>81.5</u>	<u>30, 40 ONF</u>
	<u>246 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1930</u>	<u>49</u>	<u>81.5</u>	<u>30, 40 ONF</u>
<u>9</u>	<u>226 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1930</u>	<u>41</u>	<u>81.5</u>	<u>30, 40 ONF</u>
	<u>226 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1930</u>	<u>41</u>	<u>81.5</u>	<u>30, 40 ONF</u>
	<u>222 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1930</u>	<u>40</u>	<u>81.5</u>	<u>30, 40 ONF</u>
	<u>222 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1930</u>	<u>40</u>	<u>81.5</u>	<u>30, 40 ONF</u>
	<u>208 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1930</u>	<u>37</u>	<u>81.5</u>	<u>30, 40 ONF</u>
	<u>208 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1930</u>	<u>37</u>	<u>81.5</u>	<u>30, 40 ONF</u>
<u>10</u>	<u>2105 AC POWELL BLVD</u>	<u>S8, S10, S11</u>	<u>1910</u>	<u>1</u>	<u>81.5</u>	<u>35</u>
	<u>2105 AC POWELL BLVD</u>	<u>S8, S10, S11</u>	<u>1910</u>	<u>1</u>	<u>81.5</u>	<u>35</u>
	<u>125 WEST 125 STREET</u>	<u>S8, S10, S11</u>	<u>1910</u>	<u>7501</u>	<u>81.5</u>	<u>35</u>
<u>11</u>	<u>158 WEST 125 STREET</u>	<u>S10, S11</u>	<u>1909</u>	<u>59</u>	<u>81.5</u>	<u>30, 40 ONF</u>
	<u>2089 AC POWELL BLVD</u>	<u>S10, S11</u>	<u>1909</u>	<u>63</u>	<u>81.5</u>	<u>30, 40 ONF</u>
<u>12</u>	<u>120 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1909</u>	<u>44</u>	<u>81.5</u>	<u>30, 40 ONF</u>
	<u>124 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1909</u>	<u>46</u>	<u>81.5</u>	<u>30, 40 ONF</u>
	<u>124 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1909</u>	<u>46</u>	<u>81.5</u>	<u>30, 40 ONF</u>
<u>13</u>	<u>111 WEST 124 STREET</u>	<u>S9, S10</u>	<u>1909</u>	<u>26</u>	<u>81.5</u>	<u>35, 40 ONF</u>
	<u>109 WEST 124 STREET</u>	<u>S9, S10</u>	<u>1909</u>	<u>27</u>	<u>81.5</u>	<u>35, 40 ONF</u>
	<u>107 WEST 124 STREET</u>	<u>S9, S10</u>	<u>1909</u>	<u>28</u>	<u>81.5</u>	<u>35, 40 ONF</u>
	<u>281 LENOX AVENUE</u>	<u>S9, S10</u>	<u>1909</u>	<u>29</u>	<u>81.5</u>	<u>35, 40 ONF</u>
	<u>283 LENOX AVENUE</u>	<u>S9, S10</u>	<u>1909</u>	<u>129</u>	<u>81.5</u>	<u>35, 40 ONF</u>
	<u>285 LENOX AVENUE</u>	<u>S9, S10</u>	<u>1909</u>	<u>30</u>	<u>81.5</u>	<u>35, 40 ONF</u>
	<u>287 LENOX AVENUE</u>	<u>S9, S10</u>	<u>1909</u>	<u>31</u>	<u>81.5</u>	<u>35, 40 ONF</u>
	<u>289 LENOX AVENUE</u>	<u>S9, S10</u>	<u>1909</u>	<u>32</u>	<u>81.5</u>	<u>35, 40 ONF</u>
	<u>291 LENOX AVENUE</u>	<u>S9, S10</u>	<u>1909</u>	<u>33</u>	<u>81.5</u>	<u>35, 40 ONF</u>
	<u>108 WEST 125 STREET</u>	<u>S9, S10</u>	<u>1909</u>	<u>38</u>	<u>81.5</u>	<u>35, 40 ONF</u>

	<u>110 WEST 125 STREET</u>	<u>S9, S10</u>	<u>1909</u>	<u>39</u>	<u>81.5</u>	<u>35, 40 ONF</u>
<u>14</u>	<u>35 WEST 125 STREET</u>	<u>S7, S8</u>	<u>1723</u>	<u>17</u>	<u>81.2</u>	<u>30, 40 OSF</u>
	<u>33 WEST 125 STREET</u>	<u>S7, S8</u>	<u>1723</u>	<u>21</u>	<u>81.2</u>	<u>30, 40 OSF</u>
	<u>31 WEST 125 STREET</u>	<u>S7, S8</u>	<u>1723</u>	<u>22</u>	<u>81.2</u>	<u>30, 40 OSF</u>
	<u>29 WEST 125 STREET</u>	<u>S7, S8</u>	<u>1723</u>	<u>122</u>	<u>81.2</u>	<u>30, 40 OSF</u>
	<u>38 WEST 126 STREET</u>	<u>S7, S8</u>	<u>1723</u>	<u>53</u>	<u>81.2</u>	<u>30, 40 OSF</u>
<u>15</u>	<u>5 WEST 125 STREET</u>	<u>S7, S8</u>	<u>1723</u>	<u>31</u>	<u>81.2</u>	<u>30, 40 OSF</u>
	<u>16 WEST 126 STREET</u>	<u>S7, S8</u>	<u>1723</u>	<u>144</u>	<u>81.2</u>	<u>30, 40 OSF</u>
	<u>18 WEST 126 STREET</u>	<u>S7, S8</u>	<u>1723</u>	<u>45</u>	<u>81.2</u>	<u>30, 40 OSF</u>
<u>16</u>	<u>76 WEST 125 STREET</u>	<u>S6, S7</u>	<u>1722</u>	<u>168</u>	<u>81.2</u>	<u>35, 40 ONF</u>
	<u>74 WEST 125 STREET</u>	<u>S6, S7</u>	<u>1722</u>	<u>68</u>	<u>81.2</u>	<u>35, 40 ONF</u>
	<u>72 WEST 125 STREET</u>	<u>S6, S7</u>	<u>1722</u>	<u>67</u>	<u>81.2</u>	<u>35, 40 ONF</u>
	<u>70 WEST 125 STREET</u>	<u>S6, S7</u>	<u>1722</u>	<u>66</u>	<u>81.2</u>	<u>35, 40 ONF</u>
	<u>68 WEST 125 STREET</u>	<u>S6, S7</u>	<u>1722</u>	<u>65</u>	<u>81.2</u>	<u>35, 40 ONF</u>
	<u>64 WEST 125 STREET</u>	<u>S6, S7</u>	<u>1722</u>	<u>63</u>	<u>81.2</u>	<u>35, 40 ONF</u>
<u>17</u>	<u>62 WEST 125 STREET</u>	<u>S6, S7</u>	<u>1722</u>	<u>62</u>	<u>81.2</u>	<u>35, 40 ONF</u>
	<u>60 WEST 125 STREET</u>	<u>S6, S7</u>	<u>1722</u>	<u>61</u>	<u>81.2</u>	<u>35, 40 ONF</u>
	<u>58 WEST 125 STREET</u>	<u>S6, S7</u>	<u>1722</u>	<u>60</u>	<u>81.2</u>	<u>35, 40 ONF</u>
	<u>56 WEST 125 STREET</u>	<u>S6, S7</u>	<u>1722</u>	<u>59</u>	<u>81.2</u>	<u>35, 40 ONF</u>
	<u>54 WEST 125 STREET</u>	<u>S6, S7</u>	<u>1722</u>	<u>58</u>	<u>81.2</u>	<u>35, 40 ONF</u>
<u>18</u>	<u>69 EAST 125 STREET</u>	<u>S4, S7</u>	<u>1750</u>	<u>28</u>	<u>81.2</u>	<u>35, 40 OSF</u>
	<u>71 EAST 125 STREET</u>	<u>S4, S7</u>	<u>1750</u>	<u>29</u>	<u>81.2</u>	<u>35, 40 OSF</u>
	<u>75 EAST 125 STREET</u>	<u>S4, S7</u>	<u>1750</u>	<u>30</u>	<u>81.2</u>	<u>35, 40 OSF</u>
	<u>58 EAST 126 STREET</u>	<u>S4, S7</u>	<u>1750</u>	<u>44</u>	<u>81.2</u>	<u>35, 40 OSF</u>
<u>19</u>	<u>1824 PARK AVENUE</u>	<u>S7 & MN</u>	<u>1750</u>	<u>40</u>	<u>84.8</u>	<u>40</u>
	<u>81 EAST 125 STREET</u>	<u>S7 & MN</u>	<u>1750</u>	<u>34</u>	<u>84.8</u>	<u>40</u>
<u>20</u>	<u>60 EAST 125 STREET</u>	<u>S6, S7</u>	<u>1749</u>	<u>48</u>	<u>81.2</u>	<u>35, 40 ONF</u>
	<u>58 EAST 125 STREET</u>	<u>S6, S7</u>	<u>1749</u>	<u>49</u>	<u>81.2</u>	<u>35, 40 ONF</u>
<u>21</u>	<u>71 EAST 124 STREET</u>	<u>S6 & MN</u>	<u>1749</u>	<u>31</u>	<u>83.1</u>	<u>35</u>
	<u>1800 PARK AVENUE</u>	<u>S7 & MN</u>	<u>1749</u>	<u>33</u>	<u>84.8</u>	<u>35</u>
	<u>1804 PARK AVENUE</u>	<u>S7 & MN</u>	<u>1749</u>	<u>35</u>	<u>84.8</u>	<u>35</u>
	<u>1808 PARK AVENUE</u>	<u>S7 & MN</u>	<u>1749</u>	<u>40</u>	<u>84.8</u>	<u>35</u>
	<u>66 EAST 125 STREET</u>	<u>S7 & MN</u>	<u>1749</u>	<u>43</u>	<u>84.8</u>	<u>35</u>
	<u>55 EAST 124 STREET</u>	<u>S6 & MN</u>	<u>1749</u>	<u>24</u>	<u>83.1</u>	<u>35</u>
<u>22</u>	<u>127 EAST 125 STREET</u>	<u>S5, S9</u>	<u>1774</u>	<u>17</u>	<u>79.6</u>	<u>35, 40 OSF</u>
	<u>132 EAST 126 STREET</u>	<u>S5, S9</u>	<u>1774</u>	<u>56</u>	<u>79.6</u>	<u>35, 40 OSF</u>
<u>23</u>	<u>1815 PARK AVENUE</u>	<u>S5, S6 & MN</u>	<u>1773</u>	<u>69</u>	<u>84.2</u>	<u>40</u>
	<u>1811 PARK AVENUE</u>	<u>S5, S6 & MN</u>	<u>1773</u>	<u>72</u>	<u>84.2</u>	<u>35, 40 ONF</u>
	<u>1807 PARK AVENUE</u>	<u>S5, S6 & MN</u>	<u>1773</u>	<u>4</u>	<u>84.2</u>	<u>35, 40 ONF</u>
	<u>1801 PARK AVENUE</u>	<u>S5, S6 & MN</u>	<u>1773</u>	<u>1</u>	<u>84.2</u>	<u>35, 40 ONF</u>
	<u>1801 PARK AVENUE</u>	<u>S5, S6 & MN</u>	<u>1773</u>	<u>1</u>	<u>84.2</u>	<u>35, 40 ONF</u>
	<u>110 EAST 125 STREET</u>	<u>S5 & MN</u>	<u>1773</u>	<u>67</u>	<u>83.1</u>	<u>35, 40 ONF</u>

24	<u>212 EAST 125 STREET</u>	<u>S1, S3</u>	<u>1789</u>	<u>45</u>	<u>82.1</u>	<u>35, 40 ONF</u>
	<u>214 EAST 125 STREET</u>	<u>S1, S3</u>	<u>1789</u>	<u>43</u>	<u>82.1</u>	<u>35, 40 ONF</u>
	<u>218 EAST 125 STREET</u>	<u>S1, S3</u>	<u>1789</u>	<u>42</u>	<u>82.1</u>	<u>35, 40 ONF</u>
	<u>215 EAST 124 STREET</u>	<u>S1, S3</u>	<u>1789</u>	<u>9</u>	<u>82.1</u>	<u>35, 40 ONF</u>
25	<u>246 EAST 125 STREET</u>	<u>S1, S3</u>	<u>1789</u>	<u>30</u>	<u>82.1</u>	<u>40</u>
26*	<u>233 EAST 124 STREET</u>	<u>S1, S2</u>	<u>1789</u>	<u>16</u>	<u>78.7</u>	<u>34</u>
	<u>237 EAST 124 STREET</u>	<u>S1, S2</u>	<u>1789</u>	<u>18</u>	<u>78.7</u>	<u>34</u>
	<u>241 EAST 124 STREET</u>	<u>S1, S2</u>	<u>1789</u>	<u>19</u>	<u>78.7</u>	<u>34</u>
	<u>243 EAST 124 STREET</u>	<u>S1, S2</u>	<u>1789</u>	<u>20</u>	<u>78.7</u>	<u>34</u>
	<u>245 EAST 124 STREET</u>	<u>S1, S2</u>	<u>1789</u>	<u>21</u>	<u>78.7</u>	<u>34</u>
	<u>247 EAST 124 STREET</u>	<u>S1, S2</u>	<u>1789</u>	<u>121</u>	<u>78.7</u>	<u>34</u>
	<u>2423 2 AVENUE</u>	<u>S1, S2</u>	<u>1789</u>	<u>25</u>	<u>78.7</u>	<u>34</u>
	<u>2421 2 AVENUE</u>	<u>S1, S2</u>	<u>1789</u>	<u>24</u>	<u>78.7</u>	<u>34</u>
	<u>2419 2 AVENUE</u>	<u>S1, S2</u>	<u>1789</u>	<u>23</u>	<u>78.7</u>	<u>34</u>
	<u>2417 2 AVENUE</u>	<u>S1, S2</u>	<u>1789</u>	<u>22</u>	<u>78.7</u>	<u>34</u>

¹ The representative monitoring sites are shown next to the address

² With respect to the “Sensitive Receptor Assessment”, the worse case L₁₀ noise level for the Metro north noise measurement program (86.0 dBA) was propagated outward based on the relationship between noise dissipation of a line source and distance. Affected sites included sites, 19, 21, 23, 42 and 43. For these sites, the impact of the propagated Metro North noise levels were included in the final maximum build noise level results.

³ ONF – On North Façade of the development block, OSF – On South Façade of the development block, OSE – On East Façade of the development site, MN – Metro North Train

* Projected Development Site 26 is partially comprised of City-owned property under the jurisdiction of the Department of Housing Preservation and Development (HPD). As discussed in Chapter 1, "Project Description," the Department of City Planning (DCP), as lead agency, is conducting a coordinated review with HPD. With respect to required attenuation, when conducting its own reviews, HPD typically rounds up to the nearest decibel (Table 3R-4 in the CEQR Technical Manual suggests that attenuation levels be determined by conservatively rounding up to the nearest 5 decibels). In order to maintain a maximum interior(closed-window) noise environment of 45 dB(A) on Projected Development Site 26, the (E) designation would require the attenuation levels shown above.

Table 3.18-7, Required Attenuation Values for Potential Developmental Sites^{1, 2, 3, 4}

<u>Dev. Site Number</u>	<u>Address</u>	<u>Block Number</u>	<u>Lot(s) Number</u>	<u>Build Max L10 (dBA)</u>	<u>Attenuation Required</u>	
<u>27</u>	<u>568 WEST 125 STREET</u>	<u>S15</u>	<u>1980</u>	<u>75</u>	<u>75.7</u>	<u>30</u>
<u>28</u>	<u>151-153 MORNINGSIDE AVE</u>	<u>S14</u>	<u>1952</u>	<u>61</u>	<u>72.1</u>	<u>30</u>
<u>29</u>	<u>381 WEST 125 STREET</u>	<u>S10, S14</u>	<u>1952</u>	<u>101</u>	<u>81.5</u>	<u>30, 40 OSF</u>
	<u>379 WEST 125 STREET</u>	<u>S10, S14</u>	<u>1952</u>	<u>2</u>	<u>81.5</u>	<u>30, 40 OSF</u>
<u>30</u>	<u>361 WEST 125 STREET</u>	<u>S10, S13</u>	<u>1952</u>	<u>9</u>	<u>81.5</u>	<u>30, 40 OSF</u>
<u>31</u>	<u>313 WEST 125 STREET</u>	<u>S10, S13</u>	<u>1952</u>	<u>23</u>	<u>81.5</u>	<u>30, 40 OSF</u>
	<u>311 WEST 126 STREET</u>	<u>S10, S13</u>	<u>1952</u>	<u>41</u>	<u>81.5</u>	<u>30, 40 OSF</u>
	<u>309 WEST 125 STREET</u>	<u>S10, S13</u>	<u>1952</u>	<u>25</u>	<u>81.5</u>	<u>30, 40 OSF</u>
	<u>307 WEST 125 STREET</u>	<u>S10, S13</u>	<u>1952</u>	<u>27</u>	<u>81.5</u>	<u>30, 40 OSF</u>
	<u>305 WEST 125 STREET</u>	<u>S10, S13</u>	<u>1952</u>	<u>28</u>	<u>81.5</u>	<u>30, 40 OSF</u>
	<u>308 WEST 126 STREET</u>	<u>S10, S13</u>	<u>1952</u>	<u>38</u>	<u>81.5</u>	<u>30, 40 OSF</u>
	<u>306 WEST 126 STREET</u>	<u>S10, S13</u>	<u>1952</u>	<u>138</u>	<u>81.5</u>	<u>30, 40 OSF</u>
<u>31</u>	<u>304 WEST 126 STREET</u>	<u>S10, S13</u>	<u>1952</u>	<u>37</u>	<u>81.5</u>	<u>30, 40 OSF</u>
<u>32</u>	<u>2342 FRED DOUGLASS BLVD</u>	<u>S13</u>	<u>1931</u>	<u>61</u>	<u>69.6</u>	<u>30</u>
	<u>260 WEST 126 STREET</u>	<u>S13</u>	<u>1931</u>	<u>56</u>	<u>69.6</u>	<u>30</u>
	<u>2340 FRED DOUGLASS BLVD</u>	<u>S13</u>	<u>1931</u>	<u>63</u>	<u>69.6</u>	<u>30</u>
	<u>2338 FRED DOUGLASS BLVD</u>	<u>S13</u>	<u>1931</u>	<u>64</u>	<u>69.6</u>	<u>30</u>
<u>33</u>	<u>2330 FRED DOUGLASS BLVD</u>	<u>S10, S13</u>	<u>1931</u>	<u>1</u>	<u>81.5</u>	<u>30, 40 OSF</u>
<u>34</u>	<u>2310 FRED DOUGLASS BLVD</u>	<u>S10, S14</u>	<u>1930</u>	<u>1</u>	<u>81.5</u>	<u>30, 40 ONF</u>
	<u>2310 FRED DOUGLASS BLVD</u>	<u>S10, S14</u>	<u>1930</u>	<u>1</u>	<u>81.5</u>	<u>30, 40 ONF</u>
<u>35</u>	<u>268 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1930</u>	<u>59</u>	<u>81.5</u>	<u>30, 40 ONF</u>
	<u>264 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1930</u>	<u>57</u>	<u>81.5</u>	<u>30, 40 ONF</u>
	<u>264 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1930</u>	<u>57</u>	<u>81.5</u>	<u>30, 40 ONF</u>
<u>36</u>	<u>112 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1909</u>	<u>40</u>	<u>81.5</u>	<u>30, 40 ONF</u>
	<u>114 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1909</u>	<u>41</u>	<u>81.5</u>	<u>30, 40 ONF</u>
	<u>116 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1909</u>	<u>42</u>	<u>81.5</u>	<u>30, 40 ONF</u>
	<u>117 WEST 124 STREET</u>	<u>S10, S12</u>	<u>1909</u>	<u>24</u>	<u>81.5</u>	<u>30, 40 ONF</u>
	<u>119 WEST 124 STREET</u>	<u>S10, S12</u>	<u>1909</u>	<u>25</u>	<u>81.5</u>	<u>30, 40 ONF</u>
<u>36</u>	<u>283 WEST 125 STREET</u>	<u>S10, S12</u>	<u>1909</u>	<u>140</u>	<u>81.5</u>	<u>30, 40 ONF</u>
<u>37</u>	<u>300 LENOX AVENUE</u>	<u>S9, S10</u>	<u>1723</u>	<u>1</u>	<u>81.5</u>	<u>35, 40 OSF</u>
	<u>308 LENOX AVENUE</u>	<u>S9, S10</u>	<u>1723</u>	<u>4</u>	<u>81.5</u>	<u>35, 40 OSF</u>
<u>38</u>	<u>2022 5 AVENUE</u>	<u>S9, S10</u>	<u>1723</u>	<u>33</u>	<u>81.5</u>	<u>35, 40 OSF</u>

	<u>2032 5 AVENUE</u>	<u>S9, S10</u>	<u>1723</u>	<u>37</u>	<u>81.5</u>	<u>35, 40 OSF</u>
<u>39</u>	<u>290 LENOX AVENUE</u>	<u>S9, S10</u>	<u>1722</u>	<u>69</u>	<u>81.5</u>	<u>35, 40 ONF</u>
<u>40</u>	<u>52 WEST 125 STREET</u>	<u>S7</u>	<u>1722</u>	<u>57</u>	<u>81.2</u>	<u>40</u>
	<u>50 WEST 125 STREET</u>	<u>S7</u>	<u>1722</u>	<u>156</u>	<u>81.2</u>	<u>40</u>
	<u>48 WEST 125 STREET</u>	<u>S7</u>	<u>1722</u>	<u>56</u>	<u>81.2</u>	<u>40</u>
	<u>46 WEST 125 STREET</u>	<u>S7</u>	<u>1722</u>	<u>155</u>	<u>81.2</u>	<u>40</u>
	<u>44 WEST 125 STREET</u>	<u>S7</u>	<u>1722</u>	<u>55</u>	<u>81.2</u>	<u>40</u>
<u>41</u>	<u>32 WEST 125 STREET</u>	<u>S6, S7</u>	<u>1722</u>	<u>51</u>	<u>81.1</u>	<u>35, 40 ONF</u>
	<u>32 WEST 125 STREET</u>	<u>S6, S7</u>	<u>1722</u>	<u>51</u>	<u>81.1</u>	<u>35, 40 ONF</u>
<u>42</u>	<u>102 EAST 126 STREET</u>	<u>S9 & MN</u>	<u>1774</u>	<u>68</u>	<u>82.8</u>	<u>35, 40 OEF</u>
<u>43</u>	<u>108 EAST 126 STREET</u>	<u>S4, S5 & MN</u>	<u>1774</u>	<u>65</u>	<u>83.6</u>	<u>30, 40 OSF</u>
	<u>106 EAST 126 STREET</u>	<u>S4, S5 & MN</u>	<u>1774</u>	<u>66</u>	<u>83.6</u>	<u>30, 40 OSF</u>
	<u>104 EAST 126 STREET</u>	<u>S4, S5 & MN</u>	<u>1774</u>	<u>67</u>	<u>83.6</u>	<u>30, 40 OSF</u>
	<u>107 EAST 125 STREET</u>	<u>S4, S5 & MN</u>	<u>1774</u>	<u>5</u>	<u>79.7</u>	<u>30, 40 OSF</u>
	<u>109 EAST 125 STREET</u>	<u>S4, S5 & MN</u>	<u>1774</u>	<u>6</u>	<u>79.7</u>	<u>30, 40 OSF</u>
	<u>111 EAST 125 STREET</u>	<u>S4, S5 & MN</u>	<u>1774</u>	<u>7</u>	<u>79.7</u>	<u>30, 40 OSF</u>
	<u>113 EAST 125 STREET</u>	<u>S4, S5 & MN</u>	<u>1774</u>	<u>8</u>	<u>79.7</u>	<u>30, 40 OSF</u>
<u>44</u>	<u>150-170 EAST 126 STREET</u>	<u>S4</u>	<u>1774</u>	<u>48</u>	<u>74.9</u>	<u>30</u>
<u>45</u>	<u>2306 3 AVENUE</u>	<u>S3, S9</u>	<u>1774</u>	<u>33</u>	<u>81.9</u>	<u>30, 35 OSF</u>
<u>46</u>	<u>122 EAST 125 STREET</u>	<u>S5</u>	<u>1773</u>	<u>61</u>	<u>79.6</u>	<u>40</u>
	<u>128 EAST 125 STREET</u>	<u>S5</u>	<u>1773</u>	<u>58</u>	<u>79.6</u>	<u>40</u>
<u>47</u>	<u>129 EAST 124 STREET</u>	<u>S6</u>	<u>1773</u>	<u>15</u>	<u>75.6</u>	<u>35</u>
	<u>2050 LEXINGTON AVENUE</u>	<u>S6</u>	<u>1773</u>	<u>17</u>	<u>75.6</u>	<u>35</u>
	<u>2054 LEXINGTON AVENUE</u>	<u>S6</u>	<u>1773</u>	<u>18</u>	<u>75.6</u>	<u>35</u>
<u>48</u>	<u>149 EAST 124 STREET</u>	<u>S3, S6</u>	<u>1773</u>	<u>20</u>	<u>82.1</u>	<u>35, 40 ONF</u>
<u>49</u>	<u>228 EAST 125 STREET</u>	<u>S3</u>	<u>1789</u>	<u>36</u>	<u>82.1</u>	<u>40</u>
	<u>230 EAST 125 STREET</u>	<u>S3</u>	<u>1789</u>	<u>35</u>	<u>82.1</u>	<u>40</u>
	<u>232 EAST 125 STREET</u>	<u>S3</u>	<u>1789</u>	<u>34</u>	<u>82.1</u>	<u>40</u>

¹ The representative monitoring sites are shown next to the address

² With respect to the “Sensitive Receptor Assessment”, the worse case L₁₀ noise level for the Metro north noise measurement program (86.0 dBA) was propagated outward based on the relationship between noise dissipation of a line source and distance. Affected sites included sites, 19, 21, 23, 42 and 43. For these sites, the impact of the propagated Metro north noise levels were included in the final maximum build noise level results.

³ ONF – On North Façade of the development block, OSF – On South Façade of the development block, OSE – On East Façade of the development site, MN – Metro North Train

⁴ Site 41 has been removed as a potential site, due to a new proposal since the DEIS for the village Academies School (see Chapter 3.1).

The following sites require 40 dBA of noise attenuation in order to avoid the potential for significant adverse impacts related to noise. The proposed action includes (E) designations on the following properties:

<u>PROJECTED DEVELOPMENT SITES</u>		
<u>Development Site</u>	<u>Block</u>	<u>Lot(s)</u>
<u>19</u>	<u>1750</u>	<u>34, 40</u>
<u>25</u>	<u>1789</u>	<u>30</u>
<u>POTENTIAL DEVELOPMENT SITES</u>		
<u>40</u>	<u>1722</u>	<u>55, 56, 57, 155, 156</u>
<u>46</u>	<u>1773</u>	<u>61, 58</u>
<u>49</u>	<u>1789</u>	<u>34, 35, 36</u>

The text of the (E) designation for noise for the above properties is as follows:

In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed window condition with a minimum of 40 dBA window/wall attenuation on all façades in order to maintain an interior noise level of 45 dBA. To achieve 40 dBA of building attenuation, special design features that go beyond the normal double-glazed windows are necessary and may include using specially design windows (i.e., windows with small sizes, windows with air gaps, windows with thicker glazing, etc.), and additional building attenuation. In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning.

The following sites require 35 dBA of noise attenuation in order to avoid the potential for significant adverse impacts related to noise. The proposed action includes (E) designations on the following properties:

<u>PROJECTED DEVELOPMENT SITES</u>		
<u>Development Site</u>	<u>Block</u>	<u>Lot(s)</u>
<u>1</u>	<u>1952</u>	<u>19, 21, 22</u>
<u>4</u>	<u>1951</u>	<u>51</u>
<u>10</u>	<u>1910</u>	<u>1, 7501</u>
<u>21</u>	<u>1749</u>	<u>24, 31, 33, 35, 40, 43</u>

<u>POTENTIAL DEVELOPMENT SITES</u>		
<u>47</u>	<u>1773</u>	<u>15, 17, 18</u>

The text of the (E) designation for noise for the above properties is as follows:

In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed window condition with a minimum of 35 dB(A) window/wall attenuation in all façades in order to maintain an interior noise level of 45 dB(A). In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning or air conditioning sleeves containing air conditioners or HUD-approved fans.

The following sites require 34 dBA of noise attenuation on specific façades in order to avoid the potential for significant adverse impacts related to noise. The proposed action includes (E) designations on the following properties:

<u>Projected Development Site</u>	<u>Block</u>	<u>Lot(s)</u>
<u>26</u>	<u>1789</u>	<u>16, 18, 19, 20, 21, 22, 23, 24, 25, 121</u>

The text of the (E) designation for noise for the above properties is as follows:

In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed window condition with a minimum of 34 dB(A) window/wall attenuation in all façades in order to maintain an interior noise level of 45 dB(A). In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning or air conditioning sleeves containing air conditioners or HUD-approved fans.

The following sites require 30 dBA of noise attenuation in order to avoid the potential for significant adverse impacts related to noise. The proposed action includes (E) designations on the following properties:

<u>POTENTIAL DEVELOPMENT SITES</u>		
<u>Development Site</u>	<u>Block</u>	<u>Lot(s)</u>
<u>22</u>	<u>1774</u>	<u>17, 56</u>
<u>28</u>	<u>1952</u>	<u>61</u>
<u>27</u>	<u>1980</u>	<u>75</u>
<u>32</u>	<u>1931</u>	<u>56, 61, 63, 64</u>
<u>44</u>	<u>1774</u>	<u>48</u>

The text of the (E) designation for noise for the above properties is as follows:

In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed window condition with a minimum of 30 dB(A) window/wall attenuation in all façades in order to maintain an interior noise level of 45 dB(A). In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning or air conditioning sleeves containing air conditioners or HUD-approved fans.

The following sites require combination of 30 dBA and 35 dBA of noise attenuation on specific façades in order to avoid the potential for significant adverse impacts related to noise. The proposed action includes (E) designations on the following properties:

<u>POTENTIAL DEVELOPMENT SITES</u>		
<u>45</u>	<u>1774</u>	<u>33</u>

The text of the (E) designation for noise for the above properties is as follows:

In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed window condition with a minimum of 30 dBA and 35 dBA window/wall attenuation on some façades in order to maintain an interior noise level of 45 dBA. To achieve 35 dBA of building attenuation, special design features that go beyond the normal double-glazed windows are necessary and may include using specially design windows (i.e., windows with small sizes, windows with air gaps, windows with thicker glazing, etc.), and additional building attenuation. In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning.

The following sites require a combination of 30 dBA and 40 dBA of noise attenuation on specific façades in order to avoid the potential for significant adverse impacts related to noise. The proposed action includes (E) designations on the following properties:

<u>PROJECTED DEVELOPMENT SITES</u>		
<u>Development Site</u>	<u>Block</u>	<u>Lot(s)</u>
<u>2</u>	<u>1952</u>	<u>29</u>
<u>3</u>	<u>1951</u>	<u>7</u>
<u>5</u>	<u>1951</u>	<u>43</u>
<u>6</u>	<u>1931</u>	<u>27</u>
<u>7</u>	<u>1930</u>	<u>55</u>
<u>8</u>	<u>1930</u>	<u>49, 50, 51, 53</u>
<u>9</u>	<u>1930</u>	<u>37, 40, 41</u>
<u>11</u>	<u>1909</u>	<u>59, 63</u>
<u>12</u>	<u>1909</u>	<u>44, 46</u>
<u>14</u>	<u>1723</u>	<u>17, 21, 22, 53</u> <u>122</u>
<u>15</u>	<u>1723</u>	<u>31, 45, 144</u>
<u>POTENTIAL DEVELOPMENT SITES</u>		
<u>29</u>	<u>1952</u>	<u>2, 101</u>
<u>30</u>	<u>1952</u>	<u>9</u>
<u>31</u>	<u>1952</u>	<u>23, 25, 27, 28,</u> <u>37, 38, 41, 138</u>
<u>33</u>	<u>1931</u>	<u>1</u>
<u>34</u>	<u>1930</u>	<u>1</u>
<u>35</u>	<u>1930</u>	<u>57, 59</u>
<u>36</u>	<u>1909</u>	<u>24, 25, 40, 41,</u> <u>42, 140</u>
<u>43</u>	<u>1774</u>	<u>68, 65, 66, 67,</u> <u>5, 6, 7, 8</u>

The text of the (E) designation for noise for the above properties is as follows:

In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed window condition with a minimum of 30 dBA and 40 dBA window/wall attenuation on some façades in order to maintain an interior noise level of 45 dBA. To achieve 40 dBA of building attenuation, special design features that go beyond the normal double-glazed windows are necessary and may include using specially design windows (i.e., windows with small sizes, windows with air gaps, windows with thicker glazing, etc.), and additional building attenuation. In order to maintain a closed-window

condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning.”

The following sites require combination of 35 dBA and 40 dBA of noise attenuation on specific façades in order to avoid the potential for significant adverse impacts related to noise. The proposed action includes (E) designations on the following properties:

<u>PROJECTED DEVELOPMENT SITES</u>		
<u>Development Site</u>	<u>Block</u>	<u>Lot(s)</u>
<u>13</u>	<u>1909</u>	<u>26, 27, 28, 29, 30, 31, 32, 38, 39, 129, 33</u>
<u>16</u>	<u>1722</u>	<u>63, 65, 66, 67, 68, 168</u>
<u>17</u>	<u>1722</u>	<u>58, 59, 60, 61, 62</u>
<u>18</u>	<u>1750</u>	<u>28, 29, 30, 44</u>
<u>20</u>	<u>1749</u>	<u>48, 49</u>
<u>23</u>	<u>1773</u>	<u>1, 69, 72, 4, 67</u>
<u>22</u>	<u>1774</u>	<u>17, 56</u>
<u>24</u>	<u>1789</u>	<u>9, 42, 43, 45</u>
<u>POTENTIAL DEVELOPMENT SITES</u>		
<u>37</u>	<u>1723</u>	<u>1, 4</u>
<u>38</u>	<u>1723</u>	<u>33, 37</u>
<u>39</u>	<u>1722</u>	<u>69</u>
<u>41**</u>	<u>1722</u>	<u>51</u>
<u>42</u>	<u>1774</u>	<u>68</u>
<u>48</u>	<u>1773</u>	<u>20</u>

**Site 41 has been removed as a potential development site, due to a new proposal since the DEIS for the Village Academies School (see Chapter 3.1, “Land Use, Zoning, and Public Policy”).

The text of the (E) designation for noise for the above properties is as follows:

In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed window condition with a minimum of 35 dBA and 40 dBA window/wall attenuation on some façades in order to maintain an interior noise level of 45 dBA. To achieve 40 dBA of building attenuation, special design features that go beyond the normal double-glazed windows are necessary and may include using specially design windows (i.e., windows with small sizes, windows with air gaps, windows with thicker

glazing, etc.), and additional building attenuation. In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning.

With the attenuation measures specified above, the proposed rezoning would not result in any significant adverse noise impacts, and would meet CEQR guidelines.

CONCLUSION

The proposed action would not result in significant adverse impacts related to noise. The proposed action would generate new residential, commercial and community facility uses in an area that is already characterized by medium to high density residential and commercial development. As discussed above, as part of the proposed action, (E) designations would be placed on the zoning map for all of the projected and potential development sites to avoid the potential for significant adverse noise impacts. Residential, commercial and community facility development on lots mapped with an (E) designation would be required to provide sufficient noise attenuation to maintain interior noise levels of 45 dBA or lower, and the proposed action would not result in significant adverse noise impacts.