

A. INTRODUCTION

This chapter assesses the potential for the Proposed Project to affect public health. As defined by the 2014 *City Environmental Quality Review (CEQR) Technical Manual*, public health is the organized effort of society to protect and improve the health and well-being of the population through monitoring; assessment and surveillance; health promotion; prevention of disease, injury, disorder, disability, and premature death; and reducing inequalities in health status. The goal of CEQR with respect to public health is to determine whether adverse impacts on human health may occur as a result of a proposed project and, if so, to identify measures to mitigate such effects. The potential effects of the Proposed Project was considered with regard to effects on the surrounding community.

The *CEQR Technical Manual* states that a public health assessment is warranted for a specific technical area if there is a significant adverse impact found in other CEQR analysis areas, such as air quality, water quality, hazardous materials, or noise. As described in the relevant analyses of this Environmental Impact Statement (EIS), upon completion of construction, the Proposed Project would not result in significant unmitigated adverse impacts in any of the technical areas related to public health. However, as identified in Chapter 18, “Construction,” the Proposed Project may result in unmitigated significant adverse construction-period noise impacts at the academic uses in Industry City Buildings 9 and 10 and the residential building at 968 3rd Avenue. Therefore, this chapter provides a public health assessment of construction-period noise at these locations.

PRINCIPAL CONCLUSIONS

The analyses presented in this EIS concluded that the Proposed Actions would not result in unmitigated significant adverse impacts in the areas of air quality, water quality, hazardous materials, or operational noise. The analysis presented in Chapter 18, “Construction,” determined that construction activities could potentially result in unmitigated significant adverse construction-period noise impacts at receptors in the vicinity of the Proposed Project’s work areas. However, construction of the Proposed Project would not result in chronic exposure to high levels of noise, prolonged exposure to noise levels above 85 dBA, or episodic and unpredictable exposure to short-term impacts of noise at high decibel levels, as per the *CEQR Technical Manual*. Consequently, construction of the Proposed Project would not result in a significant adverse public health impact.

B. METHODOLOGY

The construction noise analysis presented in Chapter 18, “Construction,” was used to identify the extent of the potential construction-period noise exposure to the public as a result of the Proposed Project. The *CEQR Technical Manual* thresholds for construction noise are based on quality of life considerations and not on public health considerations. However, the potential construction-period noise exposure identified in Chapter 18, “Construction,” was evaluated for its potential to

impact the health of the affected population by comparing it with the relevant health-based noise criteria, as per the *CEQR Technical Manual*, which identifies chronic exposure to high levels of noise, prolonged exposure to noise levels above 85 dBA (the *CEQR Technical Manual* recommended threshold for potential hearing loss), and episodic and unpredictable exposure to short-term impacts of noise at high decibel levels of concern for public health effects.

C. PUBLIC HEALTH ASSESSMENT

Construction pursuant to the Proposed Actions would be required to follow the New York City Noise Control Code, which requires the implementation of construction noise control measures. Specific noise control measures would be incorporated in noise mitigation plan(s) required under the New York City Noise Code. These measures could include a variety of source controls (i.e., reducing noise levels at the source or during the most sensitive construction time periods) and path controls (e.g., placement of equipment, implementation of barriers or enclosures between equipment and sensitive receptors).

Even with the implementation of these noise control measures, the analysis presented in Chapter 18, “Construction,” determined that predicted noise levels due to construction-related activities could result in noise levels at two receptors in the vicinity of the Proposed Project’s work areas that would constitute a potential significant adverse construction-period noise impact. These receptors are the academic uses in Industry City Buildings 9 and 10 and the residential building at 968 3rd Avenue. These locations are shown in Figure 18-2.

Although the *CEQR Technical Manual* thresholds for significant adverse construction noise impacts are predicted to be exceeded at certain locations during construction, these exceedances would not constitute a significant adverse public health impact. As discussed above, the *CEQR Technical Manual* thresholds for construction noise are based on quality of life considerations and not on public health considerations. An impact found pursuant to a quality of life framework (i.e., a significant adverse construction noise impact) does not definitively indicate that an impact would occur when the analysis area is evaluated in terms of public health (i.e., a significant adverse public health impact).

CHRONIC EXPOSURE TO HIGH LEVELS OF NOISE

The predicted construction-period noise impacts identified and described in Chapter 18, “Construction,” would not constitute chronic exposure to high levels of noise because of the temporary and intermittent nature of construction-period noise. The maximum predicted construction noise levels associated with the Proposed Actions (up to 85 dBA) would occur over a limited duration during the construction period based on the amount and type of construction work occurring in the construction work areas. Further, construction activity would typically be limited to the typical construction shift of 7 AM to 3PM, leaving the remainder of the day and the evening unaffected by construction noise. Since the construction noise would fluctuate in level and would not occur constantly throughout the construction period, which itself is limited in duration, construction noise would not be described as “chronic.” Therefore, construction associated with the Proposed Actions would not have the potential to result in chronic exposure to high levels of noise.

PROLONGED EXPOSURE TO NOISE LEVELS ABOVE 85 DBA

As described in Chapter 18, “Construction,” the predicted absolute noise levels at all analyzed noise receptors would be at or below the 85 dBA threshold.¹ The maximum predicted levels of noise resulting from construction associated with the Proposed Actions at these receptors would be up to 85 dBA. Therefore, construction of the Proposed Project would not have the potential to result in prolonged exposure to noise levels above 85 dBA at any of the other receptor locations.

UNPREDICTABLE EXPOSURE TO SHORT-TERM HIGH NOISE LEVELS

Based on the predicted noise levels described in Chapter 18, “Construction,” construction associated with the Proposed Actions is also not expected to result in unpredictable exposure to short-term impacts of noise at high decibel levels, as per the *CEQR Technical Manual*. The maximum short-term noise impact resulting from construction of the Proposed Project would not exceed 85 dBA during peak construction periods. Because exterior noise levels would not exceed the acceptable 85 dBA threshold at the receptors, and because construction noise at the most sensitive receptors (i.e., the residences) would typically not occur during the nighttime when residences are most sensitive to noise, predicted noise levels due to construction of the Proposed Project would not constitute unpredictable exposure to short-term impacts of noise at high decibel levels.

Additionally, the predicted noise exposure for the occupants of the buildings that could experience potentially significant adverse construction noise impacts would depend on the amount of façade noise attenuation provided by the buildings. The façade noise attenuation is a factor of the building façade construction as well as whether the building’s windows can remain closed. Buildings that have an alternate means of ventilation (e.g., some form of air conditioning) are assumed to be able to maintain a closed-window condition, which results in a higher level of façade noise attenuation. As described in Chapter 20, “Mitigation,” the Applicant would offer air conditioning units to the receptor at 968 3rd Avenue at which construction associated with the Proposed Actions was predicted to result in significant noise impacts. With such measures and the building’s existing insulated glass windows, the building façade would provide approximately 25 dBA window/wall attenuation. Additionally, as described in Chapter 20, “Mitigation,” the Applicant would provide at least 28 dBA window/wall attenuation and an alternate means of ventilation for newly introduced academic spaces in Industry City Buildings 9 and 10. Given that the maximum short-term noise impact resulting from construction of the Proposed Project would not exceed 85 dBA, with attenuation, interior noise levels at all analyzed noise receptors are predicted to be well below the 85 dBA threshold. Therefore, construction of the Proposed Project would not have the potential to result in episodic or unpredictable exposure to short-term impacts of noise at high decibel levels.

Overall, the area of potential noise impacts is limited, and the population exposed to elevated noise levels due to construction is very limited. In addition, as described above, the noise would not be chronic and would not exceed the threshold of short-term high decibel levels. Therefore, the predicted noise resulting from construction associated with the Proposed Actions would not constitute a potential significant adverse public health impact; consequently, there would not be

¹ As discussed in Chapter 18, “Construction,” construction noise at two receptors—Industry City Buildings 9 and 10 and the residence at 968 3rd Avenue—has been conservatively assumed to reach the maximum level allowable by the New York City Noise Control Code throughout the duration of construction at the nearest work area. A refined analysis will be conducted between the Draft and Final EIS to more precisely determine the construction noise levels at these receptors.

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significant adverse public health impacts due to construction associated with the Proposed Actions. *