Chapter 15: Public Health

A. INTRODUCTION

This chapter assesses the potential for the Proposed Actions to affect public health. As defined by the 2025 *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 action and, if so, to identify measures to mitigate such effects. The potential effects of the Proposed Actions were considered with regard to effects on the surrounding community.

The co-Applicants, the New York City Educational Construction Fund (ECF) and 240 Nassau Street Holdings, LLC, are seeking zoning approvals, including zoning map and text amendments, a special permit, and other City and State approvals and potential future U.S. Department of Housing and Urban Development (HUD) actions (the "Proposed Actions"), to facilitate the construction of a proposed mixed-use development on Block 110, Lot 25 and Block 111, Lot 1 (the "Project Site") in Downtown Brooklyn, Community District (CD) 2. The proposed development would include four new buildings totaling approximately 1.7 million gross square feet (gsf), including public school facilities; residential, retail, and community facility space; cultural center space; and open space (the "Proposed Project").

The Proposed Actions include the transfer, reallocation, and lease of property among 240 Nassau Street Holdings, LLC, ECF, and the City of New York to allow for the Proposed Project and ECF financing and discretionary zoning approvals from the New York City Planning Commission (CPC) and New York City Council. A detailed description of the Proposed Project and the approvals needed to facilitate the Proposed Project is presented in Chapter 1, "Project Description."

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 identified in Chapter 17, "Construction," construction of the Proposed Project has the potential to result in construction noise levels that exceed the construction noise impact criteria defined by CEQR at receptors near the Project Site. Therefore, this chapter provides a public health assessment of construction-period noise at these locations. As described in the relevant analyses of this Environmental Impact Statement (EIS), the Proposed Actions would not result in significant unmitigated adverse impacts in any of the other technical areas related to public health.

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, and hazardous materials.

The analysis presented in Chapter 17, "Construction," determined that construction activities would result in an unmitigated significant adverse construction-period noise impact at receptors adjacent to the work areas for the Proposed Actions. 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 17, "Construction," identified the extent of the potential noise exposure to the public as a result of construction of the Proposed Project. At locations and during times where either noise analysis determined the potential for significant adverse noise impacts, the projected noise effects were examined further to determine whether they would constitute significant adverse impacts to public health. The *CEQR Technical Manual* thresholds for noise exposure and construction noise impacts are based on quality-of-life considerations and not on public health considerations. The potential noise exposure identified in Chapter 17, "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 described in 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 NOISE

As described in Chapter 17, "Construction," the *CEQR Technical Manual* specifies that the construction noise analysis consider the potential for construction of a project to create high noise levels (the "intensity"), whether construction noise would occur for an extended period of time (the "duration"), and the locations where construction has the potential to produce noise ("receptors") in evaluating potential construction noise effects.

Construction of the Proposed Project would be required to follow the New York City (NYC) 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 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 17, "Construction," concluded that construction of the Proposed Project would have the potential to result in temporary construction noise levels, which would constitute

significant adverse construction noise impacts at receptors near or within the Project Site as shown in **Table 15-1**.

Table 15-1
Significant Adverse Construction Noise Impact Locations

Receptors	Address	Land Use	Façade(s)
13, 15, 16 (floor 5 only)	Farragut Houses Building 1 – 237 Nassau Street	Residential	South (construction-facing)
80, 81	Future Building 1	Residential, Community Facility, and Cultural	South, southern half of West
86-89 and 93	Future Building 2	School	South, southern half of East and West

The construction noise impact thresholds are based on quality-of-life considerations. These differ from public health considerations, which employ distinct criteria that are appropriate in the public health context. Significance is assessed in terms of the magnitude of noise level and duration of exposure rather than incremental change in noise level. For example, chronic noise exposure may raise blood pressure and has been suggested to contribute to myocardial infarctions and to interfere with language development in children. Additionally, prolonged exposure to levels above 85 dBA will eventually harm hearing. Moreover, episodic and unpredictable exposure to short-term impacts of noise at high decibel levels may also affect health. Accordingly, it is appropriate to evaluate magnitude of noise level and duration of exposure when examining public health.

Although the 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 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 does not imply that an impact will exist when the analysis area is evaluated in terms of public health. The maximum level of noise exposure at the buildings at which significant adverse construction noise impacts were predicted to occur would be well below the 85 dBA threshold for potential hearing damage. In addition, the potential for noise effects related to construction sources would be temporary and localized and is not expected to rise to area-wide level impacts that would warrant a detailed public health assessment. Accordingly, given the magnitude and the duration of the construction noise at interior receptors, while such noise impact may be a quality-of-life concern, the Proposed Actions would not result in significant adverse public health impacts due to construction noise.

UNPREDICTABLE EXPOSURE TO SHORT-TERM HIGH NOISE LEVELS

Based on the predicted noise levels described in Chapter 17, “Construction,” construction associated with the Proposed Actions is not expected to result in unpredictable exposure to short-term impacts of noise at high decibel levels, which are indicated as a potential public health concern in the *CEQR Technical Manual*. The maximum short-term noise impact resulting from construction of the Proposed Project would be noise levels in the high 70s dBA during peak construction periods. However, at the receptor buildings that could potentially experience significant adverse construction noise impacts, the predicted noise exposure for occupants would depend on the amount of façade noise attenuation provided by the

buildings. At the noise receptor where noise impacts are predicted to result from construction of the Proposed Project, interior noise levels are predicted to be up to mid-50s dBA. While the *CEQR Technical Manual* sets an acceptable interior L_{10} noise level goal of 45 dBA for residential or community facility uses, the CEQR interior noise guideline is aimed at reducing noise nuisance and improving quality-of-life for City residents, and interior noise levels higher than the CEQR target do not necessarily indicate public health concerns. Such interior noise levels are similar to those in a commercial office environment.

In terms of public health, 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. Since the area of potential noise impacts is limited, and the population exposed to elevated noise levels due to construction is very limited, the noise would not be chronic and would not be considered short-term high decibel levels, and the predicted noise resulting from construction would not constitute a potential significant adverse public health impact. Therefore, there would not be significant adverse public health impacts due to construction of the Proposed Project. ✷