

A. INTRODUCTION

This chapter assesses the Proposed Project’s effects on public health. 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 a public health assessment 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 2021 *City Environmental Quality Review Technical Manual (CTM)* states that a public health assessment is not necessary for most projects. Where no significant adverse unmitigated impacts are found in other technical analysis areas—such as air quality, water quality, hazardous materials, or noise—no public health analysis is warranted. If, however, an unmitigated adverse impact is identified in any of these other technical analysis areas, the lead agency may determine that a public health assessment is warranted for that specific technical area. In addition, as project construction has the potential to affect these technical analysis areas, the construction effects related thereto also should be considered when determining if a public health analysis is warranted.

As discussed in **Chapter 02.0, “Project Alternatives,”** there are three alternatives under consideration for implementation of the Proposed Project. These include: Alternative 2 – the Rezoning Alternative; Alternative 3 – the Non-Rezoning Alternative; and Alternative 4 – the Midblock Bulk Alternative. A discussion of Alternative 5 – the Rehabilitation and Infill Alternative, which has been determined to be infeasible, is presented in **Chapter 05.22, “Rehabilitation and Infill Alternative Analysis.”** Refer to **Chapter 04.0, “Analysis Framework,” Table 04.0-4,** for information on the analysis approach for the three feasible alternatives for each technical area.

B. PRINCIPAL CONCLUSIONS

No significant adverse impacts on public health are anticipated as a result of the Rezoning Alternative, the Non-Rezoning Alternative, and the Midblock Bulk Alternative. Refer to **Section E, “Environmental Effects,”** for further information.

C. METHODOLOGY

The *CTM* advises that when certain technical analyses identify significant unmitigated adverse impacts, the lead agency may determine that a public health assessment is warranted for that specific technical area. In unusual circumstances, a project may have potential public health consequences that may not be related to the issues already addressed in other technical analysis areas. If a public health assessment is determined to be appropriate, then the assessment process

involves evaluating whether and how exposure to environmental contaminants may occur and the extent of that exposure; characterizing the relationship between exposures and health risks; and applying that relationship to the population exposed.

The identification of public health effects are based in large part on the results of other analyses provided in the EIS, including air quality, water quality, hazardous materials, noise, and construction. Given that some of these technical areas warranted discrete analyses for each of the analyzed alternatives, the public health analysis presented herein begins with the Rezoning Alternative and then evaluates whether the findings of the Rezoning Alternative are also applicable to the Non-Rezoning Alternative and Midblock Bulk Alternative or whether discrete analyses of those alternatives are necessary in order to make an impact determination.

D. AFFECTED ENVIRONMENT

Regulatory Context

Federal Executive Order (EO) 13045, Protection of Children from Environmental Health Risks and Safety Risks, specifies prioritization of the identification and assessment of potential environmental health and safety risks that may disproportionately affect children, and to ensure policies, programs, activities, and standards to address those risks. Analysis and disclosure of these potential effects under NEPA are necessary because some physiological and behavioral traits of children render them more susceptible and vulnerable than adults to environmental health and safety risks. It should be noted that, in general, the regulatory standards and guidelines used for comparison purposes already incorporate protection of sensitive individuals, including children. If adverse effects are identified, the *CTM* requires that the effects be disclosed and mitigated or avoided to the greatest extent practicable.

E. ENVIRONMENTAL EFFECTS

Alternative 1 – No-Action Alternative

As no new development is anticipated under the No-Action Alternative, a public health assessment is not warranted.

Alternative 2 – Rezoning Alternative

Pursuant to guidance under NEPA and the *CTM*, air quality, water and sewer infrastructure, noise abatement and control, hazardous materials, and construction assessments were performed for the Rezoning Alternative. As discussed in **Chapter 05.09, “Hazardous Materials,” Chapter 05.10, “Water and Sewer Infrastructure,” Chapter 05.14, “Air Quality,” Chapter 05.16, “Noise Abatement and Control,”** and **Chapter 05.19, “Construction,”** the Rezoning Alternative would not result in any significant adverse impacts related to water and sewer infrastructure, operational noise, hazardous materials, or construction or operational air quality. The Rezoning Alternative would result in unmitigated significant adverse construction period noise impacts at some receptors in and within the vicinity of the Project Sites. These impacts are analyzed and disclosed

in **Chapter 05.19** and measures that may avoid, minimize, or mitigate in part these impacts are also discussed in **Chapter 05.19** and summarized in **Chapter 05.21, “Mitigation.”** While the predicted interior noise levels would constitute significant adverse construction noise impacts at some locations, construction 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 effects of noise at high decibel levels. This is because of the temporary and intermittent nature of construction-period noise. The maximum predicted construction noise levels associated with the Rezoning Alternative 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. The activities that would generate the highest noise levels, i.e., pile drilling and site work, are expected to occur for up to approximately 6 months at each building site. Given their distribution across the four partial blocks that comprise the Fulton Houses Project Site and the two blocks that comprise the Elliott-Chelsea Houses Project Site, the construction noise sources would not be concentrated in any one location for an extended time period. Further, construction activity would typically be limited to the typical construction shift of 7 AM to 3:30 PM, 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 having the potential to result in chronic exposure to high levels of noise. In any event, predicted exterior construction noise levels would not exceed the 85 dBA public health noise impact threshold specified by the *CTM*. Additionally, most of the receptors at which significant adverse construction noise impacts were predicted to occur represent indoor uses (i.e., not open space), and the building façades at these receptors would consequently offer further reductions in noise exposure for the occupants of these spaces. As such, construction associated with the Rezoning Alternative is also not expected to result in unpredictable exposure to short term impacts of noise at high decibel levels, per *CTM* guidance. Since the noise would not be chronic or unpredictable and would not exceed the threshold of short-term, high-decibel levels, the predicted noise resulting from construction under the Rezoning Alternative would not constitute a potential significant adverse public health impact according to the criteria of the *CTM*.

Executive Order (EO) 13045 Assessment

EO 13045, Protection of Children from Environmental Health Risks and Safety Risks, specifies the prioritization of the identification and assessment of potential environmental health and safety risks that may disproportionately affect children. Due to the Rezoning Alternative’s construction noise impacts, an assessment of its potential to affect children’s health is appropriate.

Construction Noise: Exterior

Of the significant adverse construction noise impacts under the Rezoning Alternative, the potential impacts at 259 10th Avenue (Avenues the World School), 281 9th Avenue (PS 33 Chelsea Prep), and 335 W. 18th Street (James Baldwin School) would have the potential to disproportionately affect children, given that they are schools. As detailed in **Chapter 05.19**, under the Rezoning Alternative the maximum predicted noise level increment resulting from construction at the exterior on certain facades of these three schools would be 12.6 dBA, 21.3 dBA, and 12.7 dBA, respectively. These would be perceived as at least a doubling of loudness compared to existing

levels and would represent a significant adverse construction noise impact. The maximum predicted exterior construction noise levels (as would be experienced outside the school buildings) would range from 79.0 to 84.0 dBA under the Rezoning Alternative. While subjectively at least twice as loud as the existing noise levels at these receptors, these values are below the 85-dBA public health noise impact threshold specified by the *CTM* and therefore would not constitute a significant adverse public health impact to children at these schools. Such noise levels are within the range experienced by many New York City children who occupy school yards and open space proximate to heavily trafficked roadways.

Construction Noise: Interior

Avenues the World School, PS 33 Chelsea Prep, and James Baldwin School include insulated glass windows and alternate means of ventilation, which would provide at least 25 dBA window/wall attenuation. With these measures in place, interior noise levels at these buildings would be substantially reduced during the times that they would experience noise from construction activities. However, at all three schools, even with a minimum of 25 dBA window/wall attenuation, interior noise levels resulting from construction under the Rezoning Alternative are predicted to be in the 50s dBA. As such, the construction noise levels would exceed the 45 dBA threshold considered acceptable for classroom, residential, or community facility use according to *CTM* noise exposure guidelines. Although these temporary levels would exceed the 45 dBA threshold recommended for classroom use according to *CTM* noise exposure criteria they would be comparable to many other classroom environments in New York City adjacent to heavily trafficked roadways or other urban noise sources. As such, these schools would not experience chronic exposure to high levels of noise (i.e., high levels of noise that occur indefinitely and do not fluctuate or abate). Nor would they be affected by episodic and unpredictable exposure to short-term effects of noise at high decibel levels, i.e., at or greater than the 85-dBA public health noise impact threshold specified by the *CTM*. Consequently, while the predicted construction noise at these three schools was determined to result in a significant adverse construction noise impact, it would not constitute a significant adverse public health impact to children at these schools.

An existing daycare use present within the Elliott-Chelsea Project Site, specifically in the Hudson Guild John Lovejoy Elliott Center, would be temporarily relocated to a nearby location (see **Chapter 05.02, “Socioeconomic Conditions,”**) during the first-stage of project construction and upon completion of the first two buildings, would be located in the new Elliott-Chelsea 1 building, while construction of the remainder of the Rezoning Alternative is ongoing. In later stages, existing daycare use in the Hudson Guild Children’s Center, also on the Elliott-Chelsea Project Sites, would be temporarily relocated from its existing building to a space in a new building and a new daycare use would be added to the new Fulton 8 building before construction of the Rezoning Alternative is completed. As described in **Chapter 05.16**, on some building facades the new buildings at the Project Sites would be required to provide up to 31 dBA window/wall attenuation and an alternate means of ventilation, to provide acceptable interior noise levels under 2041 operational conditions. As discussed in **Chapter 05.19**, interior noise levels during the most noise-intensive construction activities would be up to the mid-50s dBA. As such, public health conditions at schools would also be experienced by daycare facilities due to noise as a result of construction under the Rezoning Alternative, but as with the schools, the construction noise levels would be comparable to many other classroom environments in New York City adjacent to heavily trafficked roadways or other

urban noise sources. As such, these daycare facilities would not experience chronic exposure to high levels of noise (i.e., high levels of noise that occur indefinitely and do not fluctuate or abate). Nor would they be affected by episodic and unpredictable exposure to short-term effects of noise at high decibel levels, i.e., at or greater than 85-dBA public health noise impact threshold specified by the *CTM*. Consequently, these construction noise impacts would not have the potential to disproportionately affect the health of children in such daycare facilities. Furthermore, any daycare facilities in this study area would be in ground-floor spaces, which are predicted to experience the smallest construction noise increments because they experience the greatest level of noise reduction from site-perimeter noise barriers (as a result of being below the height of the barrier) and have the highest baseline levels of noise (as a result of being closer to existing roadway traffic). Accordingly, the Rezoning Alternative would not result in significant adverse public health impacts to the children of these daycare facilities.

Summary

As such, based on the preliminary assessment provided here and pursuant to the *CTM*, a detailed public health assessment is not warranted and therefore no significant adverse public health impacts would occur as a result of the Rezoning Alternative.

Alternative 3 – Non-Rezoning Alternative

Substantively, the effects of the Non-Rezoning Alternative related to Public Health would be the same as for the Rezoning Alternative. The same considerations outlined for the Rezoning Alternative also would apply to the Non-Rezoning Alternative except with the following variations, which do not change the conclusion reached for the Rezoning Alternative, i.e., the Non-Rezoning Alternative would not result in significant adverse public health impacts. Differences between the Rezoning Alternative and Non-Rezoning Alternative with respect to public health include: the maximum predicted noise level increment resulting from construction and the cumulative predicted noise level at the exterior on certain facades of the three affected schools under the Non-Rezoning Alternative would be similar to the Rezoning Alternative, though of slightly lower dBA values; and the maximum window wall attenuation required for the Non-Rezoning Alternative would be 33 dBA as compared to 31 dBA for the Rezoning Alternative.

Alternative 4 – Midblock Bulk Alternative

Substantively, the effects of the Midblock Bulk Alternative related to Public Health would be the same as for the Rezoning Alternative. The same considerations outlined for the Rezoning Alternative also would apply to the Midblock Bulk Alternative except with the following variations, which do not change the conclusion reached for the Rezoning Alternative, i.e., the Mid-Block Alternative would not result in significant adverse public health impacts. Differences between the Rezoning Alternative and Midblock Bulk Alternative with respect to public health include: the maximum predicted noise level increment resulting from construction and the cumulative predicted noise level at the exterior on certain facades of the three affected schools under the Midblock Bulk Alternative would be similar to the Rezoning Alternative, though of slightly lower dBA values; and the maximum window wall attenuation required for the Midblock Bulk Alternative would be 33 dBA as compared to 31 dBA for the Rezoning Alternative.