3.20 PUBLIC HEALTH

INTRODUCTION

The proposed action would not result in significant adverse impacts to public health.

METHODOLOGY

The *City Environmental Quality Review (CEQR) Technical Manual* states that a public health assessment may not be necessary for many proposed actions, but a thorough consideration of health issues should be documented. In determining whether a public health assessment is appropriate, the following impact categories are considered in the assessment below: air quality, hazardous materials, solid waste and sanitation, and noise.

AIR QUALITY

Whether increased vehicular traffic or emissions from stationary sources would result in significant adverse air quality impacts.

The potential for these impacts was examined in Chapter 3.17, "Air Quality." A total of four receptor locations were selected for carbon monoxide (CO) microscale analysis. The highest project-generated CO increment would occur at the intersection of East 138th and Exterior Streets during the AM peak period. The New York City Department of Environmental Protection (NYCDEP) CO *de minimis* values would not be exceeded at this site or any other analysis site, indicating that the proposed action does not have the potential to cause CO impacts that are considered to be significant. The proposed action would also not result in any violations of the CO standard and therefore would not result in significant CO impacts at the analyzed locations. Additionally, the total number of heavy duty diesel vehicles (HDDV) would not approach the 23 HDDV screening limit for $PM_{2.5}$ and thus, neither $PM_{2.5}$ nor PM_{10} from mobile sources are pollutants of concern for this project. As such, the results show that the development of the projected development sites would not result in any significant adverse air quality impacts from mobile sources for CO, $PM_{2.5}$, and PM_{10}.

No exceedances of the NAAQS are predicted as a result of emissions from projected and potential development site HVAC systems (project-on-project impacts and impacts on existing land uses), with the implementation of (E) designations on several of the projected and potential development sites (see Appendix K). These (E) designations would require a specific fuel type and/or a minimum offset distance for stack locations. The result of analysis provided in Chapter 3.17, "Air Quality," is that, with the proposed (E) designations, the heating emissions of these developments do not have the potential to significantly impact existing or future anticipated nearby land uses. In addition, the analysis determined that heating emissions from existing land uses do not have the potential to result in significant adverse air quality impacts on projected and potential developments.

An analysis of the cumulative impacts of industrial sources on projected and potential development sites was also performed, as detailed in Chapter 3.17. The result of the screening level air toxics analysis is that no exceedance of a New York State Department of Environmental Conservation (NYSDEC) short-term guideline concentrations (SGC) or an annual guideline concentration (AGC) acceptable limit was predicted, and that the total hazard index impact of the non-carcinogenic toxics pollutants emitted from all of the sources combines is 1.65×10^{-2}, which is well below the level of 1.0 that is considered by the United States Environmental Protection Agency (USEPA) to be significant. In addition, the total for all carcinogens emitted by the identified facilities would result in a cancer threshold risk of 2.03×10^{-2} which is below the USEPA acceptable risk value of one in one million (i.e., 1.0×10^{-6}). With these provisions in place, no significant adverse impacts are expected.

Potentially significant adverse impacts to sensitive receptors from odors.

No new odor sources would be created as a result of the proposed action. Therefore, the proposed action would not have significant adverse impacts to sensitive receptors from odors.

HAZARDOUS MATERIALS

If there is an increased potential for exposure to contaminants in soil or dust or vapor infiltration from contaminants within a building or underlying soil that may result in significant adverse hazardous materials or air quality impacts.

As described in detail in Chapter 3.10, "Hazardous Materials," the proposed action has the potential to result in an increased human exposure to potential contaminants in soil or dust during construction and potentially during occupancy at a number of projected and potential development sites. Prior to construction, further investigation would be performed on each development site to determine the presence and nature of contamination of concern and the proper remedial and/or health and safety measures that would be employed during redevelopment.

For all privately-owned projected and potential development sites, as listed in Appendix J, (E) designations are recommended as part of the proposed rezoning and related actions. Recommendations for (E) designations are based on whether the projected and potential development sites may have been adversely affected by current or historical uses at, adjacent to, or within 400 feet of these sites. By placing (E) designations on sites where there is a known or suspect environmental concern, the potential for an adverse impact to human health and the environment resulting from the proposed action is avoided. The (E) designation provides the City with the mechanism for addressing environmental conditions so that significant adverse impacts do not occur as a result of site development.

The (E) designation requires that pre-development activities at each site include a Phase 1 environmental site investigation and, if necessary, a sampling protocol and remediation

to the satisfaction of NYCDEP before the issuance of a building permit. Appendix J presents the complete list of privately-owned projected and potential development sites for which (E) designations are proposed (See Table 1, "Projected and Potential Sites Requiring (E) Designations for Hazardous Materials").

In addition to the sites receiving (E) designations, the proposed action would provide for the reuse of a 2.26-acre parcel adjacent to the north of project development site #2 as a public park. A Phase I analysis was prepared to address potential contamination on the site. The results of this evaluation indicated that contamination may be present and that a sampling program should be undertaken to determine the nature and degree of the contaminations as part of a subsequent a Phase II investigation. Prior to the redevelopment of the site as a park, the City is committed to completion of Phase II Environmental Site Assessment (ESA). The Phase II EAS and testing protocols will be submitted for review and approval to the NYCDEP. Once the approved testing is completed, the City will complete the recommended remediation at the park site prior to the initiation of work. With these provisions in place, no significant adverse impacts are expected.

SOLID WASTE AND SANITATION

Solid waste management practices that could attract vermin and result in an increase in pest populations.

No solid waste management practices are proposed beyond those which occur at most residential and commercial uses found in the City. These practices would include all contemporary solid waste collection and containment practices and conformance with the laws of the New York City Board of Health. Development pursuant to the proposed action would occur in an area which is currently served by the New York City Department of Sanitation residential trash and recycling pickups. As discussed in Chapter 3.13, "Solid Waste and Sanitation Services," the proposed action would not affect the delivery of these services, or place a significant burden on the City's solid waste management system. No significant adverse impacts are expected.

NOISE

Potentially significant adverse impacts to sensitive receptors from noise.

The proposed action would facilitate residential and commercial development in an area with high ambient noise levels, due to the presence of manufacturing, commercial, and transportation and utility land uses, and proximity to major transportation infrastructure including the Major Deegan Expressway and the Metro-North Railroad tracks. No new significant sources of noise would be generated by the proposed action. Traffic generated by the proposed action would not produce any significant adverse noise impacts.

The existing noise levels at 18 of the 23 monitoring sites and the future noise levels at 74 of the 78 projected and potential development sites with residential and commercial uses

would exceed 70 dBA. These sites would be suitable for residential and commercial uses only by providing window-wall attenuation ranging from 30 dBA to 40 dBA for the exterior façade of the affected developments in order to achieve a 45 dBA interior noise level or lower. An (E) designation for these sites would preclude the potential for significant adverse noise impacts. 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 as follows.

- 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 1/4 inch laminated single-glazed window or double-glazed windows with 1/8 inch glass panes with 1/4 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 level of attenuation requires the use of measures that typically exceed standard practice for new construction. Achieving the 40 dBA attenuation would require the placement of acoustically well-sealed 1/4 inch laminated storm sash 1.5" to 3" from single glazed window on wood or metal frame.

To ensure an interior noise environment of 45 dBA or less, an (E) designation for noise would be placed on the zoning map for the projected and potential development sites.

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

CONCLUSION

No activities are proposed that would exceed accepted City, State, or federal standards with respect to public health or result in activities which result in significant public health concerns. For the reasons stated above, a full assessment of potential impacts on public health is not necessary and no significant adverse impacts are expected as a result of the proposed action.