

## CHAPTER 24: MITIGATION

### 24.1 Overview

The City Environmental Quality Review (CEQR) procedures require reasonable and workable mitigation measures for areas that have potentially significant adverse impacts resulting from a proposed action. For the Proposed Action, the areas found to have the potential for significant adverse impacts are traffic, transit, pedestrians, hazardous materials, noise, and historic resources. As detailed in the relevant chapters of this document, mitigation measures, management controls or zoning requirements would ameliorate the potentially significant adverse impacts to acceptable levels for all areas except historic resources. No mitigation is available for the significant adverse impact to one historic resource, as described in Chapter 25, “Unavoidable Significant Adverse Impacts.”

### 24.2 Measures Used To Avoid Significant Impacts

#### 24.2.1 *Hazardous Materials*

Potential hazardous materials present within the study area include VOCs, SVOCs, metals, PCBs, pesticides, herbicides, cyanide, ACM, LBP, and PCB-containing equipment. During construction they would be managed or isolated to protect public health and the environment. Construction measures, including the implementation of site-specific health and safety plans, dust control measures, contaminated soil and groundwater management plans, and abatement of hazardous building materials prior to construction, would aid in the avoidance of adverse health impacts to workers and the general public. It is assumed that the use of these or similar construction methods would be required in the specifications of the property disposition agreements for the Homeport parcels. Because hazardous materials would be abated, managed, or remediated during construction, no significant adverse impacts are expected during either the construction or operational phases of the Proposed Action.

The proposed rezoning also would not result in significant adverse impacts on development sites identified with the potential to contain hazardous materials. No significant adverse hazardous materials impacts are anticipated as a result of the zoning map amendments because (E) Designations would be placed on the Zoning Map for all tax lots containing the potential to result in hazardous materials contamination. Refer to Table 12-5 in Chapter 12 for a complete list of tax lots which would be mapped with an (E) Designation for hazardous materials. The (E) Designation would require that the fee owner of an (E) designated site conduct a testing and sampling protocol, and management where appropriate, to the satisfaction of the DEP before the issuance of a building permit by the Department of Buildings (pursuant to Section 11-15 of the Zoning Resolution-Environmental Requirements). The (E) Designation also includes mandatory construction-related health and safety plans which must also be approved by the DEP.

### ***24.2.2 Traffic and Parking***

#### **Traffic**

Of the 16 intersections analyzed, five intersections would be significantly impacted during the weekday AM and Saturday midday peak hours, six during the weekday midday peak hour, and eight during the weekday PM peak hour. The detailed evaluation of mitigation measures indicated that all significant impacts could be fully mitigated by standard traffic engineering improvements such as the installation of traffic signals, signal phasing and timing modifications, parking prohibitions, and lane re-striping. These measures represent the standard range of traffic capacity improvements that have been proposed and implemented for numerous projects in the City. Mitigation measures would involve installing traffic signals at three unsignalized intersections along Bay Street. A preliminary signal warrant analysis indicated that vehicular and/or pedestrian warrants would be satisfied at all three intersections. Mitigation measures for each location are described below, with additional detail provided in Appendix C.

#### ***Signalized Intersections***

Along the Bay Street corridor, four of the eight signalized intersections analyzed would be significantly impacted during at least one peak hour. Following is a description of the mitigation measures for each.

*Bay Street and Victory Boulevard:* Mitigation measures for all peak hours analyzed would involve: 1) prohibiting parking northbound (one space would be lost along the east curb of Bay Street) and shifting the centerline of this approach one foot to the west to provide one 10-foot wide left turn lane and one 13-foot wide through lane; 2) re-striping southbound Bay Street to provide one 16-foot wide right turn lane, one 11-foot wide left-through lane and one 11-foot wide through lane; and 3) shifting the centerline of eastbound Victory Boulevard three feet to the north to provide one 14-foot wide left turn lane and one 10-foot wide through-right lane. Mitigation measures for the weekday and Saturday midday peak hours would also involve signal timing modifications to provide a northbound lag phase.

*Bay Street and Hannah Street:* Mitigation measures needed for all four peak hours would include: 1) signal timing modifications to provide a southbound lead phase; 2) shifting the centerline of southbound Bay Street three feet to the east to provide two 14-foot wide left turn lanes, two 10-foot wide through lanes, one 10.5-foot wide right turn lane, and reducing the northbound receiving lane widths from 11 feet and 25 feet to 10 feet and 23 feet, respectively; and 3) shifting the centerline of westbound Hannah Street four feet to the north to provide one 11-foot wide westbound lane and two 10-foot wide eastbound receiving lanes.

*Bay Street and Canal Street:* Mitigation measures needed for the weekday PM peak hour include: 1) signal timing modifications; and 2) shifting the centerline of northbound Bay Street three feet to the west to provide one 16-foot wide northbound through-right lane and two 10-foot wide southbound receiving lanes. These measures would remain in place during all periods since they include re-striping lanes.

**NEW STAPLETON WATERFRONT DEVELOPMENT PLAN**  
**DRAFT ENVIRONMENTAL IMPACT STATEMENT**

---

*Bay Street and Broad Street:* Mitigation measures needed for the midday and PM peak hours would include: 1) signal timing modifications; and 2) shifting the centerline of northbound Bay Street one foot to the west to provide one 16-foot wide northbound left-through lane and one 20-foot wide southbound receiving lane. These measures would remain in place during all periods since they include re-striping lanes.

*Bay Street and Vanderbilt Avenue:* Mitigation measures for the weekday PM peak hour would include: 1) prohibiting parking eastbound (along the south curb of Vanderbilt Avenue) and re-striping this approach to provide one 11-foot wide left turn lane and one 10-foot wide right turn lane; 2) shifting the centerline of northbound Bay Street six feet to the west to provide one 13-foot wide left-through lane and one 12-foot wide through lane; 3) shifting the centerline of southbound Bay Street three feet to the west to provide one 10-foot wide right turn lane, one 10-foot wide through lane, and two 11-foot wide northbound receiving lanes; and 4) signal timing modifications. The two centerline shifts can be accommodated with a smooth transition. These measures are needed to mitigate only PM peak hour impacts but would remain in place during all periods since they include re-striping lanes.

*Bay Street and Hylan Boulevard:* Mitigation measures for all four peak hours would involve: 1) prohibiting parking eastbound (along the south curb of Hylan Boulevard) and shifting the centerline of this approach 1.5 feet to the north to provide one 10.5-foot wide left turn lane and one 10.5-foot wide through-right lane; 2) re-striping the westbound receiving lane of Hylan Boulevard to 18 feet wide from its existing 19.5 foot width; and 3) signal timing modifications to eliminate the eastbound lead phase and allocating this time to other movements.

*Unsignalized Intersections*

Significant traffic impacts would occur at two intersections during all peak hours analyzed. All significantly impacted locations could be mitigated using standard traffic engineering measures. Mitigation measures are described below for each intersection.

*Bay Street and Wave Street:* Mitigation measures would include installing a traffic signal. A preliminary signal warrant analysis indicates that the peak hour warrant is satisfied at this intersection.

*Bay Street and Water Street:* Mitigation measures would include installing a traffic signal. A preliminary signal warrant analysis indicates that the peak hour warrant is satisfied at this intersection. During all peak hours analyzed, mitigation measures would also involve: 1) prohibiting parking southbound (along the west curb of Bay Street) to provide a 15-foot wide through-right lane; 2) shifting the centerline of northbound Bay Street nine feet to the west to provide one 10-foot wide left-through lane, one 10-foot wide through lane, and one 14-foot wide receiving lane in the southbound direction; and 3) shifting the centerline of southbound Bay Street eight feet to the west to provide two 10-foot wide receiving lanes in the northbound direction and one 15-foot wide through-right lane in the southbound direction.

*Bay and Prospect Street:* The pedestrian analysis presented in Chapter 18, “Transit and Pedestrians”, indicates that significant adverse pedestrian impacts would occur at this intersection; however, significant traffic impacts are not expected. Mitigation measures presented in Chapter 18 indicate that these significant pedestrian impacts would be mitigated by installing a traffic signal. A preliminary signal warrant analysis indicates that the pedestrian volume warrant is satisfied at this intersection.

Each of the traffic engineering improvements described above would require approval of the NYCDOT. These improvements fall within the range of typical measures employed by NYCDOT in improving traffic conditions in all parts of the City.

#### Parking

The implementation of parking prohibitions to help mitigate significant traffic impacts would result in a loss of curbside parking spaces at the following locations:

- Northbound Bay Street (east curb) approaching Edgewater/Front Streets -- nine spaces, all peak hours analyzed.
- Southbound Bay Street (west curb) approaching Water Street -- seven spaces, all peak hours analyzed.
- Eastbound Vanderbilt Avenue (south curb) approaching Bay Street – three spaces, all peak hours analyzed.
- Eastbound Hylan Boulevard (south curb) approaching Bay Street – four spaces, all peak hours.
- Northbound Bay Street (east curb) approaching Victory Boulevard – one space, all peak hours analyzed.

Overall, 24 curb spaces would be lost within the study area corridor during all peak hours analyzed. Lost delivery spaces for trucks along Bay Street could be made up on the side streets if necessary. The loss of parking is not considered a significant adverse impact under CEQR.

#### **24.2.3 Transit and Pedestrians**

It is anticipated that the S51/S81 and S76 bus routes would have significant adverse impacts during the weekday PM and Saturday Midday peak periods as a result of the Proposed Action. No other significant adverse bus impacts would occur. The pedestrian analysis for the Proposed Action reveals that three unsignalized intersections evaluated along Bay Street are projected to have significant adverse impacts during all periods. Following is a description of the mitigation measures for these impacts.

#### Transit

The S51/S81 and S76 bus routes would have significant adverse impacts as a result of the Proposed Action during the weekday PM and Saturday Midday peak periods. According to the *CEQR Technical Manual* and NYCT guidelines, additional bus service is recommended along routes when passenger volumes are projected to exceed the maximum capacity at the maximum load point. The NYCT general policy is to provide

additional bus service where demand warrants increased service, taking into account financial and operational constraints. Capacity shortfalls identified on the S51/S81 route could be met by adding one northbound bus trip during the weekday PM peak hour and adding two northbound and two southbound bus trips during the Saturday Midday peak period. Capacity shortfalls identified on the S76 route could be met by adding one northbound and one southbound bus trip during the Saturday Midday peak period. No other significant adverse bus impacts would occur as a result of the Proposed Action.

#### Pedestrians

The north and south crosswalks at the three unsignalized intersections on Bay Street are projected to have significant adverse impacts as a result of the Proposed Action during all periods. These crosswalks could be mitigated by installing a traffic signal at each location. A preliminary signal warrant analysis indicated that signal warrants would be satisfied at these three impacted unsignalized intersections.

#### **24.2.4 Noise**

To avoid the potential for noise impacts, as part of the proposed rezoning, (E) Designation for noise would be placed on the New York City Zoning Map for two sets of parcels requiring different levels of attenuation. The following Projected and Potential Development Site properties would require a 35 dBA level attenuation: Block 489, Lot 25; Block 490, Lots 26 and 37; Block 491, Lots 32, 37, 41, 42, and 46; Block 492, Lots 29 and 31; Block 493, Lot 12; and Block 494, Lots 24 and 30.

In accordance with CEQR, in order to ensure an acceptable interior noise environment, the future residential/commercial uses within the Project Area must provide a closed window condition with a minimum of 35 dBA window/wall noise level attenuation on all facades in order to maintain an interior noise level of 45 dBA. 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 be limited to, central air conditioning or air conditioning sleeves containing air conditioners or HUD-approved fans.

To address noise attenuation for the interior space of the proposed residential uses, noise reduction ratings of building materials, including wall panels, windows, doors, etc., must be specifically designed to achieve the required reduction in noise level. Acoustical windows and doors with significant sound-reducing capabilities must be utilized. For example, a double-glazed window with ¼-inch glass panels and a 2¼-inch airspace in the middle, is necessary to obtain a 35 dBA reduction in noise levels; a solid core door of 1¾-inch wood with a drop seal threshold is needed to achieve a reduction of 35 dBA.

(E) Designation for noise would be placed on the following parcels as part of the Proposed Action to achieve a 30 dBA level attenuation: Block 490, Lot 24 and 45; Block 491, Lot 29; and Block 494, Lots 18, 19, and 21. Again, a closed-window condition along with an alternate means of ventilation must be provided in order to achieve a reduction of 30 dBA. It is recommended that a double-glazed window with one-eighth-inch glass panels and a 2¼-inch airspace in the middle be utilized for the development of residential buildings on these six lots, in order to achieve the required 30 dBA reduction.

Furthermore, to avoid secondary noise from HVAC systems, only those systems characterized by low noise emissions would be utilized for development associated with the Proposed Action. In general, the noise levels introduced by the proposed ventilation system must be at least ten dBA below the non-ventilated level, as to avoid a significant increase in the building's total noise level. Basic HVAC units must be installed on building rooftops as far away from the interior space as possible, and ventilation air ducted to the desired location. In order to reduce the noise generated by fans, the air ducts may need to be lined with fiberglass insulation.

The (E) Designation text would state that in order to ensure an acceptable interior noise environment at the Projected and Potential Development Sites, future residential/commercial uses on the parcels must provide a closed window condition with a minimum of either 30 or 35 dBA window/wall attenuation on all facades in order to maintain an interior noise level of 45 dBA, depending on the particular Site (as presented above). Prior to development on these Sites, the New York City Department of Buildings (NYCDOB) would receive a New York City Department of Environmental Protection (NYCDEP) report stating that the environmental requirements related to the (E) Designation have been met. Therefore, with the placement of (E) Designations for noise on the parcels listed above, no impacts related noise are expected and no further analysis is warranted.

### **24.3 Conclusion**

As detailed above and in relevant chapters of this document, mitigation measures, management controls or zoning requirements would be implemented to ameliorate potentially significant adverse impacts to acceptable levels for traffic, transit, pedestrians, hazardous materials and noise.