6.0 Unavoidable Adverse Impacts

This chapter summarizes the unavoidable significant adverse impacts that cannot be avoided and cannot be practicably mitigated. The State Environmental Quality Review Act (SEQRA) requires that an EIS include the identification and assessment of impacts that cannot be avoided or adequately mitigated. Unavoidable significant adverse impacts resulting from the Proposed Project have been identified temporarily during the construction phase, due to construction activity impacts on open space, transportation, noise, and neighborhood character.

6.0.1 City Environmental Quality Review (CEQR) Technical Analysis

The Proposed Project would result in temporary construction-related impacts on the following areas: open space, transportation, noise, and neighborhood character.

6.0.1.1 Construction Open Space

There would be a temporary significant adverse impact to open space resources during construction due to the closure of open spaces during project construction. The temporary closures of open space in the Project Area during construction would redirect users to other Study Area open spaces that would in turn experience increased demand, thereby resulting in potential indirect effects on the Study Area open space ratios during project construction. Though the total open space ratio for the peak analysis year of 2028 ~~Nonresidential Study Area~~ would decrease by approximately 16 percent for the Nonresidential Study Area and would decrease by approximately 9 percent for the Residential Study Area, the displacement of open spaces would be temporary and staggered, with portions of the Project Area reopening in the first quarter of ~~June~~ 2028. Furthermore, while the maximum construction period impact on the Nonresidential Study Area passive open space ratio is anticipated to be reduced to 0.24 acres per 1,000 nonresidents in the Proposed Action condition and 1.14 acres per 1,000 residents in the Residential Study Area, this would continue to be above New York City's planning guideline of 0.15 acres per 1,000 nonresidents. Large portions of the Battery Park City Esplanade and parks would remain open throughout construction, such as continued use of Rockefeller Park.

Nevertheless, the decrease in available open space resources over the construction period would be considered a temporary significant adverse impact. In the absence of identified avoidance or mitigation measures, the Proposed Project would result in an unavoidable adverse effect on open spaces during construction.

6.0.1.2 Construction Transportation

Traffic

As described in detail in Chapter 3.11.4, "Construction Transportation," significant impacts were conservatively based on a 66-month construction schedule with a peak in 2030, which was refined following the DEIS to a schedule with~~schedule with~~ a peak in 2028. Comparisons were made between the

refined schedule with a 2028 peak to the DEIS schedule with a 2030 peak considering peak quarter construction workers and trucks by reach. Based on the comparisons, the previous transportation analyses presented in the DEIS reflect a more conservative scenario for transportation significant adverse impact purposes than the latest schedule with a 2028 peak. Therefore, the construction phasing refinements would result in the same conclusions for traffic and pedestrian significant adverse impacts and mitigation. From traffic due to construction worker and truck activity, the following five intersections would experience temporary significant adverse traffic impacts:

- North End Avenue and Vesey Street (PM peak hour)
- State Route 9A/West Street and Murray Street (PM peak hour)
- State Route 9A/West Street and Laight Street (AM peak hour)
- State Route 9A/West Street and Liberty Street (AM and PM peak hours), and
- State Route 9A/West Street and Albany Street (PM peak hour)

From traffic due to construction worker and truck activity and MPT measures for the floodwall and Early Works Package (EWP), State Route 9A/West Street at Harrison Street would experience temporary significant adverse traffic impacts during the weekday AM peak hour.

As described in Chapter 3.11.4, "Construction Transportation," the design build team has proposed MPT plans for the construction of the swing gates crossing State Route 9A/West Street and flip-up gates crossing Harrison Street. From traffic due to construction worker and truck activity and MPT measures for the State Route 9A/West Street and Harrison Street gate crossings, the following intersections would experience temporary significant adverse traffic impacts during the worst-case construction PM peak hour: State Route 9A/West Street and Murray Street;

- State Route 9A/West Street and Warren Street; and
- State Route 9A/West Street and Chambers Street.

The significant adverse traffic impacts at these intersections would remain unmitigated in the construction weekday PM peak hour.

Based on the MPT Construction Analysis scenario, the following five pedestrian elements (two sidewalks/walkways, one corner, and two crosswalks) would experience temporary significant adverse pedestrian impacts:

- West walkway of State Route 9A/West Street between Harrison Street and Chambers Street during the weekday AM and PM and Saturday peak hours;
- East sidewalk of Greenwich Street between North Moore Street and Franklin Street during the weekday AM and PM peak hours;
- Northeast corner of Greenwich Street and Franklin Street during the weekday AM, midday, PM and Saturday peak hours;

- South crosswalk of Greenwich Street and North Moore Street during the weekday AM and PM peak hours; and
- North Crosswalk of Greenwich Street and Franklin Street during the weekday AM, midday, and PM peak hours.

The majority of these significant adverse pedestrian impacts could not be mitigated. However, the significant adverse pedestrian impacts on the east sidewalk of Greenwich Street between North Moore Street and Franklin Street could be mitigated in both peak hours by removing the flowerpots from the sidewalk. The LOS on the northeast corner of Greenwich Street and Franklin Street could be improved (i.e., (partially mitigated) by removing the trash can from the corner reservoir area , but would still result in an unmitigated impact. The remaining one walkway and two crosswalks could not be mitigated in any peak hour.~~As detailed in Chapter 3.11, "Construction," traffic conditions were evaluated at 14 intersections for the Peak Construction Analysis scenario for the construction weekday AM and PM peak hours. The transportation analyses reflected in that chapter, as well as the construction transportation conclusions in this chapter were based on the initial construction schedule of 66 months. This schedule was further refined and condensed, with the peak quarter of construction trips occurring in 2027. The previous construction schedule had the same or higher numbers of workers and trucks during the peak quarter, and the peak would have occurred in 2030, at which time there would have been additional traffic and pedestrian growth as compared to 2027. In the 2030 Proposed Action condition, significant adverse traffic impacts were identified at two intersections during the construction weekday AM peak hour and four intersections during the construction weekday PM peak hour. The significant adverse traffic impacts could be mitigated at all locations and time periods except for two intersections during the PM peak hour. The intersections of 9A/West Street and Murray Street and Route 9A/West Street and Liberty Street would be unmitigated in the construction PM peak hour.~~

~~**Table 6-1** compares the level of service (LOS) and lane group delays at the intersections with unmitigated significant adverse impacts under the 2030 No Action, Proposed Action, and Mitigation conditions for the construction weekday AM and PM peak hours.~~

~~**Pedestrians**~~

~~As detailed in Chapter 3.11, "Construction," the Construction Maintenance and Protection of Traffic (MPT) Analysis scenario was evaluated. Under this scenario, two sidewalks are proposed to be fully closed which would divert pedestrians to the other side of the street and six pedestrian sidewalks/walkways are to be narrowed. The proposed geometric modifications and the pedestrian elements identified for quantified analysis include eight sidewalks/walkways, four corners, and two crosswalks. The majority of the significant adverse pedestrian impacts could not be mitigated (see **Table 6-2** for a list of the partially mitigated and unmitigated intersections). The LOS on the northeast corner of Greenwich Street and Franklin Street could be improved by removing the trash can from the corner reservoir area to partially mitigate the impact. The remaining one walkway and two crosswalks could not be mitigated in any peak hour.~~

Table 6-2

2030 No Action, Proposed Action, and Mitigation Conditions Construction MPT Analysis

Pedestrian LOS Summary

Location	Mitigation Measures	No Action		Proposed Action		Mitigation		Mitigation Effectiveness
		SFP	LOS	SFP	LOS	SFP	LOS	
Weekday AM Peak Hour								
West Walkway along Route 9A/West Street between Harrison Street and Chambers Street	None	63.7	C	25.2	D	25.2	D	Unmitigated
Greenwich Street and Franklin Street Northeast Corner	Remove the trash can	46.6	B	6.7	F	7.8	F	Partially Mitigated
Greenwich Street and North Moore Street South Crosswalk	None	78.9	A	17.9	D	17.9	D	Unmitigated
Greenwich Street and Franklin Street North Crosswalk	None	199.0	A	10.7	E	10.7	E	Unmitigated
Weekday Midday Peak Hour								
Greenwich Street and Franklin Street Northeast Corner	Remove the trash can	33.8	C	5.2	F	6.7	F	Partially Mitigated
Greenwich Street and Franklin Street North Crosswalk	None	199.5	A	18.5	D	18.5	D	Unmitigated
Weekday PM Peak Hour								
West Walkway along Route 9A/West Street between Harrison Street and Chambers Street	None	43.7	C	16.2	E	16.2	E	Unmitigated
Greenwich Street and Franklin Street Northeast Corner	Remove the trash can	37.2	C	-3.1	F	-1.8	F	Partially Mitigated
Greenwich Street and North Moore Street South Crosswalk	None	69.0	A	18.2	D	18.2	D	Unmitigated
Greenwich Street and Franklin Street North Crosswalk	None	176.6	A	13.3	E	13.3	E	Unmitigated
Saturday Peak Hour								
West Walkway along Route 9A/West Street between Harrison Street and Chambers Street	None	41.8	C	15.3	E	15.3	E	Unmitigated
Greenwich Street and Franklin Street Northeast Corner	Remove the trash can	56.7	B	16.2	D	18.5	D	Partially Mitigated

As described above and in Chapter 3.11, "Construction," a previous version of the construction schedule which projected peak construction activity in 2030 was analyzed in detail to assess the potential for significant adverse transportation impacts and recommend mitigation measures. After evaluating the revised traffic patterns for worker vehicles and trucks at the intersections that were analyzed assuming the initial construction schedule, vehicle trips generated by construction activity would generally decrease under the revised schedule assumptions. The number of intersections that would warrant detailed analysis according to the methodology used in this chapter would be reduced by two intersections if the current construction schedule was applied. However, construction vehicles would increase by up to 13 passenger car equivalent trips at the Route 9A/West Street and North Moore Street intersection. The implementation of the recommended mitigation for the previous analysis at Route 9A/West Street and North Moore Street (i.e., a signal timing change) would adequately mitigate for the limited additional vehicles at this location. Since traffic and pedestrian volumes at other locations previously analyzed for construction peak and MPT conditions would decrease with the current schedule and 2027 peak analysis year, the implementation of the recommended mitigation measures for the 66-month schedule, specifically, signal timing changes for traffic at North End Avenue and Vesey Street, Route 9A/West Street and Laight Street, Route 9A/West Street and Harrison Street, and Route 9A/West Street and Albany Street, and removal of a trash can on the northeast corner of Greenwich Street and North Moore Street and removal of flowerpots along the east sidewalk of Greenwich Street between Franklin Street and North Moore Street for pedestrian impacts due to MPT would negate any need for any further mitigation at those locations. At unmitigated traffic intersections (Route 9A/West Street and Murray Street and Route 9A/West Street and Liberty Street) and pedestrian elements (West Walkway along Route 9A/West Street between Harrison Street and Chambers Street, Greenwich Street and North Moore Street South Crosswalk, and Greenwich Street and Franklin Street North Crosswalk), the volumes would be lower with the current schedule, but the significant impacts at those locations may persist and may continue to be unmitigatable. As stated in Chapter 4.0, "Mitigation," the proposed mitigation measures would be subject to approval by

~~the New York City Department of Transportation (NYCDOT) and the New York State Department of Transportation (NYSDOT) prior to implementation.~~

As detailed in Chapter 3.11.4, "Construction Transportation," a qualitative analysis of pedestrian and bicycle diversions due to open space closures has been conducted. During the peak year of construction in ~~2027~~ 2028 there is the potential for temporary unmitigated significant adverse effects on pedestrians and bicycles, given the size and geographic extent of the Proposed Project and the multiple open space closures which would generate trip diversions. These effects would be experienced at their maximum during the peak year of construction, but there would be open space closures throughout construction that would result in temporary unmitigated significant adverse effects on pedestrians and bicycles, but at lesser levels than the peak year of construction.

~~As described further in Construction Overview, Section 3.11, there would be an Early Works Package (EWP) of drainage and utility improvements which is encompassed within the overall 60-month current schedule. The durations of the individual projects would vary but be completed within a total duration of 7 months. As a result, the EWP would involve temporary travel lane, parking lane, and street end closures in the Project Area, but the closures would be of short duration. While this may result in temporary unmitigatable significant adverse traffic and pedestrian impacts throughout the 7-month EWP, MPT plans will be developed in close consultation with and approved by NYCDOT and NYSDOT to minimize these impacts on pedestrians, cyclists, and vehicles.~~

6.0.1.3 Construction Noise

Based on the projected construction activities associated with the Proposed Project, construction-generated noise is expected to result in significant adverse effects at multiple receptors adjacent to construction work areas. Receptors where noise level increases were predicted to exceed the construction noise evaluation thresholds for extended durations were identified.

The construction noise analysis predicted that noise levels due to construction would exceed the construction noise impact criteria throughout the work areas, including resulting in noise levels that would be noticeable and potentially intrusive during the most noise-intensive construction activities at some receptors. While the highest levels of predicted construction noise would not persist throughout construction, and noise levels would fluctuate, resulting in noise increases that would be intermittent, these locations would experience construction noise levels whose magnitude and duration could constitute significant adverse impacts.

The noise level increments resulting from construction would be due primarily to noise generated by on-site construction activities (rather than construction-related traffic). The construction noise analysis examined the reasonable worst-case peak hourly noise levels resulting from construction in each Reach and is therefore conservative in predicting increases in noise levels. Typically, the loudest hourly noise level would not persist throughout the entire construction period.

Additionally, construction noise is regulated by the requirements of the New York City Noise Control Code (also known as Chapter 24 of the Administrative Code of the City of New York, or Local Law 113) and the

New York City Department of Environmental Protection (NYCDEP) Notice of Adoption of Rules for Citywide Construction Noise Mitigation (also known as "Chapter 28"). These requirements mandate that specific construction equipment and motor vehicles meet specified noise emission standards; that construction activities be limited to weekdays between the hours of 7 AM and 6 PM; and that construction materials be handled and transported in such a manner as not to create unnecessary noise. On limited occasions when weekend or after-hour work would be necessary (e.g., deliveries, weather catch-up), permits would be required, as specified in the New York City Noise Control Code. As required under the New York City Noise Control Code, a site-specific noise mitigation plan for the Proposed Project would be developed and implemented.

As discussed in Chapter 3.11, "Construction," and Chapter 4.0, "Mitigation," the detailed analysis of construction noise determined that construction under the Proposed Actions has the potential to result in noise levels that would constitute significant adverse construction-period impacts at multiple sensitive locations.

As discussed in Chapter 4.0, "Mitigation," for impacted open space areas and buildings with outdoor terraces, no practical and feasible mitigation measures have been identified that could be implemented to reduce noise levels below threshold. Consequently, construction activities would result in noise levels at these receptors that would constitute a significant adverse noise impact. Therefore, at these receptors, the significant adverse construction noise would be unavoidable. However, as construction outside of Stage 1E in Reach 1 would not regularly occur during evening or weekend hours, the open space and terraces would be free of construction noise during these times.

~~While some~~All of the buildings where impacts have been identified feature modern façade construction, including insulated glass windows and an alternative means of ventilation that would allow for the maintenance of a closed-window condition~~, the presence of these features is not definitively confirmed at all receptors that would have the potential to experience construction noise impact~~. With such measures, the façades of these buildings would be expected to provide approximately 30 dBA window/wall attenuation. Even with these measures, interior $L_{10(1)}$ noise levels at these buildings would at times during the construction period exceed the 45 dBA guideline recommended for residential and community spaces according to CEQR noise exposure guidelines by up to approximately 1~~7~~6 dBA. Because interior noise levels could still exceed the acceptable threshold, the significant adverse construction noise impacts identified in Chapter 3.11, "Construction," would constitute an unavoidable adverse impact.

Many of the buildings where impacts have been identified include outdoor balconies or terraces. No practical and feasible mitigation measures have been identified to reduce noise levels below the threshold considered acceptable for outdoor areas. Consequently, construction activities would result in noise levels at the outdoor balconies that would constitute a significant adverse noise impact. Therefore, at these receptors, the significant adverse construction noise impacts would be unavoidable. However, as construction would not regularly occur during evening or weekend hours outside of Stage 1E in Reach 1, the balconies would be free of construction noise during these times.

6.0.1.4 Construction Neighborhood Character

As discussed in Chapter 3.11, "Construction," the Proposed Project would have a temporary significant adverse impact to open space resources during construction due to the decrease in the availability of open spaces. However, the open space resources in the Project Area will not be permanently displaced. While the Proposed Project would require temporary open space closures during construction, it would be developed in phases to maintain as much public access to the Battery Park City open spaces as possible, and the available open spaces would be supplemented by other public parks in the neighborhood. This impact on available open space during construction would not be fully mitigated and would be considered a significant adverse impact.

As detailed in Chapter 3.11.4, "Construction Transportation," Traffic conditions were evaluated at 14 intersections for the Peak Construction Analysis for the construction weekday AM and PM peak hours. Based on that analysis, during project construction significant adverse traffic impacts were identified at two intersections during the construction weekday AM peak hour and four intersections during the construction weekday PM peak hour. Additionally, during the peak year of construction in 2028 there is the potential for temporary unmitigated significant adverse effects on pedestrians and bicycles, given the size and geographic extent of the Proposed Project and the multiple open space closures which would generate trip diversions. These effects would be experienced at their maximum during the peak year of construction, but there would be open space closures throughout construction that would result in temporary unmitigated significant adverse effects on pedestrians and bicycles, but at lesser levels than the peak year of construction.

As noted in Chapter 3.11, "Construction," the Proposed Project would have temporary significant adverse impacts on sensitive noise receptors in the Project Area. Due to the length of the construction period and phasing of construction these significant adverse noise impacts would continue to be experienced throughout the open space areas during the construction period.

Chapter 3.11, "Construction," describes how neighborhood character is defined by the *CEQR Technical Manual* as a combination of physical and social features that together define a neighborhood's "personality" and that these elements typically include a combination of land use, socioeconomic conditions, open spaces, historic and cultural resources, urban design and visual setting, transportation features, and ambient noise. Since the Proposed Project would result in unavoidable significant adverse impacts during the construction period for some of these defining elements including open space, transportation, and noise, the Proposed Project is also expected to result in unavoidable significant adverse neighborhood impacts during the construction period.