

## Chapter 6:

## Transportation

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### 6.1 INTRODUCTION

New York City's urban core supports 10 million daily commuters (prior to the COVID-19 public health emergency) and the City is home to more than 8 million residents and about 20 million residents in the larger metropolitan area. To sustain this level of density and economic activity, the region relies on its comprehensive network of mass transit, commuter rail, local and regional bus networks, and surface roads and highways. Growth in the urban core has been supported by looking for opportunities to jointly develop above existing transit and rail facilities, most notably in recent decades in the far west side of Manhattan where remnants of its lower density industrial history and supporting rail yards are now being reclaimed for mixed-use and transit-oriented development.

This chapter describes the analysis of potential effects to transportation facilities and systems in the Study Area from the construction and operation of the Preferred Alternative. The transportation analysis in this chapter also includes the evaluation of the No Action Alternative.

The Preferred Alternative is a large-scale infrastructure and transportation project that is an important piece of the emerging infrastructure supporting the growth of the urban core of Manhattan. When complete, the Preferred Alternative would protect and enhance transportation infrastructure below-grade and allow new transit-oriented development to be built on the Project Site (see Chapter 2, "Purpose and Need," and Chapter 3, "Alternatives," for more details).

As the Preferred Alternative would not introduce any new residents, workers, or visitors, no operational effects to transportation systems would result. However, the construction of the Preferred Alternative would have the potential for effects to transportation systems in the Study Area from workers and materials deliveries needed during construction. To identify potential worst-case effects, a Peak Construction year was analyzed. This assessment includes consideration of the estimated demand generated by construction workers travelling to and from the Project Site as well as construction truck trips. This demand could affect Study Area traffic, parking, public transit modes, passenger rail service and operations, bicycles, and pedestrian conditions.

### 6.2 REGULATORY CONTEXT

The analysis followed 23 CFR Part 771 and relevant CEQ guidelines, as well as the methodology guidelines set forth in the *CEQR Technical Manual* (see Chapter 4, Section 300). FRA used, to the extent practicable, local guidance and methodologies in recognition of the unique characteristics of New York City.

Given the unique setting and location of the project, and the size, density, and complexity of New York City, the robust and well-defined transportation screening process in the *CEQR Technical Manual* is of particular relevance for the analyses. The screening process first identifies if a project generates enough incremental change to transportation demand to warrant detailed analyses. The analysis methodology presented below provides a framework for this assessment.

## 6.3 ANALYSIS METHODOLOGY

The Study Area for the Preferred Alternative (described below in Section 6.4, Affected Environment) is characterized as having high vehicle, pedestrian, and transit volumes and it overlaps with other ongoing and forthcoming transportation and infrastructure projects, and public and private real estate development in the area as identified in Chapter 4, “Analysis Framework.” The evaluation for the Preferred Alternative is consistent with methodologies developed for the *CEQR Technical Manual*, and Chapter 3 in **Appendix B** provides a detailed summary of the methodology and criteria FRA used in this impact assessment.

### 6.3.1 TRANSPORTATION PLANNING FACTORS

The *CEQR Technical Manual* provides guidance on developing the key transportation planning factors that frames the impact assessment and supports determination on whether a detailed study is appropriate. This process begins with identifying the type and size of a project and its location in the City and applying planning factors that are the key elements of trip generation assumptions to estimate demand generated by any proposed project. This would include the total number of person trips expected to be generated, estimated by project type, land use, or other criteria. The trips are then distributed by anticipated mode of travel between auto and taxi, transit, and pedestrians (truck trips are estimated as well). The mode share is based on available recent census data of travel characteristics as well as completed traffic impact assessments in the general project area. For auto trips, a further refinement using this same data pool, is to estimate the average vehicle occupancy to estimate the actual number of vehicle trips. Finally, the mode share estimates are provided with a temporal distribution with trip arrival and departures estimate for peak travel periods. These transportation factors serve two important functions as established by the *CEQR Technical Manual*.

First, they provide a basis to undertake the initial evaluation to determine if a traffic study is warranted. A preliminary trip generation (Level 1) and trip assignment (Level 2) threshold analysis determine if a project is likely to generate up to 50 vehicles at any one intersection during a peak hour. For pedestrians and transit, the threshold is 200 or more trips in a peak hour at a transit facility or on a pedestrian pathway (sidewalks and crosswalks). If these thresholds are not met, the *CEQR Technical Manual* guidance indicates that a detailed traffic analysis is not likely to be appropriate as the project increment is below a level that would be a meaningful change in local and regional traffic conditions. FRA considers trip increments that do not reach the threshold to be considered as a negligible adverse effect and if no trips are generated at all it would be considered to have no adverse effect.

Second, if a proposed project exceeds the Level 1 and Level 2 thresholds, then the transportation planning factors provide the incremental traffic demand with which to complete the detailed analyses.

## 6.4 AFFECTED ENVIRONMENT

**Appendix C-1** presents a summary overview of the affected environment for a transportation Study Area that includes the Project Site and surrounding transportation network that would serve the Project Site, consistent with study areas for the environmental analysis of similar projects in New York City. The Study Area extends outward to include routes for travel of construction workers, materials, and services, and captures the most likely area of increased traffic, parking, transit, and pedestrian demand that construction of the Preferred Alternative would generate

**Appendix C-1** includes a detailed description of baseline conditions in the transportation Study Area for the following transportation resource components:

### **6.4.1 INTERSECTION CAPACITY ANALYSIS**

The street network surrounding the Project Site provides vehicular access to and from the site within the Study Area and encompasses 38 intersections covering an area bounded by West 34th Street on the north, West 29th Street on the south, Twelfth Avenue on the west, and Sixth Avenue on the east (see **Figure 6-1**). A Synchro model network was developed for this network and baseline volumes established for the critical weekday AM, Midday, and PM peak periods. The Study Area focuses on locations where construction-related traffic from the Preferred Alternative would be anticipated to be most concentrated.

### **6.4.2 ON- AND OFF-STREET PARKING**

Existing (baseline) parking conditions are based on field inventory of on-street parking regulations within the Study Area as well as capacity of immediately adjacent off-street public parking facilities most likely to be used by workers during construction of the Preferred Alternative.

### **6.4.3 BICYCLE INFRASTRUCTURE**

The baseline bicycle conditions within the transportation Study Area include official bicycle lanes, primarily designated as protected bike lanes, but also includes some conventional and shared bike lanes. This resource area focuses on locations where construction of the Preferred Alternative and/or its associated construction-related traffic would be anticipated to be most concentrated or have the potential to affect bicycle lanes within the Study Area.

### **6.4.4 BUS AND SUBWAY TRANSIT SERVICES**

The Project Site can be accessed by any number of the dense network of public transit service in Manhattan. The existing baseline transit services within the transportation Study Area include those services providing access to the Project Site. These include MTA NYCT subway lines (including the immediately adjacent 34th Street Hudson Yards station for the No. 7 train as well as the Eighth Avenue, Seventh Avenue and Sixth Avenue subways) as well MTA NYCT bus routes most notably the crosstown 34th Street SBS service and along key north-south avenues. NJ TRANSIT and MTA LIRR commuter rail services operate to and from Penn Station, and the New York Waterways ferries operating from Pier 78 at West 39th Street, which provide additional transit service to the Project Site.

### **6.4.5 PEDESTRIAN CONDITIONS ON SIDEWALKS AND CROSSWALKS NEAR THE PROJECT SITE**

Likely pedestrian pathways to and from the site (most notably including pathways to nearby transit facilities) are incorporated into the baseline conditions within the transportation Study Area, including the assessment average pedestrian space on a sidewalk, corner, or crosswalk.

### **6.4.6 AFFECTED ENVIRONMENT FUTURE CONDITIONS**

The transportation resource baseline conditions were adjusted to represent Affected Environment Future Conditions to include all background development (private development occurring around the Project Site), within the Study Area, expected to be complete by the Peak Construction Year 2023. To develop the Affected Environment Future Conditions traffic networks, the incremental vehicular and pedestrian increments from known development projects expected to be complete within the Study Area by the 2023 Peak Construction Condition, were added to baseline conditions. The four known developments include 3.27 million gross square feet of office space, 275 apartments, 755 hotel rooms, 16,879 gross square feet of retail space, 49,748 gross square feet of community space, and 55 parking spaces.



— Project Site

● Study Intersections

In addition, NYCDOT is advancing some transportation improvements in the Study Area expected to be complete by the 2023 Peak Construction Condition analysis year. These include: a parking-protected bicycle lane on the east curb of Ninth Avenue between West 31st Street and West 33rd Street; a mid-block crossing on Ninth Avenue between West 31st Street and West 33rd Street; an extension of the Seventh Avenue bicycle lane from West 30th Street north through the Study Area; a modification of the taxi stand at Penn Station to more effectively handle southbound taxi traffic; and a widening of the west sidewalk on Eighth Avenue between West 33rd Street and West 39th Street coupled with narrowing the associated roadway. Corresponding signal timing/signal phasing modifications will be implemented along Eighth Avenue intersections mentioned above. Chapter 4 provides more details about these improvements.

There are no largescale infrastructure projects within, or that would affect the Study Area with expected completion dates before or in 2023.

## **6.5 ENVIRONMENTAL CONSEQUENCES**

Environmental Consequences focus primarily on the results of the Level 1 and Level 2 Screening Analysis of the Peak Construction Year 2023.<sup>1</sup> As described in more detail below, the Preferred Alternative construction activities would likely generate a number of trips that screen-out indicating that no further analysis is needed.

### **6.5.1 NO ACTION ALTERNATIVE**

Under the No Action Alternative, the Project Sponsor would not build the Preferred Alternative. The existing use of the rail yard and associated LIRR facilities, as well as their maintenance regimen would continue. Therefore, the No Action Alternative includes only those projects that are necessary to keep the Western Rail Yard and the associated LIRR facilities in service and provide continued maintenance. The No Action Alternative would not involve any construction, so there would be no construction-related effects to transportation resources. The No Action Alternative would not generate any additional traffic, pedestrians, or transit-riders; therefore, no adverse effect on transportation resources in the No Action Alternative is anticipated.

### **6.5.2 PREFERRED ALTERNATIVE**

Once operational, the Preferred Alternative would not generate additional traffic, parking, transit or pedestrian trips. Therefore, no further operational analysis of potential effects of the Preferred Alternative is necessary based on the screening thresholds established in the *CEQR Technical Manual*.

However, because the Preferred Alternative would involve a lengthy construction period (estimated at approximately five years), FRA developed transportation trip-generation forecasts to estimate the likely changes in transportation demand resulting from peak construction activities.

In addition, construction activity associated with the Preferred Alternative could require temporary closure of curb lanes, and temporary closure, reduction in width, or relocation of sidewalks along segments of the streets and avenues bordering the Project Site, which could affect transportation resources in the Study Area.

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<sup>1</sup> The Level 1 and Level 2 Screening Analyses are based on original construction truck and worker estimates calculated prior to revisions to the updated schedule and means of the High Line underpinning provided by the Project Sponsor. The overall effects remain similar to those originally analyzed, although they are somewhat reduced, based on the updated number and size of trucks estimated. Therefore, the numbers used in this EIS are conservative.

### 6.5.2.1 LEVEL 1 SCREENING ASSESSMENT

Estimates for the peak quarter of construction of the Preferred Alternative, were based on construction information developed and provided by the Project Sponsor. These peak construction trip-generation forecasts, and the factors used to develop them, are described in detail in **Appendix C-2**. While construction impacts on transportation resources are temporary in nature, this demand estimate evaluates the overall need for, and extent of comprehensive transportation impact analyses based on a Level 1 Trip Generation and Level 2 Trip Assignment assessments. All relevant information developed, and the resulting Level 1 and Level 2 Screening Assessments are included in **Appendix C-2**.

#### 6.5.2.1.1 Traffic, Parking, Bicycles

For the peak construction quarter, there would be 227 construction workers on-site per day and 89 trucks would arrive and depart the site. As presented in **Appendix C-2**, during the busiest hours of construction shift changes (6–7 AM and 3–4 PM), FRA estimated that the Preferred Alternative would generate well below 50 vehicular trips through any given intersection within the Study Area, the screening analysis threshold.

The results of the Level 1 and Level 2 Level Screening Assessments indicate that this demand does not meet or exceed *CEQR Technical Manual* trip generation or trip assignment screening thresholds. Therefore, in accordance with *CEQR Technical Manual* guidance, a detailed transportation assessment of the Peak Construction Condition is not needed, and added traffic resulting from construction activities of the Preferred Alternative would have a negligible adverse effect on traffic, parking, and biking conditions.

#### 6.5.2.1.2 Transit and Pedestrians

As presented in **Appendix C-2**, during the busiest hours of construction shift changes (6–7 AM and 3–4 PM), FRA estimated that the Preferred Alternative would generate well below 200 new trips on any given transit line or facility with about 64 to 86 subway trips (all lines and stations), about 18 to 24 bus trips (all routes), and 12 to 16 rail trips (all routes). Since all worker trips to and from the Project Site can be considered walk trips for the final pathway from a transit station, bus stop, rail station, parked car, or a walk-only trip, the maximum total number of worker trips in any given hour is also below 200 pedestrians, the screening analysis threshold.

Based on the estimates, FRA was able to conclude that consistent with *CEQR Technical Manual* guidance, the new trips generated during the construction period would not exceed the Level 1 Screening analysis threshold. Therefore, no detailed assessment of transit and pedestrian conditions is included in the EIS, as the added travel demand resulting from construction activities of the Preferred Alternative would have a negligible adverse effect on transit and pedestrian conditions. In addition, construction activities would not adversely affect bus operations near the Project Site.

## **6.6 AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES**

As noted in **Section 6.5** the Preferred Alternative does not generate a sufficient number of construction trips to warrant a detailed transportation analysis and there are no anticipated permanent adverse effects on transportation infrastructure; therefore, no permanent avoidance, minimization, and/or mitigation measures are required. Nonetheless, construction activity associated with the Preferred Alternative could require temporary closure of curb lanes, and temporary closure, reduction in width, or relocation of sidewalks along segments of the streets and avenues bordering the Project Site. As with any construction of a large-scale infrastructure project, implementation of an MPT plan is required as a Best Management Practice (BMP). As presented in detail in Chapter 22, “Mitigation Measures and Project Commitments,” these measures are the BMPs typically expected by NYCDOT in development and approval of an MPT plan, which is also a component of the CEPP required for construction of both Platform and subsequent Overbuild at the Project Site, specified in the RD.

The Project Sponsor would develop MPT plans for submission to NYCDOT for review and approval. Review of the plans and implementation of the best practices highlighted in the MPT would be coordinated with NYCDOT’s OCMC. Such MPT plans would provide diagrams of proposed temporary lane and sidewalk alterations, including the duration, and the width and length of affected segments, as well as safety signs and the locations of safety barriers and construction fencing. Provisions of the MPT plans may also include requirements for the stationing of flagmen and may limit the hours of the day and/or days of the week when changes can be implemented. After NYCDOT has approved the MPT plans, the Project Sponsor and its contractors would be responsible for maintaining the provisions of the plans. The MPT plan related activities outlined in Chapter 22 is consistent with those published in the RD for the Project Site as a result of the 2009 SEQRA/CEQR FEIS for the Western Rail Yard and is already included in the CEPP. For additional information regarding MPT plans, refer to Chapter 3.

### **6.6.1 MAINTENANCE AND PROTECTION OF TRAFFIC**

Common MPT measures for a large-scale construction project in New York City would likely require the following:

- Temporary closure of curb lanes, and temporary closure, reduction in width, or relocation of sidewalks along segments of the streets and avenues bordering the Project Site.
- Based on the preliminary construction logistics plan developed by the Project Sponsor, construction trucks such as dump trucks or concrete trucks are anticipated to enter the “construction area” via West 33rd Street and Eleventh Avenue throughout the duration of Platform construction, and via West 30th Street for the construction of the substation.
- Pedestrian circulation adjacent to the Project Site would be temporarily closed throughout Platform construction on Eleventh Avenue and West 33rd Street. However, at no time would access to occupied buildings be closed, nor would access to the Western Rail Yard and other Caemmerer Rail Yard facilities be closed to LIRR personnel and equipment.<sup>2</sup>

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<sup>2</sup> The Project Site is not presently accessible to the public and is always secured, with access only granted to authorized personnel. This would also be the case during construction of the Preferred Alternative.

- No streets would be completely closed to vehicular traffic nor transit buses due to construction of the Preferred Alternative. However, the segment of West 33rd Street between Eleventh and Twelfth Avenues would be completely closed to non-emergency vehicles during the Preferred Alternative's construction period because of the NYCEDC West 33rd Street Viaduct project's construction.
- The timing of the West 33rd Street reconstruction work would be coordinated with the schedule and construction of the Platform.
- Nearby vehicle detour routes would include West 34th Street, West 30th Street, and West 29th Street and none of the streets are likely to be disrupted by the detour, nor would other nearby projects during the construction period.
- In areas where temporary sidewalk closure is required, the sidewalk would be relocated to the curb lane and a barrier could be erected to separate motor vehicle traffic from pedestrian traffic. Furthermore, 34th and 29th Streets would be available as alternative pedestrian routes to 33rd and 29th Streets, respectively.
- In areas where access to bordering lots is not needed—along segments of the streets and avenues bordering the Project Site—the sidewalk and/or curb lane may be closed. In such instances, pedestrians would be routed to the opposite side of the street at the nearest crosswalk.
- Sidewalk modification may include the construction of a protective shed over segments of sidewalk bordering construction sites. The width of any relocated or modified sidewalks would be at least five feet, as specified in the RD. \*