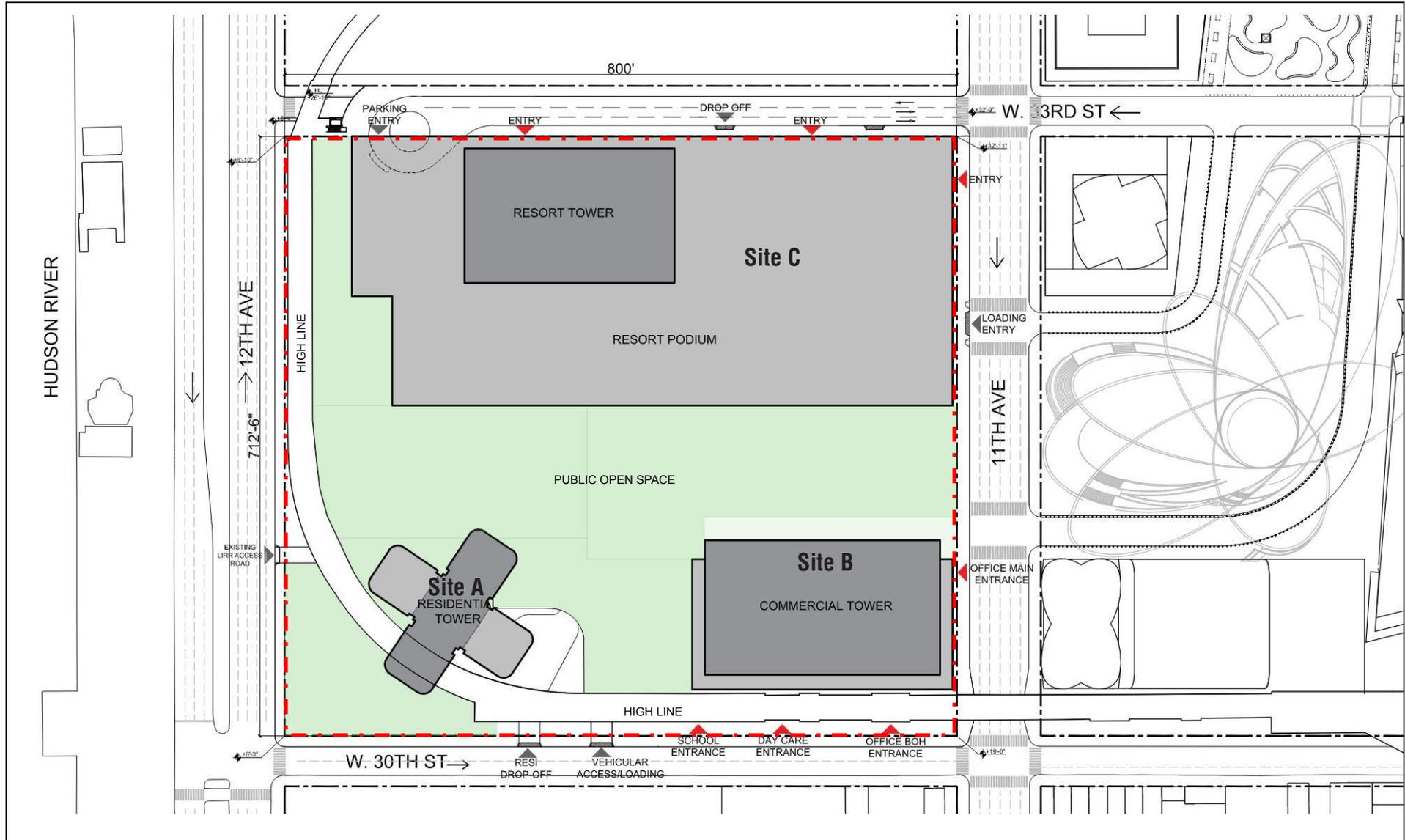


A. INTRODUCTION

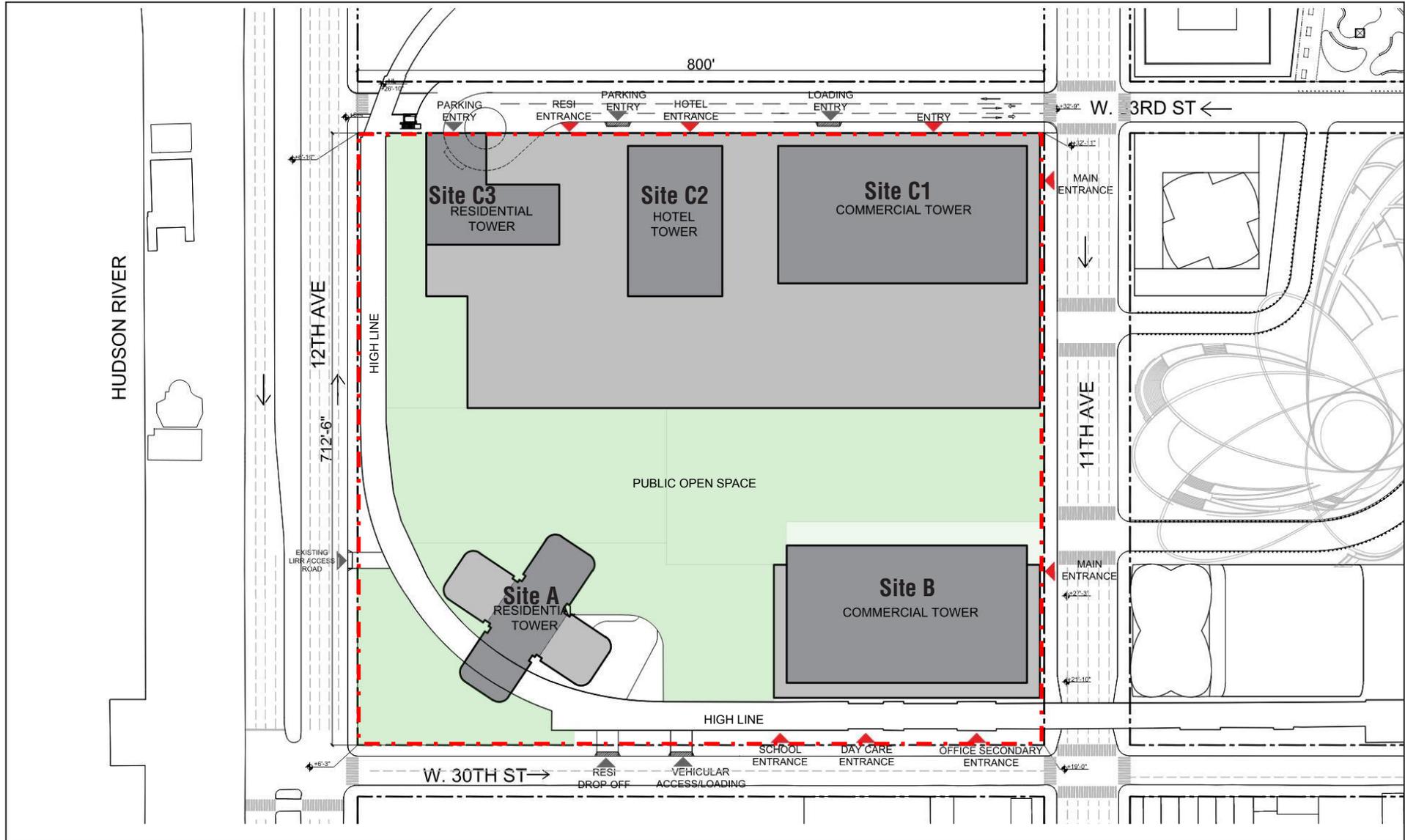
This chapter examines the potential effects of the Proposed Actions on the study area's transportation systems, including vehicular traffic, transit, pedestrians, street user safety, and parking. The transportation analyses consider future conditions in the 2031 build year with the Proposed Actions (the "With Action condition") compares that against conditions absent the Proposed Actions (the "No Action condition"). As described in Chapter 1, "Project Description," the Proposed Actions would facilitate the redevelopment of the Western Rail Yard (Block 676, Lots 1 and 5) in the Hudson Yards neighborhood of Manhattan, Community District 4 (the "Development Site") with new mixed-use buildings containing residential, commercial, and community facility space, a hotel resort with gaming, and new public open space (the "Proposed Project"). The Development Site occupies the entire area bounded by West 30th and West 33rd Streets and Eleventh and Twelfth Avenues and comprises the western portion of the John D. Caemmerer West Side Yard, an active rail yard where the Long Island Rail Road (LIRR) stores commuter trains. The Proposed Project is illustrated in **Figure 14-1**. In addition to the Development Site, the Proposed Actions would also result in a grade adjustment of West 33rd Street so that it aligns with the level of the proposed development, and public access to the High Line would be enhanced with the installation of a staircase and elevator in the West 33rd Street right-of way near Twelfth Avenue. There is a state process underway to designate locations for downstate gaming licenses; therefore, the Applicant is also presenting for environmental analysis purposes an Alternative Scenario that reflects a similar density and the same open space configuration as the Proposed Project but includes residential and commercial buildings, including a hotel, in place of gaming. The Alternative Scenario is illustrated in **Figure 14-2**. The analysis provided below considers both "With Action" scenarios.

The travel demand projections, trip assignments, and capacity analyses contained in this chapter were conducted in accordance with the methodologies outlined in the 2021 *City Environmental Quality Review (CEQR) Technical Manual*. This chapter compares the With Action scenarios against a No Action condition that assumes residential, commercial, and community facility space based on the Maximum Commercial Scenario analyzed in the 2009 Western Rail Yard Final Environmental Impact Statement (2009 FEIS), which is allowable under the site's current zoning. While the No Action condition is based on the Maximum Commercial Scenario, it conservatively assumes less residential development than permitted by that Scenario, because residential condominium developments will need to be built sequentially to account for market absorption, and several residential buildings at the Development Site will not be completed by the 2031 build year. Additionally, the No Action condition, as illustrated in **Figure 14-3**, assumes less publicly accessible open space because the open space associated with residential development at the southwestern corner of the Development



-  Development Site
-  Proposed Building

Proposed Project Conceptual Site Plan (Illustrative)



-  Development Site
-  Proposed Building

Alternative Scenario Conceptual Site Plan (Illustrative)
Figure 14-2

Western Rail Yard Modifications

Site. Less parking is also assumed in the No Action condition because fewer buildings will be developed on the Development Site and the special permit approved for parking in 2009 and assessed in the 2009 FEIS has expired. The No Action mixed use development will include predominantly residential and commercial uses but will also include a public elementary and intermediate school, publicly accessible open space, and enclosed accessory parking across three buildings (Sites B, C-1, and C-2). **Tables 14-1 and 14-2** summarize the No Action and With Action development programs.

Table 14-1
Comparison of No Action Condition and Proposed Project

Use	No Action	With Action	Increment
Residential (GSF)	2,514,225	1,208,623	-1,305,602
<i>Dwelling Units Total</i>	3,454	1,507	-1,947
Community Facility—School (GSF)	120,000	120,000	0
<i>Elementary Seats</i>	420	420	0
<i>Elementary Staff</i>	51	51	0
<i>Intermediate Seats</i>	330	330	0
<i>Intermediate Staff</i>	40	40	0
Community Facility—Day Care (GSF)	10,000	10,000	0
Cultural Space (GSF)	16,000	16,000	0
Office (GSF)	2,185,000	2,179,899	-5,101
Retail—Total (GSF)	164,500	24,638	-139,862
<i>Local Retail</i>	120,400	24,638	-95,762
<i>Destination Retail*</i>	44,100	0	-44,100
Gaming and Resort**			
Gaming Floor Area (GSF)	0	251,055	251,055
<i>Gaming Positions</i>	0	5,450	5,450
Retail (GSF)	0	34,250	34,250
Food/Beverage (GSF)	0	90,023	90,023
Ballroom and Pre-function (GSF)	0	52,400	52,400
<i>Patrons</i>	0	2,800	2,800
Hotel (GSF)	0	1,175,707	1,175,707
<i>Keys</i>	0	1,500	1,500
Hotel – Extended Stay Units (GSF)	0	424,059	424,059
<i>Keys</i>	0	250	250
Parking (spaces)***	225	725	500
Open Space (acres)	4.31	5.63	1.32

Notes:

* The 2009 FEIS (CEQR No.: 09DCP007M) assumed a mix of local and destination retail space on the Development Site. The No Action condition for the Proposed Project makes no distinction between local and destination retail space; however, for trip generation and transportation analysis purposes, it is assumed that a portion of the retail space in the No Action condition will be destination retail, consistent with the 2009 FEIS.

** Ballroom and pre-function gsf include 35,000 gsf of ballroom space and 17,400 gsf of pre-function space. Patrons based on 35,000 gsf of ballroom at 12.5 sf/patron. Ancillary uses include 23,800 gsf of spa/gym/amenity, 43,600 gsf of outdoor pool deck, and 27,000 gsf conferencing center.

*** Total parking spaces do not include LIRR spaces.

Table 14-2

Comparison of No Action Condition and Alternative Scenario

Use	No Action	With Action	Increment
Residential (GSF)	2,514,225	1,482,476	-1,031,749
<i>Dwelling Units Total</i>	3,454	1,816	-1,638
Community Facility—School (GSF)	120,000	120,000	0
<i>Elementary Seats</i>	420	420	0
<i>Elementary Staff</i>	51	51	0
<i>Intermediate Seats</i>	330	330	0
<i>Intermediate Staff</i>	40	40	0
Community Facility—Day Care (GSF)	10,000	10,000	0
Cultural Space (GSF)	16,000	16,000	0
Office (GSF)	2,185,000	3,745,932	1,560,932
Retail—Total (GSF)	164,500	34,868	-129,632
<i>Local Retail</i>	120,400	34,868	-85,532
<i>Destination Retail*</i>	44,100	0	-44,100
Hotel (GSF)**	0	849,894	849,894
<i>Keys</i>	0	700	700
<i>Food & Beverage (GSF)</i>	0	40,163	40,163
<i>Ballroom (GSF)</i>	0	188,765	188,765
<i>Patrons</i>	0	8,424	8,424
Parking (spaces)***	225	675	450
Open Space (acres)	4.31	5.63	1.32
Notes:			
* The 2009 FEIS (CEQR No.: 09DCP007M) assumed a mix of local and destination retail space on the Development Site. The No Action condition for the Proposed Project makes no distinction between local and destination retail space; however, for trip generation and transportation analysis purposes, it is assumed that a portion of the retail space in the No Action condition will be destination retail, consistent with the 2009 FEIS.			
** Ballroom gsf include 105,300 gsf of ballroom space and 83,465 gsf of support space. Patrons based on 105,300 gsf of ballroom at 12.5 sf/patron. Amenities include 17,595 gsf of health and fitness space and 16,460 gsf of work space.			
*** Total parking spaces do not include LIRR spaces.			

The analyses consider the 2031 analysis year to identify potential impacts and, if warranted, determine feasible mitigation measures that would be appropriate to address those impacts (see Chapter 22, “Mitigation”). Furthermore, as previously committed for planned development on the Western Rail Yard (WRY), the Applicant or developers for the Proposed Project will likewise, in coordination with the New York City Department of Transportation (DOT), conduct (and be responsible for the costs of the) studies under a future transportation monitoring plan (TMP). The TMP studies are expected to evaluate actual project-generated demand and background conditions after project completion, via a DOT-approved scope of work that would include trip generation surveys, data collection, and traffic/pedestrian analyses, and would consider adjusting the identified mitigation strategies as appropriate and practicable to address traffic and pedestrian issues at that future point in time.

PRINCIPAL CONCLUSIONS

Detailed analyses were prepared for vehicular traffic, transit, pedestrians, street user safety, and parking. As summarized below, potential significant adverse impacts have been identified for traffic intersections, subway station elements, bus line-haul conditions, and pedestrian elements (sidewalks, corner reservoirs, and crosswalks).

Western Rail Yard Modifications

TRAFFIC

Traffic intersections were evaluated at 75 intersections for the Proposed Project and the Alternative Scenario. Under the Proposed Project, significant adverse traffic impacts were identified at 30 intersections in the weekday AM peak hour, 33 intersections in the weekday midday peak hour, 41 intersections in the weekday PM peak hour, 30 intersections in the weekday evening peak hour, 39 intersections in the Saturday midday/afternoon peak hour, and 32 intersections in the Saturday evening peak hour. Under the Alternative Scenario, significant adverse traffic impacts were identified at 29 intersections in the weekday AM peak hour, 19 intersections in the weekday midday peak hour, 40 intersections in the weekday PM peak hour, 20 intersections in the weekday evening peak hour, 14 intersections in the Saturday midday/afternoon peak hour, and 27 intersections in the Saturday evening peak hour.

Table 14-3 summarizes the projected significant adverse traffic impacts for both With Action scenarios. Potential improvement measures that may be implemented to mitigate these impacts are discussed in Chapter 22, "Mitigation."

**Table 14-3
Summary of Significant Adverse Traffic Impacts**

Analysis Peak Hour	Total No. of Impacted Intersections/Lane Groups	
	Proposed Project	Alternative Scenario
Weekday AM	30/37	29/34
Weekday Midday	33/40	19/21
Weekday PM	41/62	40/62
Weekday Evening	30/38	20/25
Saturday Midday/Afternoon	39/53	14/15
Saturday Evening	32/42	27/34
Totals During Any Peak Hour	46/75	45/72

TRANSIT

Detailed analysis was conducted for the 34th Street-Hudson Yards subway station, subway line-haul conditions on the No. 7 subway line, and bus line-haul conditions on the M23 and M34 bus routes. Under both With Action scenarios, significant adverse impacts were identified for two stairway elements and four escalator elements, as summarized in **Table 14-4**.

**Table 14-4
Summary of Significant Adverse Subway Station Impacts**

Analysis Peak Hour	Station Element	Total No. of Impacted Station Elements	
		2031 With Action Condition Proposed Project	2031 With Action Condition Alternative Scenario
		34th Street-Hudson Yards	34th Street-Hudson Yards
Weekday AM	Stairways	0	1
	Escalators	2	2
	Control Areas	0	0
Weekday PM	Stairways	2	2
	Escalators	2	2
	Control Areas	0	0

No significant adverse subway line haul impacts were identified under either With Action scenario; whereas, significant adverse bus line-haul impacts were identified for the M23

and M34 bus routes under both With Action scenarios. Potential improvement measures that may be implemented to mitigate these impacts are discussed in Chapter 22, “Mitigation.”

PEDESTRIANS

Weekday and Saturday pedestrian conditions were evaluated at key area sidewalk, corner reservoir, and crosswalk locations, including 52 sidewalks, 77 corners, and 41 crosswalks for the Proposed Project, and 53 sidewalks, 75 corners, and 40 crosswalks for the Alternative Scenario. Under the Proposed Project, significant adverse impacts were identified for three sidewalks, two corners, and six crosswalks during the weekday AM peak hour; three sidewalks, zero corners, and nine crosswalks during the weekday midday peak hour; eight sidewalks, four corners, and 10 crosswalks during the weekday PM peak hour; four sidewalks, one corner, and seven crosswalks during the weekday evening peak hour; five sidewalks, one corner, and six crosswalks during the Saturday midday/afternoon peak hour; and six sidewalks, two corners, and seven crosswalks during the Saturday evening peak hour. Under the Alternative Scenario, significant adverse impacts were identified for four sidewalks, three corners, and 10 crosswalks in the weekday AM peak hour; five sidewalks, two corners, and 16 crosswalks in the weekday midday peak hour; 10 sidewalks, six corners, and 16 crosswalks in the weekday PM peak hour; three sidewalks, zero corners, and four crosswalks in the weekday evening peak hour; two sidewalks, zero corners, and two crosswalks in the Saturday midday/afternoon peak hour; and seven sidewalks, one corner, and seven crosswalks in the Saturday evening peak hour. **Table 14-5** summarizes the projected significant adverse pedestrian impacts for both With Action scenarios. Potential improvement measures that may be implemented to mitigate these impacts are discussed in Chapter 22, “Mitigation.”

**Table 14-5
Summary of Significant Adverse Pedestrian Impacts**

Analysis Peak Hour	Total No. of Impacted Pedestrian Elements							
	Proposed Project				Alternative Scenario			
	Sidewalks	Corners	Crosswalks	Total	Sidewalks	Corners	Crosswalks	Total
Weekday AM	3	2	6	11	4	3	10	17
Weekday Midday	3	0	9	12	5	2	16	23
Weekday PM	8	4	10	22	10	6	16	32
Weekday Evening	4	1	7	12	3	0	4	7
Saturday Midday/Afternoon	5	1	6	12	2	0	2	4
Saturday Evening	6	2	7	15	7	1	7	15
Totals During Any Peak Hour	11	6	16	33	14	8	23	45

STREET USER SAFETY

Crash data for the study area intersections were obtained from DOT for the period between January 1, 2017 and December 31, 2019. During this period, a total of 1,638 crashes, four fatalities, 751 injuries, and 321 pedestrian/bicyclist-related crashes occurred at the study area intersections. A rolling yearly total of crash data identifies 29 study area intersections as high crash locations. A summary of the identified high crash locations, based on *CEQR Technical Manual* criteria, prevailing trends, project-specific effects, and recommended safety measures is provided in **Table 14-6**.

Table 14-6

Summary of High Crash Locations and Recommended Safety Measures

High Crash Intersection	Prevailing Trends	Anticipated Background and Project Changes	Recommended Safety Measures
Eleventh Avenue and West 42nd Street	No prevailing trends	Incremental trips: 100 vehicles and very few to no pedestrians	Address missing detectable warning surfaces on the southeast curb ramp, and missing countdown timers on the southeast corner facing the south crosswalk and on the northeast corner facing the north crosswalk.
Eleventh Avenue and West 34th Street	Conflicting vehicles with pedestrians	Incremental trips: 360 vehicles and 220 pedestrians	Address missing detectable warning surfaces on the northeast, northwest, and southwest corners, and missing countdown timers on the northeast corner for the east crosswalk and the southwest corner for the south crosswalk.
Tenth Avenue and West 42nd Street	No prevailing trends	Incremental trips: 130 vehicles and very few to no pedestrians	Address missing detectable warning surface on the northwest corner and restripe north crosswalk. Tenth Avenue SIP improvements.
Tenth Avenue and West 41st Street	Conflicting vehicles with pedestrians	Incremental trips: 100 vehicles and very few to no pedestrians	Address missing detectable warning surface on the southeast corner due to construction. Tenth Avenue SIP improvements.
Tenth Avenue and West 40th Street	Conflicting vehicles with pedestrians	Incremental trips: 110 vehicles and very few to no pedestrians	Address missing detectable warning surfaces on the northeast and southeast corners and restripe east and west crosswalks. Tenth Avenue SIP improvements.
Tenth Avenue and West 39th Street	No prevailing trends	Incremental trips: 160 vehicles and very few to no pedestrians	Address missing curb ramp on the southwest corner, missing detectable warning surfaces on all curb ramps, and missing countdown timer on the southeast corner for the south crosswalk. Tenth Avenue SIP improvements.
Tenth Avenue and West 38th Street	No prevailing trends	Incremental trips: 160 vehicles and very few to no pedestrians	Address missing curb ramps on the northwest corner and on the northeast corner for the north crosswalk. Tenth Avenue SIP improvements.
Tenth Avenue and West 34th Street	No prevailing trends	Incremental trips: 290 vehicles and 210 pedestrians	Restripe faded east crosswalk. Tenth Avenue SIP improvements.
Tenth Avenue and West 30th Street / Lincoln Tunnel Approach	Conflicting vehicles with pedestrians	Incremental trips: 790 vehicles and 390 pedestrians	Address missing detectable warning surface on the northeast corner, missing countdown timers on the east crosswalk, northwest corner for the north crosswalk, and west crosswalk. Signage or delineators needed to prohibit dual-right turn movements. Tenth Avenue SIP improvements.
Tenth Avenue and West 28th Street	Conflicting vehicles with pedestrians	Incremental trips: 200 vehicles and 270 pedestrians	Address missing pedestrian countdown timers on the east and west crosswalks, and address non-functional countdown timer on the northwest corner for the north crosswalk. Tenth Avenue SIP improvements.
Ninth Avenue and West 42nd Street	No prevailing trends	Incremental trips: 130 vehicles and very few to no pedestrians	Address missing detectable warning surfaces on the northeast and southeast corners, restripe east crosswalk. Ninth Avenue SIP improvements.
Ninth Avenue and West 37th Street	Conflicting vehicles with pedestrians	Incremental trips: 120 vehicles and fewer than 200 pedestrians	Address missing curb ramp on the southwest corner for the south crosswalk. Ninth Avenue SIP improvements.
Ninth Avenue and West 36th Street	Conflicting vehicles with pedestrians	Incremental trips: 130 vehicles and fewer than 200 pedestrians	Ninth Avenue SIP improvements.
Ninth Avenue and West 34th Street	Conflicting vehicles with pedestrians	Incremental trips: 170 vehicles and 170 pedestrians	Address missing detectable warning surfaces on the southwest and northwest corners, missing countdown timer on the northeast corner for the north crosswalk. Restriping needed for the north, south, and east crosswalks. Ninth Avenue SIP improvements.
Ninth Avenue and West 31st Street	Conflicting vehicles with pedestrians	Incremental trips: 20 vehicles and 530 pedestrians	Ninth Avenue SIP improvements.
Ninth Avenue and West 30th Street	Conflicting vehicles with pedestrians	Incremental trips: 290 vehicles and 110 pedestrians	Ninth Avenue SIP improvements.
Ninth Avenue and West 23rd Street	No prevailing trends	Incremental trips: 150 vehicles and very few to no pedestrians	Address missing detectable warning surfaces on the southeast, northeast, and southwest corners. Ninth Avenue SIP improvements.
Eighth Avenue and West 42nd Street	Conflicting vehicles with pedestrians	Incremental trips: 130 vehicles and very few to no pedestrians	Address missing detectable warning surfaces on all corners.
Eighth Avenue and West 35th Street	No prevailing trends	Incremental trips: 150 vehicles and very few to no pedestrians	Address missing detectable warning surfaces on the northwest, southeast, and northeast corners.
Eighth Avenue and West 34th Street	No prevailing trends	Incremental trips: 140 vehicles and very few to no pedestrians	Address missing detectable warning surface on the northeast corner.

Table 14-6

Summary of High Crash Locations and Recommended Safety Measures

High Crash Intersection	Prevailing Trends	Anticipated Background and Project Changes	Recommended Safety Measures
Eighth Avenue and West 33rd Street	No prevailing trends	Incremental trips: 140 vehicles and very few to no pedestrians	Address non-functional countdown timer on the southwest corner for the south crosswalk.
Eighth Avenue and West 31st Street	No prevailing trends	Incremental trips: 140 vehicles and very few to no pedestrians	Address missing detectable warning surfaces on the northeast, southeast, and southwest corners, and non-functional countdown timers on the east and west crosswalks.
Eighth Avenue and West 30th Street	Conflicting vehicles with pedestrians	Incremental trips: 270 vehicles and very few to no pedestrians	Address missing detectable warning surface on the northeast corner, missing countdown timers for the north and south crosswalks, and restripe north crosswalk.
Eighth Avenue and West 29th Street	Driver's Inattention	Incremental trips: 190 vehicles and very few to no pedestrians	Address missing curb ramp on the northeast corner for the east crosswalk, missing detectable warning surface on the southeast corner, non-functional countdown timers on the northeast and southeast corners for the north and south crosswalks, and missing countdown timers on the east and west crosswalks.
Eighth Avenue and West 23rd Street	Conflicting vehicles with pedestrians	Incremental trips: 130 vehicles and very few to no pedestrians	Address missing detectable warning surfaces on the southeast and southwest corners.
Seventh Avenue and West 29th Street	No prevailing trends	Incremental trips: 180 vehicles and very few to no pedestrians	Address missing detectable warning surfaces on the northeast, southeast, and northwest corners, and missing countdown timers on the east and west crosswalks.
Seventh Avenue and West 28th Street	Conflicting vehicles with pedestrians	Incremental trips: 120 vehicles and very few to no pedestrians	Address missing detectable warning surfaces on the northeast and southeast corners, missing countdown timers on the southeast and northeast corners for the east crosswalk, as well as on the northwest and southwest corners for the west crosswalk, and restripe the east crosswalk.
Seventh Avenue and West 23rd Street	Conflicting vehicles with pedestrians	Incremental trips: 130 vehicles and very few to no pedestrians	Address missing curb ramp on the northwest corner for the north crosswalk, and missing detectable warning surfaces on the southeast corner for the south crosswalk, and on the northwest corner.
Sixth Avenue and West 23rd Street	Driver's Inattention	Incremental trips: 120 vehicles and very few to no pedestrians	Address non-functional countdown timers on the southeast corner for the east and north crosswalks, and the northeast corner for the north crosswalk.

Note: SIP = Street Improvement Project.
Source: DOT January 1, 2017 to December 31, 2019 crash data.

PARKING

Under the Proposed Project and Alternative Scenario, public parking utilization is expected to be at capacity (98 percent utilization is considered "at capacity" per *CEQR Technical Manual* guidelines) or exceed the available ¼-mile off-street parking supply during the majority of the seven analysis time periods. Specifically, under the Proposed Project, public parking utilization is projected to be 100, 149, 113, 79, 79, 99, and 98 percent during the weekday AM, midday, PM, evening, and overnight, and Saturday midday/afternoon and evening time periods, with an anticipated maximum shortfall of 737 parking spaces occurring during the weekday midday time period. Under the Alternative Scenario, public parking utilization is projected to be 100, 155, 138, 88, 79, 99, and 108 percent during the weekday AM, midday, PM, evening, and overnight, and Saturday midday/afternoon and evening time periods, with an anticipated maximum shortfall of 838 parking spaces occurring during the weekday midday time period. As stated in the *CEQR Technical Manual*, a parking shortfall resulting from a project located in Manhattan is not considered significant due to the magnitude of available alternative modes of transportation. It is likely, especially with the continuing transformation of West Midtown and Hudson Yards, that travel would shift more from auto to transit. For those who choose to drive, if there is not adequate nearby parking (i.e., within ¼-mile or an approximately five-minute walk of the Development Site), they would be expected to seek parking resources at a greater distance away.

B. PRELIMINARY ANALYSIS METHODOLOGY AND SCREENING ASSESSMENT

The *CEQR Technical Manual* identifies procedures for evaluating a proposed project's potential impacts on traffic, transit, ferry, pedestrian, and parking conditions. This methodology begins with the preparation of a trip generation analysis to determine the volume of person and vehicle trips associated with the proposed project. The results are then compared with the *CEQR Technical Manual*-specified thresholds (Level 1 screening analysis) to determine whether a Level 2 screening analysis is warranted. If the proposed project would result in 50 or more peak hour vehicle trips, 200 or more peak hour transit trips (subway/rail or bus riders), 50 or more peak hour Citywide Ferry Service (CWFS) ferry trips, and/or 200 or more peak hour pedestrian trips, a Level 2 screening analysis is undertaken. For the Level 2 screening analysis, project-generated trips would be assigned to specific intersections, transit routes, ferry routes, and pedestrian elements. If the results of this analysis show that the proposed project would generate 50 or more peak hour vehicle trips through an intersection, 50 or more peak hour bus riders on a bus route in a single direction, 200 or more peak hour subway passengers at any given station or on a subway line by direction, 25 or more peak hour passenger ferry trips in a single direction on a single route, 50 or more peak hour passengers at a ferry landing, or 200 or more peak hour pedestrian trips per pedestrian element, further quantified analyses may be warranted to evaluate the potential for significant adverse traffic, transit, ferry, and pedestrian impacts. Correspondingly, assessments of street user safety and parking supply and demand would also be undertaken.

PROJECT BACKGROUND

As summarized in **Tables 14-1 and 14-2** above, under the No Action condition, Site B, at West 30th Street and Eleventh Avenue, will be developed with approximately 2,220 dwelling units (DUs), 16,000 gross square feet (gsf) of cultural space, 28,000 gsf of ground floor retail, and 120,000 gsf for a public school. For purposes of environmental review, it is assumed that the school will include 420 elementary seats and 330 intermediate seats, as was analyzed in the 2009 FEIS. Site B will also include a 10,000 gsf day care center. Approximately 225 accessory parking spaces will be provided in a below-grade garage on Site B. In addition, the 32 existing parking spaces for the LIRR will be accommodated on the Development Site. Site C-1, at West 33rd Street and Eleventh Avenue, will be developed with approximately 2,185,000 gsf of office and 136,500 gsf of ground floor retail (approximately 44,100 gsf of this retail space is assumed to be destination retail for transportation purposes, consistent with the 2009 FEIS). Site C-2, located farther west along West 33rd Street towards Twelfth Avenue, will be developed with approximately 1,234 DUs.

Under the Proposed Project, the Proposed Actions would facilitate development across three buildings (Sites A, B, and C). Sites A and B would comprise the southern portion of the Development Site and Site C would comprise the northern portion of the Development Site. Site A would be developed with approximately 1,507 DUs (of which 324 would be affordable) and 12,250 gsf of ground floor retail. Site B would be developed with approximately 2,179,899 gsf of office, 12,388 gsf of ground floor retail, 16,000 gsf of cultural space, a 10,000 gsf day care center, and 120,000 gsf for a public school (assumed for the purposes of environmental review to include 420 elementary and 330

intermediate seats, as was analyzed in the 2009 FEIS). Site C would be developed with a resort complex comprised of an approximately 251,055 gsf gaming facility, 1,750 hotel keys, 90,023 gsf of food and beverage space, a 52,400 gsf ballroom (including 17,400 gsf of pre-function space), and other amenity uses. Approximately 225 accessory parking spaces for Sites A and B would be provided. Approximately 500 accessory parking spaces for Site C would be provided.

Under the Alternative Scenario, Site C-1 would be developed with approximately 1,566,033 gsf of office and 10,230 gsf of ground floor retail. Sites C-2 and C-3 would be developed on a shared podium. Site C-2 would contain a hotel building with 700 hotel keys, 40,163 gsf of food and beverage space, a 188,765 gsf ballroom (including 83,465 gsf of support space), and other amenity space. Site C-3 would be developed with approximately 309 DUs. The same mixed-use development on Sites A and B comprising commercial, residential, and community facility space would be developed on the southern portion of the Development Site as the Proposed Project. The same amount of accessory parking would be provided on the southern portion of the Development Site under this scenario—225 spaces. A 450-space garage providing accessory parking to the northern portion of the Development Site would also be provided at Site C.

Both With Action scenarios would also include a separate parking area with 32 parking spaces for the LIRR. These spaces currently exist on the Development Site. Additionally, both assume the adoption of a City Map amendment, which would adjust the grade of West 33rd Street, which currently slopes significantly between Eleventh and Twelfth Avenues, to align with the level of the proposed development and enhance public access to the Development Site. Furthermore, as the New York City Transit (NYCT) M34 Select Bus Service (SBS) bus route currently utilizes West 33rd Street to turnaround to start eastbound service (by traveling west from Eleventh Avenue and making a right turn onto Twelfth Avenue), the proposed grade change coupled with the proposed cul-de-sac configuration at the western terminus of the West 33rd Street elevated portion would eliminate this turnaround route under both future With Action conditions. Between the DEIS and FEIS, further coordination would be undertaken with NYCT and DOT to determine possible alternate turnaround routes for the M34 SBS.

TRANSPORTATION PLANNING ASSUMPTIONS AND TRIP GENERATION

Trip generation factors for the No Action and With Action scenarios are based on information from the *CEQR Technical Manual*, DOT's travel demand surveys, the New York City Department of Education (DOE) mode choice surveys, U.S. Census Data, other previously approved EISs. Gaming resort assumptions were developed primarily using data provided by DOT and from the Encore Boston Harbor Resort in Everett, Massachusetts (information provided by Wynn). Travel demand assumptions are summarized in **Table 14-7**.

Western Rail Yard Modifications

**Table 14-7
Travel Demand Assumptions**

Use	Residential						Office						Local Retail											
	Weekday 8.18			Saturday 9.08			Weekday 18.0			Saturday 3.9			Weekday 329.00			Saturday 358.00								
Internal Capture	0%						0%						50%											
Net Daily Person Trip	Trips / DU						Trips / KSF						Trips / KSF											
Temporal	AM		MD		PM		EVE		Sat MD		Sat EVE		AM		MD		PM		EVE		Sat MD		Sat EVE	
Direction	(1)						(1)						(1)											
Modal Split	(2)						(2)						(2)											
Vehicle Occupancy	(3)						(6)						(2)											
Daily Delivery Trip Generation Rate	(1)						(1)						(1)											
Delivery Direction	(1)						(1)						(1)											
Use	Destination Retail						Hotel						Cultural Space (Museum)											
Total Daily Person Trip	Weekday 78.2			Saturday 92.5			Weekday 10.9			Saturday 12.7			Weekday 27.0			Saturday 20.6								
Internal Capture	0%						60%						0%											
Net Daily Person Trip	Trips / KSF						Trips / Room						Trips / KSF											
Temporal	AM		MD		PM		EVE		Sat MD		Sat EVE		AM		MD		PM		EVE		Sat MD		Sat EVE	
Direction	(1)						(1)						(1)											
Modal Split	(4)						(2)						(1)											
Vehicle Occupancy	(7)						(2)						(1)											
Daily Delivery Trip Generation Rate	(4)						(4)						(1)											
Delivery Direction	(4)						(4)						(1)											
Auto	7.3%	7.3%	6.2%	6.1%	5.5%	5.4%	4.0%	1.5%	4.0%	4.0%	1.5%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	
Taxi	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
Subway	46.7%	46.7%	46.7%	46.7%	46.7%	46.7%	55.0%	6.0%	55.0%	55.0%	6.0%	55.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
Railroad	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	20.0%	1.5%	20.0%	20.0%	1.5%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Ferry	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Bus	5.2%	5.2%	5.2%	5.2%	5.2%	5.2%	13.0%	5.0%	13.0%	13.0%	5.0%	13.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
School Bus	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Tour Bus	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Walk	29.8%	29.8%	29.8%	29.8%	29.8%	29.8%	5.0%	83.0%	5.0%	83.0%	5.0%	83.0%	92.0%	92.0%	92.0%	92.0%	92.0%	92.0%	92.0%	92.0%	92.0%	92.0%	92.0%	
Bicycle	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Auto	1.15	1.15	1.15	1.15	1.15	1.15	1.65	1.65	1.65	1.65	1.65	1.65	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	
Taxi	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	
School Bus	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	
Tour Bus	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	
Auto	63%	53%	49%	50%	52%	35%	31%	36%	52%	52%	51%	52%	100%	43%	31%	20%	54%	28.8%						
Taxi	37%	47%	51%	50%	48%	65%	69%	64%	48%	48%	49%	48%	0%	57%	69%	80%	46%	71.2%						
School Bus	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%						
Tour Bus	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%						
Auto	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	5.0%	5.0%	5.0%	5.0%	6.0%	6.0%	12.0%	12.0%	12.0%	12.0%	14.0%	14.0%						
Taxi	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	45.0%	45.0%	45.0%	45.0%	45.0%	45.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%						
Subway	26.5%	20.0%	26.5%	26.5%	20.0%	26.5%	16.0%	16.0%	16.0%	16.0%	15.0%	15.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%						
Railroad	2.0%	0.0%	2.0%	2.0%	0.0%	2.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%						
Ferry	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%						
Bus	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%						
School Bus	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%						
Tour Bus	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%						
Walk	50.5%	59.0%	50.5%	50.5%	59.0%	50.5%	31.0%	31.0%	31.0%	31.0%	31.0%	31.0%	42.0%	42.0%	42.0%	42.0%	40.0%	40.0%						
Bicycle	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%						
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%						
Auto	1.40	1.40	1.40	1.40	1.72	1.72	1.80	1.80	1.80	1.80	2.10	2.10	2.34	2.34	2.34	2.34	2.34	2.34						
Taxi	1.65	1.65	1.65	1.65	1.75	1.75	2.00	2.00	2.00	2.00	2.30	2.30	1.90	1.90	1.90	1.90	1.90	1.90						
School Bus	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00						
Tour Bus	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00						
Auto	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%						
Taxi	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%						
School Bus	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%						
Tour Bus	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%						

Table 14-7
Travel Demand Assumptions

Use	Daycare (Children)						Daycare (Parents)						Daycare (Staff)					
	Weekday			Saturday			Weekday			Saturday			Weekday			Saturday		
Total Daily Person Trip	22.0			0.0			44.0			0.0			6.0			0.0		
Internal Capture	0%			0%			0%			0%			0%			0%		
Net Daily Person Trip	22.0			0.0			44.0			0.0			6.0			0.0		
Temporal	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE
	(1)						(1)						(1)					
Direction	25.0%	0.0%	25.0%	0.0%	0.0%	0.0%	25.0%	0.0%	25.0%	0.0%	0.0%	0.0%	25.0%	2.5%	25.0%	0.0%	0.0%	0.0%
	(1)						(1)						(1)					
Modal Split	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE
	(12)						(12)						(6)					
Vehicle Occupancy	Auto	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
	Taxi	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	Subway	30.2%	30.2%	30.2%	30.2%	30.2%	30.2%	30.2%	30.2%	30.2%	30.2%	30.2%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%
	Railroad	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
	Ferry	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Bus	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%
	School Bus	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Tour Bus	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Walk	51.8%	51.8%	51.8%	51.8%	51.8%	51.8%	51.8%	51.8%	51.8%	51.8%	51.8%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
	Bicycle	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Daily Delivery Trip Generation Rate	Weekday			Saturday			Weekday			Saturday			Weekday			Saturday		
	0.07			0.00			0.07			0.00			0.07			0.00		
Delivery Temporal	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE
	(11)						(11)						(2)(6)					
Delivery Direction	9.6%	11.0%	1.0%	0.0%	0.0%	0.0%	9.6%	11.0%	1.0%	0.0%	0.0%	0.0%	9.6%	11.0%	1.0%	0.0%	0.0%	0.0%
	(11)						(11)						(2)(6)					
Use	PS School (Student)						PS School (Staff)						PS School (Parents)					
	Weekday			Saturday			Weekday			Saturday			Weekday			Saturday		
Total Daily Person Trip	2.00			0.00			2.00			0.00			4.00			0.00		
Internal Capture	0%			0%			0%			0%			0%			0%		
Net Daily Person Trip	2.00			0.00			2.00			0.00			4.00			0.00		
Temporal	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE
	(1)						(1)						(1)					
Direction	49.5%	0.0%	49.5%	0.0%	0.0%	0.0%	40.0%	0.0%	40.0%	0.0%	0.0%	0.0%	49.5%	0.0%	49.5%	0.0%	0.0%	0.0%
	(1)						(1)						(1)					
Modal Split	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE
	(12)						(6)						(13)					
Vehicle Occupancy	Auto	3.0%	3.0%	3.0%	3.0%	3.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Taxi	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Subway	18.9%	18.9%	18.9%	18.9%	18.9%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	26.0%	26.0%	26.0%	26.0%	26.0%	26.0%
	Railroad	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Ferry	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Bus	2.1%	2.1%	2.1%	2.1%	2.1%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	School Bus	21.0%	21.0%	21.0%	21.0%	21.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Tour Bus	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Walk	51.8%	51.8%	51.8%	51.8%	51.8%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	71.0%	71.0%	71.0%	71.0%	71.0%	71.0%
	Bicycle	3.2%	3.2%	3.2%	3.2%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Daily Delivery Trip Generation Rate	Weekday			Saturday			Weekday			Saturday			Weekday			Saturday		
	0.03			0.00			0.03			0.00			0.03			0.00		
Delivery Temporal	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE
	(4)						(4)						(4)					
Delivery Direction	9.6%	11.0%	1.0%	0.0%	0.0%	0.0%	9.6%	11.0%	1.0%	0.0%	0.0%	0.0%	9.6%	11.0%	1.0%	0.0%	0.0%	0.0%
	(4)						(4)						(4)					

Western Rail Yard Modifications

**Table 14-7
Travel Demand Assumptions**

Use	Intermediate School (Student)						Intermediate School (Staff)											
	(1)			(1)			(1)			(1)								
Total Daily Person Trip	Weekday 2.00			Saturday 0.00			Weekday 2.00			Saturday 0.00								
Internal Capture	0%			0%			0%			0%								
Net Daily Person Trip	Weekday 2.00			Saturday 0.00			Weekday 2.00			Saturday 0.00								
Temporal	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE						
	(1)						(1)											
Direction	49.5%						40.0%											
	(1)						(1)											
Modal Split	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE						
	(12)						(6)											
Vehicle Occupancy	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE						
	(2)						(6)											
Daily Delivery Trip Generation Rate	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE						
	(4)						(4)											
Delivery Direction	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total						
	(4)						(4)											
Use	Gaming Resort Patrons						Gaming Resort Employees						Gaming Resort Retail					
Total Daily Person Trip	Weekday 10.87			Saturday 13.71			Weekday 1.11			Saturday 1.48			Weekday 78.2			Saturday 92.5		
Internal Capture	0%			0%			0%			0%			50%			50%		
Net Daily Person Trip	Weekday 10.87			Saturday 13.71			Weekday 1.11			Saturday 1.48			Weekday 39.1			Saturday 46.3		
Temporal	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE
	(14)						(14)						(18)					
Direction	2.5%						3.1%						3.0%					
	(14)						(17)						(18)					
Modal Split	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE
	(15)						(6)						(18)					
Vehicle Occupancy	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE
	(15)(16)						(6)						(18)					
Daily Delivery Trip Generation Rate	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE
	(17)						(17)						(18)					
Delivery Direction	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
	(15)						(15)						(18)					

**Table 14-7
Travel Demand Assumptions**

Use	Gaming Resort Food/Beverage						Gaming Resort Ballroom (Event Space)					
	(1)						(19)					
Total Daily Person Trip	Weekday 246.0			Saturday 358.0			Weekday 2.68			Saturday 2.68		
Internal Capture	60% Trips / KSF						10% Trips / Guest					
Net Daily Person Trip	AM	MD	PM	EVE	Sat MD	Sat EVE	Weekday 2.41			Saturday 2.41		
Temporal	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE
	(1)(2)						(19)					
Direction	1.0%						0.0%					
	(2)						(19)					
In	64%	62%	53%	53%	47%	45%	50%	50%	75%	19%	50%	75%
	36%	38%	47%	47%	53%	55%	50%	50%	25%	81%	50%	25%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Modal Split	(7)						(19)					
	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE
Auto	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	17.4%	17.4%	17.4%	17.4%	17.4%	17.4%
Taxi	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%
Subway	26.5%	26.5%	26.5%	26.5%	26.5%	26.5%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
Railroad	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Ferry	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bus	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	8.4%	8.4%	8.4%	8.4%	8.4%	8.4%
School Bus	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Tour Bus	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Walk	44.5%	44.5%	44.5%	44.5%	44.5%	44.5%	47.8%	47.8%	47.8%	47.8%	47.8%	47.8%
Bicycle	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Vehicle Occupancy	(7)						(19)					
	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE
Auto	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20
Taxi	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30
School Bus	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00
Tour Bus	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
Daily Delivery Trip Generation Rate	(7)						(19)					
	Weekday 3.60			Saturday 3.60			Weekday 0.01			Saturday 0.01		
Delivery Rate	AM	MD	PM	EVE	Sat MD	Sat EVE	AM	MD	PM	EVE	Sat MD	Sat EVE
Temporal	0.0%						0.0%					
Delivery Direction	(7)						(19)					
	In	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Out	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Sources:
 (1) 2021 CEQR Technical Manual
 (2) Based on NYCDOT mode choice surveys
 (3) U.S. Census American Community Survey (ACS) 2015–2019 5-Year Estimates Journey-to-Work (JTW) Data for Manhattan Census Tracts 79, 83, 89, 93, 97, 99, 103, 111, 115, and 117
 (4) Western Rail Yard FEIS (2009)
 (5) Willets Point FSEIS (2013)
 (6) Pennsylvania Station Area Civic and Land Use Improvement Project FEIS (2022)
 (7) Vanderbilt Corridor and One Vanderbilt FEIS (2015)
 (8) 60 percent internal capture rate assumed for Proposed Project hotel in consultation with DOT. No internal capture assumed for the Alternative Scenario hotel.
 (9) Shuttle bus mode from DOT provided hotel modal split redistributed to other modes
 (10) Phased Development of Governors Island North Island Re-tenanting and Park and Public Space Master Plan FSGEIS (2013)
 (11) No. 7 Subway Extension-Hudson Yards Rezoning and Development Program FGEIS (2004)
 (12) Provided by DOT based on DOE mode choice surveys from existing school and JTW information
 (13) Assumes 1 parent for every 1.28 students taking subway, bus, or walking to school
 (14) Based on gaming facility assumptions provided by DOT
 (15) Based on destination retail. Modal splits adjusted in consultation with DOT.
 (16) Tour bus occupancy based on the 2010 Development and Operation of a Video Lottery Facility at Aqueduct Racetrack Jamaica, New York EAF
 (17) Based on Encore Boston Harbor data provided by the applicant team
 (18) Based on destination retail use. 50 percent internal capture rate conservatively assumed as it would be primarily accessed from the gaming floor area.
 (19) 550 Washington Street/Special Hudson River Park District FEIS (2016). 10 percent internal capture rate assumed in consultation with applicant team.

Based on information and previous studies provided by the applicant team, gaming resort activities would typically peak during Friday and Saturday evenings. Therefore, in addition to the four typical analysis peak periods, which include weekday AM, midday, PM, and Saturday midday/afternoon, the weekday evening and Saturday evening peak periods are also included for analysis.

RESIDENTIAL

The daily person trip rate is from the CEQR Technical Manual. The temporal distribution is from the CEQR Technical Manual and DOT’s travel demand surveys. The directional distribution is from DOT’s travel demand surveys. The modal splits and auto vehicle occupancy are from the U.S. Census American Community Survey (ACS) 2015–2019 Journey-to-Work (JTW) estimates for Manhattan census tracts 79, 83, 89, 93, 97, 99,

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103, 111, 115, and 117. The taxi vehicle occupancy is from the 2009 *Western Rail Yard FEIS*. The daily delivery trip rate is from the *CEQR Technical Manual*. The delivery temporal and directional distributions are from the *CEQR Technical Manual* and the 2013 *Willets Points Development FSEIS*.

OFFICE

The daily person trip rate is from the *CEQR Technical Manual*. The temporal distribution is from the *CEQR Technical Manual* and DOT's travel demand surveys. The directional distribution is from DOT's travel demand surveys. The modal splits and vehicle occupancies are from the 2022 *Pennsylvania Station Area Civic and Land Use Improvement Project FEIS*. The daily delivery trip rate is from the *CEQR Technical Manual*. The delivery temporal and directional distributions are from the *CEQR Technical Manual* and the 2013 *Willets Points Development FSEIS*.

LOCAL RETAIL

The daily person trip rate is from the *CEQR Technical Manual*. The temporal distribution is from the *CEQR Technical Manual* and DOT's travel demand surveys. The local retail would primarily support the other planned uses on the Development Site; therefore, a 50-percent linked trip credit has been applied to the local retail trip generation estimates. The directional distribution, modal splits, and vehicle occupancies are from DOT's travel demand surveys. The daily delivery trip rate is from the *CEQR Technical Manual*. The delivery temporal and directional distributions are from the *CEQR Technical Manual* and the 2013 *Willets Points Development FSEIS*.

DESTINATION RETAIL

The daily person trip rate is from the *CEQR Technical Manual*. The temporal and directional distributions are from the *CEQR Technical Manual* and the 2013 *Willets Points Development FSEIS*. The modal splits are from the 2009 *Western Rail Yard FEIS*. The auto and taxi occupancies are from the 2015 *Vanderbilt Corridor and One Vanderbilt FEIS*. The daily delivery trip rate is from the 2009 *Western Rail Yard FEIS*. The delivery temporal and directional distributions are from the 2009 *Western Rail Yard FEIS* and the 2013 *Willets Points Development FSEIS*.

PUBLIC SCHOOL (PS/IS)

Students

The daily person trip rate, temporal distribution, and directional distribution for the public elementary and intermediate school students are from the *CEQR Technical Manual*. The modal splits are based on DOE mode choice surveys from existing schools nearby and JTW information. The vehicle occupancies are based on information provided by DOT. The daily delivery trip rate and temporal and directional distributions are also from the 2009 *Western Rail Yard FEIS*.

Parents

The daily person trip rate, temporal distribution, and directional distribution for the public elementary school parents are from the *CEQR Technical Manual*. In line with typical New

York City School Construction Authority (SCA) elementary school assumptions, it is anticipated that one parent would accompany every 1.28 students traveling by transit or walking to the elementary school.

Faculty and Staff

The daily person trip rate, temporal distribution, and directional distribution for the public elementary and intermediate school staff are from the *CEQR Technical Manual*. The modal splits and vehicle occupancies are from the 2022 *Pennsylvania Station Area Civic and Land Use Improvement Project FEIS*.

DAYCARE

Children

The daily person trip rate, temporal distribution, and directional distribution are from the *CEQR Technical Manual*. The modal splits are based on DOE mode choice surveys from existing schools nearby and JTW information, and vehicle occupancies are from the 2004 *No. 7 Subway Extension-Hudson Yards Rezoning and Development Program FGEIS*. The daily delivery trip rate and temporal and directional distributions are also from the 2004 *No. 7 Subway Extension-Hudson Yards Rezoning and Development Program FGEIS*.

Parents

The daily person trip rate, temporal distribution, and directional distribution are from the *CEQR Technical Manual*. The modal splits are based on DOE mode choice surveys from existing schools nearby and JTW information.

Staff

The daily person trip rate, temporal distribution, and directional distribution are from the *CEQR Technical Manual*. The modal splits and vehicle occupancies are from the 2022 *Pennsylvania Station Area Civic and Land Use Improvement Project FEIS*.

ART/CULTURAL SPACE

Travel demand assumptions for the art/culture space are based on the museum land use from the *CEQR Technical Manual*. The daily person trip rate is from the *CEQR Technical Manual*. The temporal and directional distributions are from the *CEQR Technical Manual* and the 2013 *Phased Development of Governors Island North Island Re-tenanting and Park and Public Space Master Plan FSFEIS*. The modal splits and vehicle occupancies are from the 2004 *No. 7 Subway Extension-Hudson Yards Rezoning and Development Program FGEIS*. The daily delivery trip rate and temporal and directional distributions are also from the 2004 *No. 7 Subway Extension-Hudson Yards Rezoning and Development Program FGEIS*.

GAMING AND RESORT

Patrons

The daily person trip rate and temporal and directional distributions are based on gaming resort information provided by DOT. The modal splits and vehicle occupancies are based

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on destination retail assumptions, with modal splits adjusted in consultation with DOT. The tour bus occupancy is based on the 2010 *Development and Operation of a Video Lottery Facility at Aqueduct Racetrack Jamaica, New York EAF*. The daily delivery trip rate and temporal distribution are based on information from the Encore Boston Harbor gaming facility provided by the applicant team. The daily delivery directional distribution is based on the destination retail use.

Employees

The daily person trip rate is based on gaming resort information provided by DOT. The temporal and directional distributions are based on information from the Encore Boston Harbor gaming facility provided by the applicant team. The modal splits and vehicle occupancies are based on the office use from the 2022 *Pennsylvania Station Area Civic and Land Use Improvement Project FEIS*. It should be noted that the DOT-provided trip rates are substantially higher than those developed by the Proposed Project’s intended gaming facility operator, Wynn Resorts, as shown in **Table 14-8**. While offering a conservative analysis for purposes of environmental review, these differences could also result in overstating the potential impacts of the Proposed Project. Wynn intends to monitor these impacts after the opening of the proposed gaming facility, as they have done for Encore Boston Harbor, and adjust operational and improvement needs, where possible.

Table 14-8
Gaming Facility Daily Trip Rates and Person Trips Comparison

Analysis Period	Gaming Facility Visitors			Gaming Facility Employees		
	Wynn	DOT	Difference	Wynn	DOT	Difference
Daily Person Trip Rates (per gaming position)						
Weekday	8.31	10.87	31.0%	0.74	1.11	50.0%
Saturday	9.67	13.71	42.0%	0.86	1.48	72.0%
Total Daily Person Trips						
Weekday	45,300	59,200	31.0%	4,000	6,000	50.0%
Saturday	52,700	74,700	42.0%	4,700	8,100	72.0%
Notes:						
Wynn daily trip rates developed based on Wynn in Everett in Boston studies and 2023 surveys conducted at Encore Boston Harbor.						
Based on 5,450 gaming positions.						

Hotel

The daily person trip rate is from the *CEQR Technical Manual*. The temporal distribution is from the *CEQR Technical Manual* and DOT’s travel demand surveys. Based on information and previous studies provided by the applicant team and the expectation that most hotel patrons would also be gaming facility patrons, a 60 percent internal capture rate has been assumed for the hotel for all analysis peak hours in consultation with DOT. The directional distribution is from DOT’s travel demand surveys. The modal splits (with the shuttle bus mode proportioned to other modes) and vehicle occupancies are also from DOT’s travel demand surveys. The daily delivery trip rate is from the 2009 *Western Rail Yard FEIS*. The delivery temporal and directional distributions are from the 2009 *Western Rail Yard FEIS* and the 2013 *Willetts Points Development FSEIS*.

The Alternative Scenario hotel applies the same travel demand assumptions described above except it does not assume any internal capture.

Gaming Retail

The gaming resort retail would be located primarily above the ground floor of the gaming resort podium and would be accessed from the gaming floor area. Accordingly, its travel demand assumptions are assumed to be similar to those for the destination retail use. While there would not be any access restrictions, most, if not all, of the visits to this retail is anticipated to be associated with those also visiting the gaming floor. For a conservative analysis, however, a 50 percent (instead of 100 percent) internal capture rate has been assumed for the gaming resort retail for all analysis peak hours.

Food and Beverage

The gaming resort food and beverage space daily person trip rate, temporal distribution, and directional distribution are based on the sit-down restaurant use from the *CEQR Technical Manual* and DOT's travel demand surveys. In consultation with DOT, a 60 percent internal capture rate has been assumed for this use. The modal splits and vehicle occupancies are based on the restaurant use from the 2015 *Vanderbilt Corridor and One Vanderbilt FEIS*. The daily delivery trip rate and temporal and directional distributions are also based on the restaurant use from the 2015 *Vanderbilt Corridor and One Vanderbilt FEIS*.

The Alternative Scenario hotel food and beverage space applies the same travel demand assumptions described above.

Ballroom (Event Space)

The ballroom travel demand assumptions are from the 2016 *550 Washington Street/Special Hudson River Park District FEIS*. In consultation with the applicant team, a 10 percent internal capture rate has been assumed for this use.

The Alternative Scenario hotel ballroom space applies the same travel demand assumptions described above.

OPEN SPACE

Consistent with the 2009 FEIS, trip generation estimates for the open space component are similarly not included in the travel demand analysis.

LEVEL 1 SCREENING ASSESSMENT

As summarized in **Table 14-9**, the No Action condition will generate 10,037; 7,873; 10,530; 5,411; 6,867; and 3,803 person trips during the weekday AM, midday, PM, evening, and Saturday midday/afternoon and evening peak hours, respectively. Approximately 860; 603; 811; 468; 543; and 329 vehicle trips will be generated during the same respective peak hours.

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Table 14-9
Trip Generation: No Action Condition

Program	Peak Hour	In/Out	Person Trip										Vehicle Trip						
			Auto	Taxi	Subway	Railroad	Ferry	School			Walk	Bicycle	Total	Auto	Taxi	School		Delivery	Total
								Bus	Bus	Tour						Bus	Bus		
Residential 3,454 DU	AM	In	42	31	270	13	2	30	0	0	173	19	580	36	79	0	0	12	127
		Out	149	109	957	45	6	106	0	0	611	65	2,048	129	79	0	0	12	220
		Total	191	140	1,227	58	8	136	0	0	784	84	2,628	165	158	0	0	24	347
	Midday	In	58	42	369	17	3	41	0	0	236	25	791	50	44	0	0	9	103
		Out	58	42	369	17	3	41	0	0	236	25	791	50	44	0	0	9	103
		Total	116	84	738	34	6	82	0	0	472	50	1,582	100	88	0	0	18	206
	PM	In	109	79	695	33	5	78	0	0	444	48	1,491	95	68	0	0	2	165
		Out	67	48	426	20	3	48	0	0	272	29	913	58	68	0	0	2	128
		Total	176	127	1,121	53	8	126	0	0	716	77	2,404	153	136	0	0	4	293
	EVE	In	90	65	579	28	3	64	0	0	370	40	1,239	78	56	0	0	2	136
		Out	58	42	370	17	3	42	0	0	236	25	793	50	56	0	0	2	108
		Total	148	107	949	45	6	106	0	0	606	65	2,032	128	112	0	0	4	244
	Sat MD	In	106	76	677	31	5	75	0	0	432	47	1,449	92	73	0	0	3	168
		Out	87	62	554	26	3	62	0	0	353	38	1,185	76	73	0	0	3	152
		Total	193	138	1,231	57	8	137	0	0	785	85	2,634	168	146	0	0	6	320
	Sat EVE	In	69	50	443	20	3	50	0	0	283	31	949	60	49	0	0	0	109
		Out	59	43	377	17	3	42	0	0	241	26	808	51	49	0	0	0	100
		Total	128	93	820	37	6	92	0	0	524	57	1,757	111	98	0	0	0	209
Office 2,185,000 GSF	AM	In	168	126	2,307	839	0	545	0	0	210	0	4,195	147	72	0	0	35	254
		Out	27	20	376	137	0	89	0	0	34	0	683	24	72	0	0	35	131
		Total	195	146	2,683	976	0	634	0	0	244	0	4,878	171	144	0	0	70	385
	Midday	In	34	67	135	34	0	112	0	0	1,867	0	2,249	30	69	0	0	38	137
		Out	31	62	125	31	0	104	0	0	1,724	0	2,077	27	69	0	0	38	134
		Total	65	129	260	65	0	216	0	0	3,591	0	4,326	57	138	0	0	76	271
	PM	In	26	20	363	132	0	86	0	0	33	0	660	23	73	0	0	7	103
		Out	139	104	1,908	694	0	451	0	0	173	0	3,469	122	73	0	0	7	202
		Total	165	124	2,271	826	0	537	0	0	206	0	4,129	145	146	0	0	14	305
	EVE	In	12	9	164	60	0	39	0	0	15	0	299	11	25	0	0	7	43
		Out	48	36	658	239	0	155	0	0	60	0	1,196	42	25	0	0	7	74
		Total	60	45	822	299	0	194	0	0	75	0	1,495	53	50	0	0	14	117
	Sat MD	In	9	17	35	9	0	29	0	0	479	0	578	8	20	0	0	1	29
		Out	9	19	37	9	0	31	0	0	519	0	624	8	20	0	0	1	29
		Total	18	36	72	18	0	60	0	0	998	0	1,202	16	40	0	0	2	58
	Sat EVE	In	4	3	59	21	0	14	0	0	5	0	106	4	4	0	0	0	8
		Out	5	4	72	26	0	17	0	0	7	0	131	4	4	0	0	0	8
		Total	9	7	131	47	0	31	0	0	12	0	237	8	8	0	0	0	16
Local Retail 120,400 GSF	AM	In	20	5	5	0	0	5	0	0	455	5	495	17	6	0	0	1	24
		Out	18	5	5	0	0	5	0	0	420	5	458	15	6	0	0	1	22
		Total	38	10	10	0	0	10	0	0	875	10	953	32	12	0	0	2	46
	Midday	In	31	8	8	0	0	8	0	0	729	8	792	26	10	0	0	3	39
		Out	31	8	8	0	0	8	0	0	729	8	792	26	10	0	0	3	39
		Total	62	16	16	0	0	16	0	0	1,458	16	1,584	52	20	0	0	6	78
	PM	In	43	11	11	0	0	11	0	0	993	11	1,080	36	16	0	0	0	52
		Out	43	11	11	0	0	11	0	0	993	11	1,080	36	16	0	0	0	52
		Total	86	22	22	0	0	22	0	0	1,986	22	2,160	72	32	0	0	0	104
	EVE	In	30	8	8	0	0	8	0	0	685	8	747	25	11	0	0	0	36
		Out	34	8	8	0	0	8	0	0	773	8	839	29	11	0	0	0	40
		Total	64	16	16	0	0	16	0	0	1,458	16	1,586	54	22	0	0	0	76
	Sat MD	In	51	13	13	0	0	13	0	0	1,160	13	1,263	43	16	0	0	0	59
		Out	51	13	13	0	0	13	0	0	1,160	13	1,263	43	16	0	0	0	59
		Total	102	26	26	0	0	26	0	0	2,320	26	2,526	86	32	0	0	0	118
	Sat EVE	In	27	7	7	0	0	7	0	0	628	7	683	23	10	0	0	0	33
		Out	30	8	8	0	0	8	0	0	680	8	742	25	10	0	0	0	35
		Total	57	15	15	0	0	15	0	0	1,308	15	1,425	48	20	0	0	0	68
Destination Retail 44,100 GSF	AM	In	6	3	17	1	0	5	0	0	33	0	65	4	2	0	0	1	7
		Out	3	2	10	1	0	3	0	0	19	0	38	2	2	0	0	1	5
		Total	9	5	27	2	0	8	0	0	52	0	103	6	4	0	0	2	12
	Midday	In	15	7	33	0	0	13	0	0	97	0	165	11	6	0	0	1	18
		Out	13	6	29	0	0	12	0	0	86	0	146	9	6	0	0	1	16
		Total	28	13	62	0	0	25	0	0	183	0	311	20	12	0	0	2	34
	PM	In	14	6	40	3	0	12	0	0	77	0	152	10	7	0	0	0	17
		Out	14	6	42	3	0	13	0	0	80	0	158	10	7	0	0	0	17
		Total	28	12	82	6	0	25	0	0	157	0	310	20	14	0	0	0	34
	EVE	In	12	5	36	3	0	11	0	0	68	0	135	9	5	0	0	0	14
		Out	12	5	36	3	0	11	0	0	68	0	135	9	5	0	0	0	14
		Total	24	10	72	6	0	22	0	0	136	0	270	18	10	0	0	0	28
	Sat MD	In	21	9	47	0	0	19	0	0	138	0	234	12	7	0	0	0	19
		Out	19	9	43	0	0	17	0	0	127	0	215	11	7	0	0	0	18
		Total	40	18	90	0	0	36	0	0	265	0	449	23	14	0	0	0	37
	Sat EVE	In	12	5	34	3	0	10	0	0	65	0	129	7	7	0	0	0	14
		Out	21	10	63	5	0	19	0	0	121	0	239	12	7	0	0	0	19
		Total	33	15	97	8	0	29	0	0	186	0	368	19	14	0	0	0	33

Table 14-9
Trip Generation: No Action Condition

Program	Peak Hour	In/Out	Person Trip										Vehicle Trip						
			Auto	Taxi	Subway	Railroad	Ferry	Bus	School Bus	Tour Bus	Walk	Bicycle	Total	Auto	Taxi	School Bus	Tour Bus	Delivery	Total
PS Students 420 Students	AM	In	12	0	79	0	0	9	87	0	215	13	415	9	0	5	0	1	15
		Out	0	0	0	0	0	0	0	0	0	0	0	9	0	5	0	1	15
		Total	12	0	79	0	0	9	87	0	215	13	415	18	0	10	0	2	30
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
	PM	In	0	0	0	0	0	0	0	0	0	0	0	9	0	5	0	0	14
		Out	12	0	79	0	0	9	87	0	215	13	415	9	0	5	0	0	14
		Total	12	0	79	0	0	9	87	0	215	13	415	18	0	10	0	0	28
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PS Staff 51 Staff	AM	In	2	1	22	8	0	5	0	0	2	0	40	2	1	0	0	0	3
		Out	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
		Total	2	1	22	8	0	5	0	0	2	0	40	2	2	0	0	0	4
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	In	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
		Out	2	1	22	8	0	5	0	0	2	0	40	2	1	0	0	0	3
		Total	2	1	22	8	0	5	0	0	2	0	40	2	2	0	0	0	4
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PS Parents 239 Parents	AM	In	0	0	62	0	0	7	0	0	168	0	237	0	0	0	0	0	
		Out	0	0	62	0	0	7	0	0	168	0	237	0	0	0	0	0	
		Total	0	0	124	0	0	14	0	0	336	0	474	0	0	0	0	0	
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	In	0	0	62	0	0	7	0	0	168	0	237	0	0	0	0	0	
		Out	0	0	62	0	0	7	0	0	168	0	237	0	0	0	0	0	
		Total	0	0	124	0	0	14	0	0	336	0	474	0	0	0	0	0	
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IS Students 330 Students	AM	In	13	0	181	0	0	20	36	0	70	7	327	10	0	2	0	0	12
		Out	0	0	0	0	0	0	0	0	0	0	0	10	0	2	0	0	12
		Total	13	0	181	0	0	20	36	0	70	7	327	20	0	4	0	0	24
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
	PM	In	0	0	0	0	0	0	0	0	0	0	0	10	0	2	0	0	12
		Out	13	0	181	0	0	20	36	0	70	7	327	10	0	2	0	0	12
		Total	13	0	181	0	0	20	36	0	70	7	327	20	0	4	0	0	24
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Western Rail Yard Modifications

Table 14-9
Trip Generation: No Action Condition

Program	Peak Hour	In/Out	Person Trip										Vehicle Trip						
			Auto	Taxi	Subway	Railroad	Ferry	School Tour				Total	Auto	Taxi	School Tour		Delivery	Total	
								Bus	Bus	Walk	Bicycle				Bus	Bus			
IS Staff 40 Staff	AM	In	1	1	18	6	0	4	0	0	2	0	32	1	1	0	0	0	2
		Out	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
		Total	1	1	18	6	0	4	0	0	2	0	32	1	2	0	0	0	3
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	In	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
		Out	1	1	18	6	0	4	0	0	2	0	32	1	1	0	0	0	2
		Total	1	1	18	6	0	4	0	0	2	0	32	1	2	0	0	0	3
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daycare - Children 10,000 GSF	AM	In	4	3	17	0	0	2	0	0	28	2	56	2	2	0	0	0	4
		Out	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4
		Total	4	3	17	0	0	2	0	0	28	2	56	4	4	0	0	0	8
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	In	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4
		Out	4	3	17	0	0	2	0	0	28	2	56	2	2	0	0	0	4
		Total	4	3	17	0	0	2	0	0	28	2	56	4	4	0	0	0	8
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daycare - Parents 10,000 GSF	AM	In	4	3	17	0	0	2	0	0	28	2	56	0	0	0	0	0	0
		Out	4	3	17	0	0	2	0	0	28	2	56	0	0	0	0	0	0
		Total	8	6	34	0	0	4	0	0	56	4	112	0	0	0	0	0	0
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	In	4	3	17	0	0	2	0	0	28	2	56	0	0	0	0	0	0
		Out	4	3	17	0	0	2	0	0	28	2	56	0	0	0	0	0	0
		Total	8	6	34	0	0	4	0	0	56	4	112	0	0	0	0	0	0
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daycare - Staff 10,000 GSF	AM	In	1	0	8	3	0	2	0	0	1	0	15	1	0	0	0	0	1
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	1	0	8	3	0	2	0	0	1	0	15	1	0	0	0	0	1
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	1	0	8	3	0	2	0	0	1	0	15	1	0	0	0	0	1
		Total	1	0	8	3	0	2	0	0	1	0	15	1	0	0	0	0	1
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table 14-9
Trip Generation: No Action Condition**

Program	Peak Hour	In/Out	Person Trip										Vehicle Trip							
			Auto	Taxi	Subway	Railroad	Ferry	Bus	School Tour		Walk	Bicycle	Total	Auto	Taxi	School Tour		Delivery	Total	
									Bus	Bus							Bus	Bus		
Museum (Art/Cultural Space) 16,000 GSF	AM	In	1	0	1	0	0	0	0	0	0	2	0	4	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	1	0	1	0	0	0	0	0	2	0	4	0	0	0	0	0	0	
	Midday	In	4	3	9	0	0	2	0	0	12	0	30	2	3	0	0	0	5	
		Out	5	4	11	0	0	3	0	0	17	0	40	2	3	0	0	0	5	
		Total	9	7	20	0	0	5	0	0	29	0	70	4	6	0	0	0	10	
	PM	In	2	2	5	0	0	1	0	0	7	0	17	1	2	0	0	0	3	
		Out	5	4	11	0	0	3	0	0	16	0	39	2	2	0	0	0	4	
		Total	7	6	16	0	0	4	0	0	23	0	56	3	4	0	0	0	7	
	EVE	In	1	1	2	0	0	0	0	0	2	0	6	0	1	0	0	0	1	
		Out	3	2	6	0	0	2	0	0	9	0	22	1	1	0	0	0	2	
		Total	4	3	8	0	0	2	0	0	11	0	28	1	2	0	0	0	3	
Sat MD	In	4	3	9	0	0	2	0	0	12	0	30	2	3	0	0	0	5		
	Out	4	3	7	0	0	2	0	0	10	0	26	2	3	0	0	0	5		
	Total	8	6	16	0	0	4	0	0	22	0	56	4	6	0	0	0	10		
Sat EVE	In	1	0	1	0	0	0	0	0	2	0	4	0	1	0	0	0	1		
	Out	2	1	3	0	0	1	0	0	5	0	12	1	1	0	0	0	2		
	Total	3	1	4	0	0	1	0	0	7	0	16	1	2	0	0	0	3		
Total	AM	In	274	173	3,004	870	2	636	123	0	1,387	48	6,517	229	163	7	0	50	449	
		Out	201	139	1,427	183	6	212	0	0	1,280	72	3,520	191	163	7	0	50	411	
		Total	475	312	4,431	1,053	8	848	123	0	2,667	120	10,037	420	326	14	0	100	860	
	Midday	In	142	127	554	51	3	176	0	0	2,941	33	4,027	119	132	0	0	53	304	
		Out	138	122	542	48	3	168	0	0	2,792	33	3,846	114	132	0	0	53	299	
		Total	280	249	1,096	99	6	344	0	0	5,733	66	7,873	233	264	0	0	106	603	
	PM	In	198	121	1,193	168	5	197	0	0	1,750	61	3,693	186	170	7	0	9	372	
		Out	305	181	2,802	734	3	577	123	0	2,048	64	6,837	253	170	7	0	9	439	
		Total	503	302	3,995	902	8	774	123	0	3,798	125	10,530	439	340	14	0	18	811	
	EVE	In	145	88	789	91	3	122	0	0	1,140	48	2,426	123	98	0	0	9	230	
		Out	155	93	1,078	259	3	218	0	0	1,146	33	2,985	131	98	0	0	9	238	
		Total	300	181	1,867	350	6	340	0	0	2,286	81	5,411	254	196	0	0	18	468	
	Sat MD	In	191	118	781	40	5	138	0	0	2,221	60	3,554	157	119	0	0	4	280	
		Out	170	106	654	35	3	125	0	0	2,169	51	3,313	140	119	0	0	4	263	
		Total	361	224	1,435	75	8	263	0	0	4,390	111	6,867	297	238	0	0	8	543	
	Sat EVE	In	113	65	544	44	3	81	0	0	983	38	1,871	94	71	0	0	0	165	
		Out	117	66	523	48	3	87	0	0	1,054	34	1,932	93	71	0	0	0	164	
		Total	230	131	1,067	92	6	168	0	0	2,037	72	3,803	187	142	0	0	0	329	

As summarized in **Table 14-10**, the Proposed Project would generate 10,054; 10,792; 14,815; 9,440; 10,233; and 10,592 person trips during the weekday AM, midday, PM, evening, and Saturday midday/afternoon and evening peak hours, respectively. Approximately 1,201; 1,587; 2,054; 1,623; 1,793; and 1,880 vehicle trips would be generated during the same respective peak hours.

**Table 14-10
Trip Generation: Proposed Project**

Program	Peak Hour	In/Out	Person Trip										Vehicle Trip						
			Auto	Taxi	Subway	Railroad	Ferry	Bus	School Tour		Walk	Bicycle	Total	Auto	Taxi	School Tour		Delivery	Total
									Bus	Bus							Bus	Bus	
Residential 1,507 DU	AM	In	18	13	118	6	1	13	0	0	75	8	252	16	28	0	0	5	49
		Out	65	47	418	20	3	46	0	0	266	29	894	57	28	0	0	5	90
		Total	83	60	536	26	4	59	0	0	341	37	1,146	73	56	0	0	10	139
	Midday	In	25	18	161	8	1	18	0	0	103	11	345	22	19	0	0	4	45
		Out	25	18	161	8	1	18	0	0	103	11	345	22	19	0	0	4	45
		Total	50	36	322	16	2	36	0	0	206	22	690	44	38	0	0	8	90
	PM	In	47	34	303	14	2	34	0	0	194	21	649	41	33	0	0	1	75
		Out	29	21	186	9	1	21	0	0	119	13	399	25	33	0	0	1	59
		Total	76	55	489	23	3	55	0	0	313	34	1,048	66	66	0	0	2	134
	EVE	In	40	29	253	12	2	28	0	0	161	17	542	35	28	0	0	1	64
		Out	25	18	162	8	1	18	0	0	103	11	346	22	28	0	0	1	51
		Total	65	47	415	20	3	46	0	0	264	28	888	57	56	0	0	2	115
Sat MD	In	46	34	295	14	2	33	0	0	188	20	632	40	32	0	0	1	73	
	Out	38	27	242	11	2	27	0	0	154	17	518	33	32	0	0	1	66	
	Total	84	61	537	25	4	60	0	0	342	37	1,150	73	64	0	0	2	139	
Sat EVE	In	30	22	193	9	1	22	0	0	123	13	413	26	22	0	0	0	48	
	Out	26	19	165	8	1	18	0	0	105	11	353	23	22	0	0	0	45	
	Total	56	41	358	17	2	40	0	0	228	24	766	49	44	0	0	0	93	

Western Rail Yard Modifications

Table 14-10
Trip Generation: Proposed Project

Program	Peak Hour	In/Out	Person Trip										Vehicle Trip						
			School Tour										School Tour						
			Auto	Taxi	Subway	Railroad	Ferry	Bus	Bus	Bus	Walk	Bicycle	Total	Auto	Taxi	Bus	Bus	Delivery	Total
Office 2,179,899 GSF	AM	In	167	126	2,301	837	0	544	0	0	209	0	4,184	146	71	0	0	35	252
		Out	27	20	375	136	0	89	0	0	34	0	681	24	71	0	0	35	130
		Total	194	146	2,676	973	0	633	0	0	243	0	4,865	170	142	0	0	70	382
	Midday	In	34	67	135	34	0	112	0	0	1,863	0	2,245	30	68	0	0	38	136
		Out	31	62	124	31	0	104	0	0	1,720	0	2,072	27	68	0	0	38	133
		Total	65	129	259	65	0	216	0	0	3,583	0	4,317	57	136	0	0	76	269
	PM	In	26	20	363	132	0	86	0	0	33	0	660	23	75	0	0	7	105
		Out	138	104	1,903	692	0	450	0	0	173	0	3,460	121	75	0	0	7	203
		Total	164	124	2,266	824	0	536	0	0	206	0	4,120	144	150	0	0	14	308
	EVE	In	12	9	164	60	0	39	0	0	15	0	299	11	25	0	0	7	43
		Out	48	36	656	239	0	155	0	0	60	0	1,194	42	25	0	0	7	74
		Total	60	45	820	299	0	194	0	0	75	0	1,493	53	50	0	0	14	117
	Sat MD	In	9	17	35	9	0	29	0	0	478	0	577	8	19	0	0	1	28
		Out	9	19	37	9	0	31	0	0	517	0	622	8	19	0	0	1	28
		Total	18	36	72	18	0	60	0	0	995	0	1,199	16	38	0	0	2	56
	Sat EVE	In	4	3	59	21	0	14	0	0	5	0	106	4	4	0	0	0	8
		Out	5	4	72	26	0	17	0	0	7	0	131	4	4	0	0	0	8
		Total	9	7	131	47	0	31	0	0	12	0	237	8	8	0	0	0	16
Local Retail 24,638 GSF	AM	In	4	1	1	0	0	1	0	0	93	1	101	3	1	0	0	0	4
		Out	4	1	1	0	0	1	0	0	86	1	94	3	1	0	0	0	4
		Total	8	2	2	0	0	2	0	0	179	2	195	6	2	0	0	0	8
	Midday	In	6	2	2	0	0	2	0	0	149	2	163	5	3	0	0	0	8
		Out	6	2	2	0	0	2	0	0	149	2	163	5	3	0	0	0	8
		Total	12	4	4	0	0	4	0	0	298	4	326	10	6	0	0	0	16
	PM	In	9	2	2	0	0	2	0	0	203	2	220	8	3	0	0	0	11
		Out	9	2	2	0	0	2	0	0	203	2	220	8	3	0	0	0	11
		Total	18	4	4	0	0	4	0	0	406	4	440	16	6	0	0	0	22
	EVE	In	6	2	2	0	0	2	0	0	140	2	154	5	3	0	0	0	8
		Out	7	2	2	0	0	2	0	0	158	2	173	6	3	0	0	0	9
		Total	13	4	4	0	0	4	0	0	298	4	327	11	6	0	0	0	17
	Sat MD	In	10	3	3	0	0	3	0	0	237	3	259	8	4	0	0	0	12
		Out	10	3	3	0	0	3	0	0	237	3	259	8	4	0	0	0	12
		Total	20	6	6	0	0	6	0	0	474	6	518	16	8	0	0	0	24
	Sat EVE	In	6	1	1	0	0	1	0	0	129	1	139	5	2	0	0	0	7
		Out	6	2	2	0	0	2	0	0	139	2	153	5	2	0	0	0	7
		Total	12	3	3	0	0	3	0	0	268	3	292	10	4	0	0	0	14
Hotel 1,750 Rooms	AM	In	9	80	28	2	0	4	0	0	55	0	178	5	93	0	0	6	104
		Out	20	178	63	4	0	8	0	0	122	0	395	11	93	0	0	6	110
		Total	29	258	91	6	0	12	0	0	177	0	573	16	186	0	0	12	214
	Midday	In	8	74	26	2	0	3	0	0	51	0	164	4	75	0	0	5	84
		Out	15	132	47	3	0	6	0	0	91	0	294	8	75	0	0	5	88
		Total	23	206	73	5	0	9	0	0	142	0	458	12	150	0	0	10	172
	PM	In	16	143	51	3	0	6	0	0	98	0	317	9	102	0	0	1	112
		Out	15	132	47	3	0	6	0	0	91	0	294	8	102	0	0	1	111
		Total	31	275	98	6	0	12	0	0	189	0	611	17	204	0	0	2	223
	EVE	In	12	109	39	2	0	5	0	0	75	0	242	7	78	0	0	0	85
		Out	11	101	36	2	0	4	0	0	69	0	223	6	78	0	0	0	84
		Total	23	210	75	4	0	9	0	0	144	0	465	13	156	0	0	0	169
	Sat MD	In	22	163	54	4	0	7	0	0	112	0	362	10	103	0	0	1	114
		Out	21	157	52	3	0	7	0	0	108	0	348	10	103	0	0	1	114
		Total	43	320	106	7	0	14	0	0	220	0	710	20	206	0	0	2	228
	Sat EVE	In	18	137	46	3	0	6	0	0	95	0	305	9	85	0	0	0	94
		Out	17	127	42	3	0	6	0	0	87	0	282	8	85	0	0	0	93
		Total	35	264	88	6	0	12	0	0	182	0	587	17	170	0	0	0	187
PS Students 420 Students	AM	In	12	0	79	0	0	9	87	0	215	13	415	9	0	5	0	1	15
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	15
		Total	12	0	79	0	0	9	87	0	215	13	415	18	0	10	0	2	30
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
	PM	In	0	0	0	0	0	0	0	0	0	0	0	9	0	5	0	0	14
		Out	12	0	79	0	0	9	87	0	215	13	415	9	0	5	0	0	14
		Total	12	0	79	0	0	9	87	0	215	13	415	18	0	10	0	0	28
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 14-10
Trip Generation: Proposed Project

Program	Peak Hour	In/Out	Person Trip										Vehicle Trip						
			Auto	Taxi	Subway	Railroad	Ferry	School Tour				Total	Auto	Taxi	School Tour		Total		
								Bus	Bus	Walk	Bicycle				Bus	Bus		Delivery	
PS Staff 51 Staff	AM	In	2	1	22	8	0	5	0	0	2	0	40	2	1	0	0	0	3
		Out	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
		Total	2	1	22	8	0	5	0	0	2	0	40	2	2	0	0	0	4
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	In	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
		Out	2	1	22	8	0	5	0	0	2	0	40	2	1	0	0	0	3
		Total	2	1	22	8	0	5	0	0	2	0	40	2	2	0	0	0	4
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PS Parents 239 Parents	AM	In	0	0	62	0	0	7	0	0	168	0	237	0	0	0	0	0	0
		Out	0	0	62	0	0	7	0	0	168	0	237	0	0	0	0	0	0
		Total	0	0	124	0	0	14	0	0	336	0	474	0	0	0	0	0	0
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	In	0	0	62	0	0	7	0	0	168	0	237	0	0	0	0	0	0
		Out	0	0	62	0	0	7	0	0	168	0	237	0	0	0	0	0	0
		Total	0	0	124	0	0	14	0	0	336	0	474	0	0	0	0	0	0
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IS Students 330 Students	AM	In	13	0	181	0	0	20	36	0	70	7	327	10	0	2	0	0	12
		Out	0	0	0	0	0	0	0	0	0	0	0	10	0	2	0	0	12
		Total	13	0	181	0	0	20	36	0	70	7	327	20	0	4	0	0	24
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
	PM	In	0	0	0	0	0	0	0	0	0	0	0	10	0	2	0	0	12
		Out	13	0	181	0	0	20	36	0	70	7	327	10	0	2	0	0	12
		Total	13	0	181	0	0	20	36	0	70	7	327	20	0	4	0	0	24
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IS Staff 40 Staff	AM	In	1	1	18	6	0	4	0	0	2	0	32	1	1	0	0	0	2
		Out	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
		Total	1	1	18	6	0	4	0	0	2	0	32	1	2	0	0	0	3
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	In	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
		Out	1	1	18	6	0	4	0	0	2	0	32	1	1	0	0	0	2
		Total	1	1	18	6	0	4	0	0	2	0	32	1	2	0	0	0	3
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Western Rail Yard Modifications

Table 14-10
Trip Generation: Proposed Project

Program	Peak Hour	In/Out	Person Trip										Vehicle Trip						
			School Tour										School Tour						
			Auto	Taxi	Subway	Railroad	Ferry	Bus	Bus	Bus	Walk	Bicycle	Total	Auto	Taxi	Bus	Bus	Delivery	Total
Daycare - Children 10,000 GSF	AM	In	4	3	17	0	0	2	0	0	28	2	56	2	2	0	0	0	4
		Out	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4
		Total	4	3	17	0	0	2	0	0	28	2	56	4	4	0	0	0	8
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	In	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4
		Out	4	3	17	0	0	2	0	0	28	2	56	2	2	0	0	0	4
		Total	4	3	17	0	0	2	0	0	28	2	56	4	4	0	0	0	8
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daycare - Parents 10,000 GSF	AM	In	4	3	17	0	0	2	0	0	28	2	56	0	0	0	0	0	0
		Out	4	3	17	0	0	2	0	0	28	2	56	0	0	0	0	0	0
		Total	8	6	34	0	0	4	0	0	56	4	112	0	0	0	0	0	0
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	In	4	3	17	0	0	2	0	0	28	2	56	0	0	0	0	0	0
		Out	4	3	17	0	0	2	0	0	28	2	56	0	0	0	0	0	0
		Total	8	6	34	0	0	4	0	0	56	4	112	0	0	0	0	0	0
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daycare - Staff 10,000 GSF	AM	In	1	0	8	3	0	2	0	0	1	0	15	1	0	0	0	0	1
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	1	0	8	3	0	2	0	0	1	0	15	1	0	0	0	0	1
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	1	0	8	3	0	2	0	0	1	0	15	1	0	0	0	0	1
		Total	1	0	8	3	0	2	0	0	1	0	15	1	0	0	0	0	1
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Museum (Art/Cultural Space) 16,000 GSF	AM	In	1	0	1	0	0	0	0	2	0	4	0	0	0	0	0	0	
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Total	1	0	1	0	0	0	0	2	0	4	0	0	0	0	0	0	
	Midday	In	4	3	9	0	0	2	0	0	12	0	30	2	3	0	0	0	5
		Out	5	4	11	0	0	3	0	0	17	0	40	2	3	0	0	0	5
		Total	9	7	20	0	0	5	0	0	29	0	70	4	6	0	0	0	10
	PM	In	2	2	5	0	0	1	0	0	7	0	17	1	2	0	0	0	3
		Out	5	4	11	0	0	3	0	0	16	0	39	2	2	0	0	0	4
		Total	7	6	16	0	0	4	0	0	23	0	56	3	4	0	0	0	7
	EVE	In	1	1	2	0	0	0	0	0	2	0	6	0	1	0	0	0	1
		Out	3	2	6	0	0	2	0	0	9	0	22	1	1	0	0	0	2
		Total	4	3	8	0	0	2	0	0	11	0	28	1	2	0	0	0	3
	Sat MD	In	4	3	9	0	0	2	0	0	12	0	30	2	3	0	0	0	5
		Out	4	3	7	0	0	2	0	0	10	0	26	2	3	0	0	0	5
		Total	8	6	16	0	0	4	0	0	22	0	56	4	6	0	0	0	10
	Sat EVE	In	1	0	1	0	0	0	0	0	2	0	4	0	1	0	0	0	1
		Out	2	1	3	0	0	1	0	0	5	0	12	1	1	0	0	0	2
		Total	3	1	4	0	0	1	0	0	7	0	16	1	2	0	0	0	3

Table 14-10
Trip Generation: Proposed Project

Program	Peak Hour	In/Out	Person Trip										Vehicle Trip						
			School Tour										School Tour						
			Auto	Taxi	Subway	Railroad	Ferry	Bus	Bus	Bus	Walk	Bicycle	Total	Auto	Taxi	Bus	Bus	Delivery	Total
Gaming Resort Patrons 5,450 Positions 251,055 GSF	AM	In	116	263	273	32	11	84	0	53	221	0	1,053	58	135	0	2	2	197
		Out	47	107	112	13	4	34	0	21	90	0	428	24	135	0	1	2	162
		Total	163	370	385	45	15	118	0	74	311	0	1,481	82	270	0	3	4	359
	Midday	In	212	481	500	58	19	154	0	96	404	0	1,924	106	315	0	3	2	426
		Out	166	378	393	45	15	121	0	76	317	0	1,511	83	315	0	2	2	402
		Total	378	859	893	103	34	275	0	172	721	0	3,435	189	630	0	5	4	828
	PM	In	188	427	444	51	17	136	0	85	358	0	1,706	94	331	0	2	0	427
		Out	203	462	481	55	18	148	0	92	388	0	1,847	102	331	0	3	0	436
		Total	391	889	925	106	35	284	0	177	746	0	3,553	196	662	0	5	0	863
	EVE	In	237	538	559	65	22	172	0	108	452	0	2,153	119	359	0	3	0	481
		Out	194	440	457	53	18	141	0	88	369	0	1,760	97	359	0	3	0	459
		Total	431	978	1,016	118	40	313	0	196	821	0	3,913	216	718	0	6	0	940
Sat MD	In	248	564	587	68	23	181	0	113	474	0	2,258	124	394	0	3	0	521	
	Out	220	500	520	60	20	160	0	100	420	0	2,000	110	394	0	3	0	507	
	Total	468	1,064	1,107	128	43	341	0	213	894	0	4,258	234	788	0	6	0	1,028	
Sat EVE	In	261	593	616	71	24	190	0	119	498	0	2,372	131	420	0	3	0	554	
	Out	241	547	569	66	22	175	0	109	459	0	2,188	121	420	0	3	0	544	
	Total	502	1,140	1,185	137	46	365	0	228	957	0	4,560	252	840	0	6	0	1,098	
Gaming Resort Employees 5,450 Positions	AM	In	8	6	103	38	0	24	0	0	9	0	188	7	3	0	0	0	10
		Out	0	0	1	0	0	0	0	0	0	0	1	0	3	0	0	0	3
		Total	8	6	104	38	0	24	0	0	9	0	189	7	6	0	0	0	13
	Midday	In	12	9	168	61	0	40	0	0	15	0	305	11	6	0	0	0	17
		Out	5	3	62	23	0	15	0	0	6	0	114	4	6	0	0	0	10
		Total	17	12	230	84	0	55	0	0	21	0	419	15	12	0	0	0	27
	PM	In	4	3	59	21	0	14	0	0	5	0	106	4	4	0	0	0	8
		Out	8	6	104	38	0	25	0	0	9	0	190	7	4	0	0	0	11
		Total	12	9	163	59	0	39	0	0	14	0	296	11	8	0	0	0	19
	EVE	In	12	9	171	62	0	40	0	0	16	0	310	11	9	0	0	0	20
		Out	12	9	164	60	0	39	0	0	15	0	299	11	9	0	0	0	20
		Total	24	18	335	122	0	79	0	0	31	0	609	22	18	0	0	0	40
Sat MD	In	11	8	146	53	0	35	0	0	13	0	266	10	8	0	0	0	18	
	Out	9	7	124	45	0	29	0	0	11	0	225	8	8	0	0	0	16	
	Total	20	15	270	98	0	64	0	0	24	0	491	18	16	0	0	0	34	
Sat EVE	In	17	12	228	83	0	54	0	0	21	0	415	15	13	0	0	0	28	
	Out	16	12	219	80	0	52	0	0	20	0	399	14	13	0	0	0	27	
	Total	33	24	447	163	0	106	0	0	41	0	814	29	26	0	0	0	55	
Gaming Resort Retail 34,250 GSF	AM	In	2	1	7	1	0	2	0	0	13	0	26	1	1	0	0	0	2
		Out	1	1	4	0	0	1	0	0	8	0	15	1	1	0	0	0	2
		Total	3	2	11	1	0	3	0	0	21	0	41	2	2	0	0	0	4
	Midday	In	6	3	13	0	0	5	0	0	38	0	65	4	2	0	0	1	7
		Out	5	2	11	0	0	5	0	0	33	0	56	4	2	0	0	1	7
		Total	11	5	24	0	0	10	0	0	71	0	121	8	4	0	0	2	14
	PM	In	5	2	16	1	0	5	0	0	30	0	59	4	1	0	0	0	5
		Out	6	2	16	1	0	5	0	0	31	0	61	4	1	0	0	0	5
		Total	11	4	32	2	0	10	0	0	61	0	120	8	2	0	0	0	10
	EVE	In	5	2	14	1	0	4	0	0	26	0	52	4	1	0	0	0	5
		Out	5	2	14	1	0	4	0	0	26	0	52	4	1	0	0	0	5
		Total	10	4	28	2	0	8	0	0	52	0	104	8	2	0	0	0	10
Sat MD	In	8	4	18	0	0	7	0	0	53	0	90	5	3	0	0	0	8	
	Out	8	3	17	0	0	7	0	0	49	0	84	5	3	0	0	0	8	
	Total	16	7	35	0	0	14	0	0	102	0	174	10	6	0	0	0	16	
Sat EVE	In	4	2	13	1	0	4	0	0	25	0	49	2	2	0	0	0	4	
	Out	8	4	25	2	0	7	0	0	47	0	93	5	2	0	0	0	7	
	Total	12	6	38	3	0	11	0	0	72	0	142	7	4	0	0	0	11	
Gaming Resort Food/Beverage 90,023 GSF	AM	In	6	9	15	1	0	1	0	0	25	0	57	3	4	0	0	0	7
		Out	3	5	8	1	0	1	0	0	14	0	32	1	4	0	0	0	5
		Total	9	14	23	2	0	2	0	0	39	0	89	4	8	0	0	0	12
	Midday	In	59	89	157	12	0	12	0	0	264	0	593	27	46	0	0	10	83
		Out	36	55	96	7	0	7	0	0	162	0	363	16	46	0	0	10	72
		Total	95	144	253	19	0	19	0	0	426	0	956	43	92	0	0	20	155
	PM	In	50	75	132	10	0	10	0	0	221	0	498	23	46	0	0	2	71
		Out	44	66	117	9	0	9	0	0	196	0	441	20	46	0	0	2	68
		Total	94	141	249	19	0	19	0	0	417	0	939	43	92	0	0	4	139
	EVE	In	50	75	132	10	0	10	0	0	221	0	498	23	45	0	0	0	68
		Out	44	66	117	9	0	9	0	0	196	0	441	20	45	0	0	0	65
		Total	94	141	249	19	0	19	0	0	417	0	939	43	90	0	0	0	133
Sat MD	In	79	118	209	16	0	16	0	0	351	0	789	36	81	0	0	10	127	
	Out	89	133	235	18	0	18	0	0	395	0	888	40	81	0	0	10	131	
	Total	168	251	444	34	0	34	0	0	746	0	1,677	76	162	0	0	20	258	
Sat EVE	In	46	69	121	9	0	9	0	0	204	0	458	21	49	0	0	0	70	
	Out	56	84	148	11	0	11	0	0	249	0	559	25	49	0	0	0	74	
	Total	102	153	269	20	0	20	0	0	453	0	1,017	46	98	0	0	0	144	

Western Rail Yard Modifications

**Table 14-10
Trip Generation: Proposed Project**

Program	Peak Hour	In/Out	Person Trip										Vehicle Trip								
			School Tour										School Tour								
			Auto	Taxi	Subway	Railroad	Ferry	Bus	Bus	Bus	Walk	Bicycle	Total	Auto	Taxi	Bus	Bus	Delivery	Total		
Gaming Resort Ballroom (Event Space) 2,800 Patrons	AM	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
	PM	In	282	104	324	0	0	136	0	0	775	0	1,621	128	45	0	0	0	0	173	
		Out	94	35	108	0	0	45	0	0	258	0	540	43	45	0	0	0	0	88	
		Total	376	139	432	0	0	181	0	0	1,033	0	2,161	171	90	0	0	0	0	261	
	EVE	In	22	8	26	0	0	11	0	0	61	0	128	10	13	0	0	0	0	23	
		Out	95	35	109	0	0	46	0	0	261	0	546	43	13	0	0	0	0	56	
		Total	117	43	135	0	0	57	0	0	322	0	674	53	26	0	0	0	0	79	
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Sat EVE	In	282	104	324	0	0	136	0	0	775	0	1,621	128	44	0	0	0	0	172		
	Out	94	35	108	0	0	45	0	0	258	0	540	43	44	0	0	0	0	87		
	Total	376	139	432	0	0	181	0	0	1,033	0	2,161	171	88	0	0	0	0	259		
Total	AM	In	368	507	3,251	934	12	724	123	53	1,216	33	7,221	264	340	7	2	49	662		
		Out	171	362	1,061	174	7	189	0	21	816	32	2,833	142	340	7	1	49	539		
		Total	539	869	4,312	1,108	19	913	123	74	2,032	65	10,054	406	680	14	3	98	1,201		
	Midday	In	366	746	1,171	175	20	348	0	96	2,899	13	5,834	211	537	0	3	63	814		
		Out	294	656	907	117	16	281	0	76	2,598	13	4,958	171	537	0	2	63	773		
		Total	660	1,402	2,078	292	36	629	0	172	5,497	26	10,792	382	1,074	0	5	126	1,587		
	PM	In	633	815	1,778	232	19	439	0	85	2,120	25	6,146	356	646	7	2	11	1,022		
		Out	588	842	3,379	824	19	765	123	92	1,998	39	8,669	365	646	7	3	11	1,032		
		Total	1,221	1,657	5,157	1,056	38	1,204	123	177	4,118	64	14,815	721	1,292	14	5	22	2,054		
	EVE	In	397	782	1,362	212	24	311	0	108	1,169	19	4,384	225	562	0	3	8	798		
		Out	444	711	1,723	372	19	420	0	88	1,266	13	5,056	252	562	0	3	8	825		
		Total	841	1,493	3,085	584	43	731	0	196	2,435	32	9,440	477	1,124	0	6	16	1,623		
	Sat MD	In	437	914	1,356	164	25	313	0	113	1,918	23	5,263	243	647	0	3	13	906		
		Out	408	852	1,237	146	22	284	0	100	1,901	20	4,970	224	647	0	3	13	887		
Total		845	1,766	2,593	310	47	597	0	213	3,819	43	10,233	467	1,294	0	6	26	1,793			
Sat EVE	In	669	943	1,602	197	25	436	0	119	1,877	14	5,882	341	642	0	3	0	986			
	Out	471	835	1,353	196	23	334	0	109	1,376	13	4,710	249	642	0	3	0	894			
	Total	1,140	1,778	2,955	393	48	770	0	228	3,253	27	10,592	590	1,284	0	6	0	1,880			

As summarized in **Table 14-11**, the Alternative Scenario would generate 12,105; 9,665; 18,025; 7,042; 5,692; and 9,306 person trips during the weekday AM, midday, PM, evening, and Saturday midday/afternoon and evening peak hours, respectively. Approximately 1,139; 866; 1,828; 863; 649; and 1,157 vehicle trips would be generated during the same respective peak hours.

**Table 14-11
Trip Generation: Alternative Scenario**

Program	Peak Hour	In/Out	Person Trip										Vehicle Trip						
			School Tour										School Tour						
			Auto	Taxi	Subway	Railroad	Ferry	Bus	Bus	Bus	Walk	Bicycle	Total	Auto	Taxi	Bus	Bus	Delivery	Total
Residential 1,816 DU	AM	In	22	16	142	7	1	16	0	0	90	10	304	19	35	0	0	6	60
		Out	78	57	504	24	4	56	0	0	321	35	1,079	68	35	0	0	6	109
		Total	100	73	646	31	5	72	0	0	411	45	1,383	87	70	0	0	12	169
	Midday	In	30	22	194	10	1	22	0	0	124	13	416	26	24	0	0	5	55
		Out	30	22	194	10	1	22	0	0	124	13	416	26	24	0	0	5	55
		Total	60	44	388	20	2	44	0	0	248	26	832	52	48	0	0	10	110
	PM	In	57	41	365	17	2	41	0	0	234	25	782	50	39	0	0	1	90
		Out	35	25	224	11	1	25	0	0	143	16	480	30	39	0	0	1	70
		Total	92	66	589	28	3	66	0	0	377	41	1,262	80	78	0	0	2	160
	EVE	In	48	35	305	14	2	34	0	0	194	21	653	42	34	0	0	1	77
		Out	30	22	195	10	1	22	0	0	124	13	417	26	34	0	0	1	61
		Total	78	57	500	24	3	56	0	0	318	34	1,070	68	68	0	0	2	138
	Sat MD	In	55	41	356	17	2	40	0	0	227	24	762	48	39	0	0	1	88
		Out	46	33	292	13	2	33	0	0	186	20	625	40	39	0	0	1	80
Total		101	74	648	30	4	73	0	0	413	44	1,387	88	78	0	0	2	168	
Sat EVE	In	36	26	233	11	1	26	0	0	148	16	497	31	26	0	0	0	57	
	Out	31	23	199	10	1	22	0	0	127	13	426	27	26	0	0	0	53	
	Total	67	49	432	21	2	48	0	0	275	29	923	58	52	0	0	0	110	

Table 14-11
Trip Generation: Alternative Scenario

Program	Peak Hour	In/Out	Person Trip										Vehicle Trip						
			School Tour										School Tour						
			Auto	Taxi	Subway	Railroad	Ferry	Bus	Bus	Bus	Walk	Bicycle	Total	Auto	Taxi	Bus	Bus	Delivery	Total
Office 3,745,932 GSF	AM	In	287	216	3,954	1,438	0	935	0	0	359	0	7,189	251	127	0	0	60	438
		Out	47	35	644	234	0	153	0	0	58	0	1,171	42	127	0	0	60	229
		Total	334	251	4,598	1,672	0	1,088	0	0	417	0	8,360	293	254	0	0	120	667
	Midday	In	58	115	232	58	0	193	0	0	3,201	0	3,857	51	119	0	0	66	236
		Out	53	107	213	53	0	178	0	0	2,955	0	3,559	46	119	0	0	66	231
		Total	111	222	445	111	0	371	0	0	6,156	0	7,416	97	238	0	0	132	467
	PM	In	45	34	623	227	0	148	0	0	57	0	1,134	40	121	0	0	12	173
		Out	237	179	3,270	1,189	0	773	0	0	297	0	5,945	208	121	0	0	12	341
		Total	282	213	3,893	1,416	0	921	0	0	354	0	7,079	248	242	0	0	24	514
	EVE	In	21	15	282	103	0	67	0	0	26	0	514	19	43	0	0	12	74
		Out	82	62	1,127	410	0	266	0	0	103	0	2,050	72	43	0	0	12	127
		Total	103	77	1,409	513	0	333	0	0	129	0	2,564	91	86	0	0	24	201
	Sat MD	In	15	29	60	15	0	50	0	0	821	0	990	13	32	0	0	2	47
		Out	16	32	64	16	0	53	0	0	889	0	1,070	14	32	0	0	2	48
		Total	31	61	124	31	0	103	0	0	1,710	0	2,060	27	64	0	0	4	95
	Sat EVE	In	7	5	101	36	0	24	0	0	9	0	182	7	6	0	0	0	13
		Out	9	7	124	45	0	29	0	0	12	0	226	8	6	0	0	0	14
		Total	16	12	225	81	0	53	0	0	21	0	408	15	12	0	0	0	27
Local Retail 34,868 GSF	AM	In	6	1	1	0	0	1	0	0	132	1	142	5	1	0	0	0	6
		Out	6	1	1	0	0	1	0	0	122	1	132	5	1	0	0	0	6
		Total	12	2	2	0	0	2	0	0	254	2	274	10	2	0	0	0	12
	Midday	In	9	3	3	0	0	3	0	0	211	3	232	8	5	0	0	0	13
		Out	9	3	3	0	0	3	0	0	211	3	232	8	5	0	0	0	13
		Total	18	6	6	0	0	6	0	0	422	6	464	16	10	0	0	0	26
	PM	In	13	3	3	0	0	3	0	0	287	3	312	11	4	0	0	0	15
		Out	13	3	3	0	0	3	0	0	287	3	312	11	4	0	0	0	15
		Total	26	6	6	0	0	6	0	0	574	6	624	22	8	0	0	0	30
	EVE	In	9	3	3	0	0	3	0	0	198	3	219	8	5	0	0	0	13
		Out	10	3	3	0	0	3	0	0	224	3	246	9	5	0	0	0	14
		Total	19	6	6	0	0	6	0	0	422	6	465	17	10	0	0	0	27
	Sat MD	In	14	4	4	0	0	4	0	0	336	4	366	11	5	0	0	0	16
		Out	14	4	4	0	0	4	0	0	336	4	366	11	5	0	0	0	16
		Total	28	8	8	0	0	8	0	0	672	8	732	22	10	0	0	0	32
	Sat EVE	In	8	2	2	0	0	2	0	0	182	2	198	7	3	0	0	0	10
		Out	9	3	3	0	0	3	0	0	197	3	218	8	3	0	0	0	11
		Total	17	5	5	0	0	5	0	0	379	5	416	15	6	0	0	0	21
Hotel 700 Rooms	AM	In	9	80	28	2	0	4	0	0	55	0	178	5	97	0	0	3	105
		Out	20	178	63	4	0	8	0	0	122	0	395	11	97	0	0	3	111
		Total	29	258	91	6	0	12	0	0	177	0	573	16	194	0	0	6	216
	Midday	In	8	74	26	2	0	3	0	0	51	0	164	4	79	0	0	2	85
		Out	15	132	47	3	0	6	0	0	91	0	294	8	79	0	0	2	89
		Total	23	206	73	5	0	9	0	0	142	0	458	12	158	0	0	4	174
	PM	In	16	143	51	3	0	6	0	0	98	0	317	9	99	0	0	0	108
		Out	15	132	47	3	0	6	0	0	91	0	294	8	99	0	0	0	107
		Total	31	275	98	6	0	12	0	0	189	0	611	17	198	0	0	0	215
	EVE	In	12	109	39	2	0	5	0	0	75	0	242	7	84	0	0	0	91
		Out	11	101	36	2	0	4	0	0	69	0	223	6	84	0	0	0	90
		Total	23	210	75	4	0	9	0	0	144	0	465	13	168	0	0	0	181
	Sat MD	In	22	163	54	4	0	7	0	0	112	0	362	10	104	0	0	0	114
		Out	21	157	52	3	0	7	0	0	108	0	348	10	104	0	0	0	114
		Total	43	320	106	7	0	14	0	0	220	0	710	20	208	0	0	0	228
	Sat EVE	In	18	137	46	3	0	6	0	0	95	0	305	9	79	0	0	0	88
		Out	17	127	42	3	0	6	0	0	87	0	282	8	79	0	0	0	87
		Total	35	264	88	6	0	12	0	0	182	0	587	17	158	0	0	0	175
PS Students 420 Students	AM	In	12	0	79	0	0	9	87	0	215	13	415	9	0	5	0	1	15
		Out	0	0	0	0	0	0	0	0	0	0	0	9	0	5	0	1	15
		Total	12	0	79	0	0	9	87	0	215	13	415	18	0	10	0	2	30
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
	PM	In	0	0	0	0	0	0	0	0	0	0	0	9	0	5	0	0	14
		Out	12	0	79	0	0	9	87	0	215	13	415	9	0	5	0	0	14
		Total	12	0	79	0	0	9	87	0	215	13	415	18	0	10	0	0	28
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Western Rail Yard Modifications

Table 14-11
Trip Generation: Alternative Scenario

Program	Peak Hour	In/Out	Person Trip										Vehicle Trip						
			School Tour										School Tour						
			Auto	Taxi	Subway	Railroad	Ferry	Bus	Bus	Bus	Walk	Bicycle	Total	Auto	Taxi	Bus	Bus	Delivery	Total
PS Staff 51 Staff	AM	In	2	1	22	8	0	5	0	0	2	0	40	2	1	0	0	0	3
		Out	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
		Total	2	1	22	8	0	5	0	0	2	0	40	2	2	0	0	0	4
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	In	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
		Out	2	1	22	8	0	5	0	0	2	0	40	2	1	0	0	0	3
		Total	2	1	22	8	0	5	0	0	2	0	40	2	2	0	0	0	4
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PS Parents 239 Parents	AM	In	0	0	62	0	0	7	0	0	168	0	237	0	0	0	0	0	0
		Out	0	0	62	0	0	7	0	0	168	0	237	0	0	0	0	0	0
		Total	0	0	124	0	0	14	0	0	336	0	474	0	0	0	0	0	0
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	In	0	0	62	0	0	7	0	0	168	0	237	0	0	0	0	0	0
		Out	0	0	62	0	0	7	0	0	168	0	237	0	0	0	0	0	0
		Total	0	0	124	0	0	14	0	0	336	0	474	0	0	0	0	0	0
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IS Students 330 Students	AM	In	13	0	181	0	0	20	36	0	70	7	327	10	0	2	0	0	12
		Out	0	0	0	0	0	0	0	0	0	0	0	10	0	2	0	0	12
		Total	13	0	181	0	0	20	36	0	70	7	327	20	0	4	0	0	24
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
	PM	In	0	0	0	0	0	0	0	0	0	0	0	10	0	2	0	0	12
		Out	13	0	181	0	0	20	36	0	70	7	327	10	0	2	0	0	12
		Total	13	0	181	0	0	20	36	0	70	7	327	20	0	4	0	0	24
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IS Staff 40 Staff	AM	In	1	1	18	6	0	4	0	0	2	0	32	1	1	0	0	0	2
		Out	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
		Total	1	1	18	6	0	4	0	0	2	0	32	1	2	0	0	0	3
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	In	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
		Out	1	1	18	6	0	4	0	0	2	0	32	1	1	0	0	0	2
		Total	1	1	18	6	0	4	0	0	2	0	32	1	2	0	0	0	3
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 14-11
Trip Generation: Alternative Scenario

Program	Peak Hour	In/Out	Person Trip										Vehicle Trip						
			Auto	Taxi	Subway	Railroad	Ferry	School Tour				Total	Auto	Taxi	School Tour		Total		
								Bus	Bus	Walk	Bicycle				Bus	Delivery			
Daycare - Children 10,000 GSF	AM	In	4	3	17	0	0	2	0	0	28	2	56	2	2	0	0	0	4
		Out	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4
		Total	4	3	17	0	0	2	0	0	28	2	56	4	4	0	0	0	8
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	In	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4
		Out	4	3	17	0	0	2	0	0	28	2	56	2	2	0	0	0	4
		Total	4	3	17	0	0	2	0	0	28	2	56	4	4	0	0	0	8
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daycare - Parents 10,000 GSF	AM	In	4	3	17	0	0	2	0	0	28	2	56	0	0	0	0	0	0
		Out	4	3	17	0	0	2	0	0	28	2	56	0	0	0	0	0	0
		Total	8	6	34	0	0	4	0	0	56	4	112	0	0	0	0	0	0
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	In	4	3	17	0	0	2	0	0	28	2	56	0	0	0	0	0	0
		Out	4	3	17	0	0	2	0	0	28	2	56	0	0	0	0	0	0
		Total	8	6	34	0	0	4	0	0	56	4	112	0	0	0	0	0	0
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daycare - Staff 10,000 GSF	AM	In	1	0	8	3	0	2	0	0	1	0	15	1	0	0	0	0	1
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	1	0	8	3	0	2	0	0	1	0	15	1	0	0	0	0	1
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PM	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	1	0	8	3	0	2	0	0	1	0	15	1	0	0	0	0	1
		Total	1	0	8	3	0	2	0	0	1	0	15	1	0	0	0	0	1
	EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sat EVE	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Museum (Art/Cultural Space) 16,000 GSF	AM	In	1	0	1	0	0	0	0	2	0	4	0	0	0	0	0	0	
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Total	1	0	1	0	0	0	0	0	2	0	4	0	0	0	0	0	0
	Midday	In	4	3	9	0	0	2	0	0	12	0	30	2	3	0	0	0	5
		Out	5	4	11	0	0	3	0	0	17	0	40	2	3	0	0	0	5
		Total	9	7	20	0	0	5	0	0	29	0	70	4	6	0	0	0	10
	PM	In	2	2	5	0	0	1	0	0	7	0	17	1	2	0	0	0	3
		Out	5	4	11	0	0	3	0	0	16	0	39	2	2	0	0	0	4
		Total	7	6	16	0	0	4	0	0	23	0	56	3	4	0	0	0	7
	EVE	In	1	1	2	0	0	0	0	0	2	0	6	0	1	0	0	0	1
		Out	3	2	6	0	0	2	0	0	9	0	22	1	1	0	0	0	2
		Total	4	3	8	0	0	2	0	0	11	0	28	1	2	0	0	0	3
	Sat MD	In	4	3	9	0	0	2	0	0	12	0	30	2	3	0	0	0	5
		Out	4	3	7	0	0	2	0	0	10	0	26	2	3	0	0	0	5
		Total	8	6	16	0	0	4	0	0	22	0	56	4	6	0	0	0	10
	Sat EVE	In	1	0	1	0	0	0	0	0	2	0	4	0	1	0	0	0	1
		Out	2	1	3	0	0	1	0	0	5	0	12	1	1	0	0	0	2
		Total	3	1	4	0	0	1	0	0	7	0	16	1	2	0	0	0	3

Western Rail Yard Modifications

Table 14-11
Trip Generation: Alternative Scenario

Program	Peak Hour	In/Out	Person Trip											Vehicle Trip					
			School Tour											School Tour					
			Auto	Taxi	Subway	Railroad	Ferry	Bus	Bus	Bus	Walk	Bicycle	Total	Auto	Taxi	Bus	Bus	Delivery	Total
Hotel Food/Beverage 40,163 GSF	AM	In	3	4	7	1	0	1	0	0	11	0	27	1	2	0	0	0	3
		Out	1	2	4	0	0	0	0	0	6	0	13	0	2	0	0	0	2
		Total	4	6	11	1	0	1	0	0	17	0	40	1	4	0	0	0	5
	Midday	In	26	40	70	5	0	5	0	0	118	0	264	12	21	0	0	4	37
		Out	16	24	43	3	0	3	0	0	72	0	161	7	21	0	0	4	32
		Total	42	64	113	8	0	8	0	0	190	0	425	19	42	0	0	8	69
	PM	In	22	33	59	4	0	4	0	0	99	0	221	10	19	0	0	1	30
		Out	20	30	52	4	0	4	0	0	88	0	198	9	19	0	0	1	29
		Total	42	63	111	8	0	8	0	0	187	0	419	19	38	0	0	2	59
	EVE	In	22	33	59	4	0	4	0	0	99	0	221	10	22	0	0	0	32
		Out	20	30	52	4	0	4	0	0	88	0	198	9	22	0	0	0	31
		Total	42	63	111	8	0	8	0	0	187	0	419	19	44	0	0	0	63
	Sat MD	In	35	53	93	7	0	7	0	0	156	0	351	16	37	0	0	4	57
		Out	40	59	105	8	0	8	0	0	176	0	396	18	37	0	0	4	59
Total		75	112	198	15	0	15	0	0	332	0	747	34	74	0	0	8	116	
Sat EVE	In	20	31	54	4	0	4	0	0	91	0	204	9	20	0	0	0	29	
	Out	25	37	66	5	0	5	0	0	111	0	249	11	20	0	0	0	31	
	Total	45	68	120	9	0	9	0	0	202	0	453	20	40	0	0	0	60	
Hotel Ballroom (Event Space) 8,424 Patrons	AM	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Midday	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
		Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6
	PM	In	849	312	975	0	0	410	0	0	2,331	0	4,877	386	130	0	0	0	516
		Out	283	104	325	0	0	137	0	0	777	0	1,626	129	130	0	0	0	259
		Total	1,132	416	1,300	0	0	547	0	0	3,108	0	6,503	515	260	0	0	0	775
	EVE	In	67	25	77	0	0	32	0	0	185	0	386	30	45	0	0	0	75
		Out	286	105	329	0	0	138	0	0	787	0	1,645	130	45	0	0	0	175
		Total	353	130	406	0	0	170	0	0	972	0	2,031	160	90	0	0	0	250
	Sat MD	In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sat EVE	In	849	312	975	0	0	410	0	0	2,331	0	4,877	386	123	0	0	0	509	
	Out	283	104	325	0	0	137	0	0	777	0	1,626	129	123	0	0	0	252	
	Total	1,132	416	1,300	0	0	547	0	0	3,108	0	6,503	515	246	0	0	0	761	
Total	AM	In	365	325	4,537	1,465	1	1,008	123	0	1,163	35	9,022	306	266	7	0	70	649
		Out	156	276	1,295	262	4	227	0	0	825	38	3,083	147	266	7	0	70	490
		Total	521	601	5,832	1,727	5	1,235	123	0	1,988	73	12,105	453	532	14	0	140	1,139
	Midday	In	135	257	534	75	1	228	0	0	3,717	16	4,963	103	251	0	0	82	436
		Out	128	292	511	69	1	215	0	0	3,470	16	4,702	97	251	0	0	82	430
		Total	263	549	1,045	144	2	443	0	0	7,187	32	9,665	200	502	0	0	164	866
	PM	In	1,008	571	2,160	251	2	622	0	0	3,309	30	7,953	528	418	7	0	14	967
		Out	645	485	4,336	1,224	1	1,002	123	0	2,213	43	10,072	422	418	7	0	14	861
		Total	1,653	1,056	6,496	1,475	3	1,624	123	0	5,522	73	18,025	950	836	14	0	28	1,828
	EVE	In	180	221	767	123	2	145	0	0	779	24	2,241	116	234	0	0	13	363
		Out	442	325	1,748	426	1	439	0	0	1,404	16	4,801	253	234	0	0	13	500
		Total	622	546	2,515	549	3	584	0	0	2,183	40	7,042	369	468	0	0	26	863
	Sat MD	In	145	293	576	43	2	110	0	0	1,664	28	2,861	100	220	0	0	7	327
		Out	141	288	524	40	2	107	0	0	1,705	24	2,831	95	220	0	0	7	322
Total		286	581	1,100	83	4	217	0	0	3,369	52	5,692	195	440	0	0	14	649	
Sat EVE	In	939	513	1,412	54	1	472	0	0	2,858	18	6,267	449	258	0	0	0	707	
	Out	376	302	762	63	1	203	0	0	1,316	16	3,039	192	258	0	0	0	450	
	Total	1,315	815	2,174	117	2	675	0	0	4,174	34	9,306	641	516	0	0	0	1,157	

The projected incremental trips between the No Action condition and Proposed Project are shown in **Table 14-12**. The projected incremental trips between the No Action condition and Alternative Scenario are shown in **Table 14-13**.

Table 14-12
Trip Generation: Proposed Project Net Incremental Trips

Program	Peak Hour	In/Out	Person Trip											Vehicle Trip					
			School Tour											School Tour					
			Auto	Taxi	Subway	Railroad	Ferry	Bus	Bus	Bus	Walk	Bicycle	Total	Auto	Taxi	Bus	Bus	Delivery	Total
Total	AM	In	94	334	247	64	10	88	0	53	-171	-15	704	35	177	0	2	-1	213
		Out	-30	223	-366	-9	1	-23	0	21	-464	-40	-687	-49	177	0	1	-1	128
		Total	64	557	-119	55	11	65	0	74	-635	-55	17	-14	354	0	3	-2	341
	Midday	In	224	619	617	124	17	172	0	96	-42	-20	1,807	92	405	0	3	10	510
		Out	156	534	365	69	13	113	0	76	-194	-20	1,112	57	405	0	2	10	474
		Total	380	1,153	982	193	30	285	0	172	-236	-40	2,919	149	810	0	5	20	984
	PM	In	435	694	585	64	14	242	0	85	370	-36	2,453	170	476	0	2	2	650
		Out	283	661	577	90	16	188	0	92	-50	-25	1,832	112	476	0	3	2	593
		Total	718	1,355	1,162	154	30	430	0	177	320	-61	4,285	282	952	0	5	4	1,243
	EVE	In	252	694	573	121	21	189	0	108	29	-29	1,958	102	464	0	3	-1	568
		Out	289	618	645	113	16	202	0	88	120	-20	2,071	112	464	0	3	-1	587
		Total	541	1,312	1,218	234	37	391	0	196	149	-49	4,029	223	928	0	6	-2	1,155
	Sat MD	In	246	796	575	124	20	175	0	113	-303	-37	1,709	86	528	0	3	9	626
		Out	238	746	583	111	19	159	0	100	-268	-31	1,657	84	528	0	3	9	624
		Total	484	1,542	1,158	235	39	334	0	213	-571	-68	3,366	170	1,056	0	6	18	1,250
	Sat EVE	In	556	878	1,058	153	22	355	0	119	894	-24	4,011	247	571	0	3	0	821
		Out	354	769	830	148	20	247	0	109	322	-21	2,778	156	571	0	3	0	730
		Total	910	1,647	1,888	301	42	602	0	228	1,216	-45	6,789	403	1,142	0	6	0	1,551

Table 14-13
Trip Generation: Alternative Scenario Net Incremental Trips

Program	Peak Hour	In/Out	Person Trip											Vehicle Trip					
			School Tour											School Tour					
			Auto	Taxi	Subway	Railroad	Ferry	Bus	Bus	Bus	Walk	Bicycle	Total	Auto	Taxi	Bus	Bus	Delivery	Total
Total	AM	In	91	152	1,533	595	-1	372	0	0	-224	-13	2,505	77	103	0	0	20	200
		Out	-45	137	-132	79	-2	15	0	0	-455	-34	-437	-44	103	0	0	20	79
		Total	46	289	1,401	674	-3	387	0	0	-679	-47	2,068	33	206	0	0	40	279
	Midday	In	-7	130	-20	24	-2	52	0	0	776	-17	936	-16	119	0	0	29	132
		Out	-10	170	-31	21	-2	47	0	0	678	-17	856	-17	119	0	0	29	131
		Total	-17	300	-51	45	-4	99	0	0	1,454	-34	1,792	-33	238	0	0	58	263
	PM	In	810	450	967	83	-3	425	0	0	1,559	-31	4,260	342	248	0	0	5	595
		Out	340	304	1,534	490	-2	425	0	0	165	-21	3,235	169	248	0	0	5	422
		Total	1,150	754	2,501	573	-5	850	0	0	1,724	-52	7,495	511	496	0	0	10	1,017
	EVE	In	35	133	-22	32	-1	23	0	0	-361	-24	-185	-7	136	0	0	4	133
		Out	287	232	670	167	-2	221	0	0	258	-17	1,816	122	136	0	0	4	262
		Total	322	365	648	199	-3	244	0	0	-103	-41	1,631	115	272	0	0	8	395
	Sat MD	In	-46	175	-205	3	-3	-28	0	0	-557	-32	-693	-57	101	0	0	3	47
		Out	-29	182	-130	5	-1	-18	0	0	-464	-27	-482	-45	101	0	0	3	59
		Total	-75	357	-335	8	-4	-46	0	0	-1,021	-59	-1,175	-102	202	0	0	6	106
	Sat EVE	In	826	448	868	10	-2	391	0	0	1,875	-20	4,396	355	187	0	0	0	542
		Out	259	236	239	15	-2	116	0	0	262	-18	1,107	99	187	0	0	0	286
		Total	1,085	684	1,107	25	-4	507	0	0	2,137	-38	5,503	454	374	0	0	0	828

TRAFFIC

As summarized in **Table 14-12**, the Proposed Project would generate 341; 984; 1,243; 1,155; 1,250; and 1,551 incremental vehicle trips during the weekday AM, midday, PM, evening, and Saturday midday/afternoon and evening peak hours, respectively. As shown in **Table 14-13**, the Alternative Scenario would generate 279; 263; 1,017; 395; 106; and 828 incremental vehicle trips during the same respective peak hours. Since the Proposed Project and Alternative Scenario incremental vehicle trips would be greater than 50 vehicle trips during all six analysis peak hours, Level 2 screening assessments (presented in the section below) were prepared for both scenarios to identify the overall traffic study area warranting a quantified analysis.

Western Rail Yard Modifications

TRANSIT

Public transit options to and from the study area are shown in **Figure 14-4**. The Development Site is served by the 34th Street-Hudson Yards (No. 7 train) NYCT subway station. The Development Site is also served by the M11, M12, M23 SBS, and M34 SBS local bus routes, and regional bus routes at the Port Authority Bus Terminal (PABT).

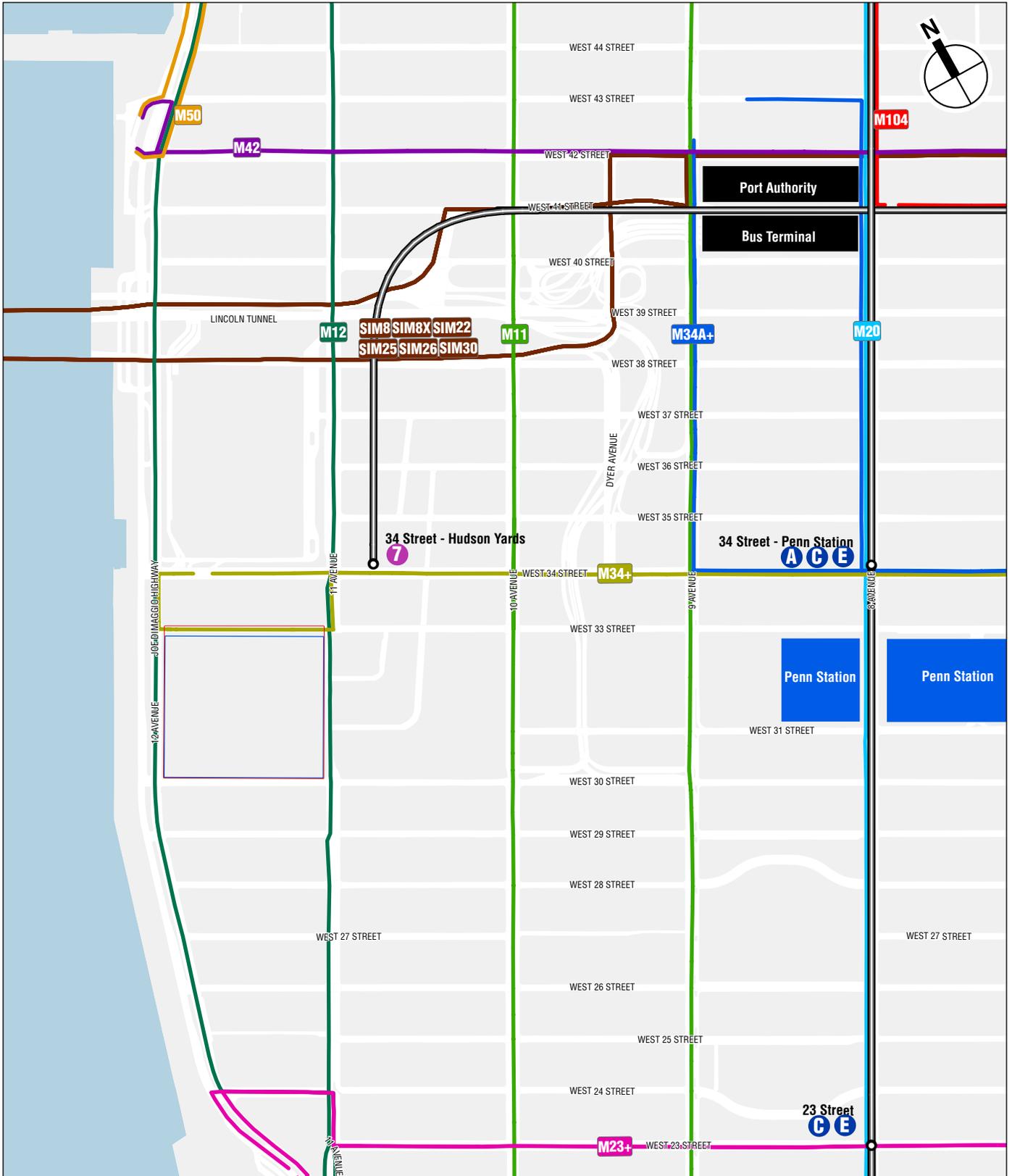
For the Proposed Project, **Table 14-12** shows that there would be -119; 982; 1,162; 1,218; 1,158; and 1,888 incremental subway trips during the weekday AM, midday, PM, evening, and Saturday midday/afternoon and evening peak hours, respectively. For the Alternative Scenario, **Table 14-13** shows that there would be 1,401; -51; 2,501; 648; -335; and 1,107 incremental subway trips during the same respective peak hours. Since the Proposed Project and Alternative Scenario incremental subway trips would be greater than 200 in the weekday AM and/or PM peak hours, Level 2 screening assessments (presented in the section below) were prepared for both scenarios for the weekday AM and PM peak hours to identify the subway station elements and/or subway lines warranting a quantified analysis.

For incremental bus trips, as detailed in **Table 14-12**, the Proposed Project would result in 65; 285; 430; 391; 334; and 602 incremental bus trips during the weekday AM, midday, PM, evening, and Saturday midday/afternoon and evening peak hours, respectively. The Alternative Scenario, as shown in **Table 14-13**, would result in 387; 99; 850; 244; -46; and 507 incremental bus trips during the same respective peak hours. Since the Proposed Project and Alternative Scenario incremental bus trips would be greater than 200 in the weekday AM and PM peak hours, Level 2 screening assessments (presented in the section below) were prepared for both scenario for the weekday AM and PM peak hours was prepared to identify bus routes warranting a quantified analysis.

Regarding trips made by commuter rail, as shown in **Table 14-12**, the Proposed Project would result in 55; 193; 154; 234; 235; and 301 incremental rail trips during the weekday AM, midday, PM, evening, and Saturday midday/afternoon and evening peak hours, respectively. The Alternative Scenario, as shown in **Table 14-13**, would result in 674; 45; 573; 199; 8; and 25 incremental commuter rail trips during the same respective peak hours. These rail trips would be distributed to the Metro-North Railroad (MNR), LIRR, New Jersey Transit (NJT), and Amtrak, at Grand Central Terminal and Penn Station. With an abundance of rail lines serving each of these commuter rail lines and multiple access points serving each of the two commuter rail terminals, these incremental rail trips would yield imperceptible changes at either rail facilities or along any of the rail lines. Therefore, no commuter rail related analyses are warranted.

CITYWIDE FERRY SERVICE (CWFS)

As detailed in **Table 14-12**, the Proposed Project would result in 11; 30; 30; 37; 39; and 42 incremental ferry trips during the weekday AM, midday, PM, evening, and Saturday midday/afternoon and evening peak hours, respectively. The Alternative Scenario, as shown in **Table 14-13**, would result in -3; -4; -5; -3; -4; and -4 incremental ferry trips during the same respective peak hours. The incremental ferry trips under both scenarios would be below the *CEQR Technical Manual* analysis thresholds of 25 or more peak hour ferry passengers in a single direction and 50 or more peak hour ferry passengers at a ferry landing. Therefore, a detailed ferry landing or line-haul analysis is not warranted and the



-  Development Site
-  Port Authority Bus Terminal
-  Affected Area
-  Penn Station
-  M104 Bus Route
-  Subway Line



WESTERN RAIL YARD MODIFICATIONS

Study Area Transit
Figure 14-4

Proposed Project and Alternative Scenario would not result in any significant adverse ferry impacts.

PEDESTRIANS

As shown in **Table 14-12**, the Proposed Project would result in 17; 2,919; 4,285; 4,029; 3,366; and 6,789 incremental person trips during the weekday AM, midday, PM, evening, and Saturday midday/afternoon and evening peak hours, respectively. For the Alternative Scenario, **Table 14-13** shows that there would be 2,068; 1,792; 7,495; 1,631; -1,175; and 5,503 incremental person trips during the same respective peak hours. Since the Proposed Project and Alternative Scenario incremental person trips would be greater than 200 person trips during most of the six analysis peak hours, Level 2 screening assessments (presented in the section below) were prepared for both scenarios to identify the overall pedestrian study area warranting a quantified analysis.

LEVEL 2 SCREENING ASSESSMENT

As part of the Level 2 screening assessment, project generated trips were assigned to specific intersections, transit facilities, and pedestrian elements near the Development Site. The *CEQR Technical Manual* states that further quantified analyses to assess the potential impacts of a proposed project on the transportation system may be warranted if the trip assignments were to identify key intersections incurring 50 or more peak hour vehicle trips, subway stations incurring 200 or more peak hour transit trips, subway lines incurring 200 or more peak hour riders in a travel direction, bus routes incurring 50 or more peak hour riders in a travel direction, or pedestrian elements incurring 200 or more peak hour pedestrian trips.

In determining what study areas should be selected for study in this EIS, consideration is given to the anticipated build-out of the Proposed Project and the Alternative Scenario, the variability in background conditions that could materialize from the completion of discrete No Build projects in the study area, and the surrounding transportation network continuing to evolve, not only as a result of the Proposed Project but also as part of other City, State, and Federal initiatives. Examples of the latter include the on-going Hudson Tunnel work and DOT's continued exploration and implementation of Street Improvement Projects (SIPs) to enhance safety for all roadway users. There might also be other initiatives that are under consideration now and likely not yet known.

The proposed study area is comprised primarily of a dense, continuous grid of intersections focused in the immediate vicinity of the Development Site, while the broader study area would generally consist of selected locations further from the Development Site that represent key approach routes and/or locations with higher turning movements. Given the size of the Proposed Project and the Alternative Scenario, and utilization of the transportation network primarily in the Manhattan midtown core, it is more sensible to focus this EIS's analyses on those locations that would be most affected by incremental trips associated with the Proposed Project and Alternative Scenario, as defined below.

Furthermore, as noted in the beginning of this chapter, the developers for the Proposed Project will, in coordination with DOT, conduct studies under a future TMP which are expected to evaluate actual project-generated demand and background conditions after project completion and would consider adjusting the identified mitigation strategies as

Western Rail Yard Modifications

appropriate and practicable to address traffic and pedestrian issues at that future point in time.

SITE ACCESS AND EGRESS

No Action

The No Action condition site access and egress assumptions are generally consistent with those from the 2009 FEIS. As detailed in the 2009 FEIS, two new parallel vehicular roadways into the Development Site will be created that would function as unmapped extensions of West 32nd and West 31st Streets, accessed from Eleventh Avenue and continuing west with cul-de-sac drop offs to provide vehicular access to the buildings further west. The northern roadway, which will align generally with West 32nd Street, is intended to be a two-way vehicular roadway that will provide passenger side drop off and accessibility to the commercial building and residential buildings on the northern portion of the Development Site. The southern roadway, which will align generally with West 31st Street, is also intended to be a two-way vehicular roadway and will provide access to the residential buildings in the southern and western portions of the Development Site, as well as to the retail uses at the base of these buildings. Connections of these two new roadway segments with Eleventh Avenue will be controlled, as stipulated in the approvals associated with the 2009 WRY FEIS, by new traffic signals with crosswalks striped across Eleventh Avenue for pedestrian crossing. Although these roadways will not be mapped as City streets, they will be operated with full public access, sidewalks, and street-level uses. Accessory parking access will be along West 30th Street and the West 31st Street extension, west of Eleventh Avenue. The curb cut on West 33rd Street near Eleventh Avenue will provide access to a loading dock and a small parking area underneath Site C-1. Existing curb cuts on Twelfth Avenue and West 33rd Street will remain in order to provide LIRR access to the Development Site, and the grade of West 33rd Street between Eleventh and Twelfth Avenues will not be altered.

The Site B residential building will be on the northwest corner of Eleventh Avenue and West 30th Street, with access assumed to be from the newly constructed West 31st Street extension. The retail entrances will be located on the West 31st Street extension, Eleventh Avenue and West 30th Street. The daycare, cultural space, and public elementary and intermediate schools will also be in Site B. The daycare and school entrances will be located on West 30th Street and the cultural space entrance will be located on the West 31st Street extension at the northwest corner of Site B.

The Site C-1 office building will be on the southwest corner of Eleventh Avenue and West 33rd Street. Access points to the office building will be on West 33rd Street, Eleventh Avenue, and the West 32nd Street extension. The retail uses (local and destination retail) will be accessed from the same three frontages.

The Site C-2 residential building will be on the southeast corner of Twelfth Avenue and West 33rd Street, with access from the West 32nd Street extension.

With Action

Both the Proposed Project and the Alternative Scenario assume the adoption of a City Map amendment and, in coordination with DOT, would adjust the grade of West 33rd Street, which currently slopes significantly between Eleventh and Twelfth Avenues, to

align with the level of proposed development and to enhance public access to the Development Site. The West 33rd Street roadway viaduct between Eleventh and Twelfth Avenues would be altered to be grade-separated and at the same elevation as Eleventh Avenue. This West 33rd Street segment would be converted to a two-way street and would be accessed from Eleventh Avenue, continue west into the Development Site, and terminate at a cul-de-sac to facilitate vehicular and pedestrian access and to provide a more direct connection to the High Line. Further, it would eliminate vehicular access from West 33rd Street to Twelfth Avenue. A separate at-grade connection at Twelfth Avenue would be maintained that would provide access to the LIRR service gate on the Development Site and to the Marshalling Yard on the north side of West 33rd Street. Pedestrian access from the lower West 33rd Street elevation at Twelfth Avenue to the upper Eleventh Avenue elevation would be facilitated via new stairs and an elevator. Accessory parking access would be along West 30th and West 33rd Streets, west of Eleventh Avenue, in both With Action scenarios.

Five new curb cuts are proposed under the Proposed Project. Two curb cuts would be located along West 30th Street for parking/drop-off and loading; two curb cuts would be located along West 33rd Street for parking and drop-off; and a curb cut is proposed along Eleventh Avenue at West 32nd Street for loading. In addition, a curb cut for parking would be located within the property line at the proposed grade-adjusted West 33rd Street cul-de-sac. An existing curb cut along Twelfth Avenue that provides LIRR access would remain.

Under the Proposed Project, the Site A residential building on the southern portion of the Development Site would be accessed from the north side of West 30th Street. Additional residential access is assumed within the proposed open space between the northern and southern portions of the Development Site. The retail use would be located on the northern portion of Site A and accessed from the proposed open space area and can also be accessed from within the residential lobby.

The Site B office building on the southern portion of the Development Site would be accessed primarily from Eleventh Avenue and the proposed open space area between the northern and southern portions of the Development Site. There would be a secondary office entrance on West 30th Street. The retail entrance would be located on West 30th Street. The daycare, cultural space, and public elementary and intermediate schools would also be in Site B. The daycare and school entrances would be located on West 30th Street and the cultural space entrance would be located at the northwest corner of Site B and would be accessed from the proposed open space area.

West 33rd Street would serve as the primary pedestrian access and vehicular pick-up and drop-off point for Site C and access to the northern accessory parking facility. Primary entrances to the gaming and related uses would be located on West 33rd Street and Eleventh Avenue. There would be additional gaming facility entrances from the proposed open space area. The hotel primary entrance would be located on West 33rd Street, with additional access from the proposed open space area.

Under the Alternative Scenario, four new curb cuts would be provided including two curb cuts located along West 30th Street for parking/drop-off and loading, and two curb cuts located along West 33rd Street for parking/drop-off and loading. In addition, a curb cut for parking would be located within the property line at the proposed grade-adjusted West

Western Rail Yard Modifications

33rd Street cul-de-sac. The existing curb cut on Twelfth Avenue that provides access for the LIRR would remain.

The uses and access points for Sites A and B on the southern portion of the Development Site would be the same as those under the Proposed Project.

The Site C-1 office building on the northern portion of the Development Site would be located at the southwest corner of Eleventh Avenue and West 33rd Street and would primarily be accessed from Eleventh Avenue and West 33rd Street. There would also be secondary access from the proposed open space area. The retail entrances would be located on Eleventh Avenue and the proposed open space area.

The Site C-2 hotel building on the northern portion of the Development Site would be accessed from West 33rd Street. There would also be secondary access from the proposed open space area.

The Site C-3 residential building on the northern portion of the Development Site would be accessed from West 33rd Street.

Under both the Proposed Project and the Alternative Scenario, the new signalized crossings at Eleventh Avenue and West 31st and West 32nd Streets described for the No Action condition are also expected to be in place.

TRAFFIC

Level 2 trip assignments were developed for the No Action and the two With Action scenarios. As discussed in the Level 1 screening section above, Level 2 screening assessments were prepared for both scenarios to identify the overall traffic study area warranting detailed analysis. Vehicle trips were assigned to the roadway network using regional and local origin/destination patterns attributed to the proposed land use types and assumed to park within the Development Site. Traffic assignments for the various development uses are discussed below.

Residential

The proposed residential use's auto trip assignments were developed based on the 2012–2016 U.S. Census ACS JTW origin-destination (O-D) estimates. Many of the destinations for the residential trips would remain in Manhattan (46 percent) and toward New Jersey (19 percent). The remaining trips would be toward Connecticut (13 percent), Brooklyn (7 percent), Upstate New York (5 percent), Long Island (4 percent), the Bronx (3 percent), Pennsylvania (2 percent), and Queens (1 percent). Residential trips would originate from the on-site parking facilities and use the most direct route for travel to their destinations.

Office

Auto trips generated by the office use are assigned to the surrounding roadway network based on the 2012–2016 U.S. Census ACS Reverse Journey-to-Work (RJTW) O-D estimates. Many of the office trips would originate from New Jersey (24 percent), with the remaining trips from Upstate New York (15 percent), Queens (15 percent), Brooklyn (13 percent), the Bronx (9 percent), Long Island (8 percent), Manhattan (5 percent), Staten Island (5 percent), Connecticut (3 percent), Pennsylvania (3 percent). Office trips were assigned to the on-site parking facilities.

Local Retail

The local retail use is expected to serve patrons primarily from the immediate area. Auto trips were generally assigned from local origins within the neighborhood and adjacent residential areas. Approximately 35 percent of vehicle trips would originate from north, 35 percent from south, and 30 percent from east of the Development Site. Local retail trips were also assigned to the on-site parking facilities.

Destination Retail

The destination retail component's trip assignment patterns would be similar to those for local retail but would draw from a larger geographic area, including the outer boroughs and New Jersey. Destination retail trips from the broader area (i.e., the Bronx, Brooklyn, and Queens) would take major roadways to reach the general area surrounding the Development Site. Once in the immediate vicinity of the Development Site, the destination retail trip assignments would be comparable to those for the local retail use.

Hotel

Hotel auto trip assignments were split between the area's three major airports: John F. Kennedy (JFK), LaGuardia, and Newark Liberty International. Trips to JFK and LaGuardia Airports were split between the East River crossings—Queensboro Bridge and Queens-Midtown Tunnel—whereas the trips to Newark Liberty International Airport were assigned to the Lincoln Tunnel. Overall, the vehicle trips generated by the hotel component were distributed to the study area roadways in the following manner: approximately 30 percent of project-generated trips were assumed to approach the Development Site from the north, 30 percent from the south, 20 percent from the east, and 20 percent from the west.

Elementary/Intermediate School Students

Auto trips generated by the school students were assigned to the surrounding roadway network taking into consideration the most likely travel routes to and from the Development Site, the location of adjacent residences, the configuration of the roadway network, and the anticipated locations of site access and egress. As a result, student trips were distributed in the following manner: 25 percent from the north, 25 percent from the south, and 50 percent from the east.

Elementary/Intermediate School Staff

Auto trips generated by the school faculty and staff were assigned to the surrounding roadway network based on the 2012–2016 U.S. Census ACS RJTW O-D estimates in a similar manner as the office use.

Day Care

Auto trips generated by the day care are anticipated to serve the area surrounding the Development Site and assigned in a similar manner to the elementary/intermediate school students.

Art/Cultural Space

The art/cultural space auto trips were assigned from regional origins, including the five boroughs, New Jersey, Upstate New York, Connecticut, and Pennsylvania. Approximately

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20 percent of vehicle trips would originate from north/south of the Development Site, and 30 percent from east/west of the Development Site. The auto trips were assigned to the on-site parking facilities.

Gaming Resort Patrons

The gaming resort, which includes the gaming floor and all related uses (such as gaming retail, food and beverage, and ballroom) contained within the facility, is expected to have travel patterns similar to the destination retail use, with trips originating from within Manhattan, neighboring boroughs within New York City, and surrounding the greater New York City area. In the vicinity of the Development Site, the gaming resort patrons trip assignments would resemble those developed for the local and destination retail uses.

The Alternative Scenario food and beverage use, and the ballroom use were assigned using similar travel patterns.

Gaming Resort Employees

Auto trips generated by the gaming resort employees were assigned to the surrounding roadway network based on the 2012–2016 U.S. Census ACS RJTW O-D estimates in a similar manner as the office use.

Taxis

Taxi pick-ups and drop-offs for all development components were assigned to the Development Site frontages along Eleventh Avenue, West 33rd Street, West 30th Street, and the West 32nd and West 31st Street extensions under the No Action condition.

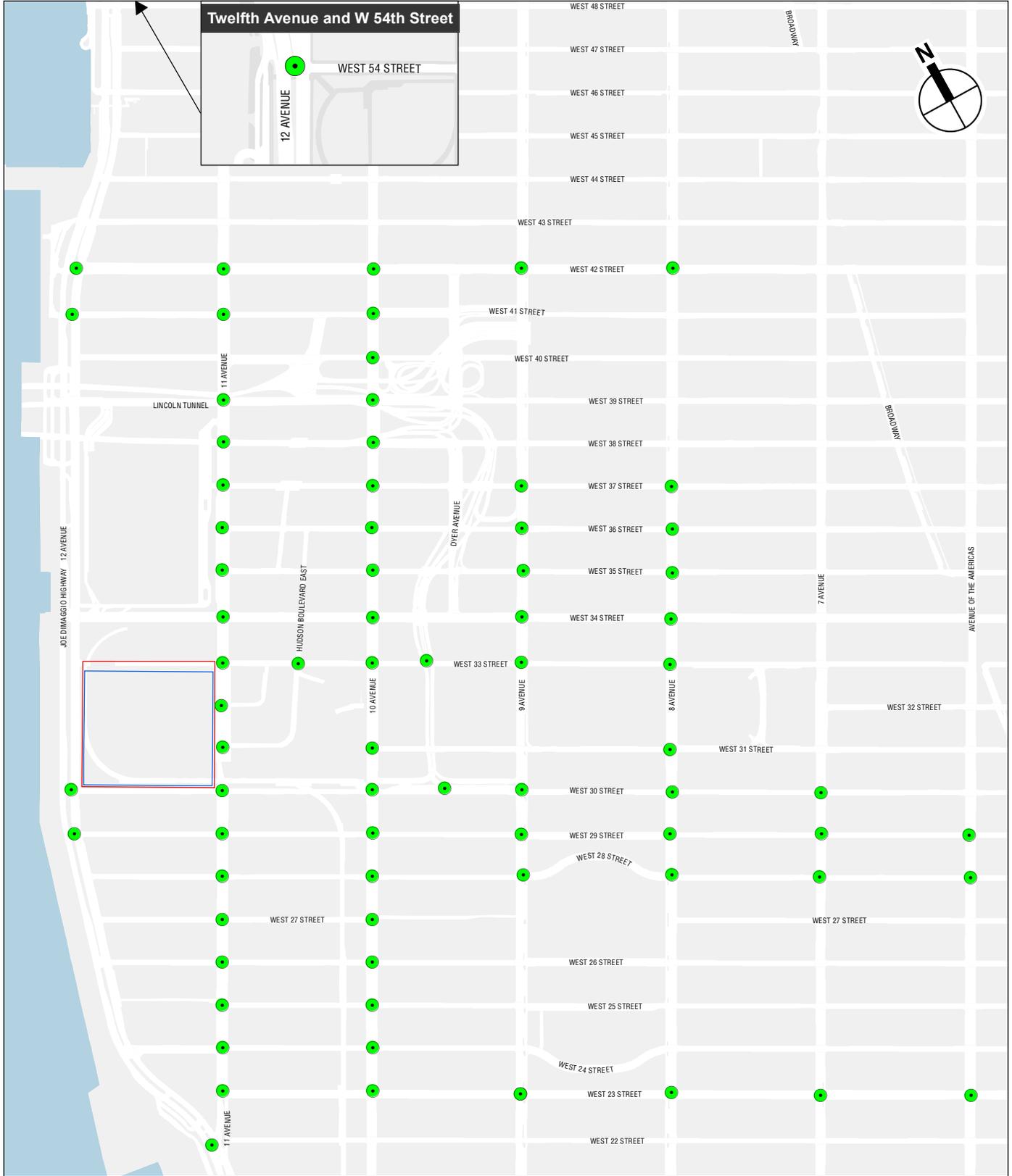
Deliveries

Truck delivery trips for all development components were assigned to DOT-designated truck routes, from regional origins via the Queens-Midtown Tunnel, Queensboro Bridge, and Lincoln Tunnel. Deliveries are expected to take place at the potential loading areas located along Eleventh Avenue, West 33rd Street, and West 30th Street.

Summary

The No Action condition project generated vehicle trip figures for the six analysis peak hours are presented in **Appendix E**. The Proposed Project and Alternative Scenario project generated and incremental vehicle trip figures for the six analysis peak hours are also presented in **Appendix E**.

As presented in **Table 14-14a and 14-14b**, a total of 75 intersections, comprising the traffic study area shown in **Figure 14-5**, have been selected for detailed traffic analysis for both scenarios.



-  *Development Site*
-  *Affected Area*
-  *Traffic Analysis Location*

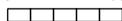
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Table 14-14a

Traffic Level 2 Screening Analysis Results – Proposed Project

Traffic Intersections	Incremental Vehicle Trips						Recommended Analysis Locations
	Weekday				Saturday		
	AM	MD	PM	EVE	MD	EVE	
Twelfth Avenue and West 54th Street	47	119	126	123	128	153	✓
Twelfth Avenue and West 47th Street	47	119	126	123	128	153	
Twelfth Avenue and West 46th Street	47	119	126	123	128	153	
Twelfth Avenue and West 45th Street	47	119	126	123	128	153	
Twelfth Avenue and West 44th Street	47	119	126	123	128	153	
Twelfth Avenue and West 43rd Street	47	119	126	123	128	153	
Twelfth Avenue and West 42nd Street	37	108	124	121	127	153	✓
Twelfth Avenue and West 41st Street	36	108	124	121	128	153	✓
Twelfth Avenue and West 40th Street	-30	64	52	82	82	127	
Twelfth Avenue and West 39th Street	-30	64	52	82	82	127	
Twelfth Avenue and Pier 78	-30	64	52	82	82	127	
Twelfth Avenue and Pier 76	-30	64	52	82	82	127	
Twelfth Avenue and West 34th Street	-99	37	48	91	101	184	
Twelfth Avenue and West 33rd Street	-84	7	0	44	47	114	
Twelfth Avenue and West 30th Street	208	200	164	135	127	156	✓
Twelfth Avenue and West 29th Street	161	174	150	123	118	149	✓
Twelfth Avenue and West 28th Street	30	48	54	40	46	56	
Twelfth Avenue and West 27th Street	31	47	54	39	46	56	
Twelfth Avenue and West 26th Street	32	49	57	42	49	58	
Twelfth Avenue and West 24th Street	32	49	57	42	49	58	
Eleventh Avenue and West 42nd Street	4	41	72	56	65	98	✓
Eleventh Avenue and West 41st Street	13	52	74	58	66	98	✓
Eleventh Avenue and West 40th Street	-53	8	2	19	20	72	
Eleventh Avenue and West 39th Street	10	50	72	57	64	97	✓
Eleventh Avenue and West 38th Street	10	50	72	57	64	97	✓
Eleventh Avenue and West 37th Street	25	84	115	95	106	150	✓
Eleventh Avenue and West 36th Street	1	64	90	80	89	139	✓
Eleventh Avenue and West 35th Street	12	92	127	111	122	187	✓
Eleventh Avenue and West 34th Street	-41	135	223	206	239	358	✓
Eleventh Avenue and West 33rd Street	296	945	1276	1203	1353	1626	✓
Eleventh Avenue and West 32nd Street	88	459	556	564	626	731	✓
Eleventh Avenue and West 31st Street	-49	348	351	454	508	660	✓
Eleventh Avenue and West 30th Street	280	572	687	640	679	761	✓
Eleventh Avenue and West 29th Street	173	233	231	205	201	235	✓
Eleventh Avenue and West 28th Street	41	107	135	122	128	142	✓
Eleventh Avenue and West 27th Street	17	61	79	69	67	80	✓
Eleventh Avenue and West 26th Street	18	63	82	72	70	82	✓
Eleventh Avenue and West 25th Street	18	63	82	72	70	82	✓
Eleventh Avenue and West 24th Street	18	63	82	72	70	82	✓
Eleventh Avenue and West 23rd Street	19	63	83	72	70	82	✓
Twelfth Avenue/Eleventh Avenue and West 22nd Street*	47	101	122	97	102	120	✓
Galvin Avenue and West 40th Street	-63	-43	-71	-38	-44	-25	
Hudson Boulevard and West 36th Street	-24	-20	-25	-15	-18	-11	
Hudson Boulevard and West 35th Street	11	28	37	31	33	48	
Hudson Boulevard and West 34th Street	-8	9	5	13	15	29	
Hudson Boulevard and West 33rd Street	31	220	296	290	327	430	✓
Tenth Avenue and West 42nd Street	24	78	106	105	115	131	✓
Tenth Avenue and West 41st Street	21	67	83	82	87	101	✓
Tenth Avenue and West 40th Street	16	69	88	88	91	110	✓
Tenth Avenue and West 39th Street	78	112	159	126	135	136	✓
Tenth Avenue and West 38th Street	76	115	164	131	138	142	✓
Tenth Avenue and West 37th Street	91	149	207	169	180	195	✓
Tenth Avenue and West 36th Street	91	154	209	176	188	197	✓
Tenth Avenue and West 35th Street	126	202	271	222	239	256	✓
Tenth Avenue and West 34th Street	133	219	293	244	266	281	✓
Tenth Avenue and West 33rd Street	171	430	581	522	580	682	✓
Tenth Avenue and West 31st Street	144	327	450	398	440	496	✓

Western Rail Yard Modifications

Table 14-14a
Traffic Level 2 Screening Analysis Results – Proposed Project

Traffic Intersections	Incremental Vehicle Trips						Recommended Analysis Locations
	Weekday				Saturday		
	AM	MD	PM	EVE	MD	EVE	
Tenth Avenue and West 30th Street	185	506	675	631	693	794	✓
Tenth Avenue and West 29th Street	80	170	219	195	212	269	✓
Tenth Avenue and West 28th Street	32	111	150	142	158	204	✓
Tenth Avenue and West 27th Street	8	65	94	89	97	142	✓
Tenth Avenue and West 26th Street	8	66	94	90	98	142	✓
Tenth Avenue and West 25th Street	8	66	94	90	98	142	✓
Tenth Avenue and West 24th Street	8	66	94	90	98	142	✓
Tenth Avenue and West 23rd Street	12	77	112	107	115	162	✓
Tenth Avenue and West 22nd Street	-14	36	54	56	60	97	
Dyer Avenue and West 42nd Street	24	44	52	50	58	60	
Dyer Avenue and West 40th Street	-6	2	5	7	4	9	
Dyer Avenue and West 36th Street	15	39	45	45	50	55	
Dyer Avenue and West 35th Street	11	28	37	31	33	48	
Dyer Avenue and West 34th Street	17	46	59	54	59	73	
Ninth Avenue and West 42nd Street	44	88	109	100	113	130	✓
Dyer Avenue and West 33rd Street	27	103	134	124	139	187	✓
Dyer Avenue and West 31st Street	-13	4	9	11	5	15	
Dyer Avenue and West 30th Street	41	181	226	235	251	299	✓
Ninth Avenue and West 41st Street	20	44	57	50	55	70	
Ninth Avenue and West 40th Street	14	46	62	57	59	79	
Ninth Avenue and West 39th Street	20	44	57	50	55	70	
Ninth Avenue and West 38th Street	18	47	62	55	58	76	
Ninth Avenue and West 37th Street	35	78	100	88	97	123	✓
Ninth Avenue and West 36th Street	35	83	102	95	105	125	✓
Ninth Avenue and West 35th Street	40	92	118	104	114	146	✓
Ninth Avenue and West 34th Street	46	110	139	127	141	171	✓
Ninth Avenue and West 33rd Street	41	105	131	122	138	165	✓
Ninth Avenue and West 31st Street	17	10	11	5	4	2	
Ninth Avenue and West 30th Street	70	188	228	228	251	287	✓
Ninth Avenue and West 29th Street	70	145	175	163	181	211	✓
Ninth Avenue and West 28th Street	24	87	104	111	127	145	✓
Ninth Avenue and West 26th Street	1	43	51	61	69	85	
Ninth Avenue and West 25th Street	1	43	51	61	69	85	
Ninth Avenue and West 24th Street	1	43	51	61	69	85	
Ninth Avenue and West 23rd Street	27	84	109	112	124	150	✓
Ninth Avenue and West 22nd Street	1	43	51	61	69	85	
Eighth Avenue and West 42nd Street	42	90	110	106	120	129	✓
Eighth Avenue and West 41st Street	18	46	58	56	62	69	
Eighth Avenue and West 40th Street	17	46	58	57	62	69	
Eighth Avenue and West 39th Street	23	44	53	50	58	60	
Eighth Avenue and West 38th Street	21	47	58	55	61	66	
Eighth Avenue and West 37th Street	38	78	96	88	100	113	✓
Eighth Avenue and West 36th Street	35	86	105	102	113	124	✓
Eighth Avenue and West 35th Street	41	95	121	112	124	145	✓
Eighth Avenue and West 34th Street	38	93	118	111	123	142	✓
Eighth Avenue and West 33rd Street	33	88	109	106	120	136	✓
Eighth Avenue and West 31st Street	32	88	109	106	118	136	✓
Eighth Avenue and West 30th Street	64	175	216	211	234	266	✓
Eighth Avenue and West 29th Street	66	133	161	147	164	191	✓
Eighth Avenue and West 28th Street	45	90	111	102	117	128	✓
Eighth Avenue and West 27th Street	22	46	58	52	59	68	
Eighth Avenue and West 26th Street	22	46	58	52	59	68	
Eighth Avenue and West 25th Street	22	46	58	52	59	68	
Eighth Avenue and West 24th Street	22	46	58	52	59	68	
Eighth Avenue and West 23rd Street	48	87	116	103	114	133	✓
Eighth Avenue and West 22nd Street	22	46	58	52	59	68	
Seventh Avenue and West 42nd Street	25	46	57	53	61	67	

**Table 14-14a
Traffic Level 2 Screening Analysis Results – Proposed Project**

Traffic Intersections	Incremental Vehicle Trips						Recommended Analysis Locations
	Weekday				Saturday		
	AM	MD	PM	EVE	MD	EVE	
Seventh Avenue and West 37th Street	16	35	46	40	45	57	
Seventh Avenue and West 36th Street	13	43	55	54	57	69	
Seventh Avenue and West 35th Street	20	47	61	55	60	76	
Seventh Avenue and West 34th Street	17	46	59	54	59	73	
Seventh Avenue and West 30th Street	31	86	106	105	115	131	✓
Seventh Avenue and West 29th Street	63	128	156	143	161	182	✓
Seventh Avenue and West 28th Street	43	86	104	99	115	121	✓
Seventh Avenue and West 23rd Street	46	83	109	100	112	126	✓
Seventh Avenue and West 22nd Street	20	42	51	49	57	61	
Broadway and West 42nd Street	24	44	52	50	58	60	
Broadway and West 37th Street	15	33	41	37	42	51	
Broadway and West 36th Street	12	42	52	52	55	65	
Broadway and West 35th Street	19	46	58	53	58	72	
Sixth Avenue and West 42nd Street	23	45	55	53	60	64	
Sixth Avenue and West 37th Street	14	34	44	40	44	55	
Sixth Avenue and West 36th Street	11	43	55	55	57	69	
Sixth Avenue and West 35th Street	18	47	61	56	60	76	
Sixth Avenue and West 34th Street	16	47	62	57	61	77	
Sixth Avenue and West 33rd Street	-1	1	3	3	2	4	
Sixth Avenue and West 32nd Street	-1	1	3	3	2	4	
Sixth Avenue and West 31st Street	-1	1	3	3	2	4	
Sixth Avenue and West 30th Street	11	44	55	56	57	69	
Sixth Avenue and West 29th Street	42	87	107	95	103	121	✓
Sixth Avenue and West 28th Street	41	80	97	91	105	110	✓
Sixth Avenue and West 27th Street	18	36	44	41	47	50	
Sixth Avenue and West 26th Street	18	36	44	41	47	50	
Sixth Avenue and West 25th Street	18	36	44	41	47	50	
Sixth Avenue and West 24th Street	18	36	44	41	47	50	
Sixth Avenue and West 23rd Street	44	77	102	92	102	115	✓
Sixth Avenue and West 22nd Street	18	36	44	41	47	50	

Notes:
 ✓ denotes intersection selected for the detailed traffic analysis. MD = Midday; EVE = Evening.
 * This intersection is controlled by the same traffic signal but essentially operates as two separate intersections and is therefore analyzed as such in the detailed analysis.

**Table 14-14b
Traffic Level 2 Screening Analysis Results – Alternative Scenario**

Traffic Intersections	Incremental Vehicle Trips						Recommended Analysis Locations
	Weekday				Saturday		
	AM	MD	PM	EVE	MD	EVE	
Twelfth Avenue and West 54th Street	55	55	99	52	12	71	✓
Twelfth Avenue and West 47th Street	55	55	99	52	12	71	
Twelfth Avenue and West 46th Street	55	55	99	52	12	71	
Twelfth Avenue and West 45th Street	55	55	99	52	12	71	
Twelfth Avenue and West 44th Street	55	55	99	52	12	71	
Twelfth Avenue and West 43rd Street	55	55	99	52	12	71	
Twelfth Avenue and West 42nd Street	45	44	97	50	11	71	✓
Twelfth Avenue and West 41st Street	44	44	97	50	12	71	✓
Twelfth Avenue and West 40th Street	-5	14	48	19	-30	43	
Twelfth Avenue and West 39th Street	-5	13	48	19	-30	43	
Twelfth Avenue and Pier 78	-5	13	48	19	-30	43	
Twelfth Avenue and Pier 76	-5	13	48	19	-30	43	
Twelfth Avenue and West 34th Street	-63	-37	64	-5	-61	97	
Twelfth Avenue and West 33rd Street	-53	-33	29	-13	-65	62	

Western Rail Yard Modifications

Table 14-14b
Traffic Level 2 Screening Analysis Results – Alternative Scenario

Traffic Intersections	Incremental Vehicle Trips						Recommended Analysis Locations
	Weekday				Saturday		
	AM	MD	PM	EVE	MD	EVE	
Twelfth Avenue and West 30th Street	239	160	193	78	15	104	✓
Twelfth Avenue and West 29th Street	192	134	179	65	7	97	✓
Twelfth Avenue and West 28th Street	38	33	62	14	7	46	
Twelfth Avenue and West 27th Street	39	32	62	13	7	46	
Twelfth Avenue and West 26th Street	40	34	65	16	10	48	
Twelfth Avenue and West 24th Street	40	34	65	16	10	48	
Eleventh Avenue and West 42nd Street	8	4	88	7	-5	85	✓
Eleventh Avenue and West 41st Street	18	15	90	9	-4	85	✓
Eleventh Avenue and West 40th Street	-31	-15	41	-22	-46	57	
Eleventh Avenue and West 39th Street	15	13	88	8	-6	84	✓
Eleventh Avenue and West 38th Street	15	13	88	8	-6	84	✓
Eleventh Avenue and West 37th Street	25	20	123	17	-1	116	✓
Eleventh Avenue and West 36th Street	1	0	98	2	-18	105	✓
Eleventh Avenue and West 35th Street	10	5	138	8	-17	143	✓
Eleventh Avenue and West 34th Street	-30	-26	235	10	-28	261	✓
Eleventh Avenue and West 33rd Street	217	221	1035	439	220	912	✓
Eleventh Avenue and West 32nd Street Extension	31	97	382	239	50	287	✓
Eleventh Avenue and West 31st Street	-98	5	180	129	-57	216	✓
Eleventh Avenue and West 30th Street	231	229	516	316	115	318	✓
Eleventh Avenue and West 29th Street	188	144	212	118	18	117	✓
Eleventh Avenue and West 28th Street	34	43	95	67	18	66	✓
Eleventh Avenue and West 27th Street	23	31	67	49	1	42	✓
Eleventh Avenue and West 26th Street	24	33	70	52	4	44	✓
Eleventh Avenue and West 25th Street	24	33	70	52	4	44	✓
Eleventh Avenue and West 24th Street	24	33	70	52	4	44	✓
Eleventh Avenue and West 23rd Street	24	33	70	52	5	44	✓
Twelfth Avenue/Eleventh Avenue and West 22nd Street*	63	65	120	53	12	77	✓
Galvin Avenue and West 40th Street	-46	-29	-48	-30	-40	-27	
Hudson Boulevard and West 36th Street	-24	-20	-25	-15	-18	-11	
Hudson Boulevard and West 35th Street	9	5	40	6	1	38	
Hudson Boulevard and West 34th Street	-10	-9	0	-8	-12	14	
Hudson Boulevard and West 33rd Street	7	3	229	50	16	247	✓
Tenth Avenue and West 42nd Street	6	10	64	39	16	49	✓
Tenth Avenue and West 41st Street	11	16	54	32	11	38	✓
Tenth Avenue and West 40th Street	8	15	64	40	6	43	✓
Tenth Avenue and West 39th Street	54	45	112	70	46	70	✓
Tenth Avenue and West 38th Street	52	45	119	75	44	74	✓
Tenth Avenue and West 37th Street	62	52	154	84	49	105	✓
Tenth Avenue and West 36th Street	62	58	144	88	52	90	✓
Tenth Avenue and West 35th Street	95	83	209	109	71	139	✓
Tenth Avenue and West 34th Street	98	88	214	119	77	138	✓
Tenth Avenue and West 33rd Street	116	100	441	178	105	372	✓
Tenth Avenue and West 31st Street	90	92	330	157	99	255	✓
Tenth Avenue and West 30th Street	102	123	490	249	121	364	✓
Tenth Avenue and West 29th Street	60	40	186	49	23	163	✓
Tenth Avenue and West 28th Street	-3	5	116	28	12	122	✓
Tenth Avenue and West 27th Street	-14	-7	88	10	-5	98	✓
Tenth Avenue and West 26th Street	-14	-6	88	11	-4	98	✓
Tenth Avenue and West 25th Street	-14	-6	88	11	-4	98	✓
Tenth Avenue and West 24th Street	-14	-6	88	11	-4	98	✓
Tenth Avenue and West 23rd Street	-13	-4	103	26	-1	112	✓
Tenth Avenue and West 22nd Street	-19	-12	55	1	-12	66	
Dyer Avenue and West 42nd Street	10	10	24	16	14	22	
Dyer Avenue and West 40th Street	-3	-1	10	7	-5	5	
Dyer Avenue and West 36th Street	11	13	25	13	8	17	
Dyer Avenue and West 35th Street	9	5	40	6	1	38	
Dyer Avenue and West 34th Street	11	11	45	17	6	37	

Table 14-14b

Traffic Level 2 Screening Analysis Results – Alternative Scenario

Traffic Intersections	Incremental Vehicle Trips						Recommended Analysis Locations
	Weekday				Saturday		
	AM	MD	PM	EVE	MD	EVE	
Ninth Avenue and West 42nd Street	22	19	70	28	20	65	✓
Dyer Avenue and West 33rd Street	26	10	113	22	5	117	✓
Dyer Avenue and West 31st Street	-8	-1	27	15	-7	8	
Dyer Avenue and West 30th Street	12	32	159	94	21	109	✓
Ninth Avenue and West 41st Street	12	9	46	12	6	43	
Ninth Avenue and West 40th Street	9	8	56	19	1	48	
Ninth Avenue and West 39th Street	12	9	46	12	6	43	
Ninth Avenue and West 38th Street	10	9	53	17	4	47	
Ninth Avenue and West 37th Street	22	16	81	21	11	75	✓
Ninth Avenue and West 36th Street	23	22	71	25	14	60	✓
Ninth Avenue and West 35th Street	26	20	99	25	12	90	✓
Ninth Avenue and West 34th Street	28	25	103	36	17	89	✓
Ninth Avenue and West 33rd Street	20	19	90	30	19	86	✓
Ninth Avenue and West 31st Street	17	10	11	5	4	2	
Ninth Avenue and West 30th Street	36	43	145	83	32	103	✓
Ninth Avenue and West 29th Street	65	44	118	50	25	89	✓
Ninth Avenue and West 28th Street	3	9	47	28	14	46	✓
Ninth Avenue and West 26th Street	-7	-1	22	13	0	24	
Ninth Avenue and West 25th Street	-7	-1	22	13	0	24	
Ninth Avenue and West 24th Street	-7	-1	22	13	0	24	
Ninth Avenue and West 23rd Street	-1	7	70	38	11	70	✓
Ninth Avenue and West 22nd Street	-7	-1	22	13	0	24	
Eighth Avenue and West 42nd Street	17	19	59	39	23	49	✓
Eighth Avenue and West 41st Street	7	9	35	23	9	27	
Eighth Avenue and West 40th Street	7	9	35	22	9	27	
Eighth Avenue and West 39th Street	10	10	25	15	14	22	
Eighth Avenue and West 38th Street	8	10	32	20	12	26	
Eighth Avenue and West 37th Street	20	17	60	24	19	54	✓
Eighth Avenue and West 36th Street	19	22	60	35	20	45	✓
Eighth Avenue and West 35th Street	21	19	87	35	18	75	✓
Eighth Avenue and West 34th Street	18	20	80	39	18	65	✓
Eighth Avenue and West 33rd Street	9	14	66	33	19	61	✓
Eighth Avenue and West 31st Street	10	14	66	33	17	61	✓
Eighth Avenue and West 30th Street	27	38	143	76	36	109	✓
Eighth Avenue and West 29th Street	59	40	115	43	29	96	✓
Eighth Avenue and West 28th Street	23	20	64	29	24	57	✓
Eighth Avenue and West 27th Street	13	10	39	14	10	35	
Eighth Avenue and West 26th Street	13	10	39	14	10	35	
Eighth Avenue and West 25th Street	13	10	39	14	10	35	
Eighth Avenue and West 24th Street	13	10	39	14	10	35	
Eighth Avenue and West 23rd Street	19	18	87	39	21	81	✓
Eighth Avenue and West 22nd Street	13	10	39	14	10	35	
Seventh Avenue and West 42nd Street	9	9	34	16	13	32	
Seventh Avenue and West 37th Street	10	7	41	9	5	38	
Seventh Avenue and West 36th Street	8	10	41	20	5	30	
Seventh Avenue and West 35th Street	15	10	51	13	6	47	
Seventh Avenue and West 34th Street	11	11	45	17	6	37	
Seventh Avenue and West 30th Street	18	25	76	43	17	49	✓
Seventh Avenue and West 29th Street	55	40	104	44	30	82	✓
Seventh Avenue and West 28th Street	19	21	51	31	26	44	✓
Seventh Avenue and West 23rd Street	15	19	74	41	23	68	✓
Seventh Avenue and West 22nd Street	9	11	26	16	12	22	
Broadway and West 42nd Street	10	10	24	16	14	22	
Broadway and West 37th Street	11	8	31	9	6	28	
Broadway and West 36th Street	8	11	35	20	6	23	
Broadway and West 35th Street	15	11	45	13	7	40	
Sixth Avenue and West 42nd Street	9	9	27	18	12	25	

Table 14-14b
Traffic Level 2 Screening Analysis Results – Alternative Scenario

Traffic Intersections	Incremental Vehicle Trips						Recommended Analysis Locations
	Weekday				Saturday		
	AM	MD	PM	EVE	MD	EVE	
Sixth Avenue and West 37th Street	10	7	34	11	4	31	
Sixth Avenue and West 36th Street	7	10	38	22	4	26	
Sixth Avenue and West 35th Street	14	10	48	15	5	43	
Sixth Avenue and West 34th Street	10	10	48	19	4	40	
Sixth Avenue and West 33rd Street	-1	-1	3	2	-2	3	
Sixth Avenue and West 32nd Street	-1	-1	3	2	-2	3	
Sixth Avenue and West 31st Street	-1	-1	3	2	-2	3	
Sixth Avenue and West 30th Street	9	14	50	27	4	26	
Sixth Avenue and West 29th Street	44	31	79	28	17	60	✓
Sixth Avenue and West 28th Street	18	19	49	27	24	43	✓
Sixth Avenue and West 27th Street	8	9	24	12	10	21	
Sixth Avenue and West 26th Street	8	9	24	12	10	21	
Sixth Avenue and West 25th Street	8	9	24	12	10	21	
Sixth Avenue and West 24th Street	8	9	24	12	10	21	
Sixth Avenue and West 23rd Street	14	17	72	37	21	67	✓
Sixth Avenue and West 22nd Street	8	9	24	12	10	21	

Notes:
 ✓ denotes intersection selected for the detailed traffic analysis. MD = Midday; EVE = Evening.
 * This intersection is controlled by the same traffic signal but essentially operates as two separate intersections and is therefore analyzed as such in the detailed analysis.

TRANSIT

The Development Site is located near the 34th Street-Hudson Yards Station (No. 7 train). The most likely travel routes to and from the Development Site, prevailing travel patterns, commuter O-D summaries from the census data, and the anticipated locations of site access and egress were examined to develop subway trip assignment patterns. Based on preliminary consultation with NYCT, all project-generated subway trips are expected to be distributed to the 34th Street-Hudson Yards station, entering/exiting the station on the south side of West 34th Street.

As discussed in the Level 1 screening section above, trip assignments were prepared for both the Proposed Project and the Alternative Scenario for the weekday AM and PM peak hours. A total of 23 vertical circulation elements (14 stairways and 9 escalators) and 1 fare control area at the 34th Street-Hudson Yards Station have been selected for detailed analysis. These station elements include:

- R550 fare control area;
- Street-level escalators ES626, ES627, ES628, and ES629 on the southwest corner of West 34th Street and Hudson Boulevard;
- Street-level stairs S1 and S2;
- Mezzanine-level escalators ES621, ES622, ES623, ES624, and ES625; and
- Platform-level stairs P1/P2, P3/P4, P5/P6, P7, P8, P9, P10, P11, P12, P13/P14, P15/P16, and P17/P18.

The incremental trips assigned to each of these selected analysis elements for both scenarios are summarized in **Table 14-15** below.

Table 14-15
With Action Incremental Subway Trips by Element
34th Street-Hudson Yards Station

Location	Element	Element ID	Proposed Project Incremental Subway Trips		Alternative Scenario Incremental Subway Trips	
			Weekday		Weekday	
			AM	PM	AM	PM
West 34th Street and Hudson Boulevard East, southwest corner	Street Escalator	ES626-629	-106	1143	1548	2573
West 34th Street and Hudson Boulevard East, southwest corner	Street Stair	S1	-1	9	16	22
West 34th Street and Hudson Boulevard East, southwest corner	Street Stair	S2	-2	26	32	72
West 34th Street and Hudson Boulevard East, southwest corner	Fare Control Area	R550	-109	1178	1596	2666
R550 paid zone	Mezzanine Escalator	ES621-624	-134	1100	1390	2528
R550 paid zone	Mezzanine Escalator	ES625	24	78	206	138
R550 paid zone	Platform Stair	P1-P2	30	83	220	146
R550 paid zone	Platform Stair	P3/P4	-59	365	423	854
R550 paid zone	Platform Stair	P5/P6	-138	382	221	979
R550 paid zone	Platform Stair	P7	-17	47	28	120
R550 paid zone	Platform Stair	P8	-8	24	14	60
R550 paid zone	Platform Stair	P9	-8	24	14	60
R550 paid zone	Platform Stair	P10	-10	35	30	87
R550 paid zone	Platform Stair	P11	-5	18	15	43
R550 paid zone	Platform Stair	P12	-5	18	15	43
R550 paid zone	Platform Stair	P13/P14	47	136	355	242
R550 paid zone	Platform Stair	P15/P16	39	118	304	212
R550 paid zone	Platform Stair	P17/P18	-1	12	16	27

Since all project generated subway trips are expected to use the No. 7 subway line, and a portion of project generated bus trips assigned to the Port Authority Bus Terminal and railroad trips assigned to Grand Central Terminal and Grand Central Madison would transfer to the No. 7 subway line, a detailed subway line-haul analysis would also be warranted for the weekday AM and PM peak hours for both scenarios.

As discussed above, the Development Site is served by the M11, M12, M23 SBS, and M34 SBS local bus routes, and regional bus routes at the Port Authority Bus Terminal, and Level 2 screening assessments would be prepared for both scenarios in the weekday AM and PM peak hours to identify any bus routes warranting a quantified bus line-haul analysis. The M11 bus route operates between Harlem and the West Village on Ninth and Tenth Avenues with approximately 10-to-12-minute headways. The M12 bus route operates between Columbus Circle and the West Village on Eleventh and Twelfth Avenues with approximately 30-minute headways. The M23 SBS operates between Chelsea Piers and Peter Cooper Village on 23rd Street with approximately 7-to-9-minute headways. The M34 SBS operates between the Javits Center and Waterside Plaza on 34th Street with approximately 8-to-11-minute headways.

For the residential use, bus trips were assigned based on 2012–2016 ACS JTW O-D estimates, as follows: 64 percent via M34 SBS, 13 percent via M23 SBS, 5 percent via M12 northbound, 5 percent via M12 southbound, 5 percent via M11 northbound, 5 percent via M11 southbound, and 3 percent via the Port Authority Bus Terminal. Express bus trips from the outer boroughs (6 percent) were assumed to transfer to either the M34 SBS or M23 SBS. For the office use, elementary/intermediate school and daycare staff members, and gaming resort employees, bus trips were assigned based on 2012–2016 ACS RJTW O-D estimates, as follows: 35 percent via M34 SBS, 11 percent via M23 SBS, 4 percent via M11, and 50 percent via the Port Authority Bus Terminal. Express bus trips from the outer boroughs (22 percent), from Upstate New York (6 percent), and from Long

Western Rail Yard Modifications

Island (2 percent) were assumed to transfer to either the M34 SBS or M23 SBS. For elementary and intermediate students and parents and day care, bus trips were assigned as follows: 50 percent via M34 SBS, 45 percent via M23 SBS, and 5 percent via M12. Trips assigned to the M23 SBS were assumed to transfer to the M12. For the local retail use, bus trips were assigned as follows: 30 percent via M34 SBS, 10 percent via M23 SBS, 15 percent via M12 northbound, 15 percent via M12 southbound, 15 percent via M11 northbound, and 15 percent via M11 southbound. For the destination retail use in the No Action condition, the gaming resort use in the With Action condition with the Proposed Project, the hotel use in both With Action scenarios, the hotel food/beverage and hotel event space uses in the With Action condition with the Alternative Scenario, and the art/cultural space use in the No Action condition and both With Action scenarios, bus trips were assigned as follows: 40 percent via M34 SBS, 10 percent via M23 SBS, 10 percent via M12 northbound, 10 percent via M12 southbound, 15 percent via M11 northbound, and 15 percent via M11 southbound.

In consideration of existing and future land use changes that are anticipated to contribute to ridership increases and potential capacity constraints along the area bus routes, the need for a detailed bus line-haul analysis was identified for the M23 SBS and M34 SBS bus routes in the westbound direction in the weekday AM peak hour, and the M34 SBS bus route in the eastbound direction in the weekday PM peak hour. The incremental trips projected for the bus routes described above under the With Action condition with the Proposed Project and with the Alternative Scenario are summarized in **Table 14-16**.

**Table 14-16
With Action Incremental Bus Trips**

Bus Route(s)	Direction	Proposed Project Incremental Bus Trips		Alternative Scenario Incremental Bus Trips	
		Weekday		Weekday	
		AM	PM	AM	PM
M11	Northbound	14	68	-1	90
	Southbound	15	67	12	79
M12	Northbound	8	42	-4	49
	Southbound	8	42	-4	49
M23 SBS	Eastbound	-4	18	1	45
	Westbound	9	23	41	42
M34 SBS	Eastbound	-23	69	-9	150
	Westbound	30	86	126	159
Port Authority Bus Terminal Buses (numerous routes)	To Manhattan	11	6	195	30
	To New Jersey	-2	11	31	160
Bronx Express Buses (10 routes)	To Manhattan	2	0	95	15
	To Bronx	-2	2	15	78
Brooklyn/Queens Express Buses (38 routes)	To Manhattan	2	0	104	16
	To Brooklyn/Queens	-2	2	17	86
Staten Island Express Buses (16 routes)	To Manhattan	1	1	57	9
	To Staten Island	0	1	9	47

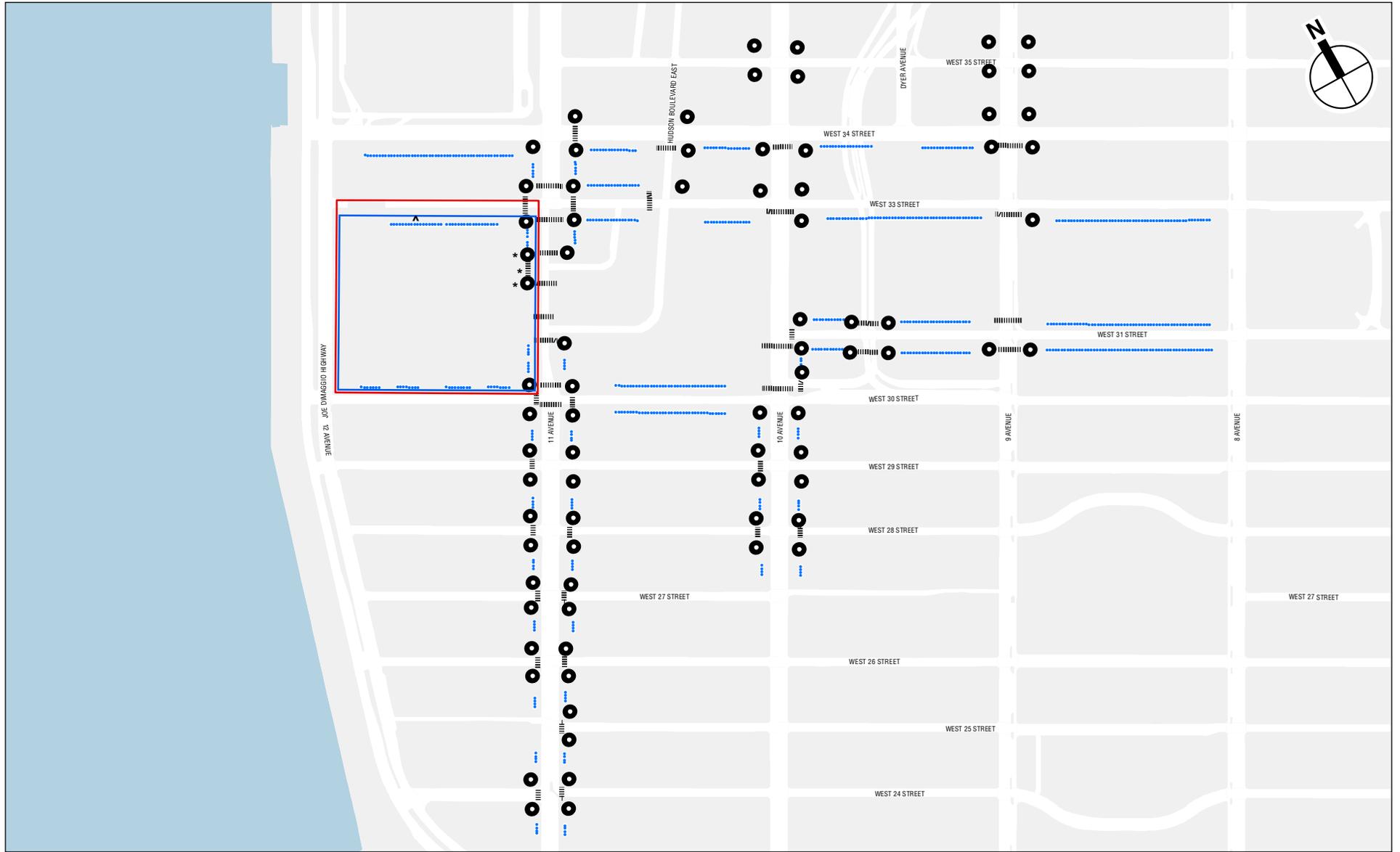
PEDESTRIANS

As shown in **Tables 14-12 and 14-13**, the incremental person trips from both With Action scenarios would be greater than 200 person trips during various analysis peak hours. Level 2 pedestrian trip assignments to area sidewalks, corner reservoirs, and crosswalks were individually developed for all the proposed uses and were prepared for both

scenarios to identify the overall pedestrian study area warranting detailed analysis. The No Action condition project generated pedestrian trip figures for the six analysis peak hours are presented in **Appendix E**. The Proposed Project and Alternative Scenario project generated and incremental pedestrian trip figures for the six analysis peak hours are also presented in **Appendix E**.

- Auto Trips – For the day care and the elementary/intermediate school students, trips were assigned to walk to the entrances from the drop-off locations on West 30th Street; for all other uses, auto trips are assigned to the on-site parking facility, with direct connections to the various buildings.
- Taxi Trips – For the No Action condition, it is assumed taxi patrons would get dropped off and picked up along West 33rd Street, Eleventh Avenue, West 30th Street, and the West 32nd and West 31st Street extensions. For the Proposed Project and Alternative Scenario, taxi patrons would also get dropped off and picked up along West 33rd Street, Eleventh Avenue, and West 30th Street.
- City Bus Trips – City bus riders would take buses stopping on West 34th Street, West 23rd Street, Twelfth Avenue, Eleventh Avenue, Tenth Avenue, and Ninth Avenue. Express bus riders would transfer to either the M34 SBS or M23 SBS, which stop on West 34th Street and West 23rd Street, respectively. Port Authority Bus Terminal bus riders would either transfer to the No. 7 subway line to the 34th Street-Hudson Yards subway station to access the Development Site, or walk via Eleventh Avenue, Tenth Avenue, or Ninth Avenue.
- Subway Trips – Subway riders would exit the 34th Street-Hudson Yards Subway Station from the southwest corner of West 34th Street and Hudson Boulevard East and walk to the Development Site.
- Railroad Trips – 85 percent of railroad trips would walk from Penn Station, while 15 percent of railroad trips would travel via Grand Central Terminal or Grand Central Madison, and then transfer to the No. 7 subway line to the 34th Street-Hudson Yards to access the Development Site.
- Ferry Trips – Approximately 90 percent of ferry trips would walk from the West Midtown Ferry Terminal at Pier 79, while approximately 10 percent would transfer to the M34 SBS from the Midtown East/East 34th Street Ferry Landing and then walk to the Development Site from the nearest bus stop on West 34th Street.
- School Bus Trips – School bus riders would get dropped off and picked up along West 30th Street.
- Tour Bus Trips – Tour bus riders for the Proposed Project’s gaming resort use would get dropped off and picked up on the west side of Eleventh Avenue between West 33rd Street and West 32nd Street.
- Walk-Only Trips – Walk-only trips were distributed to the surrounding area in consideration of population density and land use characteristics.

Based on the detailed pedestrian trip assignments, 53 sidewalk segments, 77 corner reservoirs, and 42 crosswalks, comprising the pedestrian study area, have been selected for detailed pedestrian analysis, as summarized in **Table 14-17** and depicted in **Figure 14-6**.



- Development Site
- Affected Area
- Corner
- Crosswalk
- Sidewalk

0 500 FEET

NOTES:
 " * " denotes pedestrian element analyzed in the With Action Condition with the Proposed Project only;
 " ^ " denotes pedestrian element analyzed in the With Action Condition with the Alternative Scenario only.

WESTERN RAIL YARD MODIFICATIONS

Pedestrian Analysis Locations
Figure 14-6

Western Rail Yard Modifications

Table 14-17
Pedestrian Level 2 Screening Analysis Results

Pedestrian Elements	Incremental Pedestrian Trips						Selected Analysis Locations	Incremental Pedestrian Trips						Selected Analysis Locations	
	Proposed Project							Alternative Scenario							
	Weekday			Saturday				Weekday			Saturday				
	AM	Midday	PM	Evening	Midday	Evening		AM	Midday	PM	Evening	Midday	Evening		
Twelfth Avenue and West 34th Street															
East Crosswalk (south segment)	-20	-4	24	17	-19	69		-30	3	88	2	-63	115		
East Crosswalk (north segment)	-20	-4	24	17	-19	69		-30	3	88	2	-63	115		
Northeast Corner	-20	-4	24	17	-19	69		-30	3	88	2	-63	115		
Southeast Corner	-19	-14	16	11	-25	58		-17	-8	79	-5	-70	104		
East Sidewalk of Twelfth Avenue between New York Waterway driveway and West 34th Street	-20	-4	24	17	-19	69		-30	3	88	2	-63	115		
Twelfth Avenue and West 33rd Street															
East Sidewalk along Twelfth Avenue between East 33rd Street and East 30th Street	66	121	86	69	99	77		63	90	89	46	61	73		
Twelfth Avenue and West 30th Street															
Northeast Corner	36	128	62	76	110	88		33	97	65	53	72	84		
North Sidewalk along West 30th Street between Twelfth Avenue and Site A Entrance	98	166	119	125	173	131		64	115	93	77	103	105		
Eleventh Avenue and West 35th Street															
North Sidewalk along West 35th Street between Eleventh Avenue and Hudson Boulevard West	-25	-13	-22	-16	-23	-15		-12	117	-12	-12	15	-15		
Eleventh Avenue and West 34th Street															
North Crosswalk	19	61	79	72	97	133		1	10	131	49	27	172		
East Crosswalk	-105	-95	-84	-74	-169	-17	✓	-65	203	20	-77	-129	27	✓	
West Crosswalk	-44	-19	12	20	-33	138	✓	-66	-37	132	-16	-140	224	✓	
Northeast Corner	-86	-34	-5	-2	-72	116	✓	-64	213	151	-28	-102	199	✓	
Southeast Corner	-213	-186	-148	-123	-337	40	✓	-175	282	96	-152	-341	174	✓	
Southwest Corner	-116	11	131	128	-14	366	✓	-133	58	466	70	-255	494	✓	
Northwest Corner	-25	42	91	92	64	271	✓	-65	-27	263	33	-113	396	✓	
North Sidewalk along West 34th Street between Eleventh Avenue and Hudson Boulevard East	-1	53	79	64	75	119	✓	-6	132	141	45	43	158	✓	
East Sidewalk along Eleventh Avenue between West 34th Street and West 33rd Street	-101	-40	16	-5	-96	102	✓	-63	341	192	-19	-78	192	✓	
South Sidewalk along West 34th Street between Eleventh Avenue and Hudson Boulevard East	-69	-27	25	11	-64	118	✓	-72	141	167	-14	-107	211	✓	
South Sidewalk along West 34th Street between Eleventh Avenue and Highline Park Entrance	37	135	230	196	196	257	✓	60	114	395	186	85	254	✓	
Eleventh Avenue and West 33rd Street															
North Crosswalk	-208	244	176	295	268	565	✓	229	48	695	153	-131	437	✓	
East Crosswalk	-60	226	460	371	232	641	✓	401	305	969	180	-200	476	✓	
South Crosswalk	-	-317	-682	774	1075	2485	✓	-969	-546	1295	177	-498	1882	✓	
West Crosswalk	-284	340	435	519	350	1116	✓	210	116	1372	239	-410	1136	✓	
Northeast Corner	-268	470	636	666	500	1206	✓	630	353	1664	333	-331	913	✓	
Southeast Corner	-	326	691	1423	1328	3104	✓	578	196	3207	661	-644	2358	✓	
Southwest Corner	3048	173	-96	1468	1605	3804	✓	-762	-438	2659	411	-921	3008	✓	
Northwest Corner	-492	584	611	814	618	1681	✓	439	164	2067	392	-541	1573	✓	
North Sidewalk along West 33rd Street between Eleventh Avenue and Hudson Boulevard East	-159	514	628	676	597	1110	✓	700	23	1484	353	-244	729	✓	
East Sidewalk along Eleventh Avenue between West 33rd Street and West 32nd Street	1921	1092	1603	472	95	-61	✓	1984	1130	1660	521	159	-19	✓	
South Sidewalk along West 33rd Street between Eleventh Avenue and Hudson Boulevard East	-843	538	453	884	942	1780	✓	540	228	1917	472	-212	1338	✓	
West Sidewalk along Eleventh Avenue between West 33rd Street and Site Entrance	-	1843	29	-1661	-735	-377	✓	426	1011	217	-143	-167	-339	✓	
South Sidewalk along West 33rd Street between Site C1 and C2 Entrances	0	0	0	0	0	0	✓	-28	227	4251	1458	412	4343	✓	
South Sidewalk along West 33rd Street between Site C1 Entrance and Eleventh Avenue	-665	1358	3018	3703	3750	6002	✓	-	1301	-1572	2323	491	-821	3308	✓
West Sidewalk along Eleventh Avenue between West 34th Street and West 33rd Street	-82	102	260	222	75	548	✓	-28	70	674	79	-283	694	✓	
Eleventh Avenue and West 32nd Street															
North Crosswalk	414	105	348	113	5	4	✓	482	274	413	165	107	47	✓	
East Crosswalk	1481	625	1237	350	-17	-65	*	1498	758	1251	359	27	-60	*	
South Crosswalk	405	96	332	107	-7	-1	✓	414	224	339	108	27	-3	✓	
West Crosswalk	1161	-571	1283	403	-572	481	✓	element does not exist							
Northeast Corner	1895	730	1585	463	-12	-61	✓	1980	1032	1664	524	134	-13	✓	
Southeast Corner	1886	721	1569	457	-24	-66	*	1912	982	1590	467	54	-63	*	
Southwest Corner	1566	-475	1615	510	-579	480	✓	element does not exist							
Northwest Corner	123	-750	351	-73	-884	219	✓	element does not exist							
East Sidewalk along Eleventh Avenue between West 32nd Street and West 31st Street	1103	300	1123	412	90	206	*	1073	425	900	245	-29	-60	*	
West Sidewalk along Eleventh Avenue between West 32nd Street and West 31st Street	1598	-110	1642	519	-486	481	*	1512	371	2192	361	-785	831	*	
West Sidewalk along Eleventh Avenue between Site Entrance and West 32nd Street	-314	315	-120	-156	-261	64	✓	-295	1271	-462	-425	-213	-433	✓	
Eleventh Avenue and West 31st Street															
North Crosswalk	484	348	505	210	139	132	✓	614	388	697	302	221	270	✓	
East Crosswalk	587	-65	588	179	-84	51	*	449	57	527	52	-221	-3	*	
South Crosswalk	606	284	597	178	2	44	✓	449	154	527	49	-202	-7	✓	
Northeast Corner	1071	283	1093	389	55	183	*	1063	445	1224	354	0	267	*	
Southeast Corner	1193	219	1185	357	-82	95	✓	898	211	1054	101	-423	-10	✓	
East Sidewalk of Eleventh Avenue between West 31st Street and West 30th Street	42	-230	244	156	81	260	✓	27	-82	358	110	4	333	✓	
West Sidewalk along Eleventh Avenue between West 31st Street and Site B Entrance	1823	-610	1666	404	-819	180	✓	1770	-34	2104	287	-984	451	✓	

**Table 14-17
Pedestrian Level 2 Screening Analysis Results**

Pedestrian Elements	Incremental Pedestrian Trips						Selected Analysis Locations	Incremental Pedestrian Trips						Selected Analysis Locations
	Proposed Project							Alternative Scenario						
	Weekday		Saturday		Evening			Weekday		Saturday		Evening		
AM	Midday	PM	Evening	Midday	Evening	AM	Midday	PM	Evening	Midday	Evening			
Eleventh Avenue and West 30th Street														
North Crosswalk	709	405	402	-21	-283	-209	✓	785	597	501	4	-240	-182	✓
East Crosswalk	-21	-10	7	5	-39	58	✓	-13	204	85	-6	-24	104	✓
South Crosswalk	-51	-11	66	37	-46	175	✓	-72	77	237	-1	-145	291	✓
West Crosswalk	-136	-22	159	102	-88	425	✓	-120	433	591	15	-259	666	✓
Northeast Corner	707	459	524	67	-231	-20	✓	776	815	755	58	-243	92	✓
Southeast Corner	-72	-21	73	42	-85	233	✓	-85	281	322	-7	-169	395	✓
Southwest Corner	-187	-33	225	139	-134	600	✓	-192	510	828	14	-404	957	✓
Northwest Corner	721	630	779	215	-179	339	✓	790	1246	1313	130	-345	603	✓
North Sidewalk along West 30th Street between Eleventh Avenue and Tenth Avenue	691	169	540	116	-189	-22	✓	751	308	694	118	-214	45	✓
East Sidewalk along Eleventh Avenue between West 30th Street and West 29th Street	-30	-8	17	12	-27	66	✓	-25	204	92	-2	-15	110	✓
South Sidewalk along West 30th Street between Eleventh Avenue and Tenth Avenue	-42	-14	55	29	-59	166	✓	-60	76	229	-6	-155	284	✓
West Sidewalk along Eleventh Avenue between West 30th Street and West 29th Street	-83	-10	91	61	-48	244	✓	-48	355	353	11	-122	369	✓
West Sidewalk along Eleventh Avenue between Site B Entrance and West 30th Street	442	444	469	-6	-505	136	✓	515	1062	1015	-86	-659	412	✓
North Sidewalk along West 30th Street between Site B Entrance and Eleventh Avenue	428	439	528	358	506	322	✓	401	400	521	328	456	312	✓
North Sidewalk along West 30th Street between Site B Museum/School/Retail and Office Entrances, between Twelfth Avenue and Eleventh Avenue	127	300	201	271	385	262	✓	100	261	194	241	335	252	✓
North Sidewalk along West 30th Street between Site B Daycare and Museum/School/Retail Entrances, between Twelfth Avenue and Eleventh Avenue	1439	300	1511	271	385	262	✓	1412	298	1504	241	335	252	✓
North Sidewalk along West 30th Street between Site A and Site B Building Entrances, between Twelfth Avenue and Eleventh Avenue	230	324	463	294	420	283	✓	327	281	396	267	368	275	✓
Eleventh Avenue and West 29th Street														
North Crosswalk	-32	-9	15	10	-27	64	✓	-34	76	85	-4	-50	109	✓
East Crosswalk	-32	-9	15	10	-27	64	✓	-34	76	85	-4	-50	109	✓
South Crosswalk	-32	-9	15	10	-27	64	✓	-34	76	85	-4	-50	109	✓
West Crosswalk	-55	2	73	52	-20	180	✓	-15	282	268	16	-69	260	✓
Northeast Corner	-74	-23	21	15	-62	124	✓	-68	275	170	-11	-72	213	✓
Southeast Corner	-64	-18	30	20	-54	128	✓	-68	152	170	-8	-100	218	✓
Southwest Corner	-87	-7	88	62	-47	244	✓	-49	358	353	12	-119	369	✓
Northwest Corner	-87	-7	88	62	-47	244	✓	-49	358	353	12	-119	369	✓
North Sidewalk along West 29th Street between Eleventh Avenue and Tenth Avenue	-32	-9	15	10	-27	64	✓	-34	76	85	-4	-50	109	✓
East Sidewalk along Eleventh Avenue between West 29th Street and West 28th Street	-30	-8	17	12	-27	66	✓	-25	204	92	-2	-15	110	✓
South Sidewalk along West 29th Street between Eleventh Avenue and Tenth Avenue	-32	-9	15	10	-27	64	✓	-34	76	85	-4	-50	109	✓
West Sidewalk along Eleventh Avenue between West 29th Street and West 28th Street	-25	14	56	45	5	121	✓	15	210	176	18	-21	154	✓
Eleventh Avenue and West 28th Street														
East Crosswalk	7	57	103	75	76	125	✓	8	263	170	55	78	163	✓
West Crosswalk	15	85	147	113	110	186	✓	51	275	259	80	74	213	✓
Northeast Corner	7	57	103	75	76	125	✓	8	263	170	55	78	163	✓
Southeast Corner	7	57	103	75	76	125	✓	8	263	170	55	78	163	✓
Southwest Corner	15	85	147	113	110	186	✓	51	275	259	80	74	213	✓
Northwest Corner	15	85	147	113	110	186	✓	51	275	259	80	74	213	✓
East Sidewalk along Eleventh Avenue between West 28th Street and West 27th Street	7	57	103	75	76	125	✓	8	263	170	55	78	163	✓
West Sidewalk along Eleventh Avenue between West 28th Street and West 27th Street	15	85	147	113	110	186	✓	51	275	259	80	74	213	✓
Eleventh Avenue and West 27th Street														
East Crosswalk	15	352	9	1	89	-4	✓	15	352	9	1	89	-4	✓
West Crosswalk	23	381	54	40	125	59	✓	58	365	99	27	87	48	✓
Northeast Corner	15	352	9	1	89	-4	✓	15	352	9	1	89	-4	✓
Southeast Corner	15	352	9	1	89	-4	✓	15	352	9	1	89	-4	✓
Southwest Corner	23	381	54	40	125	59	✓	58	365	99	27	87	48	✓
Northwest Corner	23	381	54	40	125	59	✓	58	365	99	27	87	48	✓
East Sidewalk along Eleventh Avenue between West 27th Street and West 26th Street	15	352	9	1	89	-4	✓	15	352	9	1	89	-4	✓
West Sidewalk along Eleventh Avenue between West 27th Street and West 26th Street	23	381	54	40	125	59	✓	58	365	99	27	87	48	✓
Eleventh Avenue and West 26th Street														
East Crosswalk	15	352	9	1	89	-4	✓	15	352	9	1	89	-4	✓
West Crosswalk	23	381	54	40	125	59	✓	58	365	99	27	87	48	✓
Northeast Corner	15	352	9	1	89	-4	✓	15	352	9	1	89	-4	✓
Southeast Corner	15	352	9	1	89	-4	✓	15	352	9	1	89	-4	✓
Southwest Corner	23	381	54	40	125	59	✓	58	365	99	27	87	48	✓
Northwest Corner	23	381	54	40	125	59	✓	58	365	99	27	87	48	✓
East Sidewalk along Eleventh Avenue between West 26th Street and West 25th Street	15	352	9	1	89	-4	✓	15	352	9	1	89	-4	✓
West Sidewalk along Eleventh Avenue between West 26th Street and West 25th Street	23	381	54	40	125	59	✓	58	365	99	27	87	48	✓
Eleventh Avenue and West 25th Street														
East Crosswalk	15	352	9	1	89	-4	✓	15	352	9	1	89	-4	✓
Northeast Corner	15	352	9	1	89	-4	✓	15	352	9	1	89	-4	✓
Southeast Corner	15	352	9	1	89	-4	✓	15	352	9	1	89	-4	✓
East Sidewalk along Eleventh Avenue between West 25th Street and West 24th Street	15	352	9	1	89	-4	✓	15	352	9	1	89	-4	✓
West Sidewalk along Eleventh Avenue between West 25th Street and West 24th Street	23	381	54	40	125	59	✓	58	365	99	27	87	48	✓

Western Rail Yard Modifications

Table 14-17
Pedestrian Level 2 Screening Analysis Results

Pedestrian Elements	Incremental Pedestrian Trips						Selected Analysis Locations	Incremental Pedestrian Trips						Selected Analysis Locations
	Proposed Project							Alternative Scenario						
	Weekday			Saturday				Weekday			Saturday			
	AM	Midday	PM	Evening	Midday	Evening		AM	Midday	PM	Evening	Midday	Evening	
Eleventh Avenue and West 24th Street														
East Crosswalk	15	352	9	1	89	-4	✓	15	352	9	1	89	-4	✓
West Crosswalk	12	364	30	20	107	22	✓	16	358	57	23	89	8	✓
Northeast Corner	15	352	9	1	89	-4	✓	15	352	9	1	89	-4	✓
Southeast Corner	15	352	9	1	89	-4	✓	15	352	9	1	89	-4	✓
Southwest Corner	12	364	30	20	107	22	✓	16	358	57	23	89	8	✓
Northwest Corner	23	381	54	40	125	59	✓	58	365	99	27	87	48	✓
East Sidewalk along Eleventh Avenue between West 24th Street and West 23rd Street	15	352	9	1	89	-4	✓	15	352	9	1	89	-4	✓
West Sidewalk along Eleventh Avenue between West 24th Street and West 23rd Street	15	352	9	1	89	-4	✓	15	352	9	1	89	-4	✓
Hudson Boulevard West and West 35th Street														
North Sidewalk along West 35th Street between Hudson Boulevard West and Hudson Boulevard East	-25	-13	-22	-16	-23	-15		-12	117	-12	-12	15	-15	
Hudson Boulevard East and West 35th Street														
North Sidewalk along West 35th Street between Hudson Boulevard East and Tenth Avenue	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
South Sidewalk along West 35th Street between Hudson Boulevard East and Tenth Avenue	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
Hudson Boulevard East and West 34th Street														
North Crosswalk	-26	37	56	44	51	104		-27	118	122	28	23	146	
East Crosswalk	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
South Crosswalk	-69	-27	25	11	-64	118	✓	-72	141	167	-14	-107	211	✓
Northeast Corner	-76	8	11	8	4	74	✓	-60	221	91	-1	18	119	✓
Southeast Corner	-119	-56	-20	-25	-111	88	✓	-105	244	136	-43	-112	184	✓
Southwest Corner	-118	-57	-20	-27	-113	86	*	-113	115	129	-46	-148	184	*
Northwest Corner	-75	7	11	6	2	72		-68	92	84	-4	-18	119	
East Sidewalk along Hudson Boulevard East between West 35th Street and West 34th Street	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
North Sidewalk along West 34th Street between Hudson Boulevard East and Tenth Avenue	-26	37	56	44	51	104		-27	118	122	28	23	146	
East Sidewalk along Hudson Boulevard East between West 34th Street and West 33rd Street	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
South Sidewalk along West 34th Street between Hudson Boulevard East and Tenth Avenue	-69	-27	25	11	-64	118	✓	-72	141	167	-14	-107	211	✓
West Sidewalk along Hudson Boulevard East between West 34th Street and West 33rd Street	-179	984	1143	1227	1159	1920	*	1528	-48	2621	671	-367	1086	*
Hudson Boulevard East and West 33rd Street														
North Crosswalk	5	45	98	75	35	164		-12	56	193	18	-58	205	
East Crosswalk	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
South Crosswalk	-833	20	-166	245	351	806	✓	-281	228	574	124	-33	769	*
West Crosswalk	-7	520	620	638	587	975	*	821	-5	1339	346	-180	567	✓
Northeast Corner	-45	16	53	39	-12	134	✓	-45	159	162	-11	-63	178	✓
Southeast Corner	-883	-9	-211	209	304	776	*	-314	331	543	95	-38	742	*
Southwest Corner	-840	540	-454	683	938	1781	*	540	223	1913	470	-213	1336	*
Northwest Corner	-164	1043	1264	1324	1195	2102	*	1521	18	2843	703	-426	1316	*
North Sidewalk along West 33rd Street between Hudson Boulevard East and Tenth Avenue	5	45	98	75	35	164		-12	56	193	18	-58	205	
South Sidewalk along West 33rd Street between Hudson Boulevard East and Tenth Avenue	-784	51	-122	282	398	838	✓	-250	126	602	154	-28	797	✓
Tenth Avenue and West 35th Street														
North Crosswalk	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
East Crosswalk	13	64	112	80	88	133		26	97	188	63	40	168	
South Crosswalk	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
West Crosswalk	13	64	112	80	88	133		26	97	188	63	40	168	
Northeast Corner	-37	35	67	44	41	103	✓	-7	200	157	34	35	141	✓
Southeast Corner	-37	35	67	44	41	103	✓	-7	200	157	34	35	141	✓
Southwest Corner	-37	35	67	44	41	103	✓	-7	200	157	34	35	141	✓
Northwest Corner	-37	35	67	44	41	103	✓	-7	200	157	34	35	141	✓
East Sidewalk along Tenth Avenue between West 36th Street and West 35th Street	13	64	112	80	88	133		26	97	188	63	40	168	
North Sidewalk along West 35th Street between Tenth Avenue and Dyer Avenue	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
South Sidewalk along West 35th Street between Tenth Avenue and Dyer Avenue	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
West Sidewalk along Tenth Avenue between West 36th Street and West 35th Street	13	64	112	80	88	133		26	97	188	63	40	168	
Tenth Avenue and West 34th Street														
North Crosswalk	-22	42	79	52	53	105		-23	123	145	36	25	147	
South Crosswalk	-69	-27	25	11	-64	118	✓	-72	141	167	-14	-107	211	✓
Northeast Corner	-33	47	113	80	47	186		-26	88	256	50	-42	269	
Southeast Corner	-80	-22	59	39	-70	199	✓	-75	106	278	0	-174	333	✓
Southwest Corner	-76	-17	82	47	-68	200	✓	-71	111	301	8	-172	334	✓
Northwest Corner	-33	47	113	80	47	186		-26	88	256	50	-42	269	
East Sidewalk along Tenth Avenue between West 35th Street and West 34th Street	-26	-5	21	16	-21	73		-9	34	105	5	-59	114	
North Sidewalk along West 34th Street between Tenth Avenue and Dyer Avenue	-22	42	79	52	53	105		-23	123	145	36	25	147	
East Sidewalk along Tenth Avenue between West 34th Street and West 33rd Street	26	105	168	136	147	221		25	96	265	87	41	250	
South Sidewalk along West 34th Street between Tenth Avenue and Dyer Avenue	-32	42	113	79	42	183	✓	-39	204	245	47	-11	271	✓
West Sidewalk along Tenth Avenue between West 34th Street and West 33rd Street	-22	0	44	24	-19	74		-5	39	128	13	-57	115	
West Sidewalk along Tenth Avenue between West 35th Street and West 34th Street	-26	-5	21	16	-21	73		-9	34	105	5	-59	114	

**Table 14-17
Pedestrian Level 2 Screening Analysis Results**

Pedestrian Elements	Incremental Pedestrian Trips						Selected Analysis Locations	Incremental Pedestrian Trips						Selected Analysis Locations
	Proposed Project							Alternative Scenario						
	Weekday			Saturday				Weekday			Saturday			
	AM	Midday	PM	Evening	Midday	Evening		AM	Midday	PM	Evening	Midday	Evening	
Tenth Avenue and West 33rd Street														
North Crosswalk	-27	39	79	72	37	171		-15	53	184	21	-59	212	
East Crosswalk	15	75	118	95	107	162		25	95	210	69	39	194	
South Crosswalk	-570	194	-125	222	352	596	✓	-183	135	317	83	5	442	✓
West Crosswalk	-52	-7	25	20	-16	78		-8	35	119	14	-58	121	
Northeast Corner	-12	114	197	167	144	333	✓	10	148	394	90	-20	406	✓
Southeast Corner	-555	269	-7	317	459	758	✓	-158	230	527	152	44	636	✓
Southwest Corner	-817	41	-130	281	386	838	*	-250	126	622	163	-38	798	*
Northwest Corner	-74	40	129	104	26	256	✓	-47	86	315	39	-117	333	✓
North Sidewalk along West 33rd Street between Tenth Avenue and Ninth Avenue	-38	9	30	34	-2	114		-16	53	128	5	-59	157	
East Sidewalk along Tenth Avenue between West 33rd Street and West 31st Street	-191	-49	-104	-17	24	63		-26	-3	80	27	7	101	
South Sidewalk along West 33rd Street between Tenth Avenue and Ninth Avenue	-408	165	-149	133	210	366	✓	-132	65	73	-9	-47	146	✓
West Sidewalk along Tenth Avenue between West 33rd Street and West 31st Street	-201	-150	-35	34	44	160		-34	-37	208	71	12	233	
Tenth Avenue and West 31st Street														
North Crosswalk	-28	-8	-9	-9	-25	14		112	35	138	29	-32	39	
East Crosswalk	163	36	105	10	-50	-38	✓	194	47	132	20	-47	-36	✓
South Crosswalk	210	5	217	78	-27	70	✓	206	65	286	65	-58	117	✓
Northeast Corner	-48	-15	-1	-9	-41	46	✓	255	70	324	69	-71	105	✓
Southeast Corner	564	54	484	146	-75	40	✓	591	125	580	143	-100	89	✓
North Sidewalk along West 31st Street between Tenth Avenue and Dyer Avenue	-38	-11	9	5	-33	59	✓	237	67	315	75	-57	118	✓
East Sidewalk along Tenth Avenue between West 31st Street and West 30th Street	414	73	356	119	-23	9	✓	440	64	373	120	-47	-4	✓
South Sidewalk along West 31st Street between Tenth Avenue and Dyer Avenue	402	18	378	139	-26	79	✓	398	77	447	124	-55	124	✓
West Sidewalk along Tenth Avenue between West 31st Street and West 30th Street	374	135	238	32	-108	-80	*	405	146	265	42	-105	-78	*
Tenth Avenue and West 30th Street														
North Crosswalk	329	41	295	86	-78	36	✓	358	137	392	82	-98	83	✓
East Crosswalk (North)	361	51	288	76	-47	-28	✓	392	62	315	86	-44	-26	✓
East Crosswalk (South)	-36	-10	10	9	-28	63		-38	75	80	-5	-51	108	
South Crosswalk	-30	-13	41	24	-46	127	✓	-43	26	176	-4	-127	219	✓
Northeast Corner	361	51	288	76	-47	-28	✓	392	62	315	86	-44	-26	✓
Southeast Corner	-66	-23	51	33	-74	190	✓	-81	101	256	-9	-178	327	✓
Southwest Corner	-61	-24	57	31	-76	187	✓	-77	99	265	-9	-178	326	✓
Northwest Corner	689	172	536	119	-202	-23	*	748	312	689	121	-227	45	*
East Sidewalk along Tenth Avenue between West 30th Street and West 29th Street	-33	-9	14	10	-28	64	✓	-35	76	84	-4	-51	109	✓
South Sidewalk along West 30th Street between Tenth Avenue and Ninth Avenue	-34	-16	34	21	-49	123		-47	23	169	-7	-130	215	
West Sidewalk along Tenth Avenue between West 30th Street and West 29th Street	-32	-9	15	10	-27	64	✓	-34	76	85	-4	-50	109	✓
Tenth Avenue and West 29th Street														
North Crosswalk	-32	-9	15	10	-27	64		-34	76	85	-4	-50	109	
East Crosswalk	-32	-9	15	10	-27	64		-34	76	85	-4	-50	109	
South Crosswalk	-32	-9	15	10	-27	64		-34	76	85	-4	-50	109	
West Crosswalk	-30	-8	17	12	-27	66	✓	-25	204	92	-2	-15	110	✓
Northeast Corner	-64	-18	30	20	-54	128	✓	-68	152	170	-8	-100	218	✓
Southeast Corner	-64	-18	30	20	-54	128	✓	-68	152	170	-8	-100	218	✓
Southwest Corner	-62	-17	32	22	-54	130	✓	-59	280	177	-6	-65	219	✓
Northwest Corner	-62	-17	32	22	-54	130	✓	-59	280	177	-6	-65	219	✓
North Sidewalk along West 29th Street between Tenth Avenue and Ninth Avenue	-31	-10	15	8	-29	62		-42	-53	78	-7	-86	109	
East Sidewalk along Tenth Avenue between West 29th Street and West 28th Street	-30	-8	17	12	-27	66	✓	-25	204	92	-2	-15	110	✓
South Sidewalk along West 29th Street between Tenth Avenue and Ninth Avenue	-31	-10	15	8	-29	62		-42	-53	78	-7	-86	109	
West Sidewalk along Tenth Avenue between West 29th Street and West 28th Street	-30	-8	17	12	-27	66	✓	-25	204	92	-2	-15	110	✓
Tenth Avenue and West 28th Street														
East Crosswalk	7	59	104	75	78	125	✓	8	265	171	55	80	163	✓
West Crosswalk	7	59	104	75	78	125	✓	8	265	171	55	80	163	✓
Northeast Corner	7	59	104	75	78	125	✓	8	265	171	55	80	163	✓
Southeast Corner	7	59	104	75	78	125	✓	8	265	171	55	80	163	✓
Southwest Corner	7	59	104	75	78	125	✓	8	265	171	55	80	163	✓
Northwest Corner	7	59	104	75	78	125	✓	8	265	171	55	80	163	✓
East Sidewalk along Tenth Avenue between West 28th Street and West 27th Street	7	59	104	75	78	125	✓	8	265	171	55	80	163	✓
West Sidewalk along Tenth Avenue between West 28th Street and West 27th Street	7	59	104	75	78	125	✓	8	265	171	55	80	163	✓
Dyer Avenue and West 35th Street														
North Crosswalk (West)	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
North Crosswalk (East)	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
South Crosswalk	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
Northeast Corner	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
Southwest Corner	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
Northwest Corner	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
North Sidewalk along West 35th Street between Dyer Avenue and Ninth Avenue	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
South Sidewalk along West 35th Street between Dyer Avenue and Ninth Avenue	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
Dyer Avenue and West 34th Street														
North Crosswalk	-22	42	79	52	53	105		-23	123	145	36	25	147	
Northeast Corner	-22	42	79	52	53	105		-23	123	145	36	25	147	
Northwest Corner	-22	42	79	52	53	105		-23	123	145	36	25	147	
North Sidewalk along West 34th Street between Dyer Avenue and Ninth Avenue	-22	42	79	52	53	105		-23	123	145	36	25	147	
South Sidewalk along West 34th Street between Dyer Avenue and Ninth Avenue	-32	42	113	79	42	183	✓	-39	204	245	47	-11	271	✓

Western Rail Yard Modifications

Table 14-17
Pedestrian Level 2 Screening Analysis Results

Pedestrian Elements	Incremental Pedestrian Trips						Selected Analysis Locations	Incremental Pedestrian Trips						Selected Analysis Locations
	Proposed Project							Alternative Scenario						
	Weekday			Saturday				Weekday			Saturday			
	AM	Midday	PM	Evening	Midday	Evening		AM	Midday	PM	Evening	Midday	Evening	
Dyer Avenue and West 31st Street														
North Crosswalk	-38	-11	9	5	-33	59	✓	237	67	315	75	-57	118	✓
South Crosswalk	402	18	378	139	-26	79	✓	398	77	447	124	-55	124	✓
Northeast Corner	-38	-11	9	5	-33	59	✓	237	67	315	75	-57	118	✓
Southeast Corner	402	18	378	139	-26	79	✓	398	77	447	124	-55	124	✓
Southwest Corner	402	18	378	139	-26	79	✓	398	77	447	124	-55	124	✓
Northwest Corner	-38	-11	9	5	-33	59	✓	237	67	315	75	-57	118	✓
North Sidewalk along West 31st Street between Dyer Avenue and Ninth Avenue	-38	-11	9	5	-33	59	✓	237	67	315	75	-57	118	✓
South Sidewalk along West 31st Street between Dyer Avenue and Ninth Avenue	402	18	378	139	-26	79	✓	398	77	447	124	-55	124	✓
Ninth Avenue and West 40th Street														
Northeast Corner	4	15	9	23	19	29		133	44	112	41	11	4	
Southeast Corner	4	15	9	23	19	29		133	44	112	41	11	4	
East Sidewalk along Ninth Avenue between West 41st Street and West 40th Street	3	17	9	23	18	31		132	46	113	40	11	6	
Ninth Avenue and West 35th Street														
North Crosswalk	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
South Crosswalk	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
West Crosswalk	29	74	126	92	103	143		39	105	200	73	53	176	
Northeast Corner	-50	-23	-42	-28	-40	-20	✓	13	170	8	-14	13	-25	✓
Southeast Corner	-50	-23	-42	-28	-40	-20	✓	13	170	8	-14	13	-25	✓
Southwest Corner	-21	45	81	56	56	113	✓	6	208	169	44	48	149	✓
Northwest Corner	-21	45	81	56	56	113	✓	6	208	169	44	48	149	✓
North Sidewalk along West 35th Street between Ninth Avenue and Eighth Avenue	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
South Sidewalk along West 35th Street between Ninth Avenue and Eighth Avenue	-50	-29	-45	-36	-47	-30		-33	103	-31	-29	-5	-27	
West Sidewalk along Ninth Avenue between West 36th Street and West 35th Street	29	74	126	92	103	143		39	105	200	73	53	176	
Ninth Avenue and West 34th Street														
North Crosswalk	-22	42	79	52	53	105		-23	123	145	36	25	147	
South Crosswalk	-20	40	80	52	52	105	✓	-18	172	149	37	38	147	✓
West Crosswalk	-6	10	58	36	-4	84		8	47	140	23	-44	123	
Northeast Corner	-13	58	127	76	63	117	✓	32	200	229	67	46	151	✓
Southeast Corner	-11	56	128	76	62	117	✓	37	249	233	68	59	151	✓
Southwest Corner	-26	50	138	88	48	189	✓	-10	219	289	60	-6	270	✓
Northwest Corner	-28	52	137	88	49	189	✓	-15	170	285	59	-19	270	✓
North Sidewalk along West 34th Street between Ninth Avenue and Eighth Avenue	-22	42	79	52	53	105		-23	123	145	36	25	147	
South Sidewalk along West 34th Street between Ninth Avenue and Eighth Avenue	-22	42	79	52	53	105		-23	123	145	36	25	147	
West Sidewalk along Ninth Avenue between West 35th Street and West 34th Street	-10	5	35	28	-6	83		4	42	117	15	-46	122	
Ninth Avenue and West 33rd Street														
North Crosswalk	-23	49	79	54	76	122		-31	102	140	43	39	161	
South Crosswalk	-339	218	-87	170	292	394	✓	-58	136	128	38	54	167	✓
Northeast Corner	10	65	109	82	88	133		45	127	204	67	46	164	
Southeast Corner	-306	234	-57	188	302	395	✓	18	161	192	62	61	170	✓
Southwest Corner	-368	235	-58	198	319	426	*	-96	129	156	50	52	201	*
Northwest Corner	-27	95	149	126	133	216		-18	109	238	75	37	245	
North Sidewalk along West 33rd Street between Ninth Avenue and Eighth Avenue	8	60	106	74	81	124		0	113	167	53	42	163	
South Sidewalk along West 33rd Street between Ninth Avenue and Eighth Avenue	-372	202	-117	152	282	373	✓	-134	111	64	14	47	164	✓
Ninth Avenue and West 31st Street														
North Crosswalk	1	58	100	69	76	119	✓	272	130	398	133	42	172	✓
South Crosswalk	441	87	469	203	83	139	✓	433	140	530	182	44	178	✓
Northeast Corner	1	58	100	69	76	119		272	130	398	133	42	172	*
Southeast Corner	441	87	469	203	83	139	✓	433	140	530	182	44	178	✓
Southwest Corner	441	87	469	203	83	139	✓	433	140	530	182	44	178	✓
Northwest Corner	1	58	100	69	76	119	*	272	130	398	133	42	172	*
North Sidewalk along West 31st Street between Ninth Avenue and Eighth Avenue	1	58	100	69	76	119		272	130	398	133	42	172	✓
South Sidewalk along West 31st Street between Ninth Avenue and Eighth Avenue	441	87	469	203	83	139	✓	433	140	530	182	44	178	✓
Ninth Avenue and West 30th Street														
South Crosswalk	-35	-10	11	8	-29	64		-40	24	79	-6	-65	109	
Southeast Corner	-35	-10	11	8	-29	64		-40	24	79	-6	-65	109	
Southwest Corner	-34	-14	33	22	-53	128		-49	27	165	-7	-133	219	
East Sidewalk along Ninth Avenue between West 30th Street and West 29th Street	-11	2	33	24	-9	75		-25	-43	93	7	-69	120	
West Sidewalk along Ninth Avenue between West 30th Street and West 29th Street	1	-4	22	14	-24	64		-9	3	86	-1	-68	110	
Ninth Avenue and West 29th Street														
North Crosswalk	-31	-10	15	8	-29	62		-42	-53	78	-7	-86	109	
East Crosswalk	-21	1	68	45	-17	146		-48	-90	191	13	-137	237	
Northeast Corner	-52	-9	83	53	-46	208		-90	-143	269	6	-223	346	
Southeast Corner	-52	-9	83	53	-46	208		-90	-143	269	6	-223	346	
Southwest Corner	-51	-14	39	25	-48	131		-72	-50	166	-5	-149	224	
Northwest Corner	-51	-14	39	25	-48	131		-72	-50	166	-5	-149	224	
East Sidewalk along Ninth Avenue between West 29th Street and West 28th Street	-21	1	68	45	-17	146		-48	-90	191	13	-137	237	
South Sidewalk along West 29th Street between Ninth Avenue and Eighth Avenue	-31	-10	15	8	-29	62		-42	-53	78	-7	-86	109	
West Sidewalk along Ninth Avenue between West 29th Street and West 28th Street	-20	-4	24	17	-19	69		-30	3	88	2	-63	115	

**Table 14-17
Pedestrian Level 2 Screening Analysis Results**

Pedestrian Elements	Incremental Pedestrian Trips						Selected Analysis Locations	Incremental Pedestrian Trips						Selected Analysis Locations
	Proposed Project							Alternative Scenario						
	Weekday			Saturday				Weekday			Saturday			
	AM	Midday	PM	Evening	Midday	Evening		AM	Midday	PM	Evening	Midday	Evening	
Ninth Avenue and West 28th Street														
East Crosswalk	16	70	156	113	89	211		-15	-27	269	74	-41	297	
West Crosswalk	19	65	115	81	90	129		5	66	171	60	36	169	
Northeast Corner	16	70	156	113	89	211		-15	-27	269	74	-41	297	
Southeast Corner	16	70	156	113	89	211		-15	-27	269	74	-41	297	
Southwest Corner	19	65	115	81	90	129		5	66	171	60	36	169	
Northwest Corner	19	65	115	81	90	129		5	66	171	60	36	169	
East Sidewalk along Ninth Avenue between West 28th Street and West 27th Street	28	71	124	88	100	135		10	20	176	65	30	174	
South Sidewalk along West 28th Street between Ninth Avenue and Eighth Avenue	-11	2	33	24	-9	75		-25	-43	93	7	-69	120	
West Sidewalk along Ninth Avenue between West 28th Street and West 27th Street	19	65	115	81	90	129		5	66	171	60	36	169	

Notes: ✓ denotes pedestrian elements selected for detailed analysis; * denotes pedestrian elements excluded due to crosswalk/corner/sidewalk geometry characteristics. Pedestrian elements with fewer than 100 project generated pedestrian trips in a peak hour are not presented in this table.

C. TRANSPORTATION ANALYSIS METHODOLOGIES

As described above, detailed analyses have been determined to be warranted to evaluate the operation of traffic intersections, subway station control area and vertical circulation elements, subway and bus line-haul levels, and pedestrian elements. Assessments of street user safety and parking supply and demand would also be undertaken. The analysis methodologies and significant adverse impact criteria for these transportation analysis topics are outlined below.

TRAFFIC OPERATIONS

The operations of all the signalized and unsignalized intersections in the study area were assessed using methodologies presented in the *2000 Highway Capacity Manual (HCM)* using the *Highway Capacity Software (HCS+ 5.5)*. The *HCM* procedure evaluates the level of service (LOS) for signalized and unsignalized intersections using average stop control delay, in seconds per vehicle, as described below.

SIGNALIZED INTERSECTIONS

The average control delay per vehicle is the basis for LOS determination for individual lane groups (grouping of movements in one or more travel lanes), the approaches, and the overall intersection. The LOS criteria are defined in **Table 14-18**.

**Table 14-18
Level of Service Criteria for Signalized Intersections**

LOS	Average Control Delay
A	≤ 10.0 seconds
B	>10.0 and ≤ 20.0 seconds
C	>20.0 and ≤ 35.0 seconds
D	>35.0 and ≤ 55.0 seconds
E	>55.0 and ≤ 80.0 seconds
F	>80.0 seconds

Source: Transportation Research Board. *Highway Capacity Manual, 2000*

Although the *HCM* methodology calculates a volume-to-capacity (v/c) ratio, there is no strict relationship between v/c ratios and LOS as defined in the *HCM*. A high v/c ratio indicates substantial traffic passing through an intersection, but a high v/c ratio combined with low

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average delay actually represents the most efficient condition in terms of traffic engineering standards, where an approach or the whole intersection processes traffic close to its theoretical maximum capacity with minimal delay. However, very high v/c ratios—especially those approaching or greater than 1.0—are often correlated with a deteriorated LOS. Other important variables affecting delay include cycle length, progression, and green time. LOS A and B indicate good operating conditions with minimal delay. At LOS C, the number of vehicles stopping is higher, but congestion is still fairly light. LOS D describes a condition where congestion levels are more noticeable and individual cycle failures (a condition where motorists may have to wait for more than one green phase to clear the intersection) can occur. Conditions at LOS E and F reflect poor service levels, and cycle breakdowns are frequent. The *HCM* methodology also provides for a summary of the total intersection operating conditions. The analysis chooses the two critical movements (the worst case from each roadway) and calculates a summary critical v/c ratio. The overall intersection delay, which determines the intersection's LOS, is based on a weighted average of control delays of the individual lane groups. Within New York City, LOS D or better (average control delay of less than or equal to 55.0 seconds) is considered to be acceptable operations.

Significant Impact Criteria

According to the criteria presented in the *CEQR Technical Manual*, impacts are considered significant and require examination of mitigation if they result in an increase in the With Action condition of five or more seconds of delay in a lane group over No Action levels within LOS E. For No Action LOS F, a four-second increase in delay is considered significant. In addition, impacts are considered significant if levels of service deteriorate from acceptable A, B, C, or D in the No Action condition to unacceptable LOS E or F in the With Action condition, providing the delay increases are equal or greater than the above.

UN SIGNALIZED INTERSECTIONS

For unsignalized intersections, the average control delay is defined as the total elapsed time from which a vehicle stops at the end of the queue until the vehicle departs from the stop line. This includes the time required for the vehicle to travel from the last-in-queue to the first-in-queue position. The average control delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation. The LOS criteria for unsignalized intersections are summarized in **Table 14-19**.

Table 14-19

Level of Service Criteria for Unsignalized Intersections

LOS	Average Control Delay
A	≤ 10.0 seconds
B	> 10.0 and ≤ 15.0 seconds
C	> 15.0 and ≤ 25.0 seconds
D	> 25.0 and ≤ 35.0 seconds
E	> 35.0 and ≤ 50.0 seconds
F	> 50.0 seconds

Source: Transportation Research Board. *Highway Capacity Manual*, 2000

The LOS thresholds for unsignalized intersections are different from those for signalized intersections. The primary reason is that drivers expect different levels of performance from different types of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an unsignalized intersection; hence, the corresponding control delays are higher at a signalized intersection than at an unsignalized intersection for the same LOS. In addition, certain driver behavioral considerations combine to make delays at signalized intersections less onerous than at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, whereas drivers on minor approaches to unsignalized intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized intersections. For these reasons, the corresponding delay thresholds for unsignalized intersections are lower than those of signalized intersections. As with signalized intersections, within New York City, LOS D or better (average control delay of less than or equal to 35.0 seconds) is considered as acceptable operations.

Significant Impact Criteria

The same sliding scale of delays that define the presence of significant impacts described for signalized intersections applies for unsignalized intersections. For the minor street to trigger significant impacts, at least 90 passenger car equivalents (PCE) must be identified in the With Action condition in any peak hour.

TRANSIT OPERATIONS

The procedures used to evaluate transit operations, as presented in the *CEQR Technical Manual*, are established pursuant to requirements of the Metropolitan Transportation Authority (MTA) New York City Transit (NYCT). Those associated with analyzing subway station elements and subway/bus line-haul capacities are described below.

SUBWAY STATION ELEMENTS

The methodology for assessing station circulation (stairs, escalators, and passageways) and fare control (regular turnstiles, high entry/exit turnstiles, and high exit turnstiles) elements compares the user volume with the analyzed element's design capacity, resulting in a v/c ratio. For stairs, the design capacity considers the effective width of a tread, which accounts for railings or other obstructions, the friction or counter-flow between upward and downward pedestrians (up to 10 percent capacity reduction is applied to account for counter-flow friction), surging of entering and exiting pedestrians (up to 25 percent capacity reduction is applied to account for surged flows off of platforms and onto platforms), and the average area required for circulation. For passageways, similar considerations are made. For escalators and turnstiles, capacities are measured by the number and width of an element and the NYCT optimum capacity per element, and also account for the potential for surging of entering and exiting pedestrians. In the analysis for each of these elements, volumes and capacities are presented for 15-minute intervals. The estimated v/c ratio is compared with NYCT criteria to determine a LOS for the operation of an element, as summarized in **Table 14-20**.

Table 14-20
Level of Service Criteria for Subway Station Elements

LOS	V/C Ratio
A	0.00 to 0.45
B	0.45 to 0.70
C	0.70 to 1.00
D	1.00 to 1.33
E	1.33 to 1.67
F	Above 1.67

Sources: New York City Mayor's Office of Environmental Coordination, 2021 *CEQR Technical Manual*

At LOS A (“free flow”) and B (“fluid flow”), there is sufficient area to allow pedestrians to freely select their walking speed and bypass slower pedestrians. When cross and reverse flow movement exists, only minor conflicts may occur. At LOS C (“fluid, somewhat restricted”), movement is fluid although somewhat restricted. While there is sufficient room for standing without personal contact, circulation through queuing areas may require adjustments to walking speed. At LOS D (“crowded, walking speed restricted”), walking speed is restricted and reduced. Reverse and cross flow movement is severely restricted because of congestion and the difficult passage of slower moving pedestrians. At LOS E (“congested, some shuffling and queuing”) and F (“severely congested, queued”), walking speed is restricted. There is also insufficient area to bypass others, and opposing movement is difficult. Often, forward progress is achievable only through shuffling, with queues forming.

Significant Impact Criteria

The determination of significant impacts for station elements varies based on their type and use. For stairs and passageways, significant impacts are defined in terms of width increment threshold (WIT) based on the minimum amount of additional capacity that would be required either to mitigate the location to its service conditions (LOS) under the No Action levels, or to bring it to a v/c ratio of 1.00 (LOS C/D), whichever is greater. Significant impacts are typically considered to occur once the WITs in **Table 14-21** are reached or exceeded.

Table 14-21
Significant Impact Guidance for Stairs and Passageways

With Action V/C Ratio	WIT for Significant Impact (inches)	
	Stairway	Passageway
1.00 to 1.09	8.0	13.0
1.10 to 1.19	7.0	11.5
1.20 to 1.29	6.0	10.0
1.30 to 1.39	5.0	8.5
1.40 to 1.49	4.0	6.0
1.50 to 1.59	3.0	4.5
1.60 and up	2.0	3.0

Note: WIT = Width Increment Threshold
Sources: New York City Mayor's Office of Environmental Coordination, 2021 *CEQR Technical Manual*

For escalators and control area elements, impacts are significant if the proposed project causes a v/c ratio to increase from below 1.00 to 1.00 or greater. Where a facility is

already at or above its capacity (a v/c of 1.00 or greater) in the No Action condition, a 0.01 increase in v/c ratio is also significant.

SUBWAY AND BUS LINE-HAUL CAPACITIES

As per the *CEQR Technical Manual*, line-haul capacities are evaluated when a proposed project is anticipated to generate a perceptible number of passengers on particular subway and bus routes. For subways, if a subway line is expected to incur 200 or more passengers in one direction of travel during a commuter peak hour, a detailed review of ridership level at its maximum load point and/or other project-specific load points is advised to determine if the route's guideline (or practical) capacity would be exceeded. NYCT operates six different types of subway cars with different seating and guideline capacities. The peak period guideline capacity of a subway car, which ranges from 110 to 175 passengers, is compared with ridership levels to determine the acceptability of conditions.

Bus line-haul capacities are evaluated when a proposed project is anticipated to generate 50 or more bus passengers to a single bus route in one direction. The assessment of bus line-haul conditions involves analyzing bus routes at their peak load points and, if necessary, also their bus stops closest to the project site to identify the potential for the analyzed routes to exceed their guideline (or practical) capacities. NYCT and the MTA Bus Company operate three types of buses: standard and articulated buses, and over-the-road coaches. During peak hours, standard buses operate with up to 54 passengers per bus, articulated buses operate with up to 85 passengers per bus, and over-the-road coaches operate with up to 55 passengers per bus.

Significant Impact Criteria

For subways, projected increases from the No Action condition within guideline capacity to a With Action condition that exceeds guideline capacity may be considered a significant adverse impact, if a subway car for a particular line is expected to incur five or more riders from a proposed project. Since there are constraints on what service improvements are available to NYCT, significant line-haul capacity impacts on subway routes are generally disclosed but would usually remain unmitigated. For buses, an increase in bus load levels greater than the maximum capacity at any load point is defined as a potential significant adverse impact. While subject to operational and fiscal constraints, bus impacts can typically be mitigated by increasing service frequency. Therefore, mitigation of bus line-haul capacity impacts, where appropriate, would be recommended for NYCT's approval.

PEDESTRIAN OPERATIONS

The adequacy of the study area's sidewalk, crosswalk, and corner reservoir capacities in relation to the demand imposed on them is evaluated based on the methodologies presented in the 2010 *HCM*, in accordance with procedures detailed in the *CEQR Technical Manual*. The primary performance measure for sidewalks and walkways is pedestrian space, expressed as square feet per pedestrian (SFP), which is an indicator of the quality of pedestrian movement and comfort. The calculation of the sidewalk SFP is based on the pedestrian volumes by direction, the effective sidewalk or walkway width, and average walking speed. The SFP forms the basis for a sidewalk LOS analysis. The determination of sidewalk LOS is also dependent on whether the pedestrian flow being analyzed is best described as "non-platoon" or "platoon." Non-platoon flow occurs when

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pedestrian volume within the peak 15-minute period is relatively uniform; whereas platoon flow occurs when pedestrian volumes vary significantly with the peak 15-minute period. Such variation typically occurs near bus stops, subway stations, and/or where adjacent crosswalks account for much of the walkway's pedestrian volume.

Street corners and crosswalks are not easily measured in terms of free pedestrian flow, as they are influenced by the effects of traffic signals. Street corners must be able to provide sufficient space for a mix of standing pedestrians (queued to cross a street) and circulating pedestrians (crossing the street or moving around the corner). The *HCM* methodologies apply a measure of time and space availability based on the area of the corner, the timing of the intersection signal, and the estimated space used by circulating pedestrians. The total "time-space" available for these activities, expressed in square feet-second, is calculated by multiplying the net area of the corner (in square feet) by the signal's cycle length. The analysis then determines the total circulation time for all pedestrian movements at the corner per signal cycle (expressed as pedestrians per second). The ratio of net time-space divided by the total pedestrian circulation volume per signal cycle provides the LOS measurement of available SFP.

Crosswalk LOS is also a function of time and space. Similar to the street corner analysis, crosswalk conditions are first expressed as a measurement of the available area (the crosswalk width multiplied by the width of the street) and the permitted crossing time. This measure is expressed in square feet-second. The average time required for a pedestrian to cross the street is calculated based on the width of the street and an assumed walking speed. The ratio of time-space available in the crosswalk to the total crosswalk pedestrian occupancy time is the LOS measurement of available square feet per pedestrian. The LOS analysis also accounts for vehicular turning movements that traverse the crosswalk.

The LOS standards for sidewalks, corner reservoirs, and crosswalks are summarized in **Table 14-22**. The *CEQR Technical Manual* specifies acceptable mid-LOS D or better (minimum of 31.5 SFP platoon flows for sidewalks; minimum of 19.5 SFP for corners and crosswalks) in Central Business District (CBD) settings, which include the project study area.

Table 14-22
Level of Service Criteria for Pedestrian Elements

LOS	Sidewalks		Corner Reservoirs and Crosswalks
	Non-Platoon Flow	Platoon Flow	
A	> 60 SFP	> 530 SFP	> 60 SFP
B	> 40 and ≤ 60 SFP	> 90 and ≤ 530 SFP	> 40 and ≤ 60 SFP
C	> 24 and ≤ 40 SFP	> 40 and ≤ 90 SFP	> 24 and ≤ 40 SFP
D	> 15 and ≤ 24 SFP	> 23 and ≤ 40 SFP	> 15 and ≤ 24 SFP
E	> 8 and ≤ 15 SFP	> 11 and ≤ 23 SFP	> 8 and ≤ 15 SFP
F	≤ 8 SFP	≤ 11 SFP	≤ 8 SFP

Note: SFP = square feet per pedestrian.
Sources: New York City Mayor's Office of Environmental Coordination, 2021 *CEQR Technical Manual*

SIGNIFICANT IMPACT CRITERIA

The determination of significant pedestrian impacts considers the level of predicted decrease in pedestrian space between the No Action and With Action conditions. For

different pedestrian elements, flow conditions, and area types, the *CEQR Technical Manual* procedure for impact determination corresponds with various sliding-scale formulas, as further detailed below.

Sidewalks

The CBD sliding-scale formula for determining significant sidewalk impacts for platoon flow is $Y \geq X/(9.5-0.321)$. Since a decrease in pedestrian space within acceptable levels would not constitute a significant impact, these formulas would apply only if the With Action pedestrian space falls short of mid-LOS D. **Table 14-23** summarizes the sliding scale guidance provided by the *CEQR Technical Manual* for determining potential significant sidewalk impacts.

**Table 14-23
Significant Impact Guidance for Sidewalks**

CBD Platoon Flow Sliding Scale Formula: $Y \geq X/(9.5-0.321)$	
No Action Pedestrian Space (X, SFP)	With Action Pedestrian Space Reduction (Y, SFP)
No Action Pedestrian Space > 34.8	With Action Pedestrian Space < 31.5
34.0 to 34.8	≥ 3.3
33.0 to 33.9	≥ 3.2
32.1 to 32.9	≥ 3.1
31.1 to 32.0	≥ 3.0
30.2 to 31.0	≥ 2.9
29.2 to 30.1	≥ 2.8
28.3 to 29.1	≥ 2.7
27.3 to 28.2	≥ 2.6
26.4 to 27.2	≥ 2.5
25.4 to 26.3	≥ 2.4
24.5 to 25.3	≥ 2.3
23.5 to 24.4	≥ 2.2
22.6 to 23.4	≥ 2.1
21.6 to 22.5	≥ 2.0
20.7 to 21.5	≥ 1.9
19.7 to 20.6	≥ 1.8
18.8 to 19.6	≥ 1.7
17.8 to 18.7	≥ 1.6
16.9 to 17.7	≥ 1.5
15.9 to 16.8	≥ 1.4
15.0 to 15.8	≥ 1.3
14.0 to 14.9	≥ 1.2
13.1 to 13.9	≥ 1.1
12.1 to 13.0	≥ 1.0
11.2 to 12.0	≥ 0.9
10.2 to 11.1	≥ 0.8
9.3 to 10.1	≥ 0.7
8.3 to 9.2	≥ 0.6
7.4 to 8.2	≥ 0.5
6.4 to 7.3	≥ 0.4
< 6.4	≥ 0.3

Notes: SFP = square feet per pedestrian; Y = decrease in pedestrian space in SFP; X = No Action pedestrian space in SFP.
Sources: New York City Mayor’s Office of Environmental Coordination, 2021 *CEQR Technical Manual*

Corner Reservoirs and Crosswalks

The determination of significant corner and crosswalk impacts in the CBD is also based on a sliding scale using the following formula: $Y \geq X/9.0-0.31$, where Y is the decrease

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in pedestrian space in SFP and X is the No Action pedestrian space in SFP. Since a decrease in pedestrian space within acceptable levels would not constitute a significant impact, this formula would apply only if the With Action pedestrian space falls short of mid-LOS D. **Table 14-24** summarizes the sliding scale guidance provided by the *CEQR Technical Manual* for determining potential significant corner and crosswalk impacts.

Table 14-24
Significant Impact Guidance for Corners and Crosswalks

CBD Sliding Scale Formula: $Y \geq X/9.0-0.31$	
No Action Pedestrian Space (X, SFP)	With Action Pedestrian Space Reduction (Y, SFP)
No Action Pedestrian Space > 21.5	With Action Pedestrian Space < 19.5
21.3 to 21.5	≥ 2.1
20.4 to 21.2	≥ 2.0
19.5 to 20.3	≥ 1.9
18.6 to 19.4	≥ 1.8
17.7 to 18.5	≥ 1.7
16.8 to 17.6	≥ 1.6
15.9 to 16.7	≥ 1.5
15.0 to 15.8	≥ 1.4
14.1 to 14.9	≥ 1.3
13.2 to 14.0	≥ 1.2
12.3 to 13.1	≥ 1.1
11.4 to 12.2	≥ 1.0
10.5 to 11.3	≥ 0.9
9.6 to 10.4	≥ 0.8
8.7 to 9.5	≥ 0.7
7.8 to 8.6	≥ 0.6
6.9 to 7.7	≥ 0.5
6.0 to 6.8	≥ 0.4
5.1 to 5.9	≥ 0.3
< 5.1	≥ 0.2

Notes: SFP = square feet per pedestrian; Y = decrease in pedestrian space in SFP; X = No Action pedestrian space in SFP.
Sources: New York City Mayor’s Office of Environmental Coordination, 2021 *CEQR Technical Manual*

STREET USER SAFETY ASSESSMENT

An evaluation of street user (vehicular, bicyclist, and pedestrian) safety is necessary for locations within traffic and pedestrian study areas that have been identified as high crash locations—defined as Vision Zero high priority intersections or intersections where five or more pedestrian/bicyclist injury crashes occurred in any consecutive 12 months of the most recent three-year period for which data are available. Additionally, any locations along a Vision Zero priority corridor where three or more pedestrian/bicyclist injury crashes occurred in any consecutive 12 months of the most recent three-year period should also be identified as high crash locations. For these locations, crash trends are identified to determine if projected vehicular and pedestrian traffic would further exacerbate safety issues. The determination of whether street users, with particular focus on bicyclists and pedestrians, would be at increased risk for involvement in crashes due to the proposed action depends on the type of area in which the project area is located (i.e., whether it is near hospitals, schools, parks, nursing homes, or senior housing, or if it overlaps with Vision Zero priority intersections/corridors, Senior Pedestrian Focus Areas, or Truck Priority Safety Corridors), traffic volumes, crash types and severity, and

other contributing factors. Where appropriate, measures to improve traffic, bicyclist, and pedestrian safety are identified and coordinated with DOT for approval.

PARKING CONDITIONS ASSESSMENT

The parking analysis identifies the extent to which off-street parking is available and utilized under existing and future conditions. It takes into consideration anticipated changes in area parking supply and provides a comparison of parking needs versus availability to determine if a parking shortfall is likely to result from parking displacement attributable to or additional demand generated by a proposed project. Typically, this analysis encompasses a study area within a ¼-mile of the project site. If the analysis concludes a shortfall in parking within the ¼-mile study area, the study area could sometimes be extended to a ½-mile to identify additional parking supply.

Pursuant to *CEQR Technical Manual* guidelines, for proposed projects located in the Manhattan CBD, the inability of the proposed project or the surrounding area to accommodate the project's future parking demand is considered a parking shortfall but is generally not considered significant due to the magnitude of available alternative modes of transportation, and New York City's public policy of discouraging automotive use in the Manhattan CBD.

D. DETAILED TRAFFIC ANALYSIS

As described above in Section B, "Preliminary Analysis Methodology and Screening Assessment," 75 traffic intersections were selected for detailed analysis during the weekday AM, midday, PM, and evening, and Saturday midday/afternoon and evening peak hours. All analysis intersections are signalized except for the Eleventh Avenue intersections with West 31st and West 32nd Street, both of which would be signalized under the No Action and With Action conditions, and the intersection of Dyer Avenue with West 33rd Street intersection. The two unsignalized intersections on Eleventh Avenue do not have conflicting movements and are not subject to analysis under existing conditions, while the Dyer Avenue and West 33rd Street intersection was analyzed for existing and future conditions.

EXISTING CONDITIONS

ROADWAY NETWORK AND TRAFFIC STUDY AREA

The traffic study area encompasses key intersections along principal access routes to and from the Development Site and which are likely to be affected by trips generated by the Proposed Actions. Within the Manhattan grid roadway network, avenues and streets conventionally serve north-south and east-west traffic, respectively. The north-south avenues typically operate as arterials with 60 to 70 feet of curb-to-curb roadway width while the east-west crosstown streets typically operate as low-capacity local roads with 30 to 40 feet of curb-to-curb roadway width. Most avenues and streets in the study area serve one-way traffic, except for Twelfth Avenue (West Street), certain segments of Eleventh Avenue, Dyer Avenue, and major crosstown streets of West 23rd, West 34th, and West 42nd Streets. Surrounding the Development Site, Eleventh Avenue provides southbound access from the north, Twelfth Avenue provides northbound and southbound access at its intersection with West 30th Street, and West 33rd Street. West 33rd Street

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between Eleventh and Twelfth Avenues is currently reserved for the New York City Police Department (NYPD) operations and staging and the turnaround of the NYCT M34 SBS buses.

North–South Avenues

- Sixth Avenue is a northbound roadway with generally four lanes of moving traffic. From West 23rd Street to West 32nd Street, parking is permitted on both sides of the street and a parking-protected bike lane is provided along the west curb.
- Seventh Avenue is a southbound roadway with generally three to four moving lanes of traffic. From South of West 30th Street, it primarily operates with three travel lanes, a bus-only/parking lane (depending on time of day) along the west curb, and a parking-protected bike lane along the east curb.
- Eighth Avenue is a northbound roadway with generally three to four moving lanes of traffic. A parking-protected bike lane is provided along the west curb throughout the study area, between West 23rd and West 42nd Streets. North of West 33rd Street, recent DOT improvements (including sidewalk extensions on the west side) have resulted in fewer traffic lanes in favor of additional circulation space for bicycles and pedestrians.
- Ninth Avenue is a southbound roadway with generally three to four moving lanes of traffic. A parking-protected bike lane is provided along the east curb throughout the study area, between West 23rd and West 42nd Streets. The avenue also has delineated lanes along the east side of the road, between West 36th and West 38th Streets and between West 30th and West 31st Streets, for access to the Lincoln Tunnel.
- Dyer Avenue is a north-south roadway that primarily serves as access/egress to/from the Lincoln Tunnel. It operates between West 30th and West 42nd Streets and is segmented at different grade levels. Its configurations vary from one to five lanes in one direction to more standard two lanes in each direction. Unlike other roadways in the study area, parking and other curbside activities are prohibited along Dyer Avenue. The roadway also has no pedestrian sidewalks, except for between West 34th and West 35th Street and between West 40th and West 42nd Streets.
- Tenth Avenue is a northbound roadway with generally four to five moving lanes of traffic. Parking and other curbside activities are generally permitted throughout the study area, between West 23rd and West 42nd Streets. The avenue currently does not have dedicated facilities for bicycle travel.
- Hudson Boulevard is a newly established roadway stemming from the build-out of Hudson Yards development parcels. The roadway situates between Tenth and Eleventh Avenues in the same north-south alignment and serves northbound traffic in generally one moving lane along its eastern segment (Hudson Boulevard E) between West 33rd and West 36th Streets. Its western segment (Hudson Boulevard W) operates in the southbound direction, also with generally one moving lane of traffic, between West 35th and West 37th Streets.
- Eleventh Avenue is a southbound roadway with generally four moving lanes of traffic adjacent to the Development Site and between West 24th and West 34th Streets, where both curb lanes are generally available for parking and other curbside activities. The avenue operates as two-ways at its southern terminus between Twelfth

Avenue/West 22nd Street and West 24th Street and between West 34th Street and the West 40th Street entrance of the Lincoln Tunnel. North of West 40th Street, Eleventh Avenue operates one-way southbound with delineated lanes feeding traffic to the same West 40th Street entrance of the Lincoln Tunnel. Within the study area, between Twelfth Avenue and West 42nd Street, Eleventh Avenue does not have dedicated facilities for bicycle travel.

- Twelfth Avenue is a high-capacity two-way arterial, operating north-south along the Hudson River. Its northbound roadway, between West 30th and West 33rd Streets, is directly adjacent to the Development Site. Within the study area, between Eleventh Avenue/West 22nd Street and West 54th Street, the northbound roadway operates with three to five moving lanes of traffic, with curbside parking permitted along different stretches of the segment. In the southbound direction, no parking/standing is permitted anywhere within the study area limits. The southbound roadway similarly operates with three to five moving lanes of traffic but does not connect with every crosstown street. Accessing the Development Site, northbound and southbound Twelfth Avenue traffic can turn onto West 30th Street or West 34th Street. For traffic leaving the Development Site, with West 33rd Street having been closed to general traffic, the Twelfth Avenue intersections with West 29th Street and West 34th Street, as well as other connection points north and south of the Development Site serve as egress onto Twelfth Avenue.

East–West Crosstown Streets

- Within the study area, West 23rd, West 34th, and West 42nd Street serve as the major two-way crosstown collector streets, with through connections in the east with the Franklin Delano Roosevelt (FDR) Drive and in the west with Twelfth Avenue. All three roadways serve general traffic on one or two travel lanes, are striped with dedicated and restrictive bus lanes, and impose turning prohibitions at numerous intersections with north-south avenues.
- Adjacent to and south of the Development Site, West 30th Street serves eastbound traffic from Twelfth Avenue to its intersection with the FDR Drive southbound service road. West 30th Street operates with mostly one moving lane of traffic, except for between First and Second Avenues and between Ninth and Tenth Avenues. Parking is generally permitted on both sides of the street and bicycle traffic is accommodated via shared bike space with general traffic or dedicated but not protected bike lanes adjacent to parked vehicles.
- Adjacent to and north of the Development Site, West 33rd Street is a low-traffic westbound street, except for its eastern terminus between First and Second Avenues where the roadway serves two-way east-west traffic. West of Second Avenue, traffic flow terminates on the northbound side of Park Avenue. It restarts on the southbound side and is again interrupted at Seventh Avenue by Plaza 33. West 33rd Street then resumes on the other side of Plaza 33 within a cul-de-sac and a short stretch of two-way traffic to its Eighth Avenue intersection. From there, it continues west and connects with northbound Twelfth Avenue. However, the last block between Eleventh and Twelfth Avenues is currently reserved for NYPD operations and staging, and the turnaround of the M34 SBS buses. Like most crosstown streets, West 33rd Street operates generally with one moving lane of traffic with parking and/or other curbside activities permitted on both sides.

Western Rail Yard Modifications

- Among the other crosstown streets between West 23rd and West 42nd Streets, only a few (26th, 28th, 29th, and 40th Streets) accommodate through traffic across the entire island of Manhattan (i.e., between First and Twelfth Avenues). All of these crosstown streets generally accommodate one moving lane of traffic and curbside activities on both sides, with some also facilitating bicycle travel on delineated bike lanes.

TRAFFIC OPERATIONS

Traffic data were collected in March 2023 and March/April 2024 via a combination of video intersection counts and 24-hour Automatic Traffic Recorder (ATR) counts in accordance with procedures outlined in the *CEQR Technical Manual* for the six analysis peak periods. Standard weekday AM, midday, and PM peak hours in Manhattan, south of 110th Street, are generally 8:00 to 9:00 AM, 12:00 PM to 1:00 PM, and 5:00 to 6:00 PM. For a conservative analysis, traffic volumes from the shoulder hours of these standard peak hours were also considered to establish worst-case peak hour volumes for evaluating existing and future traffic conditions. Additionally, peak hour volumes were established for three other analysis time periods—the weekday evening, Saturday midday/afternoon, and Saturday evening. Based on the collected data, traffic volumes were developed for the following peak hours for analysis.

- Weekday AM: 8:30 – 9:30 AM;
- Weekday midday: 1:00 – 2:00 PM;
- Weekday PM: 5:15 – 6:15 PM;
- Weekday evening: 7:00 – 8:00 PM;
- Saturday midday/afternoon: 3:00 – 4:00 PM; and
- Saturday evening: 7:00 – 8:00 PM.

Since data were collected in both 2023 and 2024, adjustments were made for data collected during each peak period to develop representative 2024 existing conditions traffic volume networks, the adjustments were made by comparing traffic volumes at overlapping intersections collected in both 2023 and 2024 for each peak period. Based on those comparisons, the following adjustments were made to the 2023 and 2024 peak hour traffic data:

- Weekday AM peak period: The 2023 traffic volumes were three percent higher than the 2024 traffic volumes; therefore, the 2024 traffic volumes were adjusted up by three percent, while the 2023 traffic volumes were left as is;
- Weekday midday peak period: The 2024 traffic volumes were two percent higher than the 2023 traffic volumes; therefore, the 2023 traffic volumes were adjusted up by two percent, while the 2024 traffic volumes were left as is;
- Weekday PM peak period: The 2023 traffic volumes were two percent higher than the 2024 traffic volumes; therefore, the 2024 traffic volumes were adjusted up by two percent, while the 2023 traffic volumes were left as is;
- Weekday evening peak period: The 2023 traffic volumes were 18 percent higher than the 2024 traffic volumes; therefore, the 2023 traffic volumes were left as is, while the 2024 traffic volumes were adjusted up by 18 percent;

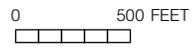
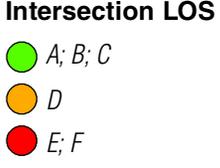
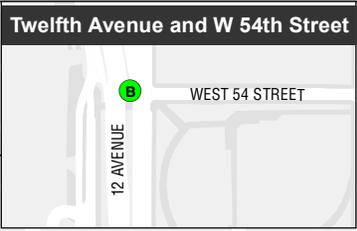
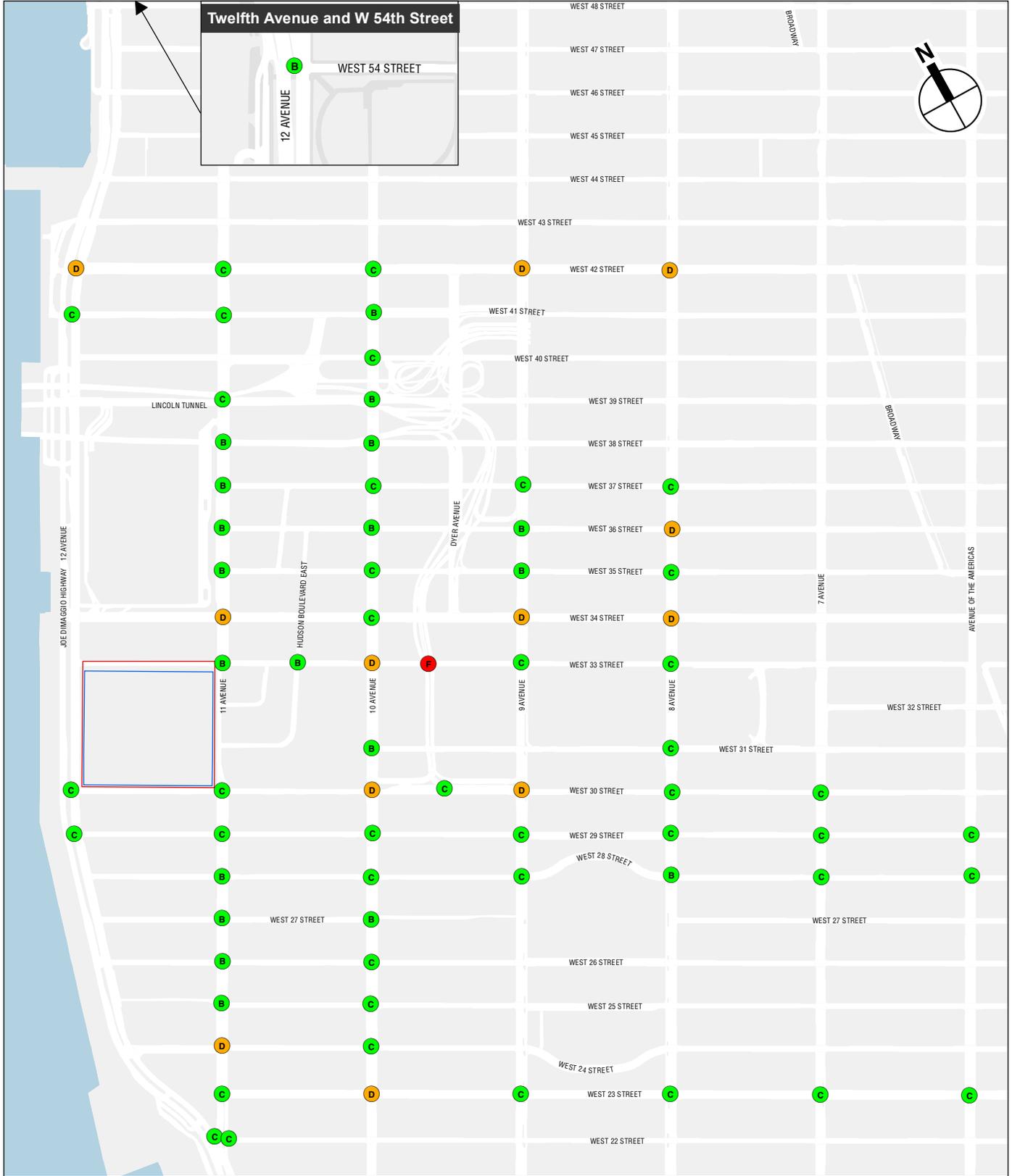
- Saturday midday/afternoon peak period: The 2024 traffic volumes were seven percent higher than the 2023 traffic volumes; therefore, the 2023 traffic volumes were adjusted up by seven percent, while the 2024 traffic volumes were left as is, and
- Saturday evening peak period: The 2023 traffic volumes were 10 percent higher than the 2024 traffic volumes; therefore, the 2024 traffic volumes were adjusted up by 10 percent, while the 2023 traffic volumes were left as is.

The existing traffic volumes for the weekday AM, midday, PM, and evening, and the Saturday midday/afternoon and evening peak hours are shown in **Appendix E**. Inventories of roadway geometry, traffic controls, bus stops, and parking regulations/activities were recorded to provide appropriate inputs for the operational analyses. Official signal timings were also obtained from DOT for use in the analysis of the study area signalized intersections.

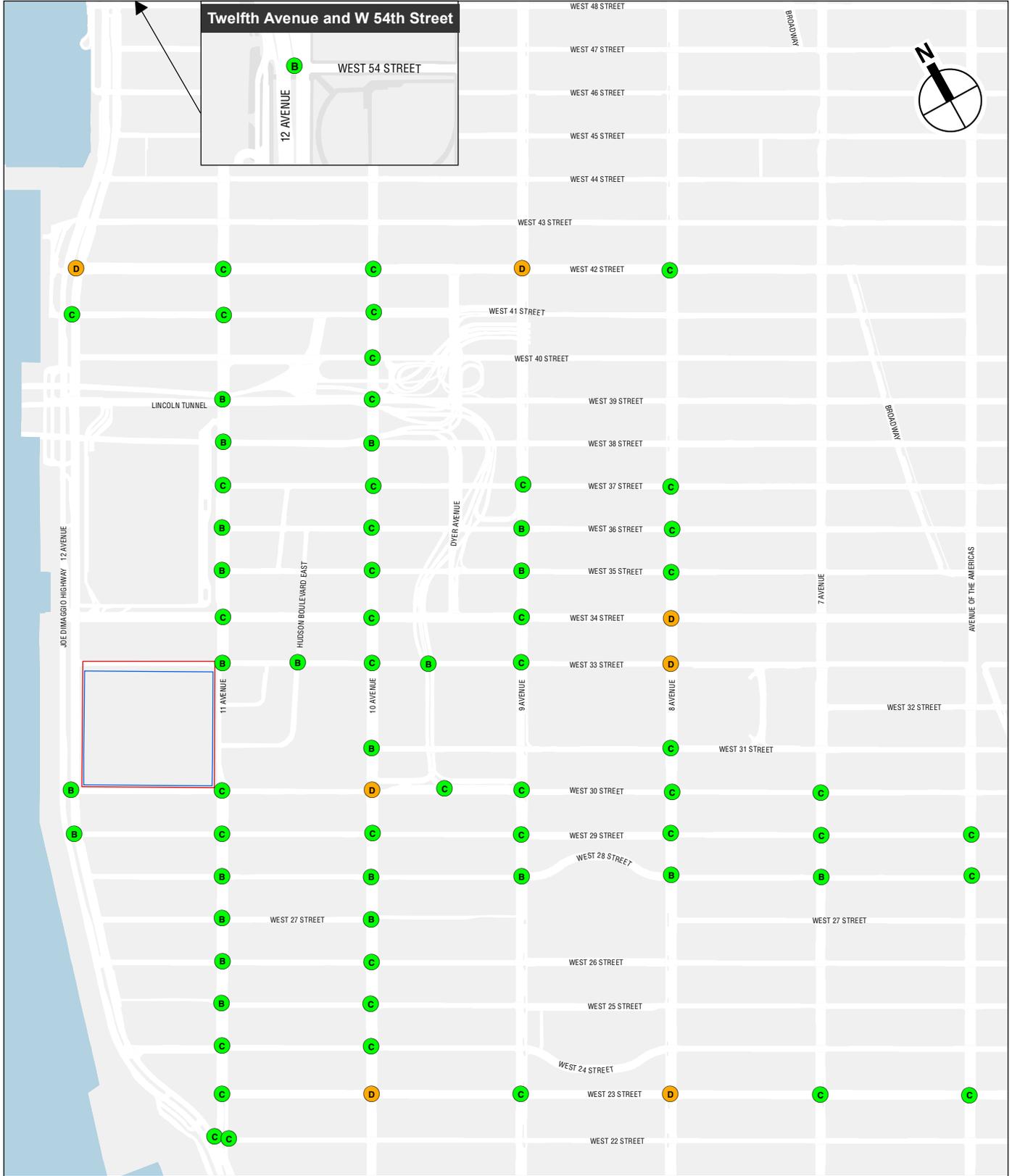
A summary of the existing conditions traffic analysis results by lane group is presented in **Table 14-25**. Under existing conditions for the signalized intersections, 216 of the 249 total analyzed lane groups during the weekday AM peak hour, 225 of the 247 total analyzed lane groups during the weekday midday peak hour, 221 of the 251 total analyzed lane groups during the weekday PM peak hour, 222 of the 245 total analyzed lane groups during the weekday evening peak hour, 219 of the 247 total analyzed lane groups during the Saturday midday/afternoon peak hour, and 226 of the 245 total analyzed lane groups during the Saturday evening peak hour would operate at LOS D or better. As noted in Section C, “Transportation Analysis Methodologies,” LOS D or better is considered acceptable operations and LOS E and LOS F are considered congested conditions. For the one unsignalized intersection included for existing conditions analysis, the analyzed lane group would operate at LOS D or better during four analysis peak hours. Details on LOS, v/c ratios, and average delays for the analyzed intersections are presented in **Appendix E**. **Figures 14-7a to 14-7f** provide illustrations of the overall LOS results at the study area intersections for the weekday AM, midday, PM, and evening, and Saturday midday/afternoon and evening peak hours, respectively.

THE FUTURE WITHOUT THE PROPOSED ACTIONS

The 2031 No Action condition was developed by increasing existing traffic levels by the expected growth in overall travel through and within the study area and accounting for the incremental trips generated by the No Action condition development on the Development Site. As per *CEQR Technical Manual* guidelines, an annual background growth rate of 0.25 percent was assumed for the first five years (2025 through 2029) and then 0.125 percent for the remaining years (2030 and 2031). A total of 29 future development projects expected to occur in the 2031 No Action condition (No Build projects) and seven infrastructure improvement projects were identified as being planned for the approximately ½-mile study area (see **Figure 14-8** and **Table 14-26**).



Existing Conditions
 Traffic Intersection Level of Service
 Weekday AM Peak Hour

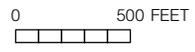
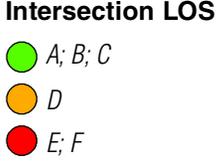
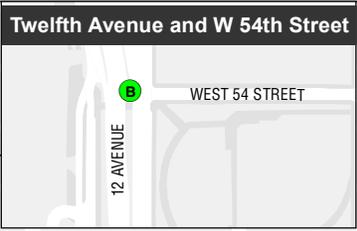
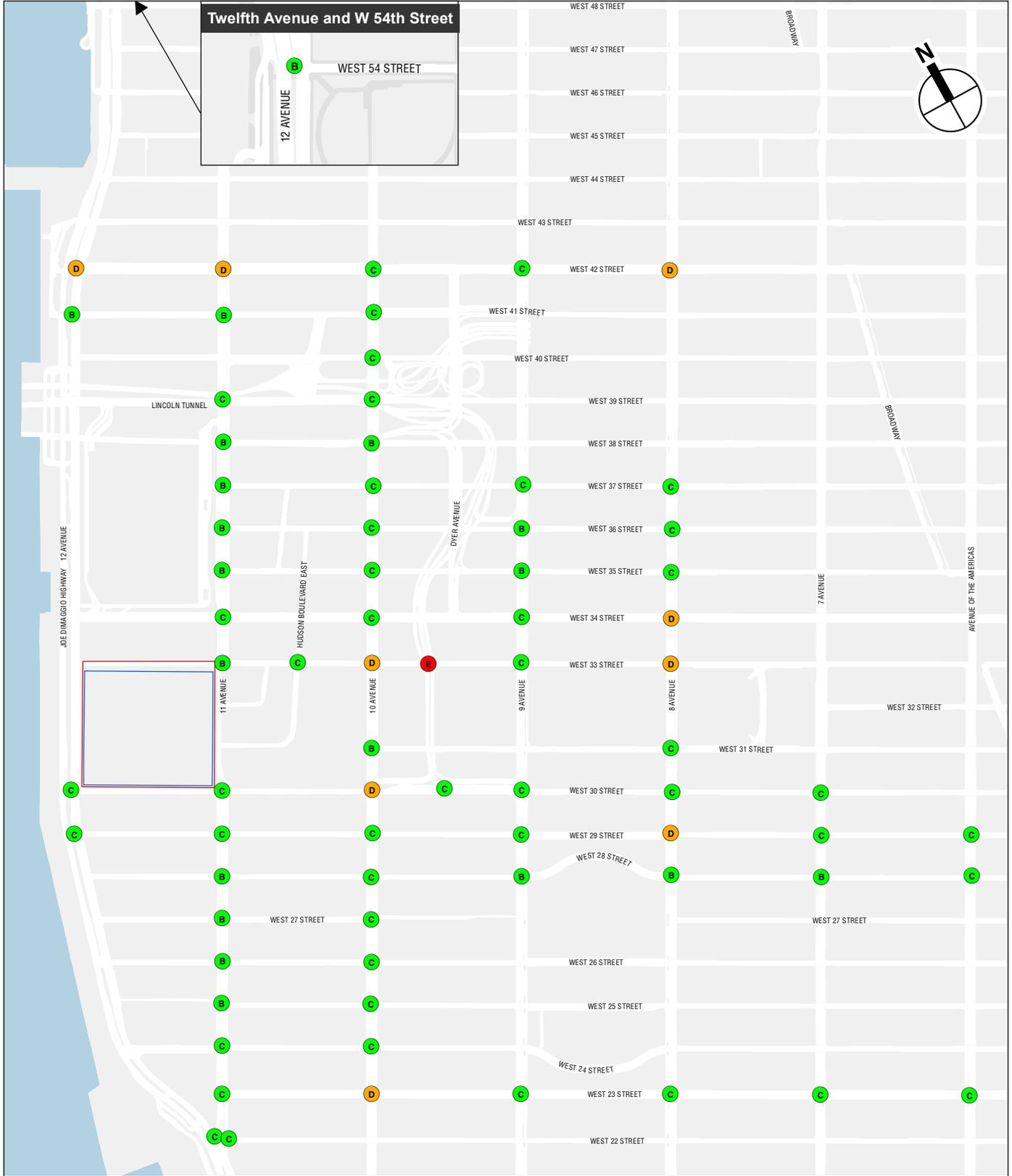


 Development Site
 Affected Area

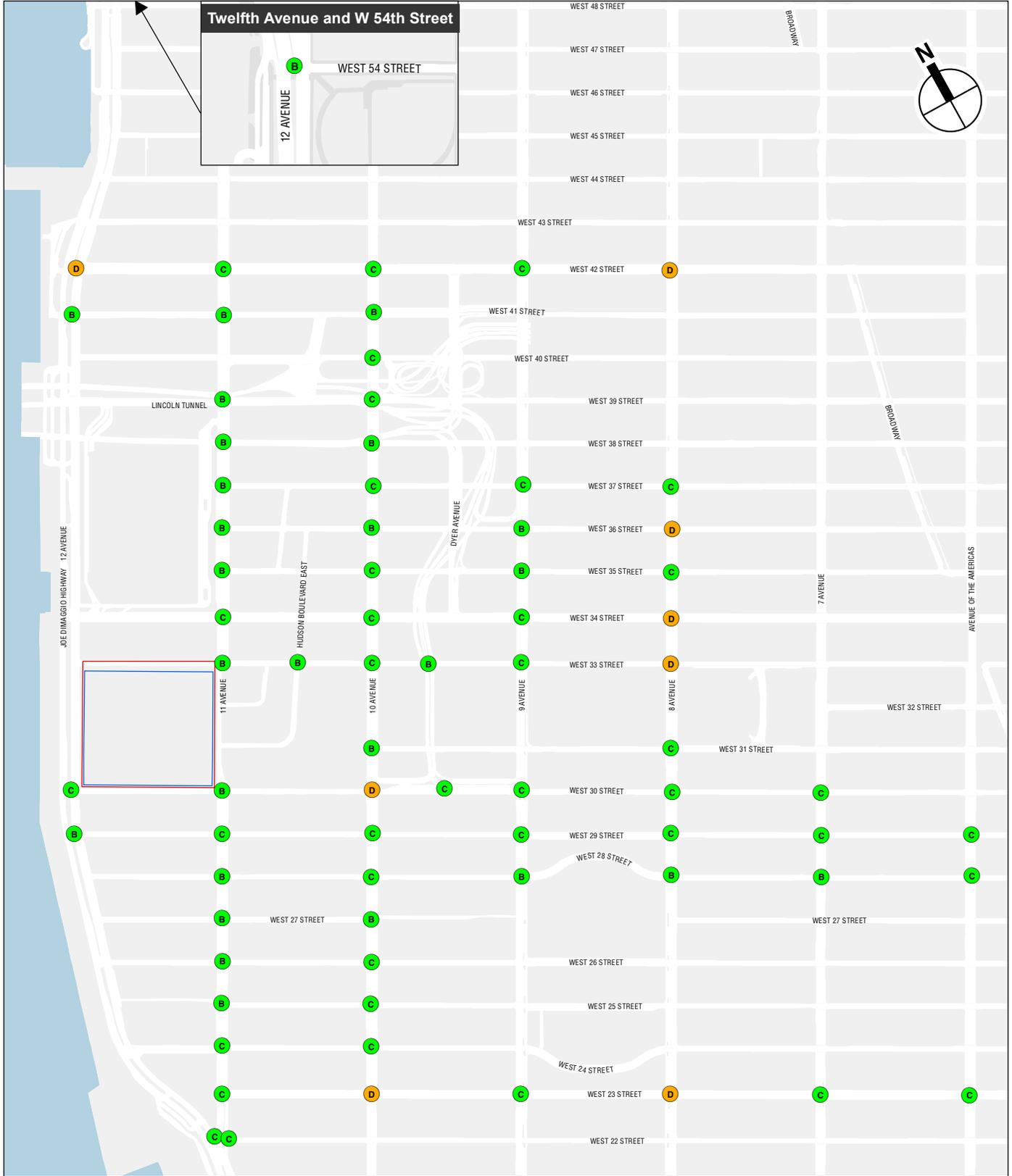
Intersection LOS
● A; B; C
● D
● E; F

0 500 FEET

Existing Conditions
 Traffic Intersection Level of Service
 Weekday Midday Peak Hour



Existing Conditions
 Traffic Intersection Level of Service
 Weekday PM Peak Hour

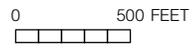
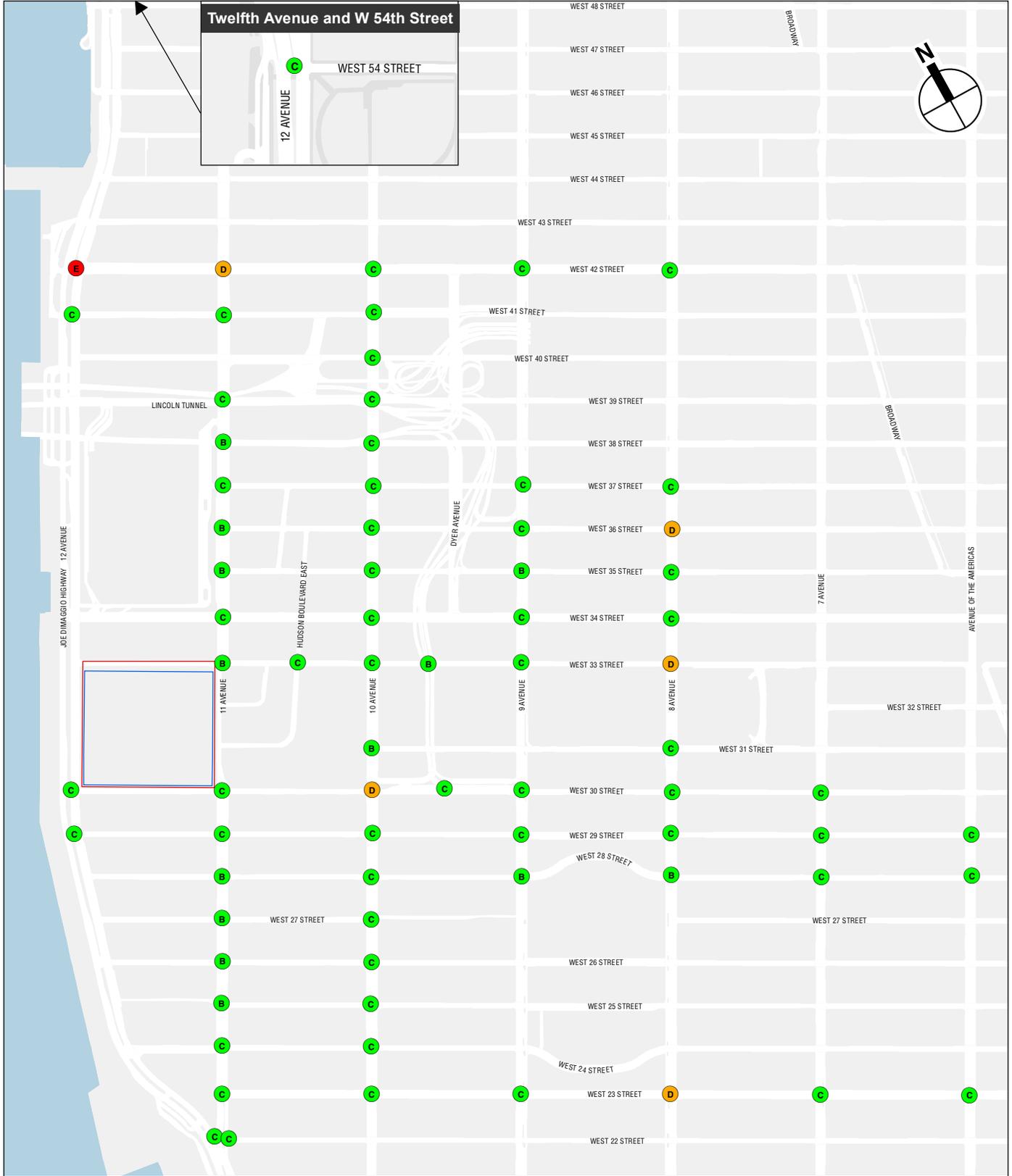


 Development Site
 Affected Area

Intersection LOS
● A; B; C
● D
● E; F

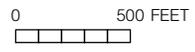
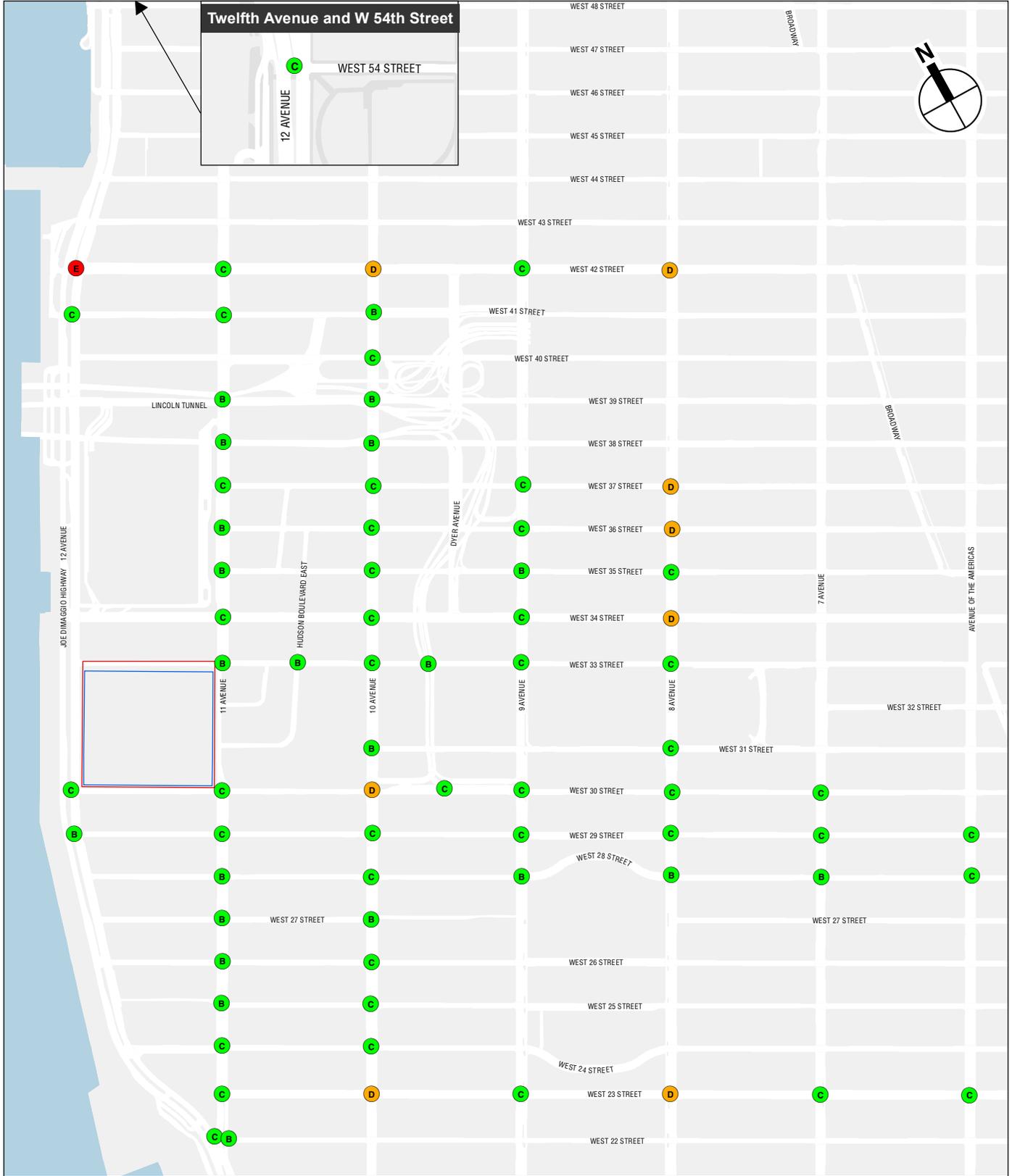
0 500 FEET

Existing Conditions
 Traffic Intersection Level of Service
 Weekday Evening Peak Hour



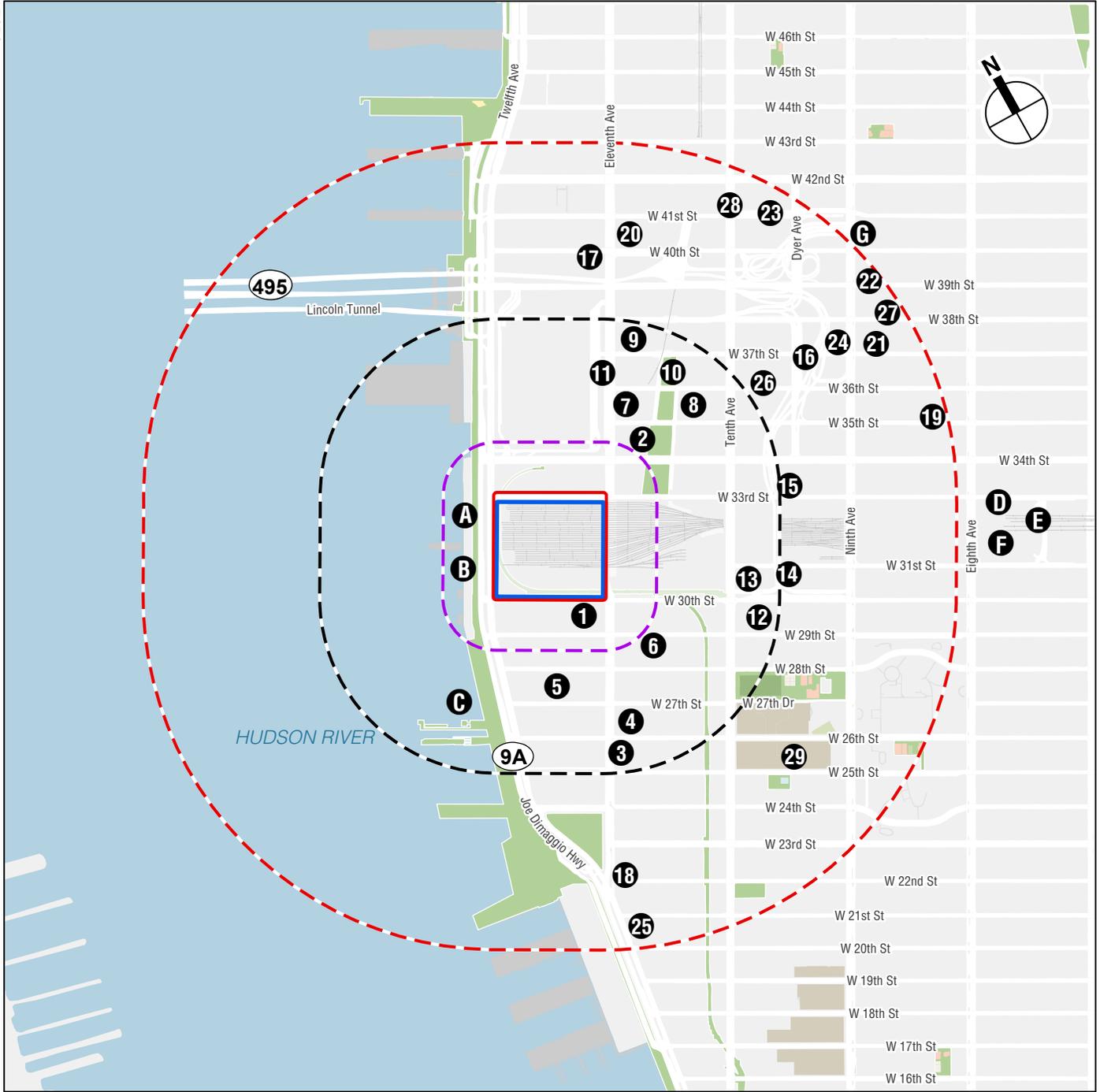
Existing Conditions
 Traffic Intersection Level of Service
 Saturday Midday/Afternoon Peak Hour

Figure 14-7e



Existing Conditions
 Traffic Intersection Level of Service
 Saturday Evening Peak Hour

Figure 14-7f



-  Project Site
-  Affected Area
-  Study Area (400-foot perimeter)
-  Study Area (1/4-mile perimeter)
-  Study Area (1/2-mile perimeter)
-  No Builds



Western Rail Yard Modifications

**Table 14-25
Existing Conditions Traffic Analysis Results**

Level of Service	Analysis Peak Hours					
	Weekday				Saturday	
	AM	MD	PM	EVE	MD/AN	EVE
Signalized Intersections						
Lane Groups at LOS A/B/C	173	189	178	185	183	181
Lane Groups at LOS D	43	36	43	37	36	45
Lane Groups at LOS E	19	13	13	10	13	7
Lane Groups at LOS F	14	9	17	13	15	12
Total	249	247	251	245	247	245
Lane Groups with v/c > 0.90	29	20	28	19	26	20
Unsignalized Intersections						
Lane Groups at LOS A/B/C	0	1	0	1	1	1
Lane Groups at LOS D	0	0	0	0	0	0
Lane Groups at LOS E	0	0	1	0	0	0
Lane Groups at LOS F	1	0	0	0	0	0
Total	1	1	1	1	1	1
Lane Groups with v/c > 0.90	1	0	0	0	0	0

Notes: LOS = Level of service; v/c = volume-to-capacity ratio; MD = Midday; EVE = Evening; AN = Afternoon.

However, three of the planned development projects are modest in size and will be very modest traffic generators. Accordingly, it was determined that background growth will address the increase in traffic levels for these three No Build projects in the study area. For the remaining 26 No Build development projects, trip estimates were prepared and incorporated into the No Action analysis. No Build projects were clustered together as appropriate based on their proximity to one another and their locations relative to the roadway network.

**Table 14-26
No Build Projects**

Map No.	Project	Description	Build Year	Transportation Notes
1	606 West 30th Street (Block 675, Lot 39)	277 residential units, 15,000 sf retail, 61 parking spaces	2024	Individually Assigned based on Block 675 East FEIS
2	400 Eleventh Avenue (Block 706, Lot 1)	1,850,000 sf office	2031	Cluster A
A	Hudson River Park	Improvements to West 29th Street-West 34th Street	2027	Infrastructure Improvement Project
B	West Side Yard Perimeter Protection	MTA/LIRR resiliency project to construct protection for the West Side Yard	2027	Infrastructure Improvement Project
3	220 Eleventh Avenue (Block 697, Lot 1)	170,331 sf office	2025	Cluster B
4	260 Eleventh Avenue (Block 698, Lots 1, 6)	314,606 sf office, 23,236 sf retail	2031	Cluster B
5	261 Eleventh Avenue (Block 673, Lot 1)	1,150,706 sf office, 131,663 sf retail	2024	Individually Assigned based on Starrett-Lehigh FEIS
6	538-542 West 29th Street (Block 700, Lots 55,56,57)	98 hotel rooms, 55 residential units	2031	Individually Assigned
7	418 Eleventh Avenue (Block 707, Lot 1)	1,047 residential units, 52,363 sf retail	2031	Cluster C
8	514 West 36th Street (Block 707, Lot 20)	1,306,738 sf office ¹	2031	Cluster A
9	545 West 37th Street (Block 709, Block 14)	258 hotel rooms, 131 residential units, 82 parking spaces	2031	Cluster C
10	99 Hudson Boulevard (Block 708, Lots 1, 62)	1,495,000 sf office	2031	Cluster A
11	450 Eleventh Avenue (Block 708, Lot 65)	379 hotel rooms	2025	Cluster C
12	341 Ninth Avenue (Block 727, Lot 1)	630,000 sf office, 5,000 sf retail	2024	Individually assigned
13	360 Tenth Avenue (Block 728, Lot 69)	1,000,000 sf office	2031	Individually
C	Hudson Tunnel	Hudson Yards concrete casing, Section 3 (HYCC-3)	2026	Infrastructure Improvement Project
14	432 West 31st Street (Block 728, Lot 55)	220 hotel rooms	2025	Individually assigned
15	431 West 33rd Street (Block 731, Lot 22)	24 residential units, 6,280 sf retail	2031	Background Growth
16	430 West 37th Street (Block 734, Lot 16)	304 residential units, 14,580 sf retail	2031	Cluster D

**Table 14-26
No Build Projects**

Map No.	Project	Description	Build Year	Transportation Notes
17	495 Eleventh Avenue (Block 685, Lot 38)	275 residential units, 16,879 sf retail, 755 hotel rooms, 49,748 sf community facility, 25,168 sf office, 55 parking spaces	2031	Individually Assigned based on 495 Eleventh Avenue FEIS
18	162 Eleventh Avenue (Block 694, Lot 1)	13 residential units, 242 sf retail	2031	Background Growth
19	319 West 35th Street (Block 759, Lot 29)	166 residential units, 3,909 sf retail	2031	Individually Assigned
20	550 West 41st Street (Block 1069, Lot 1)	499 residential units, 72,552 sf retail (half local and half destination retail)	2031	Individually Assigned
21	349-355 West 37th Street (Block 761, Lots 5, 7)	136 residential units, 11,355 sf retail	2031	Cluster E
22	355 West 39th Street (Block 763, Lot 7501)	25 residential units, 1,843 sf retail, 723 sf community facility	2031	Cluster E
23	460 West 41st Street (Block 1050, Lot 1)	62,607 sf community facility (60 residential units)	2031	Cluster F
24	Hudson Yards Site 24 (Block 735, Lots 25, 27, 30, 31, 35)	448 residential units, 8,579 sf community facility, 170 parking spaces	2031	Cluster D
25	540 West 21st Street (Block 692, Lot 53)	34 residential units, 50,041 sf retail (art gallery)	2031	Individually Assigned
26	439 West 36th Street (Block 734, Lot 10)	52 residential units	2031	Background Growth
27	341 West 38th Street (Block 762, Lot 11)	114 residential units	2025	Cluster E
28	550 Tenth Avenue (Block 1050, Lot 61)	453 residential units, 9,000 sf retail, 26,764 sf office	2025	Cluster F
29	NYCHA Fulton and Elliott-Chelsea Houses (Blocks 714-717, 723-724, Various Lots)	Total incremental development of 13,920 sf retail, 17,386 sf supermarket, 3,000 sf neighborhood community center. Fulton Houses incremental development includes 3,000 sf of neighborhood community center, 11,720 sf of local retail, and 6,386 sf of supermarket. Elliott-Chelsea Houses incremental development include 2,200 sf of local retail and 11,000 sf of supermarket.	2031	Individually Assigned
D	New York Penn Station Infrastructure Renewal Project	Accelerated maintenance and repairs to existing tracks and systems to strengthen and improve operations	2030	Infrastructure Improvement Project
E	Penn Station Access	Rerouting certain Metro-North Railroad New Haven Line commuter trains to Penn Station	2030	Metro-North increment assumed to be captured by discrete No Build projects' rail trips, consistent with the Pennsylvania Station Area Civic and Land Use Improvement Project FEIS.
F	Empire Station Complex	Multiple transit improvements to Penn Station	2033/2044	Latest information indicates Hudson Tunnel would not be operational until at least 2035.
G	Port Authority Bus Terminal	Interim ridership updates	2032	2032 interim bus ridership trips assigned based on Port Authority Bus Replacement Project DEIS.

Note: Subject to change if new information becomes available.
Sources: DOB Active Major Construction database, 'Applicant

Of the seven No Build infrastructure improvement projects, four are not expected to generate additional trips on the roadway network. The remaining three projects will include the Penn Station Access project, the Empire Station Complex project, and the Port Authority Bus Terminal Replacement project.

- The Penn Station Access project will reroute certain Metro-North Railroad New Haven Line commuter trains to Penn Station. Consistent with the 2022 *Pennsylvania Station Area Civic and Land Use Improvement Project FEIS* analysis assumptions, the Metro-North incremental trips are assumed to be captured by the study area discrete No Build projects' rail trips.

Western Rail Yard Modifications

- The Empire Station Complex project will include multiple transit improvements to Penn Station. The latest publicly available information indicates that the new Hudson Tunnel will not be operational by this project's 2031 analysis year. The anticipated Hudson Tunnel completion is at least 2035. Therefore, this project will be beyond the 2031 analysis year of the Proposed Project to warrant consideration.
- The Port Authority Bus Terminal Replacement Project DEIS was published in February 2024, which studied two operational analysis years including 2032 and 2040. The 2040 analysis year will be beyond the 2031 analysis year of the Proposed Project. However, the 2032 analysis year's associated interim bus ridership trip increments have been conservatively accounted for in this project's 2031 No Action condition analysis in the subway line haul analysis. Based on the available project information, it is anticipated that incremental vehicle, transit, and pedestrian trips generated by the 2032 interim bus ridership within the traffic, transit, and pedestrian study areas will be sufficiently captured by background growth, with the exception of subway ridership increments on the No. 7 line.

CHANGES TO THE STUDY AREA STREET NETWORK

There are three DOT improvement projects that have been accounted for in the 2031 No Action condition analysis.

- Ninth Avenue, West 30th Street to West 34th Street
 - The southbound approach at Ninth Avenue and West 34th Street will be restriped from four through lanes and one left-turn lane to three through lanes and one-left turn lane; corner bulbouts will be installed on the northeast and southeast corners, and a sidewalk extension will be installed on the east curbside of Ninth Avenue between West 34th Street and West 33rd Street. Geometric changes elsewhere along the corridor were already accounted for in the existing conditions analyses.
- Ninth Avenue, West 50th Street to West 34th Street
 - The number of travel lanes will be reduced from four lanes to three lanes. A sidewalk extension will be installed along the east curbside.
- Tenth Avenue, West 14th Street to West 52nd Street
 - The numbers of moving lanes between West 42nd Street and West 52nd Street and between West 14th Street and West 23rd Street were reduced from four moving lanes to three moving lanes with a new bike lane installed along the west curbside;
 - Between West 23rd Street and West 42nd Street, four moving lanes will be maintained, but reduced in width to four 10-foot moving lanes from four 11-foot moving lanes currently;
 - Northbound dedicated left-turn lanes with protected left-turn phases and dedicated pedestrian/bicycle phases will be installed at the West 27th Street, West 41st Street, and West 42nd Street intersections. Approximately four to five parking spaces will be removed per block along the west curbside.

Additionally, as detailed above, under the No Action condition, two new parallel vehicular roadways into the Development Site will be created that will function as unmapped extensions of West 32nd and West 31st Streets, accessed from Eleventh Avenue and

continuing west with cul-de-sac drop offs to provide vehicular access to the buildings further west. The northern roadway, which will align generally with West 32nd Street, is intended to be a two-way vehicular roadway that will provide passenger side drop off and accessibility to the commercial building and residential buildings on the northern portion of the Development Site. The southern roadway, which will align generally with West 31st Street, is also intended to be a two-way vehicular roadway and will provide access to the residential buildings in the southern and western portions of the Development Site, as well as to the retail uses at the base of these buildings. Although these roadways will not be mapped as City streets, they will be operated with full public access, sidewalks, and street-level uses. The Eleventh Avenue intersections with West 31st and West 32nd Street will be signalized with crosswalks striped across Eleventh Avenue and included for the No Action traffic and pedestrian analysis. Under the No Action condition, West 33rd Street will no longer be reserved for NYPD operations and staging and turnaround of the NYCT M34 SBS buses. It will be reopened to general traffic and operate as a westbound roadway between Eleventh and Twelfth Avenues. A portion of existing northbound vehicles from Tenth Avenue currently using West 34th Street to access Twelfth Avenue were diverted to West 33rd Street to arrive at Twelfth Avenue.

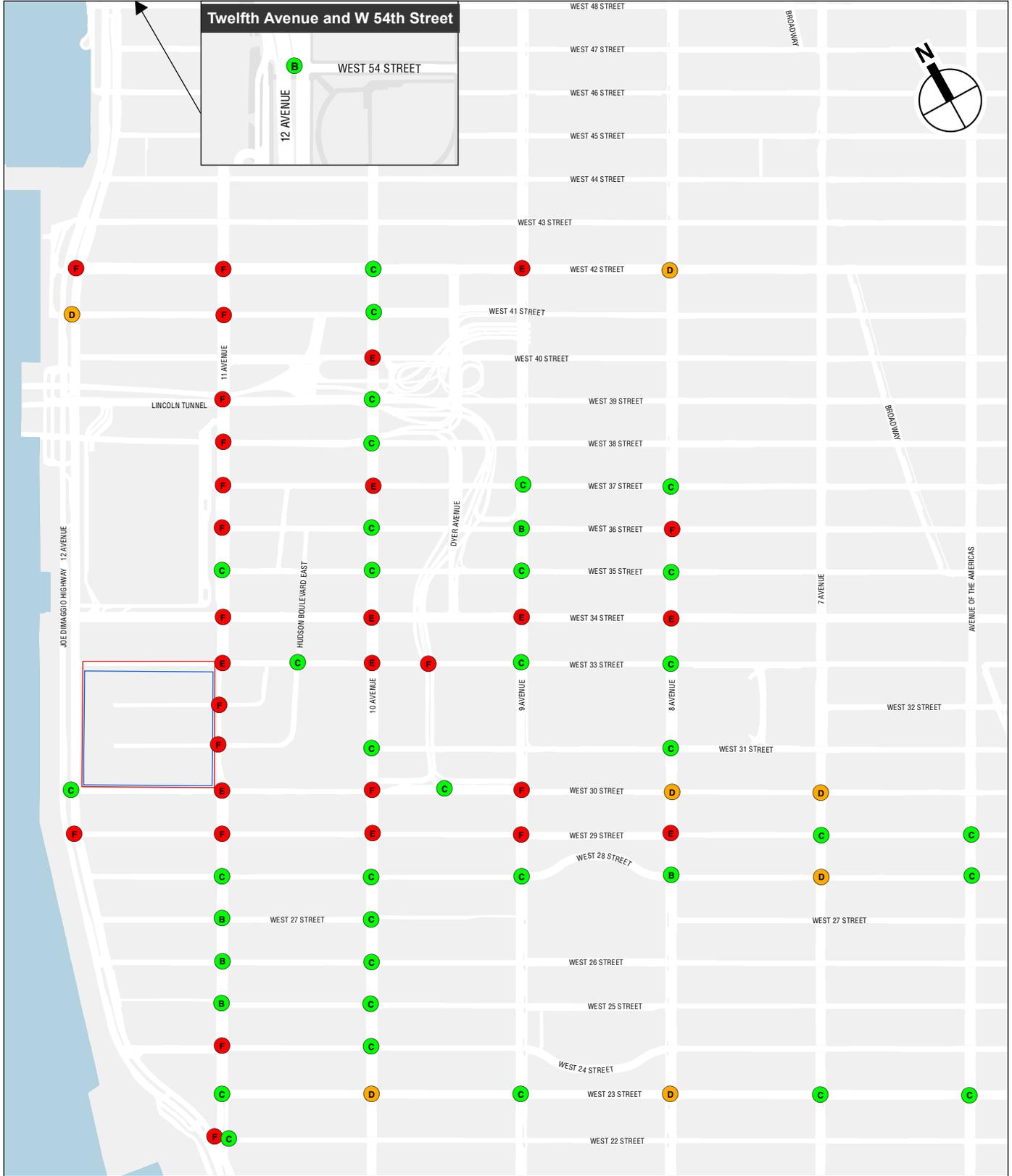
TRAFFIC OPERATIONS

The 2031 No Action traffic volumes for the six analysis peak hours are shown in **Appendix E**. The No Action condition traffic volumes were projected by layering the background growth, trips generated by discrete No Build projects in the area, and the incremental trips generated by the No Action development on the Development Site, on top of the existing traffic volumes. Based on the analysis results presented in the appendix, and as summarized by lane group in **Table 14-27**, the majority of the approaches/lane-groups under the 2031 No Action condition are projected to operate at the same LOS compared to existing conditions. **Figures 14-9a to 14-9f** provide illustrations of the overall LOS results at the study area intersections for the six analysis peak hours.

**Table 14-27
2031 No Action Condition Traffic Analysis Results**

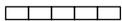
Level of Service	Analysis Peak Hours					
	Weekday				Saturday	
	AM	MD	PM	EVE	MD/AN	EVE
Signalized Intersections						
Lane Groups at LOS A/B/C	152	166	148	168	159	171
Lane Groups at LOS D	38	49	42	46	47	45
Lane Groups at LOS E	20	13	27	13	18	17
Lane Groups at LOS F	48	28	43	27	32	21
Total	258	256	260	254	256	254
Lane Groups with v/c > 0.90	63	44	80	44	55	41
Unsignalized Intersections						
Lane Groups at LOS A/B/C	0	1	0	1	1	1
Lane Groups at LOS D	0	0	0	0	0	0
Lane Groups at LOS E	0	0	0	0	0	0
Lane Groups at LOS F	1	0	1	0	0	0
Total	1	1	1	1	1	1
Lane Groups with v/c > 0.90	1	0	0	0	0	0

Notes: LOS = Level of service; v/c = volume-to-capacity ratio; MD = Midday; EVE = Evening; AN = Afternoon.



 *Development Site*
 *Affected Area*

Intersection LOS
 A; B; C
 D
 E; F

0 500 FEET


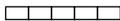
2031 No Action Condition
 Traffic Intersection Level of Service
 Weekday AM Peak Hour



 *Development Site*
 *Affected Area*

Intersection LOS

-  A; B; C
-  D
-  E; F

0 500 FEET


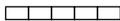
2031 No Action Condition
 Traffic Intersection Level of Service
 Weekday Midday Peak Hour



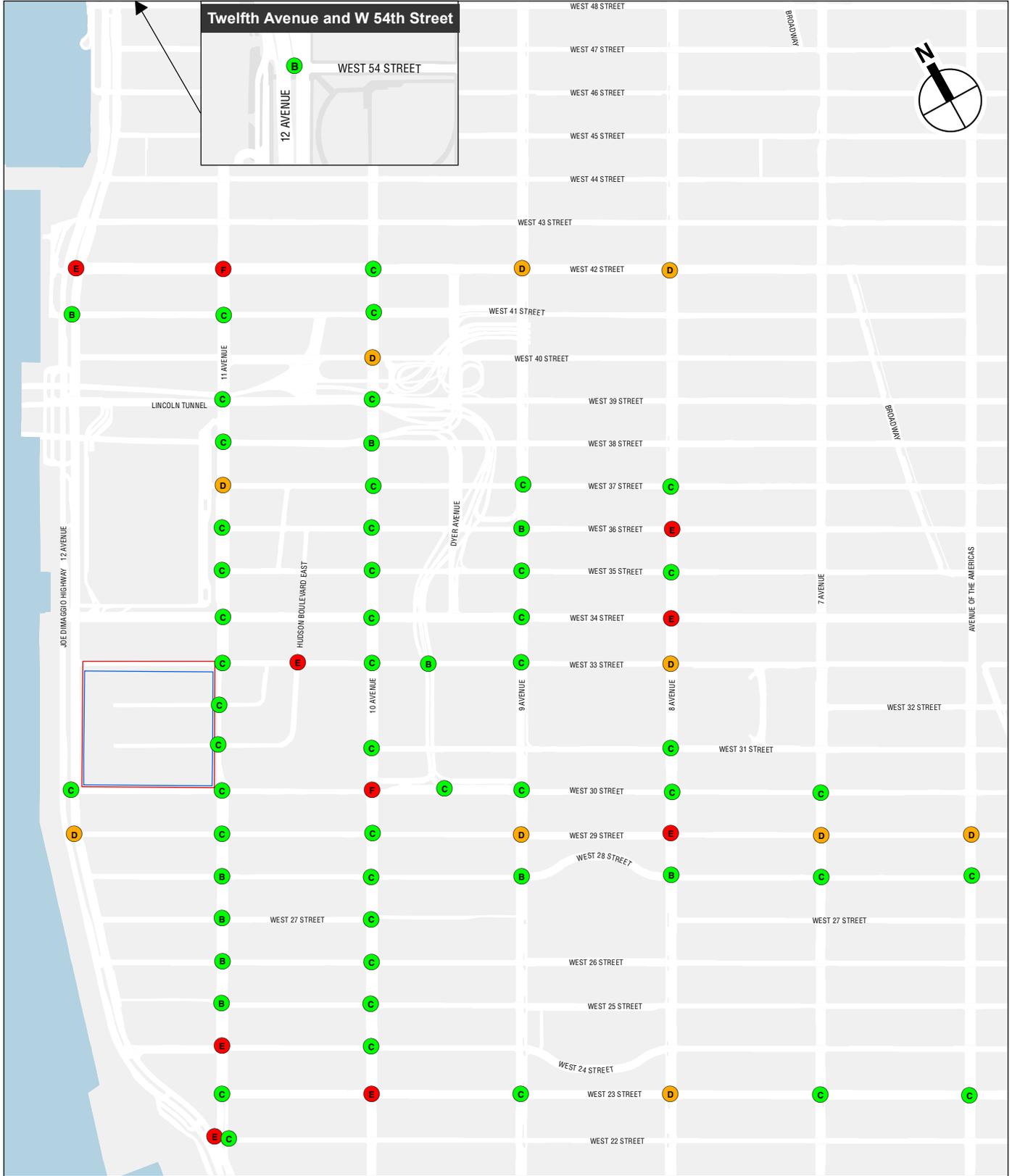
 *Development Site*
 *Affected Area*

Intersection LOS

-  A; B; C
-  D
-  E; F

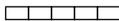
0 500 FEET


2031 No Action Condition
 Traffic Intersection Level of Service
 Weekday PM Peak Hour



 *Development Site*
 *Affected Area*

Intersection LOS
 A; B; C
 D
 E; F

0 500 FEET


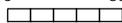
2031 No Action Condition
 Traffic Intersection Level of Service
 Weekday Evening Peak Hour



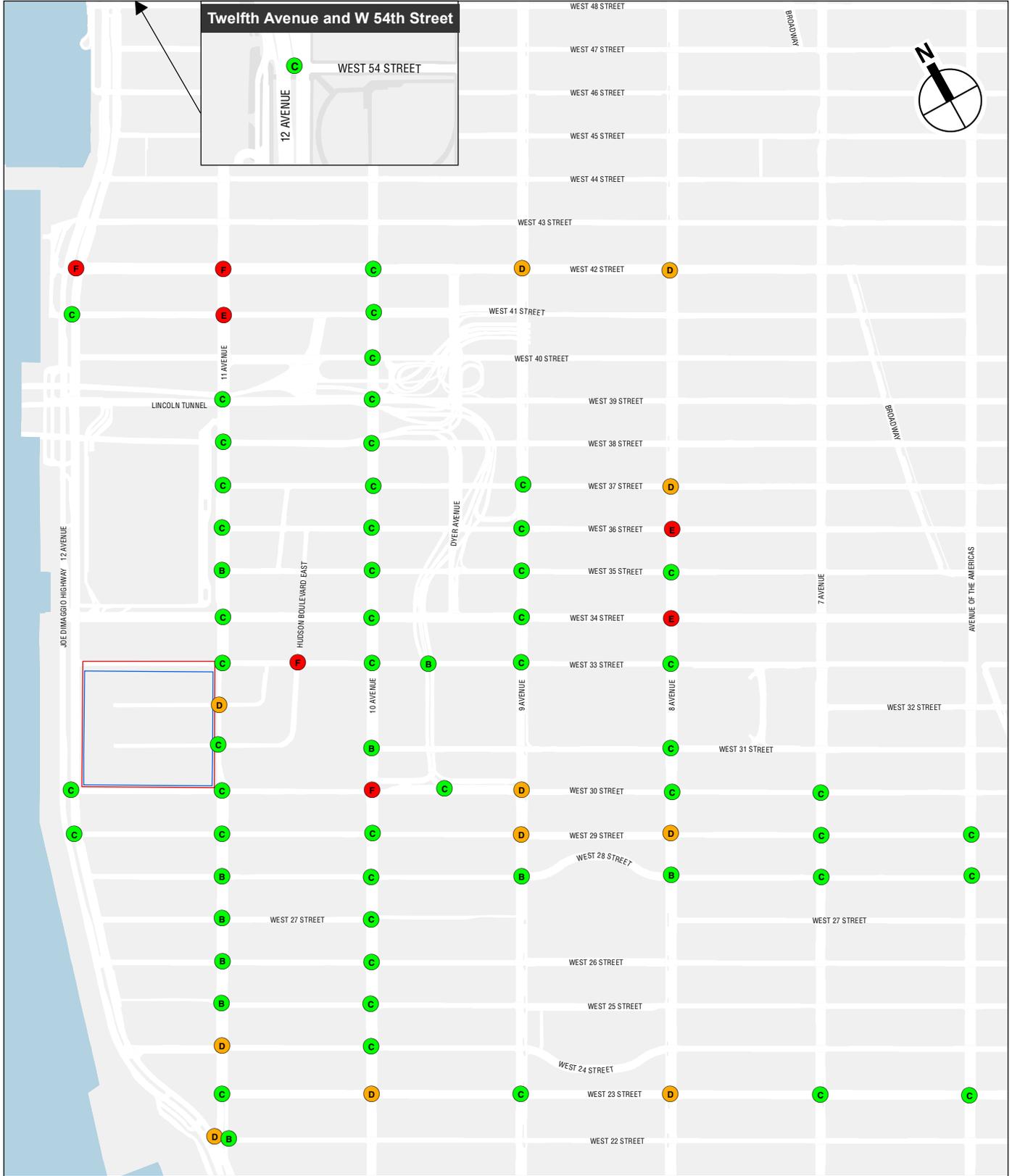
 *Development Site*
 *Affected Area*

Intersection LOS

-  A; B; C
-  D
-  E; F

0 500 FEET


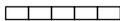
2031 No Action Condition
 Traffic Intersection Level of Service
 Saturday Midday/Afternoon Peak Hour



 *Development Site*
 *Affected Area*

Intersection LOS

-  A; B; C
-  D
-  E; F

0 500 FEET


2031 No Action Condition
 Traffic Intersection Level of Service
 Saturday Evening Peak Hour

Western Rail Yard Modifications

Under the 2031 No Action condition for signalized intersections, 190 of the 258 total analyzed lane groups during the weekday AM peak hour; 215 of the 256 total analyzed lane groups during the weekday midday peak hour; 190 of the 260 total analyzed lane groups during the weekday PM peak hour; 214 of the 254 total analyzed lane groups during the weekday evening peak hour; 206 of the 256 total analyzed lane groups during the Saturday midday/afternoon peak hour; and 216 of the 254 total analyzed lane groups during the Saturday evening peak hour, will operate at LOS D or better. Marginal or congested operating conditions (LOS E or worse) will occur at 68 lane groups during the weekday AM peak hour; 41 lane groups during the weekday midday peak hour; 70 lane groups during the weekday PM peak hour; 40 lane groups during the weekday evening peak hour; 50 lane groups during the Saturday midday/afternoon peak hour; and 38 lane groups during the Saturday evening peak hour.

For the one unsignalized intersection, the analyzed lane group will operate at LOS D or better during four analysis peak hours. Correspondingly, marginal or congested operating conditions will occur at one lane group during the weekday AM and PM peak hours.

Table 14-28 summarize lane groups that will degrade from better than to worse than LOS E compared to existing conditions.

Table 14-28
Degradation in Lane Group Operations—
2031 No Action vs. Existing Conditions

Intersection		Weekday				Saturday	
North-South Roadway	East-West Roadway	AM	MD	PM	EVE	MD/AN	EVE
Twelfth Avenue	West 54th Street					NB-TR	
Twelfth Avenue	West 42nd Street	NB-TR SB-L SB-T		NB-TR SB-T	NB-TR	SB-L SB-T	SB-T
Twelfth Avenue	West 41st Street	SB-T		WB-R			WB-R
Eleventh Avenue	West 42nd Street	EB-R WB-L	WB-L	WB-L	EB-R WB-L	WB-L	WB-L
Eleventh Avenue	West 41st Street			WB-LT	WB-LT		
Eleventh Avenue	West 39th Street	SB-TR	SB-TR	SB-TR		SB-TR	
Eleventh Avenue	West 38th Street	SB-TR		SB-TR		SB-TR	
Eleventh Avenue	West 37th Street	SB-T	SB-T	SB-T		SB-T	
Eleventh Avenue	West 36th Street	WB-LT		WB-LT		WB-LT	
Eleventh Avenue	West 34th Street	EB-R	EB-R	EB-L EB-R WB-L		EB-R	WB-L
		SB-LTR	WB-TR	SB-LTR			
Eleventh Avenue	West 33rd Street	WB-L		WB-L			
Eleventh Avenue	West 30th Street	SB-LT		SB-LT			
Eleventh Avenue	West 29th Street	SB-TR					
Eleventh Avenue	West 24th Street		SB-TR	SB-TR	SB-TR	SB-TR	SB-TR
Hudson Boulevard East	West 33rd Street	NB-L	NB-L		NB-L		NB-L
Tenth Avenue	West 42nd Street	EB-L					
Tenth Avenue	West 41st Street	WB-R					
Tenth Avenue	West 40th Street		NB-L	NB-L	NB-L		NB-L
Tenth Avenue	West 34th Street	EB-LT		EB-LT			
Tenth Avenue	West 33rd Street			WB-TR			
Tenth Avenue	West 30th Street	EB-T	EB-T		EB-T		EB-T
Tenth Avenue	West 29th Street	WB-T WB-R	WB-R	WB-T WB-R		WB-R	
Tenth Avenue	West 27th Street			NB-L	NB-L		NB-L
Tenth Avenue	West 23rd Street			NB-LTR	NB-LTR		

**Table 14-28
Degradation in Lane Group Operations—
2031 No Action vs. Existing Conditions**

Intersection		Weekday				Saturday	
North-South Roadway	East-West Roadway	AM	MD	PM	EVE	MD/AN	EVE
Ninth Avenue	West 42nd Street	WB-L SB-L	WB-L	EB-T WB-L	WB-L	WB-L	EB-T SB-L
Ninth Avenue	West 35th Street		WB-LT	WB-LT	WB-LT	WB-LT	
Ninth Avenue	West 34th Street	EB-R	EB-T WB-T SB-L	EB-R WB-T		EB-T WB-T	EB-R
Ninth Avenue	West 30th Street			EB-R			EB-R
Ninth Avenue	West 29th Street	WB-T SB-TR	WB-T	WB-T	WB-T		WB-T
Ninth Avenue	West 23rd Street						WB-T
Eighth Avenue	West 42nd Street						WB-TR
Eighth Avenue	West 36th Street			EB-T			
Eighth Avenue	West 34th Street		EB-T	EB-T NB-L	EB-T		EB-T
Eighth Avenue	West 30th Street	EB-T		EB-L EB-T			
Eighth Avenue	West 29th Street	WB-TR	WB-TR	NB-L		WB-TR	WB-TR
Eighth Avenue	West 23rd Street			EB-T			
Seventh Avenue	West 30th Street	EB-T					
Seventh Avenue	West 29th Street	WB-T		WB-T	WB-T	WB-T	
Seventh Avenue	West 28th Street	EB-TR				EB-TR	
Sixth Avenue	West 29th Street	WB-T	NB-L		WB-T	WB-T	NB-L
Sixth Avenue	West 23rd Street				EB-T		
Lincoln Tunnel	West 33rd Street	SB-R		SB-R			
Total No. of Impacted Intersections/ Lane Groups		AM	MD	PM	EVE	MD/AN	EVE
		34	19	39	18	20	20
Totals During Any Analysis Peak Hour					60		35

Notes: MD = Midday; EVE = Evening; AN = Afternoon; EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; L = Left-turn; T = Through; R = Right Turn

THE FUTURE WITH THE PROPOSED PROJECT

The 2031 With Action Proposed Project traffic volumes for the six analysis peak hours are shown in **Appendix E**. Proposed Project incremental vehicle trips were added onto the 2031 No Action traffic volumes to obtain the 2031 With Action traffic volumes.

CHANGES TO THE STUDY AREA STREET NETWORK

As detailed above, the Proposed Project assumes the adoption of a City Map amendment and, in coordination with DOT, would adjust the grade of West 33rd Street, which currently slopes significantly between Eleventh and Twelfth Avenues, to align with the level of proposed development and to enhance public access to the Development Site. The West 33rd Street roadway viaduct between Eleventh and Twelfth Avenues would be altered to be grade-separated and at the same elevation as Eleventh Avenue. This West 33rd Street segment would be converted to a two-way street and would be accessed from Eleventh Avenue, continue west into the Development Site, and terminate at a cul-de-sac to facilitate vehicular and pedestrian access and to provide a more direct connection to the High Line. Further, it would eliminate vehicular access from West 33rd

Western Rail Yard Modifications

Street to Twelfth Avenue. A separate at-grade connection at Twelfth Avenue would be maintained that would provide access to the LIRR service gate on the Development Site and to the Marshalling Yard on the north side of West 33rd Street. During its build-out and reconfiguration, the potential prolonged closure of this West 33rd Street segment may be subject to the preparation of a Community Reassessment, Impact and Amelioration (CRIA) statement, which would make use of the analysis results from this EIS as the basis for making its environmental review findings. As with the No Action condition, the Eleventh Avenue intersections with West 31st and West 32nd Street would also be signalized under the With Action condition and included for the traffic and pedestrian analysis.

TRAFFIC OPERATIONS

Based on the analysis results presented in the appendix, and as summarized by lane group in **Table 14-29**, under the Proposed Project for signalized intersections, 185 of the 258 total analyzed lane groups during the weekday AM peak hour; 201 of the 256 total analyzed lane groups during the weekday midday peak hour; 175 of the 260 total analyzed lane groups during the weekday PM peak hour; 201 of the 254 total analyzed lane groups during the weekday evening peak hour; 188 of the 256 total analyzed lane groups during the Saturday midday/afternoon peak hour; and 199 of the 254 total analyzed lane groups during the Saturday evening peak hour, would operate at LOS D or better. Marginal or congested operating conditions (LOS E or worse) would occur at 73 lane groups during the weekday AM peak hour; 55 lane groups during the weekday midday peak hour; 85 lane groups during the weekday PM peak hour; 53 lane groups during the weekday evening peak hour; 68 lane groups during the Saturday midday/afternoon peak hour; and 55 lane groups during the Saturday evening peak hour.

**Table 14-29
2031 With Action Condition Traffic Analysis Results
Proposed Project**

Level of Service	Analysis Peak Hours					
	Weekday				Saturday	
	AM	MD	PM	EVE	MD/AN	EVE
Signalized Intersections						
Lane Groups at LOS A/B/C	149	149	135	154	143	151
Lane Groups at LOS D	36	52	40	47	45	48
Lane Groups at LOS E	20	15	24	13	25	12
Lane Groups at LOS F	53	40	61	40	43	43
Total	258	256	260	254	256	254
Lane Groups with v/c > 0.90	70	62	95	64	76	65
Unsignalized Intersections						
Lane Groups at LOS A/B/C	0	1	0	1	1	1
Lane Groups at LOS D	0	0	0	0	0	0
Lane Groups at LOS E	0	0	0	0	0	0
Lane Groups at LOS F	1	0	1	0	0	0
Total	1	1	1	1	1	1
Lane Groups with v/c > 0.90	1	0	1	0	0	0

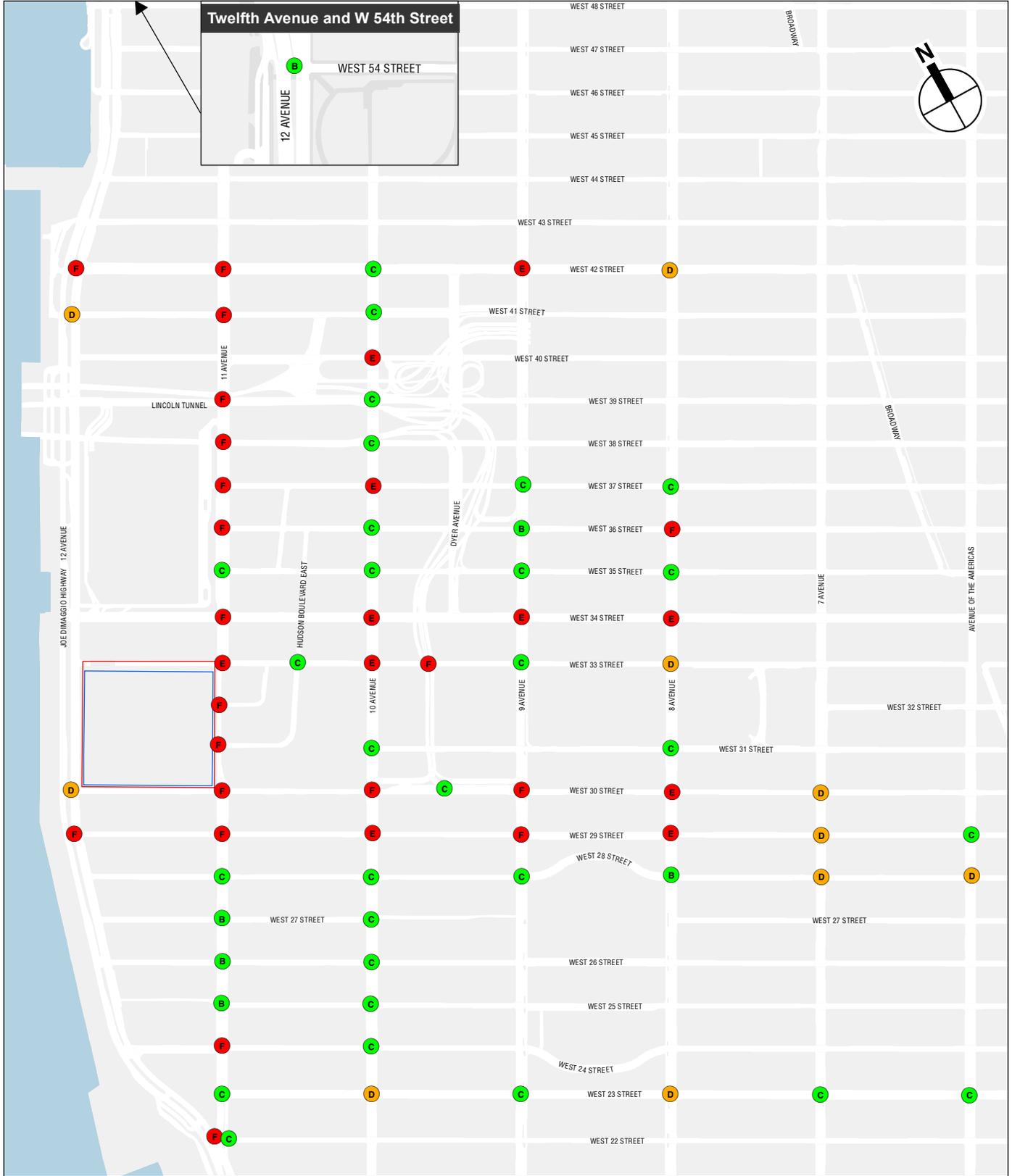
Notes: LOS = Level of service; v/c = volume-to-capacity ratio; MD = Midday; EVE = Evening; AN = Afternoon.

For the one unsignalized intersection, the analyzed lane group will operate at LOS D or better during four analysis peak hours. Correspondingly, marginal or congested operating conditions will occur at one lane group during the weekday AM and PM peak hours.

Figures 14-10a to 14-10f provide illustrations of the overall LOS results at the study area intersections for the six analysis peak hours for the Proposed Project. Under the Proposed Project, significant adverse impacts were identified for 37 lane groups at 30 intersections in the weekday AM peak hour; 40 lane groups at 33 intersections in the weekday midday peak hour; 62 lane groups at 41 intersections in the weekday PM peak hour; 38 lane groups at 30 intersections in the weekday evening peak hour; 53 lane groups at 39 intersections in the Saturday midday/afternoon peak hour; and 42 lane groups at 32 intersections in the Saturday evening peak hour. Tables 14-30 summarize the significant adverse traffic impacts for the six analysis peak hours.

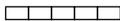
Table 14-30
2031 With Action Condition—Significant Adverse Traffic Impacts
Proposed Project

Intersection		Weekday				Saturday	
North-South	East-West	AM	MD	PM	EVE	MD/AN	EVE
Roadway	Roadway						
Twelfth Avenue	West 54th Street					NB-TR	
Twelfth Avenue	West 42nd Street		NB-TR	NB-TR SB-T	NB-TR	NB-TR SB-T	NB-TR SB-T
Twelfth Avenue	West 30th Street	SB-L	SB-L	SB-L	SB-L	SB-L	SB-L
Twelfth Avenue	West 29th Street	WB-R	WB-R	WB-R	WB-R	WB-R	WB-R
Eleventh Avenue	West 42nd Street	WB-L	WB-L	WB-L	WB-L	WB-L	WB-L
Eleventh Avenue	West 39th Street			SB-TR		SB-TR	
Eleventh Avenue	West 38th Street		SB-TR	SB-TR		SB-TR	
Eleventh Avenue	West 37th Street		SB-T	SB-T		SB-T	
Eleventh Avenue	West 36th Street		SB-LT	SB-LT		SB-LT	
Eleventh Avenue	West 34th Street		EB-R	EB-R	EB-R	EB-R	EB-R
			WB-L WB-TR	WB-L WB-TR		WB-L	WB-L
		SB-LTR	SB-LTR	SB-LTR		SB-LTR	
Eleventh Avenue	West 33rd Street	EB-R	EB-R	EB-R	EB-R	EB-R	EB-R
		WB-LT	WB-L	WB-LT SB-TR	WB-L	WB-LT SB-TR	WB-LT SB-TR
Eleventh Avenue	West 32nd Street	SB-LTR	SB-LTR	SB-LTR	SB-LTR	SB-LTR	SB-LTR
Eleventh Avenue	West 31st Street		SB-LT	SB-LT	SB-LT	SB-LT	SB-LT
Eleventh Avenue	West 30th Street	EB-T		EB-T			
		SB-LT	SB-LT	SB-LT	SB-LT	SB-LT	SB-LT
Eleventh Avenue	West 29th Street	SB-TR		SB-TR		SB-TR	
Eleventh Avenue	West 24th Street	SB-TR	SB-TR	SB-TR	SB-TR	SB-TR	SB-TR
Twelfth Avenue	Eleventh Avenue	WB-TR	WB-TR	WB-TR	WB-TR	WB-TR	WB-TR
Tenth Avenue	West 36th Street			NB-TR			
Tenth Avenue	West 35th Street	WB-TR	WB-TR			WB-TR	
Tenth Avenue	West 34th Street	WB-T	WB-T			EB-LT	EB-LT
				NB-LTR			
Tenth Avenue	West 33rd Street	WB-TR	WB-TR	WB-TR NB-LT	WB-TR	NB-LT	WB-TR NB-LT
Tenth Avenue	West 30th Street	EB-L	EB-L	EB-L	EB-L	EB-L	EB-L
		EB-T	EB-T	EB-T NB-T	EB-T	EB-T	EB-T
					NB-R		NB-R
Tenth Avenue	West 29th Street	WB-T		WB-T			
		WB-R	WB-R	WB-R	WB-R	WB-R	WB-R
Tenth Avenue	West 23rd Street	WB-TR	WB-TR	WB-TR NB-LTR	WB-TR NB-LTR	WB-TR NB-LTR	WB-TR
Ninth Avenue	West 42nd Street	EB-T	EB-T	EB-T		EB-T	EB-T
				SB-TR			



 *Development Site*
 *Affected Area*

Intersection LOS
 A; B; C
 D
 E; F

0 500 FEET


2031 With Action Condition Proposed Project
 Traffic Intersection Level of Service
 Weekday AM Peak Hour



 Development Site
 Affected Area

Intersection LOS
● A; B; C
● D
● E; F

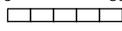
0 500 FEET

2031 With Action Condition Proposed Project
 Traffic Intersection Level of Service
 Weekday Midday Peak Hour



 *Development Site*
 *Affected Area*

Intersection LOS
 A; B; C
 D
 E; F

0 500 FEET


2031 With Action Condition Proposed Project
 Traffic Intersection Level of Service
 Weekday PM Peak Hour



 Development Site
 Affected Area

Intersection LOS

- A; B; C
- D
- E; F

0 500 FEET

2031 With Action Condition Proposed Project
 Traffic Intersection Level of Service
 Weekday Evening Peak Hour

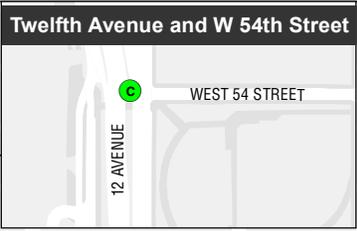


 Development Site
 Affected Area

Intersection LOS
● A; B; C
● D
● E; F

0 500 FEET

2031 With Action Condition Proposed Project
 Traffic Intersection Level of Service
 Saturday Midday/Afternoon Peak Hour



 Development Site
 Affected Area

Intersection LOS
● A; B; C
● D
● E; F

0 500 FEET

2031 With Action Condition Proposed Project
 Traffic Intersection Level of Service
 Saturday Evening Peak Hour

Table 14-30
2031 With Action Condition—Significant Adverse Traffic Impacts
Proposed Project

Intersection		Weekday				Saturday	
North-South Roadway	East-West Roadway	AM	MD	PM	EVE	MD/AN	EVE
Ninth Avenue	West 35th Street		WB-LT	WB-LT	WB-LT	WB-LT	WB-LT
Ninth Avenue	West 34th Street	EB-T	EB-T WB-T	WB-T		EB-T WB-T	
Ninth Avenue	West 33rd Street			WB-LT	WB-LT	WB-LT	
Ninth Avenue	West 30th Street		EB-R	EB-T EB-R	EB-R	EB-R	EB-R
Ninth Avenue	West 29th Street	WB-T SB-TR	WB-T	WB-T	WB-T	WB-T	WB-T
Ninth Avenue	West 23rd Street	WB-T			WB-T		WB-T
Eighth Avenue	West 42nd Street		WB-T	WB-T			
Eighth Avenue	West 37th Street						WB-TR
Eighth Avenue	West 36th Street	EB-T	EB-T	EB-T	EB-T	EB-T	EB-T
Eighth Avenue	West 34th Street	EB-T	NB-R EB-T WB-T	NB-R EB-T WB-T	NB-R EB-T		EB-T WB-TR
Eighth Avenue	West 33rd Street	NB-L	NB-L	NB-L	NB-L	NB-L	NB-L
Eighth Avenue	West 30th Street	EB-T		EB-L EB-T		EB-L EB-T	EB-L
Eighth Avenue	West 29th Street	WB-TR NB-L	WB-TR	WB-TR NB-L	WB-TR	WB-TR NB-L	WB-TR
Eighth Avenue	West 23rd Street		WB-TR	EB-T	EB-T WB-TR	EB-T WB-TR	WB-TR
Seventh Avenue	West 30th Street			EB-T EB-R		EB-T	
Seventh Avenue	West 29th Street	WB-T	WB-T	WB-T	WB-T	WB-T	WB-T
Seventh Avenue	West 28th Street	EB-TR		EB-TR		EB-TR	EB-TR
Sixth Avenue	West 29th Street	WB-T NB-L	NB-L	WB-T NB-L	WB-T NB-L	WB-T NB-L	WB-T NB-L
Sixth Avenue	West 28th Street	EB-LT		EB-LT		EB-LT	
Sixth Avenue	West 23rd Street				EB-T		
Lincoln Tunnel	West 33rd Street	SB-R		SB-R			
Total No. of Impacted Intersections/ Lane Groups		AM	MD	PM	EVE	MD/AN	EVE
		37	40	62	38	53	42
		<i>Totals During Any Analysis Peak Hour</i>				73	60

Notes: MD = Midday; EVE = Evening; AN = Afternoon; EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; L = Left-turn; T = Through; R = Right Turn

THE FUTURE WITH THE ALTERNATIVE SCENARIO

The 2031 With Action Alternative Scenario traffic volumes for the six analysis peak hours are shown in **Appendix E**. Alternative Scenario incremental vehicle trips were added onto the 2031 No Action traffic volumes to obtain the 2031 With Action traffic volumes.

CHANGES TO THE STUDY AREA STREET NETWORK

As with the Proposed Project, the Alternative Scenario also assumes the adoption of a City Map amendment and, in coordination with DOT, would adjust the grade of West 33rd Street, which currently slopes significantly between Eleventh and Twelfth Avenues, to align with the level of proposed development and to enhance public access to the Development Site. The Eleventh Avenue intersections with West 31st and West 32nd Street would also be signalized and included for the traffic and pedestrian analysis.

TRAFFIC OPERATIONS

Based on the analysis results presented in the appendix, and as summarized by lane group in **Table 14-31**, under the Alternative Scenario for signalized intersections, 186 of the 257 total analyzed lane groups during the weekday AM peak hour; 212 of the 255 total analyzed lane groups during the weekday midday peak hour; 175 of the 259 total analyzed lane groups during the weekday PM peak hour; 212 of the 253 total analyzed lane groups during the weekday evening peak hour; 206 of the 255 total analyzed lane groups during the Saturday midday/afternoon peak hour; and 205 of the 253 total analyzed lane groups during the Saturday evening peak hour, would operate at LOS D or better. Marginal or congested operating conditions (LOS E or worse) would occur at 71 lane groups during the weekday AM peak hour; 43 lane groups during the weekday midday peak hour; 84 lane groups during the weekday PM peak hour; 41 lane groups during the weekday evening peak hour; 49 lane groups during the Saturday midday/afternoon peak hour; and 48 lane groups during the Saturday evening peak hour.

For the one unsignalized intersection, the analyzed lane group will operate at LOS D or better during four analysis peak hours. Correspondingly, marginal or congested operating conditions will occur at one lane group during the weekday AM and PM peak hours.

Table 14-31
2031 With Action Condition Traffic Analysis Results
Alternative Scenario

Level of Service	Analysis Peak Hours					
	Weekday				Saturday	
	AM	MD	PM	EVE	MD/AN	EVE
Signalized Intersections						
Lane Groups at LOS A/B/C	149	158	135	158	152	156
Lane Groups at LOS D	37	54	40	54	54	49
Lane Groups at LOS E	18	11	24	7	17	17
Lane Groups at LOS F	53	32	60	34	32	31
Total	257	255	259	253	255	253
Lane Groups with v/c > 0.90	68	51	93	46	56	58
Unsignalized Intersections						
Lane Groups at LOS A/B/C	0	1	0	1	1	1
Lane Groups at LOS D	0	0	0	0	0	0
Lane Groups at LOS E	0	0	0	0	0	0
Lane Groups at LOS F	1	0	1	0	0	0
Total	1	1	1	1	1	1
Lane Groups with v/c > 0.90	1	0	1	0	0	0

Notes: LOS = Level of service; v/c = volume-to-capacity ratio; MD = Midday; EVE = Evening; AN = Afternoon.

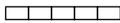
Figures 14-11a to 14-11f provide illustrations of the overall LOS results at the study area intersections for the six analysis peak hours for the Alternative Scenario. Under the Alternative Scenario, significant adverse impacts were identified for 34 lane groups at 29 intersections in the weekday AM peak hour; 21 lane groups at 19 intersections in the weekday midday peak hour; 62 lane groups at 40 intersections in the weekday PM peak hour; 25 lane groups at 20 intersections in the weekday evening peak hour; 15 lane groups at 14 intersections in the Saturday midday/afternoon peak hour; and 34 lane groups at 27 intersections in the Saturday evening peak hour. **Table 14-32** summarizes the significant adverse traffic impacts for the six analysis peak hours.



 *Development Site*
 *Affected Area*

Intersection LOS

-  A; B; C
-  D
-  E; F

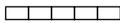
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2031 With Action Condition Alternative Scenario
 Traffic Intersection Level of Service
 Weekday AM Peak Hour



 *Development Site*
 *Affected Area*

Intersection LOS
 A; B; C
 D
 E; F

0 500 FEET


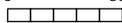
2031 With Action Condition Alternative Scenario
 Traffic Intersection Level of Service
 Weekday Midday Peak Hour



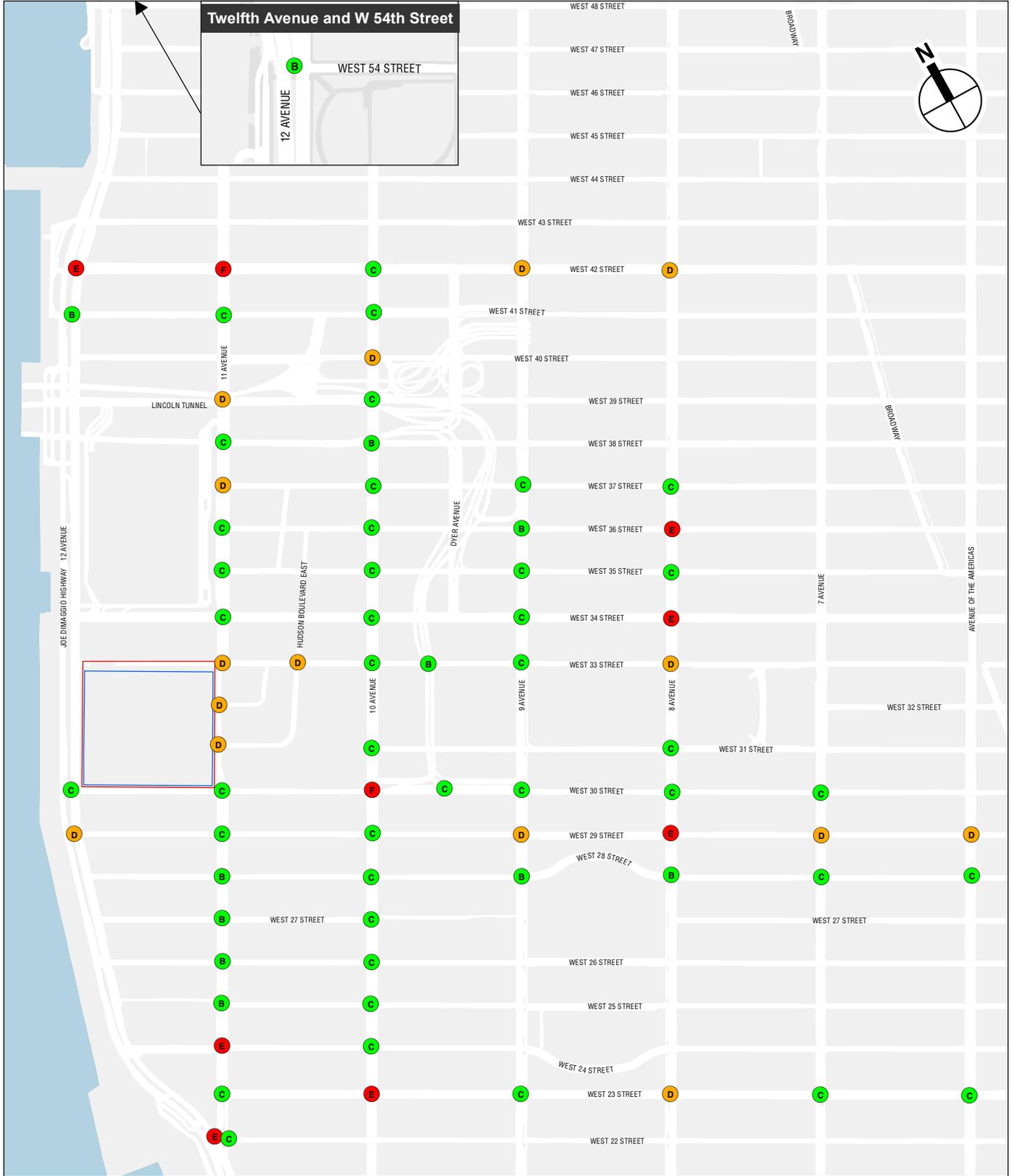
 *Development Site*
 *Affected Area*

Intersection LOS

-  A; B; C
-  D
-  E; F

0 500 FEET


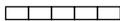
2031 With Action Condition Alternative Scenario
 Traffic Intersection Level of Service
 Weekday PM Peak Hour



 *Development Site*
 *Affected Area*

Intersection LOS

-  A; B; C
-  D
-  E; F

0 500 FEET


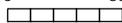
2031 With Action Condition Alternative Scenario
 Traffic Intersection Level of Service
 Weekday Evening Peak Hour



 *Development Site*
 *Affected Area*

Intersection LOS

-  A; B; C
-  D
-  E; F

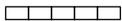
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2031 With Action Condition Alternative Scenario
 Traffic Intersection Level of Service
 Saturday Midday/Afternoon Peak Hour



 *Development Site*
 *Affected Area*

Intersection LOS
 A; B; C
 D
 E; F

0 500 FEET


2031 With Action Condition Alternative Scenario
 Traffic Intersection Level of Service
 Saturday Evening Peak Hour

Western Rail Yard Modifications

Table 14-32
2031 With Action Condition—Significant Adverse Traffic Impacts
Alternative Scenario

Intersection		Weekday				Saturday	
North-South Roadway	East-West Roadway	AM	MD	PM	EVE	MD/AN	EVE
Twelfth Avenue	West 42nd Street	SB-T		NB-TR SB-T	NB-TR		NB-TR SB-T
Twelfth Avenue	West 30th Street	SB-L	SB-L	NB-TR SB-L	SB-L	SB-L	SB-L
Twelfth Avenue	West 29th Street	WB-R	WB-R	WB-R	WB-R		WB-R
Eleventh Avenue	West 42nd Street	WB-L	WB-L	WB-L	WB-L	WB-L	WB-L
Eleventh Avenue	West 39th Street	SB-TR	SB-TR	SB-TR			
Eleventh Avenue	West 38th Street	SB-TR		SB-TR			
Eleventh Avenue	West 37th Street	SB-T		SB-T			
Eleventh Avenue	West 36th Street			SB-LT			
Eleventh Avenue	West 34th Street		WB-TR	EB-L EB-R WB-L WB-TR SB-T			EB-R WB-L
Eleventh Avenue	West 33rd Street	SB-TR		EB-R WB-L SB-TR	EB-R		EB-R WB-L
Eleventh Avenue	West 32nd Street	SB-LT	SB-LT	SB-LT		SB-LT	SB-LT
Eleventh Avenue	West 31st Street			SB-LT			
Eleventh Avenue	West 30th Street	EB-T SB-LT		EB-T SB-LT			
Eleventh Avenue	West 29th Street	SB-TR		SB-TR			
Eleventh Avenue	West 24th Street	SB-TR	SB-TR	SB-TR	SB-TR		SB-TR
Twelfth Avenue	Eleventh Avenue	WB-TR	WB-TR	WB-TR	WB-TR		WB-TR
Tenth Avenue	West 36th Street			NB-TR			
Tenth Avenue	West 35th Street	WB-TR					
Tenth Avenue	West 34th Street	WB-T					
Tenth Avenue	West 33rd Street	WB-TR		WB-TR NB-LT			WB-TR
Tenth Avenue	West 30th Street	EB-L EB-T	EB-L EB-T NB-R	EB-L EB-T NB-T	EB-L EB-T	EB-T	EB-L EB-T NB-R
Tenth Avenue	West 29th Street	WB-T	WB-R	WB-T WB-R			NB-R
Tenth Avenue	West 23rd Street	WB-TR	WB-TR	WB-TR NB-LTR	WB-TR	WB-TR	WB-TR
Ninth Avenue	West 42nd Street	EB-T	EB-T	EB-T SB-TR			EB-T
Ninth Avenue	West 35th Street		WB-LT	WB-LT	WB-LT	WB-LT	WB-LT
Ninth Avenue	West 34th Street			EB-R WB-T			
Ninth Avenue	West 33rd Street			WB-LT			
Ninth Avenue	West 30th Street			EB-T EB-R			EB-R
Ninth Avenue	West 29th Street	WB-T SB-TR	WB-T	WB-T	WB-T	WB-T	WB-T
Ninth Avenue	West 23rd Street						WB-T
Eighth Avenue	West 42nd Street			WB-T	WB-TR		WB-TR
Eighth Avenue	West 37th Street						WB-T
Eighth Avenue	West 36th Street	EB-T		EB-T NB-R	EB-T NB-R	EB-T	EB-T
Eighth Avenue	West 34th Street		WB-T	EB-T WB-T	EB-T		EB-T
Eighth Avenue	West 33rd Street		NB-L	NB-L	NB-L	NB-L	NB-L
Eighth Avenue	West 30th Street	EB-T		EB-L EB-T			

Table 14-32
2031 With Action Condition—Significant Adverse Traffic Impacts
Alternative Scenario

Intersection		Weekday				Saturday	
North-South Roadway	East-West Roadway	AM	MD	PM	EVE	MD/AN	EVE
Eighth Avenue	West 29th Street	WB-TR NB-L	WB-TR	WB-TR NB-L	WB-TR	WB-TR NB-L	WB-TR
Eighth Avenue	West 23rd Street		WB-TR	EB-T	EB-T WB-TR	WB-TR	WB-TR
Seventh Avenue	West 30th Street			EB-T			
Seventh Avenue	West 29th Street	WB-T		WB-T	WB-T	WB-T	WB-T
Seventh Avenue	West 28th Street	EB-TR		EB-TR		EB-TR	
Sixth Avenue	West 29th Street	WB-T NB-L	NB-L	WB-T NB-L	WB-T	NB-L	WB-T NB-L
Sixth Avenue	West 28th Street	EB-LT		EB-LT	EB-LT		
Sixth Avenue	West 23rd Street				EB-T		
Lincoln Tunnel	West 33rd Street	SB-R		SB-R			
Total No. of Impacted Intersections/ Lane Groups		AM	MD	PM	EVE	MD/AN	EVE
		34	21	62	25	15	34
		Totals During Any Analysis Peak Hour				70	

Notes: MD = Midday; EVE = Evening; AN = Afternoon; EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; L = Left-turn; T = Through; R = Right Turn

E. DETAILED TRANSIT ANALYSIS

As discussed above in Section B, “Preliminary Analysis Methodology and Screening Assessment,” an analysis of subway station elements at the 34th Street-Hudson Yards Station (No. 7 train) would be warranted. In total, 23 vertical circulation elements, including 14 stairways and nine escalators, and one fare control area would warrant analysis for the weekday AM and PM peak hours. Additionally, line-haul conditions along the No. 7 subway line, which operates between the 34th Street-Hudson Yards Station and the Flushing-Main Street Station, and along the M23 SBS and M34 SBS crosstown bus routes, correspondingly serving the 23rd Street and 34th Street corridors, respectively, would warrant analysis, also for the weekday AM and PM peak hours.

EXISTING CONDITIONS

SUBWAY STATION ANALYSIS

The 34th Street-Hudson Yards subway station is served by the No. 7 Subway Line, and it serves as the western terminus of the line. The configuration of this station is described below:

- The R550 fare control area has a total of 16 turnstiles and is located two levels above platform level, with connections to the west side of Hudson Boulevard East between West 34th Street and West 33rd Street via the ES626, ES627, ES628, and ES629 escalators and the S1/M1/M3 and S2/M2/M4 street-level stairs. Paid zone escalators ES621, ES622, ES623, ES624, and ES625 connect the fare control area to a mezzanine level, where the P1/P2, P3/P4, P5/P6, P7, P8, P9, P10, P11, P12, P13/P14, P15/P16, and P17/P18 platform stairs connect between the mezzanine level and the platform level.

Western Rail Yard Modifications

- A separate fare control area with a total of 10 turnstiles has connections to the west side of Hudson Boulevard East between West 35th Street and West 34th Street, is also located two levels above platform level. However, since the Development Site is located south of the subway station, all project generated trips were assigned to the R550 control area. Therefore, this fare control area and adjacent connecting vertical circulation elements were not included for analysis.

Volume Development

Volumes for vertical circulation elements and fare control areas were developed using data collected in May 2023 for the analysis peak hours. The collected volumes for vertical circulation elements and fare control areas during the weekday AM and PM peak hours were adjusted higher by 12 percent for peak direction passenger flows and 30 percent for off-peak direction passenger flows based on 2019 turnstile counts provided by NYCT, to account for atypical subway ridership conditions in the aftermath of the COVID-19 pandemic.

Station Element Analysis

As shown in **Table 14-33**, all analyzed vertical circulation elements and control area at the 34th Street-Hudson Yards Station currently operate at acceptable levels during the weekday AM and PM peak periods.

Table 14-33
Existing Conditions Subway Station Analysis Results

Analysis Element	Level of Service	34th Street-Hudson Yards Station (No. 7 Train)	
		Weekday AM Peak Hour	Weekday PM Peak Hour
Stairways	LOS A/B/C	14	14
	LOS D	0	0
	LOS E	0	0
	LOS F	0	0
Escalators	LOS A/B/C	5	5
	LOS D	0	0
	LOS E	0	0
	LOS F	0	0
Fare Control Area	LOS A/B/C	1	1
	LOS D	0	0
	LOS E	0	0
	LOS F	0	0

Notes: LOS = Level of Service; LOS A/B/C correspond with 0.00 to 1.00 v/c (volume-to-capacity) ratio; LOS D corresponds with 1.00 to 1.33 v/c ratio; LOS E corresponds with 1.33 to 1.67 v/c ratio; LOS F corresponds with above 1.67 v/c ratio; control area elements correspond with designated sets of turnstiles, high entry/exit turnstiles (HEET), and high exit turnstiles (HXT).

SUBWAY LINE HAUL ANALYSIS

Existing line-haul data provided by NYCT (collected in 2019, prior to the onset of the COVID-19 pandemic) are summarized in **Table 14-34**. As shown, the No. 7 line currently operates within guideline capacity (v/c ratio of 1.00 or less) during the weekday AM and PM peak hours.

Table 14-34
Existing Conditions Subway Line Haul Analysis Results

Peak Hour	Line	Direction	Maximum Load Point	Average Passengers per Hour ⁽¹⁾	Average Trains per Hour ⁽¹⁾	Average Passengers per Car ⁽¹⁾	Guideline Passengers per Car ⁽²⁾	V/C Ratio
Weekday AM	7 (local)	Manhattan-bound	40 St – Lowery St	13,783	15.0	84	110	0.76
	7 (express)	Manhattan-bound	61 St – Woodside	14,636	14.0	95	110	0.86
Weekday PM	7 (express and local)	Flushing-bound	Queensboro Plaza	22,991	28.0	75	110	0.68

Notes:
The 34th Street-Hudson Yards station serves the No. 7 subway line.
V/C = Volume-to-Capacity.

Sources:
⁽¹⁾ 2019 ridership and train throughput data from NYCT, except where noted
⁽²⁾ Guideline capacities are based on NYCT rush hour loading guidelines, which vary by car type, line, and location based on frequency and type of service

BUS LINE HAUL ANALYSIS

Existing line-haul data provided by NYCT (collected in 2019, prior to the onset of the COVID-19 pandemic) are summarized in **Table 14-35**. As shown, both the M23 SBS and M34 SBS operate within guideline capacity (v/c ratio of 1.00 or less) during the weekday AM and PM peak hours.

Table 14-35
Existing Conditions Bus Line Haul Analysis Results

Route/Direction	Load Point	Hourly Volume	Buses per Hour	Passengers per Bus	Capacity per Bus	Capacity Shortfall
Weekday AM Peak Hour						
M23 SBS/WB	East 23rd St/Third Ave	534	7	77	85	No
M34 SBS/WB	East 34th St/Third Ave	343	7	49	85	No
Weekday PM Peak Hour						
M34 SBS/EB	West 34th St/Broadway	315	6	53	85	No

Notes: EB = Eastbound; WB = Westbound.
Source: NYCT Average Bus Ridership Data from 2019

THE FUTURE WITHOUT THE PROPOSED ACTIONS

SUBWAY STATION ANALYSIS

The 2031 No Action transit volumes for subway station elements were developed following a similar methodology as described above for traffic volumes. The CEQR background growth rates of 0.25 percent for the first five years and then 0.125 percent for the remaining years were applied to the existing volumes. In addition to these growth rates, relevant transit trips from discrete No Build projects generally within the approximately ¼-mile study area of the Development Site and the No Action development on the Development Site were also added.

As shown in **Table 14-36**, all analyzed vertical circulation elements and control areas will operate at acceptable levels during the weekday AM and PM peak hours, with the following exceptions:

Western Rail Yard Modifications

- Stairways: Of the 14 stairway elements analyzed, one in the AM peak hour (P5/P6 platform stair) and two in the PM peak hour (P3/P4 and P5/P6 platform stairs) will operate at LOS D or worse.
- Escalators: Of the five escalator elements analyzed, two in the AM peak hour (ES623/ES624 paid zone escalator and ES626/ES627 free zone escalator) and two in the PM peak hour (ES621/ES622 paid zone escalator and ES628/ES629 free zone escalator) will operate at LOS D or worse.

Table 14-36
2031 No Action Condition Subway Station Analysis Results

Analysis Element	Level of Service	34th Street-Hudson Yards Station (No. 7 Train)	
		Weekday AM Peak Hour	Weekday PM Peak Hour
Stairways	LOS A/B/C	13	12
	LOS D	1	2
	LOS E	0	0
	LOS F	0	0
Escalators	LOS A/B/C	3	3
	LOS D	2	2
	LOS E	0	0
	LOS F	0	0
Fare Control Area	LOS A/B/C	1	1
	LOS D	0	0
	LOS E	0	0
	LOS F	0	0

Notes: LOS = Level of Service; LOS A/B/C correspond with 0.00 to 1.00 v/c (volume-to-capacity) ratio; LOS D corresponds with 1.00 to 1.33 v/c ratio; LOS E corresponds with 1.33 to 1.67 v/c ratio; LOS F corresponds with above 1.67 v/c ratio; control area elements correspond with designated sets of turnstiles, high entry/exit turnstiles (HEET), and high exit turnstiles (HXT).

SUBWAY LINE HAUL ANALYSIS

The 2031 No Action transit volumes for subway station elements were developed using CEQR background growth rates of 0.25 percent for the first five years and then 0.125 percent for the remaining years, and relevant transit trips from discrete No Build projects generally within the approximately ¼-mile study area of the Development Site and the No Action development on the Development Site were also added. Trips associated with major new developments along the No. 7 line in Manhattan were assigned in the Manhattan-bound direction for outbound trips and in the Flushing-bound direction for inbound trips, and were distributed to maximum load points in a similar manner as trips generated by the Proposed Project. As shown in **Table 14-37**, all subway lines will continue to operate within guideline capacity (v/c ratio within 1.00) during the non-game day AM and PM peak hours.

Table 14-37
2031 No Action Condition Subway Line Haul Analysis Results

Peak Hour	Line	Direction	Maximum Load Point	Average Passengers per Hour ⁽¹⁾	Average Trains per Hour ⁽¹⁾	Average Passengers per Car ⁽¹⁾	Guideline Passengers per Car ⁽²⁾	V/C Ratio
Weekday AM	7 (local)	Manhattan-bound	40 St – Lowery St	14,907	15	90	110	0.82
	7 (express)	Manhattan-bound	61 St – Woodside	15,829	14	103	110	0.93
Weekday PM	7 (express and local)	Flushing-bound	Queensboro Plaza	25,014	28	81	110	0.74

Notes:
The 34th Street-Hudson Yards station serves the No. 7 subway line.
V/C = Volume-to-Capacity.

Sources:
⁽¹⁾ Existing conditions data based on 2019 ridership and train throughput data from NYCT, except where noted
⁽²⁾ Guideline capacities are based on NYCT rush hour loading guidelines, which vary by car type, line, and location based on frequency and type of service

BUS LINE HAUL ANALYSIS

The 2031 No Action condition analysis of bus line-haul levels incorporates CEQR background growth rates of 0.25 percent for the first five years and then 0.125 percent for the remaining years were applied to existing passenger volumes on the two study area bus routes. In addition to these growth rates, relevant bus trips from discrete No Build projects generally within the approximately ¼-mile study area of the Development Site and from the No Action development on the Development Site were also added. The 2031 No Action condition analysis results are summarized in **Table 14-38**, which shows that all bus routes will operate over capacity in the weekday AM and PM peak hours.

Table 14-38
2031 No Action Condition Bus Line Haul Analysis Results

Route/Direction	Load Point	No Action Hourly Volume	Buses per Hour	Passengers per Bus	Capacity per Bus	Capacity Shortfall
Weekday AM Peak Hour						
M23 SBS/WB	East 23rd St/Third Ave	616	7	88	85	Yes
M34 SBS/WB	East 34th St/Third Ave	674	7	97	85	Yes
Weekday PM Peak Hour						
M34 SBS/EB	West 34th St/Broadway	868	6	145	85	Yes

Notes: EB = Eastbound; WB = Westbound.
Source: NYCT Average Bus Ridership Data from 2019

THE FUTURE WITH THE PROPOSED PROJECT

SUBWAY STATION ANALYSIS

Incremental subway trips from the Proposed Project were assigned to subway station elements and were added to 2031 No Action transit volumes to develop the 2031 With Action transit volumes. As shown in **Table 14-39**, the analyzed vertical circulation elements and control areas would operate at acceptable levels during the weekday AM and PM peak hours, except for:

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- Stairways: Of the 14 stairway elements analyzed, one in the AM peak hour (P5/P6 platform stair) and two in the PM peak hour (P3/P4 and P5/P6 platform stairs) would operate at LOS D or worse.
- Escalators: Of the five escalator elements analyzed, two in the AM peak hour (ES623/ES624 paid zone escalator and ES626/ES627 free zone escalator) and two in the PM peak hour (ES621/ES622 paid zone escalator and ES628/ES629 free zone escalator) would operate at LOS D or worse.

Table 14-39
2031 With Action Condition Subway Station Analysis Results
Proposed Project

Analysis Element	Level of Service	34th Street-Hudson Yards Station (No. 7 Train)	
		Weekday AM Peak Hour	Weekday PM Peak Hour
Stairways	LOS A/B/C	13	12
	LOS D	1	1
	LOS E	0	1
	LOS F	0	0
Escalators	LOS A/B/C	3	3
	LOS D	2	2
	LOS E	0	0
	LOS F	0	0
Fare Control Area	LOS A/B/C	1	1
	LOS D	0	0
	LOS E	0	0
	LOS F	0	0

Notes: LOS = Level of Service; LOS A/B/C correspond with 0.00 to 1.00 v/c (volume-to-capacity) ratio; LOS D corresponds with 1.00 to 1.33 v/c ratio; LOS E corresponds with 1.33 to 1.67 v/c ratio; LOS F corresponds with above 1.67 v/c ratio; control area elements correspond with designated sets of turnstiles, high entry/exit turnstiles (HEET), and high exit turnstiles (HXT).

As shown in **Table 14-40**, there would be a total of six subway station elements with significant adverse impacts at the 34th Street-Hudson Yards Station:

- The P3/P4 platform stair connecting the R550 paid zone and the No. 7 platform in the PM peak hour;
- The P5/P6 platform stair connecting the R550 paid zone and the No. 7 platform in the AM and PM peak hours;
- The ES621/ES622 mezzanine escalator within the R550 paid zone in the PM peak hour;
- The ES623/ES624 mezzanine escalator within the R550 paid zone in the AM peak hour;
- The ES626/ES627 street-level escalator at the southwest corner of West 34th Street and Hudson Boulevard East in the AM peak hour, and
- The ES628/ES629 street-level escalator at the southwest corner of West 34th Street and Hudson Boulevard East in the PM peak hour.

Table 14-40
2031 With Action Condition Significant Adverse Subway Station Impacts
Proposed Project

Analysis Element		Weekday AM	Weekday PM
Stairways	P3/P4		X
	P5/P6	X	X
Escalators	ES621/ES622		X
	ES623/ES624	X	
	ES626/ES627	X	
	ES628/ES629		X

SUBWAY LINE HAUL ANALYSIS

Based on anticipated origins and destinations of subway trips, a portion of the incremental subway trips from the Proposed Project were assigned to No. 7 subway line's maximum load points and were added to 2031 No Action subway line-haul volumes to develop the 2031 With Action subway line-haul volumes.

As shown in **Table 14-41**, all analyzed subway lines would continue to operate within guideline capacity (v/c ratio within 1.00) during the weekday AM and PM peak hours:

Table 14-41
2031 With Action Condition Subway Line Haul Analysis Results
Proposed Project

Peak Hour	Line	Direction	Maximum Load Point	Average Passengers per Hour ⁽¹⁾	Average Trains per Hour ⁽¹⁾	Average Passengers per Car ⁽¹⁾	Guideline Passengers per Car ⁽²⁾	V/C Ratio
Weekday AM	7 (local)	Manhattan-bound	40 St – Lowery St	14,871	15	90	110	0.82
	7 (express)	Manhattan-bound	61 St – Woodside	15,792	14	103	110	0.93
Weekday PM	7 (express and local)	Flushing-bound	Queensboro Plaza	25,131	28	82	110	0.74

Notes:
The 34th Street-Hudson Yards station serves the No. 7 subway line.
V/C = Volume-to-Capacity.

Sources:
⁽¹⁾ Existing conditions data based on 2019 ridership and train throughput data from NYCT, except where noted.
⁽²⁾ Guideline capacities are based on NYCT rush hour loading guidelines, which vary by car type, line, and location based on frequency and type of service.

BUS LINE HAUL ANALYSIS

Based on anticipated origins and destinations of bus trips, portions of incremental bus trips from the Proposed Project were assigned to bus routes' maximum load points and were added to 2031 No Action bus line-haul volumes to develop the 2031 With Action bus line-haul volumes. As shown in **Table 14-42**, all bus routes would continue to operate over capacity in the weekday AM and PM peak hours.

Impacts to bus line-haul levels would be considered significant if a proposed action would result in operating conditions above guideline capacity. Therefore, these projected

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increases in bus ridership beyond guideline capacities constitute significant adverse bus line-haul impacts.

Table 14-42
2031 With Action Condition Bus Line Haul Analysis Results
Proposed Project

Route/Direction	Load Point	With Action Hourly Volume	Buses per Hour	Passengers per Bus	Capacity per Bus	Capacity Shortfall
Weekday AM Peak Hour						
M23 SBS/WB	East 23rd St/Third Ave	618	7	89	85	Yes
M34 SBS/WB	East 34th St/Third Ave	684	7	98	85	Yes
Weekday PM Peak Hour						
M34 SBS/EB	West 34th St/Broadway	917	6	153	85	Yes
Notes: EB = Eastbound; WB = Westbound.						
Source: NYCT Average Bus Ridership Data from 2019						

As described earlier in this chapter under Section B, the proposed West 33rd Street grade change would elevate West 33rd Street between Eleventh and Twelfth Avenues and eliminate the existing M34 SBS turnaround route using West 33rd Street. Between the DEIS and FEIS, further coordination would be undertaken with NYCT and DOT to determine possible alternate turnaround routes for the M34 SBS.

THE FUTURE WITH THE ALTERNATIVE SCENARIO

SUBWAY STATION ANALYSIS

Incremental subway trips from the Alternative Scenario were assigned to subway station elements and were added to 2031 No Action transit volumes to develop the 2031 With Action transit volumes. As shown in **Table 14-43**, the analyzed vertical circulation elements and control areas would operate at acceptable levels during the weekday AM and PM peak hours, except for:

- Stairways: Of the 14 stairway elements analyzed, two in the AM peak hour (P3/P4 and P5/P6 platform stairs) and two in the PM peak hour (P3/P4 and P5/P6 platform stairs) would operate at LOS D or worse.
- Escalators: Of the five escalator elements analyzed, two in the AM peak hour (ES623/ES624 paid zone escalator and ES626/ES627 free zone escalator) and two in the PM peak hour (ES621/ES622 paid zone escalator and ES628/ES629 free zone escalator) would operate at LOS D or worse.

Table 14-43

2031 With Action Condition Subway Station Analysis Results
Alternative Scenario

Analysis Element	Level of Service	34th Street-Hudson Yards Station (No. 7 Train)	
		Weekday AM Peak Hour	Weekday PM Peak Hour
Stairways	LOS A/B/C	12	12
	LOS D	2	1
	LOS E	0	1
	LOS F	0	0
Escalators	LOS A/B/C	3	3
	LOS D	0	1
	LOS E	2	1
	LOS F	0	0
Fare Control Area	LOS A/B/C	1	1
	LOS D	0	0
	LOS E	0	0
	LOS F	0	0

Notes: LOS = Level of Service; LOS A/B/C correspond with 0.00 to 1.00 v/c (volume-to-capacity) ratio; LOS D corresponds with 1.00 to 1.33 v/c ratio; LOS E corresponds with 1.33 to 1.67 v/c ratio; LOS F corresponds with above 1.67 v/c ratio; control area elements correspond with designated sets of turnstiles, high entry/exit turnstiles (HEET), and high exit turnstiles (HXT).

As shown in **Table 14-44**, there would be a total of six subway station elements with significant adverse impacts at the 34th Street-Hudson Yards Station:

- The P3/P4 platform stair connecting the R550 paid zone and the No. 7 platform in the PM peak hour;
- The P5/P6 platform stair connecting the R550 paid zone and the No. 7 platform in the AM and PM peak hours;
- The ES621/ES622 mezzanine escalator within the R550 paid zone in the PM peak hour;
- The ES623/ES624 mezzanine escalator within the R550 paid zone in the AM peak hour;
- The ES626/ES627 street-level escalator at the southwest corner of West 34th Street and Hudson Boulevard East in the AM peak hour, and
- The ES628/ES629 street-level escalator at the southwest corner of West 34th Street and Hudson Boulevard East in the PM peak hour.

Table 14-44

2031 With Action Condition Significant Adverse Subway Station Impacts
Alternative Scenario

Analysis Element		Weekday AM	Weekday PM
Stairways	P3/P4		X
	P5/P6	X	X
Escalators	ES621/ES622		X
	ES623/ES624	X	
	ES626/ES627	X	
	ES628/ES629		X

Western Rail Yard Modifications

SUBWAY LINE HAUL ANALYSIS

Based on anticipated origins and destinations of subway trips, a portion of the incremental subway trips from the Proposed Project were assigned to No. 7 subway line’s maximum load points and were added to 2031 No Action subway line-haul volumes to develop the 2031 With Action subway line-haul volumes.

As shown in **Table 14-45**, all analyzed subway lines would continue to operate within guideline capacity (v/c ratio within 1.00) during the weekday AM and PM peak hours:

Table 14-45
2031 With Action Condition Subway Line Haul Analysis Results
Alternative Scenario

Peak Hour	Line	Direction	Maximum Load Point	Average Passengers per Hour ⁽¹⁾	Average Trains per Hour ⁽¹⁾	Average Passengers per Car ⁽¹⁾	Guideline Passengers per Car ⁽²⁾	V/C Ratio
Weekday AM	7 (local)	Manhattan-bound	40 St – Lowery St	14,894	15	90	110	0.82
	7 (express)	Manhattan-bound	61 St – Woodside	15,816	14	103	110	0.93
Weekday PM	7 (express and local)	Flushing-bound	Queensboro Plaza	25,207	28	82	110	0.74

Notes:
The 34th Street-Hudson Yards station serves the No. 7 subway line.
V/C = Volume-to-Capacity.

Sources:
⁽¹⁾ Existing conditions data based on 2019 ridership and train throughput data from NYCT, except where noted
⁽²⁾ Guideline capacities are based on NYCT rush hour loading guidelines, which vary by car type, line, and location based on frequency and type of service

BUS LINE HAUL ANALYSIS

Based on anticipated origins and destinations of bus trips, portions of incremental bus trips from the Proposed Project were assigned to bus routes’ maximum load points and were added to 2031 No Action bus line-haul volumes to develop the 2031 With Action bus line-haul volumes. As shown in **Table 14-46**, all bus routes would continue to operate over capacity in the weekday AM and PM peak hours.

Impacts to bus line-haul levels would be considered significant if a proposed action would result in operating conditions above guideline capacity. Therefore, these projected increases in bus ridership beyond guideline capacities constitute significant adverse bus line-haul impacts.

Table 14-46

2031 With Action Condition Bus Line Haul Analysis Results
Alternative Scenario

Route/Direction	Load Point	With Action Hourly Volume	Buses per Hour	Passengers per Bus	Capacity per Bus	Capacity Shortfall
Weekday AM Peak Hour						
M23 SBS/WB	East 23rd St/Third Ave	631	7	91	85	Yes
M34 SBS/WB	East 34th St/Third Ave	723	7	104	85	Yes
Weekday PM Peak Hour						
M34 SBS/EB	West 34th St/Broadway	978	6	163	85	Yes
Notes: EB = Eastbound; WB = Westbound.						
Sources: NYCT Average Bus Ridership Data from 2019						

As with the Proposed Project, under the Alternative Scenario the proposed West 33rd Street grade change would eliminate the existing M34 SBS turnaround route using West 33rd Street. Between the DEIS and FEIS, further coordination would be undertaken with NYCT and DOT to determine possible alternate turnaround routes for the M34 SBS.

F. DETAILED PEDESTRIAN ANALYSIS

As described above in Section B, "Preliminary Analysis Methodology and Screening Assessment," projected trip increments associated with both With Action scenarios were considered to develop the overall pedestrian study area for analysis. Under existing conditions, 44 sidewalks, 72 corners, and 36 crosswalks were selected for analysis. Under the future conditions, additional pedestrian elements, mainly corresponding with those surrounding the Development Site under the No Action and With Action conditions, were included in the overall study area, resulting in total 53 sidewalks, 77 corners, and 41 crosswalks selected for detailed analyses. Specifically, in the future with the Proposed Project, 52 sidewalks, 77 corners, and 41 crosswalks were selected for a detailed analysis for the weekday AM, midday, PM, and evening, and Saturday midday/afternoon and evening peak hours. And in the future with the Alternative Scenario, 53 sidewalks, 75 corners, and 40 crosswalks were selected for a detailed analysis for the same six analysis peak hours. The slight differences in analysis locations between the two With Action scenarios are attributed to site access location differences along certain frontages of the Development Site.

EXISTING CONDITIONS

PEDESTRIAN NETWORK AND STUDY AREA

The pedestrian study area encompasses sidewalks, corners, and crosswalks spanning over approximately 11 city blocks north-south, between West 23rd and West 35th Streets, and five avenue blocks east-west, between Eighth and Twelfth Avenues. The analysis elements are characteristic of those in the Manhattan CBD, with high levels of pedestrian volumes, typical sidewalk obstructions, striped crossings, and signal-controlled intersections.

STREET-LEVEL PEDESTRIAN OPERATIONS

Pedestrian data were collected in March 2023 and March/April 2024 in accordance with procedures outlined in the *CEQR Technical Manual* for the six analysis peak periods. Based on the collected data, pedestrian volumes were developed for the following peak hours were selected for analysis.

- Weekday AM: 8:30 – 9:30 AM;
- Weekday midday: 12:00 – 1:00 PM;
- Weekday PM: 5:00 – 6:00 PM;
- Weekday evening: 7:00 – 8:00 PM;
- Saturday midday/afternoon: 4:00 – 5:00 PM; and
- Saturday evening: 7:00 – 8:00 PM.

Inventories and field measurements of the pedestrian analysis elements were made to document sidewalk widths, corner geometry, crosswalk geometry, and obstructions affecting the effective sizes of these pedestrian elements. During data collection, the north sidewalk of West 30th Street between Twelfth Avenue and Eleventh Avenue and the northeast corner of Eleventh Avenue and West 25th Street were closed for construction. Additionally, as described above, West 33rd Street between Twelfth Avenue and Eleventh Avenue is currently reserved for NYPD operations and staging, and the south sidewalk was not analyzed under existing conditions. Therefore, LOS analysis results for these locations were only reported in the future No Action and With Action conditions.

Since data were collected in both 2023 and 2024, adjustments were made for data collected during each peak period to develop representative 2024 existing conditions pedestrian volume networks. The adjustments were made by comparing pedestrian volumes at overlapping pedestrian elements collected in both 2023 and 2024 for each peak period. Based on those comparisons, the following adjustments were made to the 2023 and 2024 peak hour pedestrian data:

- Weekday AM peak period: The 2024 pedestrian volumes were nine percent higher than the 2023 pedestrian volumes; therefore, the 2023 pedestrian volumes were adjusted up by nine percent, while the 2024 pedestrian volumes were left as is;
- Weekday midday peak period: The 2024 pedestrian volumes were 12 percent higher than the 2023 pedestrian volumes; therefore, the 2023 pedestrian volumes were adjusted up by 12 percent, while the 2024 pedestrian volumes were left as is;
- Weekday PM peak period: The 2024 pedestrian volumes were four percent higher than the 2023 pedestrian volumes; therefore, the 2023 pedestrian volumes were adjusted up by four percent, while the 2024 pedestrian volumes were left as is;
- Weekday evening peak period: The 2023 pedestrian volumes were 18 percent higher than the 2024 pedestrian volumes; therefore, the 2023 pedestrian volumes were left as is, while the 2024 pedestrian volumes were adjusted up by 18 percent;
- Saturday midday/afternoon peak period: The 2024 pedestrian volumes were eight percent higher than the 2023 pedestrian volumes; therefore, the 2023 pedestrian volumes were adjusted up by eight percent, while the 2024 pedestrian volumes were left as is, and

- Saturday evening peak period: The 2024 pedestrian volumes were 26 percent higher than the 2023 pedestrian volumes; therefore, the 2023 pedestrian volumes were adjusted up by 26 percent, while the 2024 pedestrian volumes were left as is.

The existing pedestrian volumes for the weekday AM, midday, PM, and evening, and the Saturday midday/afternoon and evening peak hours are shown in **Appendix E**.

A summary of the existing conditions pedestrian analysis results is presented in **Table 14-47**. Under existing conditions for the weekday AM, midday, PM, and evening, and Saturday midday/afternoon and evening analysis peak hours, 41 to 43 of the 44 total analyzed sidewalk elements, all 72 of the 72 total analyzed corner reservoirs, and 32 to 35 of the 36 total analyzed crosswalk elements in the pedestrian study area operate at LOS C or better. As noted in Section C, “Transportation Analysis Methodologies,” the mid-point of marginal LOS D is considered the threshold of acceptable and unacceptable operations and LOS E and LOS F are considered congested conditions. Marginal or congested operating conditions (LOS D or worse) occur at one to three sidewalk locations across the six analysis peak hours. Correspondingly, these conditions prevail at none of the corners and one to four crosswalks over the same analysis peak hours. The detailed sidewalk, corner reservoir, and crosswalk analysis summary tables are presented in **Appendix E**. **Figures 14-12a to 14-12f** provide illustrations of the overall LOS results at the study area pedestrian elements for the weekday AM, midday, PM, and evening, and Saturday midday/afternoon and evening peak hours, respectively.

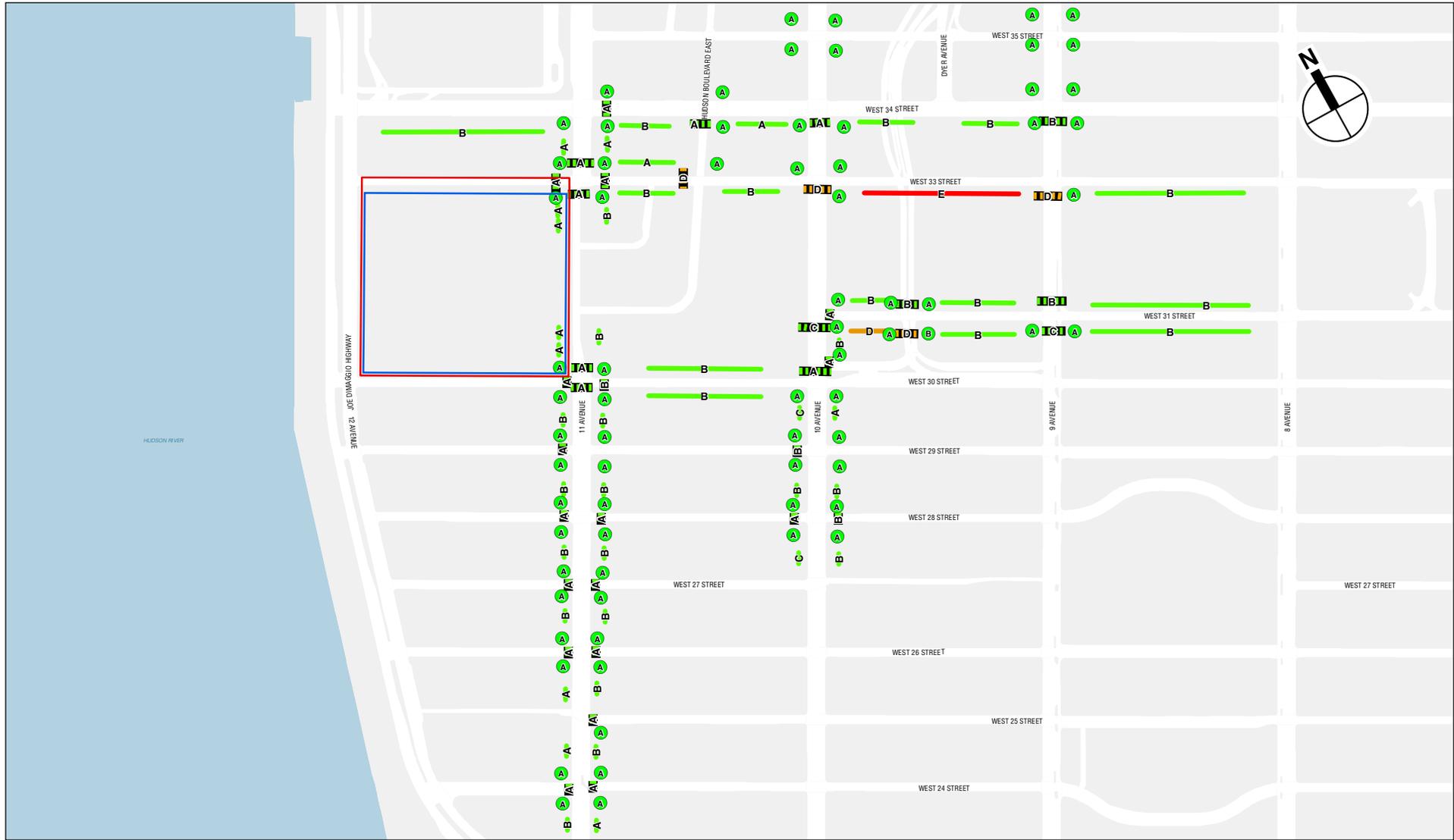
**Table 14-47
Existing Conditions Pedestrian Analysis Results**

Level of Service	Analysis Peak Hours					
	Weekday				Saturday	
	AM	MD	PM	EVE	MD/AN	EVE
Sidewalks						
Sidewalks at LOS A/B/C	42	43	42	43	41	43
Sidewalks at LOS D	1	0	1	1	3	1
Sidewalks at LOS E	1	1	1	0	0	0
Sidewalks at LOS F	0	0	0	0	0	0
Total	44	44	44	44	44	44
Corner Reservoirs						
Corners at LOS A/B/C	72	72	72	72	72	72
Corners at LOS D	0	0	0	0	0	0
Corners at LOS E	0	0	0	0	0	0
Corners at LOS F	0	0	0	0	0	0
Total	72	72	72	72	72	72
Crosswalks						
Crosswalks at LOS A/B/C	32	34	32	35	35	35
Crosswalks at LOS D	4	2	2	1	0	1
Crosswalks at LOS E	0	0	2	0	1	0
Crosswalks at LOS F	0	0	0	0	0	0
Total	36	36	36	36	36	36

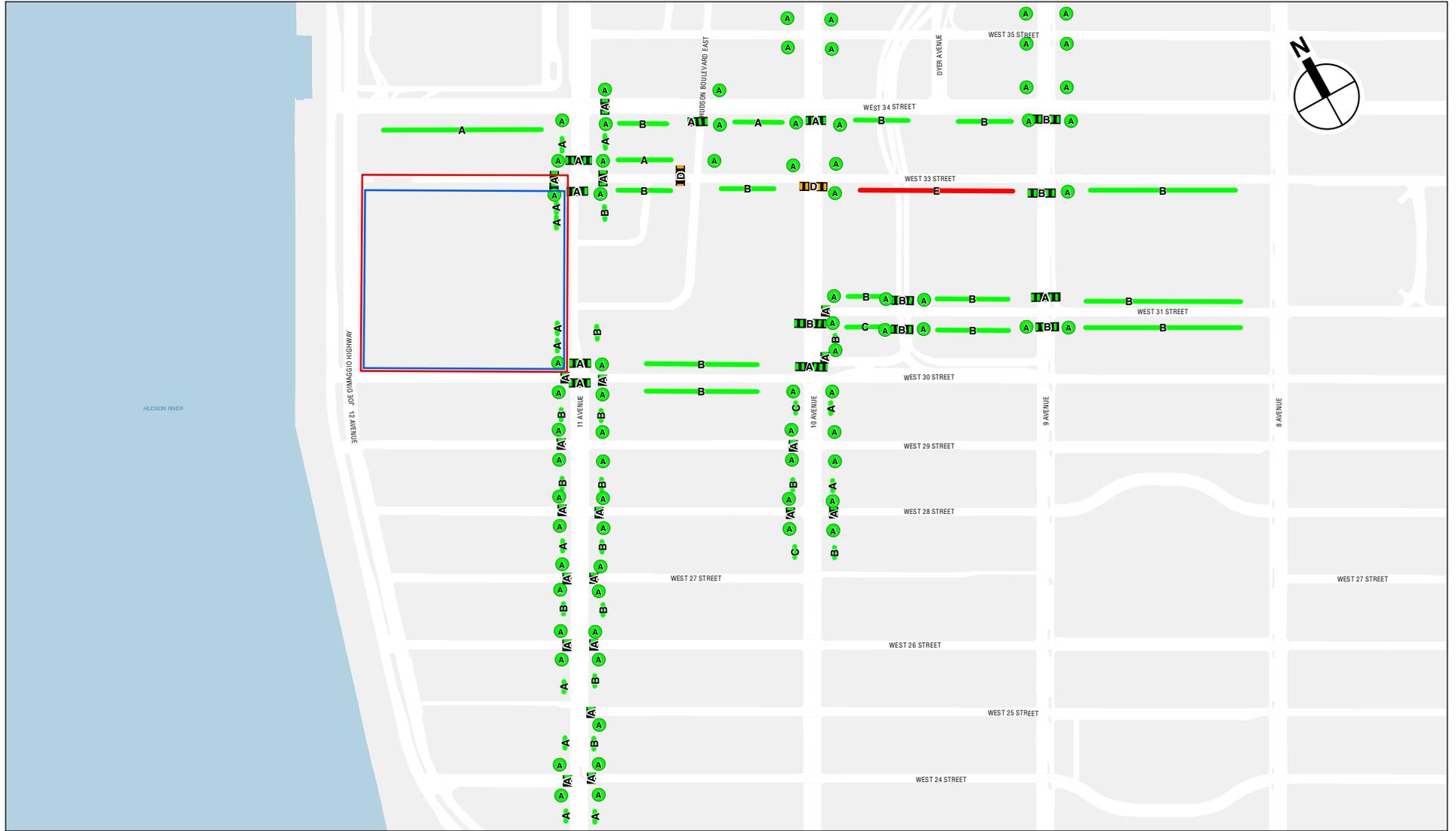
Notes: LOS = Level of service; MD = Midday; EVE = Evening; AN = Afternoon.

THE FUTURE WITHOUT THE PROPOSED ACTIONS

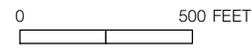
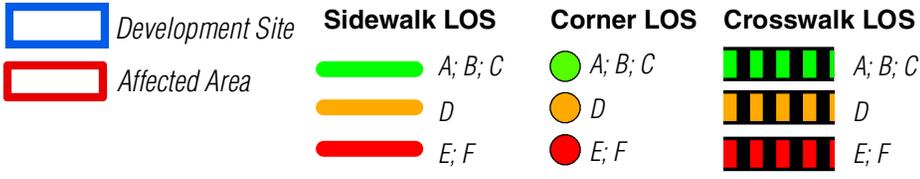
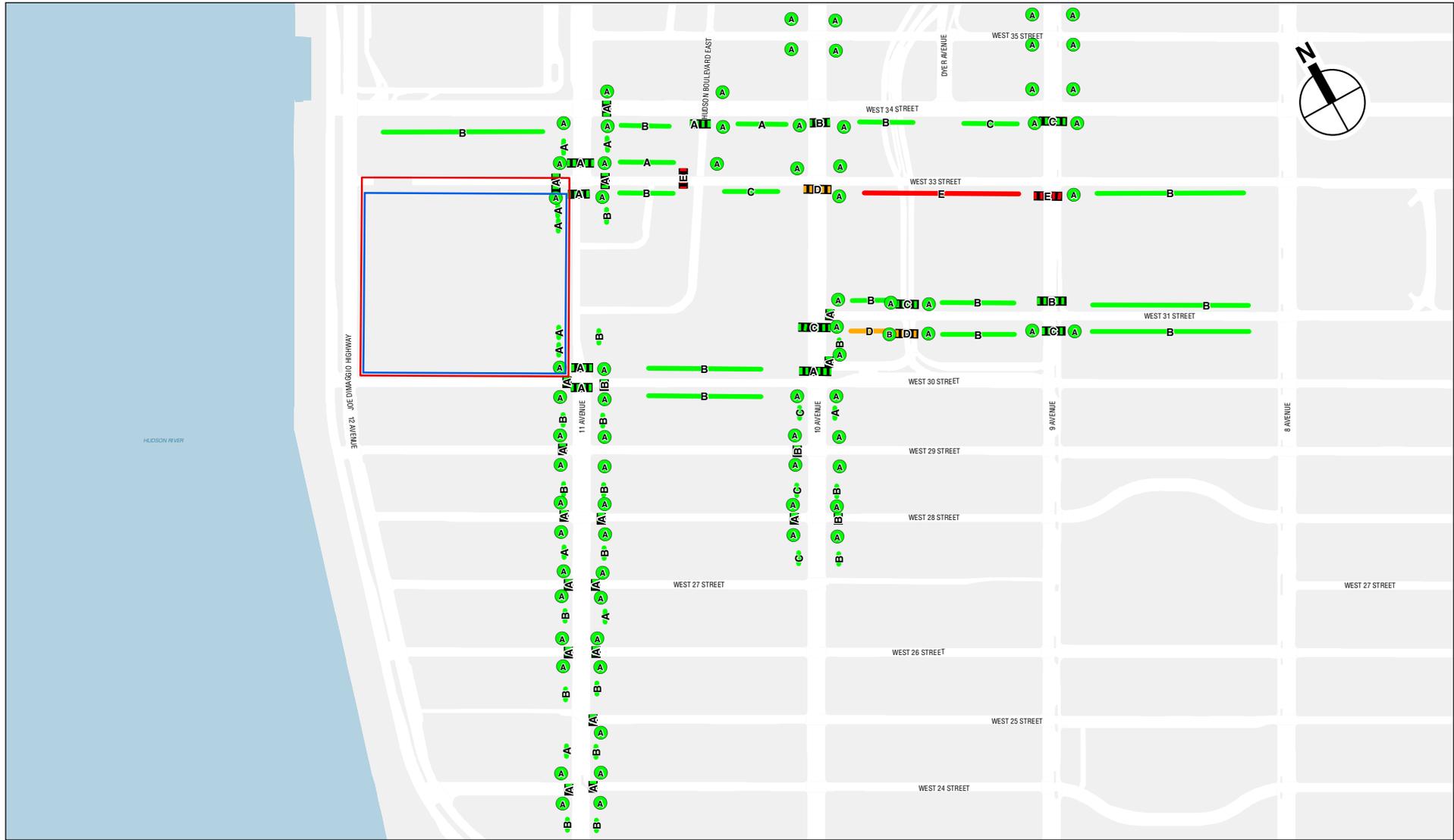
The 2031 No Action condition pedestrian volumes were developed by increasing existing pedestrian levels by the expected growth in overall travel through and within the study



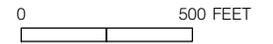
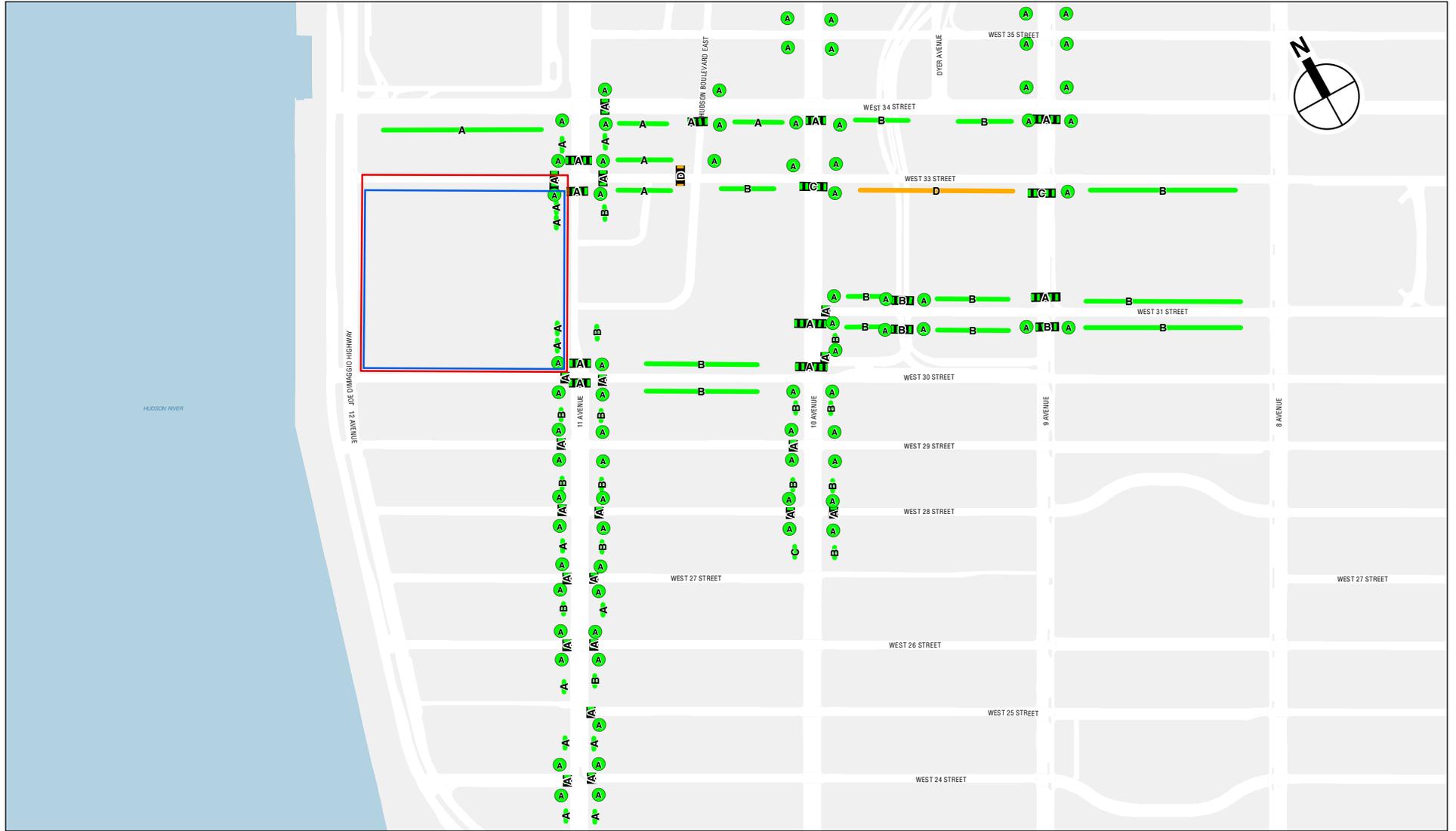
Existing Conditions
 Pedestrian Elements Level of Service
 Weekday AM Peak Hour
Figure 14-12a



Existing Conditions
 Pedestrian Elements Level of Service
 Weekday Midday Peak Hour

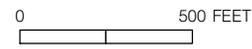
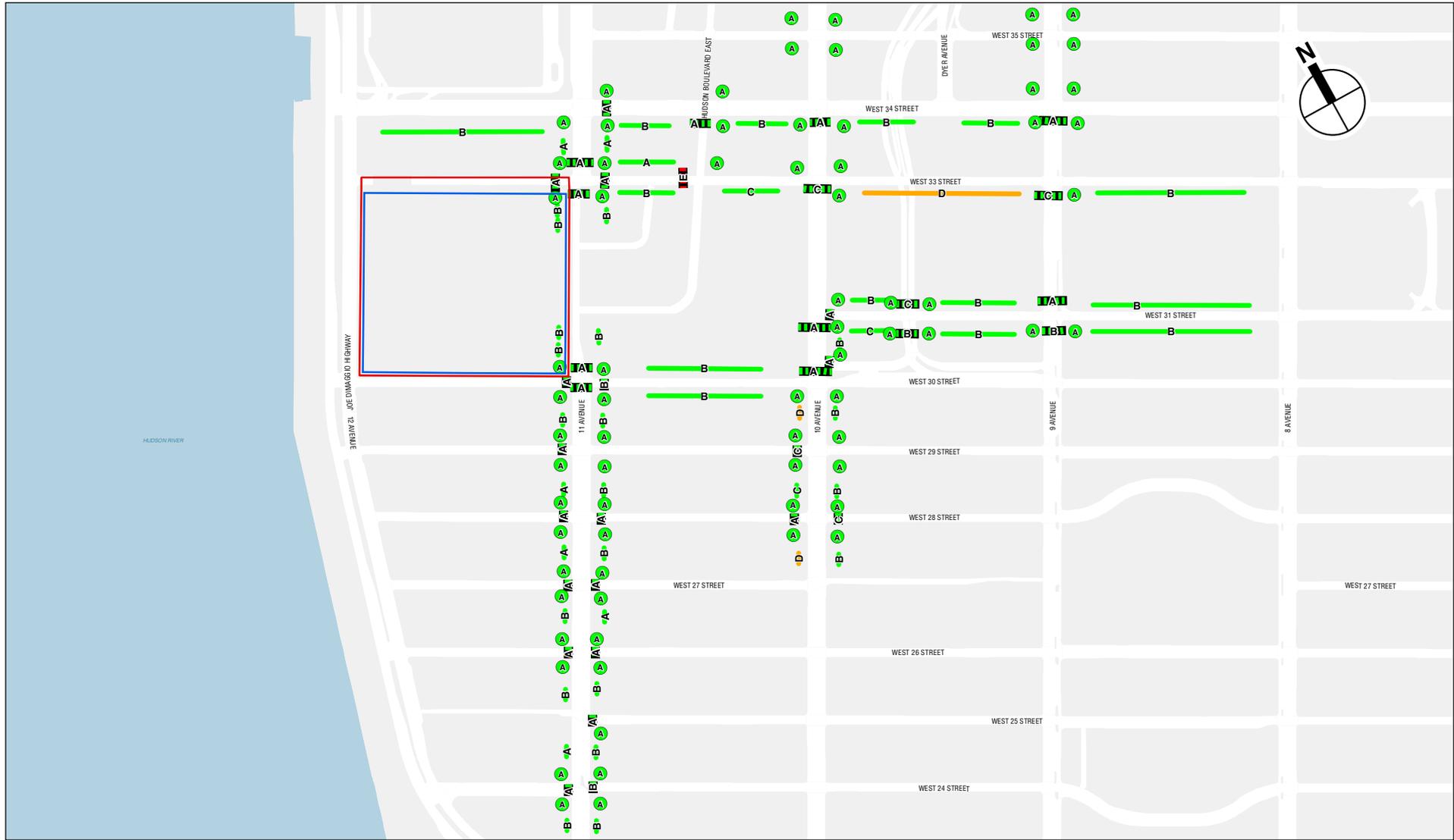


Existing Conditions
 Pedestrian Elements Level of Service
 Weekday PM Peak Hour

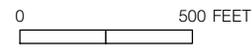
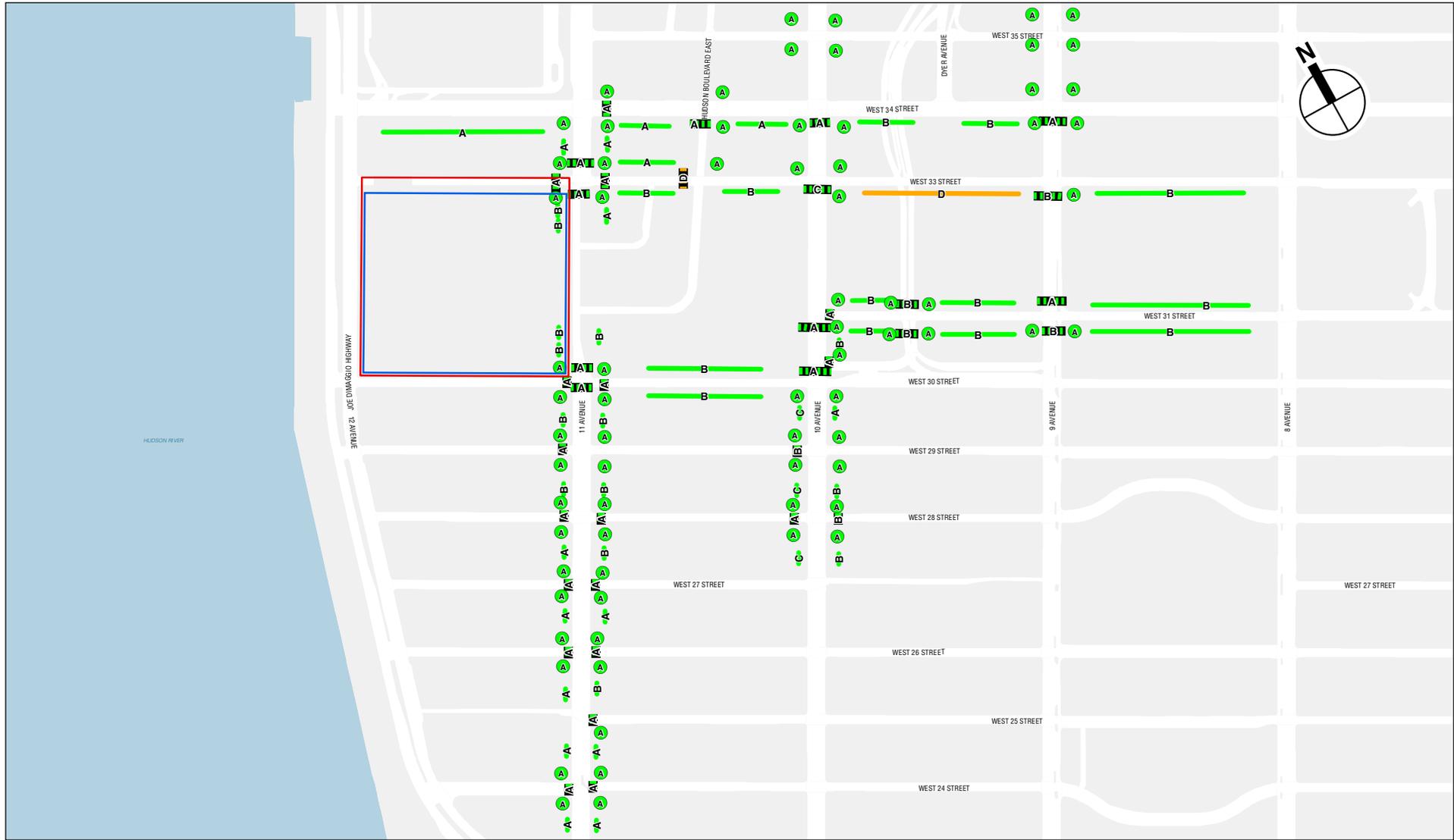


Existing Conditions
 Pedestrian Elements Level of Service
 Weekday Evening Peak Hour

Figure 14-12d



Existing Conditions
 Pedestrian Elements Level of Service
 Saturday Midday/Afternoon Peak Hour
Figure 14-12e



Existing Conditions
 Pedestrian Elements Level of Service
 Saturday Evening Peak Hour

Western Rail Yard Modifications

area and accounting for the incremental trips generated by the No Action development on the Development Site. Similar to transit, an annual background growth rate of 0.25 percent was assumed for the first five years (2025 through 2029) and then 0.125 percent for the remaining years (2030 and 2031). In addition to these growth rates, relevant trips from discrete No Build projects generally within the approximately ¼-mile study area of the Development Site and the No Action development on the Development Site were also added.

CHANGES TO THE STUDY AREA STREET NETWORK

As detailed above for traffic, three DOT improvement projects have been accounted for in the 2031 No Action condition pedestrian analysis. The changes in the pedestrian analysis primarily consist of the addition of new sidewalks along the east side of Ninth Avenue between West 33rd Street and West 50th Street and new corner bulbouts implemented at the intersection of Ninth Avenue and West 34th Street.

Additionally, also detailed above for traffic, the Eleventh Avenue intersections with West 31st and West 32nd Street will be signalized under the No Action and With Action conditions. The relevant crosswalks and corner elements at these two intersections have also been included for the pedestrian analysis.

In addition to these street network changes, the No Action pedestrian analysis assumes that temporary features under the existing conditions, such as sidewalk bridge scaffoldings and construction-related obstructions, will no longer be in place and the pedestrian geometries will return to their typical operations without these temporary features/obstructions.

The as-of-right development will be accompanied by wider sidewalks at the Development Site. Specifically, at Site B, it is assumed that there will be a widening of up to 9.5 feet at the West 30th Street sidewalk, and up to 5 feet at the Eleventh Avenue sidewalk. At Site C1, it is assumed that there will be a widening of up to 5 feet at the Eleventh Avenue sidewalk. Additional new street furnishings and other landscaping elements such as tree pits are also assumed to be placed along the sidewalk segments fronting the sites.

STREET-LEVEL PEDESTRIAN OPERATIONS

The 2031 No Action condition peak hour pedestrian volumes are shown in **Appendix E**. The detailed sidewalk, corner reservoir, and crosswalk analysis results are also presented in **Appendix E**. A summary of these 2031 No Action condition analysis results is presented in **Table 14-48**.

Table 14-48

2031 No Action Condition Pedestrian Analysis Results

Level of Service	Analysis Peak Hours					
	Weekday				Saturday	
	AM	MD	PM	EVE	MD/AN	EVE
Sidewalks						
Sidewalks at LOS A/B/C	43	39	39	49	42	50
Sidewalks at LOS D	3	9	9	2	9	3
Sidewalks at LOS E	5	5	3	2	2	0
Sidewalks at LOS F	2	0	2	0	0	0
Total	53	53	53	53	53	53
Corner Reservoirs						
Corners at LOS A/B/C	72	72	72	75	75	77
Corners at LOS D	1	2	2	2	1	0
Corners at LOS E	3	3	1	0	1	0
Corners at LOS F	1	0	2	0	0	0
Total	77	77	77	77	77	77
Crosswalks						
Crosswalks at LOS A/B/C	25	18	21	33	28	35
Crosswalks at LOS D	8	11	11	6	8	4
Crosswalks at LOS E	4	10	4	0	3	0
Crosswalks at LOS F	4	2	5	2	2	2
Total	41	41	41	41	41	41
Notes: LOS = Level of service; MD = Midday; EVE = Evening; AN = Afternoon.						

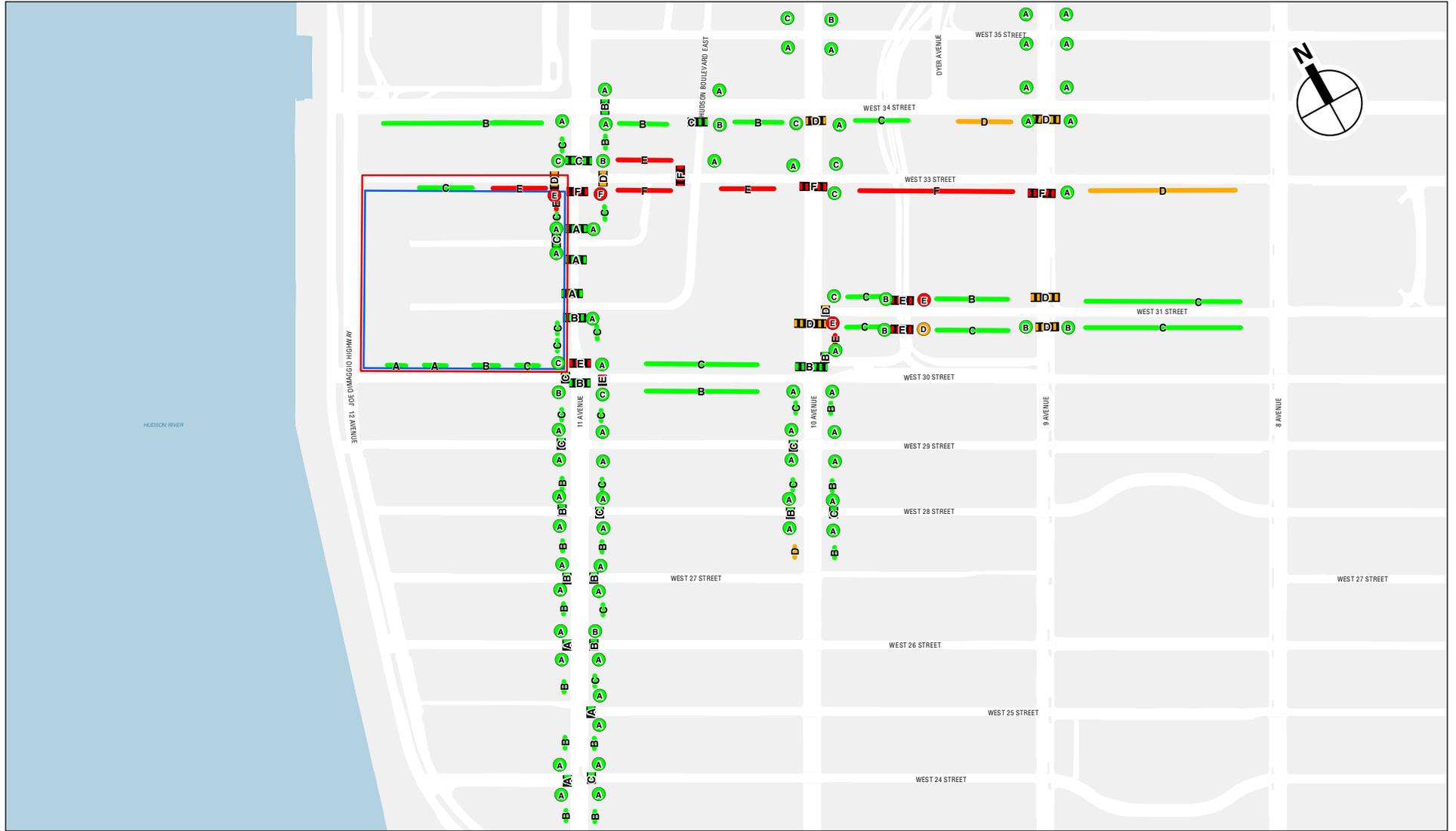
The analysis indicates that under the 2031 No Action condition, 39 to 50 of the 53 total analyzed sidewalk elements, 72 to 77 of the 77 total analyzed corner reservoirs, and 18 to 35 of the 41 total analyzed crosswalk elements in the pedestrian study area will operate at LOS C or better. Marginal or congested operating conditions (LOS D or worse) occur at three to 14 sidewalk locations, at up to five corners, and at six to 23 crosswalks across the six analysis peak hours. **Figures 14-13a to 14-13f** provide illustrations of the overall LOS results at the study area pedestrian elements for the six analysis peak hours.

THE FUTURE WITH THE PROPOSED PROJECT

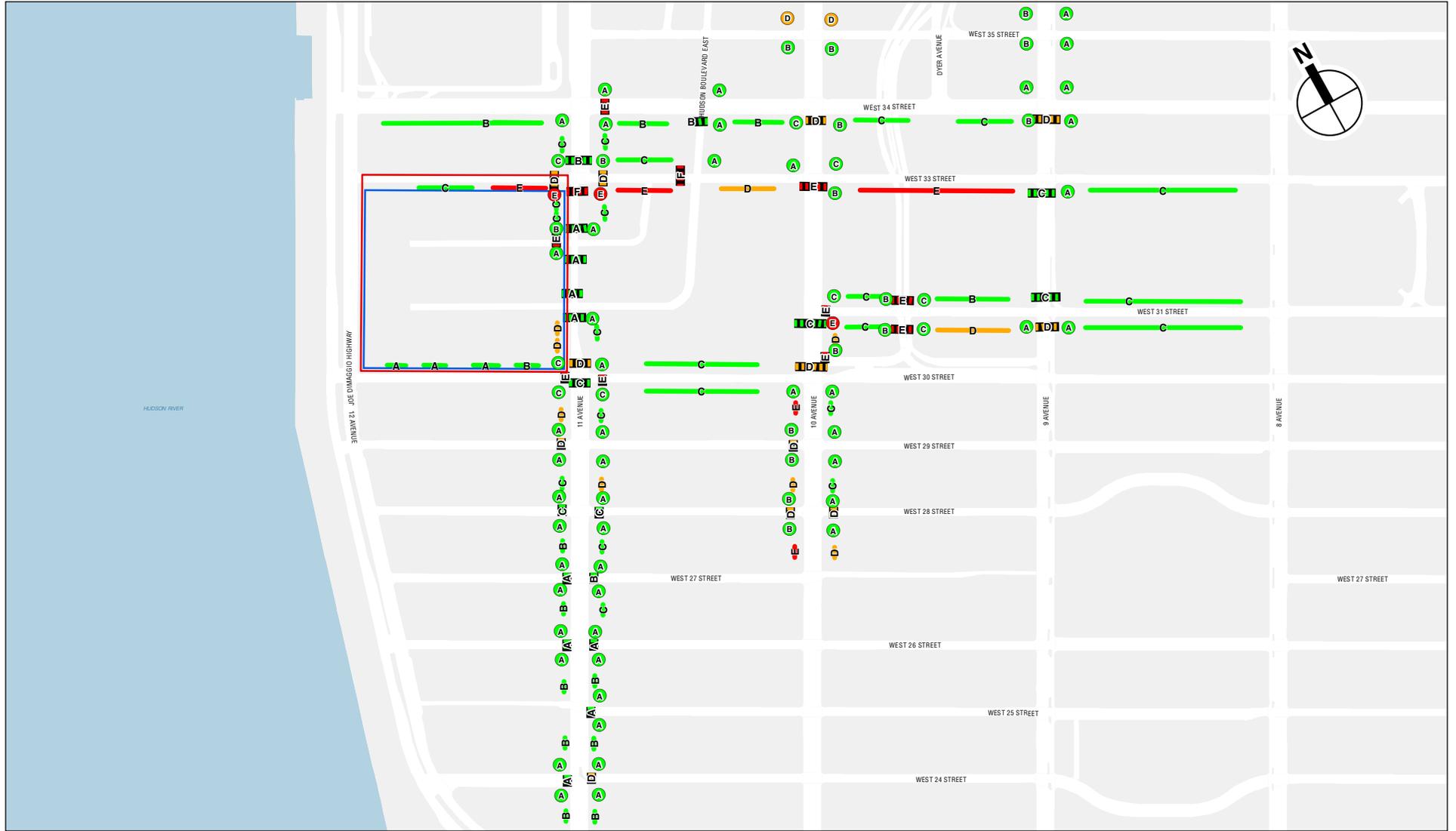
The 2031 With Action Proposed Project pedestrian volumes for the six analysis peak hours are shown in **Appendix E**. Proposed Project incremental pedestrian trips were added onto the 2031 No Action pedestrian volumes to obtain the 2031 With Action pedestrian volumes.

CHANGES TO THE STUDY AREA STREET NETWORK

As detailed above for traffic, the Proposed Project would assume the adoption of a City Map amendment and, in coordination with DOT, would adjust the grade of West 33rd Street, which currently slopes significantly between Eleventh and Twelfth Avenues, to align with the level of proposed development and to enhance public access to the Development Site. The Eleventh Avenue intersections with West 31st and West 32nd Street would also be signalized and the relevant crosswalks and corner elements at these two intersections have also been included for the pedestrian analysis. Based on the Proposed Project site plan, the Eleventh Avenue west sidewalk would be widened by approximately 3 feet in front of Site B, and by approximately 7 feet in front of Site C. The

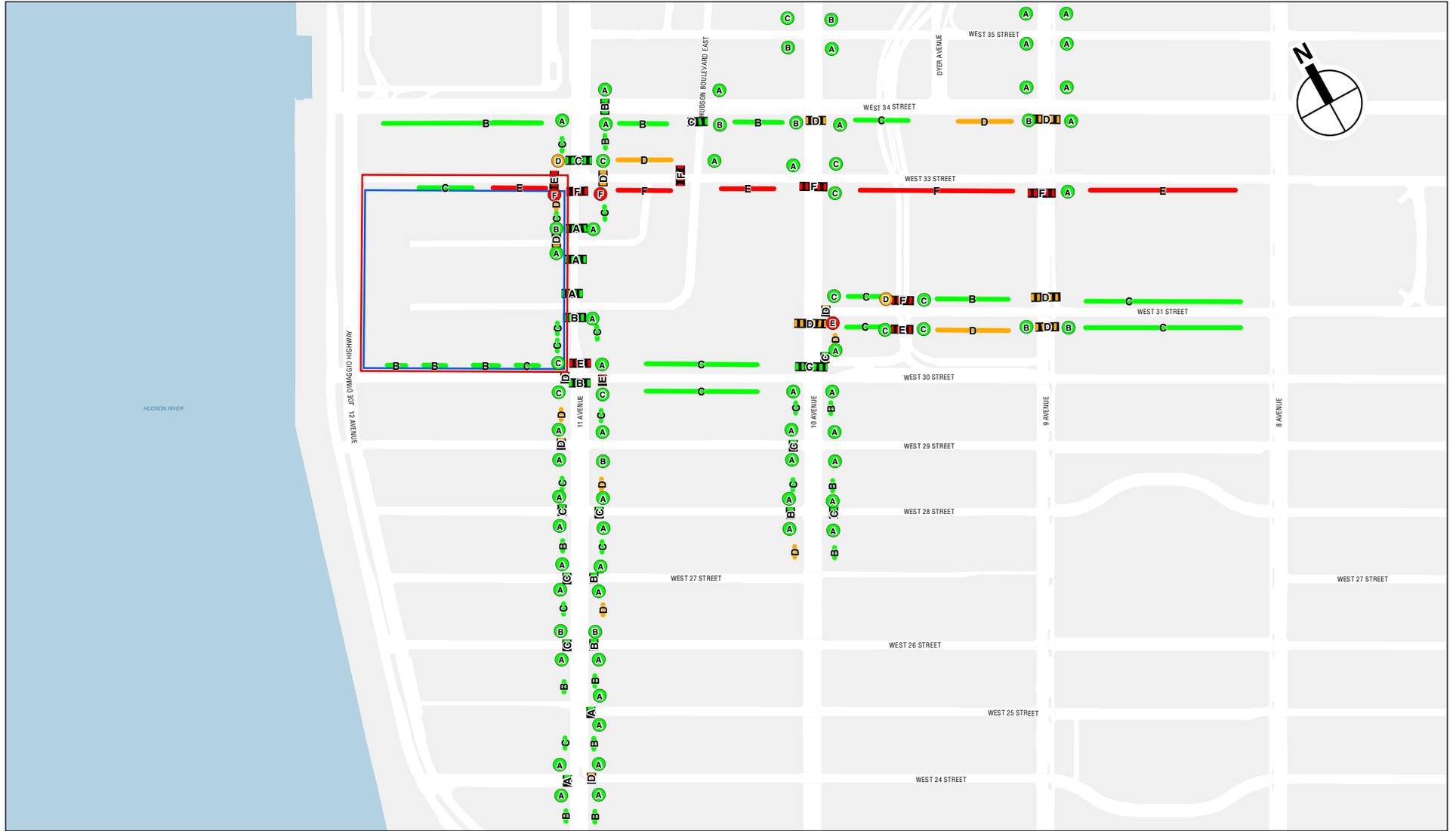


2031 No Action Condition
 Pedestrian Elements Level of Service
 Weekday AM Peak Hour

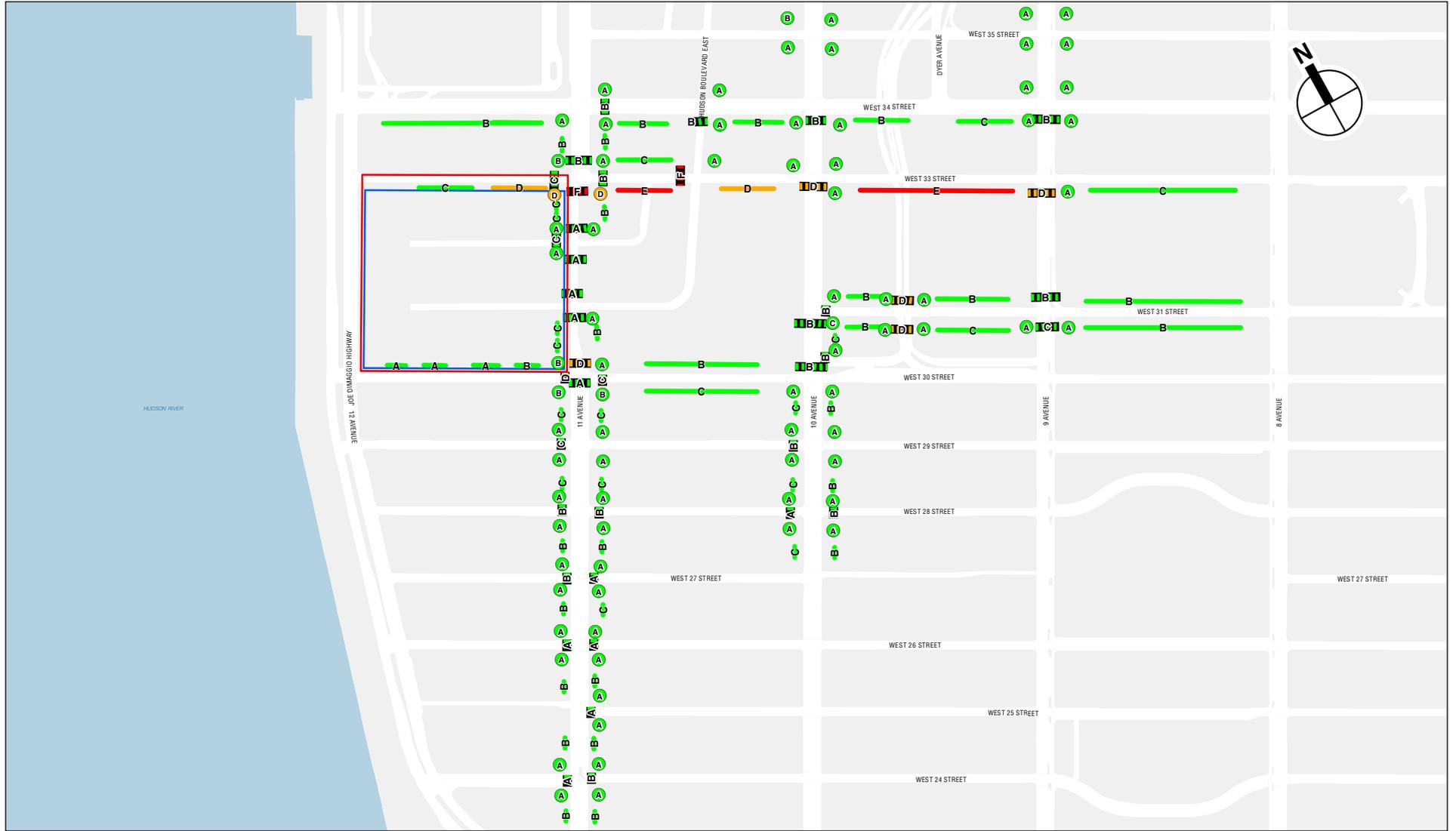


2031 No Action Condition
 Pedestrian Elements Level of Service
 Weekday Midday Peak Hour

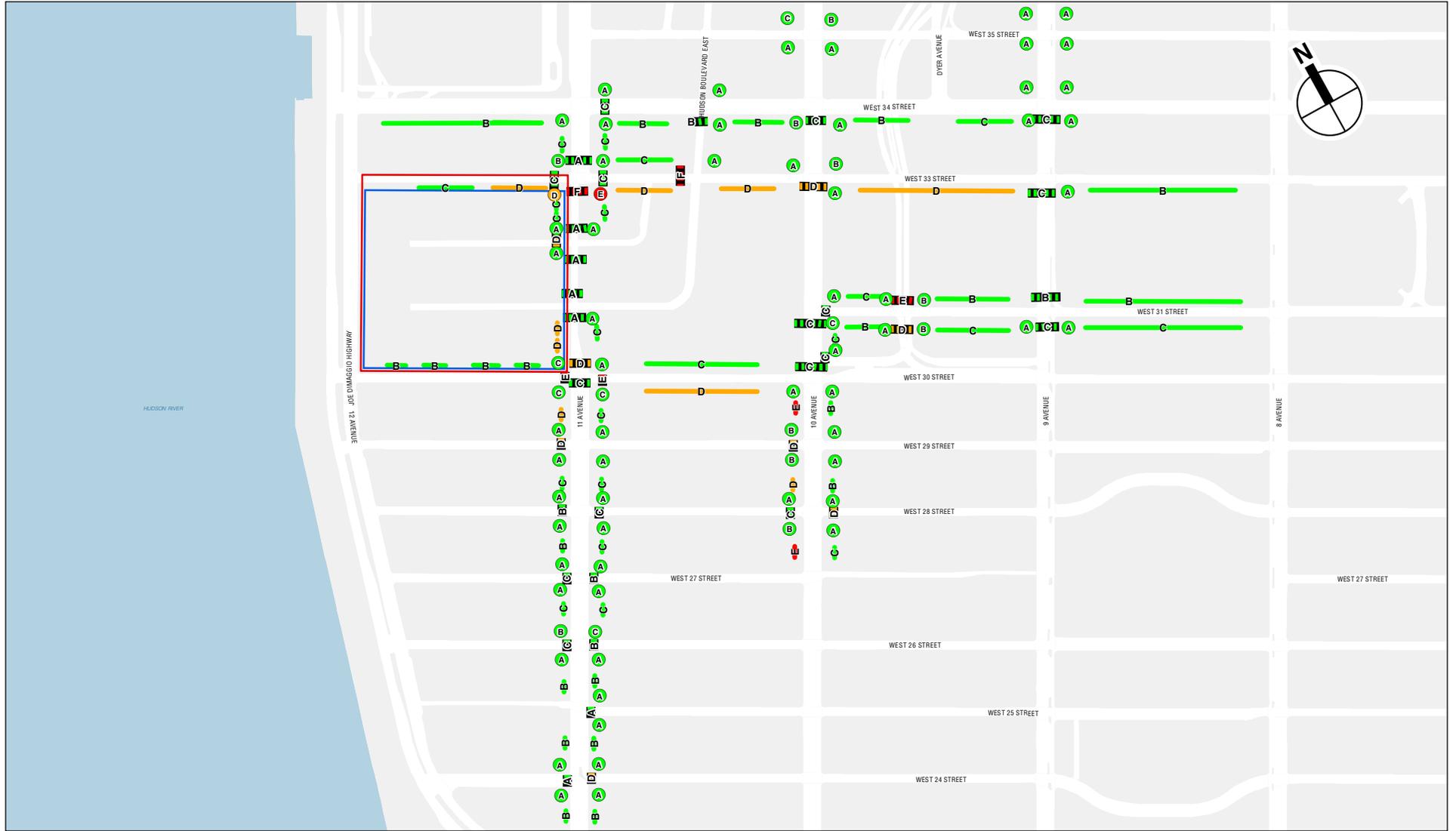
Figure 14-13b



2031 No Action Condition
 Pedestrian Elements Level of Service
 Weekday PM Peak Hour

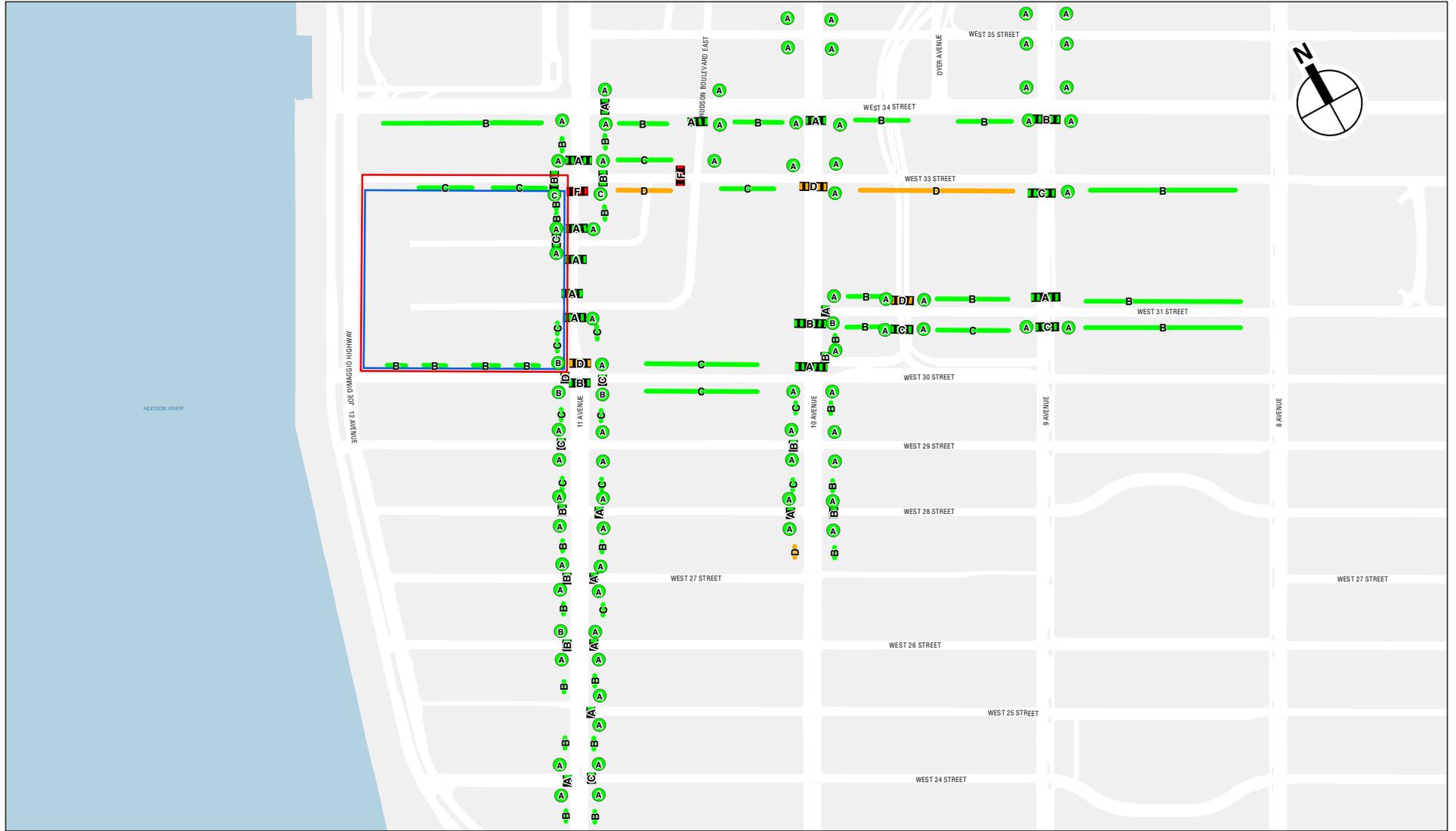


2031 No Action Condition
 Pedestrian Elements Level of Service
 Weekday Evening Peak Hour
Figure 14-13d



2031 No Action Condition
 Pedestrian Elements Level of Service
 Saturday Midday/Afternoon Peak Hour

Figure 14-13e



2031 No Action Condition
 Pedestrian Elements Level of Service
 Saturday Evening Peak Hour

Western Rail Yard Modifications

West 33rd Street south sidewalk would be widened by approximately 5 feet between Site C and Eleventh Avenue. The West 30th Street north sidewalk, however, would be narrowed by approximately 7 to 10 feet in front of Sites A and B, as compared to No Action condition.

STREET-LEVEL PEDESTRIAN OPERATIONS

The detailed 2031 With Action condition sidewalk, corner reservoir, and crosswalk analysis results are presented in **Appendix E**. A summary of these results is presented in **Table 14-49**.

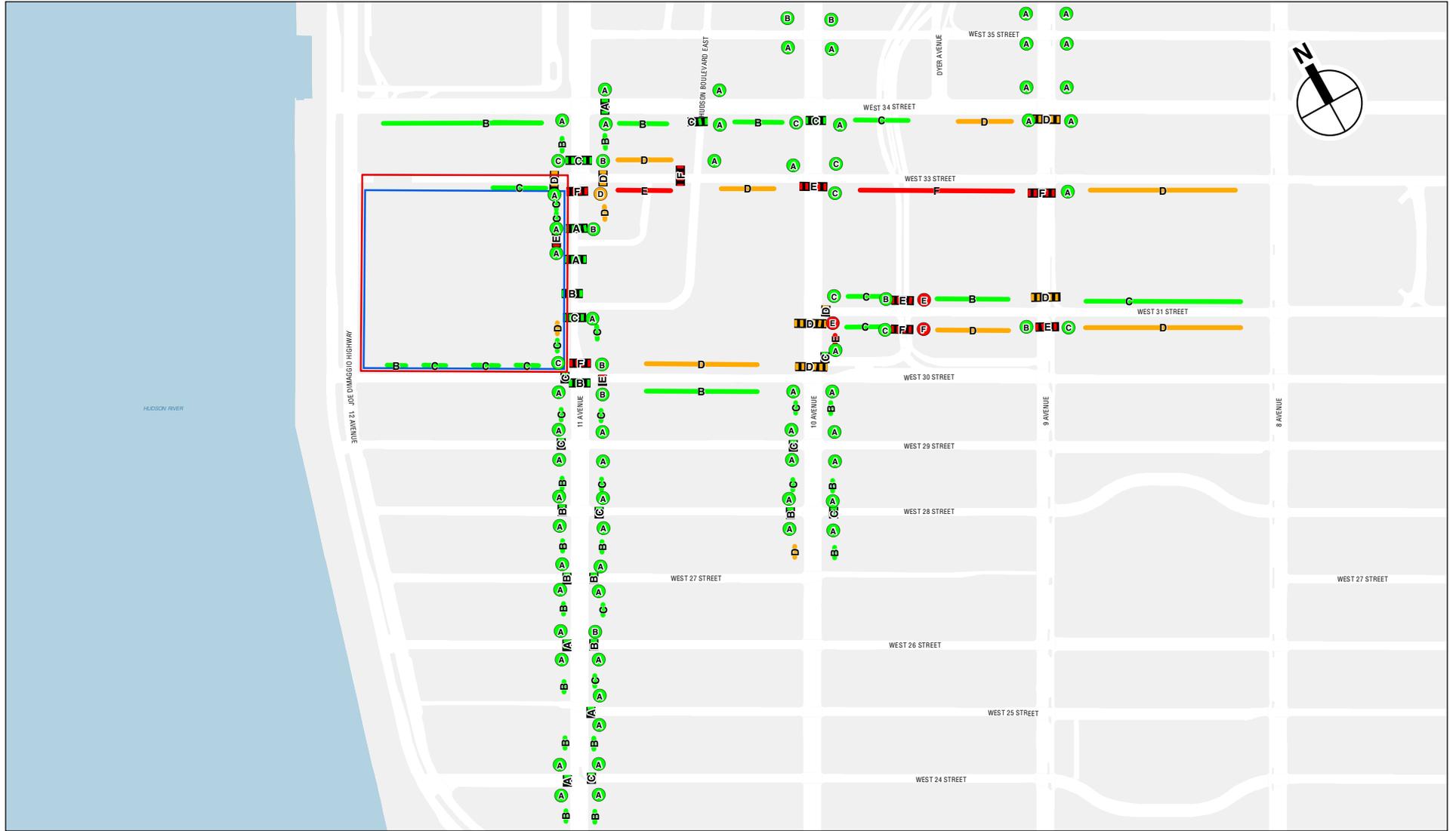
Figures 14-14a to 14-14f provide illustrations of the overall LOS results at the study area pedestrian elements for the six analysis peak hours.

Table 14-49
2031 With Action Condition Pedestrian Analysis Results
Proposed Project

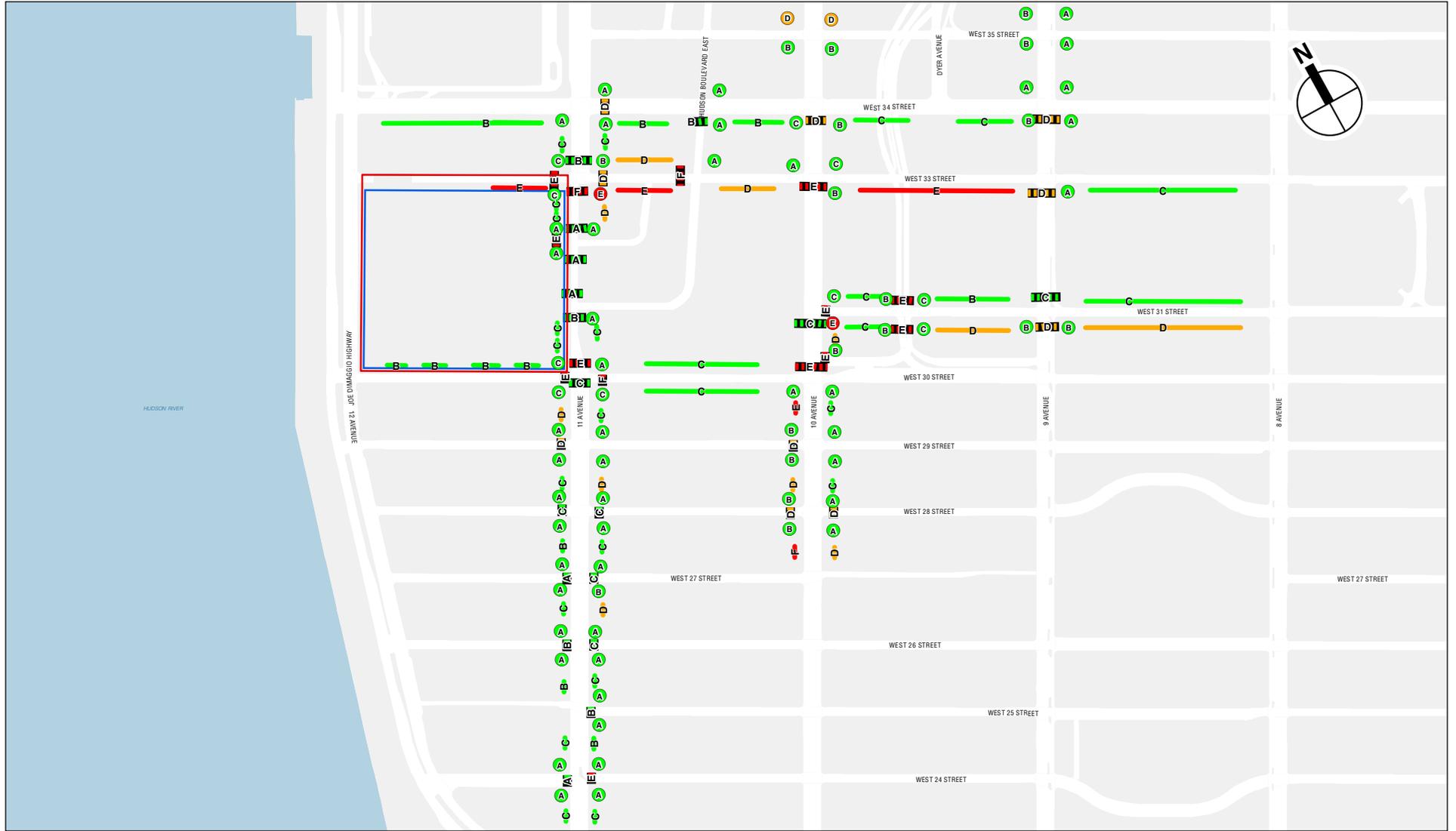
Level of Service	Analysis Peak Hours					
	Weekday				Saturday	
	AM	MD	PM	EVE	MD/AN	EVE
Sidewalks						
Sidewalks at LOS A/B/C	39	36	35	46	43	45
Sidewalks at LOS D	10	11	13	3	4	5
Sidewalks at LOS E	2	4	1	2	4	0
Sidewalks at LOS F	1	1	3	1	1	2
Total	52	52	52	52	52	52
Corner Reservoirs						
Corners at LOS A/B/C	73	73	71	76	76	75
Corners at LOS D	1	2	3	0	0	1
Corners at LOS E	2	2	1	1	0	0
Corners at LOS F	1	0	2	0	1	1
Total	77	77	77	77	77	77
Crosswalks						
Crosswalks at LOS A/B/C	24	17	18	30	26	31
Crosswalks at LOS D	7	9	12	6	9	5
Crosswalks at LOS E	5	12	5	3	3	2
Crosswalks at LOS F	5	3	6	2	3	3
Total	41	41	41	41	41	41

Notes: LOS = Level of service; MD = Midday; EVE = Evening; AN = Afternoon.

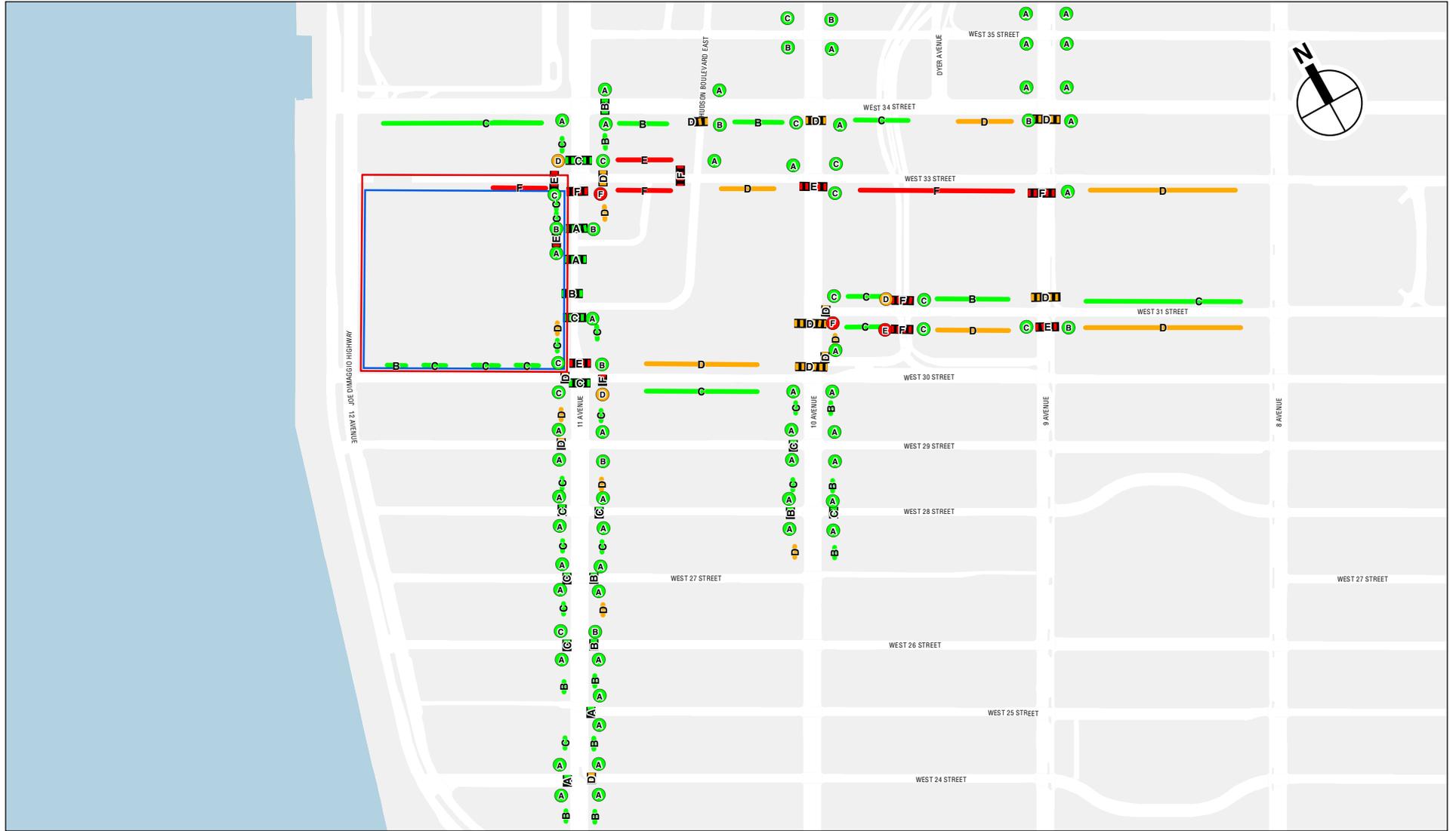
Table 14-50 summarizes the pedestrian elements that are expected to incur significant adverse impacts under the Proposed Project. There would be three, three, eight, and four significant adverse sidewalk impacts during the weekday AM, midday, PM, and evening peak hours; and five and six significant adverse sidewalk impacts during the Saturday midday/afternoon and evening peak hours, respectively. For corners, there would be two, zero, four, and one significant adverse impacts during the weekday AM, midday, PM, and evening peak hours; and one and two significant adverse impacts during the Saturday midday/afternoon and evening peak hours, respectively. And for crosswalks, there would be six, nine, 10, and seven significant adverse impacts during the weekday AM, midday, PM, and evening peak hours; and six and seven significant adverse impacts during the Saturday midday/afternoon and evening peak hours, respectively.



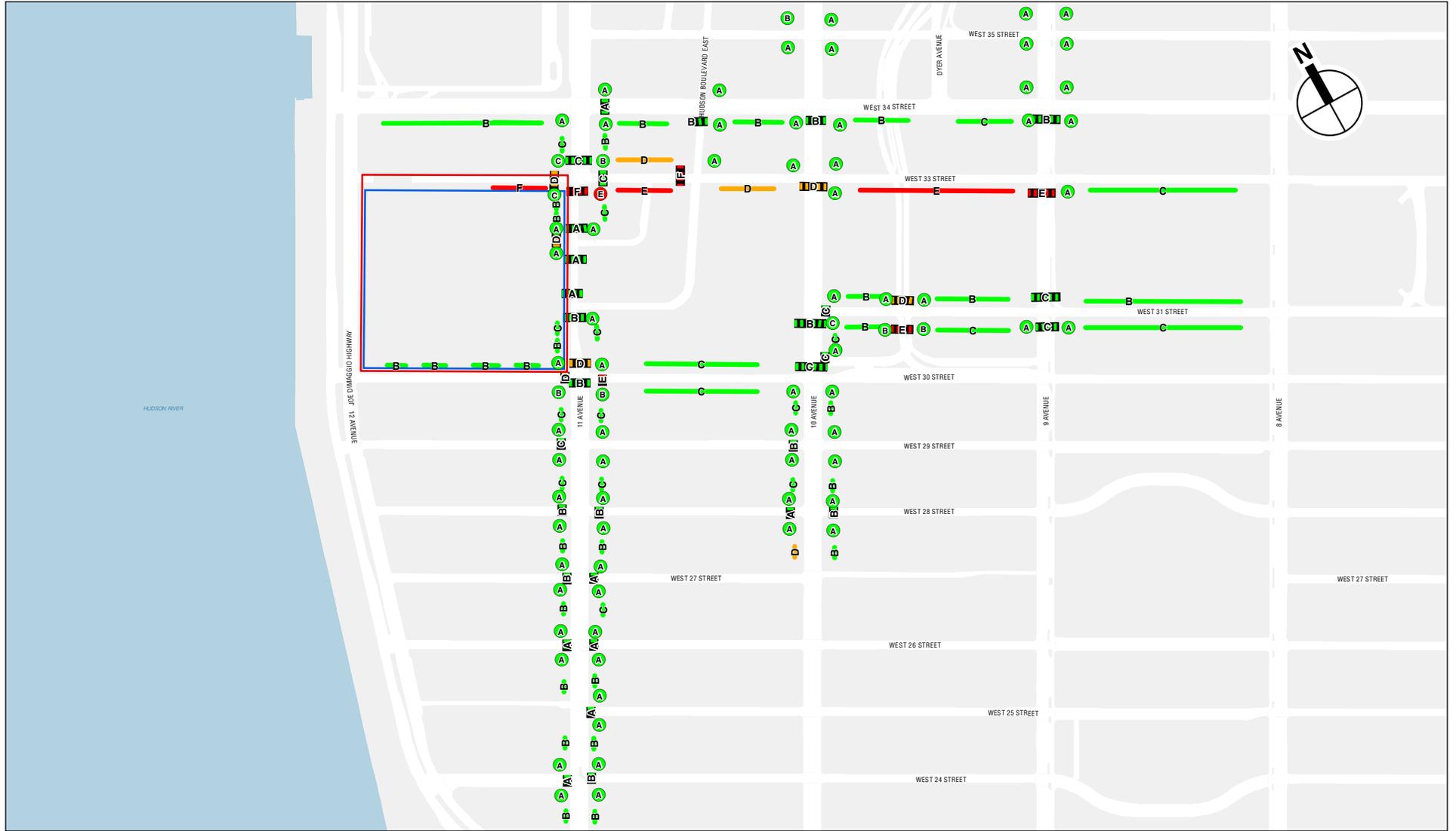
2031 With Action Condition Proposed Project
 Pedestrian Elements Level of Service
 Weekday AM Peak Hour



2031 With Action Proposed Project
 Pedestrian Elements Level of Service
 Weekday Midday Peak Hour

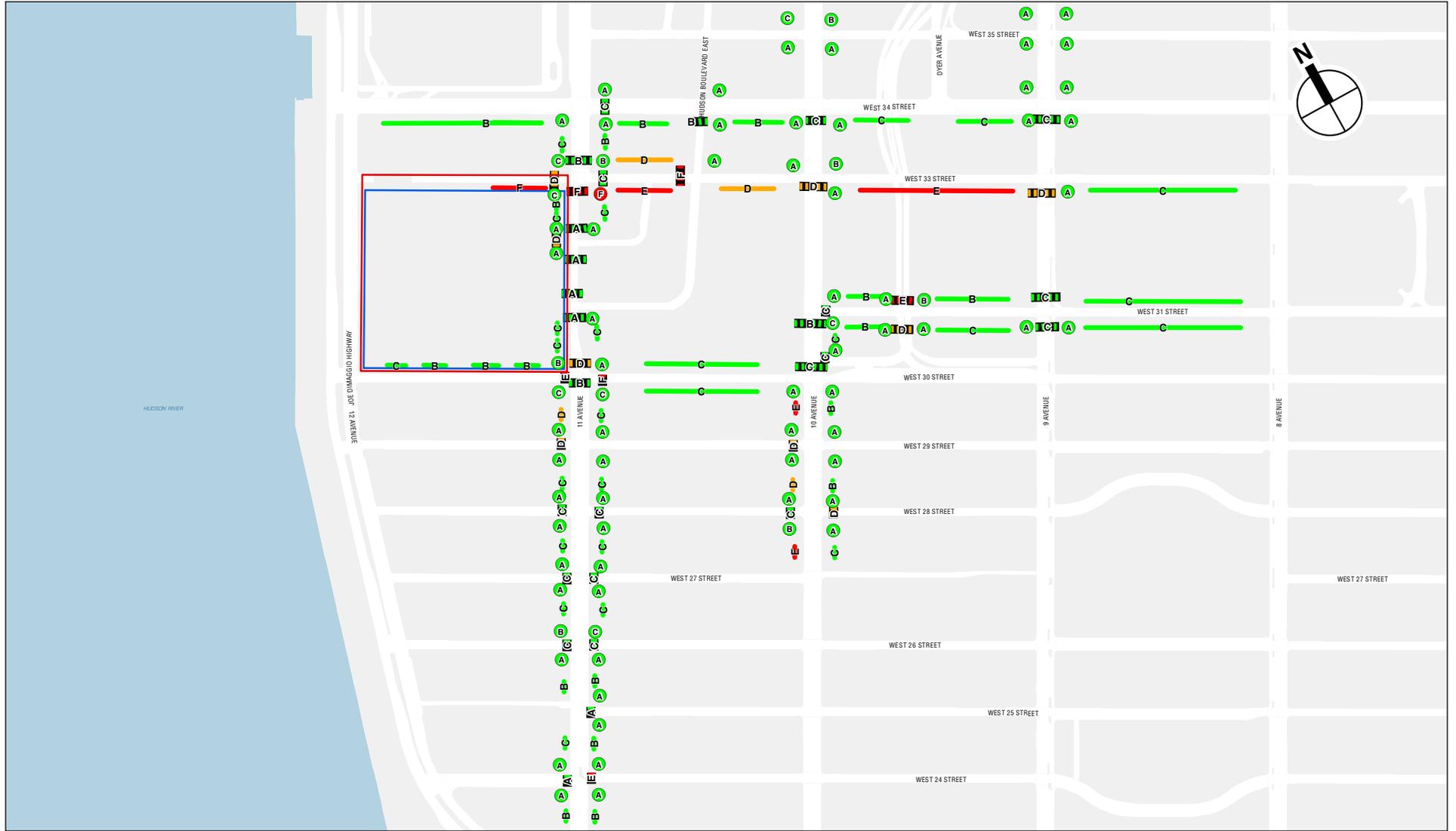


2031 With Action Proposed Project
 Pedestrian Elements Level of Service
 Weekday PM Peak Hour

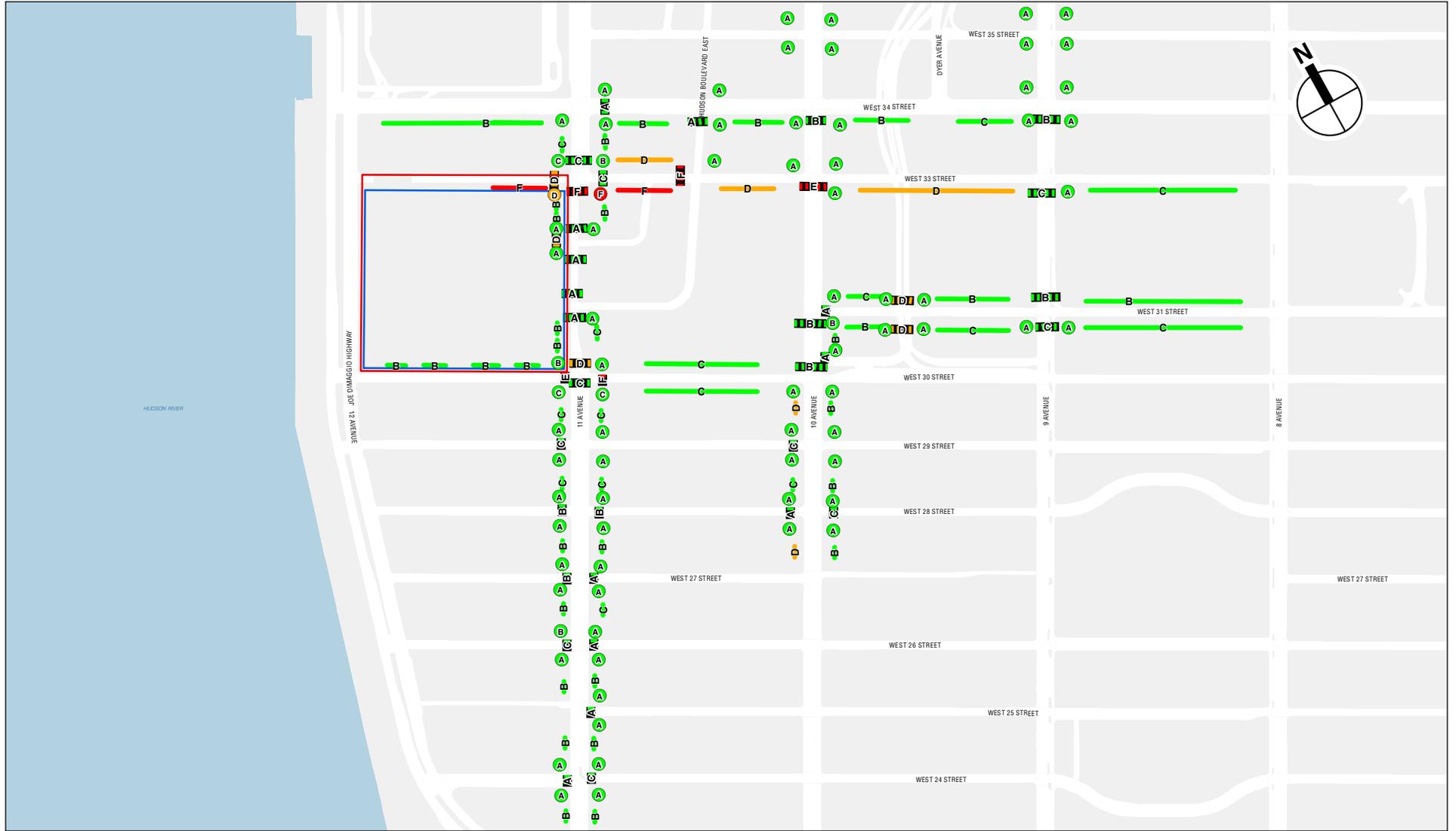


2031 With Action Proposed Project
 Pedestrian Elements Level of Service
 Weekday Evening Peak Hour

Figure 14-14d



2031 With Action Proposed Project
 Pedestrian Elements Level of Service
 Saturday Midday/Afternoon Peak Hour



2031 With Action Proposed Project
 Pedestrian Elements Level of Service
 Saturday Evening Peak Hour

Table 14-50

**2031 With Action Condition—Significant Adverse Pedestrian Impacts
Proposed Project**

Intersection	Pedestrian Element	Weekday				Saturday	
		AM	MD	PM	EVE	MD/AN	EVE
Sidewalks							
Eleventh Avenue and West 33rd Street	North sidewalk along West 33rd Street between Eleventh Avenue and Hudson Boulevard East			X	X		X
	East sidewalk along Eleventh Avenue and West 33rd Street and West 32nd Street	X		X			
	South sidewalk along West 33rd Street between Eleventh Avenue and Hudson Boulevard East		X	X	X	X	X
	South sidewalk along West 33rd Street between Site C entrance and Eleventh Avenue		X	X	X	X	X
Eleventh Avenue and West 31st Street	West sidewalk along Eleventh Avenue between West 31st Street and Site B entrance	X					
Tenth Avenue and West 33rd Street	South sidewalk along West 33rd Street between Tenth Avenue and Ninth Avenue		X		X	X	X
	South sidewalk along West 33rd Street between Hudson Boulevard East and Tenth Avenue					X	X
Tenth Avenue and West 31st Street	East sidewalk along Tenth Avenue between West 31st Street and Dyer Avenue	X		X			
Tenth Avenue and West 28th Street	West sidewalk along Tenth Avenue between West 28th Street and West 27th Street			X		X	X
Dyer Avenue and West 31st Street	South sidewalk along West 31st Street between Dyer Avenue and Ninth Avenue			X			
Ninth Avenue and West 31st Street	South sidewalk along West 31st Street between Ninth Avenue and Eighth Avenue			X			
Total Number of Impacted Sidewalks		3	3	8	4	5	6
		<i>Total During Any Analysis Peak hour</i>				10	
Corner Reservoirs							
Eleventh Avenue West 33rd Street	Northwest			X			
	Southwest						X
	Southeast			X	X	X	X
Tenth Avenue and West 31st Street	Southeast	X		X			
	Southwest			X			
Dyer Avenue and West 31st Street	Southwest	X					
	Southeast						
Total Number of Impacted Corners		2	0	4	1	1	2
		<i>Total During Any Analysis Peak hour</i>				5	

Table 14-50
2031 With Action Condition—Significant Adverse Pedestrian Impacts
Proposed Project

Intersection	Pedestrian Element	Weekday				Saturday	
		AM	MD	PM	EVE	MD/AN	EVE
Crosswalks							
Eleventh Avenue and West 33rd Street	East		X	X			
	South				X	X	X
	West		X	X	X	X	X
Eleventh Avenue and West 32nd Street	West	X		X			
Eleventh Avenue and West 30th Street	North	X	X	X			
	East	X	X	X	X	X	X
	West						X
Eleventh Avenue and West 24th Street	East		X			X	
Hudson Boulevard East and West 33rd Street	West		X	X	X	X	X
Tenth Avenue and West 33rd Street	South		X		X	X	X
Tenth Avenue and West 31st Street	South	X		X			
Tenth Avenue and West 30th Street	North		X	X			
Dyer Avenue and West 31st Street	North						X
	South	X		X	X		
Ninth Avenue and West 33rd Street	South				X		
Ninth Avenue and West 31st Street	South	X	X	X			
Total Number of Impacted Crosswalks		6	9	10	7	6	7
		<i>Total During Any Analysis Peak hour</i>				14	

Notes: MD = Midday; EVE = Evening; AN = Afternoon

THE FUTURE WITH THE ALTERNATIVE SCENARIO

The 2031 With Action Alternative Scenario pedestrian volumes for the six analysis peak hours are shown in **Appendix E**. Alternative Scenario incremental pedestrian trips were added onto the 2031 No Action pedestrian volumes to obtain the 2031 With Action pedestrian volumes.

CHANGES TO THE STUDY AREA STREET NETWORK

As detailed above for the Proposed Project, the Alternative Scenario would also assume the adoption of a City Map amendment and, in coordination with DOT, would adjust the grade of West 33rd Street, which currently slopes significantly between Eleventh and Twelfth Avenues, to align with the level of proposed development and to enhance public access to the Development Site. The Eleventh Avenue intersections with West 31st and West 32nd Street would also be signalized and the relevant crosswalks and corner elements at these two intersections have also been included for the pedestrian analysis. Based on the Alternative Scenario site plan, the Eleventh Avenue west sidewalk would be widened by approximately 2 to 3 feet along the Development Site frontages, except between West 33rd Street and Site C1, where it would be widened by approximately 12 feet. The West 33rd Street south sidewalk would be maintained at the same width as the No Action condition sidewalk width between Site C2, Site C1, and Eleventh Avenue. The West 30th Street north sidewalk, however, would be narrowed by approximately 7 to 10 feet in front of Sites A and B, as compared to the No Action condition.

STREET-LEVEL PEDESTRIAN OPERATIONS

The detailed 2031 With Action condition sidewalk, corner reservoir, and crosswalk analysis results are presented in **Appendix E**. A summary of these results is presented in **Table 14-51**.

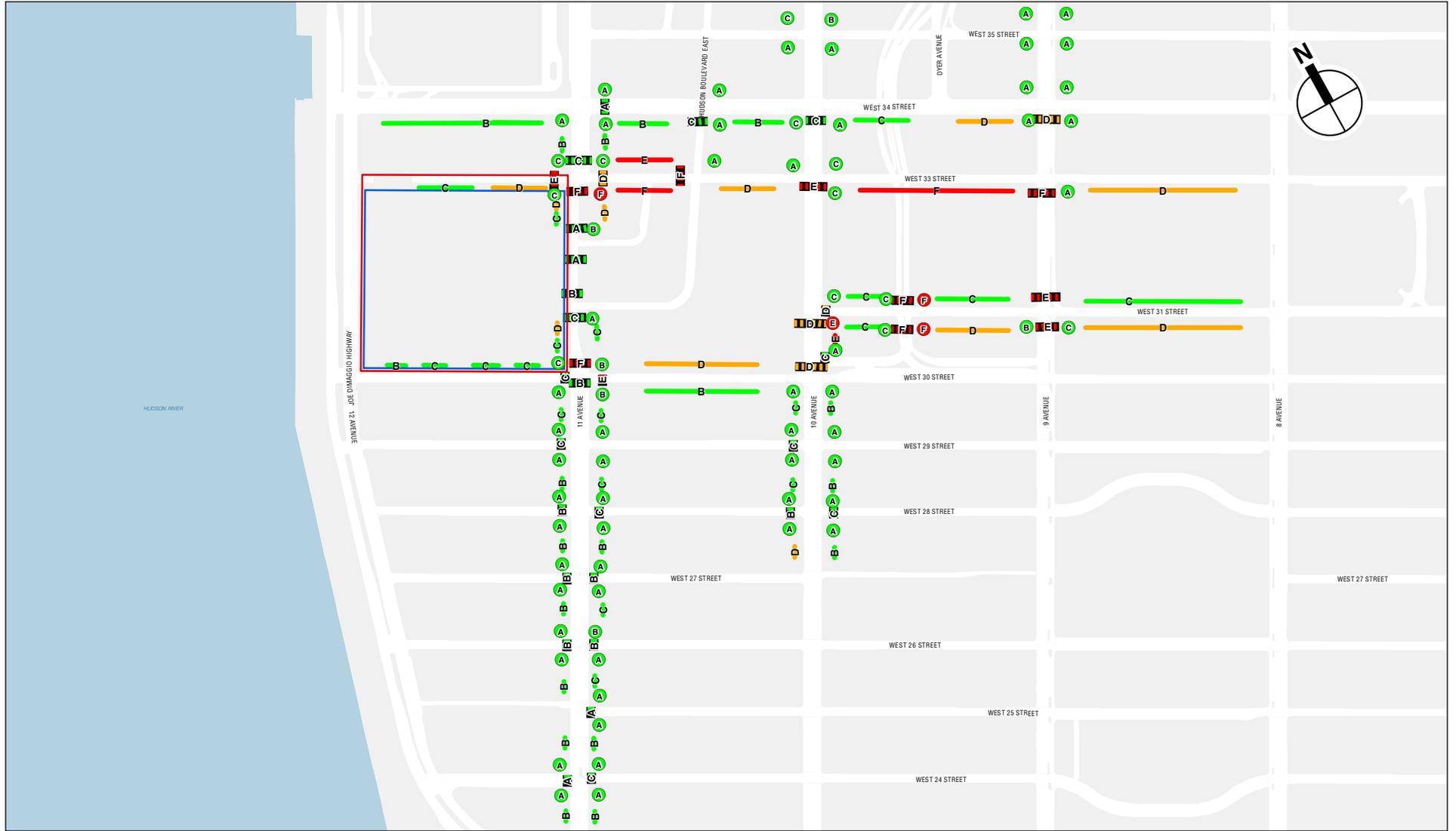
Figures 14-15a to 14-15f provide illustrations of the overall LOS results at the study area pedestrian elements for the six analysis peak hours.

Table 14-51
2031 With Action Condition Pedestrian Analysis Results
Alternative Scenario

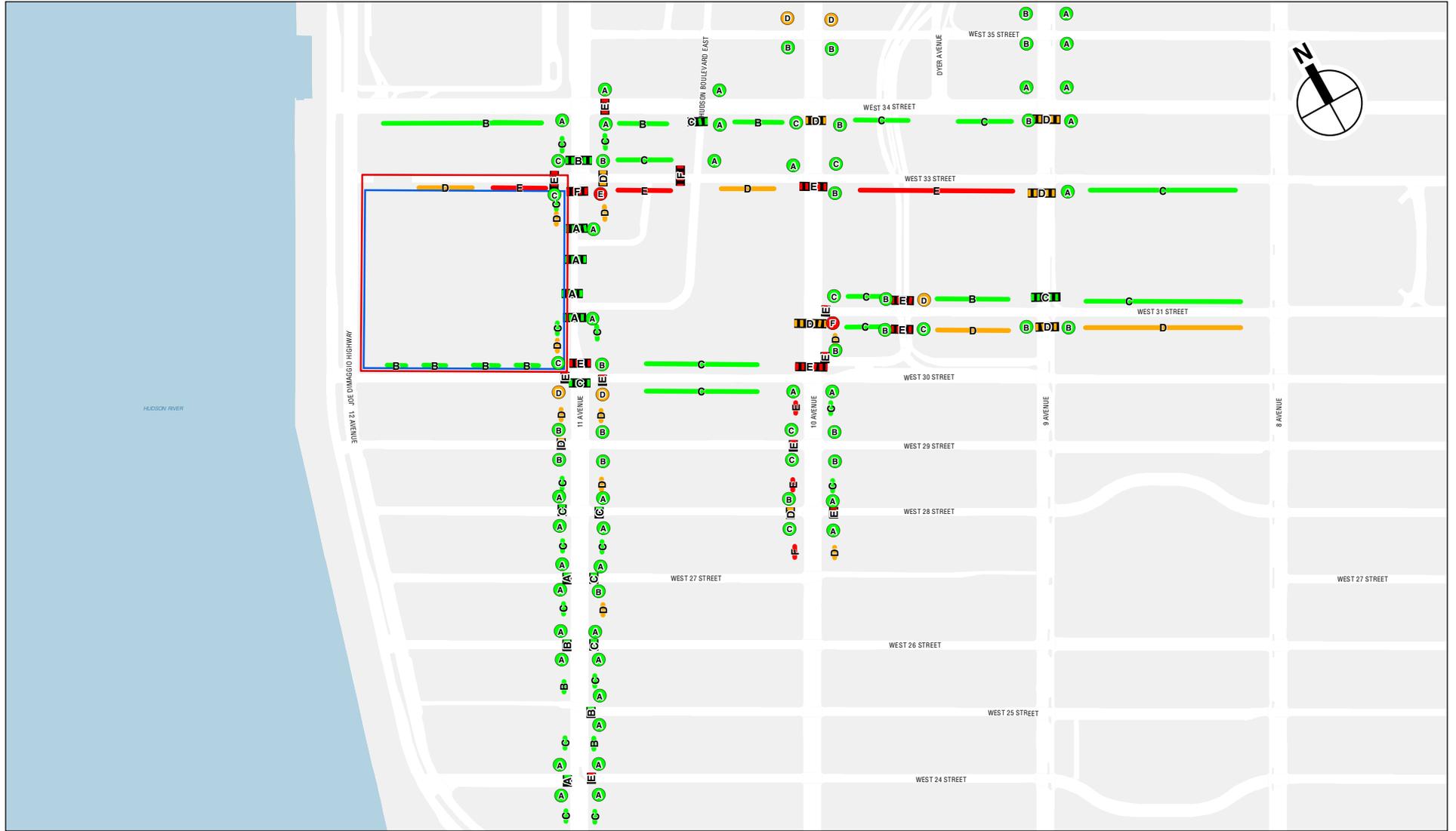
Level of Service	Analysis Peak Hours					
	Weekday				Saturday	
	AM	MD	PM	EVE	MD/AN	EVE
Sidewalks						
Sidewalks at LOS A/B/C	38	34	34	46	44	45
Sidewalks at LOS D	11	13	12	4	7	5
Sidewalks at LOS E	2	5	3	3	2	1
Sidewalks at LOS F	2	1	4	0	0	2
Total	53	53	53	53	53	53
Corner Reservoirs						
Corners at LOS A/B/C	71	68	66	74	74	72
Corners at LOS D	0	5	3	1	1	2
Corners at LOS E	1	1	4	0	0	0
Corners at LOS F	3	1	2	0	0	1
Total	75	75	75	75	75	75
Crosswalks						
Crosswalks at LOS A/B/C	24	16	17	31	27	31
Crosswalks at LOS D	5	8	10	6	7	6
Crosswalks at LOS E	5	14	5	1	4	1
Crosswalks at LOS F	6	2	8	2	2	2
Total	40	40	40	40	40	40

Notes: LOS = Level of service; MD = Midday; EVE = Evening; AN = Afternoon.

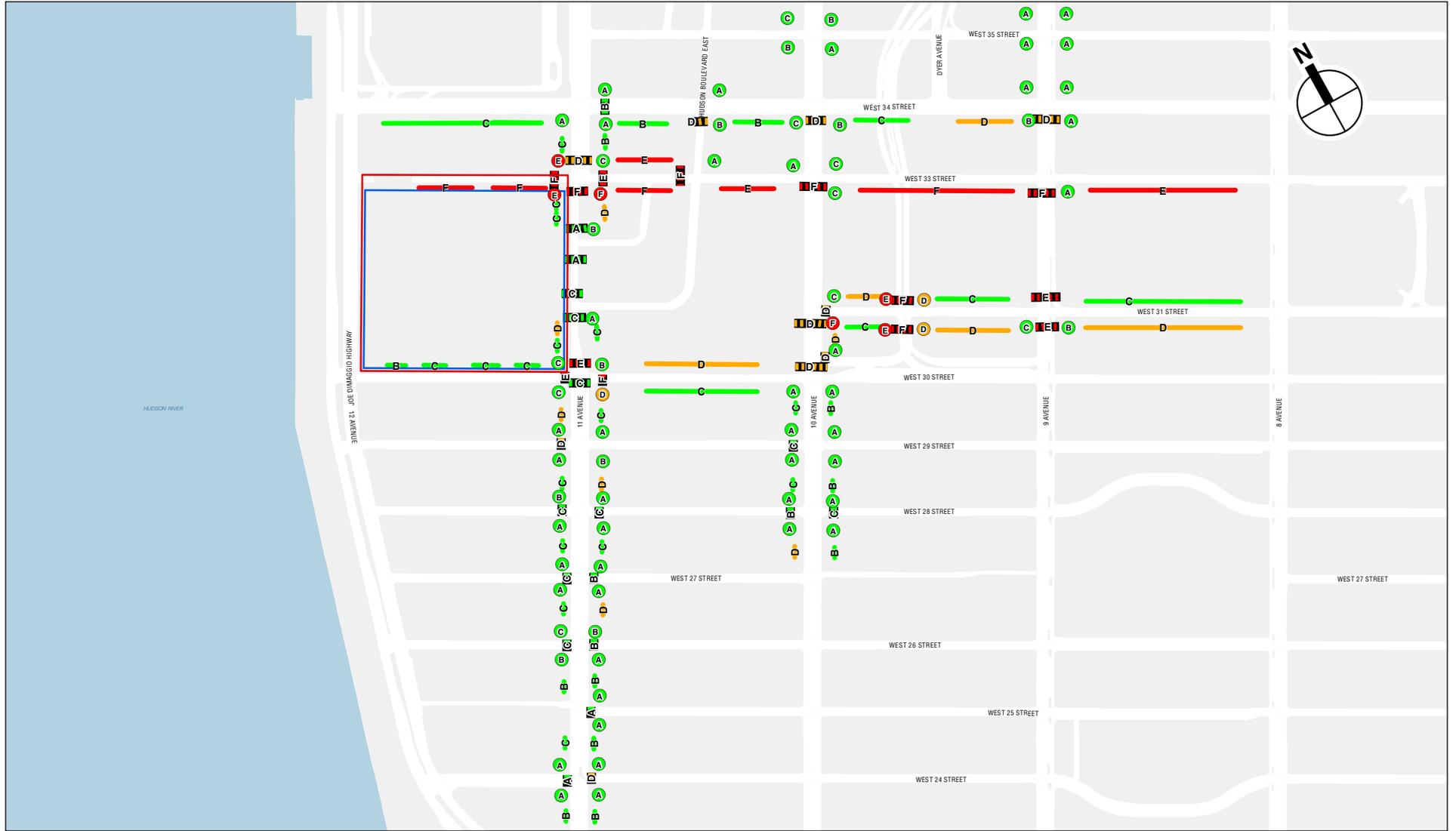
Table 14-52 summarize the pedestrian elements that are expected to incur significant adverse impacts under the Alternative Scenario. There would be four, five, 10, and three significant adverse sidewalk impacts during the weekday AM, midday, PM, and evening peak hours; and two and seven significant adverse sidewalk impacts during the Saturday midday/afternoon and evening peak hours, respectively. For corners, there would be three, two, six, and zero significant adverse impacts during the weekday AM, midday, PM, and evening peak hours; and zero and one significant adverse impact during the Saturday midday/afternoon and evening peak hour, respectively. And for crosswalks, there would be 10, 16, 16, and four significant adverse impacts during the weekday AM, midday, PM, and evening peak hours; and two and seven significant adverse impacts during the Saturday midday/afternoon and evening peak hours, respectively.



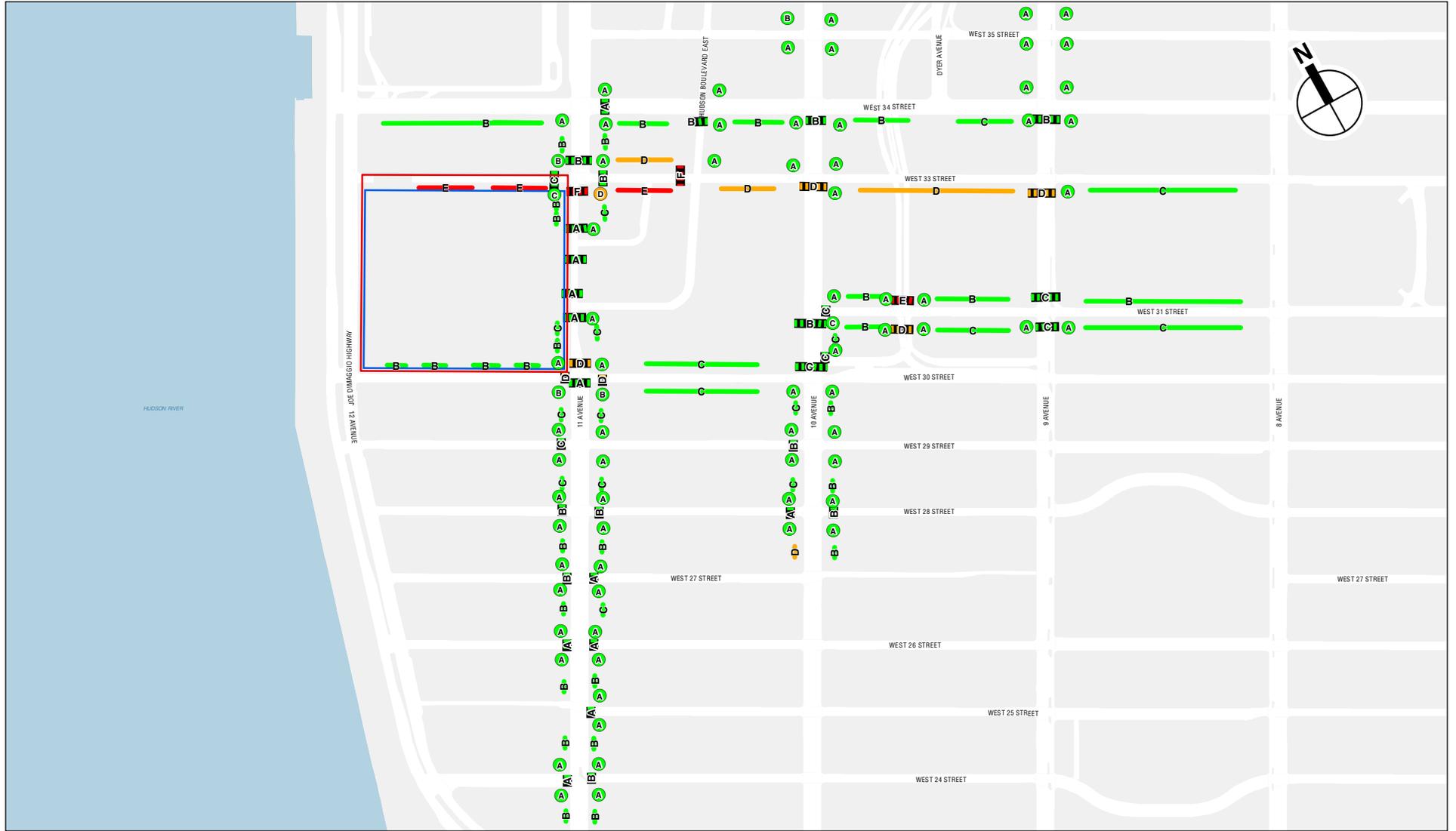
2031 With Action Condition Alternative Scenario
 Pedestrian Elements Level of Service
 Weekday AM Peak Hour



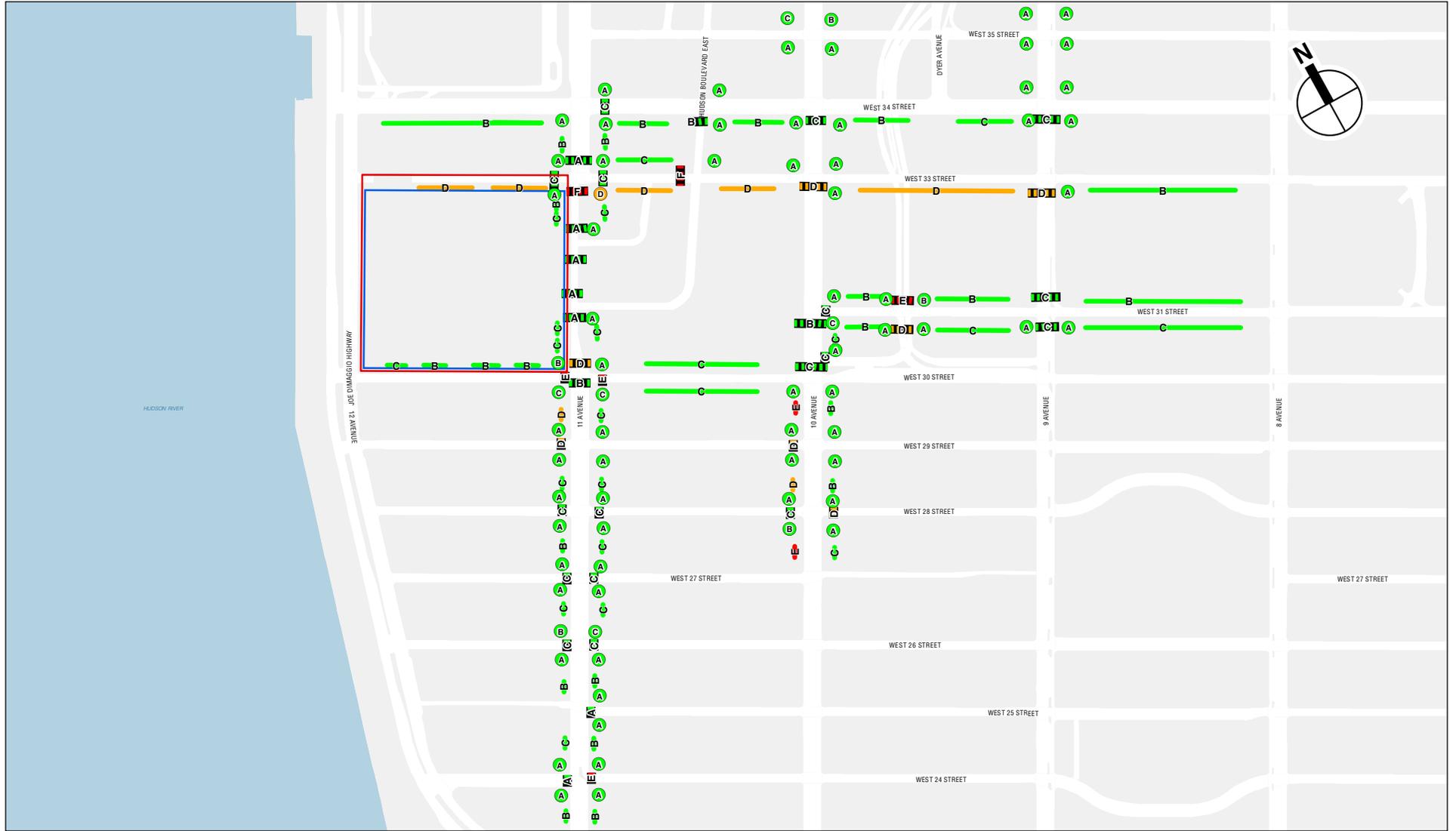
2031 With Action Alternative Scenario
 Pedestrian Elements Level of Service
 Weekday Midday Peak Hour



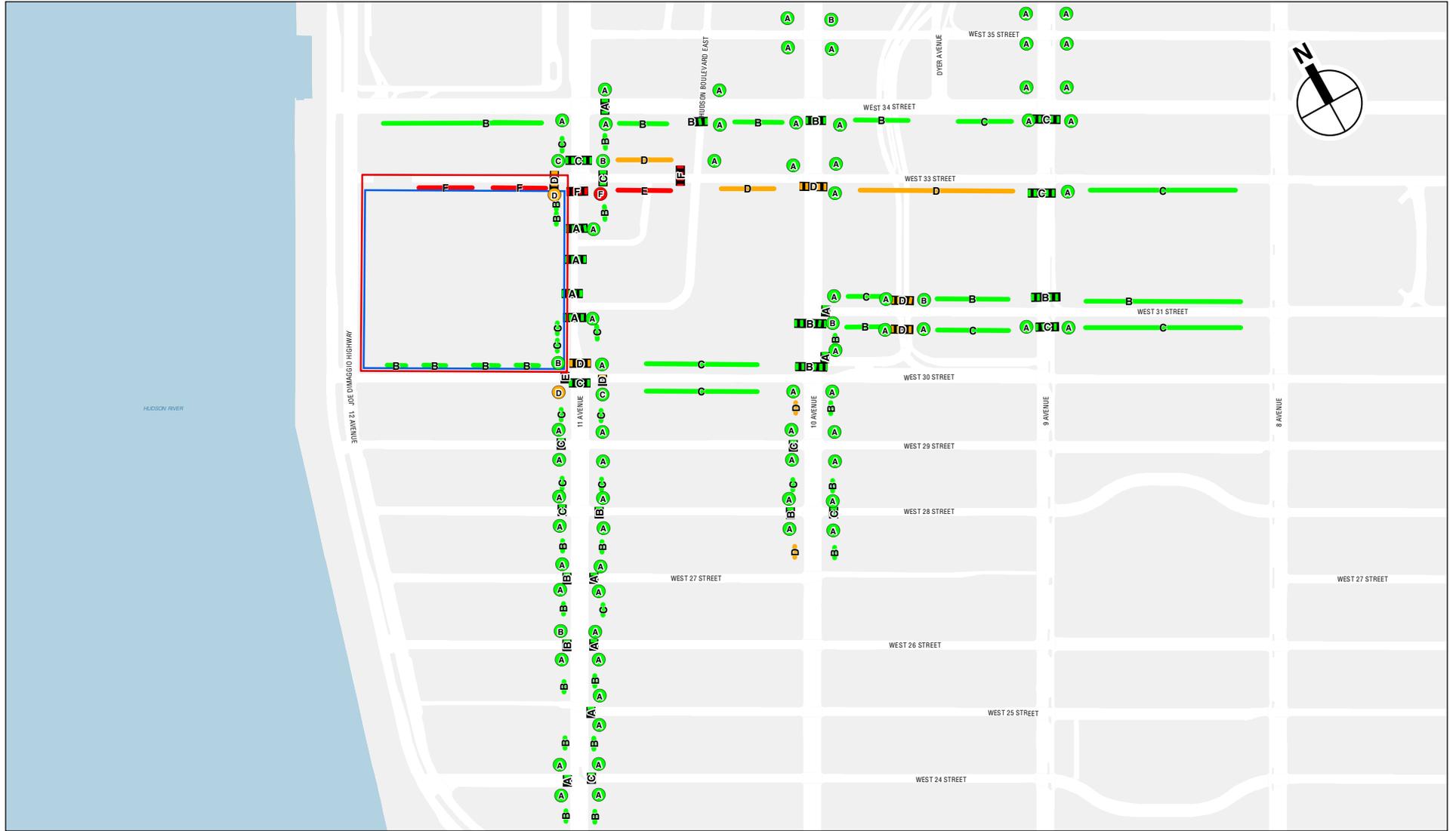
2031 With Action Alternative Scenario
 Pedestrian Elements Level of Service
 Weekday PM Peak Hour



2031 With Action Alternative Scenario
 Pedestrian Elements Level of Service
 Weekday Evening Peak Hour



2031 With Action Alternative Scenario
 Pedestrian Elements Level of Service
 Saturday Midday/Afternoon Peak Hour



2031 With Action Alternative Scenario
 Pedestrian Elements Level of Service
 Saturday Evening Peak Hour

Western Rail Yard Modifications

Table 14-52
2031 With Action Condition—Significant Adverse Pedestrian Impacts
Alternative Scenario

Intersection	Pedestrian Element	Weekday				Saturday	
		AM	MD	PM	EVE	MD/AN	EVE
Sidewalks							
Eleventh Avenue and West 33rd Street	South sidewalk along West 33rd Street between Sites C2 and C1			X	X	X	X
	North sidewalk along West 33rd Street between Eleventh Avenue and Hudson Boulevard East	X		X			X
	East sidewalk along Eleventh Avenue and West 33rd Street and West 32nd Street	X		X			
	South sidewalk along West 33rd Street between Eleventh Avenue and Hudson Boulevard East	X	X	X	X		X
	South sidewalk along West 33rd Street between Site C1 and Eleventh Avenue			X	X		X
Eleventh Avenue and West 30th Street	West sidewalk along Eleventh Avenue between West 30th Street and West 29th Street		X				
Eleventh Avenue and West 29th Street	East sidewalk along Eleventh Avenue between West 29th Street and West 28th Street		X				
Tenth Avenue and West 33rd Street	South sidewalk along West 33rd Street between Tenth Avenue and Ninth Avenue						X
	South sidewalk along West 33rd Street between Hudson Boulevard East and Tenth Avenue			X			X
Tenth Avenue and West 31st Street	East sidewalk along Eleventh Avenue between West 31st Street and Dyer Avenue	X		X			
Tenth Avenue and West 29th Street	West sidewalk along Eleventh Avenue between West 29th Street and West 28th Street		X				
Tenth Avenue and West 28th Street	West sidewalk along Eleventh Avenue between West 28th Street and West 27th Street		X	X		X	X
Dyer Avenue and West 31st Street	South sidewalk along West 31st Street between Dyer Avenue and Ninth Avenue			X			
Ninth Avenue and West 31st Street	South sidewalk along West 31st Street between Ninth Avenue and Eighth Avenue			X			
Total Number of Impacted Sidewalks		4	5	10	3	2	7
		<i>Total During Any Analysis Peak hour</i>			13		7
Corner Reservoirs							
Eleventh Avenue and West 33rd Street	Northwest			X			
	Southeast			X			X
Tenth Avenue and West 35th Street	Northeast		X				
Tenth Avenue and West 31st Street	Southeast	X	X	X			
Dyer Avenue and West 31st Street	Northwest			X			
	Northeast	X		X			
	Southwest			X			
	Southeast	X					
Total Number of Impacted Corners		3	2	6	0	0	1
		<i>Total During Any Analysis Peak hour</i>			8		1

Table 14-52

**2031 With Action Condition—Significant Adverse Pedestrian Impacts
Alternative Scenario**

Intersection	Pedestrian Element	Weekday				Saturday	
		AM	MD	PM	EVE	MD/AN	EVE
Crosswalks							
Eleventh Avenue and West 34th Street	East		X				
Eleventh Avenue and West 33rd Street	North			X			
	East	X	X	X			
	South			X	X		X
	West	X	X	X			X
Eleventh Avenue and West 30th Street	North	X	X	X			
	East		X	X		X	X
	West		X	X			X
Eleventh Avenue and West 29th Street	West		X	X			
Eleventh Avenue and West 24th Street	East		X			X	
Hudson Boulevard East and West 33rd Street	West	X		X	X		X
Tenth Avenue and West 33rd Street	South			X			X
Tenth Avenue and West 31st Street	East	X					
	South	X		X			
Tenth Avenue and West 30th Street	North		X	X			
Tenth Avenue and West 29th Street	West		X				
Tenth Avenue and West 28th Street	East		X				
	West		X				
Dyer Avenue and West 31st Street	North	X	X	X	X		X
	South	X	X	X	X		
Ninth Avenue and West 34th Street	South		X				
Ninth Avenue and West 31st Street	North	X		X			
	South	X	X	X			
Total Number of Impacted Crosswalks		10	16	16	4	2	7
		<i>Total During Any Analysis Peak hour</i>			23		8

Notes: MD = Midday; EVE = Evening; AN = Afternoon

G. STREET USER SAFETY

Crash data for the study area intersections were obtained from DOT for the period between January 1, 2017 and December 31, 2019. The data obtained quantify the total number of crashes, fatalities, and injuries during the study period, as well as a yearly breakdown of vehicular crashes with pedestrians and bicycles at each location. During the three-year study period, a total of 1,638 crashes, four fatalities, 751 injuries, and 321 pedestrian/bicyclist-related crashes occurred at the study area intersections. A rolling yearly total of crash data identifies 29 study area intersections as high crash locations as summarized in **Table 14-53**.

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Table 14-53
Crash Summary

Intersection		Study Period					Crashes by Year								
North-South Roadway	East-West Roadway	All Crashes by Year			All Crashes Highest 12-Month Rolling	Total Fatalities	Total Injuries	Pedestrian			Bicycle			Ped + Bike 12 consecutive month maximum	
		2017	2018	2019				2017	2018	2019	2017	2018	2019		
6 AVENUE*	WEST 23 STREET*	11	22	23	23	0	31	4	5	2	1	1	4	6	
6 AVENUE*	WEST 28 STREET*	0	6	12	13	0	6	0	1	1	0	0	1	2	
6 AVENUE*	WEST 29 STREET*	0	11	7	13	0	5	0	1	0	0	1	1	2	
7 AVENUE*	WEST 23 STREET*	5	8	7	13	0	12	2	4	1	1	1	2	6	
7 AVENUE*	WEST 28 STREET*	5	8	10	13	0	11	3	3	2	1	0	0	5	
7 AVENUE*	WEST 29 STREET*	3	5	8	9	1	9	0	2	2	2	0	1	3	
7 AVENUE*	WEST 30 STREET*	2	8	9	10	0	4	0	0	0	1	0	1	1	
8 AVENUE*	WEST 23 STREET*	6	8	6	10	0	11	2	0	2	1	1	0	3	
8 AVENUE*	WEST 28 STREET*	3	7	5	10	0	7	0	0	1	0	0	0	1	
8 AVENUE*	WEST 29 STREET*	5	10	4	11	0	11	1	2	1	1	4	0	7	
8 AVENUE*	WEST 30 STREET*	1	10	8	13	0	12	1	4	2	0	0	1	5	
8 AVENUE*	WEST 31 STREET*	11	17	20	23	0	20	0	3	1	0	1	0	4	
8 AVENUE*	WEST 33 STREET*	4	12	13	15	0	9	0	1	0	0	0	2	3	
8 AVENUE**	WEST 34 STREET**	6	14	8	16	0	17	2	4	1	0	1	1	5	
8 AVENUE*	WEST 35 STREET*	4	10	7	13	0	5	0	3	1	0	1	0	4	
8 AVENUE*	WEST 36 STREET*	5	5	10	11	0	12	1	1	2	0	0	0	2	
8 AVENUE*	WEST 37 STREET*	3	8	11	13	0	12	2	0	2	0	0	0	2	
8 AVENUE*	WEST 42 STREET*	7	28	20	29	0	21	3	5	5	0	1	2	9	
9 AVENUE*	WEST 23 STREET*	6	6	7	8	0	9	1	2	1	2	0	0	3	
9 AVENUE*	WEST 28 STREET*	5	4	3	5	0	9	0	1	0	1	1	1	2	
9 AVENUE*	WEST 29 STREET*	4	3	1	5	0	9	1	1	0	0	0	0	2	
9 AVENUE*	WEST 30 STREET*	6	8	7	20	0	22	2	4	0	0	2	0	6	
9 AVENUE*	WEST 31 STREET*	2	8	11	12	0	13	0	1	4	0	0	1	5	
9 AVENUE*	WEST 33 STREET*	1	4	6	6	0	6	1	1	2	0	0	0	2	
9 AVENUE*	WEST 34 STREET*	5	14	7	16	0	8	1	1	3	0	0	0	4	
9 AVENUE*	WEST 35 STREET*	3	4	10	12	0	4	1	0	0	0	0	0	1	
9 AVENUE*	WEST 36 STREET*	3	13	8	14	0	9	1	2	2	0	0	0	3	
9 AVENUE*	WEST 37 STREET*	9	15	8	19	0	21	2	4	0	0	0	0	6	
9 AVENUE*	WEST 42 STREET*	12	31	22	33	0	30	3	4	2	2	4	2	9	
10 AVENUE*	WEST 23 STREET*	7	8	7	10	0	13	1	1	1	1	0	0	2	
10 AVENUE*	WEST 24 STREET*	6	3	5	6	0	7	1	1	0	0	0	0	1	
10 AVENUE*	WEST 25 STREET*	2	6	4	7	0	5	0	1	1	2	1	0	2	
10 AVENUE*	WEST 26 STREET*	7	7	7	9	0	8	1	1	0	0	0	1	2	
10 AVENUE*	WEST 27 STREET*	2	9	6	12	0	4	2	0	1	0	1	0	2	
10 AVENUE*	WEST 28 STREET*	5	11	3	12	0	12	0	2	0	1	0	0	3	
10 AVENUE*	WEST 29 STREET*	7	13	7	15	0	4	0	0	0	0	0	1	1	
10 AVENUE*	WEST 31 STREET*	1	7	7	10	0	4	0	0	0	0	1	0	1	
10 AVENUE*	WEST 33 STREET*	2	8	12	16	0	4	0	1	0	0	0	0	1	
10 AVENUE*	WEST 34 STREET*	12	18	11	20	1	16	1	3	0	0	0	1	3	
10 AVENUE*	WEST 35 STREET*	3	4	8	8	0	6	0	0	0	0	2	0	2	
10 AVENUE*	WEST 36 STREET*	5	7	4	10	0	5	1	2	0	0	0	0	2	
10 AVENUE*	WEST 37 STREET*	4	6	11	14	0	16	0	0	1	0	0	0	1	
10 AVENUE*	WEST 38 STREET*	5	10	4	11	0	9	0	2	0	0	1	0	3	
10 AVENUE*	WEST 39 STREET*	9	14	11	16	0	15	0	2	0	1	1	2	4	
10 AVENUE*	WEST 40 STREET*	4	10	5	24	0	30	2	4	0	0	0	0	6	
10 AVENUE*	WEST 41 STREET*	13	35	35	38	0	20	0	3	1	0	1	1	4	
10 AVENUE*	WEST 42 STREET*	12	13	19	26	0	17	2	3	5	2	1	1	8	
10 AVENUE*	WEST 30 STREET / LINCOLN TUNNEL APPROACH*	8	13	13	15	0	12	1	3	0	1	0	0	4	
11 AVENUE	WEST 22 STREET	3	3	2	5	0	3	1	0	0	0	1	0	1	
11 AVENUE*	WEST 23 STREET*	1	7	4	9	0	3	0	0	0	0	0	0	0	
11 AVENUE	WEST 24 STREET	2	6	5	8	0	5	0	0	0	0	1	0	1	
11 AVENUE	WEST 25 STREET	1	0	5	5	0	2	0	0	1	0	0	0	1	
11 AVENUE	WEST 26 STREET	1	7	3	7	0	9	1	0	0	0	0	0	1	
11 AVENUE	WEST 27 STREET	1	3	3	5	0	4	0	1	0	0	0	0	1	
11 AVENUE	WEST 28 STREET	1	2	5	6	0	3	1	0	1	0	0	1	2	
11 AVENUE	WEST 29 STREET	0	0	1	1	0	0	0	0	0	0	0	0	0	
11 AVENUE	WEST 30 STREET	7	7	14	17	1	13	0	0	1	2	0	2	3	

**Table 14-53
Crash Summary**

Intersection		Study Period						Crashes by Year						
North-South Roadway	East-West Roadway	All Crashes by Year			All Crashes Highest 12-Month Rolling	Total Fatalities	Total Injuries	Pedestrian			Bicycle			Ped + Bike 12 consecutive month maximum
		2017	2018	2019				2017	2018	2019	2017	2018	2019	
		11 AVENUE	WEST 33 STREET	2				0	6	6	0	2	1	
11 AVENUE**	WEST 34 STREET**	13	13	15	19	0	23	4	5	4	1	1	0	7
11 AVENUE	WEST 35 STREET	0	2	0	2	0	1	0	1	0	0	0	0	1
11 AVENUE	WEST 36 STREET	3	5	5	9	0	5	0	1	0	0	0	1	2
11 AVENUE	WEST 37 STREET	1	5	3	5	0	3	0	0	0	0	0	0	0
11 AVENUE	WEST 38 STREET	1	2	3	4	0	5	0	0	0	0	1	0	1
11 AVENUE	WEST 39 STREET	2	8	8	9	0	5	0	0	1	0	0	1	2
11 AVENUE	WEST 41 STREET	7	12	18	18	0	20	1	0	1	0	0	1	2
11 AVENUE*	WEST 42 STREET*	13	32	32	45	1	37	2	4	3	1	1	0	7
12 AVENUE	WEST 29 STREET	3	2	7	9	0	2	0	1	0	0	0	0	1
12 AVENUE	WEST 30 STREET	7	6	7	8	0	11	0	0	0	0	0	0	0
12 AVENUE*	WEST 42 STREET*	7	23	18	26	0	12	0	2	1	0	0	0	2
12 AVENUE	WEST 41 STREET	5	2	5	6	0	6	1	0	0	1	0	0	2
12 AVENUE	WEST 54 STREET	7	9	8	12	0	15	0	0	1	2	1	0	2

Notes: Bold text denotes high crash location. A high crash location is defined as Vision Zero high priority intersections; intersections where five or more pedestrian/bicycle injury crashes in any consecutive 12-month period; or intersections along a Vision Zero priority corridor with three or more pedestrian/bicycle injury crashes in any consecutive 12-month period.
Asterisk (*) denotes a location within the Vision Zero priority corridor. Double asterisk (**) denotes a Vision Zero high priority intersection.
Source: DOT January 1, 2017 to December 31, 2019 crash data.

Appendix E presents a detailed description of each pedestrian/bicyclist-related crash at the high crash locations during the three-year period. In addition to the City’s continuing efforts to enhance traffic, bicyclist, and pedestrian safety along Vision Zero priority intersections and corridors, other potential safety improvement measures where available are identified below for future consideration.

HIGH CRASH LOCATIONS

A detailed summary of each pedestrian/bicyclist-related crash at the high crash locations is presented in **Appendix E**. As identified from the crash data, most incidents observed at high crash locations were attributed to inattentiveness and failure to yield by motorists, as well as pedestrians and bicyclists. In recent years, the City’s Vision Zero initiatives have led to the implementation of many safety interventions across the five boroughs. These include separated bike lanes, high-visibility crosswalks, narrowed travel lanes, changes in signal timing to curb speeding, and addition of pedestrian signal countdown timers. Based on the review performed for each of the high crash locations, additional safety measures are recommended where available to further enhance safety at these locations.

ELEVENTH AVENUE AND WEST 42ND STREET

Based on the review of the crash history at the intersection of Eleventh Avenue and West 42nd Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the detectable warning surfaces on the southeast curb ramp are missing, and the pedestrian signals on the southeast corner

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facing the south crosswalk and on the northeast corner facing the north crosswalk are missing countdown timers. Despite these issues, the curb ramps appear to be in good condition. There were 11 pedestrian crashes at this location from 2017 to 2019. This intersection experiences a high volume of pedestrians and frequent congestion due to its proximity to the Lincoln Tunnel. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 100 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 90 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Given the high pedestrian activity and frequent congestion, this intersection should be considered for improvements to address the missing detectable warning surfaces and countdown timers to enhance pedestrian safety. This intersection is also part of a Vision Zero high priority corridor.

ELEVENTH AVENUE AND WEST 34TH STREET

Based on the review of the crash history at the intersection of Eleventh Avenue and West 34th Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. The curb ramps are in good condition, but the detectable warning surfaces are missing on the northeast, northwest, and southwest corners. Additionally, the pedestrian signals on the northeast corner for the east crosswalk and on the southwest corner for the south crosswalk are missing countdown timers. Striping at the intersection is in good condition. There were 15 pedestrian crashes at this location, with nine involving pedestrians crossing with the signal. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 360 or fewer vehicle trips and 140 or fewer pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 260 or fewer vehicle trips and 220 or fewer pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the missing detectable warning surfaces and countdown timers. As detailed in Chapter 22, "Mitigation," the recommended pedestrian measure at this intersection under the Alternative Scenario would include widening the east crosswalk from 15.5 feet to 16 feet. This intersection is a Vision Zero high priority intersection and also part of a high priority corridor.

TENTH AVENUE AND WEST 42ND STREET

Based on the review of the crash history at the intersection of Tenth Avenue and West 42nd Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the detectable warning surface on the northwest corner is missing, and the north crosswalk is faded. There is a heavy northbound left-turn movement at this intersection in which aggressive drivers were observed to put pedestrians in danger. There were 14 pedestrian crashes at this location, with six involving pedestrians crossing with the signal. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak

hour volume increases of approximately 130 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 60 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the missing detectable warning surface, and restripe the faded crosswalk to enhance pedestrian safety. This intersection is also part of a Vision Zero high priority corridor. As detailed above, DOT is planning to undertake additional pedestrian and bicycle improvements as part of its Tenth Avenue SIP from West 52nd Street to West 14th Street which is expected to further improve pedestrian safety at this intersection in the future.

TENTH AVENUE AND WEST 41ST STREET

Based on the review of the crash history at the intersection of Tenth Avenue and West 41st Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the detectable warning surface on the southeast corner is missing due to ongoing construction. There were six pedestrian crashes at this location, with four involving pedestrians crossing with the signal. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 100 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 50 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the missing detectable warning surface. This intersection is also part of a Vision Zero high priority corridor. As detailed above, DOT is planning to undertake additional pedestrian and bicycle improvements as part of its Tenth Avenue SIP from West 52nd Street to West 14th Street which is expected to further improve pedestrian safety at this intersection in the future.

TENTH AVENUE AND WEST 40TH STREET

Based on the review of the crash history at the intersection of Tenth Avenue and West 40th Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the detectable warning surfaces on the northeast and southeast corners are missing, and the east and west crosswalks should be restriped. There were three pedestrian crashes at this location, with two involving pedestrians crossing with the signal. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 110 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 60 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the missing detectable

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warning surfaces and to restripe the east and west crosswalks to enhance pedestrian safety. This intersection is also part of a Vision Zero high priority corridor. As detailed above, DOT is planning to undertake additional pedestrian and bicycle improvements as part of its Tenth Avenue SIP from West 52nd Street to West 14th Street which is expected to further improve pedestrian safety at this intersection in the future.

TENTH AVENUE AND WEST 39TH STREET

Based on the review of the crash history at the intersection of Tenth Avenue and West 39th Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the curb ramp on the southwest corner is missing, and all detectable warning surfaces are missing. Additionally, the pedestrian signal on the southeast corner for the south crosswalk is missing a countdown timer. There were six pedestrian crashes at this location, but no specific prevailing crash type was identified. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 160 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 110 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the missing curb ramp, detectable warning surfaces, and countdown timers. This intersection is also part of a Vision Zero high priority corridor. As detailed above, DOT is planning to undertake additional pedestrian and bicycle improvements as part of its Tenth Avenue SIP from West 52nd Street to West 14th Street which is expected to further improve pedestrian safety at this intersection in the future.

TENTH AVENUE AND WEST 38TH STREET

Based on the review of the crash history at the intersection of Tenth Avenue and West 38th Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the curb ramps on the northwest corner and on the northeast corner for the north crosswalk are missing. There were three pedestrian crashes at this location, but no specific prevailing crash type was identified. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 160 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 120 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the missing curb ramps. This intersection is also part of a Vision Zero high priority corridor. As detailed above, DOT is planning to undertake additional pedestrian and bicycle improvements as part of its Tenth Avenue SIP from West 52nd Street to West 14th Street which is expected to further improve pedestrian safety at this intersection in the future.

TENTH AVENUE AND WEST 34TH STREET

Based on the review of the crash history at the intersection of Tenth Avenue and West 34th Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the east crosswalk striping is faded and should be restriped. There were five pedestrian crashes at this location, but no specific prevailing crash type was identified. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 290 or fewer vehicle trips and 120 or fewer pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 210 or fewer vehicle trips and 210 or fewer pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, the east crosswalk should be restriped to enhance pedestrian safety. This intersection is also part of a Vision Zero high priority corridor. As detailed above, DOT is planning to undertake additional pedestrian and bicycle improvements as part of its Tenth Avenue SIP from West 52nd Street to West 14th Street which is expected to further improve pedestrian safety at this intersection in the future.

TENTH AVENUE AND WEST 30TH STREET / LINCOLN TUNNEL APPROACH

Based on the review of the crash history at the intersection of Tenth Avenue and West 30th Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the detectable warning surface is missing on the northeast corner. Additionally, countdown timers are missing on the east crosswalk, the northwest corner for the north crosswalk, and the west crosswalk. The northbound right turn to Dyer Avenue is striped as one right-turn-only lane, but operates as two right-turn lanes. There were five pedestrian crashes at this location, with four involving pedestrians crossing with the signal. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 790 or fewer vehicle trips and 360 or fewer pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 490 or fewer vehicle trips and 390 or fewer pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the missing detectable warning surface, the missing countdown timers, and signing and/or delineators should be placed to explicitly prohibit dual-right turn movements to enhance pedestrian safety. This intersection is also part of a Vision Zero high priority corridor. As detailed above, DOT is planning to undertake additional pedestrian and bicycle improvements as part of its Tenth Avenue SIP from West 52nd Street to West 14th Street which is expected to further improve pedestrian safety at this intersection in the future.

TENTH AVENUE AND WEST 28TH STREET

Based on the review of the crash history at the intersection of Tenth Avenue and West 28th Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high

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visibility crosswalks throughout. However, the pedestrian countdown timers are missing from the east and west crosswalks, and the countdown timer on the northwest corner for the north crosswalk is not working. There were three pedestrian crashes at this location, with two involving pedestrians crossing with the signal. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 200 or fewer vehicle trips and 130 or fewer pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 120 or fewer vehicle trips and 270 or fewer pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the missing and non-functional pedestrian signals. This intersection is also part of a Vision Zero high priority corridor. As detailed above, DOT is planning to undertake additional pedestrian and bicycle improvements as part of its Tenth Avenue SIP from West 52nd Street to West 14th Street which is expected to further improve pedestrian safety at this intersection in the future.

NINTH AVENUE AND WEST 42ND STREET

Based on the review of the crash history at the intersection of Ninth Avenue and West 42nd Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the detectable warning surfaces on the northeast and southeast corners are missing, and the east crosswalk should be restriped. There were 17 pedestrian crashes at this location, but no specific prevailing crash type was identified. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 130 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 70 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the missing detectable warning surfaces and to restripe the east crosswalk. This intersection is also part of a Vision Zero high priority corridor. As detailed above, DOT is planning to undertake additional pedestrian improvements as part of its Ninth Avenue SIP from West 50th Street to West 34th Street which is expected to further improve pedestrian safety at this intersection in the future.

NINTH AVENUE AND WEST 37TH STREET

Based on the review of the crash history at the intersection of Ninth Avenue and West 37th Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, a curb ramp is missing on the southwest corner for the south crosswalk. There were six pedestrian crashes at this location, with three involving pedestrians crossing with the signal. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 120 or fewer vehicle trips and fewer than 200 pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative

Scenario, the intersection would experience incremental peak hour volume increases of approximately 80 or fewer vehicle trips and fewer than 200 pedestrian trips at any crosswalk during each of the six analysis peak hours. This intersection is also part of a Vision Zero high priority corridor. As detailed above, DOT is planning to undertake additional pedestrian improvements as part of its Ninth Avenue SIP from West 50th Street to West 34th Street which is expected to further improve pedestrian safety at this intersection in the future.

NINTH AVENUE AND WEST 36TH STREET

Based on the review of the crash history at the intersection of Ninth Avenue and West 36th Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. There were five pedestrian crashes at this location, with four involving pedestrians crossing with the signal. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 130 or fewer vehicle trips and fewer than 200 pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 70 or fewer vehicle trips and fewer than 200 pedestrian trips at any crosswalk during each of the six analysis peak hours. This intersection is also part of a Vision Zero high priority corridor. As detailed above, DOT is planning to undertake additional pedestrian improvements as part of its Ninth Avenue SIP from West 50th Street to West 34th Street which is expected to further improve pedestrian safety at this intersection in the future.

NINTH AVENUE AND WEST 34TH STREET

Based on the review of the crash history at the intersection of Ninth Avenue and West 34th Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the detectable warning surfaces on the southwest and northwest corners are missing, and the pedestrian signal on the northeast corner for the north crosswalk is missing a countdown timer. Additionally, the north, south, and east crosswalks should be restriped. There were five pedestrian crashes at this location, with three involving pedestrians crossing with the signal. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 170 or fewer vehicle trips and 100 or fewer pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 100 or fewer vehicle trips and 170 or fewer pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the missing detectable warning surfaces, the missing countdown timer, and to restripe the crosswalks. This intersection is also part of a Vision Zero high priority corridor. As detailed above, DOT is implementing additional pedestrian and bicycle improvements as part of its Ninth Avenue SIP from West 34th Street to West 30th Street with an anticipated completion in summer 2024 which should further improve pedestrian safety at this intersection.

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NINTH AVENUE AND WEST 31ST STREET

Based on the review of the crash history at the intersection of Ninth Avenue and West 31st Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. There were six pedestrian crashes at this location, with four involving pedestrians crossing with the signal. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 20 or fewer vehicle trips and 470 or fewer pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 20 or fewer vehicle trips and 530 or fewer pedestrian trips at any crosswalk during each of the six analysis peak hours. This intersection is also part of a Vision Zero high priority corridor. As detailed above, DOT is implementing additional pedestrian and bicycle improvements as part of its Ninth Avenue SIP from West 34th Street to West 30th Street with an anticipated completion in summer 2024 which should further improve pedestrian safety at this intersection.

NINTH AVENUE AND WEST 30TH STREET

Based on the review of the crash history at the intersection of Ninth Avenue and West 30th Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. There were four pedestrian crashes at this location, with two involving pedestrians crossing with the signal. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 290 or fewer vehicle trips and 60 or fewer pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 150 or fewer vehicle trips and 110 or fewer pedestrian trips at any crosswalk during each of the six analysis peak hours. This intersection is also part of a Vision Zero high priority corridor. As detailed above, DOT is implementing additional pedestrian and bicycle improvements as part of its Ninth Avenue SIP from West 34th Street to West 30th Street with an anticipated completion in summer 2024 which should further improve pedestrian safety at this intersection.

NINTH AVENUE AND WEST 23RD STREET

Based on the review of the crash history at the intersection of Ninth Avenue and West 23rd Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the detectable warning surfaces are missing on the southeast, northeast, and southwest corners. There were six pedestrian crashes at this location, but no specific prevailing crash type was identified. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 150 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 70 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Given

these conditions, this intersection should be considered for improvements to address the missing detectable warning surfaces. This intersection is also part of a Vision Zero high priority corridor.

EIGHTH AVENUE AND WEST 42ND STREET

Based on the review of the crash history at the intersection of Eighth Avenue and West 42nd Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the detectable warning surfaces are missing on all corners. There were 16 pedestrian crashes at this location, with seven involving pedestrians crossing with the signal. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 130 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 60 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the missing detectable warning surfaces. This intersection is also part of a Vision Zero high priority corridor.

EIGHTH AVENUE AND WEST 35TH STREET

Based on the review of the crash history at the intersection of Eighth Avenue and West 35th Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the detectable warning surfaces on the northwest, southeast, and northeast corners are missing. There were five pedestrian crashes at this location, but no specific prevailing crash type was identified. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 150 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 90 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the missing detectable warning surfaces. This intersection is also part of a Vision Zero high priority corridor.

EIGHTH AVENUE AND WEST 34TH STREET

Based on the review of the crash history at the intersection of Eighth Avenue and West 34th Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the detectable warning surface on the northeast corner is missing. There were nine pedestrian crashes at this location, but no specific prevailing crash type was identified. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 140 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative

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Scenario, the intersection would experience incremental peak hour volume increases of approximately 80 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the missing detectable warning surface. This intersection is a Vision Zero high priority intersection and also part of a high priority corridor.

EIGHTH AVENUE AND WEST 33RD STREET

Based on the review of the crash history at the intersection of Eighth Avenue and West 33rd Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the pedestrian signal on the southwest corner for the south crosswalk has a non-functional countdown timer. There were three pedestrian crashes at this location, but no specific prevailing crash type was identified. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 140 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 70 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the non-functioning countdown timer to enhance pedestrian safety. This intersection is also part of a Vision Zero high priority corridor.

EIGHTH AVENUE AND WEST 31ST STREET

Based on the review of the crash history at the intersection of Eighth Avenue and West 31st Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the detectable warning surfaces are missing on the northeast, southeast, and southwest corners, and the pedestrian signals for the east and west crosswalks are missing countdown timers. There were five pedestrian crashes at this location, but no specific prevailing crash type was identified. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 140 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 70 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the missing detectable warning surfaces and the missing countdown timers. This intersection is also part of a Vision Zero high priority corridor.

EIGHTH AVENUE AND WEST 30TH STREET

Based on the review of the crash history at the intersection of Eighth Avenue and West 30th Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the detectable warning surface is missing on

the northeast corner, and the countdown timers for the north and south crosswalks are not working. Additionally, the north crosswalk is faded and should be restriped. There were eight pedestrian crashes at this location, with six involving pedestrians crossing with the signal. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 270 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 140 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the missing detectable warning surface, the non-functioning countdown timers, and to restripe the north crosswalk. This intersection is also part of a Vision Zero high priority corridor.

EIGHTH AVENUE AND WEST 29TH STREET

Based on the review of the crash history at the intersection of Eighth Avenue and West 29th Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the northeast corner is missing a curb ramp for the east crosswalk, and the detectable warning surface is missing on the southeast corner. Additionally, countdown timers are broken on the northeast and southeast corners for the north and south crosswalks, and countdown timers are missing on the east and west crosswalks. There were nine pedestrian crashes at this location, with four involving pedestrians crossing with the signal. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 190 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 120 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the missing curb ramp, the missing detectable warning surface, and the broken or missing countdown timers. This intersection is also part of a Vision Zero high priority corridor.

EIGHTH AVENUE AND WEST 23RD STREET

Based on the review of the crash history at the intersection of Eighth Avenue and West 23rd Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the detectable warning surfaces are missing on the southeast and southwest corners. There were six pedestrian crashes at this location, with three involving pedestrians crossing with the signal. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 130 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 90 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Given

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these conditions, this intersection should be considered for improvements to address the missing detectable warning surfaces. This intersection is also part of a Vision Zero high priority corridor.

SEVENTH AVENUE AND WEST 29TH STREET

Based on the review of the crash history at the intersection of Seventh Avenue and West 29th Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the detectable warning surfaces are missing on the northeast, southeast, and northwest corners. Additionally, the pedestrian signals for the east and west crosswalks are missing countdown timers. There were seven pedestrian crashes at this location, but no specific prevailing crash type was identified. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 180 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 100 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the missing detectable warning surfaces and countdown timers. This intersection is also part of a Vision Zero high priority corridor.

SEVENTH AVENUE AND WEST 28TH STREET

Based on the review of the crash history at the intersection of Seventh Avenue and West 28th Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the detectable warning surfaces are missing on the northeast and southeast corners. Additionally, the pedestrian signals are missing countdown timers on the southeast and northeast corners for the east crosswalk, as well as on the northwest and southwest corners for the west crosswalk. The east crosswalk is faded and should be restriped. There were nine pedestrian crashes at this location, with six involving pedestrians crossing with the signal. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 120 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 50 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the missing detectable warning surfaces, the missing countdown timers, and to restripe the east crosswalk. This intersection is also part of a Vision Zero high priority corridor.

SEVENTH AVENUE AND WEST 23RD STREET

Based on the review of the crash history at the intersection of Seventh Avenue and West 23rd Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the northwest corner is missing a curb ramp

for the north crosswalk, and the detectable warning surface is missing on the southeast corner for the south crosswalk, as well as on the northwest corner. There were 11 pedestrian crashes at this location, with four involving pedestrians crossing with the signal. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 130 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 70 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the missing curb ramp and detectable warning surfaces. This intersection is also part of a Vision Zero high priority corridor.

SIXTH AVENUE AND WEST 23RD STREET

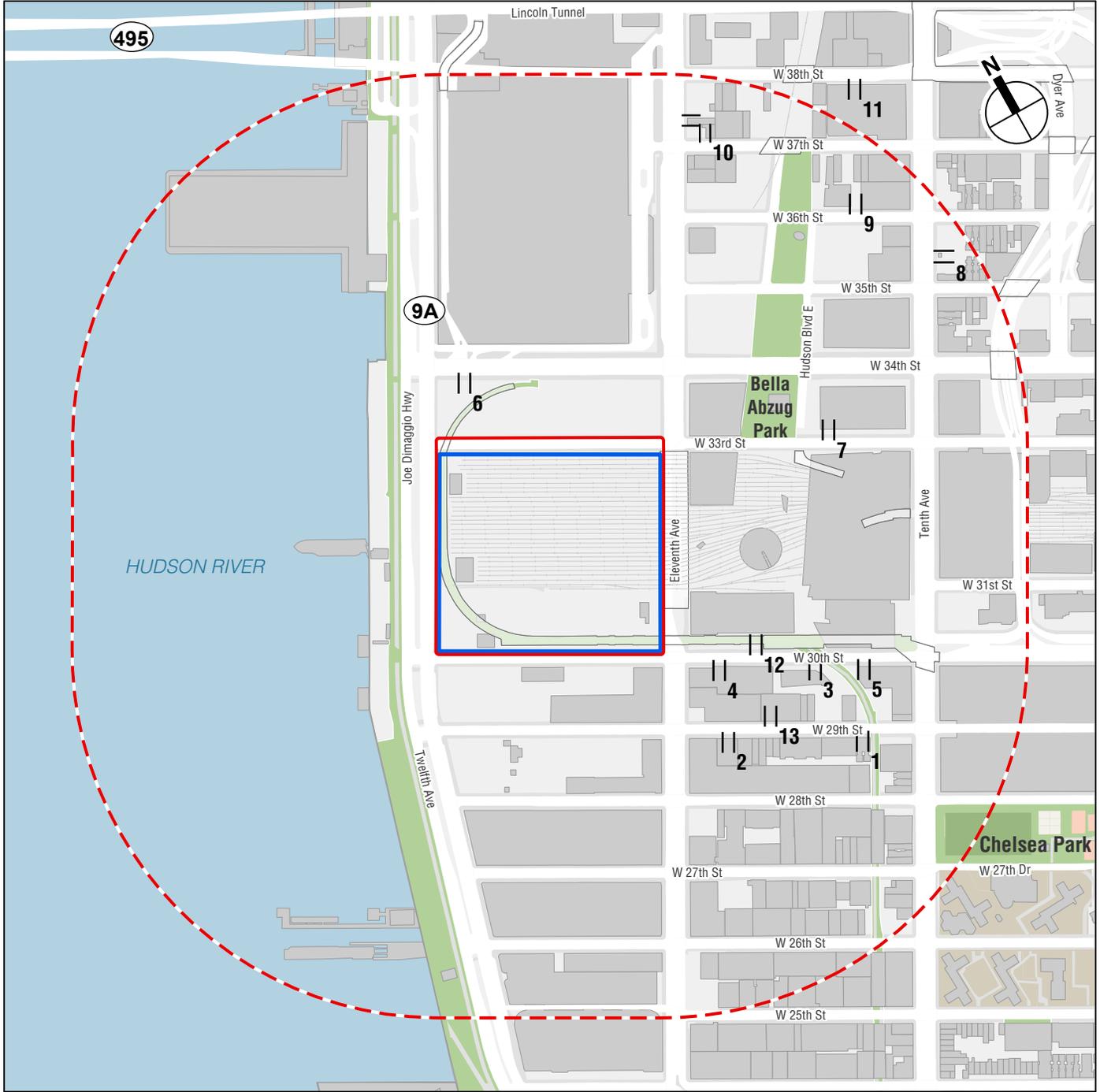
Based on the review of the crash history at the intersection of Sixth Avenue and West 23rd Street, no prevailing trends with regard to geometric deficiencies were identified as the primary causes of recorded crashes. The intersection is signalized and provides high visibility crosswalks throughout. However, the pedestrian countdown timers on the southeast corner for the east and north crosswalks are not functioning, as well as the countdown timer on the northeast corner for the north crosswalk. There were 17 pedestrian crashes at this location, with six involving pedestrians crossing with the signal. In terms of project-generated activity under the Proposed Project, the intersection would experience incremental peak hour volume increases of approximately 120 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Under the Alternative Scenario, the intersection would experience incremental peak hour volume increases of approximately 70 or fewer vehicle trips and very few or no pedestrian trips at any crosswalk during each of the six analysis peak hours. Given these conditions, this intersection should be considered for improvements to address the non-functioning countdown timers to enhance pedestrian safety. This intersection is also part of a Vision Zero high priority corridor.

H. PARKING ASSESSMENT

EXISTING CONDITIONS

An inventory of off-street parking facilities within an approximately ¼-mile distance from the boundaries of the Development Site was conducted in January 2023. This survey provided an inventory of the area's public parking facilities and their legal capacities and utilization levels. Based on responses given by parking attendants and visual inspections, where possible, estimates were made on the parking occupancy or utilization at each facility for the weekday AM, midday, PM, evening, and overnight peak periods, as well as the Saturday midday/afternoon and evening peak periods. A summary of the recorded information and the area's overall off-street public parking supply and utilization is presented in **Table 14-54**.

Within the approximate ¼-mile off-street parking study area, 13 public parking facilities were inventoried, as shown in **Figure 14-16**. The combined capacity of these facilities totals 1,517 parking spaces. Overall, they were 61, 75, 64, 47, 50, 65, and 56-percent



- Affected Area
- Development Site
- Study Area (1/4-mile perimeter)
- Off-Street Parking and Reference Number



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utilized, with 596, 380, 552, 656, 456, 428, and 530 parking spaces available during the weekday AM, midday, PM, and evening, and Saturday midday/afternoon and evening time periods, respectively.

Table 14-54
Existing Weekday and Saturday Off-Street Parking Supply and Utilization
Approximately 1/4-Mile Study Area

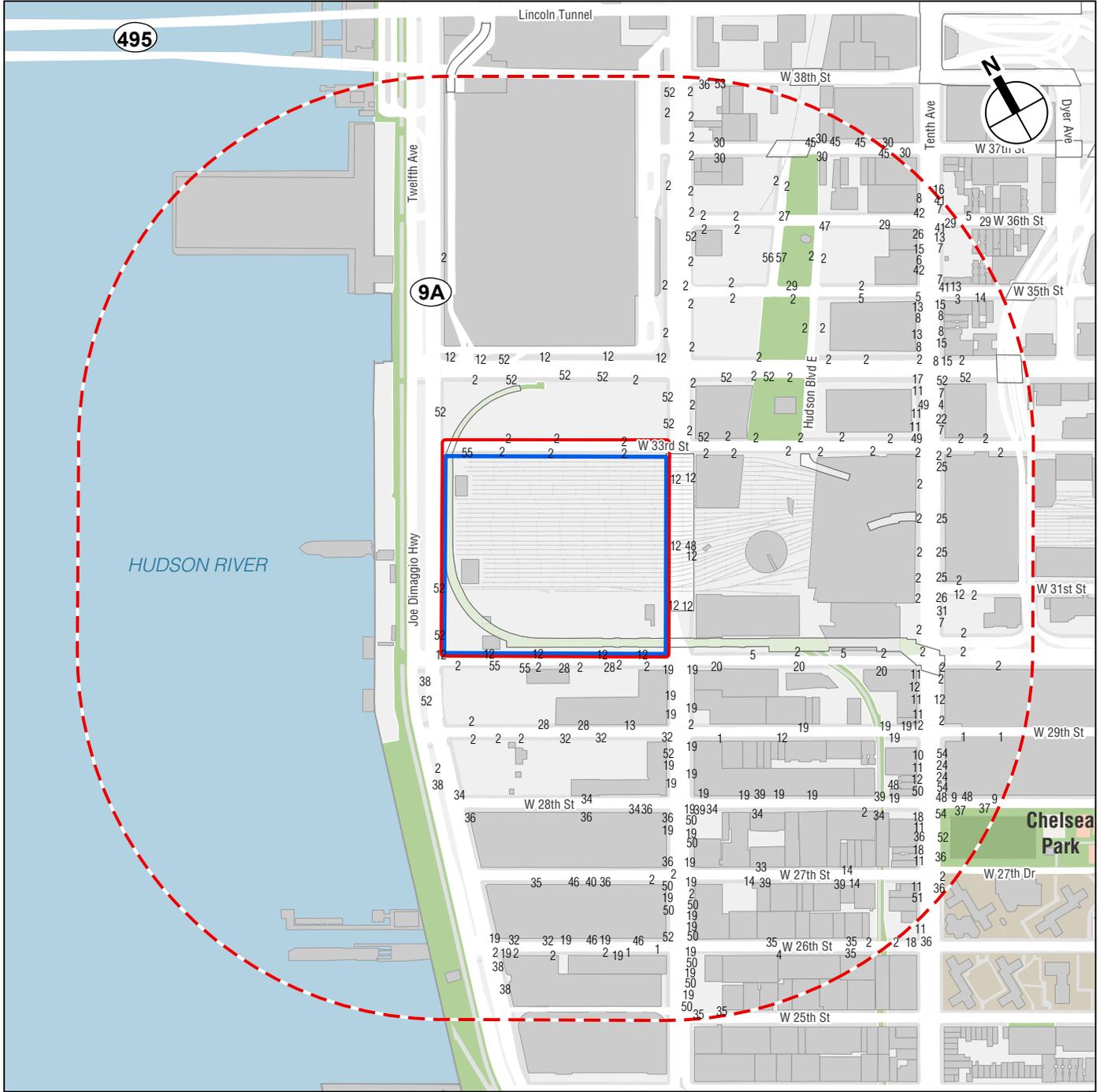
Map #	Name/Address	License Number	Licensed Capacity	Utilization Rate								Utilized Spaces								Available Spaces							
				Weekday				SAT				Weekday				SAT				Weekday				SAT			
				AM	MD	PM	EVE	ON	MD	EVE	AM	MD	PM	EVE	ON	MD	EVE	AM	MD	PM	EVE	ON	MD	EVE			
1	507 WEST 28TH STREET PARKING CORP. / 507 West 28th Street	2082941	41	50%	75%	45%	40%	CLD	40%	40%	21	31	18	16	CLD	16	16	20	10	23	25	CLD	25	25			
2	CHELSEA 29 PARKING LLC / 525 West 28th Street	2045376	143	100%	100%	80%	75%	CLD	65%	60%	143	143	114	107	CLD	93	86	0	0	29	36	CLD	50	57			
3	MP 30 YARDS LLC / 520 West 30th Street	2072755	40	60%	70%	55%	50%	CLD	60%	45%	24	28	22	20	CLD	24	18	16	12	18	20	CLD	16	22			
4	ELEVENTH AVENUE GARAGE CORP. / 314 11th Avenue	1345891	181	40%	80%	100%	50%	60%	60%	50%	72	145	181	91	109	109	91	109	36	0	90	72	72	90			
5	MP WEST 30 LLC / 500 West 30th Street	2013235	79	55%	65%	50%	40%	CLD	50%	50%	43	51	40	32	CLD	40	40	36	28	39	47	CLD	39	39			
6	MP WEST 34 JAV LLC / 651 West 33rd Street	2097368	250	60%	70%	40%	CLD	CLD	CLD	CLD	150	175	100	CLD	CLD	CLD	CLD	100	75	150	GLD	CLD	CLD	CLD			
7	MP 50 Parking LLC / 415 Tenth Avenue	2109625	48	70%	50%	70%	60%	25%	80%	75%	34	24	34	29	12	38	36	14	24	14	19	36	10	12			
8	IMPERIAL PARKING US LLC / 452-460 10th Avenue	1429820	100	40%	60%	30%	25%	25%	40%	40%	40	60	30	25	25	40	40	60	40	70	75	75	60	60			
9	515 WEST 36TH STREET PARKING CORP. / 515 West 36th Street	2100560	64	65%	75%	60%	40%	50%	70%	60%	42	48	38	26	32	45	38	22	16	26	38	32	19	26			
10	JAVITS CENTER PARKING CORP. / 456-458 11th Avenue	2035036	20	20%	20%	20%	CLD	CLD	CLD	CLD	4	4	4	CLD	CLD	CLD	CLD	16	16	16	GLD	CLD	CLD	CLD			
11	ENTERPRISE 38 LLC / 505 West 37th Street	1401356	282	55%	65%	55%	45%	40%	60%	55%	155	183	155	127	113	169	155	127	99	127	155	169	113	127			
12	MP HUDSON LLC / 501 West 30th Street	2107418	240	75%	95%	90%	45%	70%	90%	70%	180	228	216	108	168	216	168	60	12	24	132	72	24	72			
13	MP WEST 29 LLC / 529 West 29th Street	2015756	29	45%	60%	45%	35%	CLD	CLD	CLD	13	17	13	10	CLD	CLD	CLD	16	12	16	19	CLD	CLD	CLD			
1/4-Mile Area Only Totals		-	1,517	61%	75%	64%	47%	50%	65%	56%	921	1,137	965	591	459	790	688	596	380	552	656	456	428	530			

Notes:
MD = Midday/Afternoon; EVE = Evening; ON = Overnight; SAT = Saturday; CLD = Closed.
Sources:
Survey conducted by AKRF Inc. January 2023.

On-street parking regulations for the 1/4-mile study area are shown in **Figure 14-17** and summarized in **Table 14-55**. As with most commercial areas in Manhattan, there is typically a limited resource of on-street parking that is reserved for loading/unloading or high-turnover parking needs. Therefore, it was conservatively assumed that this limited on-street parking resource would not be available in the study area to accommodate the parking demand generated by the Proposed Project or the Alternative Scenario.

Table 14-55
On-Street Parking Regulations

Map ID #	Parking Regulation
1	NO STOPPING ANYTIME
2	NO STANDING ANYTIME
3	NO STANDING HOTEL LOADING ZONE
4	NO STANDING SCHOOL DAYS 7AM-4PM
5	NO STANDING 8AM-10PM ALL DAYS
6	NO STANDING 4PM-7PM ALL DAYS
7	NO STANDING 7AM-10AM 4PM-7PM EXCEPT SUNDAY
8	NO STANDING 4PM-7PM EXCEPT SUNDAY
9	NO STANDING MONDAY-FRIDAY 8AM-7PM
10	NO STANDING MONDAY-FRIDAY 7AM-10AM
11	NO STANDING MONDAY-FRIDAY 4PM-7PM
12	NO PARKING ANYTIME
13	NO PARKING 7AM-7PM EXCEPT SUNDAY
14	NO PARKING 8AM-6PM EXCEPT SUNDAY
15	NO PARKING 7AM-4PM EXCEPT SUNDAY
16	NO PARKING 10AM-4PM EXCEPT SUNDAY
17	NO PARKING 7AM-7PM MON THRU FRI
18	NO PARKING MONDAY-FRIDAY 6AM-4PM
19	NO PARKING MONDAY-FRIDAY 8AM-6PM
20	3HMP COMMERCIAL VEHICLES ONLY 7AM-10PM EXCEPT SUNDAY
21	3 HMP COMMERCIAL VEHICLES ONLY 7AM-4PM EXCEPT SUNDAY
22	2 HOUR METERED PARKING 10AM-4PM EXCEPT SUNDAY
23	2 HMP 4PM-7PM EXCEPT SUNDAY
24	2 HMP SATURDAY 9AM-7PM
25	1 HMP COMMERCIAL VEHICLES ONLY 7AM-10PM EXCEPT SUNDAY
26	TRUCK LOADING ONLY



- Affected Area
- Development Site
- Study Area (1/4-mile perimeter)
- # Existing Parking Regulations



Table 14-55
On-Street Parking Regulations

Map ID #	Parking Regulation
27	TRUCK LOADING ONLY 7AM-7PM ALL DAYS
28	TRUCK LOADING ONLY 7AM-7PM EXCEPT SUNDAY
29	TRUCK LOADING ONLY 8AM-10PM EXCEPT SUNDAY
30	TRUCK LOADING ONLY 8AM-7PM EXCEPT SUNDAY
31	TRUCK LOADING ONLY 10AM-4PM EXCEPT SUNDAY
32	TRUCK LOADING ONLY MONDAY-FRIDAY 7AM-7PM
33	TRUCK LOADING ONLY MONDAY-FRIDAY 6AM-4PM
34	TRUCK LOADING ONLY MONDAY-FRIDAY 8AM-7PM
35	TRUCK LOADING ONLY MONDAY-FRIDAY 8AM-6PM
36	MOON & STARS (SYMBOLS) NO STANDING 11PM-6AM ALL DAYS
37	NO PARKING (SANITATION BROOM SYMBOL) TUESDAY FRIDAY 11AM-12:30PM NO PARKING (SANITATION BROOM SYMBOL) MOON & STARS (SYMBOLS) TUESDAY FRIDAY MIDNIGHT-3AM
38	
39	MOON & STARS (SYMBOLS) NO STANDING 10PM-6AM ALL DAYS
40	MOON & STARS (SYMBOLS) NO STANDING 11PM-5AM ALL DAYS
41	NO PARKING (SANITATION BROOM SYMBOL) W/ (MOON/STARS SYMBOLS) TUESDAY THURSDAY SATURDAY 2AM-6AM
42	NO PARKING (SANITATION BROOM SYMBOL) W/ (MOON/STARS SYMBOLS) MONDAY WEDNESDAY FRIDAY 2AM-6AM
43	STAR (SYMBOL) AVO NYC DEPT OF HEALTH & MENTAL HYGIENE 7AM-7PM EXCEPT SUNDAY
44	NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES
45	PRESS (SYMBOL) NYP LICENSE PLATES ONLY
46	STAR (SYMBOL) AVO DEPT OF HOMELAND SECURITY
47	STAR (SYMBOL) AVO POLICE DEPARTMENT
48	TAXI HAILING (SYMBOL) TAXI STAND
49	TAXI RELIEF STAND 1 HOUR LIMIT NO PARKING ANYTIME EXCEPT TAXIS
50	TAXI STAND 10PM-4AM ALL DAYS
51	TAXI (SYMBOL) TAXI RELIEF STAND 1 HOUR LIMIT MONDAY-FRIDAY 6AM-4PM
52	BUS STOP SIGN (NO STANDING)
53	NON-MTA BUS LAYOVER ONLY 7AM-7PM EXCEPT SUNDAY NO ENGINE IDLING MAX FINE \$2000
54	BUS LAYOVER ONLY MONDAY-FRIDAY 8AM-6PM NO ENGINE IDLING MAX FINE \$2000
55	NON-MTA BUS LAYOVER ONLY NO ENGINE IDLING MAX FINE \$2000
56	NO PARKING (SANITATION BROOM SYMBOL) W/ (MOON/STARS SYMBOLS) MONDAY 9:30AM-11AM
57	FARMERS MARKET ONLY MAY 1- NOV 30 THURSDAY 7AM-7PM - OTHER TIMES NO STANDING

Notes: HMP = Hour Metered Parking; AVO = Authorized Vehicles Only

THE FUTURE WITHOUT THE PROPOSED ACTIONS

Future off-street parking demand for the 2031 No Action condition was developed by increasing the existing parking demand by expected growth due to background growth rates and by accounting for parking demand generated by No Build projects expected to be completed in the area within a ¼-mile of the Development Site as well as the incremental parking demand generated by the No Action development on the Development Site. The No Action development weekday and Saturday parking demand projections are presented in **Appendix E**.

No Build projects 1 and 9 will include on-site accessory parking spaces as part of their development programs and the Development Site will also include 225 on-site accessory parking spaces to accommodate some of its No Action development parking demand. These on-site parking spaces have been accounted for in the 2031 No Action parking supply and utilization analysis presented in **Table 14-56**. The results indicate that within a ¼-mile of the Development Site, the utilization for the 2031 No Action condition will increase to 159, 214, 170, 149, 182, 169, and 158 percent during the weekday AM, midday, PM, evening, and overnight, and Saturday midday/afternoon and evening time

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periods, respectively. Parking utilization is expected to exceed the available ¼-mile off-street parking supply during all seven analysis peak periods, with an anticipated maximum shortfall of 1,730 parking spaces occurring during the weekday midday time period. It is likely, especially with the continuing transformation of West Midtown and Hudson Yards, that travel will shift more from auto to transit. For those who choose to drive, if there is not adequate nearby parking (i.e., within ¼-mile or an approximately five-minute walk of the Development Site), they will be expected to seek parking resources at a greater distance away.

Table 14-56

**Existing and 2031 No Action Conditions Parking Supply and Utilization
Approximately 1/4-Mile Study Area**

	Weekday AM	Weekday Midday	Weekday PM	Weekday Evening	Weekday Overnight	Saturday Midday	Saturday Evening
2023 Existing Public Parking Supply	1,517	1,517	1,517	1,247	915	1,218	1,218
2023 Existing Public Parking Demand	921	1,137	965	591	459	790	688
2023 Existing Public Parking Utilization	61%	75%	64%	47%	50%	65%	56%
2031 Background Growth Incremental Parking Demand	15	19	16	10	8	13	11
Discrete No Build Projects Parking Demand	645	1,146	742	446	334	461	413
Discrete No Build Projects Accessory Parking Supply	143	143	143	143	143	143	143
Discrete No Build Projects Public Parking Demand	584	1,098	686	381	252	399	338
No Action Development Parking Demand	1,119	1,218	1,140	1,099	1,169	1,080	1,108
No Action Development Accessory Parking Supply	225	225	225	225	225	225	225
No Action Development Public Parking Demand	894	993	915	874	944	855	883
2031 No Action Public Parking Demand Total	2,414	3,247	2,582	1,856	1,663	2,057	1,920
2031 No Action Public Parking Supply	1,517	1,517	1,517	1,247	915	1,218	1,218
2031 No Action Public Parking Utilization	159%	214%	170%	149%	182%	169%	158%
2031 No Action Available Spaces (Shortfall)	(897)	(1,730)	(1,065)	(609)	(748)	(839)	(702)
Notes:							
Sample Calculation							
2031 No Action Public Parking Demand Total = 2023 Existing Public Parking Demand + 2031 Background Growth Incremental Parking Demand + Discrete No Build Projects Public Parking Demand + No Action Development Public Parking Demand							
2031 No Action Weekday AM Public Parking Demand Total = 921 + 15 + 584 + 894 = 2,414							

THE FUTURE WITH THE PROPOSED PROJECT

Under the 2031 With Action condition, the majority of the Proposed Project parking demand would be accommodated by the 725 planned on-site parking spaces. The parking demand that could not be accommodated on-site are assumed to seek parking at the off-site garages within an approximately ¼-mile of the Development Site. The Proposed Project weekday and Saturday parking demand projections are presented in **Appendix E**.

As presented in **Table 14-57**, accounting for incremental parking demand due to background growth rates, parking demand generated by No Build projects (as well as their on-site accessory parking spaces) expected to be completed in the area within a ¼-mile of the Development Site, and the parking demand generated by the Proposed Project, the 2031 With Action condition off-street parking utilization would be 100, 149, 113, 79, 79, 99, and 98 percent during the weekday AM, midday, PM, evening, and overnight, and Saturday midday/afternoon and evening time periods, respectively. Parking utilization is expected to be at capacity (98 percent utilization is considered “at capacity” per *CEQR Technical Manual* guidelines) or exceed the available ¼-mile off-street parking supply during five of the seven analysis time periods, with an anticipated maximum shortfall of 737 parking spaces occurring during the weekday midday time period.

Table 14-57

**Existing and 2031 With Action Conditions – Proposed Project –
Parking Supply and Utilization
Approximately 1/4-Mile Study Area**

	Weekday AM	Weekday Midday	Weekday PM	Weekday Evening	Weekday Overnight	Saturday Midday	Saturday Evening
2023 Existing Public Parking Supply	1,517	1,517	1,517	1,247	915	1,218	1,218
2023 Existing Public Parking Demand	921	1,137	965	591	459	790	688
2023 Existing Public Parking Utilization	61%	75%	64%	47%	50%	65%	56%
2031 Background Growth Incremental Parking Demand	15	19	16	10	8	13	11
Discrete No Build Projects Parking Demand	645	1,146	742	446	334	461	413
Discrete No Build Projects Accessory Parking Supply	143	143	143	143	143	143	143
Discrete No Build Projects Public Parking Demand	584	1,098	686	381	252	399	338
Proposed Project Parking Demand	460	707	772	672	389	631	886
Proposed Project Accessory Parking Supply	725	725	725	725	725	725	725
Proposed Project Public Parking Demand	0	0	47	0	0	0	161
2031 With Action Public Parking Demand Total	1,520	2,254	1,714	982	719	1,202	1,198
2031 With Action Public Parking Supply	1,517	1,517	1,517	1,247	915	1,218	1,218
2031 With Action Public Parking Utilization	100%	149%	113%	79%	79%	99%	98%
2031 With Action Available Spaces (Shortfall)	(3)	(737)	(197)	265	196	16	20
Notes:							
Sample Calculation							
2031 With Action Public Parking Demand Total = 2023 Existing Public Parking Demand + 2031 Background Growth Incremental Parking Demand + Discrete No Build Projects Public Parking Demand + Proposed Project Public Parking Demand							
2031 With Action Weekday AM Public Parking Demand Total = 921 + 15 + 584 + 0 = 1,520							

As stated in the *CEQR Technical Manual*, a parking shortfall resulting from a project located in Manhattan is not considered significant due to the magnitude of available alternative modes of transportation. It is likely, especially with the continuing transformation of West Midtown and Hudson Yards, that travel would shift more from auto to transit. For those who choose to drive, if there is not adequate nearby parking (i.e., within 1/4-mile or an approximately five-minute walk of the Development Site), they would be expected to seek parking resources at a greater distance away.

THE FUTURE WITH THE ALTERNATIVE SCENARIO

Under the 2031 With Action condition, some of the Alternative Scenario parking demand would be accommodated by the 675 planned on-site parking spaces. The parking demand that could not be accommodated on-site are assumed to seek parking at the off-site garages within an approximately 1/4-mile of the Development Site. The Alternative Scenario weekday and Saturday parking demand projections are presented in **Appendix E**.

As presented in **Table 14-58**, accounting for incremental parking demand due to background growth rates, parking demand generated by No Build projects (as well as their on-site accessory parking spaces) expected to be completed in the area within a 1/4-mile of the Development Site, and the parking demand generated by the Alternative Scenario, the 2031 With Action condition off-street parking utilization would be 100, 155, 138, 88, 79, 99, and 108 percent during the weekday AM, midday, PM, evening, and overnight, and Saturday midday/afternoon and evening time periods, respectively. Parking utilization for this development scenario is similarly expected to exceed the available 1/4-mile off-street parking supply (98 percent utilization is considered “at capacity” per *CEQR Technical Manual* guidelines) during five of the seven analysis time periods, with an anticipated maximum shortfall of 838 parking spaces occurring during the weekday midday time period.

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**Table 14-58
Existing and 2031 With Action Conditions –Alternative Scenario –
Parking Supply and Utilization
Approximately 1/4-Mile Study Area**

	Weekday AM	Weekday Midday	Weekday PM	Weekday Evening	Weekday Overnight	Saturday Midday	Saturday Evening
2023 Existing Public Parking Supply	1,517	1,517	1,517	1,247	915	1,218	1,218
2023 Existing Public Parking Demand	921	1,137	965	591	459	790	688
2023 Existing Public Parking Utilization	61%	75%	64%	47%	50%	65%	56%
2031 Background Growth Incremental Parking Demand	15	19	16	10	8	13	11
Discrete No Build Projects Parking Demand	645	1,146	742	446	334	461	413
Discrete No Build Projects Accessory Parking Supply	143	143	143	143	143	143	143
Discrete No Build Projects Public Parking Demand	584	1,098	686	381	252	399	338
Alternative Scenario Parking Demand	562	776	1,102	796	456	431	949
Alternative Scenario Parking Supply	675	675	675	675	675	675	675
Alternative Scenario Public Parking Demand	0	101	427	121	0	0	274
2031 With Action Public Parking Demand Total	1,520	2,355	2,094	1,103	719	1,202	1,311
2031 With Action Public Parking Supply	1,517	1,517	1,517	1,247	915	1,218	1,218
2031 With Action Public Parking Utilization	100%	155%	138%	88%	79%	99%	108%
2031 With Action Available Spaces (Shortfall)	(3)	(838)	(577)	144	196	16	(93)
Notes:							
Sample Calculation							
2031 With Action Public Parking Demand Total = 2023 Existing Public Parking Demand + 2031 Background Growth Incremental Parking Demand + Discrete No Build Projects Public Parking Demand + Alternative Scenario Public Parking Demand							
2031 With Action Weekday AM Public Parking Demand Total = 921 + 15 + 584 + 0 = 1,520							

As with the Proposed Project, pursuant to *CEQR Technical Manual* guidelines, a parking shortfall resulting from a project located in Manhattan is not considered significant due to the magnitude of available alternative modes of transportation. It is likely that travel would shift more from auto to transit and for those who choose to drive, they would be expected to seek parking resources at a greater distance away. It should also be noted that the projected parking shortfalls during the various analysis time periods with the Proposed Project or with the Alternative Scenario would be of lesser magnitudes than those projected for the future No Action condition. *