Chapter 11: Transportation

A. INTRODUCTION

This chapter assesses transportation conditions and evaluates whether the proposed Industry City project has the potential to create significant adverse transportation impacts. The Proposed Project would redevelop the Industry City complex, located in the Sunset Park section of Brooklyn, with a mix of active uses including innovation economy, retail, hotel, and academic uses. The project would renovate existing buildings, construct new buildings and repurpose existing facilities. The proposed project also includes transportation improvements that would facilitate pedestrian and vehicular traffic associated with the new and repurposed uses.

The transportation analyses address traffic conditions, parking, transit conditions, pedestrian flows, and vehicular and pedestrian safety. The traffic analyses include an evaluation of traffic conditions on the local street network and on the adjacent highway network.

The analyses contained within this chapter follow the guidelines contained in the 2014 *City Environmental Quality Review (CEQR) Technical Manual* and the potential for significant impacts adhere to the criteria specified in the Manual. Where significant traffic impacts are identified, the ability to mitigate those impacts is addressed in Chapter 20, "Mitigation."

PRINCIPAL CONCLUSIONS

TRAFFIC STREET NETWORK

In total, the Proposed Project would generate 988 vehicles per hour (vph) (579 "ins" and 409 "outs") during the weekday AM peak hour, 2,089 vph (1,115 "ins" and 974 "outs") in the weekday midday peak hour, 2,408 vph (1,080 "ins" and 1,328 "outs") in weekday PM peak hour, and 2,408 vph (1,278 "ins" and 1,130 "outs") in the Saturday peak hour. Of the 41 intersections analyzed, the Proposed Project would result in significant adverse traffic impacts at 15 intersections during the weekday AM peak hour, 15 intersections during the weekday midday peak hours, 22 intersections during the weekday PM peak hour, and 14 intersections during the Saturday peak hour. The identification and evaluation of traffic capacity improvements needed to mitigate these impacts are presented in Chapter 20, "Mitigation."

GOWANUS EXPRESSWAY

The Proposed Project would result in significant adverse traffic impacts to the northbound Gowanus Expressway during the weekday AM (along the segment between 40th Street and 49th Street) and midday (along the segment between 38th Street and 49th Street) peak hours.

PARKING

The weekday peak parking demand for the Proposed Project would occur during midday hours when employees would be maximized and other visitors, shoppers, etc. would also park their cars during the day. On Saturdays, the peak parking demand would occur during the afternoon hours when retail shopping activities are the highest. The weekday peak parking demand of 1,072 spaces

would be expected to occur between 1 PM and 2 PM. During a typical Saturday, the peak parking demand of 1,367 spaces would occur between 3 PM and 4 PM. The Proposed Project would provide a total of 1,734 parking spaces and would be fully able to accommodate its parking demand.

SUBWAY TRANSIT

Nine subway station elements at the 36th Street subway station were analyzed based on the *CEQR Technical Manual's* screening assessment, and subway line-haul analyses were conducted for three subway lines (the D, N, and R). The Proposed Project would result in significant subway transit impacts at the S3 surface stairway along the west side of 4th Avenue between 35th Street and 36th Street down into the station, and for the P3 and P4 platform stairways within the station during the weekday AM and PM peak hours. The M1A/M1B mezzanine level stairways would also be impacted during the weekday PM peak hour. Subway line-haul conditions would continue to operate below capacity during the peak hours and would not be significantly impacted.

BUS TRANSIT

Bus line-haul analysis were conducted for two bus routes (B35 LTD and B70) based on the *CEQR Technical Manual's* screening assessment. The Proposed Project would create capacity shortfalls and significantly impact the westbound B70 bus route during the weekday AM peak hour.

PEDESTRIANS

Pedestrian analyses were performed for 24 sidewalk elements, 34 crosswalk elements, and 10 street-corner elements during the weekday AM, midday, PM, and Saturday peak hours. Eight additional pedestrian elements at the intersection of 1st Avenue and 39th Street (four crosswalks and four corners) were included as part of the With Action analysis to assess pedestrian level of service (LOS) at this intersection which would be signalized as part of the project improvements to facilitate vehicle and pedestrian traffic.

Of the 77 pedestrian elements analyzed, the Proposed Project would result in significant adverse impacts at six pedestrian elements during the weekday AM peak hour, 14 pedestrian elements during the weekday midday peak hour, 18 pedestrian elements during the weekday PM peak hour, and 12 pedestrian elements during the Saturday peak hour. Mitigation measures that could be implemented to mitigate these potential impacts are discussed in the Chapter 20, "Mitigation."

VEHICULAR AND PEDESTRIAN SAFETY

Crash data were obtained for the study area intersections from the New York City Department of Transportation (DOT) for the most recent three-year period (2014 through 2016). This information is based on data provided by the New York State Department of Transportation (NYSDOT), New York State Department of Motor Vehicles (NYSDMV), and New York City Police Department (NYPD). None of the 42 intersections analyzed in the study area are considered high-crash locations as defined by the DOT criteria published in the *CEQR Technical Manual*.

B. METHODOLOGY

According to the *CEQR Technical Manual*, a two-tiered screening process is to be undertaken to determine whether a detailed quantitative transportation analysis is necessary. The first step, the Level 1 (Trip Generation) screening assessment, determines whether the number of peak hour person and vehicle trips generated by the Proposed Project would remain below the minimum thresholds for further study. These thresholds are:

- 50 peak hour vehicle trip ends;
- 200 peak hour subway/rail or bus transit riders; and
- 200 peak hour pedestrian trips.

If project-generated trips would exceed any of these thresholds, a Level 2 (Trip Assignment) screening assessment is generally performed. Under this assessment, project-generated trips are assigned to and from the site through their respective networks (streets, bus and subway lines, sidewalks, etc.) based on expected origin-destination patterns and travel routes. This determines the volume of peak hour vehicle traffic that would be added per intersection, the volume of riders that would be added per subway line or bus route, and the walk trips that would be added per individual pedestrian network element (crosswalk, corner reservoir area, etc.). If the Level 2 screening assessment determines that any specific traffic location, transit line or station element, or pedestrian network element would experience an increase of trips above thresholds for any peak hour, then a detailed analysis may be warranted.

LEVEL 1 SCREENING ASSESSMENT

A Level 1 trip generation screening assessment was conducted to estimate the volume of person and vehicle trips by mode expected to be generated by the Proposed Project during the weekday AM, midday, PM, and Saturday peak hours. These estimates showed that a Level 2 screening and quantified analyses are warranted for vehicle, subway, bus, and pedestrian trips.

TRANSPORTATION PLANNING ASSUMPTIONS

The following uses in the Project Area are currently active: 2,058,355 square feet (sf) of Industry City innovation economy space, 71,835 sf of retail space, 10,000 sf of event space, 358,782 sf of common area, 72,824 sf of training facility space for the Brooklyn Nets basketball team, and 1,386,886 sf of warehouse space. There is also approximately 1,342,114 sf of vacant space on the site. An additional 179,921 sf of Industry City innovation economy space, 128,165 sf of total retail space (destination and local) and 320,672 sf of warehouse space would be developed as part of the No Action condition, converted from vacant space.

As part of the Proposed Project, an additional 1,335,506 sf of Industry City innovation economy space, 580,800 sf of destination retail space, and 79,200 sf of local retail would be developed in addition to the No Action scenario, in addition to 386,546 sf of academic space, 40,000 sf of food store space, 287,000 sf of hotel space (420 rooms), and 33,003 sf of event space. The amount of warehouse space would decrease by 1,292,558 sf as part of the Proposed Project and the amount of common area would increase by 61,175 sf.

In order to assure that all potential significant transportation impacts are identified, a more conservative density-dependent scenario has been defined and forms the basis for the transportation analyses that follow. This scenario replaces 415,000 sf of warehouse space with 173,874 sf of Industry City innovation economy space and 241,128 sf of academic space. **Table 11-1** shows the development programs under the existing, No Action, the Proposed Scenario, and the Density-Dependent Scenario. A transportation screening analysis was performed and detailed below. A figure showing the location of the proposed project is shown in **Figure 11-1**.

2.5.19

0 800 FEET

Project Area

Project Location

INDUSTRY CITY

Figure 11-1

Table 11-1
Program Comparison

Land Use	Existing Condition	No Action Condition Scenario	Proposed Scenario	Density-Dependent Scenario	Analysis Increment
Industry City Innovation Economy	2,058,355 sf	2,238,276 sf	3,573,782 sf	3,747,656 sf	1,509,380 sf
Food Store	N/A	N/A	40,000 sf	40,000 sf	40,000 sf
Academic	N/A	N/A	386,546 sf	627,674 sf	627,674 sf
Hotel	N/A	N/A	287,000 sf (420 rooms)	287,000 sf (420 rooms)	287,000 sf (420 rooms)
Local Retail	N/A	97,050 sf	176,250 sf	176,250 sf	79,200 sf
Destination Retail	71,835 sf	102,950 sf	683,750 sf	683,750 sf	580,800 sf
Event Space	10,000 sf	10,000 sf	43,003 sf	43,003 sf	33,003 sf
Warehouse	1,386,886 sf	1,707,558 sf	415,000 sf	0 sf	-1,707,558 sf
Brooklyn Nets Training Facility	74,824 sf	74,824 sf	74,824 sf	74,824 sf	0 sf

The travel demand factors used to calculate the projected number of trips generated by the Proposed Project were obtained from the *CEQR Technical Manual* and surveys conducted at Industry City for existing innovation economy, and previously approved New York City EISs and EASs. **Tables 11-2 and 11-3** provide the travel demand assumptions used for the weekday AM, midday, PM, and Saturday peak hours.

Table 11-2
Weekday Travel Demand Assumptions

	Industry City Innovation Economy	Food Store	Academic	Hotel	Local Retail	Destination Retail	Event Space	Warehouse
Person Trip Gen Rate	8.61 [4]	175 [5]	26.6 [1]	9.4 [1]	205.0 [1]	78.2 [1]	76.0 [11]	5.8 [9]
	per 1,000 SF	*per 1,000 SF*	*per 1,000 SF*	*per room*	*per 1,000 SF*	*per 1,000 SF*	*per 1,000 SF*	*per 1,000 SF*
Linked Trip Credit	0%	0%	0%	0%	25%	0%	0%	0%
Temporal Distribution								
AM Peak	10.0% [4]	5.0% [5]	16.0% [1]	8.0% [1]	3.0% [1]	3.0% [1]	3.0% [11]	17.0% [9]
Midday Peak	13.3% [4]	6.0% [5]	9.0% [7]	14.0% [1]	19.0% [1]	9.0% [1]	10.3% [11]	14.0% [9]
PM Peak	11.6% [4]	10.0% [5]	26.0% [1]	13.0% [1]	10.0% [1]	9.0% [1]	10.2% [11]	13.0% [9]
Modal Split (AM/PM Peak)								
Auto	18.5% [3]	54.0% [5,6]	6.0% [7]	45.0% [8]	2.0% [2]	59.0% [8]	36.0% [6,11]	18.5% [3,10]
Taxi	0.6% [3]	2.0% [5,6]	2.5% [7]	15.0% [8]	3.0% [2]	3.0% [8]	12.0% [6,11]	0.6% [3,10]
Bus	3.8% [3]	10.0% [5,6]	7.7% [7]	5.0% [8]	6.0% [2]	18.0% [8]	25.0% [6,11]	3.8% [3,10]
Subway	70.4% [3]	10.0% [5,6]	68.8% [7]	10.0% [8]	4.0% [2]	15.0% [8]	25.0% [6,11]	70.4% [3,10]
Walk/Bike	6.7% [3]	24.0% [5,6]	15.0% [7]	25.0% [8]	85.0% [2]	5.0% [8]	2.0% [6,11]	6.7% [3,10]
Modal Split (Midday Peak)								
Auto	9.1% [3]	54.0% [5,6]	5.0% [7]	45.0% [8]	2.0% [2]	59.0% [8]	36.0% [6,11]	9.1% [3,10]
Taxi	0.3% [3]	2.0% [5,6]	2.0% [7]	15.0% [8]	3.0% [2]	3.0% [8]	12.0% [6,11]	0.3% [3,10]
Bus	0.6% [3]	10.0% [5,6]	8.0% [7]	5.0% [8]	6.0% [2]	18.0% [8]	25.0% [6,11]	0.6% [3,10]
Subway	21.5% [3]	10.0% [5,6]	10.0% [7]	10.0% [8]	4.0% [2]	15.0% [8]	25.0% [6,11]	21.5% [3,10]
Walk/Bike	68.5% [3]	24.0% [5,6]	75.0% [7]	25.0% [8]	85.0% [2]	5.0% [8]	2.0% [6,11]	68.5% [3,10]
Vehicle Occupancy								
Auto (AM Peak)	1.43 [3]	1.12 [5]	1.20 [7]	1.60 [8]	2.00 [2]	2.05 [8]	2.00 [11]	1.43 [3,10]
Auto (Midday Peak)	1.43 [3]	1.32 [5]	1.20 [7]	1.60 [8]	2.00 [2]	2.05 [8]	2.00 [11]	1.43 [3,10]
Auto (PM Peak)	1.43 [3]	1.34 [5]	1.20 [7]	1.60 [8]	2.00 [2]	2.05 [8]	2.00 [11]	1.43 [3,10]
Taxi	1.43 [3]	1.38 [5]	1.30 [7]	1.40 [8]	2.00 [2]	2.05 [8]	2.00 [11]	1.43 [3,10]
Directional Split (Ins)								
AM Peak	78.6% [4]	57.0% [5]	95.0% [7]	41.0% [8]	50.0% [2]	61.0% [8]	56.0% [11]	83.0% [9]
Midday Peak	49.3% [4]	50.0% [5]	50.0% [7]	69.0% [8]	50.0% [2]	55.0% [8]	14.0% [11]	50.0% [9]
PM Peak	29.4% [4]	52.0% [5]	10.0% [7]	58.0% [8]	50.0% [2]	47.0% [8]	5.0% [11]	25.0% [9]
Truck Trip Gen	0.50 [1,2]	2.14 [5]	0.10 [7]	0.24 [8]	0.35 [1]	0.70 [8]	0.35 [11]	0.67 [9]
	per 1,000 SF	*per 1,000 SF*	*per 1,000 SF*	*per room*	*per 1,000 SF*	*per 1,000 SF*	*per 1,000 SF*	*per 1,000 SF*
Truck Temporal Distribution								
AM Peak	13% [1,2]	12.0% [5]	9.7% [7]	12.0% [8]	8.0% [1]	8.0% [8]	7.9% [11]	14.0% [9]
Midday Peak	9% [1,2]	13.0% [5]	9.1% [7]	9.0% [8]	11.0% [1]	11.0% [8]	14.7% [11]	9.0% [9]
PM Peak	1% [1,2]	4.0% [5]	5.1% [7]	1.0% [8]	2.0% [1]	1.0% [8]	1.1% [11]	1.0% [9]
Truck Trip Directional Split (Ins)	50.0% [1,2,3]	50.0% [6]	50.0% [8]	50.0% [9]	50.0% [1]	50.0% [9]	50.0% [12]	50.0% [10]

1. 2014 CEQR Technical Manual
2. Admiral Row Plaza FEIS 2011
3. Based on survey of innovation economy use at Industry City conducted by Industry City between January and April 2015
4. Based on survey of innovation economy use at Industry City conducted by VHB in August 2016
5. Whole Foods Traffic Study 2012
6. Modal splits modified to reflect local travel characteristics of the land use
7. Cornell NYC Tech FEIS 2013, based on Graduate Students component
8. Coney Island Rezoning FEIS 2009
9. Lower Concourse Rezoning and Related Actions FEIS 2009
10. Assumes modal splits and/or vehicle occupancy similar to Industry City innovation economy use
11. Conference Center rates from Brooklyn Piers 7–12 EAS 2006

Table 11-3
Saturday Travel Demand Assumptions

	Industry City Innovation Economy	Food Store	Academic	Hotel	Local Retail	Destination Retail	Event Space	Warehouse
Person Trip Gen Rate	2.20 [4] *per 1,000 SF*	231.0 [5] *per 1,000 SF*	13.5 [1] *per 1,000 SF*	9.4 [1] *per room*	240.0 [1] *per 1,000 SF*	92.5 [1] *per 1,000 SF*	50.74 [11] *per 1,000 SF*	1.4 [9] *per 1,000 SF*
Linked Trip Credit	0%	0%	0%	0%	25%	0%	0%	0%
Temporal Distribution								
Saturday Peak	14.2% [4]	9.0% [5]	16.0% [1]	9.0% [1]	10.0% [1]	11.0% [1]	12.5% [11]	11.0% [9]
Modal Split								
Auto	9.1% [3]	63.0% [5]	5.0% [7]	45.0% [8]	2.0% [2]	59.0% [8]	36.0% [6,11]	9.1% [3,10]
Taxi	0.3% [3]	3.0% [5]	2.0% [7]	15.0% [8]	3.0% [2]	5.0% [8]	12.0% [6,11]	0.3% [3,10]
Bus	0.6% [3]	10.0% [5]	8.0% [7]	5.0% [8]	6.0% [2]	18.0% [8]	25.0% [6,11]	0.6% [3,10]
Subway	21.5% [3]	10.0% [5]	10.0% [7]	10.0% [8]	4.0% [2]	13.0% [8]	25.0% [6,11]	21.5% [3,10]
Walk/Bike	68.5% [3]	14.0% [5]	75.0% [7]	25.0% [8]	85.0% [2]	5.0% [8]	2.0% [6,11]	68.5% [3,10]
Vehicle Occupancy								
Auto	1.43 [3]	1.48 [5]	1.20 [7]	2.20 [8]	2.00 [2]	2.49 [8]	3.00 [11]	1.43 [3,10]
Taxi	1.43 [3]	1.38 [5]	1.30 [7]	1.40 [8]	2.00 [2]	2.49 [8]	3.00 [11]	1.43 [3,10]
Directional Split (Ins)								
Saturday Peak	46.7% [4]	52.0% [5]	50.0% [7]	56.0% [8]	50.0% [2]	55.0% [8]	25.0% [11]	50.0% [9]
Truck Trip Gen	0.11 [1,2] *per 1,000 SF*	0.85 [5] *per 1,000 SF*	0.10 [7] *per 1,000 SF*	0.08 [8] *per room*	0.04 [1] *per 1,000 SF*	0.04 [8] *per 1,000 SF*	0.02 [11] *per 1,000 SF*	0.02 [9] *per 1,000 SF*
Truck Temporal Distribution								
Saturday Peak	1% [1,2]	9.0% [5]	9.1% [7]	9.0% [8]	11.0% [1]	11.0% [8]	14.7% [11]	9.0% [9]
Truck Trip Directional Split (Ins)	50.0% [1,2,3]	50.0% [6]	50.0% [8]	50.0% [9]	50.0% [1]	50.0% [9]	50.0% [12]	50.0% [10]

1. 2014 CEQR Technical Manual
2. Admiral Row Plaza FEIS
3. Based on survey of innovation economy use at Industry City conducted by Industry City between January and April 2015; assumes the Saturday peak hour modal split is similar to the weekday midday peak hour modal split
4. Based on survey of innovation economy use at Industry City conducted by VHB in August 2016; the Saturday peak hour temporal and directional distributions is similar to the weekday midday peak hour temporal and directional distributions
5. Whole Foods Traffic Study 2012
6. Modal splits modified to reflect travel characteristics of the land use
7. Cornell NYC Tech FEIS 2013, assume similar travel characteristics as weekday midday peak hour
8. Coney Island Rezoning FEIS 2009
9. Lower Concourse Rezoning and Related Actions FEIS 2009
10. Assume modal splits and/or vehicle occupancy similar to Industry City innovation economy use
11. Conference Center rates from Brooklyn Piers 7–12 EAS 2006

Industry City Innovation Economy

Industry City innovation economy is the primary land use existing in the Project Area and this use does not operate as a traditional workspace; the design and development of products are both performed on-site. Based upon the substantial amount of innovation economy space already tenanted at Industry City, Industry City innovation economy can generally be classified as a blend of manufacturing space, artisanal manufacturing and design studio space, and space that would resemble office space.

A trip generation rate of 8.61 daily person trips per 1,000 sf for weekdays and 2.20 daily person trips per 1,000 sf for Saturdays, and weekday temporal distributions of 10.0 percent, 13.3 percent, 11.6 percent, and 14.2 percent for the weekday AM, midday, PM, and Saturday peak hours, respectively, were based on survey data of existing innovation economy uses conducted by VHB in August 2016. Saturday trip generation rates were prorated based on the number of employees working on a typical Saturday compared to a typical weekday. Directional distributions of 78.6 percent "in," 49.3 percent "in," 29.4 percent "in," and 46.7 percent "in" were used for the weekday AM, midday, PM, and Saturday peak hours, respectively, based on the August 2016 survey. The weekday AM and PM peak hour modal splits of 18.5 percent by auto, 0.6 percent by taxi, 3.8 percent by bus, 70.4 percent by subway, and 6.7 percent by walk or bike, and weekday midday and Saturday peak hour modal splits of 9.1 percent by auto, 0.3 percent by taxi, 0.6 percent by bus, 21.5 percent by subway, and 68.5 percent by walk or bike, were based on survey data of the existing innovation economy use obtained from the applicant, Industry City, between January 2015 and April 2015.

Daily delivery trips were based on the average of rates obtained from the 2011 *Admiral Row Plaza FEIS* for the light industrial use and the office use from the *CEQR Technical Manual*. Trip generation rates of 0.50 daily trucks per 1,000 sf for the weekday and 0.11 daily trucks per 1,000 sf for the Saturday, and temporal distribution of 13 percent, 9 percent, 1 percent, and 1 percent for the weekday AM, midday, PM, and Saturday peak hours, respectively, were used for the analysis.

Food Store

For the food store use, trip generation rates of 175 daily person trips per 1,000 sf for weekday and 231 daily person trips per 1,000 sf for Saturday were obtained from the 2012 *Whole Foods Traffic Study*. Temporal distribution rates, mode splits (adjusted for local characteristics), vehicle occupancy, and directional distribution rates were obtained from the *Whole Foods Traffic Study*. The modal splits assumed for the weekday AM, midday, and PM peak hours were 54 percent by auto, 2 percent by taxi, 10 percent by bus, 10 percent by subway, and 24 percent by walk or bike, and the modal split assumed for the Saturday peak hour are 63 percent by auto, 3 percent by taxi, 10 percent by bus, 10 percent by subway, and 14 percent by walk or bike. Vehicle occupancies of 1.12 persons per auto, 1.32 persons per auto, 1.34 persons per auto, and 1.48 persons per auto for the weekday AM, midday, PM, and Saturday peak hours, respectively, were assumed. Vehicle occupancy of 1.38 persons per taxi was assumed for all peak hours. The temporal distributions used were 5 percent, 6 percent, 10 percent, and 9 percent for the weekday AM, midday, PM, and Saturday peak hours, respectively, and the directional distributions of 57 percent "in," 50 percent "in," 52 percent "in," and 52 percent "in" were assumed for the weekday AM, midday, PM, and Saturday peak hours, respectively.

For food store delivery trips, trip generation rates of 2.14 daily trucks per 1,000 sf for the weekday and 0.85 daily trucks per 1,000 sf for the Saturday, and temporal distributions of 12 percent, 13 percent, 4 percent, and 9 percent for the weekday AM, midday, PM, and Saturday peak hours, respectively, were obtained from the *Whole Foods Traffic Study*.

Academic

A trip generation rate of 26.6 daily person trips per 1,000 sf for weekdays and 13.5 daily person trips per 1,000 sf for Saturdays were obtained from the *CEQR Technical Manual*. Weekday and Saturday temporal distributions of 16 percent, 26 percent, and 16 percent for the weekday AM, PM, and Saturday peak hours, respectively, were obtained from the *CEQR Technical Manual*. Since a weekday midday peak hour temporal distribution is not provided in the *CEQR Technical Manual*, it was assumed to be 9 percent which was obtained from the graduate component found in the 2013 *Cornell NYC Tech FEIS*. Modal splits, vehicle occupancy, and directional distributions were obtained from the *Cornell NYC Tech FEIS* for the graduate student component. The modal splits assumed for the weekday AM and PM peak hours were 6 percent by auto, 2.5 percent by taxi, 7.7 percent by bus, 68.8 percent by subway, and 15 percent by walk. The modal splits assumed for the weekday midday peak hour were 5 percent by auto, 2 percent by taxi, 8 percent by bus, 10 percent by subway, and 75 percent by walk. Vehicle occupancies of 1.20 persons per auto and 1.30 persons per taxi were assumed. Directional distributions of 95 percent "in," 50 percent "in," and 10 percent "in" for the weekday AM, midday, and PM peak hours, respectively, were assumed. Saturday peak hour factors were assumed to be similar to the weekday midday peak hour.

For academic delivery trips, trip generation rate of 0.10 daily trucks per 1,000 sf for the weekday and Saturday, and temporal distribution of 10 percent, 9 percent, 5 percent, and 9 percent for the

weekday AM, midday, PM, and Saturday peak hours, respectively, were obtained from the *Cornell NYC Tech FEIS.*

Hotel

For the hotel use, trip generation rates of 9.4 daily person trips per room for weekdays and Saturdays, and temporal distributions of 8 percent, 14 percent, 13 percent, and 9 percent for the weekday AM, midday, PM, and Saturday peak hours, respectively, were obtained from the *CEQR Technical Manual*. The weekday AM, midday, PM, and Saturday peak hour modal splits of 45 percent by auto, 15 percent by taxi, 5 percent by bus, 10 percent by subway, and 25 percent by walk or bike were obtained from the 2009 *Coney Island Rezoning FEIS*. Vehicle occupancies of 1.60 persons per auto and 1.40 persons per taxi during the weekday peak hours and 2.20 persons per auto and 1.40 persons per taxi during the Saturday peak hour, were obtained from the *Coney Island Rezoning FEIS*. Directional distributions of 41 percent "in," 69 percent "in," 58 percent "in," and 56 percent "in" for the weekday AM, midday, PM, and Saturday peak hours, respectively, were obtained from the *Coney Island Rezoning FEIS*.

For hotel delivery trips, trip generation rates of 0.24 daily trucks per room for the weekday and 0.08 daily trucks per room for the Saturday, and temporal distributions of 12 percent, 9 percent, 1 percent, and 9 percent for the weekday AM, midday, PM, and Saturday peak hours, respectively, were obtained from the *Coney Island Rezoning FEIS*.

Local Retail

For the local retail use, trip generation rates of 205 daily person trips per 1,000 sf for weekdays and 240 daily person trips per 1,000 sf for Saturdays were obtained from the *CEQR Technical Manual*, and a 25 percent credit was applied to account for linked trips between local retail and other uses in the Project Area. Vehicle occupancy, modal split, and directional distribution rates were obtained from the *Admiral Row Plaza FEIS* and the temporal distribution rates were obtained from the *CEQR Technical Manual*. The modal split assumed for the weekday AM, midday, PM, and Saturday peak hours are 2 percent by auto, 3 percent by taxi, 6 percent by bus, 4 percent by subway, and 85 percent by walk or bike. Vehicle occupancies of 2.00 persons per auto or taxi were used for all peak analysis hours. The temporal distributions used were 3 percent, 19 percent, 10 percent, and 10 percent for the weekday AM, midday, PM, and Saturday peak hours, respectively, and the directional distribution used was 50 percent "in" for all peak analysis hours.

For local retail delivery trips, trip generation rates of 0.35 daily trucks per 1,000 sf for the weekday and 0.04 daily trucks per 1,000 sf for the Saturday, and temporal distributions of 8 percent, 11 percent, 2 percent, and 11 percent for the weekday AM, midday, PM, and Saturday peak hours, respectively, were obtained from the *CEQR Technical Manual*.

Destination Retail

For the destination retail use, trip generation rates of 78.2 daily person trips per 1,000 sf for weekdays and 92.5 daily person trips per 1,000 sf for Saturdays were obtained from the *CEQR Technical Manual*. Vehicle occupancy, modal split, and directional distribution rates were obtained from the *Coney Island Rezoning FEIS* and the temporal distribution rates were obtained from the *CEQR Technical Manual*. The modal splits used for the weekday AM, midday, and PM peak hours are 59 percent by auto, 3 percent by taxi, 18 percent by bus, 15 percent by subway, and 5 percent by walk or bike, and 59 percent by auto, 5 percent by taxi, 18 percent by bus, 13 percent by subway, and 5 percent by walk or bike for the Saturday peak hour. Vehicle occupancies of 2.05 persons per auto or taxi were used for the weekday peak analysis hours, and vehicle occupancies of 2.49 persons per auto or taxi were used for the Saturday peak hour. The temporal

distributions used were 3 percent, 9 percent, 9 percent, and 11 percent for the weekday AM, midday, PM, and Saturday peak hours, respectively, and the directional distributions used were 61 percent "in," 55 percent "in," 47 percent "in," and 55 percent "in" for the weekday AM, midday, PM, and Saturday peak hours, respectively.

For destination retail delivery trips, trip generation rates of 0.70 daily trucks per 1,000 sf for the weekday and 0.04 daily trucks per 1,000 sf for the Saturday, and temporal distributions of 8 percent, 11 percent, 1 percent, and 11 percent for the weekday AM, midday, PM, and Saturday peak hours, respectively, were obtained from the *Coney Island Rezoning.*

Event Space

The proposed event space would serve as an accessory meeting or event area, and would only be available for use by Industry City tenants. However, for purposes of a conservative analysis, trip generation rates of 76 daily person trips per 1,000 sf for weekdays and 50.74 daily person trips per 1,000 sf for Saturdays were used and were based on the conference center use obtained from the 2006 *Brooklyn Piers 7–12 EAS*. The temporal distribution, directional distribution, modal split, and vehicle occupancy rates were also obtained from the conference center use from the *Brooklyn Piers 7–12 EAS*. The modal split was modified to reflect local travel characteristics. Temporal distributions of 3 percent, 10.3 percent, 10.2 percent, and 12.5 percent were assumed for the weekday AM, midday, PM, and Saturday peak hours, respectively, and directional distributions of 56 percent "in," 14 percent "in," 5 percent "in," and 25 percent "in" were assumed for the weekday AM, midday, PM, and Saturday peak hours, respectively. The modal splits of 36 percent by auto, 12 percent by taxi, 25 percent by bus, and 25 percent by subway, and 2 percent by walk or bike were assumed for all peak hours. Vehicle occupancies of 2 persons per auto or taxi and 3 persons per auto or taxi were used for weekdays and Saturdays, respectively.

Daily delivery trips rates were based on the conference center use from the *Brooklyn Pier 7–12 EAS*. Trip generation rates of 0.35 daily trucks per 1,000 sf for the weekday and 0.02 daily trucks per 1,000 sf for the Saturday, and temporal distribution of 7.9 percent, 14.7 percent, 1.1 percent, and 14.7 percent for the weekday AM, midday, PM, and Saturday peak hours, respectively, were used for the analysis.

Warehouse

For the warehouse use, trip generation rates of 5.8 daily person trips per 1,000 sf for weekdays and 1.4 daily person trips per 1,000 sf for Saturdays were based on the rates in the 2009 *Lower Concourse Rezoning and Related Actions FEIS*. The weekday AM and PM peak hour modal splits of 18.5 percent by auto, 0.6 percent by taxi, 3.8 percent by bus, 70.4 percent by subway, and 6.7 percent by walk or bike, and the weekday midday and Saturday peak hour modal splits of 9.1 percent by auto, 0.3 percent by taxi, 0.6 percent by bus, 21.5 percent by subway, and 68.5 percent by walk or bike, are all assumed to be similar to the innovation economy use. The vehicle occupancy is also assumed to be similar to the innovation economy use and the rate of 1.43 persons per auto or taxi was used for the peak analysis hours. Temporal distributions and directional distributions were also obtained from the *Lower Concourse Rezoning and Related Actions FEIS.* The temporal distributions used were 17 percent, 14 percent, 13 percent, and 11 percent for the weekday AM, midday, PM, and Saturday peak hours, respectively, and the directional distributions used were 83 percent "in," 50 percent "in," 25 percent "in," and 50 percent "in" for the weekday AM, midday, PM, and Saturday peak hours, respectively.

For warehouse delivery trips, trip generation rates of 0.67 daily trucks per 1,000 sf for weekdays and 0.02 daily trucks per 1,000 sf for Saturdays, and temporal distributions of 14 percent, 9 percent, 1

percent, and 9 percent for the weekday AM, midday, PM, and Saturday peak hours, respectively, were obtained from the *Lower Concourse Rezoning and Related Actions FEIS.*

TRIP GENERATION

Traffic and Parking

Table 11-4 below summarizes the total peak hour vehicular volumes ("ins" plus "outs") that would be generated by the Proposed Project.

As shown in **Table 11-4**, the increase in hourly vehicle trips would be 988 vph during the weekday AM peak hour, 2,089 vph in the weekday midday peak hour, 2,408 vph in weekday PM peak hour, and 2,408 vph in the Saturday peak hour. Since the incremental volume of vehicle trips generated by the Proposed Project would exceed the *CEQR Technical Manual* 50 vehicle-trip threshold, a Level 2 vehicle trip assignment has been conducted.

Table 11-4
Trip Generation Summary – Vehicle Trips

Industry City Innovation Economy Vehicle Trips												
	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	131	37	168	56	57	113	58	135	193	15	16	31
Taxi	7	7	14	4	4	8	5	5	10	0	0	0
Truck	49	49	98	35	35	70	6	6	12	0	0	0
Total	187	93	280	95	96	191	69	146	215	15	16	31
Academic Vehicle Trips												
	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	127	7	134	32	32	64	22	195	217	28	28	56
Taxi	50	50	100	24	24	48	83	83	166	22	22	44
Truck	3	3	6	3	3	6	2	2	4	3	3	6
Total	180	60	240	59	59	118	107	280	387	53	53	106
Hotel Vehicle Trips												
	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	37	52	89	107	48	155	83	61	144	40	32	72
Taxi	35	35	70	58	58	116	55	55	110	38	38	76
Truck	7	7	14	5	5	10	0	0	0	2	2	4
Total	79	94	173	170	111	281	138	116	254	80	72	152
Local Retail Vehicle Trips												
	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	3	3	6	14	14	28	8	8	16	9	9	18
Taxi	8	8	16	36	36	72	20	20	40	24	24	48
Truck	2	2	4	3	3	6	0	0	0	0	0	0
Total	13	13	26	53	53	106	28	28	56	33	33	66
Destination Retail Vehicle Trips												
	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	239	152	391	647	530	1177	553	625	1178	770	631	1401
Taxi	15	15	30	49	49	98	58	58	116	117	117	234
Truck	15	15	30	21	21	42	1	1	2	0	0	0
Total	269	182	451	717	600	1317	612	684	1296	887	748	1635

Table 11-4 (cont'd)
Trip Generation Summary – Vehicle Trips

Event Space Vehicle Trips												
	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	8	7	15	7	41	48	3	44	47	7	19	26
Taxi	5	5	10	16	16	32	17	17	34	9	9	18
Truck	0	0	0	1	1	2	0	0	0	0	0	0
Total	13	12	25	24	58	82	20	61	81	16	28	44
Food Store Vehicle Trips												
	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	96	72	168	86	86	172	147	135	282	184	170	354
Taxi	5	5	10	6	6	12	10	10	20	18	18	36
Truck	5	5	10	6	6	12	2	2	4	2	2	4
Total	106	82	188	98	98	196	159	147	306	204	190	394
Warehouse Vehicle Trips												
	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	-180	-39	-219	-45	-45	-90	-43	-124	-167	-9	-9	-18
Taxi	-7	-7	-14	-4	-4	-8	-5	-5	-10	0	0	0
Truck	-81	-81	-162	-52	-52	-104	-5	-5	-10	-1	-1	-2
Total	-268	-127	-395	-101	-101	-202	-53	-134	-187	-10	-10	-20
Total Vehicle Trips												
	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	**461**	**291**	**752**	**904**	**763**	**1,667**	**831**	**1,079**	**1,910**	**1,044**	**896**	**1,940**
Taxi	**118**	**118**	**236**	**189**	**189**	**378**	**243**	**243**	**486**	**228**	**228**	**456**
Truck	**0**	**0**	**0**	**22**	**22**	**44**	**6**	**6**	**12**	**6**	**6**	**12**
Total	**579**	**409**	**988**	**1,115**	**974**	**2,089**	**1,080**	**1,328**	**2,408**	**1,278**	**1,130**	**2,408**

Transit and Pedestrians

The net increment of person trips generated as part of the Proposed Project as compared to the No Action condition are summarized in **Table 11-5** below.

Transit and pedestrian trips generated by the Proposed Project, would exceed the *CEQR Technical Manual* Level 1 screening thresholds for transit and for pedestrians. The increase in transit trips would be 2,402 person trips during the weekday AM peak hour, 2,215 person trips in the weekday midday peak hour, 5,302 person trips in the weekday PM peak hour, and 2,587 person trips in the Saturday peak hour. The net increase in pedestrian trips (walk/bike plus transit) is expected to be 3,315 person trips during the weekday AM peak hour, 5,987 person trips during the weekday midday peak hour, 7,506 person trips during the weekday PM peak hour, and 5,459 person trips during the Saturday peak hour. Since the number of peak hour transit trips and the number of peak hour pedestrian trips expected to be generated by the Proposed Project would exceed the *CEQR Technical Manual* thresholds of 200 transit rider trips per hour and 200 pedestrian trips per hour, a Level 2 pedestrian and transit trip assignment has been conducted.

Table 11-5
Trip Generation Summary – Person Trips

Industry City Innovation Economy Person Trips

	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	189	53	242	80	81	161	84	196	280	20	23	43
Taxi	7	2	9	2	2	4	1	5	6	0	0	0
Bus	40	11	51	5	6	11	18	42	60	0	0	0
Subway	719	196	915	181	187	368	312	750	1,062	48	56	104
Walk	68	17	85	582	597	1,179	28	71	99	153	173	326
Total	1,023	279	1,302	850	873	1,723	443	1,064	1,507	221	252	473

Academic Person Trips

	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	152	8	160	38	38	76	26	234	260	34	34	68
Taxi	63	3	66	15	15	30	11	98	109	14	14	28
Bus	195	10	205	60	60	120	33	301	334	54	54	108
Subway	1,746	92	1,838	75	75	150	299	2,688	2,987	68	68	136
Walk	381	20	401	563	563	1,126	65	586	651	508	508	1,016
Total	2,537	133	2,670	751	751	1,502	434	3,907	4,341	678	678	1,356

Hotel Person Trips

	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	59	84	143	171	77	248	133	98	231	89	70	159
Taxi	20	28	48	57	25	82	44	32	76	30	23	53
Bus	7	10	17	19	8	27	15	10	25	10	8	18
Subway	13	19	32	38	17	55	30	22	52	20	15	35
Walk	32	47	79	96	42	138	74	54	128	50	39	89
Total	131	188	319	381	169	550	296	216	512	199	155	354

Local Retail Person Trips

	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	3	3	6	23	23	46	12	12	24	15	15	30
Taxi	5	5	10	34	34	68	18	18	36	21	21	42
Bus	10	10	20	69	69	138	36	36	72	43	43	86
Subway	8	8	16	47	47	94	25	25	50	29	29	58
Walk	154	154	308	984	984	1,968	517	517	1,034	606	606	1,212
Total	180	180	360	1,157	1,157	2,314	608	608	1,216	714	714	1,428

Destination Retail Person Trips

	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	490	313	803	1,327	1,084	2,411	1,134	1,279	2,413	1,917	1,570	3,487
Taxi	25	15	40	69	55	124	58	64	122	163	132	295
Bus	150	95	245	403	329	732	345	390	735	584	478	1,062
Subway	123	79	202	337	277	614	288	324	612	423	345	768
Walk	41	26	67	113	92	205	96	107	203	163	132	295
Total	829	528	1,357	2,249	1,837	4,086	1,921	2,164	4,085	3,250	2,657	5,907

Table 11-5 (cont'd)
Trip Generation Summary – Person Trips

Event Space Person Trips												
	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	15	12	27	13	80	93	5	88	93	19	57	76
Taxi	5	4	9	4	27	31	2	30	32	7	19	26
Bus	11	8	19	9	55	64	3	61	64	13	39	52
Subway	11	8	19	9	55	64	3	61	64	13	39	52
Walk	1	0	1	1	5	6	0	6	6	2	3	5
Total	43	32	75	36	222	258	13	246	259	54	157	211
Food Store Person Trips												
	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	108	81	189	113	113	226	197	181	378	272	251	523
Taxi	4	3	7	4	4	8	7	7	14	13	12	25
Bus	20	15	35	21	21	42	36	34	70	43	40	83
Subway	20	15	35	21	21	42	36	34	70	43	40	83
Walk	48	36	84	50	50	100	87	81	168	61	56	117
Total	200	150	350	209	209	418	363	337	700	432	399	831
Warehouse Person Trips												
	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	-259	-54	-313	-63	-63	-126	-60	-179	-239	-12	-12	-24
Taxi	-8	-2	-10	-2	-2	-4	-2	-5	-7	0	0	0
Bus	-54	-10	-64	-3	-3	-6	-12	-37	-49	0	0	0
Subway	-982	-201	-1,183	-150	-150	-300	-226	-680	-906	-29	-29	-58
Walk	-94	-18	-112	-475	-475	-950	-20	-65	-85	-94	-94	-188
Total	-1,397	-285	-1,682	-693	-693	-1,386	-320	-966	-1,286	-135	-135	-270
Total Person Trips												
	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	**757**	**500**	**1,257**	**1,702**	**1,433**	**3,135**	**1,531**	**1,909**	**3,440**	**2,354**	**2,008**	**4,362**
Taxi	**121**	**58**	**179**	**183**	**160**	**343**	**139**	**249**	**388**	**248**	**221**	**469**
Bus	**379**	**149**	**528**	**583**	**545**	**1,128**	**474**	**837**	**1,311**	**747**	**662**	**1,409**
Subway	**1,658**	**216**	**1,874**	**558**	**529**	**1,087**	**767**	**3,224**	**3,991**	**615**	**563**	**1,178**
Walk	**631**	**282**	**913**	**1,914**	**1,858**	**3,772**	**847**	**1,357**	**2,204**	**1,449**	**1,423**	**2,872**
Total	**3,546**	**1,205**	**4,751**	**4,940**	**4,525**	**9,465**	**3,758**	**7,576**	**11,334**	**5,413**	**4,877**	**10,290**

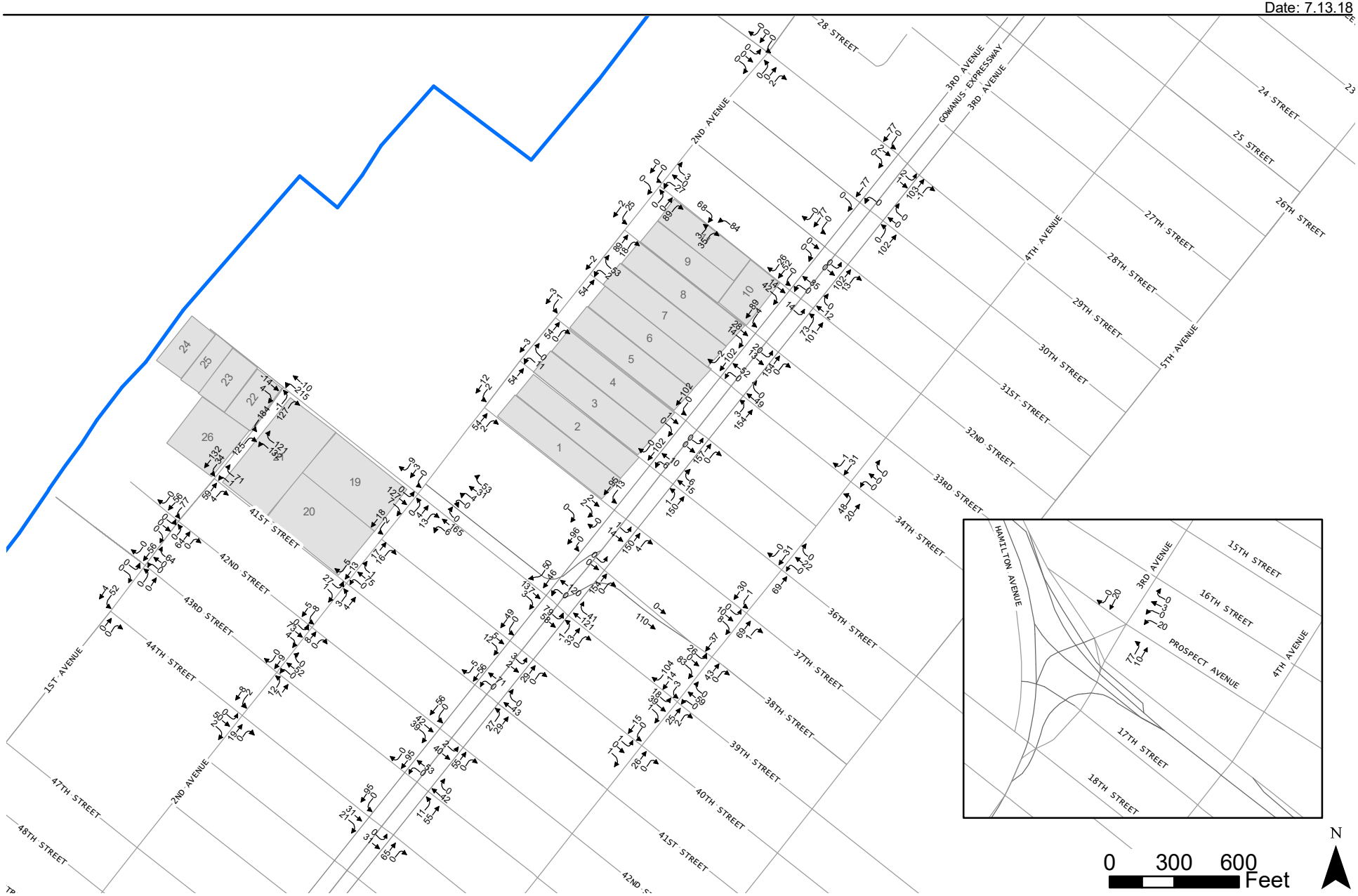
LEVEL 2 SCREENING ASSESSMENT

A Level 2 screening assessment involves the distribution and assignment of projected trips to the transportation network to determine specific locations requiring detailed analysis. If the results of this analysis show that there would be a net increase of 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 per station element, 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, pedestrian, and parking impacts.

TRAFFIC STREET NETWORK

The net increases in vehicle trips were assigned to area intersections based on the most likely travel routes to and from the Project Area and parking locations. Auto trips were assigned to the parking facilities within the study area including the proposed parking facilities at Buildings 11 and 21. Taxi trips were assigned to the block faces bordering each building in the Project Area. Traffic assignments for autos, taxis, and deliveries are discussed in detail later in this chapter under Section E. Traffic volume increments are shown in **Figures 11-2 through 11-5**.

Date: 7.13.18



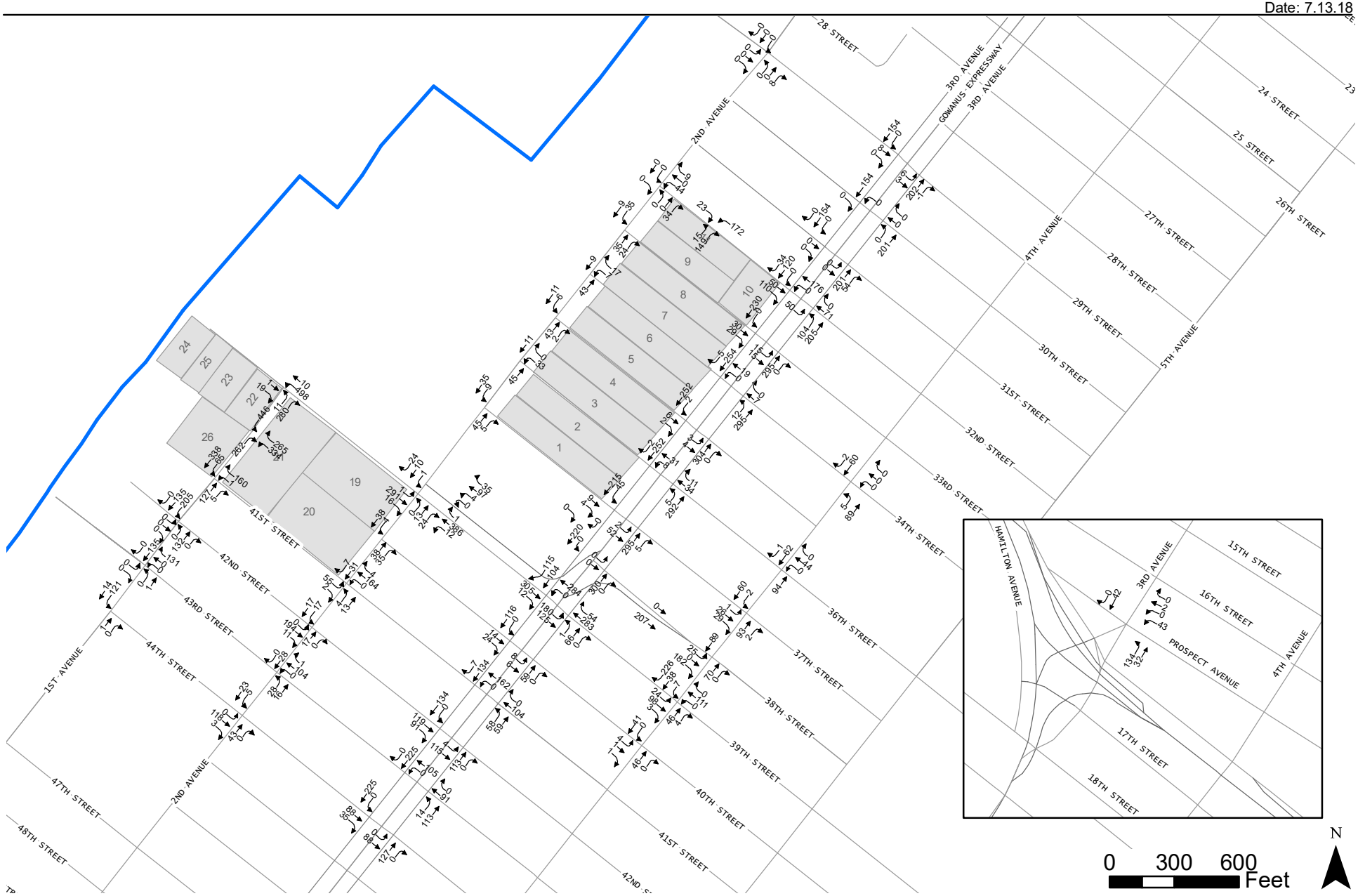
Industry City

Project Generated Vehicle Trips
Weekday AM Peak Hour

Figure
11-2

Project Site Buildings

Sources: 1. New York (City). Dept. of City Planning 2014. LION (Edition 14A). New York City: NYC Department of City Planning.



Industry City

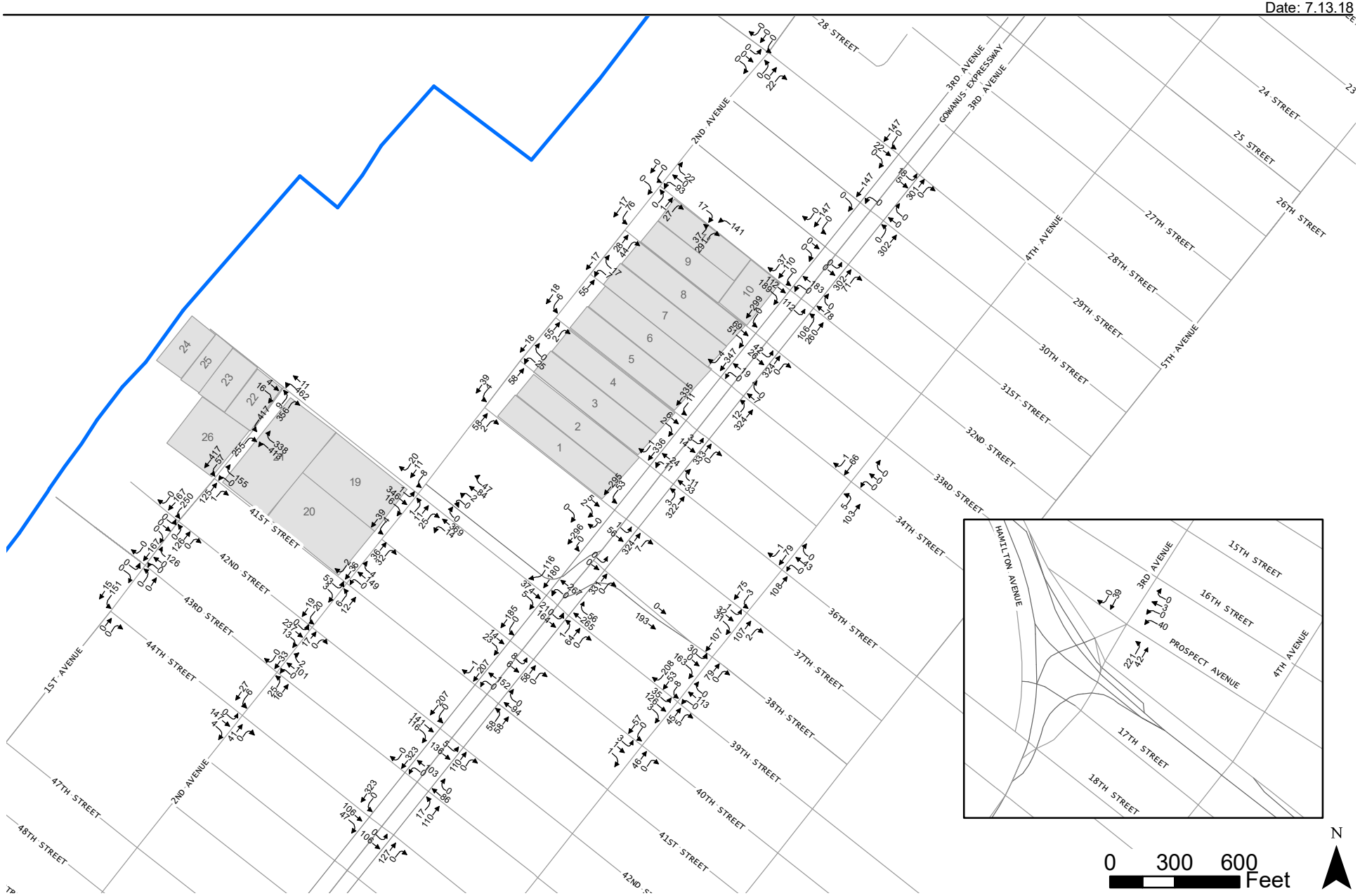
Project Generated Vehicle Trips
Weekday Midday Peak Hour

Figure 11-3

Project Site Buildings

Sources: 1. New York (City). Dept. of City Planning 2014. LION (Edition 14A). New York City: NYC Department of City Planning.

Date: 7.13.18



Industry City

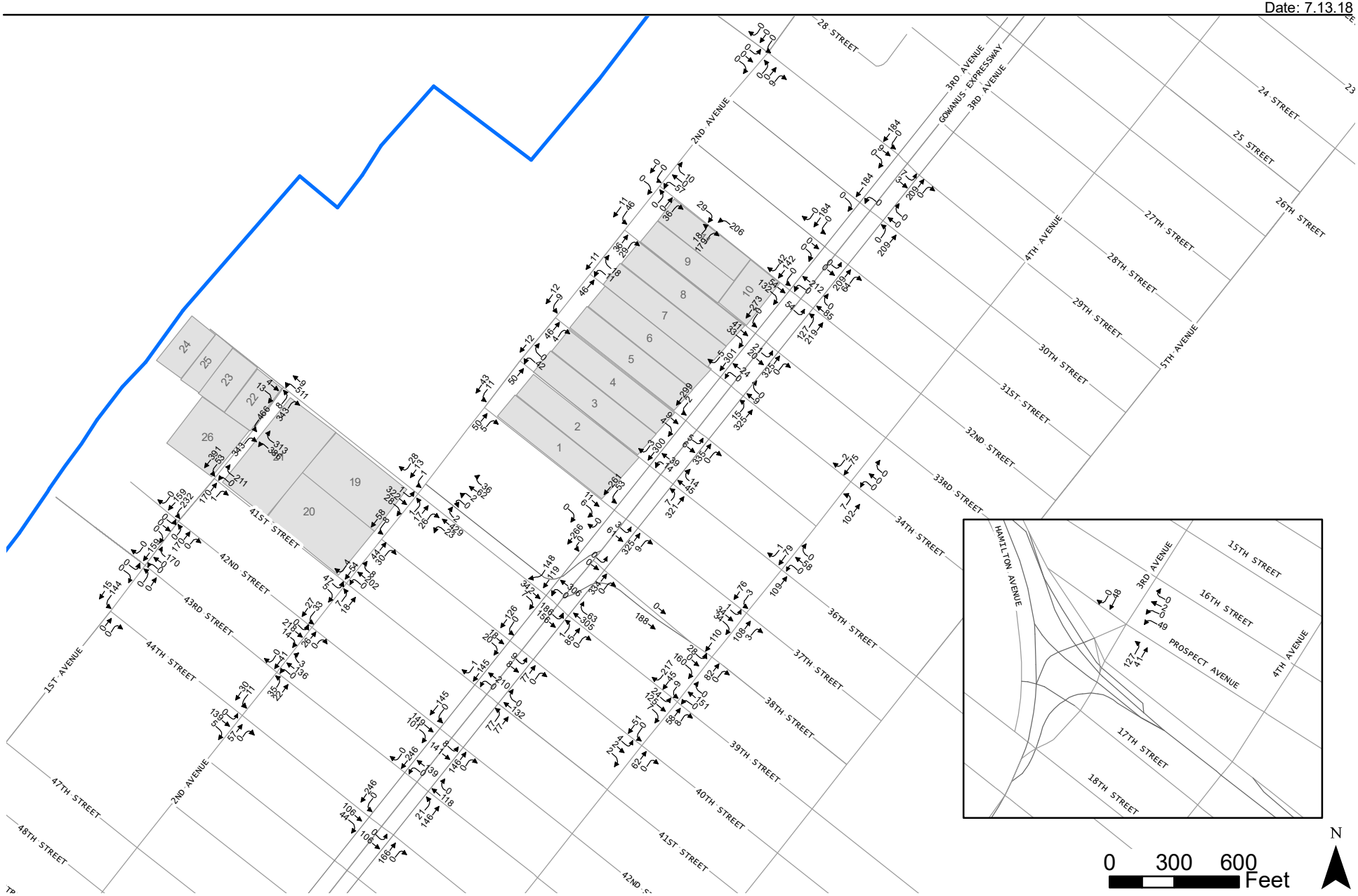
Project Generated Vehicle Trips
Weekday PM Peak Hour

Figure 11-4

Project Site Buildings

Sources: 1. New York (City). Dept. of City Planning 2014. LION (Edition 14A). New York City: NYC Department of City Planning.

Date: 7.13.18



Industry City

Project Generated Vehicle Trips
Saturday Peak Hour

Figure
11-5

Project Site Buildings

Sources: 1. New York (City). Dept. of City Planning 2014. LION (Edition 14A). New York City: NYC Department of City Planning.

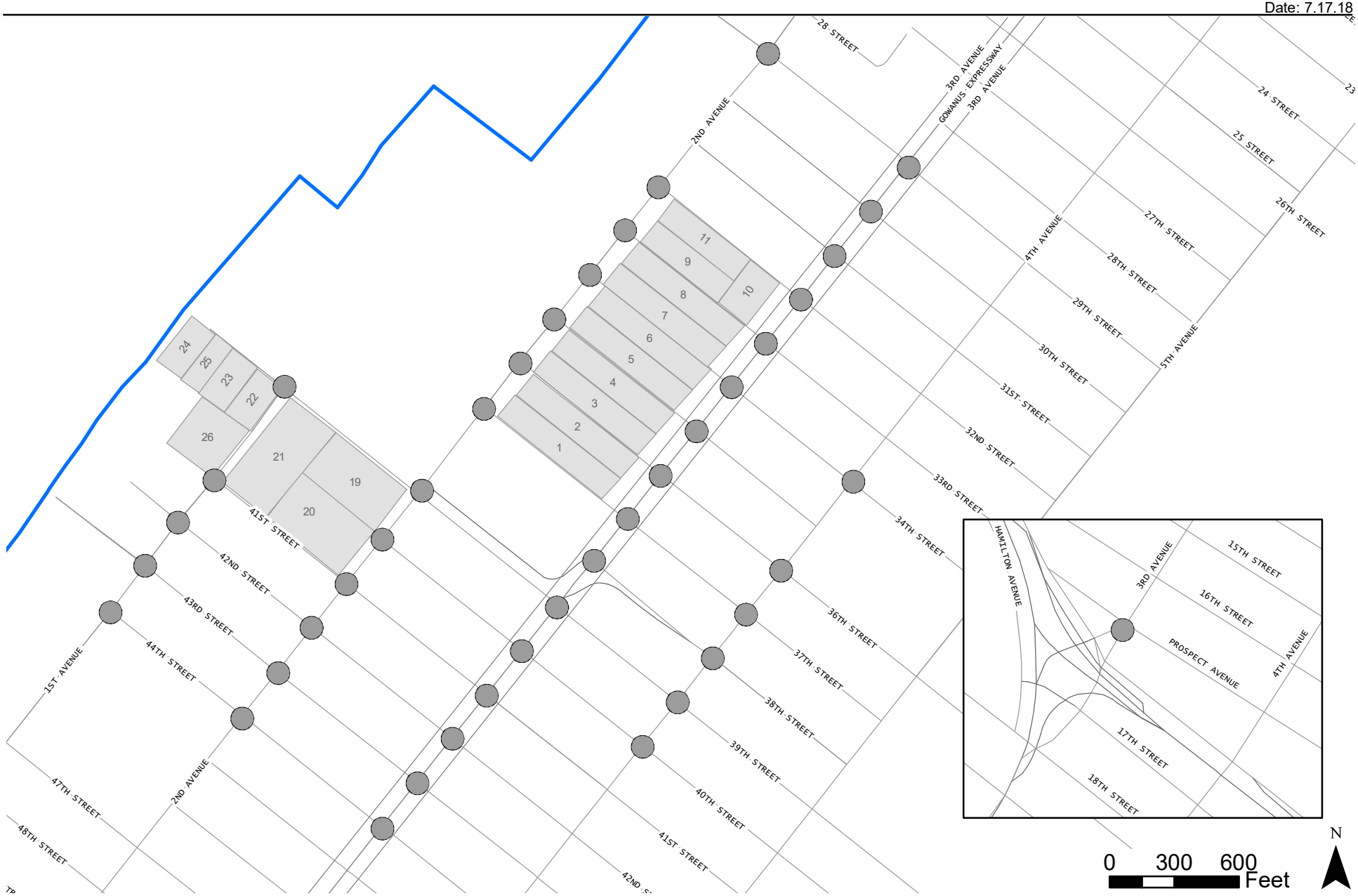
A total of 41 intersections within vicinity of the Project Area were identified, in consultation with DCP and DOT, for study as listed below and shown in **Figure 11-6**:

1. 1st Avenue and 39th Street (unsignalized)
2. 1st Avenue and 41st Street (unsignalized)
3. 1st Avenue and 42nd Street (unsignalized)
4. 1st Avenue and 43rd Street (unsignalized)
5. 1st Avenue and 44th Street (unsignalized)
6. 2nd Avenue and 29th Street (unsignalized)
7. 2nd Avenue and 32nd Street (unsignalized)
8. 2nd Avenue and 33rd Street (unsignalized)
9. 2nd Avenue and 34th Street (unsignalized)
10. 2nd Avenue and 35th Street (unsignalized)
11. 2nd Avenue and 36th Street (unsignalized)
12. 2nd Avenue and 37th Street (unsignalized)
13. 2nd Avenue and 39th Street
14. 2nd Avenue and 40th Street (unsignalized)
15. 2nd Avenue and 41st Street (unsignalized)
16. 2nd Avenue and 42nd Street
17. 2nd Avenue and 43rd Street
18. 2nd Avenue and 44th Street (unsignalized)
19. 3rd Avenue and Prospect Avenue
20. 3rd Avenue and 29th Street
21. 3rd Avenue and 30th Street
22. 3rd Avenue and 31st Street (unsignalized)
23. 3rd Avenue and 32nd Street
24. 3rd Avenue and 33rd Street
25. 3rd Avenue and 34th Street
26. 3rd Avenue and 35th Street
27. 3rd Avenue and 36th Street
28. 3rd Avenue and 37th Street
29. 3rd Avenue and 38th Street (unsignalized)
30. 3rd Avenue and 39th Street
31. 3rd Avenue and 40th Street
32. 3rd Avenue and 41st Street
33. 3rd Avenue and 42nd Street
34. 3rd Avenue and 43rd Street
35. 3rd Avenue and 44th Street
36. 4th Avenue and 34th Street
37. 4th Avenue and 36th Street
38. 4th Avenue and 37th Street
39. 4th Avenue and 38th Street
40. 4th Avenue and 39th Street
41. 4th Avenue and 40th Street

SUBWAY TRANSIT

The Project Area is served by three Metropolitan Transportation Authority-New York City Transit (MTA-NYCT) subway lines: the D and N express trains and the R local train operating along the BMT 4th Avenue Line. The Proposed Project is expected to generate 200 or more subway trips in

Date: 7.17.18



Industry City

Traffic Analysis Locations

Figure 11-6

Traffic Analysis Locations

Project Site Buildings

Sources: 1. New York (City). Dept. of City Planning 2014. LION (Edition 14A). New York City: NYC Department of City Planning.

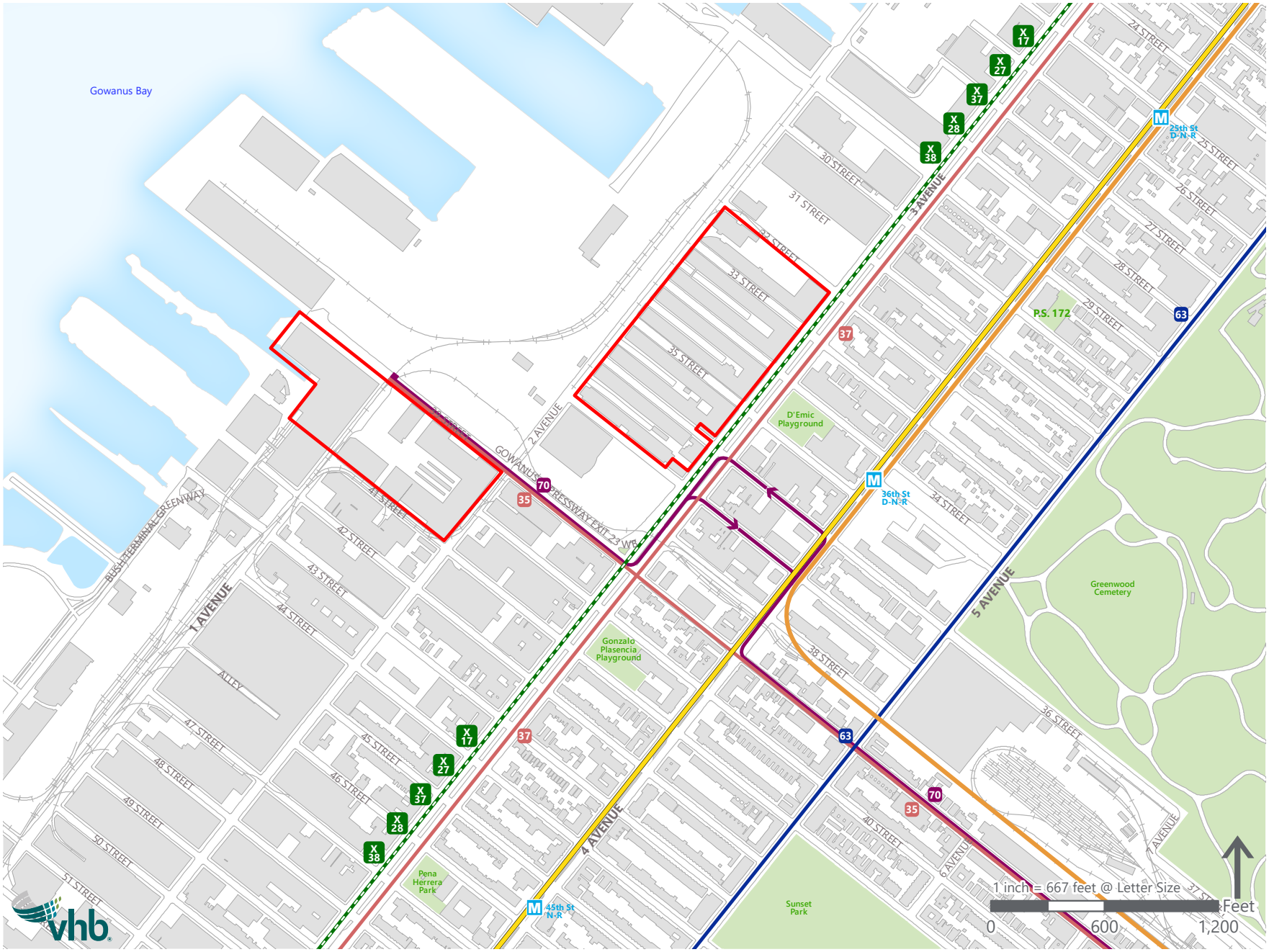
one direction in each peak hour on one or more of these subway lines. The peak direction of travel on these lines is northbound (Manhattan-bound) in the AM peak hour and southbound (Brooklyn-bound) in the PM peak hour. As a result, an analysis of subway line-haul conditions for each subway line is included in this EIS. The subway lines and stations serving the Project Area are shown in **Figure 11-7**.

The Proposed Project would generate a net increment of approximately 1,874 and 3,991 new subway trips (in and out combined) during the weekday AM and PM commuter peak hours, respectively. The Project Area is located in proximity to the 36th Street subway station (served by the D, N, and R lines) operated by MTA-NYCT. All project-generated subway transit trips were assigned to use this station. As the 36th Street subway station would experience more than 200 peak hour project-generated trips in both analysis periods, detailed analysis at this station during peak commuter periods is warranted. Key circulation elements (e.g., stairways and fare control areas) in the 36th Street Station that would be affected by new demand from the Proposed Project are included in the detailed analysis.

BUS TRANSIT

The study area is served by a total of four MTA-NYCT local and limited-stop bus routes—the B35 LTD, B37, B63, and B70. The Proposed Project is expected to generate a net total of approximately 528 and 1,311 incremental bus trips on these routes during the weekday AM and PM peak hours, respectively. The Level 2 screening assessment concluded that new demand from the Proposed Project would exceed the 50-trip per direction *CEQR Technical Manual* analysis threshold in the AM and PM peak hour along the B35 LTD and B70 routes. Bus transit assignments are discussed in detail later in this chapter under Section E. The bus lines in the study area are shown in **Figure 11-7**.

The Proposed Project is expected to generate 528 incremental peak hour bus passenger trips during the weekday AM peak hour and 1,311 incremental peak hour bus trips during the weekday PM peak hour. These local bus trips were assigned to each route based on proximity to the Project Area and current ridership patterns. **Table 11-6** shows the anticipated numbers of new riders expected on each local bus route in the AM and PM peak hours. According to the general thresholds used by the MTA and specified in the *CEQR Technical Manual,* a detailed analysis of bus conditions is generally not required if a proposed action is projected to result in fewer than 50 peak hour trips being assigned to a single bus route (in one direction), as this level of new demand is considered unlikely to result in significant adverse impacts. Two routes—the B35 LTD and B70—are expected to experience 50 or more new trips in one direction in at least one peak hour and are therefore analyzed in the EIS.



Project Area

Industry City

Subway and Bus Transit Study Area

Figure 11-7

Table 11-6
Net Incremental Peak Hour Local Bus Trips by Route

Bus Route	Direction	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
B35 LTD*	EB	0	**118**	118	0	**661**	661
	WB	**299**	0	299	**374**	0	374
B37	NB	14	4	18	17	20	37
	SB	9	5	14	11	30	41
B63	NB	0	0	0	0	0	0
	SB	0	0	0	0	0	0
B70	EB	0	22	22	0	**126**	126
	WB	**57**	0	57	**71**	0	71

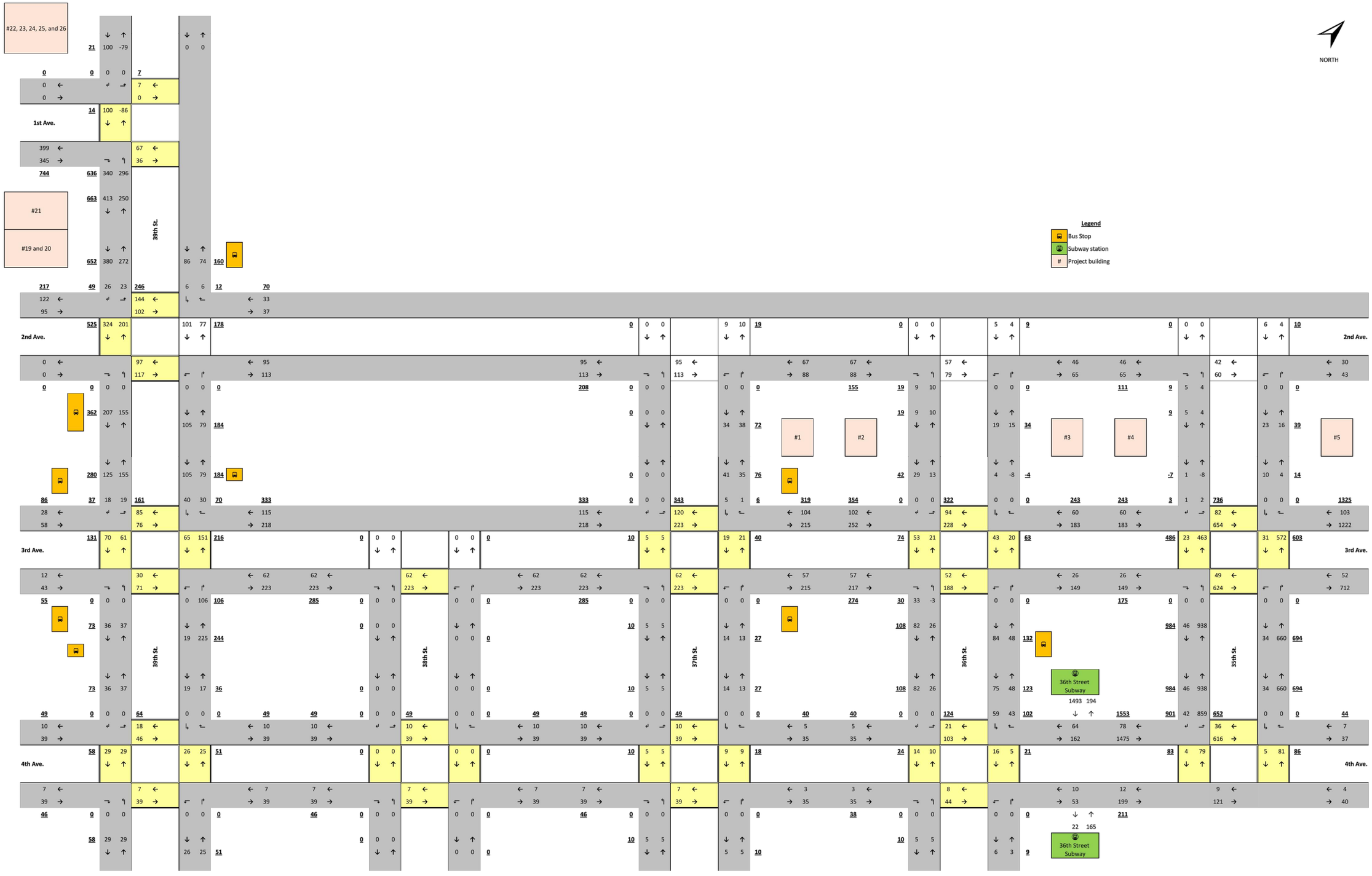
Notes:
Bold – denotes 50 or more incremental trips per direction
***** Local service does not serve the project area during analyzed weekday AM and PM peak periods

PEDESTRIANS

Pedestrian trip assignments were developed by distributing person trips generated by the individual buildings in the Project Area to nearby pedestrian facilities, including sidewalks, corner reservoirs, and crosswalks. Pedestrian assignments are discussed in detail later in this chapter under Section E, "The Future with the Proposed Actions." Pedestrian volume increments are shown in **Figures 11-8 through 11-11**.

The pedestrian trip assignments included all walking trips: walking connections from on-site or off-site parking facilities by those driving to the Project Area; walking connections to and from the 36th Street subway station and the four bus routes used by transit trips; and all-walk trips made by residents in the area who would be walking to jobs, shopping, or other uses at the site. Taxi riders would be picked up or dropped off at the entrance to each site so those trips are not included in the pedestrian assignments.

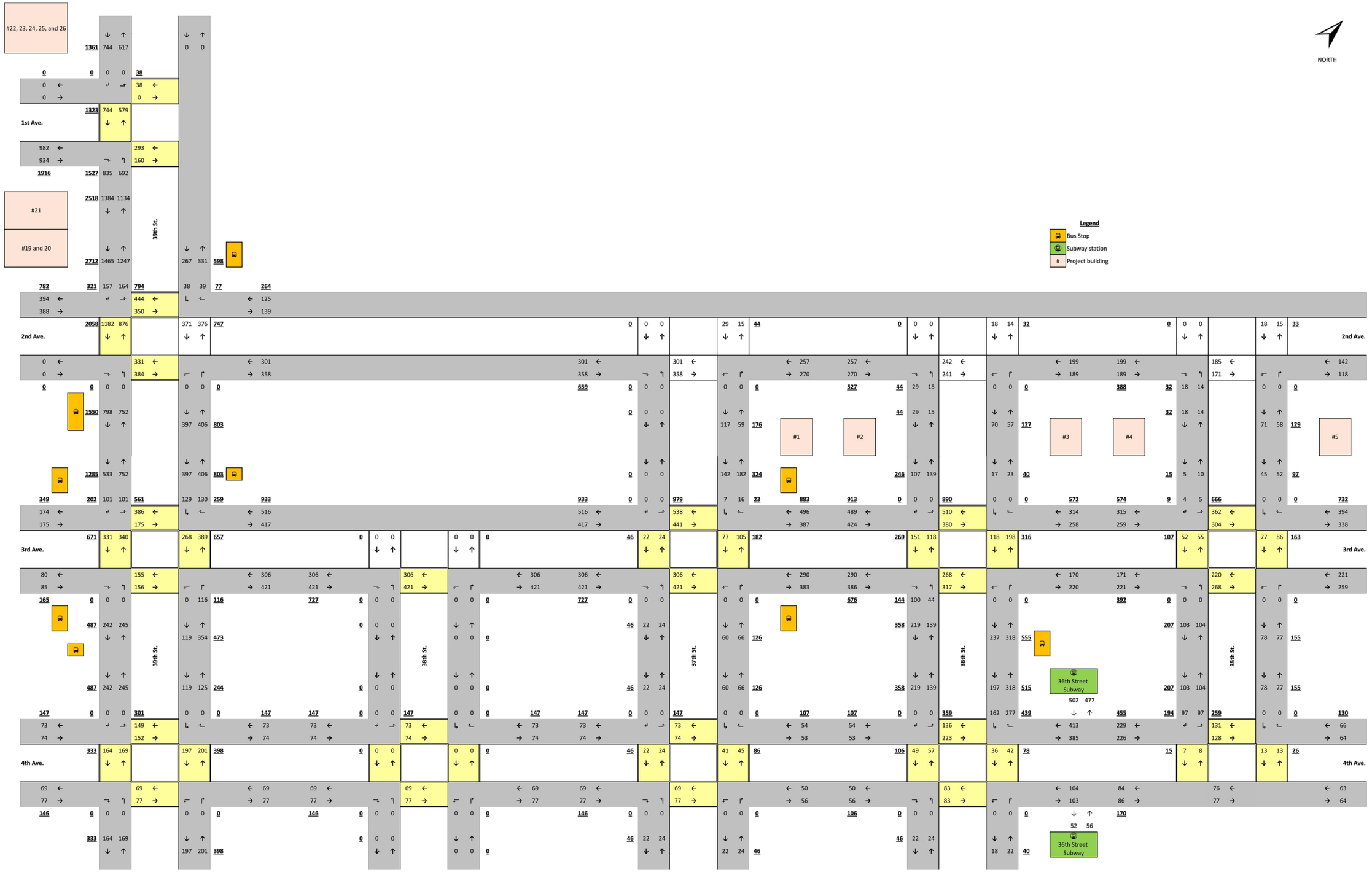
Based on the pedestrian assignments, 34 crosswalks, 10 corners, and 24 sidewalks were identified, in consultation with DCP and DOT, for detailed analysis. These pedestrian elements are listed in **Table 11-7** and shown in **Figure 11-12**.



Industry City

Project Generated Pedestrian Increment
Weekday AM Peak Hour

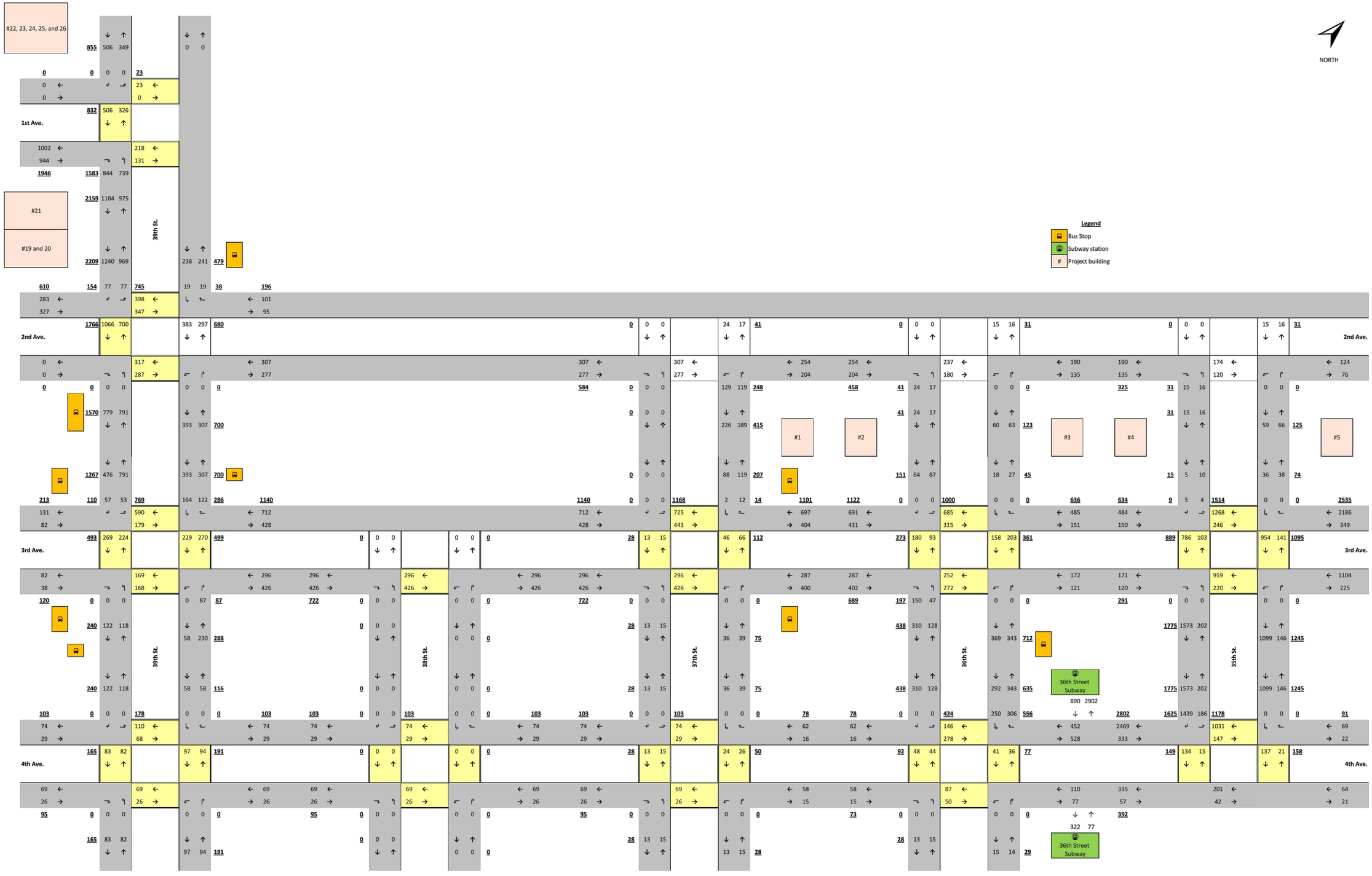
Figure 11-8

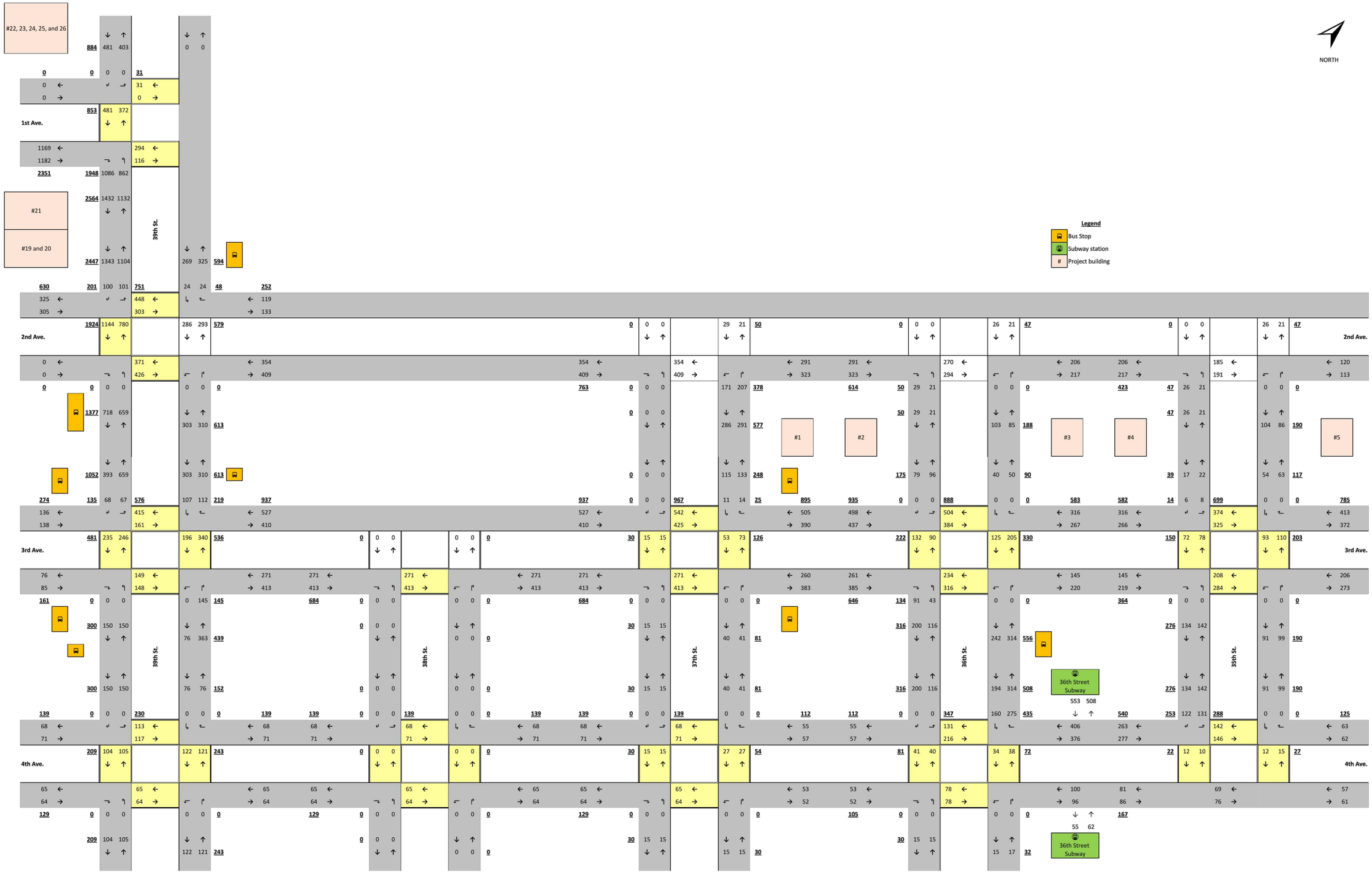


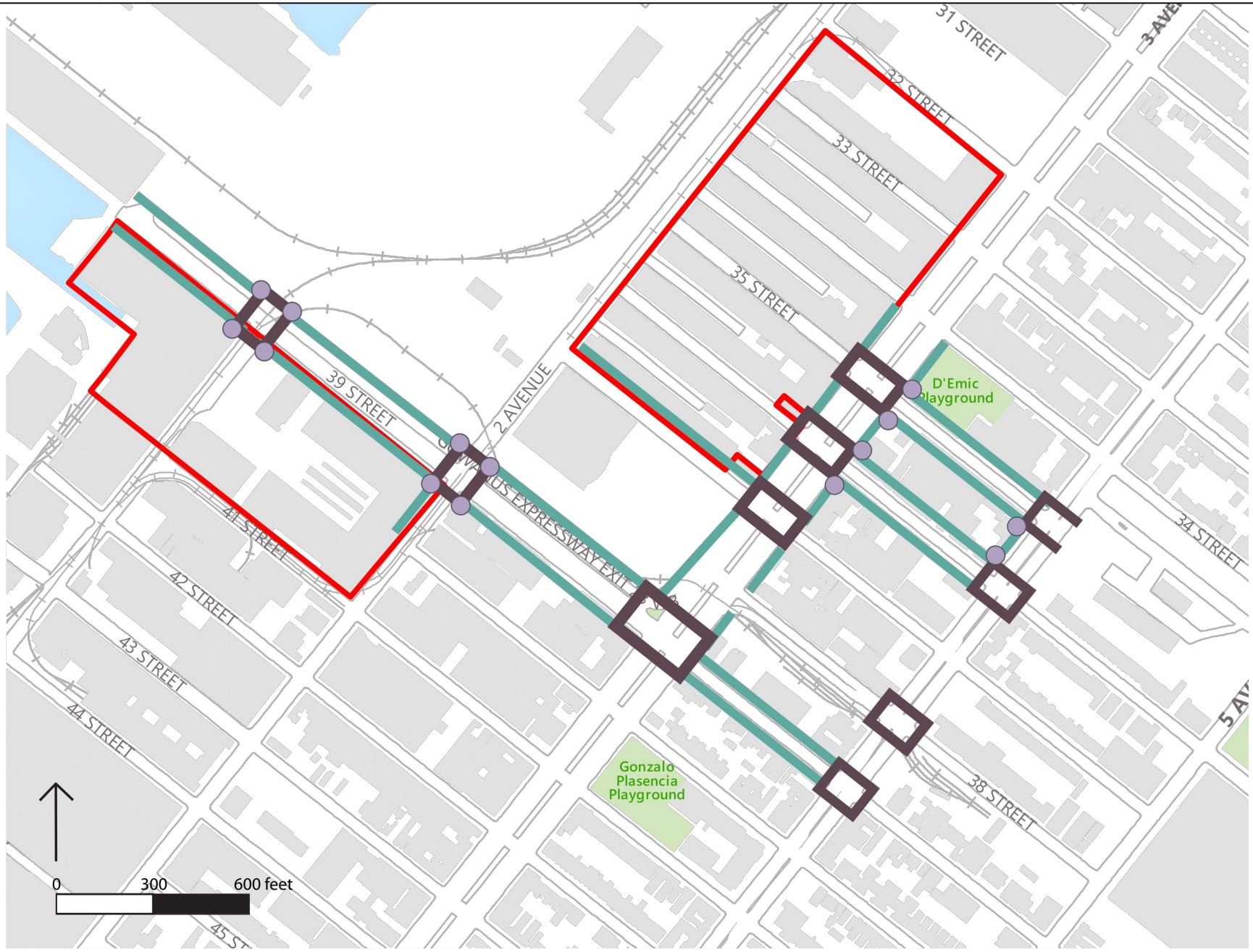
Industry City

Project Generated Pedestrian Increment
Weekday Midday Peak Hour

Figure 11-9


NORTH
Legend
Bus Stop
Subway station
Project building
#22, 23, 24, 25, and 26
#21
#19 and 20
#1
#2
#3
#4
#5
1st Ave.
2nd Ave.
3rd Ave.
4th Ave.
39th St.
38th St.
37th St.
36th St.
35th St.
36th Street Subway
36th Street Subway


#22, 23, 24, 25, and 26
#21
#19 and 20
#1
#2
#3
#4
#5
1st Ave.
2nd Ave.
3rd Ave.
4th Ave.
39th St.
38th St.
37th St.
36th St.
35th St.
NORTH
Legend
Bus Stop
Subway station
Project building
36th Street Subway
36th Street Subway



Industry City

Pedestrian Study Locations

Figure 11-12

Table 11-7
Pedestrian Analysis Locations

Intersection	Crosswalk Elements	Corner Elements	Sidewalk Elements
1st Avenue and 39th Street	-	-	39th Street north and south sidewalks to the waterfront
2nd Avenue and 39th Street	East, south, and west crosswalks	Northeast, northwest, southeast, and southwest corners	39th Street north and south sidewalks to 1st Avenue 39th Street north and south sidewalks to 3rd Avenue 2nd Avenue west sidewalk to 40th Street
3rd Avenue and 35th Street	North, east, south, and west crosswalks	Northeast and southeast corners	3rd Avenue north and south sidewalks to 34th Street 35th Street north and south sidewalks to 4th Avenues
3rd Avenue and 36th Street	North, east, south, and west crosswalks	Northeast and southeast corners	3rd Avenue east and west sidewalks to 35th Street 36th Street north and south sidewalks to 4th Avenue
3rd Avenue and 37th Street	North, east, south, and west crosswalks	-	3rd Avenue east and west sidewalks to 36th Street 3rd Avenue east sidewalk to 38th Street 3rd Avenue west sidewalk to 39th Street 37th Street north sidewalk to 2nd Avenue
3rd Avenue and 39th Street	North, east, south, and west crosswalks	-	3rd Avenue east sidewalk to 38th Street
4th Avenue and 35th Street	North, south, and west crosswalks	Southwest corner	-
4th Avenue and 36th Street	North, east, south, and west crosswalks	Northwest corner	4th Avenue west side to 35th Street
4th Avenue and 38th Street	North, east, south, and west crosswalks	-	-
4th Avenue and 39th Street	North, east, south, and west crosswalks	-	39th Street north and south sidewalks to 3rd Avenue

DETAILED ANALYSIS METHODOLOGIES

TRAFFIC STREET NETWORK

The operation of all of the signalized and unsignalized intersection analysis locations were assessed using methodologies presented in the *2000 Highway Capacity Manual (HCM)* using the *Highway Capacity Software (HCS+ 5.5)*, which is the analysis methodology approved for use by DOT The *HCM* procedures evaluate the 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 determining LOS for individual lane groups (grouping of movements in one or more travel lanes), the overall approaches to each intersection, and the overall intersection itself. LOS are defined in **Table 11-8**.

Table 11-8
LOS 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.

LOS A describes operations with low delays, i.e., 10.0 seconds or less per vehicle. This occurs when signal progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all.

LOS B describes operations with delays in excess of 10.0 seconds up to 20.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. Again, most vehicles do not stop at the intersection.

LOS C describes operations with delays in excess of 20.0 seconds up to 35.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. The number of vehicles stopping is noticeable at this level, although many still pass through the intersection without stopping.

LOS D describes operations with delays in excess of 35.0 seconds up to 55.0 seconds per vehicle. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity (v/c) ratios. Many vehicles stop, and the proportion of vehicles not stopping declines.

LOS E describes operations with delays in excess of 55.0 seconds up to 80.0 seconds per vehicle. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios.

LOS F describes operations with delays in excess of 80.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with oversaturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios with cycle failures. Poor progression and long cycle lengths may also contribute to such delays. Often, vehicles do not pass through the intersection in one signal cycle.

Based on *CEQR Technical Manual* guidelines, LOS A, B, and C are considered acceptable, LOS D is considered marginally acceptable up to mid-LOS D (45 seconds of delay for signalized intersections) and unacceptable above mid-LOS D, and LOS E and F indicate congestion. These guidelines are applicable to individual traffic movements and overall intersection LOS.

UNSIGNALIZED 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. LOS criteria for unsignalized intersections are summarized in **Table 11-9**.

For unsignalized intersections, LOS E is considered the limit of acceptable delay, while LOS F is considered unacceptable to most drivers. LOS F conditions exist when there are insufficient gaps of suitable size in a major vehicular traffic stream to allow side street traffic to cross safely.

Table 11-9
LOS 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.

Significant Impact Criteria

The assessment of potential significant traffic impacts of a proposed project is based on significant impact criteria defined in the *CEQR Technical Manual.* No Action LOS A, B, or C conditions that deteriorate to unacceptable LOS D, E, or F in the future With Action condition are considered a significant traffic impact.

For future No Action LOS A, B, or C conditions that deteriorate to unacceptable LOS D, mitigation to mid-LOS D (45.0 seconds of delay for signalized intersections and 30.0 seconds of delay for unsignalized intersections) needs to be considered to fully mitigate the impact.

For a No Action LOS D, an increase of delay by five or more seconds in the With Action condition is considered a significant impact if the With Action delay meets or exceeds 45.0 seconds. For a No Action LOS E, the threshold is a four-second increase in With Action delay; for a No Action LOS F, a three-second increase in delay in the With Action condition is significant. For unsignalized intersections, for the minor street to generate a significant impact, 90 passenger car equivalents (PCEs) must be identified in the With Action condition in any peak hour.

GOWANUS EXPRESSWAY

The methodology for analyzing the Gowanus Expressway, a freeway facility, is outlined in the *Highway Capacity Manual, Sixth Edition* (*HCM 6*). *HCM 6* provides a methodology for analyzing extended lengths of freeway composed of continuously connected basic freeway, weaving, merge and diverge segments.

In order to implement the *HCM 6* methodology, Freeval-HCM software was used as an analysis tool for the freeway facilities in question. Freeval-HCM software package allows the analyst to input various data required by the HCM methodology including segment geometry, free flow speed, volume data, and classification data and then review the outputs of the HCM methodology, including average segment travel time, average segment density, and LOS.

LOS are necessary to assess existing, and subsequent future No Action and With Action, conditions on the Gowanus Expressway and to evaluate potential impacts of a proposed project on the highway as per *CEQR Technical Manual* guidelines. *HCM 6* defines LOS thresholds in terms of passenger cars per mile per lane (pc/mi/ln) separately for basic freeway segments and, for merge/diverge segments, areas using density in passenger cars per mile per lane (pc/mi/ln). The LOS are described qualitatively below:

- LOS A describes operations with very low densities and high free flow speeds.
- LOS B describes operations with fairly low densities and moderate to high free flow speeds.

- LOS C describes operations with moderate densities and moderate free flow speeds.
- LOS D describes operations with moderate to high densities and moderate to low free flow speeds. A mid-LOS D density of 31.5 pc/mi/ln is considered the high range of acceptable density. Densities greater than 31.5 pc/mi/ln are unacceptable but are commonplace on highways in New York City.
- LOS E describes operations with high densities and low free flow speeds. 45 pc/mi/ln is considered the maximum density for sustained flows at capacity on a typical freeway. Queuing can begin at densities higher than this.
- LOS F describes operations with very high densities and very low free flow speeds. Queuing is common within LOS F, which leads to failure conditions and congestion.

Density thresholds for each LOS in terms of passenger cars per mile per lane are defined in **Table 11-10**.

Table 11-10
LOS Definitions for Freeway Segment Analysis

	Density (pc/mi/ln)	
LOS	**Basic Freeway Segment**	**Merge/Diverge Freeway Segment**
A	≤11	≤10
B	>11–18	>10–20
C	>18–26	>20–28
D	>26–35	>28–35
E	>35–45	>35
F	>45 or V/C > 1	V/C > 1

Source: Transportation Research Board, *Highway Capacity Manual 6*

SIGNIFICANT IMPACT CRITERIA

According to the *CEQR Technical Manual*, for highway or ramp sections being analyzed—including mainline capacity sections, weaving areas, and ramp junctions—a significant adverse impact occurs when density increases past a certain threshold between No Action and With Action conditions when No Action levels of service are in the D, E, or F range. The following significant impact criteria are used in the With Action analyses to assess potential impacts of the proposed project on the highway network:

For Basic Freeway Segments:

- If the level of service under the No Action condition is LOS D, an increase in the projected density of 5 or more passenger cars per mile per lane (pc/mi/ln) under the With Action condition should be considered a significant impact.
- If the level of service under the No Action condition is LOS E, an increase in the projected density of 4 or more pc/mi/ln under the With Action condition should be considered a significant impact.
- If the level of service under the No Action condition is LOS F, an increase in the projected density of 3 or more pc/mi/ln under the With Action condition should be considered a significant impact.

For Weaving, Merge or Diverge Freeway Segments:

- If the level of service under the No Action condition is LOS D, an increase in the projected density of 4 or more passenger cars per mile per lane (pc/mi/ln) under the With Action condition should be considered a significant impact.
- If the level of service under the No Action condition is LOS E, an increase in the projected density of 3 or more pc/mi/ln under the With Action condition should be considered a significant impact.

If the level of service under the No Action condition is LOS F, an increase in the projected density of 2 or more pc/mi/ln under the With Action condition should be considered a significant impact.

PARKING

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 additional demand generated by a proposed project. This analysis typically encompasses a study area within a quarter-mile of the Project Area. As described in the *CEQR Technical Manual*, if the analysis concludes that there would be a shortfall in parking within the quarter-mile study area, the study area may be extended to a half-mile to identify additional parking supply.

For proposed projects located in Manhattan or other CBD areas, 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. For other areas in New York City, such as the study area for the Proposed Project, a parking shortfall that exceeds more than half the available on-street and off-street parking spaces within a quarter-mile of the Project Area may be considered significant. Additional factors, such as the availability and extent of transit in the area and the patterns of automobile usage by area residents, could be considered to determine the significance of the identified parking shortfall. If there is an adequate parking supply within a half-mile of the Project Area, the projected parking shortfall may not be considered significant.

SUBWAY TRANSIT

The *CEQR Technical Manual* provides methodologies to assess several components of subway transit operations including the line-haul capacity of subways lines, and the capacity of subway station circulation elements including stairways, escalators, passageway, and fare controls (turnstiles, high entry/exit turnstiles [HEETs], and high exit turnstiles [HXTs]).

SUBWAY STATION ELEMENTS

Subway station elements are assessed based on the ratio of passenger volume and the capacity of the element (the v/c ratio). The v/c ratio criteria are used to determine the LOS, which are shown in **Table 11-11**. LOS A and LOS B depict free flow and fluid flow conditions, respectively, at a subway station element. Station elements operating at LOS C still exhibit fluid flow but pedestrian activities begin to become somewhat restricted. When conditions become crowded and there is restriction to walking speeds, the station element is considered to be operating at LOS D. At LOS E, the station element is considered to be congested. There is shuffling and frequent interactions between pedestrians, which will result in some queueing. Severe congestion with constant queuing signifies that a station element is operating at LOS F.

Table 11-11
LOS Criteria for Subway Station Elements

LOS	Description	v/c Ratio
A	Free Flow	0.00 to 0.45
B	Fluid Flow	0.45 to 0.70
C	Fluid, somewhat restricted	0.70 to 1.00
D	Crowded, walking speed restricted	1.00 to 1.33
E	Congested, some shuffling and queuing	1.33 to 1.67
F	Severely congested, queued	Above 1.67

Sources: New York City Mayor's Office of Environmental Coordination, 2014 *CEQR Technical Manual*

Stairways and passageways are analyzed based on the width of the station element and the 15-minute pedestrian flow passing through. These analyses also take into account pedestrian surging resulting from an arriving train or platooning volumes from a major attraction such as a stadium or school (the effect of surging can reduce capacity by up to 25 percent) and friction from pedestrian interactions (the effect of friction can reduce capacity by up to 10 percent). Other station elements including escalators and turnstiles are measured against the operational capacities designated by NYCT.

Significant Impact Criteria

Significant impacts to stairs and passageways are determined by the width increment threshold (WIT) between the No Action and With Action conditions for elements operating at v/c ratios greater than 1.0 in the With Action condition. The WIT for significant impacts is detailed in **Table 11-12** ~~below~~. If a stairway or passageway is significantly impacted, mitigation measures identified would need to restore the LOS back to the No Action LOS or to a v/c ratio of 1.0. For escalators and turnstile elements, a With Action v/c ratio of 1.0 or greater when the No Action v/c ratio was less than 1.0 is considered a significant impact. For these elements where the No Action v/c ratio is already in excess of 1.0, an incremental change in the v/c ratio of 0.01 would be considered a significant impact.

Table 11-12
Significant Impact Guidance for Stairs and Passageways

	Width Increment Threshold (WIT) for Significant Impact (inches)	
No Action v/c Ratio	Stairway	Passageway
1.00 to 1.09	8	13
1.10 to 1.19	7	11.5
1.20 to 1.29	6	10
1.30 to 1.39	5	8.5
1.40 to 1.49	4	6
1.50 to 1.59	3	4.5
1.60 and up	2	3

Sources: New York City Mayor's Office of Environmental Coordination, 2014 *CEQR Technical Manual*

SUBWAY LINE-HAUL CAPACITY

Line-haul capacity analyses address the ability of a subway line to accommodate passenger loads at the maximum load point, or the point where the addition of project-generated passengers would be the highest. These analyses are needed when the With Action incremental increase in

passengers surpasses the *CEQR Technical Manual* thresholds. For subway cars, the threshold is five or more passengers per subway train car.

NYCT operates six different types of subway train cars with maximum peak period loading capacities ranging from 110 passengers to 175 passengers per car. The capacity of each car assumes full occupancy of all seats and approximately 3 square feet of standing room per passenger.

Significant Impact Criteria

For subway line-haul conditions, *CEQR Technical Manual* criteria specifies that any increases in load levels that remain within practical capacity limits are generally not considered significant. However, significant adverse subway line-haul impacts can occur if a proposed action is expected to generate an increment averaging five or more riders per subway car on lines projected to carry loads at or exceeding guideline capacity. This is based on the general assumption that when subways are at or above practical capacity, the addition of even five or more riders per car is perceptible.

BUS TRANSIT

The operating conditions for bus service are measured in terms of the number of passengers carried per bus at the maximum load point for each route. This is determined by dividing the peak hour passenger count by the number of buses during that hour. The bus load levels are compared with the NYCT loading guidelines of 54 passengers for a 40-foot standard bus and 85 passengers for a 60-foot articulated bus. The bus analyses focus on the weekday AM and PM commuter peak hours as it is during these periods that overall demand on the bus system is usually highest. Based on existing ridership patterns in the study area, the peak hours for bus demand are 7:30 AM to 8:30 AM and 5:00 PM to 6:00 PM.

Significant Impact Criteria

According to the *CEQR Technical Manual* and NYCT guidelines, additional bus service along a route is recommended when load levels exceed maximum capacity at the route's maximum load point. A significant impact is considered at the route's maximum load point where an increase in bus load levels would exceed the maximum capacity. NYCT's general policy is to provide additional bus service where demand warrants increased service, considering fiscal and operational constraints.

PEDESTRIANS

Pedestrian LOS standards are determined on the basis of walking speed, pedestrian spacing, and probabilities of pedestrian and vehicular conflict, and are assessed based on the methodologies presented in the 2010 *HCM* and *CEQR Technical Manual*. These standards are primarily based on the space needs of people involved in various activities, and are widely used for planning and design of facilities for pedestrians. Analysis of crosswalks, street corners, and sidewalks along key walking paths to and from the Project Area are performed to assess the adequacy of these pedestrian elements.

To evaluate sidewalks, the pedestrian flow per unit width (p/ft/min) is calculated based on the pedestrian flow and the effective walkway width.[1] The analysis of sidewalk conditions should also consider if pedestrian flow is a "non-platoon" flow (pedestrian flow within the peak 15-minute period is relatively uniform) or "platoon" flow. Platooning occurs when pedestrians move in groups or "platoons" as a result of pedestrian metering from a traffic signal, or from attractions such as subway stations or bus stops. The ratio of the walking speed[2] over the pedestrian flow per unit width determines the average pedestrian space (sf/p).

Crosswalk conditions are expressed as a measurement of the area available (the area consists of the crosswalk width multiplied by the crossing distance) and available pedestrian crossing time. The pedestrian flow is compared to the "time-space" available to determine the crosswalk LOS, which is expressed as square feet per pedestrian (sf/p). This analysis also takes account of pedestrian conflicts in the crosswalk with turning vehicles.

Similar to crosswalks, street corners must provide sufficient space for a mix of standing pedestrians (queued to cross a street) and circulating pedestrians (crossing the other street or passing around the corner). The analysis applies a measure of time and space availability based on the area of the corner reservoir, pedestrian crossing time available, and the estimated time used by circulating pedestrians.

The LOS standards for pedestrian elements are based on the time and space available per pedestrian during the analysis period. LOS grades from A to F are assigned, with LOS A representative of free flow conditions without pedestrian conflicts and LOS F depicting significant capacity limitations and inconvenience. **Table 11-13** defines the LOS criteria for crosswalks, corner area, and sidewalk conditions, as per the *Highway Capacity Manual*. The *CEQR Technical Manual* identifies acceptable LOS in non-Central Business District (CBD) areas (such as the area in this study) as LOS C or better, and mid-LOS D or better for CBD areas.

Table 11-13
LOS Criteria for Pedestrian Elements

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

Source: New York City Mayor's Office of Environmental Coordination, 2014 *CEQR Technical Manual*

[1] The effective walkway width is the space along the walkway that pedestrians could use that is free of obstruction. This width also takes account of the shy distance (the space between pedestrians and the obstacle such as a wall or building façade).

[2] The typical average pedestrian walking speed specified in the *CEQR Technical Manual* is 3.5 feet per second (ft/s). For intersections with school crosswalks or that are located within the Senior Pedestrian Focus Areas, an average pedestrian walking speed of 3.0 ft/s is used.

Significant Impact Criteria

The identification of significant pedestrian impacts is dependent on the area type (CBD or non-CBD) and is determined by the decrease of time and space available for pedestrians between the No Action and With Action conditions. The Project Area and surrounding analysis locations are located in a non-CBD area. The *CEQR Technical Manual* identifies significant impacts for the pedestrian sidewalk, crosswalk, and corner elements on a sliding scale detailed below. With Action pedestrian LOS that is considered acceptable (LOS C or better in non-CBD areas, and mid-LOS D or better in CBD areas) would not have a potential for significant impacts.

For sidewalks, the assessment of potential significant impacts is based on a sliding scale formula provided in the *CEQR Technical Manual*. Consideration as to whether pedestrian flow along the sidewalk is platooning or non-platooning, and whether the sidewalk being analyzed is in a CBD or non-CBD condition is necessary.

For sidewalks with non-platoon pedestrian flow, the formula used to determine the decrease in pedestrian space from the No Action to With Action condition that would trigger a significant impact is $Y \geq (X / 9.0) – 0.31$, where Y is the decrease in pedestrian space (sf/p) to be considered a potential significant impact and X is the No Action pedestrian space (sf/p). If the decrease in pedestrian space is greater than Y and the With Action LOS is considered to be unacceptable, the sidewalk is considered to be significantly impacted. For sidewalks with platoon pedestrian flow, the formula to determine if the decrease in pedestrian space would trigger a significant impact is $Y \geq X / (9.5 – 0.321)$. **Table 11-14** provides a summary of the sliding scale guidelines provided in the *CEQR Technical Manual*.

For corners and crosswalks, the assessment of potential significant impacts is also based on a sliding scale formula provided in the *CEQR Technical Manual*. The formula used to determine the decrease in pedestrian space from the No Action to With Action condition that would trigger a significant impact is $Y \geq (X / 9.0) – 0.31$, where Y is the decrease in pedestrian space (sf/p) to be considered a potential significant impact and X is the No Action pedestrian space (sf/p). If the decrease in pedestrian space is greater than Y and the With Action LOS is considered to be unacceptable, the corner or crosswalk is considered to be significantly impacted. **Table 11-15** provides a summary of the sliding scale guidelines provided in the *CEQR Technical Manual*.

Table 11-14
Significant Impact Criteria for Sidewalks

Non-Platoon Flow (Non-CBD Areas)	
No Action Ped Space (sf/p)	**With Action Ped Space Reduction (sf/p)**
>26.6	With Action Condition < 24.0
25.8 to 26.6	≥ 2.6
24.9 to 25.7	≥ 2.5
24.0 to 24.8	≥ 2.4
23.1 to 23.9	≥ 2.3
22.2 to 23.0	≥ 2.2
21.3 to 22.1	≥ 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
Source: 2014 *CEQR Technical Manual*	

Table 11-15
Significant Impact Criteria for Corners and Crosswalks

Non-CBD Areas	
No Action Ped Space (sf/p)	**With Action Ped Space Reduction (sf/p)**
>26.6	With Action Condition < 24.0
25.8 to 26.6	≥ 2.6
24.9 to 25.7	≥ 2.5
24.0 to 24.8	≥ 2.4
23.1 to 23.9	≥ 2.3
22.2 to 23.0	≥ 2.2
21.3 to 22.1	≥ 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

Source: 2014 *CEQR Technical Manual*

VEHICULAR AND PEDESTRIAN SAFETY

An evaluation of vehicular and pedestrian safety is necessary for locations within the traffic and pedestrian study areas that have been identified as high-crash locations, where 48 or more total reportable and non-reportable crashes or 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. For these locations, crash trends are identified to determine whether projected vehicular and pedestrian traffic would further impact safety at these locations. The determination of potential significant safety impacts depends on the type of area where the Project Area is located, traffic volumes, crash types and severity, and other contributing factors. Where appropriate, measures to improve traffic and pedestrian safety are identified and coordinated with DOT.

C. EXISTING CONDITIONS (YEAR 2016)

TRAFFIC STREET NETWORK

ROADWAY NETWORK

The roadway network within the study area is generally a grid of local streets through an area characterized by commercial and manufacturing uses. The key north-south roadways within the study area are 3rd Avenue, 4th Avenue, and the Gowanus Expressway (which runs above 3rd Avenue). The Gowanus Expressway has a southbound off-ramp that connects to the local street network at 2nd Avenue and 39th Street, and a northbound off-ramp that connects to the local street network at 4th Avenue and 38th Street, but the Gowanus Expressway cannot be accessed from the local street network within the study area. Access onto the northbound Gowanus is provided a mile to the north at 3rd Avenue and Prospect Avenue, while access to the southbound Gowanus is provided approximately a mile to the south at 3rd Avenue and 62nd Street. The east-west roadways within the study area are generally one-way streets with the exception of 39th Street.

1st Avenue travels in the north-south direction and generally consists of one travel lane in each direction with parking on both sides. 1st Avenue is generally characterized by manufacturing and warehouse uses.

2nd Avenue extends in the north-south direction and consists of one travel lane in each direction with parking on both sides. 2nd Avenue provides access from the southbound Gowanus Expressway within the study area. It is generally characterized by commercial and warehouse uses. The Industry City public parking lot is located along the west side of 2nd Avenue between 30th Street and 37th Street.

3rd Avenue is located under the Gowanus Expressway and operates in the north-south direction. It consists of three travel lanes in each direction with parking generally available along both sides. As a result of the structural supports for the Gowanus Expressway, 3rd Avenue features a wide median where parking is also available. Within the study area, 3rd Avenue is characterized by a mix of commercial and industrial/warehouse uses.

4th Avenue travels in the north-south direction. It generally consists of two travel lanes in each direction with left turn lanes at some intersections, and is divided by a raised median. On-street parking is typically available along both sides of the street. Local access from the northbound Gowanus Expressway is provided at the intersection of 4th Avenue and 38th Street. The uses along 4th Avenue are generally commercial and residential in nature. The D, N, and R subway lines run under 4th Avenue and subway access within the study area is provided at 36th Street.

The key east-west roadway within the study area is 39th Street, which is generally characterized by one travel lane in each direction. Parking is available along both sides of the street within the study area but is limited to only one side of the street east of 3rd Avenue where the street narrows.

TRAFFIC VOLUMES

Traffic counts in the study area were conducted for the weekday AM, midday, PM, and Saturday peak periods using manual intersection counts and 24-hour Automatic Traffic Recorder (ATR) machine counts. These volumes were used along with observations of traffic conditions to determine LOS for the weekday peak hours of 7:45 AM to 8:45 AM, 11:00 AM to 12:00 PM, and 4:45 PM to 5:45 PM, and the Saturday 2:30 to 3:30 PM peak hour.

Traffic counts were initially conducted in May and June 2013 and validated in March 2016 to ensure that the higher, more conservative, set of volumes were used for the 2016 existing condition analysis, in consultation with DCP and DOT. Two additional study locations (one along 4th Avenue and one along 3rd Avenue) were added in November 2017 to the project scope, and an additional two locations (one along 4th Avenue and one along 3rd Avenue) were added in June 2018. Traffic data for these locations were and integrated into the existing traffic volume network. Traffic volume information along key corridors within the study area is provided below.

Traffic volumes along 1st Avenue are generally low. During the weekday peak hours, northbound 1st Avenue carries approximately 50 vph to 125 vph and approximately 75 vph to 150 vph in the southbound direction. Traffic volumes during the Saturday peak hours are lower than during the weekday peak hours. Northbound 1st Avenue traffic volumes are generally less than 25 vph and southbound 1st Avenue traffic volumes are generally less than 75 vph.

Along northbound 2nd Avenue between 37th Street and 44th Street, traffic volumes range from 375 vph to 500 vph during the weekday AM peak hour, 225 vph to 450 vph during the weekday midday and PM peak hours, and 175 vph to 400 vph during the Saturday peak hour. North of 37th Street, northbound 2nd Avenue is traveled by approximately 300 vph to 400 during the weekday AM peak hour and by approximately 100 vph to 200 vph during the weekday midday and PM peak hours. Northbound traffic volumes along this section are generally less than 100 vph during the Saturday peak hour. Traffic volumes along southbound 2nd Avenue between 39th Street and 44th Street range from 325 vph to 450 vph during the weekday AM and midday peak hours, 300 vph to 350 vph during the weekday PM peak hour, and approximately 350 vph during the Saturday peak hour. North of 39th Street, southbound 2nd Avenue traffic volumes range from 75 vph to 175 vph during the weekday AM and midday peak hours, and between 100 vph to 225 vph during the weekday PM and Saturday peak hours.

Northbound 3rd Avenue traffic volumes are approximately 2,400 vph to 2,500 vph during the weekday AM peak hour, 900 vph to 1,250 vph during the weekday midday peak hour, 925 vph to 1,350 vph during the weekday PM peak hour, and 900 vph to 1,250 vph during the Saturday peak hour. Traffic volumes along southbound 3rd Avenue are approximately 550 vph to 675 vph during the weekday AM peak hour, 675 vph to 825 vph during the weekday midday peak hour, 1,800 vph to 2,070 vph during the weekday PM peak hours, and 975 vph to 1,375 vph during the Saturday peak hour.

Northbound 4th Avenue traffic volumes range from approximately 1,325 vph to 1,900 vph during the weekday AM peak hour, and are approximately 750 vph to 1,400 vph during the other peak hours. In the southbound direction, 4th Avenue traffic volumes are approximately 825 vph to 925 vph during the weekday AM and Saturday peak hours, 675 vph to 725 vph during the weekday midday peak hour, and 1,250 vph to 1,300 vph during the weekday PM peak hour.

Traffic volumes along 39th Street between 2nd Avenue and 4th Avenue range from approximately 200 vph to 325 vph in each direction during the weekday AM, midday, PM, and Saturday peak hours. West of 2nd Avenue, traffic volumes are lower. During the weekday peak hours, traffic volumes range between approximately 50 vph to 100 vph in the eastbound direction and between approximately 100 vph to 150 vph in the westbound direction. In this section of 39th Street, the Saturday peak hour traffic volume is generally less than 50 vph in the eastbound direction and is approximately 75 vph in the westbound direction.

New York City designated truck routes within the study area include 1st Avenue, 3rd Avenue, 4th Avenue (north of 39th Street), 39th Street, and 43rd Street (between 1st Avenue and 3rd Avenue). Truck traffic is also allowed on the Gowanus Expressway.

To supplement the field data, inventories of roadway geometry, traffic controls, bus stops, and parking regulations/activities were also recorded to provide appropriate inputs for the capacity analyses. In addition, official signal timings obtained from DOT were used in the analyses for all the signalized intersections. Existing traffic volume for the weekday AM, midday, and PM, and Saturday peak hours are shown in **Figures 11-13 through 11-16**.

LEVEL OF SERVICE

Tables 11-16a and 11-16b provide an overview of the LOS that characterize existing "overall" intersection conditions and individual traffic movements, respectively, during the weekday AM, midday, PM, and Saturday peak hours. Detailed descriptions of the existing traffic LOS are provided in **Table 11-17**.

Table 11-16a
Existing Traffic LOS Summary – Overall Intersections

	Weekday			
	AM Peak Hour	Midday Peak Hour	PM Peak Hour	Saturday Peak Hour
Intersections at Overall LOS A/B/C	37	40	40	40
Intersections at Overall LOS D	4	1	1	1
Intersections at Overall LOS E	0	0	0	0
Intersections at Overall LOS F	0	0	0	0

Note: Includes the 41 analyzed intersections (24 signalized and 17 unsignalized). All 17 unsignalized intersections operate at acceptable LOS during all four traffic analysis hours.

Table 11-16b
Existing Traffic LOS Summary – Traffic Movements

	Weekday			
	AM Peak Hour	Midday Peak Hour	PM Peak Hour	Saturday Peak Hour
Traffic Movements at LOS A/B/C and Acceptable LOS D	123	133	127	133
Traffic Movements at Unacceptable LOS D	7	7	11	7
Traffic Movements at LOS E	9	1	2	1
Traffic Movements at LOS F	2	0	1	0
Number of individual traffic movements	141	141	141	141

Note: Number of movements may vary between peak hours due to turn prohibitions, parking regulations, and the presence of de facto left turn movements.

TABLE 11-17 - TRAFFIC LEVELS OF SERVICE
INDUSTRY CITY EIS
2016 EXISTING CONDITION

INTERSECTION & APPROACH		Weekday AM Peak Hour Control Mvt.	V/C	Delay	LOS	Weekday Midday Peak Hour Control Mvt.	V/C	Delay	LOS	Weekday PM Peak Hour Control Mvt.	V/C	Delay	LOS	Saturday Peak Hour Control Mvt.	V/C	Delay	LOS
SIGNALIZED INTERSECTIONS																	
Second Avenue and 39th Street																	
39th Street	EB	LTR	0.31	31.6	C	LTR	0.40	33.1	C	LTR	0.58	40.8	D	LTR	0.16	28.8	C
	WB 1	LTR	0.47	30.9	C	LTR	0.54	32.5	C	LTR	0.56	32.3	C	LTR	0.53	32.0	C
39th Street (ramp)	WB 2	L	1.03	79.6	E	L	0.79	40.6	D	L	0.57	31.0	C	L	0.80	40.9	D
		TR	0.40	27.6	C	TR	0.48	29.1	C	TR	0.26	25.1	C	TR	0.34	26.5	C
Second Avenue	NB	LTR	0.77	36.1	D	LTR	0.45	27.8	C	LTR	0.44	27.6	C	LTR	0.43	27.6	C
	SB	LTR	0.34	26.5	C	LTR	0.49	29.3	C	LTR	0.51	29.8	C	LTR	0.54	30.2	C
Overall Intersection		-	**0.78**	**46.8**	**D**	-	**0.62**	**32.8**	**C**	-	**0.54**	**30.8**	**C**	-	**0.62**	**32.8**	**C**
Second Avenue and 42nd Street																	
42nd Street	EB	LTR	0.26	22.7	C	LTR	0.30	23.4	C	LTR	0.29	22.9	C	LTR	0.13	20.7	C
Second Avenue	NB	TR	0.61	16.5	B	TR	0.41	13.6	B	TR	0.38	13.1	B	TR	0.32	12.3	B
	SB	LT	0.64	16.4	B	LT	0.63	17.2	B	LT	0.52	15.1	B	LT	0.55	15.2	B
Overall Intersection		-	**0.50**	**17.1**	**B**	-	**0.50**	**16.8**	**B**	-	**0.43**	**15.7**	**B**	-	**0.39**	**14.6**	**B**
Second Avenue and 43rd Street																	
43rd Street	WB	LTR	0.51	26.2	C	LTR	0.27	22.7	C	LTR	0.34	23.5	C	LTR	0.22	21.8	C
Second Avenue	NB	LT	0.62	17.6	B	LT	0.32	12.3	B	LT	0.35	12.7	B	LT	0.28	11.7	B
	SB	TR	0.62	16.9	B	TR	0.56	15.6	B	TR	0.48	14.4	B	TR	0.49	14.4	B
Overall Intersection		-	**0.58**	**19.2**	**B**	-	**0.45**	**15.7**	**B**	-	**0.43**	**15.5**	**B**	-	**0.39**	**14.6**	**B**
Third Avenue and Prospect Avenue																	
Prospect Avenue	WB	L	0.84	62.7	E	L	0.80	54.1	D	L	1.05	100.3	F	L	0.75	51.0	D
		T	1.02	105.8	F	T	0.52	46.8	D	T	0.60	54.9	D	T	0.51	46.1	D
		R	0.39	50.0	D	R	0.30	42.1	D	R	0.18	44.9	D	R	0.20	39.7	D
Third Avenue	NB	L	0.75	31.5	C	L	0.88	52.9	D	L	0.79	44.1	D	L	0.79	47.3	D
		T	0.57	3.8	A	T	0.41	11.9	B	T	0.62	12.3	B	T	0.63	15.8	B
	SB	T	0.17	42.2	D	T	0.16	35.4	D	T	0.12	32.7	C	T	0.23	36.4	D
		R	0.80	62.2	E	R	0.60	45.3	D	R	0.64	43.8	D	R	0.76	51.4	D
Overall Intersection		-	**0.83**	**42.1**	**D**	-	**0.76**	**44.5**	**D**	-	**0.80**	**48.5**	**D**	-	**0.76**	**41.0**	**D**
Third Avenue and 29th Street																	
29th Street	EB	LTR	0.77	55.8	E	LTR	0.59	49.3	D	LTR	0.53	46.3	D	LTR	0.31	40.5	D
Third Avenue	NB	TR	0.91	5.8	A	TR	0.54	4.8	A	TR	0.51	4.4	A	TR	0.44	4.6	A
	SB	LTR	0.26	11.0	B	LTR	0.31	11.0	B	LTR	0.73	25.3	C	LTR	0.41	12.2	B
Overall Intersection		-	**0.77**	**11.6**	**B**	-	**0.59**	**11.1**	**B**	-	**0.73**	**18.4**	**B**	-	**0.41**	**9.9**	**A**
Third Avenue and 30th Street																	
30th Street	EB	R	0.00	0.0	A	R	0.00	0.0	A	R	0.00	0.0	A	R	0.00	0.0	A
	WB	LTR	0.14	36.8	D	LTR	0.15	37.8	D	LTR	0.18	38.1	D	LTR	0.09	36.6	D
Third Avenue	NB	LT	0.89	5.7	A	LT	0.47	6.1	A	LT	0.50	7.4	A	LT	0.40	5.0	A
	SB	TR	0.21	3.9	A	TR	0.24	2.9	A	TR	0.65	2.4	A	TR	0.32	1.5	A
Overall Intersection		-	**0.89**	**6.0**	**A**	-	**0.47**	**5.9**	**A**	-	**0.50**	**5.2**	**A**	-	**0.40**	**3.9**	**A**
Third Avenue and 32nd Street																	
32nd Street	EB	LR	0.15	35.8	D	LR	0.11	33.5	C	LR	0.15	37.9	D	LR	0.07	32.8	C
	WB	LTR	0.25	37.5	D	LTR	0.33	38.0	D	LTR	0.31	41.5	D	LTR	0.21	35.0	C
Third Avenue	NB	LT	0.92	37.7	D	LT	0.50	5.8	A	LT	0.49	4.9	A	LT	0.47	4.5	A
	SB	LTR	0.22	8.1	A	LTR	0.29	7.0	A	LTR	0.63	2.4	A	LTR	0.34	5.4	A
Overall Intersection		-	**0.92**	**32.5**	**C**	-	**0.50**	**8.7**	**A**	-	**0.49**	**5.1**	**A**	-	**0.47**	**6.5**	**A**
Third Avenue and 33rd Street																	
33rd Street	EB	LTR	0.22	36.7	D	LTR	0.32	40.9	D	LTR	0.36	41.4	D	LTR	0.12	37.0	D
Third Avenue	NB	TR	0.95	9.3	A	TR	0.46	2.9	A	TR	0.51	5.3	A	TR	0.50	4.6	A
	SB	LT	0.24	6.0	A	LT	0.29	5.3	A	LT	0.66	3.6	A	LT	0.36	3.4	A
Overall Intersection		-	**0.95**	**9.6**	**A**	-	**0.46**	**6.1**	**A**	-	**0.51**	**6.0**	**A**	-	**0.50**	**4.9**	**A**

(1) Control delay is measured in seconds per vehicle.
(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.

TABLE 11-17 - TRAFFIC LEVELS OF SERVICE
INDUSTRY CITY EIS
2016 EXISTING CONDITION

INTERSECTION & APPROACH		Weekday AM Peak Hour Control Mvt.	V/C	Delay	LOS	Weekday Midday Peak Hour Control Mvt.	V/C	Delay	LOS	Weekday PM Peak Hour Control Mvt.	V/C	Delay	LOS	Saturday Peak Hour Control Mvt.	V/C	Delay	LOS
Third Avenue and 34th Street																	
34th Street	WB	LTR	0.51	43.8	D	LTR	0.39	40.1	D	LTR	0.53	46.1	D	LTR	0.46	41.7	D
Third Avenue	NB	LT	0.87	40.8	D	LT	0.42	2.9	A	LT	0.45	4.4	A	LT	0.42	3.0	A
	SB	TR	0.21	4.7	A	TR	0.28	5.3	A	TR	0.63	2.3	A	TR	0.33	4.8	A
	Overall Intersection	-	**0.87**	**34.5**	**C**	-	**0.42**	**6.9**	**A**	-	**0.53**	**5.9**	**A**	-	**0.46**	**7.1**	**A**
Third Avenue and 35th Street																	
35th Street	EB	LTR	0.28	38.0	D	LTR	0.23	39.1	D	LTR	0.23	39.0	D	LTR	0.10	36.6	D
Third Avenue	NB	TR	0.95	12.4	B	TR	0.48	4.9	A	TR	0.48	4.9	A	TR	0.41	3.6	A
	SB	LT	0.23	6.2	A	LT	0.27	5.6	A	LT	0.65	5.1	A	LT	0.38	5.6	A
	Overall Intersection	-	**0.95**	**12.2**	**B**	-	**0.48**	**6.6**	**A**	-	**0.48**	**5.9**	**A**	-	**0.41**	**5.2**	**A**
Third Avenue and 36th Street																	
36th Street	WB	LT	0.46	42.0	D	LT	0.33	41.4	D	LT	0.45	44.2	D	LT	0.28	40.2	D
		R	0.56	46.5	D	R	0.26	40.0	D	R	0.24	39.9	D	R	0.22	39.2	D
Third Avenue	NB	LT	0.89	49.5	D	LT	0.43	3.0	A	LT	0.47	5.4	A	LT	0.42	4.3	A
	SB	TR	0.25	5.1	A	TR	0.28	4.5	A	TR	0.65	2.5	A	TR	0.35	3.5	A
	Overall Intersection	-	**0.89**	**40.5**	**D**	-	**0.43**	**7.4**	**A**	-	**0.47**	**6.5**	**A**	-	**0.42**	**6.7**	**A**
Third Avenue and 37th Street																	
37th Street	EB	LTR	0.15	34.3	C	LTR	0.20	35.7	D	LTR	0.34	37.8	D	LTR	0.26	36.5	D
Third Avenue	NB	TR	0.89	9.6	A	TR	0.43	12.0	B	TR	0.46	8.5	A	TR	0.40	11.8	B
	SB	LT	0.26	7.8	A	LT	0.31	7.6	A	LT	0.68	7.9	A	LT	0.41	7.6	A
	Overall Intersection	-	**0.89**	**10.2**	**B**	-	**0.43**	**12.2**	**B**	-	**0.46**	**10.6**	**B**	-	**0.40**	**12.0**	**B**
Third Avenue and 39th Street																	
39th Street	EB	LTR	0.40	38.9	D	LTR	0.44	41.7	D	LTR	0.39	39.4	D	LTR	0.43	41.5	D
	WB	LTR	0.71	52.3	D	LTR	0.76	56.8	E	LTR	0.71	52.6	D	LTR	0.77	57.6	E
Third Avenue	NB	LTR	0.82	33.3	C	LTR	0.38	3.7	A	LTR	0.40	6.1	A	LTR	0.33	4.3	A
	SB	TR	0.23	5.5	A	TR	0.23	11.2	B	TR	0.61	3.7	A	TR	0.39	15.3	B
	Overall Intersection	-	**0.82**	**30.2**	**C**	-	**0.76**	**18.0**	**B**	-	**0.71**	**11.7**	**B**	-	**0.77**	**19.4**	**B**
Third Avenue and 40th Street																	
40th Street	EB	LTR	0.40	41.3	D	LTR	0.30	39.0	D	LTR	0.36	41.7	D	LTR	0.19	36.7	D
Third Avenue	NB	TR	0.86	3.8	A	TR	0.43	5.0	A	TR	0.39	4.8	A	TR	0.32	4.5	A
	SB	LT	0.27	7.7	A	LT	0.26	6.7	A	LT	0.68	9.2	A	LT	0.44	9.3	A
	Overall Intersection	-	**0.86**	**6.5**	**A**	-	**0.43**	**7.7**	**A**	-	**0.42**	**9.2**	**A**	-	**0.32**	**8.4**	**A**
Third Avenue and 41st Street																	
41st Street	WB	LTR	0.35	40.2	D	LTR	0.45	44.3	D	LTR	0.49	45.2	D	LTR	0.40	42.9	D
Third Avenue	NB	LT	0.87	42.4	D	LT	0.37	5.5	A	LT	0.37	5.3	A	LT	0.32	4.8	A
	SB	TR	0.27	4.2	A	TR	0.26	4.0	A	TR	0.68	1.9	A	TR	0.40	2.7	A
	Overall Intersection	-	**0.87**	**34.3**	**C**	-	**0.45**	**8.3**	**A**	-	**0.49**	**5.6**	**A**	-	**0.40**	**6.3**	**A**
Third Avenue and 42nd Street																	
42nd Street	EB	LTR	0.35	40.4	D	LTR	0.50	45.9	D	LTR	0.45	43.9	D	LTR	0.25	39.3	D
Third Avenue	NB	TR	0.89	5.4	A	TR	0.39	6.9	A	TR	0.38	5.1	A	TR	0.36	7.4	A
	SB	LT	0.26	5.2	A	LT	0.25	3.3	A	LT	0.67	4.0	A	LT	0.43	3.2	A
	Overall Intersection	-	**0.89**	**6.8**	**A**	-	**0.39**	**9.3**	**A**	-	**0.38**	**6.7**	**A**	-	**0.36**	**6.6**	**A**
Third Avenue and 43rd Street																	
43rd Street	WB	LTR	0.46	42.5	D	LTR	0.27	39.9	D	LTR	0.35	41.7	D	LTR	0.38	42.3	D
Third Avenue	NB	LT	0.84	52.0	D	LT	0.36	7.1	A	LT	0.36	6.6	A	LT	0.30	6.2	A
	SB	TR	0.28	4.5	A	TR	0.27	5.5	A	TR	0.70	3.0	A	TR	0.42	2.4	A
	Overall Intersection	-	**0.84**	**41.4**	**D**	-	**0.36**	**8.5**	**A**	-	**0.36**	**5.7**	**A**	-	**0.38**	**6.5**	**A**
Third Avenue and 44th Street																	
44th Street	EB	LTR	0.46	43.1	D	LTR	0.42	43.4	D	LTR	0.70	53.2	D	LTR	0.35	41.5	D
Third Avenue	NB	TR	0.82	22.3	C	TR	0.34	11.3	B	TR	0.35	11.4	B	TR	0.32	11.1	B
	SB	LT	0.27	5.4	A	LT	0.28	4.4	A	LT	0.67	3.6	A	LT	0.43	3.4	A
	Overall Intersection	-	**0.82**	**19.9**	**B**	-	**0.42**	**11.2**	**B**	-	**0.58**	**10.4**	**B**	-	**0.35**	**8.7**	**A**

(1) Control delay is measured in seconds per vehicle.
(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.

TABLE 11-17 - TRAFFIC LEVELS OF SERVICE
INDUSTRY CITY EIS
2016 EXISTING CONDITION

		Weekday AM Peak Hour				Weekday Midday Peak Hour				Weekday PM Peak Hour				Saturday Peak Hour			
				Control				Control				Control				Control	
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**
Fourth Avenue and 34th Street																	
34th Street	WB	LTR	0.77	55.5	E	LTR	0.38	39.5	D	LTR	0.46	41.5	D	LTR	0.35	38.7	D
Third Avenue	NB	L	0.30	9.7	A	L	0.35	15.1	B	L	0.60	29.5	C	L	0.47	19.6	B
		T	0.98	30.4	C	T	0.70	18.7	B	T	0.68	18.1	B	T	0.74	20.0	B
	SB	TR	0.52	15.1	B	TR	0.42	13.6	B	TR	0.68	11.2	B	TR	0.50	14.7	B
	Overall Intersection	-	**0.92**	**27.8**	**C**	-	**0.61**	**18.1**	**B**	-	**0.62**	**16.8**	**B**	-	**0.63**	**19.0**	**B**
Fourth Avenue and 36th Street																	
36th Street	WB	LTR	1.04	101.6	F	LTR	0.58	41.6	D	LTR	0.81	58.8	E	LTR	0.59	42.0	D
Fourth Avenue	NB	T	0.86	12.0	B	T	0.77	22.3	C	T	0.71	17.5	B	T	0.83	23.6	C
	SB	TR	0.58	15.6	B	TR	0.51	16.9	B	TR	0.76	12.7	B	TR	0.55	17.7	B
	Overall Intersection	-	**0.91**	**24.1**	**C**	-	**0.71**	**22.5**	**C**	-	**0.78**	**19.6**	**B**	-	**0.75**	**23.3**	**C**
Fourth Avenue and 37th Street																	
37th Street	EB	LTR	0.51	42.8	D	LTR	0.44	41.6	D	LTR	0.67	48.5	D	LTR	0.53	42.9	D
Fourth Avenue	NB	TR	0.94	17.9	B	TR	0.73	18.5	B	TR	0.74	18.8	B	TR	0.81	21.0	C
	SB	L	0.78	69.5	E	L	0.43	20.4	C	L	0.50	14.6	B	L	0.52	28.4	C
		T	0.49	13.7	B	T	0.41	12.8	B	T	0.68	9.8	A	T	0.45	13.2	B
	Overall Intersection	-	**0.82**	**18.9**	**B**	-	**0.64**	**18.4**	**B**	-	**0.72**	**17.3**	**B**	-	**0.72**	**20.3**	**C**
Fourth Avenue and 38th Street																	
38th Street	EB	L	0.83	59.6	E	L	0.65	41.8	D	L	0.65	47.0	D	L	0.71	44.2	D
		LT	0.83	59.8	E	LT	0.63	41.4	D	LT	0.68	48.6	D	LT	0.66	42.5	D
		R	0.29	37.4	D	R	0.38	34.5	C	R	0.34	38.3	D	R	0.42	35.2	D
Fourth Avenue	NB	TR	0.81	16.4	B	TR	0.54	21.1	C	TR	0.49	16.9	B	TR	0.53	20.8	C
	SB	T	0.55	17.9	B	T	0.47	20.0	B	T	0.74	15.2	B	T	0.58	21.9	C
	Overall Intersection	-	**0.81**	**26.6**	**C**	-	**0.59**	**27.3**	**C**	-	**0.72**	**23.1**	**C**	-	**0.62**	**28.2**	**C**
Fourth Avenue and 39th Street																	
39th Street	EB	L	0.15	35.9	D	L	0.19	35.4	D	L	0.17	36.6	D	L	0.13	33.8	C
		TR	0.63	46.1	D	TR	0.61	44.1	D	TR	0.66	47.5	D	TR	0.69	47.7	D
	WB	L	0.47	46.2	D	L	0.27	37.5	D	L	0.54	50.5	D	L	0.30	38.5	D
		TR	0.77	58.7	E	TR	0.73	52.4	D	TR	0.87	68.5	E	TR	0.61	45.4	D
Fourth Avenue	NB	TR	0.78	12.2	B	TR	0.48	15.3	B	TR	0.47	14.2	B	TR	0.53	15.8	B
	SB	L	0.52	32.5	C	L	0.14	12.8	B	L	0.14	6.8	A	L	0.42	18.8	B
		TR	0.62	16.7	B	TR	0.55	16.5	B	TR	0.87	15.8	B	TR	0.64	18.1	B
	Overall Intersection	-	**0.78**	**21.0**	**C**	-	**0.61**	**23.0**	**C**	-	**0.86**	**23.6**	**C**	-	**0.65**	**22.7**	**C**
Fourth Avenue and 40th Street																	
40th Street	EB	LTR	0.61	44.9	D	LTR	0.23	28.4	C	LTR	0.47	40.3	D	LTR	0.30	29.5	C
Fourth Avenue	NB	TR	0.80	14.2	B	TR	0.56	21.7	C	TR	0.49	14.5	B	TR	0.62	23.1	C
	SB	L	0.59	28.2	C	L	0.37	21.8	C	L	0.37	8.7	A	L	0.75	45.3	D
		T	0.50	14.4	B	T	0.48	20.1	C	T	0.71	10.5	B	T	0.62	22.6	C
	Overall Intersection	-	**0.75**	**17.3**	**B**	-	**0.42**	**21.5**	**C**	-	**0.63**	**14.1**	**B**	-	**0.56**	**24.4**	**C**

(1) Control delay is measured in seconds per vehicle.
(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.

TABLE 11-17 - TRAFFIC LEVELS OF SERVICE
INDUSTRY CITY EIS
2016 EXISTING CONDITION

INTERSECTION & APPROACH		Weekday AM Peak Hour Control Mvt.	V/C	Delay	LOS	Weekday Midday Peak Hour Control Mvt.	V/C	Delay	LOS	Weekday PM Peak Hour Control Mvt.	V/C	Delay	LOS	Saturday Peak Hour Control Mvt.	V/C	Delay	LOS
UNSIGNALIZED INTERSECTIONS																	
First Avenue and 39th Street																	
First Avenue	NB	LR	-	10.5	B	LR	-	10.0	A	LR	-	10.3	B	LR	-	9.1	A
39th Street	WB	LT	-	7.9	A	LT	-	8.3	A	LT	-	8.0	A	LT	-	7.8	A
	Overall Intersection	-	**-**	**5.7**	**A**	-	**-**	**5.6**	**A**	-	**-**	**6.2**	**A**	-	**-**	**4.0**	**A**
First Avenue and 41st Street																	
First Avenue	SB	LT	-	7.3	A	LT	-	7.3	A	LT	-	7.7	A	LT	-	7.2	A
41st Street	WB	LR	-	9.4	A	LR	-	9.5	A	LR	-	9.6	A	LR	-	8.8	A
	Overall Intersection	-	**-**	**2.8**	**A**	-	**-**	**1.8**	**A**	-	**-**	**2.8**	**A**	-	**-**	**3.6**	**A**
First Avenue and 42nd Street																	
First Avenue	NB	LTR	-	7.5	A	LTR	-	7.5	A	LTR	-	7.4	A	LTR	-	7.4	A
	SB	LTR	-	7.6	A	LTR	-	7.9	A	LTR	-	7.5	A	LTR	-	7.6	A
42nd Street	EB	LTR	-	12.1	B	LTR	-	10.9	B	LTR	-	11.4	B	LTR	-	10.3	B
	Overall Intersection	-	**-**	**3.2**	**A**	-	**-**	**2.6**	**A**	-	**-**	**4.4**	**A**	-	**-**	**4.3**	**A**
First Avenue and 43rd Street																	
First Avenue	NB	LT	-	7.4	A	LT	-	7.4	A	LT	-	7.4	A	LT	-	7.3	A
43rd Street	EB	LR	-	11.1	B	LR	-	10.7	B	LR	-	9.7	A	LR	-	0.0	A
	WB	LT	-	10.4	B	LT	-	11.2	B	LT	-	10.6	B	LT	-	9.5	A
		TR	-	9.3	A	TR	-	9.7	A	TR	-	9.2	A	TR	-	8.7	A
	Overall Intersection	-	**-**	**6.6**	**A**	-	**-**	**5.9**	**A**	-	**-**	**5.2**	**A**	-	**-**	**4.7**	**A**
First Avenue and 44th Street																	
First Avenue	SB	LT	-	7.7	A	LT	-	7.9	A	LT	-	7.9	A	LT	-	7.5	A
	Overall Intersection	-	**-**	**0.9**	**A**	-	**-**	**1.2**	**A**	-	**-**	**1.1**	**A**	-	**-**	**0.4**	**A**
Second Avenue and 29th Street																	
Second Avenue	NB	LTR	-	7.5	A	LTR	-	7.9	A	LTR	-	7.8	A	LTR	-	7.3	A
	SB	LTR	-	9.4	A	LTR	-	7.6	A	LTR	-	7.6	A	LTR	-	7.4	A
29th Street	EB	LTR	-	10.9	B	LTR	-	9.9	A	LTR	-	11.2	B	LTR	-	9.1	A
	WB	LTR	-	11.0	B	LTR	-	11.1	B	LTR	-	10.9	B	LTR	-	9.7	A
	Overall Intersection	-	**-**	**10.7**	**B**	-	**-**	**10.5**	**B**	-	**-**	**10.7**	**B**	-	**-**	**9.4**	**A**
Second Avenue and 32nd Street																	
Second Avenue	NB	LTR	-	7.4	A	LTR	-	7.6	A	LTR	-	8.4	A	LTR	-	7.5	A
	SB	LTR	-	8.7	A	LTR	-	7.6	A	LTR	-	7.6	A	LTR	-	7.5	A
32nd Street	EB	LTR	-	9.2	A	LTR	-	8.9	A	LTR	-	9.2	A	LTR	-	9.2	A
	WB	LTR	-	13.3	B	LTR	-	10.7	B	LTR	-	10.9	B	LTR	-	10.9	B
	Overall Intersection	-	**-**	**1.9**	**A**	-	**-**	**2.0**	**A**	-	**-**	**2.4**	**A**	-	**-**	**3.0**	**A**
Second Avenue and 33rd Street																	
Second Avenue	SB	LT	-	8.8	A	LT	-	8.0	A	LT	-	8.0	A	LT	-	7.6	A
	Overall Intersection	-	**-**	**0.5**	**A**	-	**-**	**0.7**	**A**	-	**-**	**1.4**	**A**	-	**-**	**0.4**	**A**
Second Avenue and 34th Street																	
34th Street	WB	LR	-	12.2	B	LR	-	10.9	B	LR	-	10.6	B	LR	-	9.9	A
	Overall Intersection	-	**-**	**2.3**	**A**	-	**-**	**2.7**	**A**	-	**-**	**2.1**	**A**	-	**-**	**1.8**	**A**
Second Avenue and 35th Street																	
Second Avenue	SB	LT	-	9.0	A	LT	-	8.0	A	LT	-	7.9	A	LT	-	7.7	A
	Overall Intersection	-	**-**	**0.4**	**A**	-	**-**	**0.4**	**A**	-	**-**	**0.7**	**A**	-	**-**	**0.3**	**A**

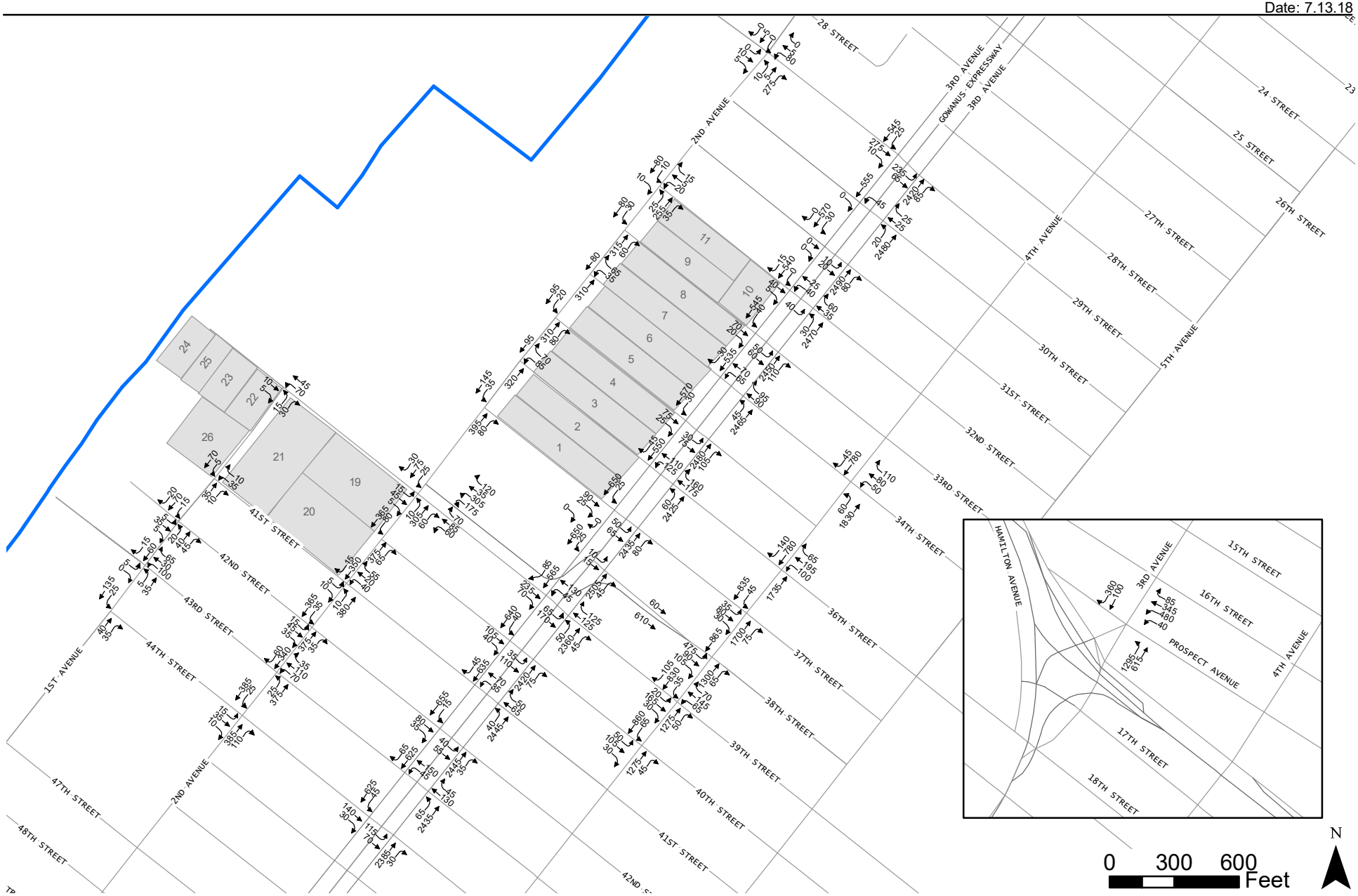
(1) Control delay is measured in seconds per vehicle.
(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.

TABLE 11-17 - TRAFFIC LEVELS OF SERVICE
INDUSTRY CITY EIS
2016 EXISTING CONDITION

INTERSECTION & APPROACH		Weekday AM Peak Hour				Weekday Midday Peak Hour				Weekday PM Peak Hour				Saturday Peak Hour			
				Control				Control				Control				Control	
		Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS
Second Avenue and 36th Street																	
36th Street	WB	LR	-	13.7	B	LR	-	10.8	B	LR	-	10.9	B	LR	-	10.2	B
	Overall Intersection	-	**-**	**3.7**	**A**	-	**-**	**2.3**	**A**	-	**-**	**2.4**	**A**	-	**-**	**1.8**	**A**
Second Avenue and 37th Street																	
Second Avenue	SB	LT	-	9.6	A	LT	-	8.8	A	LT	-	8.6	A	LT	-	8.9	A
	Overall Intersection	-	**-**	**0.5**	**A**	-	**-**	**0.8**	**A**	-	**-**	**1.1**	**A**	-	**-**	**0.7**	**A**
Second Avenue and 40th Street																	
Second Avenue	SB	LT	-	8.9	A	LT	-	8.2	A	LT	-	8.2	A	LT	-	8.1	A
	Overall Intersection	-	**-**	**0.8**	**A**	-	**-**	**0.6**	**A**	-	**-**	**0.7**	**A**	-	**-**	**0.5**	**A**
Second Avenue and 41st Street																	
Second Avenue	NB	LT	-	8.1	A	LT	-	8.2	A	LT	-	7.9	A	LT	-	8.2	A
41st Street	EB	LR	-	15.1	C	LR	-	15.5	C	LR	-	15.5	C	LR	-	13.7	B
	WB	LTR	-	22.5	C	LTR	-	14.7	B	LTR	-	17.1	C	LTR	-	15.1	C
	Overall Intersection	-	**-**	**3.3**	**A**	-	**-**	**2.1**	**A**	-	**-**	**3.8**	**A**	-	**-**	**1.8**	**A**
Second Avenue and 44th Street																	
Second Avenue	NB	TR	-	20.1	C	TR	-	11.1	B	TR	-	13.4	B	TR	-	10.2	B
	SB	LT	-	18.3	C	LT	-	12.8	B	LT	-	13.6	B	LT	-	12.9	B
44th Street	EB	LTR	-	10.9	B	LTR	-	10.1	B	LTR	-	10.4	B	LTR	-	8.7	A
	Overall Intersection	-	**-**	**18.7**	**C**	-	**-**	**11.8**	**B**	-	**-**	**13.1**	**B**	-	**-**	**11.7**	**B**
Third Avenue and 31st Street																	
Third Avenue	SB	LT	-	1.8	A	LT	-	2.1	A	LT	-	1.2	A	LT	-	1.3	A
	Overall Intersection	-	**-**	**0.3**	**A**	-	**-**	**0.7**	**A**	-	**-**	**0.7**	**A**	-	**-**	**0.6**	**A**
Third Avenue and 38th Street																	
Third Avenue	SB	LT	-	1.5	A	LT	-	3.8	A	LT	-	2.5	A	LT	-	3.9	A
	Overall Intersection	-	**-**	**0.3**	**A**	-	**-**	**1.6**	**A**	-	**-**	**1.6**	**A**	-	**-**	**2.2**	**A**

(1) Control delay is measured in seconds per vehicle.
(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.

Date: 7.13.18



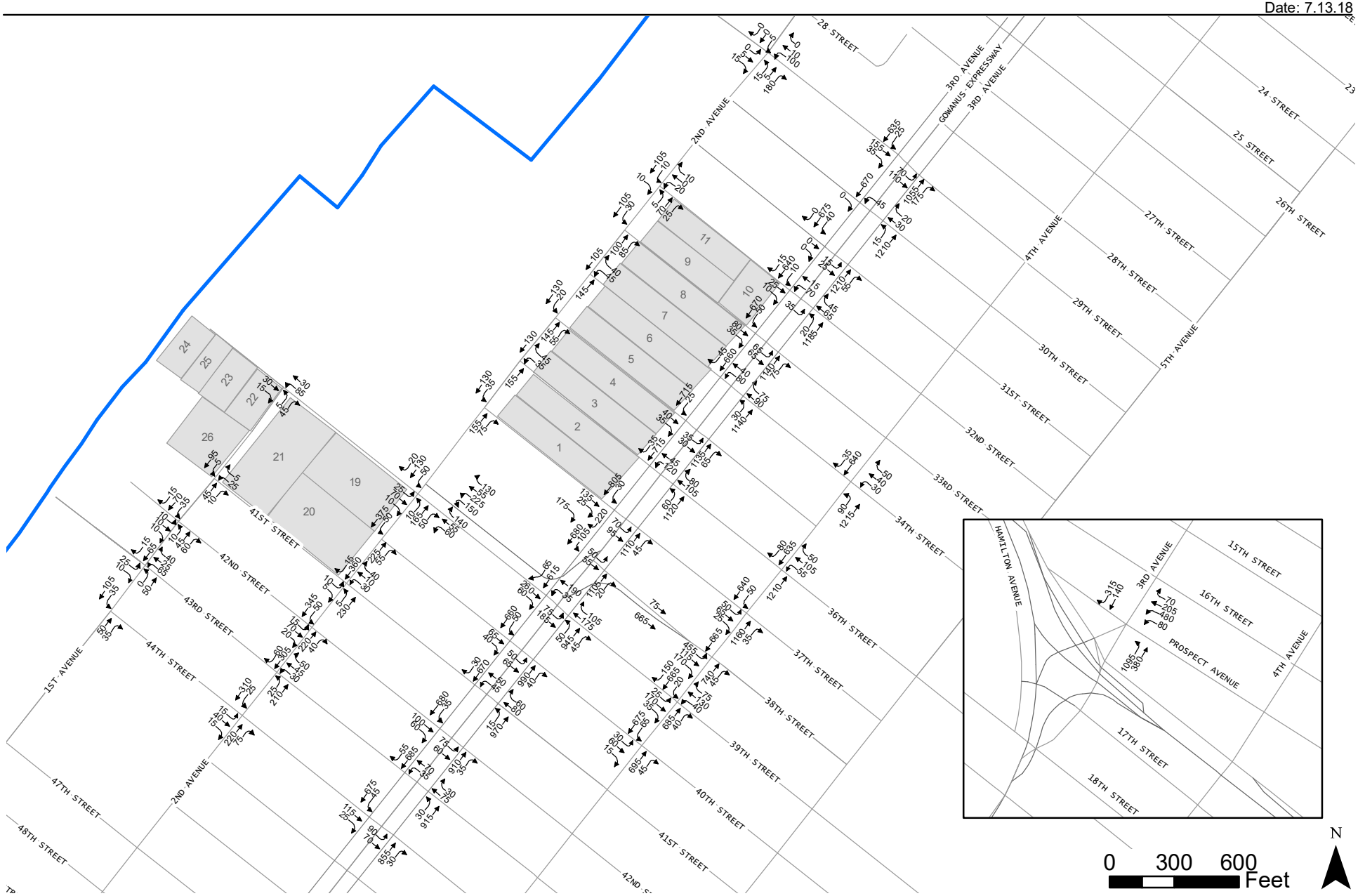
Industry City

2016 Existing Traffic Volumes
Weekday AM Peak Hour

Figure
11-13

Project Site Buildings

Sources: 1. New York (City). Dept. of City Planning 2014. LION (Edition 14A). New York City: NYC Department of City Planning.



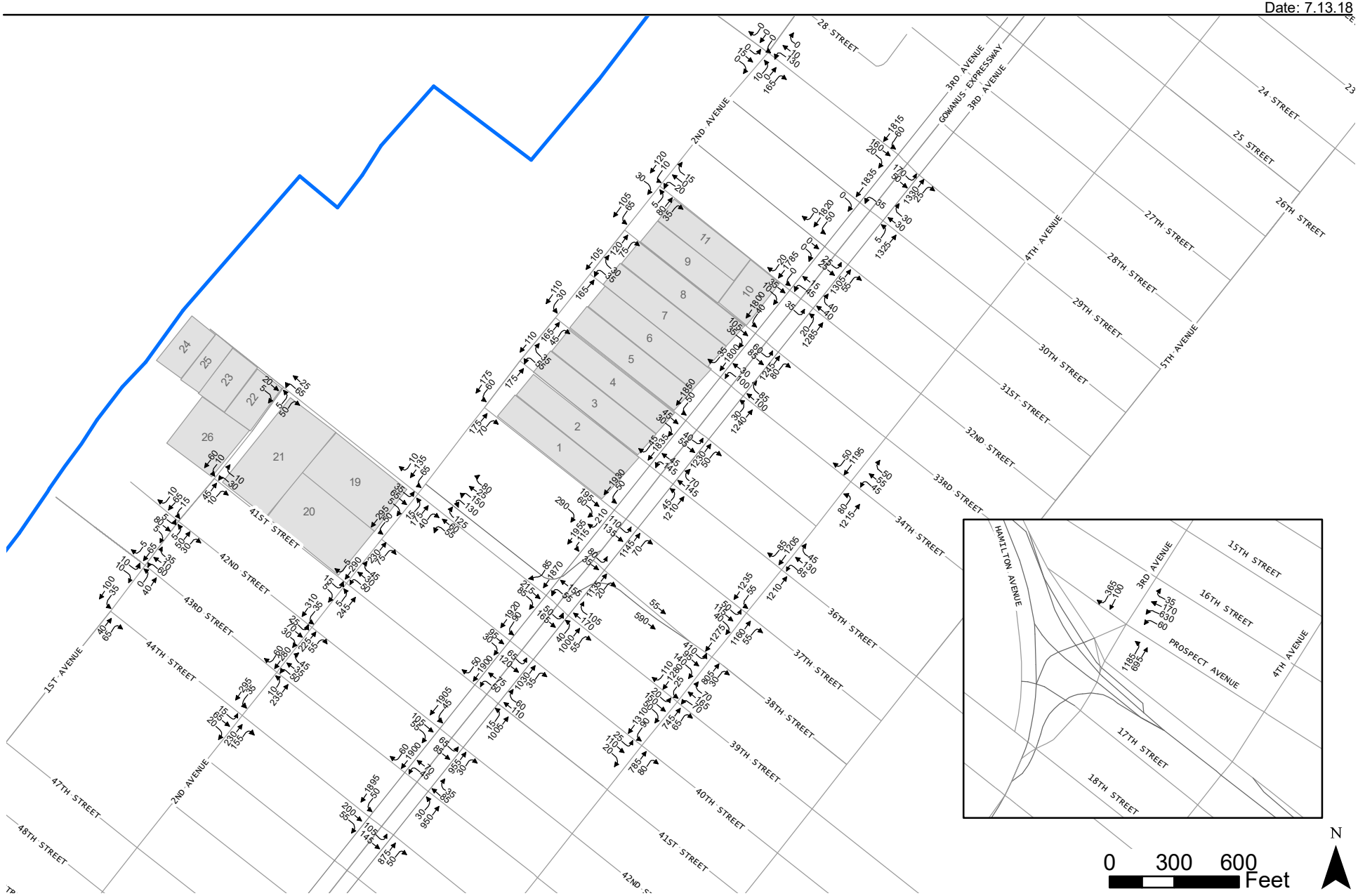
Industry City

2016 Existing Traffic Volumes
Weekday Midday Peak Hour

Figure
11-14

Project Site Buildings

Sources: 1. New York (City). Dept. of City Planning 2014. LION (Edition 14A). New York City: NYC Department of City Planning.



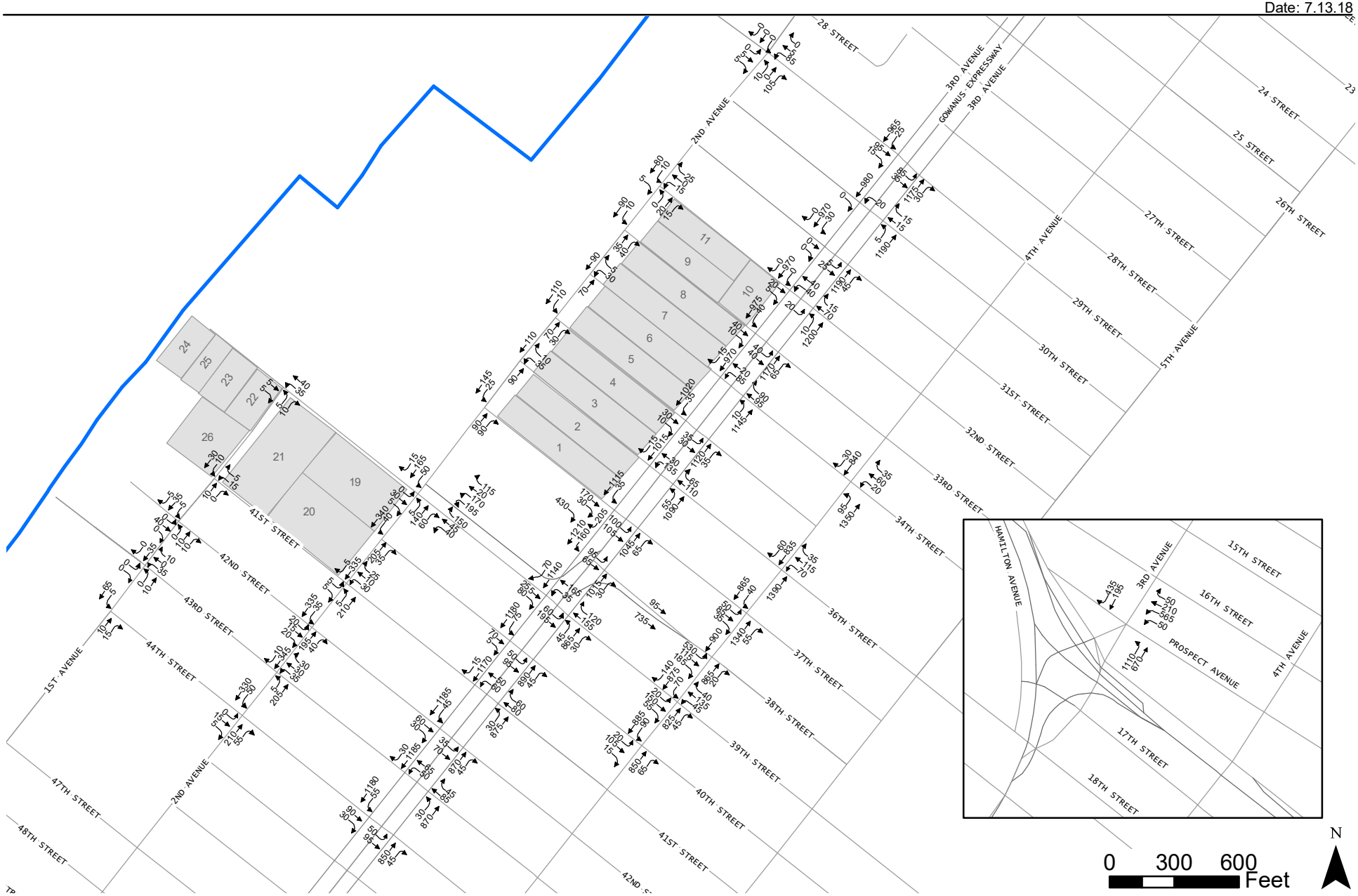
Industry City

2016 Existing Traffic Volumes
Weekday PM Peak Hour

Figure
11-15

Project Site Buildings

Sources: 1. New York (City). Dept. of City Planning 2014. LION (Edition 14A). New York City: NYC Department of City Planning.



Industry City

2016 Existing Traffic Volumes
Saturday PM Peak Hour

Figure
11-16

Project Site Buildings

Sources: 1. New York (City). Dept. of City Planning 2014. LION (Edition 14A). New York City: NYC Department of City Planning.

This summary overview of existing conditions indicates that:

- In the weekday AM peak hour, none of the 41 intersections analyzed are operating at overall LOS E or F. "Overall" LOS E or F means that serious congestion exists—either one specific traffic movement has severe delays or two or more of the specific traffic movements at the intersection are at LOS E or F with significant delays (the overall intersection LOS is a weighted average of all the individual traffic movements). Eleven individual traffic movements out of approximately 141 such movements analyzed are at LOS E or F (e.g., left turns from one street to another, through traffic on one street passing through the intersection, etc.).
- In the weekday midday peak hour, no intersection operates at overall LOS E or F, and one individual traffic movement operates at LOS E or F.
- In the weekday PM peak hour, no intersection operates at overall LOS E or F, and three individual traffic movements operate at LOS E or F.
- In the Saturday midday peak hour, no intersection operates at overall LOS E or F, and one individual traffic movement operates at LOS E or F.
- All of the 17 unsignalized intersections analyzed are operating at acceptable LOS during all peak hours analyzed.

Traffic movements operating at unacceptable LOS are listed below.

2nd Avenue and 39th Street

- Southbound Gowanus Expressway Off-Ramp left turn movement (weekday AM)

3rd Avenue and Prospect Avenue

- Westbound Prospect Avenue left turn movement (weekday AM, midday, PM, and Saturday)
- Westbound Prospect Avenue through movement (weekday AM, midday, PM, and Saturday)
- Westbound Prospect Avenue right turn movement (weekday AM)
- Northbound 3rd Avenue left turn movement (weekday midday and Saturday)
- Southbound 3rd Avenue right turn movement (weekday AM, midday, and Saturday)

3rd Avenue and 29th Street

- Eastbound 29th Street approach (weekday AM, midday, and PM peak hours)

3rd Avenue and 34th Street

- Westbound 34th Street approach (weekday PM)

3rd Avenue and 36th Street

- Westbound 36th Street right turn movement (weekday AM)
- Northbound 3rd Avenue approach (weekday AM)

3rd Avenue and 39th Street

- Westbound 39th Street approach (weekday AM, midday, PM, and Saturday)

3rd Avenue and 41st Street

- Westbound 41st Street approach (weekday PM)

3rd Avenue and 42nd Street

- Eastbound 42nd Street approach (weekday midday)

3rd Avenue and 43rd Street

- Northbound 3rd Avenue approach (weekday AM)

3rd Avenue and 44th Street

- Eastbound 44th Street approach (weekday PM)

4th Avenue and 34th Street

- Westbound 34th Street approach (weekday AM)

4th Avenue and 36th Street

- Westbound 36th Street approach (weekday AM and PM)

4th Avenue and 37th Street

- Eastbound 37th Street approach (weekday PM)
- Southbound 4th Avenue left turn movement (weekday AM)

4th Avenue and 38th Street

- Eastbound 38th Street left turn movement (weekday AM and PM)
- Eastbound 38th Street left-through movement (weekday AM and PM)

4th Avenue and 39th Street

- Eastbound 39th Street through-right turn movement (weekday AM, PM, and Saturday)
- Westbound 39th Street left turn movement (weekday AM and PM)
- Westbound 39th Street through-right turn movement (weekday AM, midday, PM, and Saturday)

4th Avenue and 40th Street

- Southbound 4th Avenue left turn movement (Saturday)

GOWANUS EXPRESSWAY

Because of the proximity of the Project Area to the Gowanus Expressway, analyses were performed to assess the potential for significant adverse impacts on that highway, and the ramps connecting it to the local street network. The freeway analyses include the following locations:

- Northbound Gowanus Expressway mainline section between 62nd Street and 19th Street, including the merge segment at the on-ramp from the Belt Parkway and Gowanus High Occupancy Vehicle (HOV) lane, and the diverge segment at the off-ramp to 38th Street.
- Southbound Gowanus Expressway mainline section from 24th Street, after the merge from the 3rd Avenue on-ramp, to 62nd Street. This section includes the off-ramp at 39th Street, and the diverge segment at the off-ramp to the Belt Parkway.

TRAFFIC VOLUMES

Traffic counts were conducted for the weekday AM, midday, PM, and Saturday peak periods using ATR machine counts. Traffic counts were initially conducted in May and June 2013 and validated

in March 2016 to ensure that the higher, more conservative, set of volumes were used for the 2016 existing condition analysis, in consultation with NYCDCP and NYCDOT.

Traffic volumes on the northbound Gowanus Expressway south of the 38th Street off-ramp are approximately 4,650 to 5,250 vph during the weekday AM, PM, and Saturday peak hours, and are approximately 4,000 vph to 4,500 vph north of the off-ramp during the same peak hours. The northbound Gowanus Expressway dedicated HOV lane is open only during the weekday AM period and carries approximately 19 percent of the northbound traffic volume. Traffic volumes during the weekday midday peak hour are approximately 4,300 vph south of the 38th Street off-ramp and approximately 3,800 vehicles north of the off-ramp. The northbound Gowanus Expressway off-ramp at 38th Street carries approximately 500 vph to 775 vph during the peak analysis periods.

Traffic volumes on the southbound Gowanus Expressway north of the 39th Street off-ramp carries approximately 3,300 to 3,950 vph during typical weekday AM and midday peak hours and approximately 4,700 to 5,400 vph during the weekday PM and Saturday peak hours. South of the off-ramp, the highway carries approximately 2,650 to 3,400 vph during the weekday AM and midday peak hours and approximately 4,200 to 5,000 vph during the weekday PM and Saturday peak hours. The southbound Gowanus Expressway 39th Street off-ramp volumes are highest during the weekday AM peak hour (approximately 650 vph) and are approximately 450 to 575 vph during the other peak hours analyzed.

LEVEL OF SERVICE

Table 11-18 presents existing speeds, densities, and LOS for the mainline highway segments analyzed for the weekday and Saturday peak hours in accordance with the methodology from *HCM 6*. The outputs of the existing conditions Freeval-HCM analysis were calibrated to field collected travel times, as well as visual observations of videos collected during the peak hours.

Table 11-18
Existing Highway LOS Summary

Segment					Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
Description		Length	Type	# Lanes	Speed (mph)	Density (pc/ln/mi)	LOS	Speed (mph)	Density (pc/ln/mi)	LOS	Speed (mph)	Density (pc/ln/mi)	LOS	Speed (mph)	Density (pc/ln/mi)	LOS
Northbound Gowanus Expressway	62nd St to 49th St	3500 ft.	Basic	2	34.0	44.9	E	36.0	46.3	F	50.0	36.6	E	50.0	35.6	E
	49th St Ramp from Belt Pkwy to 47th St	500 ft.	Merge	3 w/ 1 left ramp[1]	34.0	47.2	F	36.0	44.8	E	50.0	33.8	D	50.0	35.5	E
	47th St to 40th St	1700 ft.	Overlap[2]	3	29.8	47.2	F	36.0	44.8	E	47.9	35.2	E	47.8	37.1	E
	40th St to 38th St Exit	500 ft.	Diverge	3 w/ 1 right ramp[3]	33.3	47.2	F	36.0	44.8	E	47.9	35.2	E	47.8	37.1	E
	38th St to 19th St	4910 ft.	Basic	3	21.3	62.8	F	36.0	39.9	E	50.0	29.3	D	50.0	30.5	D
Southbound Gowanus Expressway	24th St to 33rd St	2200 ft.	Basic	3	50.0	25.5	C	50.0	29.3	D	32.0	58.7	F	50.0	32.4	D
	33rd St to 39th St Exit	1500 ft.	Diverge	3 w/ 1 right ramp[4]	47.4	26.8	C	47.4	30.9	D	32.0	58.7	F	47.4	34.2	D
	39th St to 43rd St	1240 ft.	Basic	3	49.7	20.9	C	49.7	25.2	C	32.0	54.4	F	49.7	28.9	D
	43rd St to 49th St – Ramp to Belt Pkwy	1500 ft.	Diverge	3 w/ 1 left ramp[5]	50.0	20.9	C	50.0	25.2	C	35.6	48.4	F	50.0	28.9	D
	49th St to 55th St	1560 ft.	Basic	2	50.0	22.0	C	50.0	27.7	D	44.2	46.1	F	50.0	30.0	D
	55th St to 62nd St	1850 ft.	Basic	3	50.0	14.7	B	50.0	18.5	C	38.3	36.1	E	50.0	20.0	C

Notes:
[1] One-lane on-ramp from Gowanus HOV/Belt Parkway merges on left.
[2] When the gore-to-gore length of two adjacent merge and diverge segments is less than 3,000 ft but longer than 1,500 ft and no auxiliary lane exists, the section is analyzed as a series of three segments, with the middle segment being defined as an overlap segment (merge, overlap, diverge).
[3] One-lane off-ramp to 38th St diverges on left.
[4] One-lane off-ramp to 39th St diverges on left.
[5] One-lane off-ramp to the Belt Parkway diverges on left.

Average travel speeds along the northbound Gowanus Expressway range between approximately 21 to 34 mph during the weekday AM peak hour (the northbound Gowanus Expressway is the peak travel direction weekday AM peak period), 47 to 50 mph in the weekday PM peak hour and Saturday peak hour, and 36 mph during the weekday midday peak hour. Average travel speeds along the southbound Gowanus Expressway during the PM peak hour (the southbound Gowanus Expressway is the peak direction during the weekday PM peak period) are approximately 32 to 44 mph, and approximately 47 to 50 mph during the other peak hours analyzed.

For the highway mainline segments, unacceptable LOS E to F conditions occur along the northbound Gowanus Expressway during the weekday AM peak hour and midday peak hour, and unacceptable LOS E in the weekday PM peak hour and Saturday peak hours. The southbound Gowanus Expressway operates at LOS B to C in the weekday AM peak hour, LOS C and D in the midday and Saturday peak hour, and unacceptable LOS E or F during the weekday PM peak hour.

PARKING

A detailed inventory of on-street parking and off-street public parking lots and garages within approximately a quarter-mile of the Project Area was conducted on a typical weekday and

Saturday. This quarter-mile distance is considered an acceptable walking distance to and from parking, per CEQR. There are no public parking lots or garages within or close to this quarter-mile area. There are two off-street parking facilities operated by Industry City along the west side of 2nd Avenue between 30th Street and 39th Street**.**

On-street parking regulations, capacities, and occupancies were inventoried for a quarter-mile radius on a block-by-block basis. The majority of streets within the study area have "No Parking" restrictions at certain times due to street cleaning restrictions. Metered spaces are found primarily along the commercial corridors such as 4th Avenue and 5th Avenue. There are approximately 5,051 legal on-street parking spaces within the entire parking study area during the weekday and approximately 5,225 legal on-street parking spaces during Saturday. On weekdays, approximately 97 percent of on-street parking spaces are occupied during the weekday midday peak period, and approximately 76 percent to 81 percent of on-street parking spaces are occupied during the weekday AM and PM peak periods. The occupancy decreases to approximately 68 percent during the Saturday peak period.

Table 11-19 presents the capacity and occupancy of the off-street parking facilities operated by Industry City during the weekday AM, midday, PM, and Saturday peak periods. The capacity of these two surface parking lots is for 473 parked vehicles; the overall occupancy of these facilities is 41 percent during the weekday AM peak period, 55 percent during the weekday midday peak period, 49 percent during the weekday PM peak period, and 18 percent during the Saturday peak period.

Table 11-19
Inventory of Existing Industry City Parking Facilities

Location	Capacity	Occupancy			
		Weekday AM Peak Period (7:00–9:30 AM)	Weekday Midday Peak Period (11 AM–2 PM)	Weekday PM Peak Period (4:00–6:30 PM)	Saturday Peak Period (1:00–5:00 PM
A. Lot B – West side of 2nd Avenue between 32nd Street and 37th Street	390	162 42%	213 55%	187 48%	79 20%
B. Lot C – Northwest corner of 2nd Avenue and 39th Street	83	30 36%	47 57%	46 55%	5 6%
Total	**473**	**192**	**260**	**234**	**84**
Percent Occupied (%)		**41%**	**55%**	**49%**	**18%**

SUBWAY TRANSIT

There are three subway lines and four bus routes serving the Project Area. A detailed analysis of transit operations during the critical weekday AM and PM commuter periods is presented below. During other time periods, background transit ridership and station utilization, as well as project trip generation, are comparatively lower.

SUBWAY STATION ELEMENTS

The 36th Street station on the BMT 4th Avenue Line is the closest subway station to the Project Area. The station is a five-minute walk from the Project Area and Industry City also operates shuttle bus service between this subway station and the Project Area. The 36th Street subway station is served by the D, N, and R lines. The D line operates between Coney Island-Stillwell Avenue in Brooklyn and 205th Street/Bainbridge Avenue in the Bronx. The N line operates between Coney Island-Stillwell Avenue in Brooklyn and Astoria-Ditmars Boulevard in Queens.

These two lines run express within Brooklyn. The R line runs local in Brooklyn and operates between Bay Ridge-95th Street in Brooklyn and Forest Hills-71st Avenue in Queens.

This 36th Street subway station consists of a mezzanine level with two island platforms. Access between the street and mezzanine level is provided by three surface level stairways located along 4th Avenue between 35th Street and 36th Street: two stairways (S1 and S3) are on the west sidewalk and one stairway (S2) is on the east sidewalk. Access to the trains is controlled by a mezzanine-level fare control area (C-018) consisting of six turnstiles. A set of mezzanine level stairways, the M1A/M1B stairs, are located between the S1 and S3 stairways and the fare control area. Stairs P1 and P3 provide access from the mezzanine level down to the southbound (Brooklyn-bound) platform and stairs P2 and P4 provide access from the mezzanine level down to the northbound (Manhattan-bound) platform.

The Proposed Project is expected to generate approximately 1,874 subway trips (1,658 "project in" trips and 216 "project out" trips) during the weekday AM peak hour and 3,991 subway trips (767 "project in" trips and 3,224 "project out" trips) during the weekday PM peak hour. These trips were assigned to the subway station elements at the 36th Street station. Three surface level stairways, four platform level stairways, one mezzanine level stairway, and the fare control area were identified for detailed analyses. To determine existing conditions at analyzed subway station elements, subway ridership data were collected at this station in March 2016. **Tables 11-20 and 11-21** show the results of the LOS analysis at the analyzed stairways and fare control area, respectively. All stairways analyzed currently operate at an acceptable LOS C or better in both the AM and PM peak hours, except for northbound platform stairway P4, which operates at LOS D in the AM peak hour with a v/c ratio of 1.11. The fare control area currently operates at LOS A during both the AM and PM peak hours.

Table 11-20
Existing Subway Station LOS – Stairways

Peak Hour	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor		Friction Factor	V/C Ratio	LOS
				Down	Up	Up	Down			
AM	S1	5.8	4.8	68	236	0.90	1.00	0.90	0.51	B
	S2	5.8	4.8	349	88	0.90	1.00	0.90	0.69	B
	S3	5.8	4.8	141	224	0.90	1.00	0.90	0.60	B
	M1A/M1B	13.2	11.0	209	461	0.80	1.00	0.90	0.49	B
	P1	6.0	5.0	49	140	0.75	1.00	0.90	0.35	A
	P2	5.8	4.8	303	95	0.75	1.00	0.90	0.66	B
	P3	5.7	4.7	134	204	0.75	1.00	0.90	0.64	B
	P4	5.7	4.7	303	299	0.75	1.00	0.90	1.11	D
PM	S1	5.8	4.8	155	64	0.90	1.00	0.90	0.35	A
	S2	5.8	4.8	119	172	0.90	1.00	0.90	0.48	B
	S3	5.8	4.8	208	104	0.90	1.00	0.90	0.50	B
	M1A/M1B	13.2	11.0	363	168	0.80	1.00	0.90	0.36	A
	P1	6.0	5.0	63	74	0.75	1.00	0.90	0.24	A
	P2	5.8	4.8	183	36	0.75	1.00	0.90	0.36	A
	P3	5.7	4.7	117	206	0.75	1.00	0.90	0.62	B
	P4	5.7	4.7	243	120	0.75	1.00	0.90	0.64	B

Table 11-21
Existing Subway Station LOS – Fare Control Area

Peak Hour	Fare Control Area	Control Elements	Quantity	15-Minute Pedestrian Volumes		Surging Factor (Out Trips)	Friction Factor	V/C Ratio	LOS
				In	Out				
AM	C-018	Two-way Turnstile	6	558	549	0.90	0.90	0.42	A
PM	C-018	Two-way Turnstile	6	482	340	0.90	0.90	0.32	A

SUBWAY LINE-HAUL CAPACITY

Existing subway line-haul conditions for the subway lines serving the 36th Street station are summarized in **Table 11-22**. The analysis examines peak hour loading conditions in the peak direction of travel passing the maximum load point of the subway line. The peak direction of travel on these lines is northbound (Manhattan-bound) in the AM peak hour and southbound (Brooklyn-bound) in the PM peak hour. All subway lines analyzed operate below capacity in the peak direction during both peak hours.

Table 11-22
Existing Conditions Subway Line-Haul Analysis

Peak Period	Line	Direction	Maximum Load Point (Leaving Station)	Average Trains Per Hour[1]	Average Cars Per Hour[1]	Average Passengers Per Hour[1]	Average Passengers Per Car[1]	Guideline Passengers Per Car[2]	V/C Ratio[3]
AM	D	NB	36 St	10.6	85	10,101	119	155	0.77
	N	NB	36 St	10.7	107	11,011	103	125	0.82
	R	NB	Union St	10.1	81	7,714	95	155	0.62
PM	D	SB	Atlantic Av-Barclays Ctr	10.0	80	9,136	114	155	0.74
	N	SB	Atlantic Av-Barclays Ctr	9.8	98	9,116	93	125	0.74
	R	SB	Jay St-MetroTech	10.3	82	6,240	76	155	0.49

Source: MTA-NYCT, 2016
Notes:
[1] Based on 2013–2014 ridership and train throughput data from MTA-NYCT
[2] Guideline capacities are based on MTA-NYCT rush hour loading guidelines, which vary by car type, line, and location based on frequency and type of service
[3] Volume to guideline capacity ratio

BUS TRANSIT

The study area is served by a total of four MTA-NYCT local bus routes—the B35, B37, B63, and B70. The B35 bus route operates between a terminus at 1st Avenue and 39th Street and Brownsville to the east, running along 39th Street near the Project Area. Limited-stop service is provided between Sunset Park and Brownsville during the peak periods analyzed via the B35 LTD route; during these times B35 only operates along the portion of the route between Kensington and Brownsville where it provides local-stop service. The B35 LTD does not run during the overnight period, during which the B35 local-stop service is extended to operate between Sunset Park and Brownsville. The B37 bus route runs along 3rd Avenue, operating daily between Boerum Hill and Fort Hamilton except during the overnight hours. The B63 bus route operates along 5th Avenue, providing 24-hour service between Fort Hamilton and Brooklyn Bridge Park. Given the closer proximity of the B37 bus route to the Project Area, the B63 would not likely be used by new trips generated by the Proposed Project during the peak periods analyzed; therefore, no new trips were assigned to this route. The B70 bus route operates daily between a terminus at 1st Avenue and 39th Street and Dyker Heights to the south, except during the overnight hours, primarily running via 39th Street, 3rd Avenue, 36th/37th Streets, and 4th Avenue near the Project

Area. Although there are five other express bus routes operating along the Gowanus Expressway (the X17, X27, X28, X37, and X38), none of these buses make stops in the study area.

Of the four local bus routes operating in proximity to the Project Area, two are expected to experience 50 or more new trips in one direction in at least one peak hour and are therefore analyzed in the EIS. These include the B35 LTD and B70. **Table 11-23** shows the existing number of buses and ridership at the maximum load point in each direction for both bus routes in the weekday AM and PM peak hours. Both bus routes currently operate with available capacity at their maximum load points during the weekday AM and PM peak hours, except for eastbound B35 LTD buses, which operate with a deficit of 12 spaces at their maximum load point in the AM peak hour.

Table 11-23
Existing Conditions Local Bus Analysis

Peak Hour	Route	Direction	Maximum Load Point	Peak Hour Buses[1]	Peak Hour Passengers[1]	Average Passengers per Bus	Available Capacity[2]
AM	B35 LTD	EB	Church Ave and Utica Ave	7	390	56	-12
		WB	Church Ave and Nostrand Ave	15	674	45	136
	B70	EB	8th Ave and 62nd St	6	234	39	90
		WB	8th Ave and 39th St	6	274	46	50
PM	B35 LTD	EB	Church Ave and Nostrand Ave	14	575	41	181
		WB	Church Ave and Nostrand Ave	11	350	32	244
	B70	EB	8th Ave and Bay Ridge Ave	4	115	29	101
		WB	8th Ave and 62nd St	4	93	23	123

Notes:
[1] Based on most currently available data from NYCT. Passenger volumes grown by 0.50 percent/year to account in growth in demand.
[2] Available capacity based on NYCT loading guidelines of 54 passengers per standard bus unless otherwise noted.

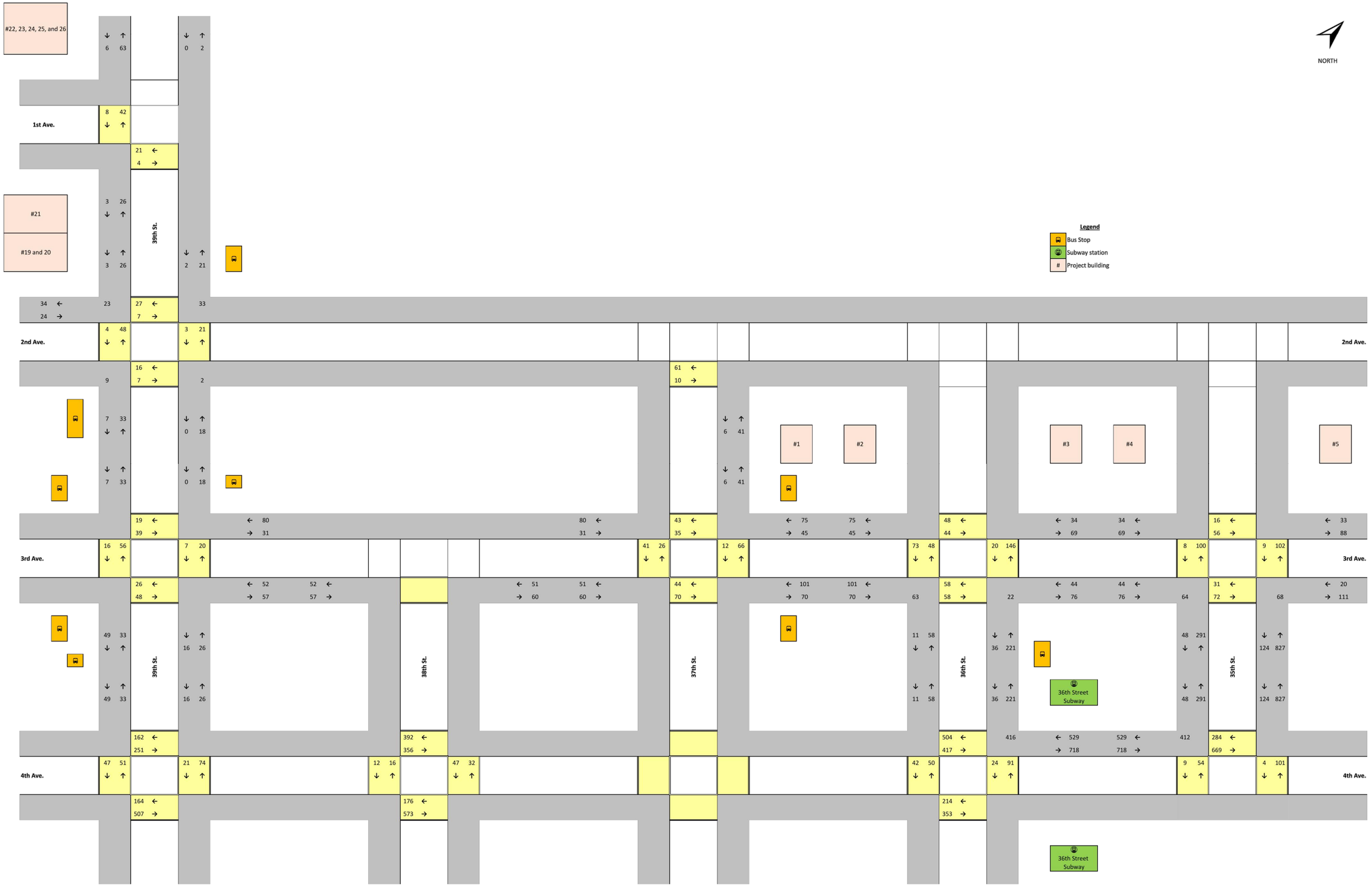
PEDESTRIANS

Pedestrian counts were conducted at key locations near the Project Area for the weekday AM, midday, PM, and Saturday peak periods for two typical weekdays and two Saturdays (when NYC public schools were in session). The weekday peak hours of 8:00 AM to 9:00 AM, 12:30 PM to 1:30 PM, and 5:00 PM to 6:00 PM and Saturday peak hour of 1:45 PM to 2:45 PM were selected for analysis.

Pedestrian counts were initially conducted in May and June 2013, and validated in March 2016 to ensure that the higher, more conservative, set of volumes were used for the 2016 existing condition analysis, in consultation with DCP and DOT. Additional pedestrian counts were conducted during the Saturday peak hour were performed in November 2017 due to significant differences in pedestrian volumes during this period. Additional pedestrian elements along the 39th Street corridor between 4th Avenue and the waterfront, and along 2nd and 3rd Avenues along the project sites were added to the project scope, and were integrated into the existing pedestrian volume network. The existing peak hour weekday AM, midday, PM and Saturday pedestrian volumes are presented in **Figures 11-17 through 11-20**.

As shown in **Table 11-24**, all sidewalk, crosswalk, and corner areas operate at acceptable LOS C or better during all peak hours. Detailed descriptions of the LOS for all pedestrian elements are provided in **Tables 11-25 through 11-27**.

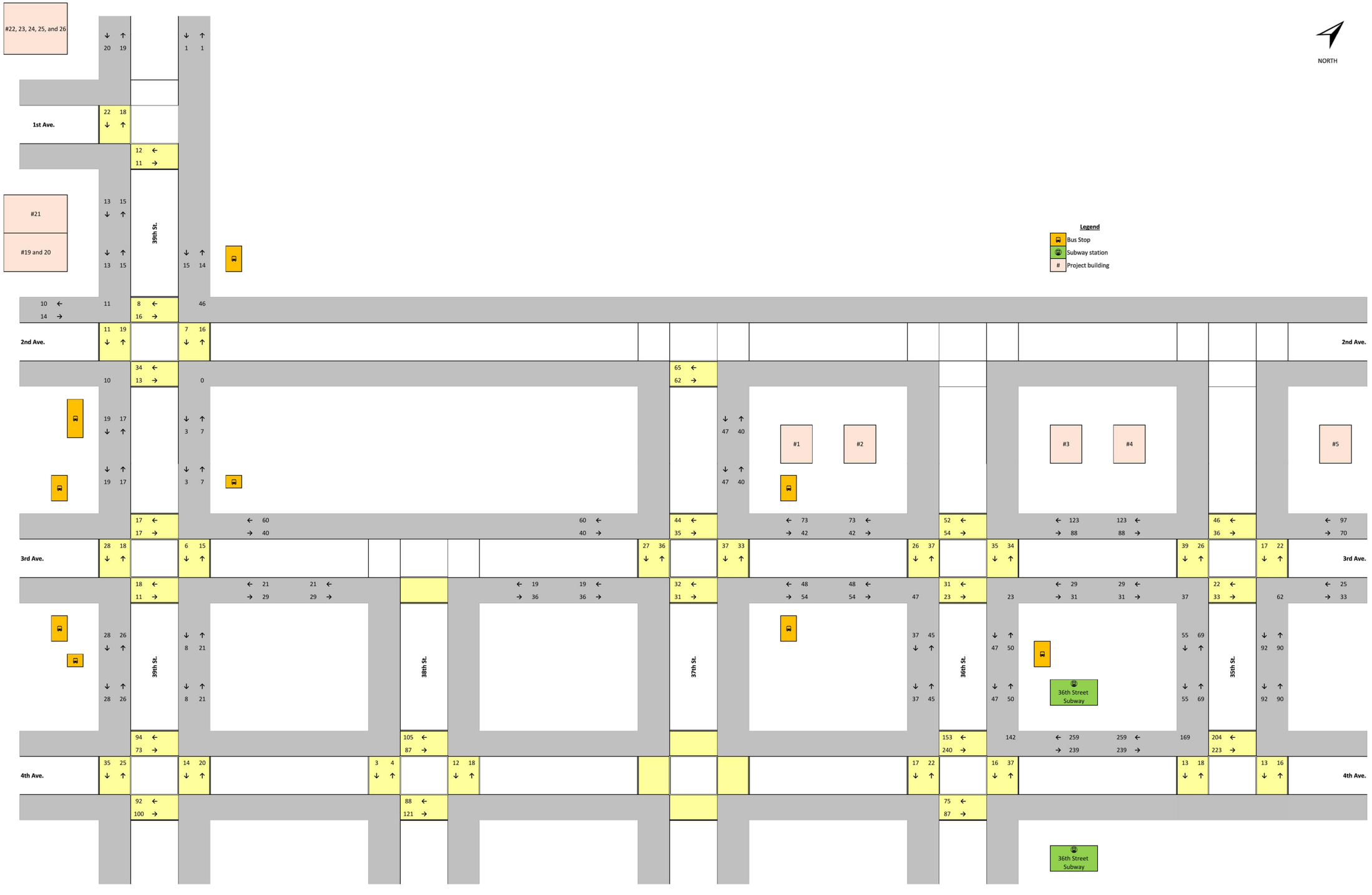
Date: 7.11.2018



Industry City

2016 Existing Pedestrian Volumes
Weekday AM Peak Hour

Figure 11-17

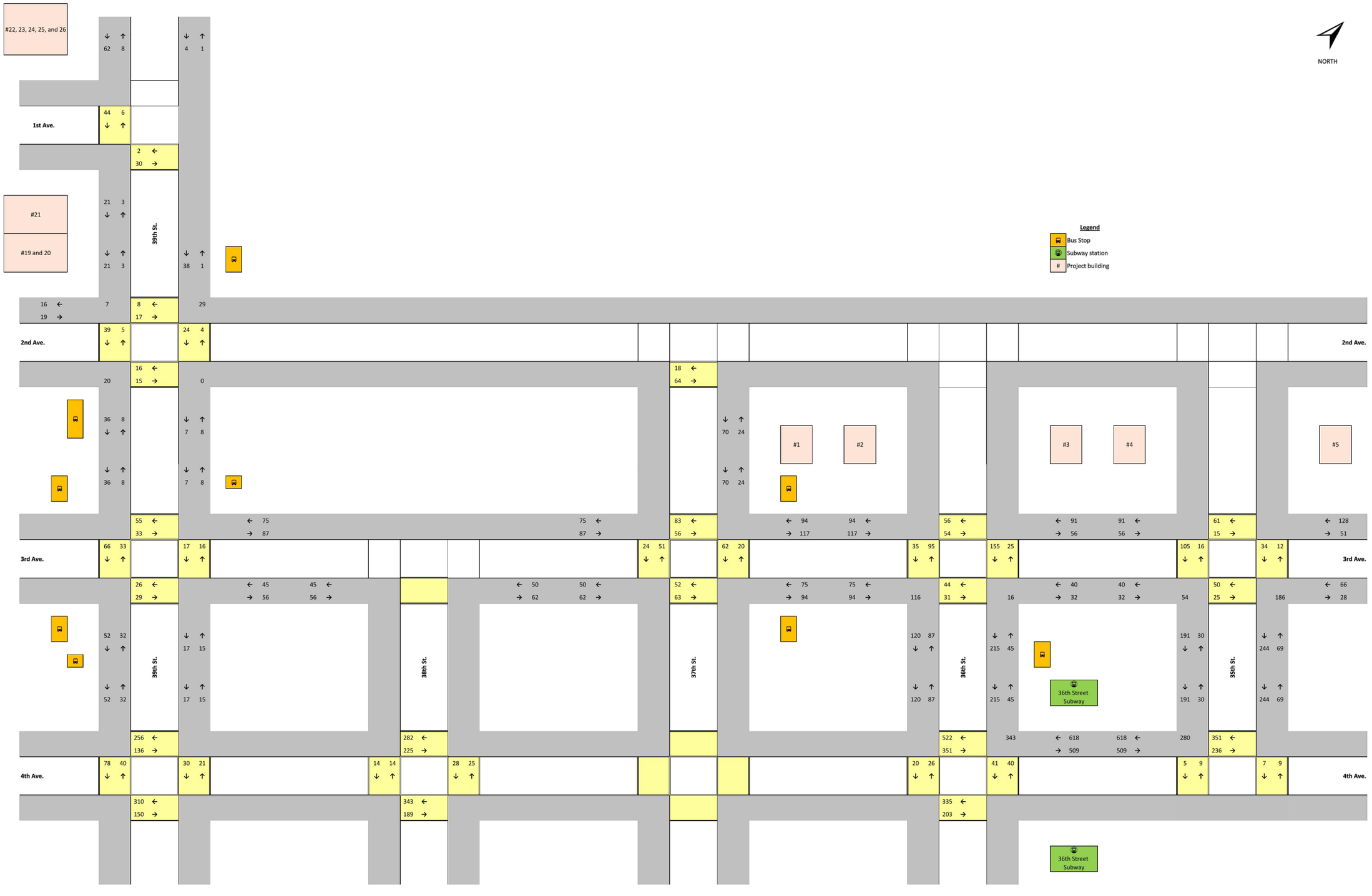


Industry City

2016 Existing Pedestrian Volumes
Weekday Midday Peak Hour

Figure 11-18

Date: 7.11.2018

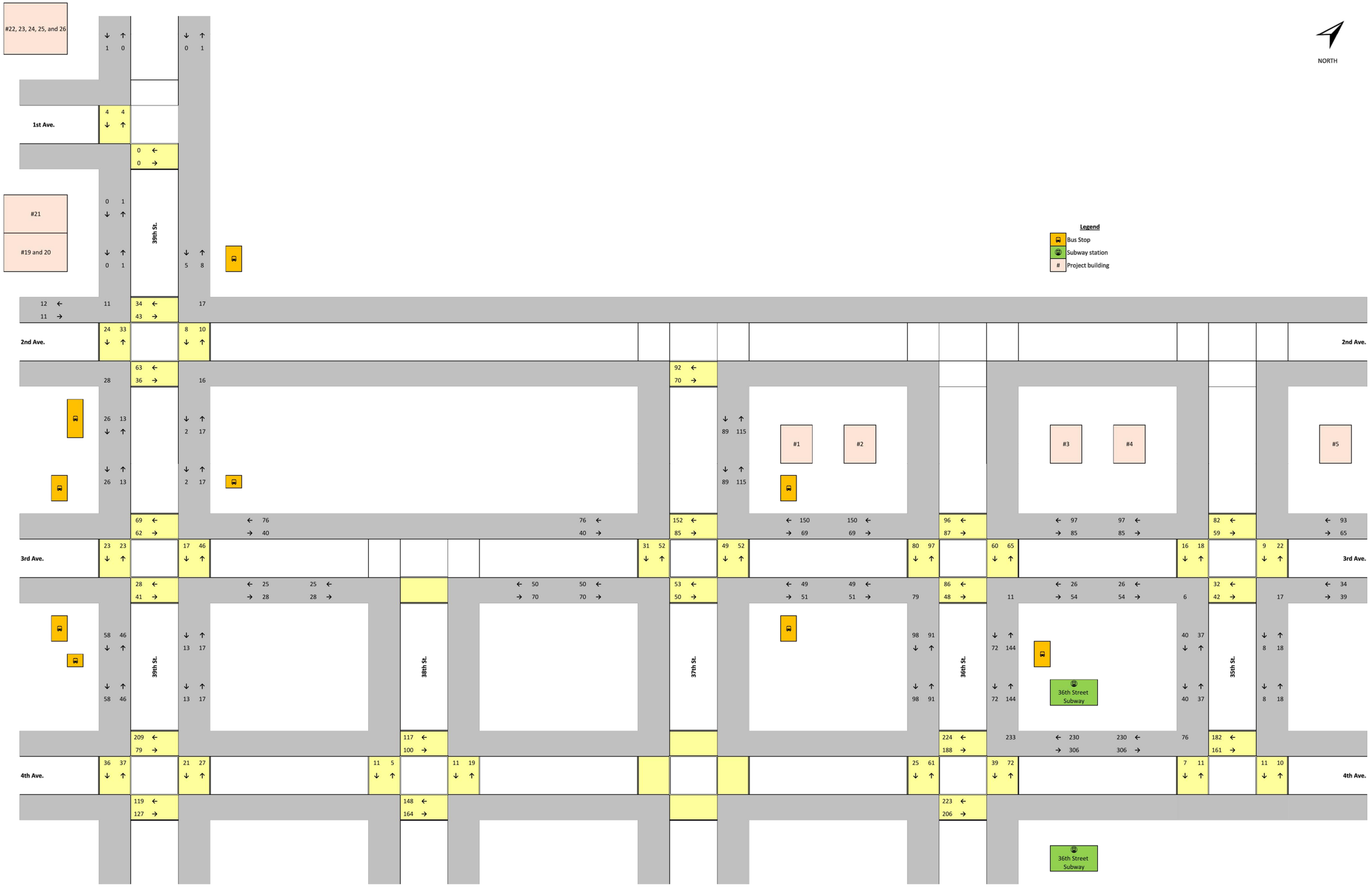


Industry City

2016 Existing Pedestrian Volumes
Weekday PM Peak Hour

Figure 11-19

Date: 7.11.2018



Industry City

2016 Existing Pedestrian Volumes
Saturday Peak Hour

Figure
11-20

Table 11-24
2016 Existing Pedestrian LOS Summary

	Weekday			Saturday
	AM Peak Hour	Midday Peak Hour	PM Peak Hour	Peak Hour
Sidewalk Elements				
Sidewalks at Overall LOS A/B/C	24	24	24	24
Sidewalks at Overall LOS D	0	0	0	0
Sidewalks at Overall LOS E	0	0	0	0
Sidewalks at Overall LOS F	0	0	0	0
Crosswalk Elements				
Crosswalks at Overall LOS A/B/C	34	34	34	34
Crosswalks at Overall LOS D	0	0	0	0
Crosswalks at Overall LOS E	0	0	0	0
Crosswalks at Overall LOS F	0	0	0	0
Corner Elements				
Corners at Overall LOS A/B/C	10	10	10	10
Corners at Overall LOS D	0	0	0	0
Corners at Overall LOS E	0	0	0	0
Corners at Overall LOS F	0	0	0	0
Note: Includes 24 sidewalk, 34 crosswalk, and 10 corner analysis locations				

Table 11-25
2016 Existing Pedestrian LOS – Sidewalks

		Weekday AM Peak (8:00 AM–9:00 AM)			Weekday Midday Peak (12:30 PM–1:30 PM)			Weekday PM Peak (5:00 PM–6:00 PM)			Saturday Peak (1:45 PM–2:45 PM)		
Sidewalk	Effective Width, ft	Volume, ped/hr	Avg Ped Space, SF/P	LOS	Volume, ped/hr	Avg Ped Space, SF/P	LOS	Volume, ped/hr	Avg Ped Space, SF/P	LOS	Volume, ped/hr	Avg Ped Space, SF/P	LOS
35th Street between 3rd Avenue and 4th Avenue (north side)	8.1	951	72.4	A	182	313.5	A	313	247.4	A	26	3,175.6	A
35th Street between 3rd Avenue and 4th Avenue (south side)	3.0	339	95.5	A	124	271.2	A	221	117.7	A	77	348.4	A
36th Street between 3rd Avenue and 4th Avenue (north side)	7.7	257	330.8	A	97	707.3	A	260	219.1	A	216	299.7	A
36th Street between 3rd Avenue and 4th Avenue (south side)	7.3	69	1,004.3	A	82	721.1	A	207	298.9	A	189	444.8	A
37th Street between 2nd Avenue and 3rd Avenue (north side)	4.3	47	800.9	A	87	438.9	A	94	400.4	A	204	248.6	A
39th Street between 3rd Avenue and 4th Avenue (north side)	5.9	42	976.2	A	29	1,696.6	A	32	1,560.9	A	30	2,062.5	A
39th Street between 3rd Avenue and 4th Avenue (south side)	2.6	82	282.1	A	54	543.1	A	84	325.8	A	104	272.5	A
39th Street between 2nd Avenue and 3rd Avenue (north side)	3.0	18	1,050.0	A	10	2,381.4	A	15	1,360.8	A	19	855.4	A
39th Street between 2nd Avenue and 3rd Avenue (south side)	7.0	40	1,477.3	A	36	2,009.0	A	44	1,042.3	A	39	1,470.0	A
39th Street between 1st Avenue and 2nd Avenue (north side)	4.2	23	1,640.8	A	29	1,012.1	A	39	658.5	A	13	1,854.7	A
39th Street between 1st Avenue and 2nd Avenue (south side)	4.1	29	1,435.9	A	28	1,175.0	A	24	1,178.1	A	1	12,852.0	A
39th Street between Waterfront and 1st Avenue (north side)	7.5	2	11,812.5	A	2	23,625.0	A	5	5,859.0	A	1	23,625.0	A
39th Street between Waterfront and 1st Avenue (south side)	8.9	69	1,270.0	A	39	1,757.2	A	70	930.9	A	1	28,087.5	A
2nd Avenue between 39th Street and 40th Street (west side)	7.7	58	1,347.9	A	24	3,016.1	A	35	1,351.2	A	23	1,846.4	A
3rd Avenue between 34th Street and 35th Street (east side)	6.5	131	416.9	A	58	1,026.0	A	94	754.5	A	73	725.8	A
3rd Avenue between 34th Street and 35th Street (west side)	2.1	121	181.7	A	167	142.8	A	179	103.1	A	158	133.9	A
3rd Avenue between 35th Street and 36th Street (east side)	7.5	120	653.6	A	60	1,244.2	A	72	984.3	A	80	909.5	A
3rd Avenue between 35th Street and 36th Street (west side)	8.5	103	808.1	A	211	485.5	A	147	617.0	A	182	492	A
3rd Avenue between 36th Street and 37th Street (east side)	4.4	171	299.3	A	102	415.6	A	169	263.8	A	100	374.3	A
3rd Avenue between 36th Street and 37th Street (west side)	1.2	120	109.9	A	115	101.3	A	211	53.3	B	219	63.3	A
3rd Avenue between 37th Street and 39th Street (west side)	6.4	111	629.0	A	100	609.9	A	162	386.4	A	116	560.4	A
3rd Avenue between 37th Street and 38th Street (east side)	7.0	111	715.1	A	55	1,154.6	A	112	582.7	A	120	521.8	A
3rd Avenue between 38th Street and 39th Street (east side)	7.3	109	737.5	A	50	1,352.0	A	101	732.6	A	53	1,430.6	A
4th Avenue between 35th Street and 36th Street (west side)	7.0	1,247	63.8	A	498	145.0	A	1,127	60.5	A	536	139.6	A

Note: Sidewalks were analyzed as non-platoon flow based on travel characteristics within the study area.

Table 11-26
2016 Existing Pedestrian LOS – Crosswalks

		Weekday AM Peak (8:00 AM–9:00 AM)			Weekday Midday Peak (12:30 PM–1:30 PM)			Weekday PM Peak (5:00 PM–6:00 PM)			Saturday Peak (1:45 PM–2:45 PM)		
Intersection	**Crosswalk**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**
2nd Avenue and 39th Street	South	52	216.7	A	30	249.1	A	44	182.3	A	57	188.6	A
	East	23	547.2	A	47	346.6	A	31	442.6	A	99	150.1	A
	West	34	382.4	A	24	631.2	A	25	420.6	A	77	211.4	A
3rd Avenue and 35th Street	North	111	168.3	A	39	349.1	A	46	396.1	A	31	397.9	A
	South	108	168.5	A	65	221.5	A	121	126.1	A	34	443.3	A
	East	103	682.7	A	55	1177.3	A	75	971.2	A	74	986.0	A
	West	72	853.3	A	82	677.7	A	76	694.0	A	141	422.4	A
3rd Avenue and 36th Street	North	166	90.1	A	69	247.5	A	180	66.1	A	125	144.1	A
	South	121	138.6	A	63	271.4	A	130	84.8	A	177	93.7	A
	East	116	439.0	A	54	1052.0	A	75	667.4	A	134	395.1	A
	West	92	418.0	A	106	443.4	A	110	316.4	A	183	246.8	A
3rd Avenue and 37th Street	North	78	219.3	A	70	283.4	A	82	205.5	A	101	215.9	A
	South	67	211.7	A	63	287.5	A	75	265.8	A	83	196.4	A
	East	114	369.9	A	63	567.9	A	115	354.2	A	103	419.8	A
	West	78	575.8	A	79	672.6	A	139	331.8	A	237	212.6	A
3rd Avenue and 39th Street	North	27	601.4	A	21	504.5	A	33	378.2	A	63	261.5	A
	South	72	249.0	A	46	327.6	A	99	134.9	A	46	318.4	A
	East	74	667.4	A	29	1446.0	A	55	852.9	A	69	694.0	A
	West	58	725.8	A	34	1387.2	A	88	395.6	A	131	410.5	A
4th Avenue and 35th Street	North	105	110.8	A	29	797.4	A	16	706.4	A	21	902.3	A
	South	63	151.1	A	31	580.2	A	14	791.7	A	18	917.8	A
	West	953	50.6	B	427	85.0	A	587	94.9	A	343	127.1	A
4th Avenue and 36th Street	North	115	141.8	A	53	379.8	A	81	186.9	A	111	185.6	A
	South	92	121.0	A	39	526.8	A	46	298.5	A	86	129.3	A
	East	567	92.6	A	162	306.4	A	538	95.4	A	429	116.6	A
	West	921	44.8	B	393	88.3	A	873	45.7	B	412	98.7	A
4th Avenue and 38th Street	North	79	85.2	A	30	481.2	A	53	148.8	A	30	503.0	A
	South	28	342.6	A	7	2132.0	A	28	316.1	A	16	906.1	A
	East	749	35.2	C	209	241.3	A	532	69.5	A	312	148.1	A
	West	748	67.4	A	192	238.6	A	507	91.1	A	217	223.7	A
4th Avenue and 39th Street	North	95	97.3	A	34	250.6	A	51	187.2	A	48	248.2	A
	South	98	74.5	A	60	196.4	A	118	89.6	A	73	154.4	A
	East	671	33.5	C	192	170.5	A	460	73.9	A	246	172.7	A
	West	413	109.8	A	167	225.4	A	392	108.6	A	288	83.2	A

Table 11-27
2016 Existing Pedestrian LOS – Corners

		Weekday AM Peak (8:00 AM–9:00 AM)			Weekday Midday Peak (12:30 PM–1:30 PM)			Weekday PM Peak (5:00 PM–6:00 PM)			Saturday Peak (1:45 PM–2:45 PM)		
Intersection	**Corner**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**
2nd Avenue and 39th Street	NE	2	1670.8	A	0	1253.1	A	0	1388.2	A	16	676.5	A
	NW	33	781.3	A	46	699.2	A	29	669.4	A	17	588.9	A
	SE	9	1163.6	A	10	964.4	A	20	894.2	A	28	516.2	A
	SW	23	1045.4	A	11	1563.0	A	7	1215.1	A	11	858.2	A
3rd Avenue and 35th Street	NE	68	395.7	A	62	599.4	A	186	353.8	A	17	834.5	A
	SE	64	348.7	A	37	564.9	A	54	370.0	A	6	757.6	A
3rd Avenue and 36th Street	NE	22	348.2	A	23	777.2	A	16	341.9	A	11	438.8	A
	SE	63	345.6	A	47	707.5	A	116	251.7	A	79	282.2	A
4th Avenue and 35th Street	SW	412	83.8	A	169	176.7	A	280	145.5	A	76	268.3	A
4th Avenue and 36th Street	NW	416	92.6	A	142	199.4	A	343	86.4	A	223	163.4	A

VEHICULAR AND PEDESTRIAN SAFETY

Crash data was obtained for the study area intersections from DOT for the most recent three-year period (2014 through 2016). This information is based on data provided by the NYSDOT, NYSDMV, and NYPD.

The crash data detail reported crashes (crashes resulting in death, injury, or property damage in excess of $1,000), fatalities, injuries, and pedestrian and bicycle injuries annually. According to the *CEQR Technical Manual*, a location is considered a high-crash location when there are 48 or more total reportable and non-reportable crashes, or five or more pedestrian/bicyclist injury crashes in any consecutive 12 months during the most recent three-year period for which data are available.

Table 11-28 presents a summary of total crashes at the study area intersections during the three-year period of 2014 through 2016, and also shows total fatalities, injuries, and pedestrian and bicycle crashes. None of the 42 intersections analyzed are considered high-crash locations as defined in the *CEQR Technical Manual*, and therefore, further analysis is not required.

Table 11-28
Vehicle and Pedestrian Crash Summary

Intersection		Total Crashes					Pedestrian and Bicycle Crashes		
North-South Roadway	East-West Roadway	2014	2015	2016	Total Fatalities	Total Injuries	2014	2015	2016
1st Avenue	39th Street	1	1	0	0	0	0	0	0
1st Avenue	41st Street	1	0	0	0	1	1	0	0
1st Avenue	42nd Street	1	0	1	0	0	0	0	0
1st Avenue	43rd Street	0	0	1	0	0	0	0	0
1st Avenue	44th Street	0	0	0	0	0	0	0	0
2nd Avenue	29th Street	1	0	1	0	1	0	0	0
2nd Avenue	32nd Street	0	0	1	0	0	0	0	0
2nd Avenue	33rd Street	0	0	0	0	0	0	0	0
2nd Avenue	34th Street	1	0	0	0	0	0	0	0
2nd Avenue	35th Street	0	1	1	0	0	0	0	0
2nd Avenue	36th Street	0	1	0	0	3	0	0	0
2nd Avenue	37th Street	2	0	0	0	1	0	0	0
2nd Avenue	39th Street	2	5	1	0	10	0	1	1
2nd Avenue	40th Street	0	0	0	0	0	0	0	0
2nd Avenue	41st Street	1	2	0	0	4	0	0	0
2nd Avenue	42nd Street	0	4	1	0	5	0	0	0
2nd Avenue	43rd Street	1	1	1	0	3	1	1	1
2nd Avenue	44th Street	1	1	2	0	1	0	0	0
3rd Avenue	Prospect Avenue	12	12	16	0	39	0	0	0
3rd Avenue	29th Street	2	3	1	0	3	0	0	1
3rd Avenue	30th Street	2	2	2	0	14	0	1	2
3rd Avenue	31st Street	1	1	2	0	2	0	0	0
3rd Avenue	32nd Street	2	3	3	0	5	0	0	1
3rd Avenue	33rd Street	2	1	2	0	6	0	0	1
3rd Avenue	34th Street	1	1	1	0	3	1	0	0
3rd Avenue	35th Street	4	4	3	0	7	0	0	2
3rd Avenue	36th Street	1	3	1	0	2	0	2	0
3rd Avenue	37th Street	2	4	14	0	18	1	0	4
3rd Avenue	38th Street	1	4	3	0	9	0	1	0
3rd Avenue	39th Street	8	9	6	0	20	1	3	1
3rd Avenue	40th Street	1	4	0	0	3	0	0	0
3rd Avenue	41st Street	2	2	3	0	8	0	0	1
3rd Avenue	42nd Street	6	3	8	0	15	0	0	1
3rd Avenue	43rd Street	1	6	1	0	8	1	0	0
3rd Avenue	44th Street	0	6	3	0	9	0	1	0
4th Avenue	34th Street	2	1	3	0	7	0	1	1
4th Avenue	35th Street	4	0	4	0	10	2	0	1
4th Avenue	36th Street	2	1	1	0	6	0	1	0
4th Avenue	37th Street	3	4	2	0	12	0	0	1
4th Avenue	38th Street	3	7	3	0	15	1	0	0
4th Avenue	39th Street	10	1	3	0	20	3	0	0
4th Avenue	40th Street	0	0	0	0	0	0	0	0
	Denotes a high-crash location								

Source: NYSDOT/NYSDMV (2014–2016)

D. THE FUTURE WITHOUT THE PROPOSED ACTIONS

This section establishes the baseline (No Action) condition against which potential impacts of the project can be identified. Future year conditions were analyzed for the year 2027. No Action traffic, pedestrian, and transit volumes were established by applying a background growth of 0.50 percent per year for the first five years (years 2016 to 2021) and 0.25 percent per year for the remaining years (years 2022 to 2027) in accordance with *CEQR Technical Manual* guidelines for Brooklyn projects. As detailed in Chapter 2, "Land Use," several development projects are being planned and would be expected to be developed by the year 2027 within the study area. Five projects were identified in consultation with DCP to be incorporated in the 2027 No Action Condition analyses; these projects are detailed in **Table 11-29** and are shown in **Figure 11-21**. Additionally, it would be expected that further development within the Industry City complex would occur without the Proposed Project. Absent the Proposed Project, an additional 179,921 sf of Industry City innovation economy space, 97,050 sf of local retail space, 31,115 sf of destination retail space, and 320,672 sf of warehouse space could be developed as part of the No Action condition, converted from vacant space.

Table 11-29
No Action Development Projects

Map ID	Project	Description	Completion Date
1	Moore McCormack	60,000 sf of concrete plant	2019
2	South Brooklyn Marine Terminal (SBMT)	~~Expanded maritime/industrial space~~Offshore wind production[1]	~~To be completed by 2027~~2024
3	NY Campus at Bush Terminal	200,000 sf of manufacturing/industrial/film production use[2]	2020
4	P.S. 557 – 4302 4th Avenue	332 seat public elementary school	To be completed by 2027
5	Brooklyn Army Terminal	500,000 sf of industrial use	2019

Notes:
Based on discussions with DCP:
[1] SBMT is expected to be converted into an offshore wind production ~~expand the Sims Recycling~~ facility~~,; however, it~~ which is ~~not~~ anticipated to introduce a moderate~~significant~~ amount of new workers during the analysis peak hours. ~~New worker trips were incorporated into the background growth rate, and t~~The projected increase in ~~truck~~ worker vehicle trips were incorporated as part of the No Action condition analysis. The project would generate a modest number of worker transit and walk trips during the analysis peak hours; these trips were incorporated in the background growth rate.
[2] NY Campus Bush Terminal development increment consists of 100,000 sf of upgraded space that is untenanted in the existing condition and 100,000 sf of new space to be constructed.

Six roadway improvements project were also identified within the study area:

- DOT Sunset Park North Brooklyn Waterfront Greenway
- DOT 4th Avenue Safety Improvements
- DOT Sunset Park Upland Connectors: 43rd and 58th Streets Safety Improvements
- NYSDOT/DOT/New York City Department of Design and Construction (DDC) 3rd Avenue and 36th Street Safety and Streetscape Enhancements
- DOT School Safety Program 4
- New York City Economic Development Corporation (EDC) Reconstruction of Sunset Park

The Sunset Park North Brooklyn Waterfront Greenway project would widen the west sidewalk along 2nd Avenue between 29th Street and 39th Street to incorporate a two-way bike path alongside a wider pedestrian sidewalk. At the intersections between 29th Street and 38th Street, the west sidewalk would extend further into the intersection and create a neckdown area to

No Action Development Projects

INDUSTRY CITY

Figure 11-21

decrease the pedestrian crossing distance along 2nd Avenue. Northbound and southbound 2nd Avenue would be restriped as one travel lane with parking in each direction. Pedestrian ramps would be installed at the corners of each intersection. Additionally, 29th Street between 2nd Avenue and 3rd Avenue would be converted from a two-way roadway to an eastbound one-way roadway and the north sidewalk would be widened to incorporate a two-way bike path.

The 4th Avenue Safety Improvements project would provide bike lanes, protected by parked vehicles, within the traffic study area along 4th Avenue. The project would also reduce pedestrian crossing distances along 4th Avenue by introducing pedestrian refuge islands at the intersection approach and receiving sides; since northbound 4th Avenue operates as three travel lanes north of 38th Street within the study area during the weekday AM peak period (the third travel lane is a parking lane during other times), pedestrian refuge islands would not be in place along northbound 4th Avenue along this segment.

The Sunset Park Upland Connectors project would provide bike facilities along 43rd Street and 44th Street between 1st Avenue and 7th Avenue. Forty-Third Street would consist of one travel lane and a bike lane with a buffer and parking on both sides between 1st Avenue and 2nd Avenue. Forty-Third Street between 2nd Avenue and 3rd Avenue, and 44th Street between 1st Avenue and 3rd Avenue, would consist of one travel lane with a shared bike route and parking on both sides. East of 3rd Avenue, both roadways would consist of one travel lane and a bike lane with a buffer, and parking on both sides.

The 3rd Avenue and 36th Street Safety and Streetscape Enhancements project focuses on pedestrian space improvements at the intersection of 3rd Avenue and 36th Street. These improvements include expansion of the north and south sidewalks along 36th Street in the median area under the Gowanus Expressway, corner curb bulb-outs at the northeast and southwest corners of the intersection, and installation of pedestrian ramps.

The DOT School Safety Program 4 project identified pedestrian improvements at the intersection of 3rd Avenue with 40th Street and 41st Street, and at the intersection of 4th Avenue and 38th Street. Existing pedestrian crosswalks would be converted to high visibility crosswalks. Corner curb bulb-outs would be implemented at the southeast corner of southbound 4th Avenue and 40th Avenue, northwest corner of northbound 4th Avenue at 41st Street, and northwest corner along 38th Street at 4th Avenue. The eastbound 38th Street approach at 4th Avenue would also be restriped.

The Reconstruction of Sunset Park project proposes improvements along the following roadway segments: 3rd Avenue between 37th Street and 39th Street; 39th Street between 3rd Avenue and the waterfront; and 1st Avenue and 2nd Avenue between 39th Street and 44th Street.

- Along 3rd Avenue, the project would implement corner curb extensions at the northwest and southwest corners of the intersection with 37th Street, and close the southbound 3rd Avenue slip ramp at 39th Street (normalizing the intersection). The closure of the slip ramp would also necessitate a shift of the existing bus stop from the slip ramp to the westbound 39th Street receiving side.
- At the intersection of 2nd Avenue and 39th Street, the west curb along the north leg of 2nd Avenue would be extended to align with the sidewalk extension identified in the Sunset Park North Brooklyn Waterfront Greenway project. The sidewalk along the west leg of 39th Street would be widened between 2nd Avenue and the waterfront in order to provide adequate space for a proposed bike lane. The northwest corner and the median area along the east leg of 39th Street and the Gowanus Expressway ramp would be redesigned to accommodate truck turns

from the Gowanus Expressway ramp. In addition, a north crosswalk would be striped at this intersection.

- The segment of 39th Street between 3rd Avenue and the waterfront would be restriped with one travel lane and one wide parking lane in each direction.
- 1st Avenue and 2nd Avenue between 39th Street and 44th Street would be restriped to incorporate new pedestrian crosswalks, implement a corner curb extension at the southeast corner of 1st Avenue and 43rd Street, and close the channelized right turn lane at 1st Avenue and 41st Street (normalizing the intersection).

The projects detailed above would also convert existing standard and school crosswalks to high visibility crosswalks. In addition, a proposed modification to the Citywide Ferry Service would be expected to occur by 2019. The modification would shift the ferry service in Sunset Park from the Brooklyn Army Terminal at 58th Street to the Bush Army Terminal at 43rd Street. No changes to ferry service (i.e., vessel headways) are expected and changes in traffic conditions are expected to be modest as the ferry service would generally serve the same area and population.

Also, traffic improvements that were identified in the 2017 *Proposed P.S. 557 FEIS*, were incorporated as part of the No Action condition analyses. These improvements include the prohibition of parking along the north side of the westbound 43rd Street approach at 3rd Avenue for 100 feet to daylight and thus provide an additional travel lane during the weekday AM peak period, and a shift of one second of green time from the northbound/southbound 3rd Avenue phase to the westbound 43rd Street phase during the weekday PM peak period.

TRAFFIC STREET NETWORK

TRAFFIC VOLUMES

As a result of the No Action developments (excluding the projects that are considered part of the annual background growth rate), 736 vehicle trips (559 "ins" and 177 "outs"), 458 vehicle trips (229 "ins" and 229 "outs"), 692 vehicle trips (143 "ins" and 549 "outs"), and 58 vehicle trips (27 "ins" and 31 "outs") are projected to be added to the street network during the weekday AM, midday, PM, and Saturday peak hours, respectively. In addition to these development projects, developments expected to occur within the Industry City complex absent the Proposed Project would be expected to generate an additional 156 vehicle trips (101 "ins" and 55 "outs"), 257 vehicle trips (132 "ins" and 125 "outs"), 190 vehicle trips (80 "ins" and 110 "outs"), and 166 vehicle trips (86 "ins" and 80 "outs") during the weekday AM, midday, PM, and Saturday peak hours, respectively. These trips were assigned to the roadway network and, together with the background traffic growth, constitute the 2027 No Action traffic volume baseline. Auto trips generated by the background development projects were assigned to park on-site, if on-site parking is available, or on-street within the vicinity of the site. Auto trips generated by developments in Industry City were assigned to park in the parking facilities located along the east side of 2nd Avenue between 32nd Street and 33rd Street (the site for Building 11) and along the east side of 1st Avenue between 39th Street and 41st Street (the site for Building 21).

Compared to the existing condition, northbound 1st Avenue would be expected to carry an additional 5 vph to 90 vph and an additional 15 vph to 75 vph in the southbound direction during the weekday peak hours in the No Action condition. During the Saturday peak hour, 1st Avenue traffic volumes would be expected to increase by up to 30 vph in each direction.

Traffic volumes along northbound 2nd Avenue would be expected to increase by up to 30 vph during the peak hours analyzed. Traffic volumes along southbound 2nd Avenue between 39th

Street and 44th Street would be expected to increase by about 110 vph during the weekday AM peak hour, 60 vph during the midday peak hour, 30 vph to 45 vph during the weekday PM peak hour, and approximately 25 vph during the Saturday peak hour. North of 39th Street, southbound 2nd Avenue traffic volumes would be expected to increase by no more than 25 vph during the peak hours analyzed.

Northbound 3rd Avenue traffic volumes would be expected to increase by approximately 100 vph to 180 vph during the weekday AM peak hour, 50 vph to 130 vph during the weekday midday and PM peak hours and 50 vph to 75 vph during the Saturday peak hour. Traffic volumes along southbound 3rd Avenue would be expected to increase by approximately 20 vph to 100 vph during the weekday AM, midday, and Saturday peak hour, and 15 vph to 170 vph during the weekday PM peak hour.

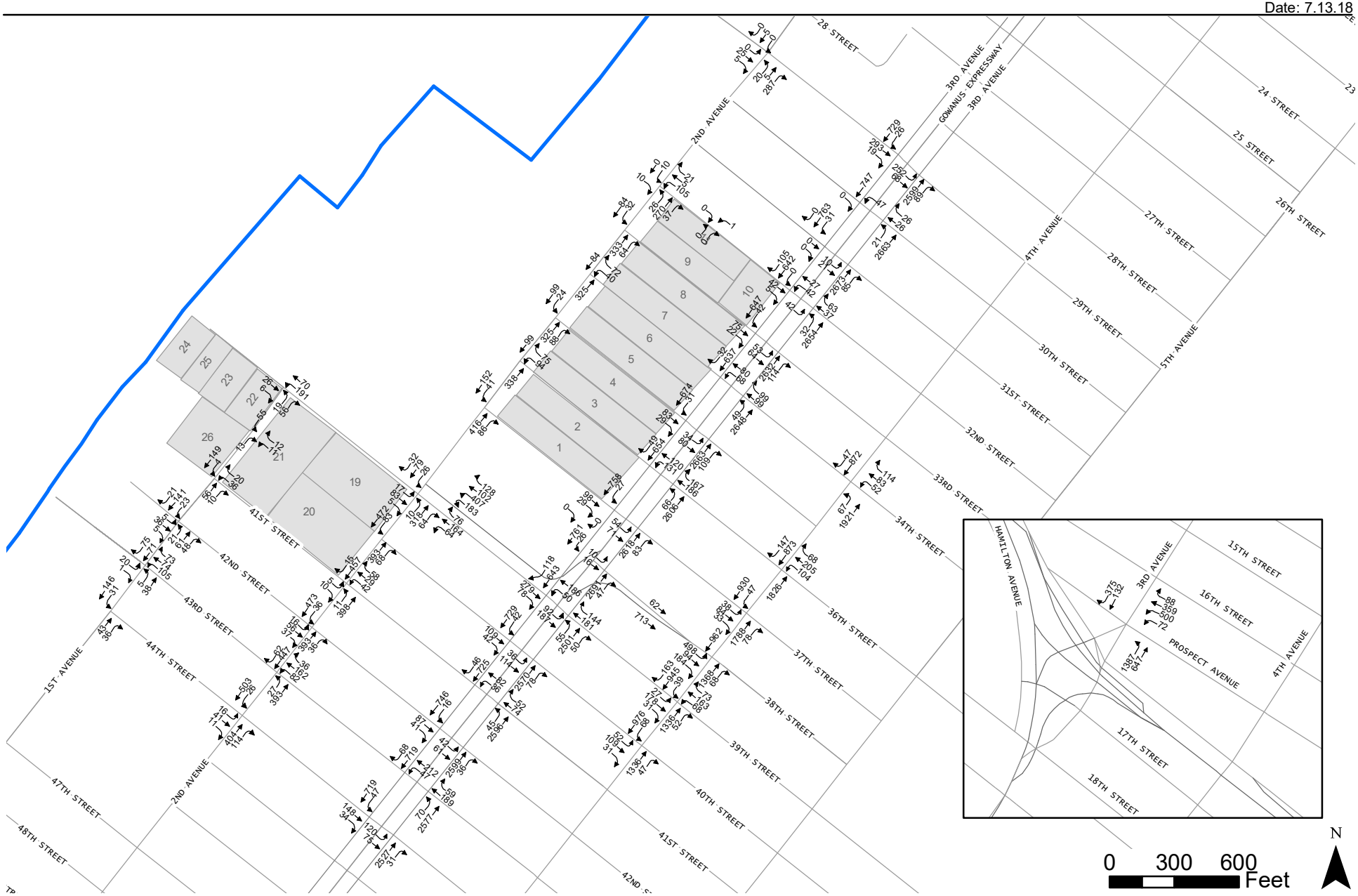
Northbound 4th Avenue traffic volumes would be expected to increase by approximately 10 vph to 100 vph during the peak hours analyzed. In the southbound direction, 4th Avenue traffic volumes are expected to increase by approximately 60 vph to 100 vph during the weekday AM peak hour, 25 vph to 75 vph during the weekday midday and PM peak hours, and 5 vph to 55 vph during the Saturday peak hour.

Traffic volumes along 39th Street between 2nd Avenue and 4th Avenue are expected to increase by approximately 20 vph to 125 vph in each direction during the weekday AM, midday, PM, and Saturday peak hours. West of 2nd Avenue, traffic volumes are expected to increase by approximately 40 vph to 100 vph in the eastbound direction and approximately 60 vph to 145 vph in the westbound direction during the weekday peak hours. In this section of 39th Street, the increase in traffic volumes during Saturday peak hour is generally less than 35 vph in each direction.

The No Action traffic volumes for the weekday AM, midday, PM, and Saturday peak hours are shown in **Figures 11-22 through 11-25**.

LEVEL OF SERVICE

Based on the traffic increases mentioned above, the 2027 No Action traffic LOS were determined for the 41 analysis locations. **Tables 11-30a and 11-30b** provide an overview of the LOS that characterize No Action "overall" intersection conditions and individual traffic movements, respectively, during the weekday AM, midday, PM, and Saturday peak hours. Detailed traffic LOS are provided in **Table 11-31**.



Industry City

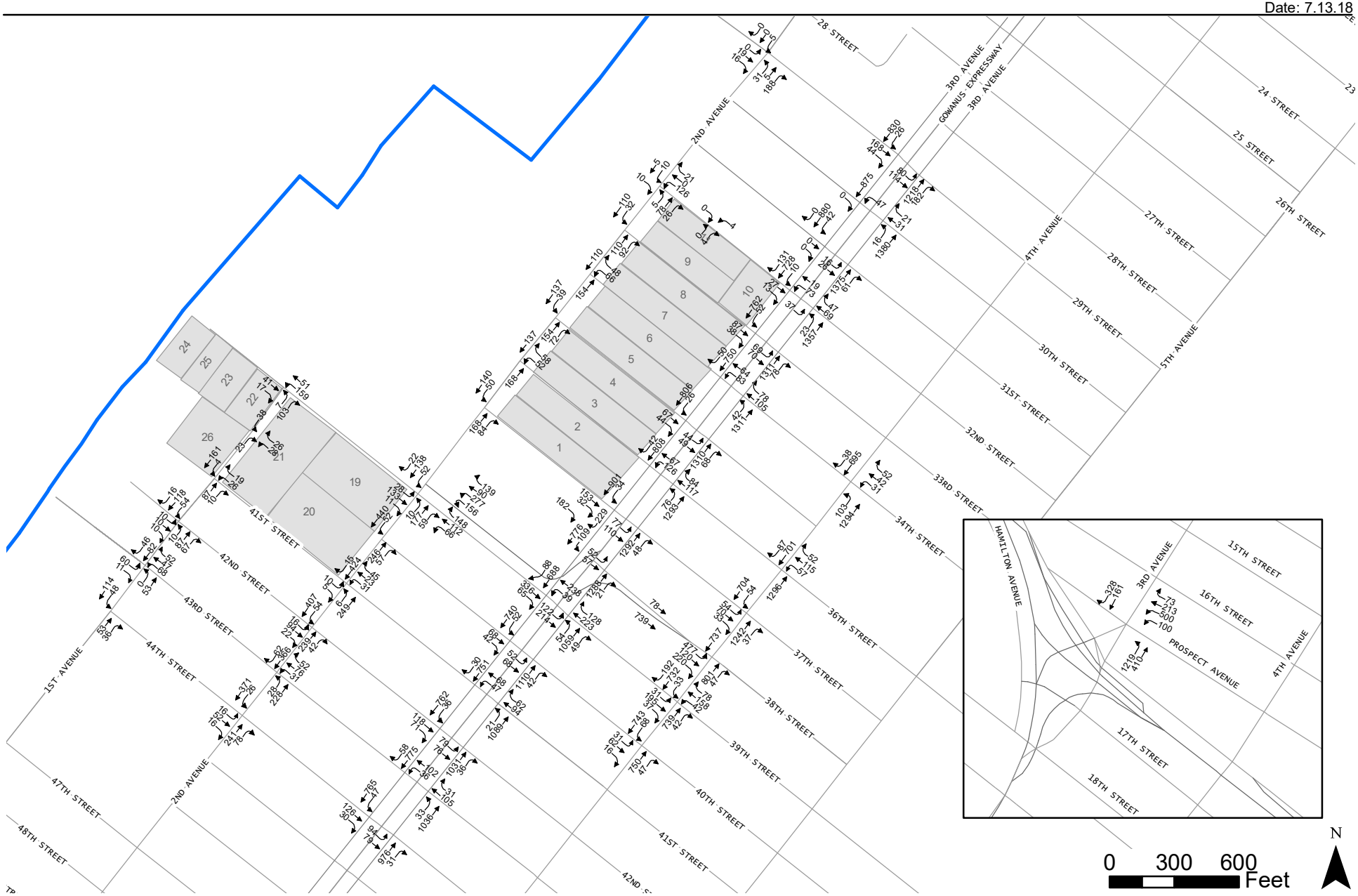
2027 No Action Traffic Volumes
Weekday AM Peak Hour

Figure 11-22

Project Site Buildings

Sources: 1. New York (City). Dept. of City Planning 2014. LION (Edition 14A). New York City: NYC Department of City Planning.

Date: 7.13.18



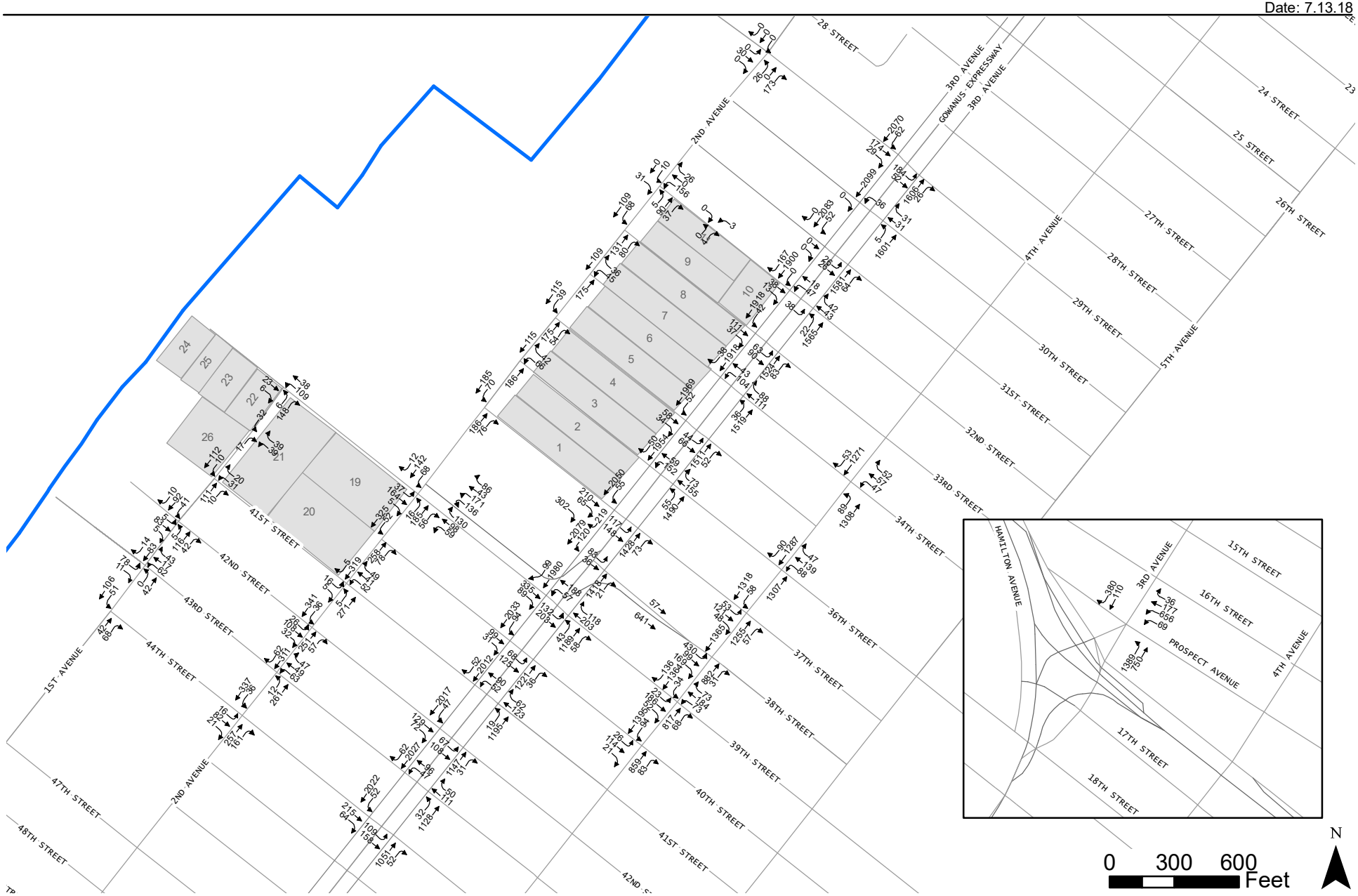
Industry City

2027 No Action Traffic Volumes
Weekday Midday Peak Hour

Figure
11-23

Project Site Buildings

Sources: 1. New York (City). Dept. of City Planning 2014. LION (Edition 14A). New York City: NYC Department of City Planning.



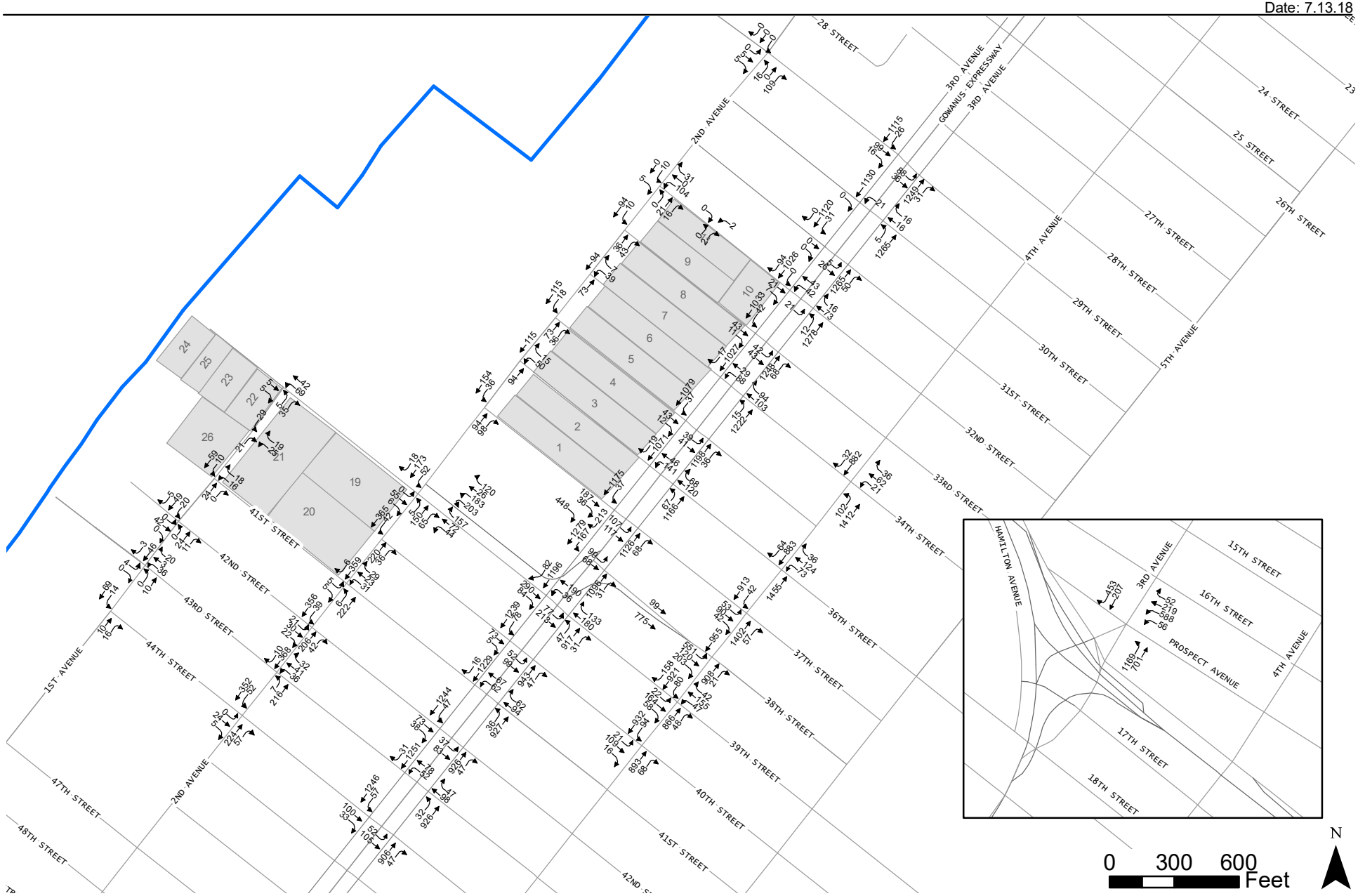
Industry City

2027 No Action Traffic Volumes
Weekday PM Peak Hour

Figure 11-24

Project Site Buildings

Sources: 1. New York (City). Dept. of City Planning 2014. LION (Edition 14A). New York City: NYC Department of City Planning.



Industry City

2027 No Action Traffic Volumes
Saturday Peak Hour

Figure
11-25

Project Site Buildings

Sources: 1. New York (City). Dept. of City Planning 2014. LION (Edition 14A). New York City: NYC Department of City Planning.

Table 11-30a
2016 Existing vs. 2027 No Action Traffic LOS – Overall Intersections

	2016 Existing				2027 No Action			
	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Peak Hour	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Peak Hour
Intersections at Overall LOS A/B/C	37	40	40	40	32	38	39	39
Intersections at Overall LOS D	4	1	1	1	8	2	0	1
Intersections at Overall LOS E	0	0	0	0	0	0	1	1
Intersections at Overall LOS F	0	0	0	0	1	1	1	0

Note: Includes the 41 analyzed intersections (24 signalized and 17 unsignalized). All 17 unsignalized intersections would operate at acceptable LOS during all four traffic analysis hours.

Table 11-30b
2016 Existing vs. 2027 No Action Traffic LOS – Traffic Movements

	2016 Existing				2027 No Action			
	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Weekday Saturday Peak Hour	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Weekday Saturday Peak Hour
Traffic Movements at LOS A/B/C and Acceptable LOS D	123	133	127	133	110	123	117	124
Traffic Movements at Unacceptable LOS D	7	7	11	7	12	8	12	10
Traffic Movements at LOS E	9	1	2	1	10	4	5	3
Traffic Movements at LOS F	2	0	1	0	7	4	5	2
Number of individual traffic movements	141	141	141	141	141	141	141	141

Note: * Number of movements may vary between peak hours due to turn prohibitions, parking regulations, and the presence of de facto left turn movements.

A summary overview of the 2027 No Action condition indicates that:

- In the weekday AM peak hour, one of the 41 intersections analyzed, 2nd Avenue and 39th Street, would operate at overall LOS E or F compared to none in the existing condition. Seventeen individual traffic movements out of approximately 141 such movements analyzed would operate at LOS E or F, compared to eleven movements under existing conditions.
- In the weekday midday peak hour, one intersection, 2nd Avenue and 39th Street, would operate at overall LOS E or F compared to none in the existing condition. Eight individual traffic movements would operate at LOS E or F compared to one movement under existing conditions.
- In the weekday PM peak hour, two intersections, 2nd Avenue and 39th Street and 3rd Avenue and Prospect Avenue, would operate at overall LOS E or F compared to none in the existing condition. Ten individual traffic movements would operate at LOS E or F compared to three movements under existing conditions.

- In the Saturday peak hour, one intersection, 2nd Avenue and 39th Street, would operate at overall LOS E or F compared to none in the existing condition. Five individual traffic movements would operate at LOS E or F compared to one movement under existing conditions.
- All of the 17 unsignalized intersections analyzed would operate at acceptable LOS during all peak hours analyzed.

Based on the analysis results, the majority of traffic movements would continue to operate at acceptable LOS. The following intersections would have at least one movement operating at unacceptable LOS during at least one peak hour. Traffic movements expected to operate at unacceptable LOS (unacceptable LOS D, LOS E, or LOS F) are listed below:

1st Avenue and 39th Street

- Northbound 1st Avenue approach (weekday AM)

2nd Avenue and 39th Street

- Eastbound 39th Street approach (weekday midday and PM)
- Westbound 39th Street approach (weekday AM, midday, PM, and Saturday)
- Southbound Gowanus Expressway Off-Ramp shared left-through movement (weekday AM, midday, and Saturday)

2nd Avenue and 41st Street

- Westbound 41st Street approach (weekday AM)

2nd Avenue and 44th Street

- Southbound 2nd Avenue approach (weekday AM)

3rd Avenue and Prospect Avenue

- Westbound Prospect Avenue left turn movement (weekday AM, midday, PM, and Saturday)
- Westbound Prospect Avenue through movement (weekday AM, midday, PM, and Saturday)
- Westbound Prospect Avenue right turn movement (weekday AM)
- Northbound 3rd Avenue left turn movement (weekday midday, PM, and Saturday)
- Southbound 3rd Avenue right turn movement (weekday AM, midday, and Saturday)

3rd Avenue and 29th Street

- Eastbound 29th Street approach (weekday AM, midday, and PM)

3rd Avenue and 32nd Street

- Northbound 3rd Avenue approach (weekday AM)

3rd Avenue and 34th Street

- Westbound 34th Street approach (weekday PM)
- Northbound 3rd Avenue approach (weekday AM)

3rd Avenue and 36th Street

- Westbound 36th Street shared left-through movement (weekday PM)

- Westbound 36th Street right turn movement (weekday AM and midday)
- Northbound 3rd Avenue approach (weekday AM)

3rd Avenue and 39th Street

- Eastbound 39th Street approach (weekday AM, midday, PM, and Saturday)
- Westbound 39th Street approach (weekday AM, midday, PM, and Saturday)
- Northbound 3rd Avenue approach (weekday AM)

3rd Avenue and 41st Street

- Westbound 41st Street approach (weekday midday, PM, and Saturday)
- Northbound 3rd Avenue approach (weekday AM)

3rd Avenue and 42nd Street

- Eastbound 42nd Street approach (weekday midday and PM)

3rd Avenue and 43rd Street

- Westbound 43rd Street approach (weekday PM and Saturday)
- Northbound 3rd Avenue approach (weekday AM)

3rd Avenue and 44th Street

- Eastbound 44th Street approach (weekday PM)

4th Avenue and 34th Street

- Westbound 34th Street approach (weekday AM)
- Northbound 4th Avenue left turn movement (weekday PM)

4th Avenue and 36th Street

- Westbound 36th Street approach (weekday AM, midday, PM, and Saturday)

4th Avenue and 37th Street

- Eastbound 37th Street approach (weekday PM)

4th Avenue and 38th Street

- Eastbound 38th Street left turn movement (weekday AM, PM, and Saturday)
- Eastbound 38th Street left-through movement (weekday AM and PM)

4th Avenue and 39th Street

- Eastbound 39th Street through-right turn movement (weekday AM, midday, PM, and Saturday)
- Westbound 39th Street left turn movement (weekday AM and PM)
- Westbound 39th Street through-right turn movement (weekday AM, midday, PM, and Saturday)
- Southbound 4th Avenue left turn movement (weekday AM)

4th Avenue and 40th Street

- Eastbound 40th Street approach (weekday AM)

- Southbound 4th Avenue left turn movement (weekday AM and Saturday)

GOWANUS EXPRESSWAY

TRAFFIC VOLUMES

The Gowanus Expressway volumes were developed by increasing the existing traffic volumes per the CEQR background growth rate to reflect expected growth in travel through the highway, and incorporating vehicle trips from background developments within the study area and the Industry City complex. Traffic volumes at the northbound Gowanus Expressway off-ramp at 38th Street would be expected to increase by approximately 110 vph during the weekday AM peak hour, and by 40 vph to 70 vph during the other peak hours analyzed. At the southbound Gowanus Expressway off-ramp at 39th Street, traffic volumes are expected to increase by approximately 185 vph during the weekday AM peak hour, 105 vph during the weekday midday peak hour, 55 vph during the weekday PM peak hour, and 30 vph during the Saturday peak hour.

No Action traffic volumes on the northbound Gowanus Expressway general purpose mainline lanes south of the 38th Street off-ramp would increase by approximately 250 vehicles during the weekday AM peak hour compared to existing conditions. The northbound Gowanus Expressway dedicated HOV lane is open only during the weekday AM peak period and would continue to carry approximately 19 percent of the northbound traffic volume; volumes on the HOV lane would increase by approximately 40 vehicles during the weekday AM peak hour compared to existing conditions. North of the 38th Street off-ramp, general purpose mainline volumes would increase by approximately 140 vehicles compared to the existing conditions. During the weekday midday and PM peak hours, No Action traffic volumes in the northbound direction would increase by approximately 220 vehicles south of the 38th Street off-ramp, and by approximately 160 vehicles north of the 38th Street off-ramp compared to existing conditions. During the Saturday peak hour, No Action traffic volumes in the northbound direction would increase by approximately 220 vehicles south of the 38th Street off-ramp, and by approximately 180 vehicles north of the 38th Street off-ramp compared to existing conditions.

No Action traffic volumes on the southbound Gowanus Expressway during the weekday AM peak hour would increase by approximately 380 vehicles north of the 39th Street off-ramp and 195 vehicles south of the 39th Street off-ramp compared to existing conditions. During the weekday midday peak hour, volumes would increase by approximately 285 vehicles north of the 39th Street off-ramp and 180 vehicles south of the 39th Street off-ramp compared to existing conditions. During the weekday PM peak hour, volumes across both the general purpose lanes and the HOV lane would increase by approximately 270 vehicles north of the 39th Street off-ramp and 215 vehicles south of the 39th Street off-ramp compared to existing conditions. After the traffic counts were conducted in March 2016, a separated HOV lane was implemented along the southbound direction of the Gowanus Expressway during the weekday PM peak period (a separate HOV was in place in the northbound direction during the weekday AM peak period during the traffic count period). It was conservatively estimated that approximately 9.5 percent[3] of southbound traffic

[3] It was observed during the traffic counts that approximately 19 percent of the northbound Gowanus Expressway traffic volumes utilized the separated HOV lane which begins along the within the vicinity of 48th Street in Brooklyn and extends to the Hugh L. Carey Tunnel. Since the southbound separated HOV lane extends from the Hugh L. Carey Tunnel to Staten Island and does not provide access to Brooklyn, it was expected that a smaller percentage of motorists would use the HOV lane during the weekday PM peak period than during the weekday AM peak period.

using the mainline under existing conditions would use this HOV lane, which is separated from the Gowanus Expressway mainline by a movable barrier and would not interact with traffic on the mainline within the study area. As a result, the net total change in traffic volumes on the general purpose lanes during the weekday PM peak hour is 225 fewer vehicles north of the 39th Street off-ramp and 275 fewer vehicles south of the 39th Street off-ramp compared to existing conditions. During the Saturday peak hour, volumes would increase by approximately 210 vehicles north of the 39th Street off-ramp and 175 vehicles south of the 39th Street off-ramp compared to existing conditions.

LEVEL OF SERVICE

Table 11-31 presents future No Action speeds, densities, and LOS for the mainline highway segments analyzed for the weekday and Saturday peak hours in accordance with the methodology from *HCM 6*.

TABLE 11-31 - TRAFFIC LEVELS OF SERVICE
INDUSTRY CITY EIS
2027 NO ACTION CONDITION

INTERSECTION & APPROACH		Weekday AM Peak Hour Control Mvt.	V/C	Delay	LOS	Weekday Midday Peak Hour Control Mvt.	V/C	Delay	LOS	Weekday PM Peak Hour Control Mvt.	V/C	Delay	LOS	Saturday Peak Hour Control Mvt.	V/C	Delay	LOS
SIGNALIZED INTERSECTIONS																	
Second Avenue and 39th Street																	
39th Street	EB	LTR	0.61	43.0	D	LTR	0.80	56.7	E	LTR	1.23	171.7	F	LTR	0.33	32.7	C
	WB 1	LTR	1.44	241.7	F	LTR	1.58	308.2	F	LTR	1.63	326.0	F	LTR	1.33	193.8	F
39th Street (ramp)	WB 2	LT	1.57	295.7	F	LT	1.18	132.7	F	LT	0.75	38.4	D	LT	0.94	57.2	E
		R	0.37	27.3	C	R	0.33	26.1	C	R	0.20	24.4	C	R	0.29	25.6	C
Second Avenue	NB	LTR	0.83	39.3	D	LTR	0.53	29.6	C	LTR	0.52	29.4	C	LTR	0.49	29.0	C
	SB	LTR	0.38	27.4	C	LTR	0.56	31.6	C	LTR	0.59	32.3	C	LTR	0.61	32.3	C
Overall Intersection		-	**1.27**	**151.4**	**F**	-	**1.07**	**114.4**	**F**	-	**0.97**	**117.4**	**F**	-	**0.92**	**71.4**	**E**
Second Avenue and 42nd Street																	
42nd Street	EB	LTR	0.32	23.7	C	LTR	0.41	25.6	C	LTR	0.42	25.1	C	LTR	0.17	21.3	C
Second Avenue	NB	TR	0.64	17.2	B	TR	0.45	14.1	B	TR	0.42	13.6	B	TR	0.34	12.5	B
	SB	LT	0.81	21.2	C	LT	0.73	20.3	C	LT	0.57	16.0	B	LT	0.59	16.0	B
Overall Intersection		-	**0.62**	**19.8**	**B**	-	**0.61**	**19.0**	**B**	-	**0.51**	**17.0**	**B**	-	**0.43**	**15.3**	**B**
Second Avenue and 43rd Street																	
43rd Street	WB	LTR	0.65	29.8	C	LTR	0.35	23.9	C	LTR	0.42	24.9	C	LTR	0.25	22.2	C
Second Avenue	NB	LT	0.66	18.8	B	LT	0.35	12.7	B	LT	0.39	13.3	B	LT	0.29	11.9	B
	SB	TR	0.79	22.4	C	TR	0.65	17.5	B	TR	0.53	15.2	B	TR	0.52	14.9	B
Overall Intersection		-	**0.74**	**22.9**	**C**	-	**0.53**	**17.3**	**B**	-	**0.49**	**16.5**	**B**	-	**0.42**	**15.1**	**B**
Third Avenue and Prospect Avenue																	
Prospect Avenue	WB	L	0.92	72.1	E	L	0.85	58.1	E	L	1.10	117.7	F	L	0.78	52.7	D
		T	1.06	118.0	F	T	0.54	47.4	D	T	0.62	55.9	E	T	0.54	46.8	D
		R	0.40	50.3	D	R	0.31	42.5	D	R	0.19	45.0	D	R	0.21	39.9	D
Third Avenue	NB	L	0.80	33.4	C	L	0.98	66.2	E	L	0.93	53.3	D	L	0.83	49.2	D
		T	0.60	4.1	A	T	0.45	12.4	B	T	0.67	13.5	B	T	0.66	16.6	B
	SB	T	0.23	43.0	D	T	0.18	35.8	D	T	0.13	32.9	C	T	0.25	36.7	D
		R	0.83	65.2	E	R	0.63	46.1	D	R	0.66	44.7	D	R	0.79	53.3	D
Overall Intersection		-	**0.88**	**45.9**	**D**	-	**0.82**	**50.8**	**D**	-	**0.88**	**55.4**	**E**	-	**0.80**	**42.4**	**D**
Third Avenue and 29th Street																	
29th Street	EB	LTR	0.74	52.6	D	LTR	0.66	52.6	D	LTR	0.59	48.7	D	LTR	0.32	40.8	D
Third Avenue	NB	TR	0.97	11.1	B	TR	0.61	5.0	A	TR	0.61	6.0	A	TR	0.47	4.6	A
	SB	LT	0.29	11.3	B	LT	0.32	11.1	B	LT	0.75	32.3	C	LT	0.42	12.3	B
Overall Intersection		-	**-**	**15.2**	**B**	-	**-**	**11.5**	**B**	-	**-**	**22.3**	**C**	-	**-**	**9.9**	**A**
Third Avenue and 30th Street																	
30th Street	EB	R	0.00	0.0	A	R	0.00	0.0	A	R	0.00	0.0	A	R	0.00	0.0	A
	WB	LTR	0.15	36.8	D	LTR	0.16	37.8	D	LTR	0.18	38.2	D	LTR	0.09	36.6	D
Third Avenue	NB	LT	0.95	16.0	B	LT	0.54	6.3	A	LT	0.60	9.7	A	LT	0.43	5.0	A
	SB	TR	0.28	4.1	A	TR	0.32	2.9	A	TR	0.74	2.6	A	TR	0.37	1.5	A
Overall Intersection		-	**-**	**13.8**	**B**	-	**-**	**5.8**	**A**	-	**-**	**6.3**	**A**	-	**-**	**3.8**	**A**
Third Avenue and 32nd Street																	
32nd Street	EB	LR	0.17	36.4	D	LR	0.12	33.8	C	LR	0.17	38.3	D	LR	0.08	33.0	C
	WB	LTR	0.27	37.7	D	LTR	0.35	38.4	D	LTR	0.33	42.0	D	LTR	0.22	35.2	D
Third Avenue	NB	LT	0.99	50.1	D	LT	0.57	6.0	A	LT	0.59	5.1	A	LT	0.50	4.5	A
	SB	LTR	0.30	8.1	A	LTR	0.41	7.3	A	LTR	0.75	2.9	A	LTR	0.41	5.4	A
Overall Intersection		-	**-**	**40.6**	**D**	-	**-**	**8.7**	**A**	-	**-**	**5.4**	**A**	-	**-**	**6.5**	**A**
Third Avenue and 33rd Street																	
33rd Street	EB	LTR	0.24	37.0	D	LTR	0.35	41.5	D	LTR	0.37	38.6	D	LTR	0.13	37.2	D
Third Avenue	NB	TR	1.01	28.7	C	TR	0.53	2.8	A	TR	0.61	5.4	A	TR	0.53	4.8	A
	SB	LT	0.28	5.9	A	LT	0.32	5.3	A	LT	0.70	3.0	A	LT	0.38	3.5	A
Overall Intersection		-	**-**	**24.4**	**C**	-	**-**	**6.0**	**A**	-	**-**	**5.6**	**A**	-	**-**	**5.0**	**A**

(1) Control delay is measured in seconds per vehicle.
(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.

TABLE 11-31 - TRAFFIC LEVELS OF SERVICE
INDUSTRY CITY EIS
2027 NO ACTION CONDITION

INTERSECTION & APPROACH		Weekday AM Peak Hour Control Mvt.	V/C	Delay	LOS	Weekday Midday Peak Hour Control Mvt.	V/C	Delay	LOS	Weekday PM Peak Hour Control Mvt.	V/C	Delay	LOS	Saturday Peak Hour Control Mvt.	V/C	Delay	LOS
Third Avenue and 34th Street																	
34th Street	WB	LTR	0.54	44.9	D	LTR	0.43	41.2	D	LTR	0.56	47.3	D	LTR	0.49	42.6	D
Third Avenue	NB	LT	0.93	48.0	D	LT	0.49	3.1	A	LT	0.55	4.3	A	LT	0.45	2.9	A
	SB	TR	0.25	4.7	A	TR	0.32	5.3	A	TR	0.67	2.5	A	TR	0.35	4.8	A
	Overall Intersection	-	**-**	**39.3**	**D**	-	**-**	**7.0**	**A**	-	**-**	**6.0**	**A**	-	**-**	**7.1**	**A**
Third Avenue and 35th Street																	
35th Street	EB	LTR	0.33	39.0	D	LTR	0.36	42.2	D	LTR	0.29	35.5	D	LTR	0.13	37.2	D
Third Avenue	NB	TR	1.02	28.2	C	TR	0.55	4.6	A	TR	0.58	4.9	A	TR	0.44	3.3	A
	SB	LT	0.27	6.0	A	LT	0.30	5.4	A	LT	0.69	6.0	A	LT	0.40	5.6	A
	Overall Intersection	-	**-**	**24.2**	**C**	-	**-**	**6.9**	**A**	-	**-**	**6.4**	**A**	-	**-**	**5.2**	**A**
Third Avenue and 36th Street																	
36th Street	WB	LT	0.49	42.9	D	LT	0.37	42.4	D	LT	0.48	45.2	D	LT	0.31	40.7	D
		R	0.71	56.9	E	R	0.42	46.0	D	R	0.33	42.6	D	R	0.30	41.9	D
Third Avenue	NB	LT	0.92	49.1	D	LT	0.50	3.2	A	LT	0.58	5.5	A	LT	0.45	4.2	A
	SB	TR	0.30	5.2	A	TR	0.33	4.6	A	TR	0.70	2.9	A	TR	0.37	3.5	A
	Overall Intersection	-	**-**	**40.2**	**D**	-	**-**	**7.6**	**A**	-	**-**	**6.8**	**A**	-	**-**	**6.8**	**A**
Third Avenue and 37th Street																	
37th Street	EB	LTR	0.17	34.5	C	LTR	0.24	36.2	D	LTR	0.37	38.3	D	LTR	0.29	37.0	D
Third Avenue	NB	TR	0.99	19.7	B	TR	0.52	15.5	B	TR	0.59	9.3	A	TR	0.45	13.9	B
	SB	LT	0.31	7.4	A	LT	0.36	7.1	A	LT	0.75	9.9	A	LT	0.45	7.5	A
	Overall Intersection	-	**-**	**17.6**	**B**	-	**-**	**14.0**	**B**	-	**-**	**11.9**	**B**	-	**-**	**13.1**	**B**
Third Avenue and 39th Street																	
	EB	LTR	1.05	122.9	F	LTR	1.21	158.8	F	LTR	1.23	165.9	F	LTR	1.06	123.0	F
	WB	LTR	0.94	90.2	F	LTR	0.98	124.2	F	LTR	0.75	56.9	E	LTR	0.89	77.3	E
Third Avenue	NB	LTR	0.87	48.8	D	LTR	0.43	3.7	A	LTR	0.48	6.3	A	LTR	0.35	4.3	A
	SB	TR	0.27	5.7	A	TR	0.28	12.8	B	TR	0.67	4.1	A	TR	0.42	16.0	B
	Overall Intersection	-	**-**	**51.5**	**D**	-	**-**	**46.7**	**D**	-	**-**	**26.8**	**C**	-	**-**	**33.0**	**C**
Third Avenue and 40th Street																	
40th Street	EB	LTR	0.42	41.7	D	LTR	0.31	39.3	D	LTR	0.37	39.0	D	LTR	0.20	36.9	D
Third Avenue	NB	TR	0.91	5.4	A	TR	0.49	5.0	A	TR	0.46	4.6	A	TR	0.34	4.4	A
	SB	LT	0.30	6.4	A	LT	0.29	6.3	A	LT	0.72	8.4	A	LT	0.47	9.3	A
	Overall Intersection	-	**-**	**7.4**	**A**	-	**-**	**7.5**	**A**	-	**-**	**8.3**	**A**	-	**-**	**8.3**	**A**
Third Avenue and 41st Street																	
41st Street	WB	LTR	0.42	42.4	D	LTR	0.55	48.5	D	LTR	0.59	49.3	D	LTR	0.49	45.9	D
Third Avenue	NB	LT	0.92	49.9	D	LT	0.41	5.4	A	LT	0.44	5.0	A	LT	0.34	4.8	A
	SB	TR	0.30	4.2	A	TR	0.29	4.2	A	TR	0.71	2.0	A	TR	0.42	3.1	A
	Overall Intersection	-	**-**	**39.5**	**D**	-	**-**	**8.7**	**A**	-	**-**	**5.9**	**A**	-	**-**	**6.9**	**A**
Third Avenue and 42nd Street																	
42nd Street	EB	LTR	0.33	39.6	D	LTR	0.59	49.1	D	LTR	0.56	45.4	D	LTR	0.31	40.4	D
Third Avenue	NB	TR	0.94	8.7	A	TR	0.44	7.0	A	TR	0.45	5.1	A	TR	0.38	7.4	A
	SB	LT	0.30	5.1	A	LT	0.28	3.1	A	LT	0.71	3.3	A	LT	0.45	3.4	A
	Overall Intersection	-	**-**	**9.2**	**A**	-	**-**	**9.8**	**A**	-	**-**	**6.7**	**A**	-	**-**	**7.0**	**A**
Third Avenue and 43rd Street																	
43rd Street	WB	LTR	0.35	38.8	D	LTR	0.40	43.1	D	LTR	0.52	46.4	D	LTR	0.49	45.9	D
Third Avenue	NB	LT	0.89	52.0	D	LT	0.40	7.0	A	LT	0.43	6.8	A	LT	0.32	6.2	A
	SB	TR	0.32	4.7	A	TR	0.30	5.8	A	TR	0.75	4.4	A	TR	0.45	2.7	A
	Overall Intersection	-	**-**	**40.6**	**D**	-	**-**	**9.0**	**A**	-	**-**	**7.3**	**A**	-	**-**	**7.0**	**A**
Third Avenue and 44th Street																	
44th Street	EB	LTR	0.50	44.1	D	LTR	0.48	44.9	D	LTR	0.77	57.5	E	LTR	0.38	42.3	D
Third Avenue	NB	TR	0.87	24.9	C	TR	0.38	11.8	B	TR	0.42	12.2	B	TR	0.34	11.3	B
	SB	LT	0.30	5.5	A	LT	0.32	4.4	A	LT	0.71	6.7	A	LT	0.45	3.5	A
	Overall Intersection	-	**-**	**21.6**	**C**	-	**-**	**11.6**	**B**	-	**-**	**13.0**	**B**	-	**-**	**9.0**	**A**

(1) Control delay is measured in seconds per vehicle.
(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.

TABLE 11-31 - TRAFFIC LEVELS OF SERVICE
INDUSTRY CITY EIS
2027 NO ACTION CONDITION

		Weekday AM Peak Hour				Weekday Midday Peak Hour				Weekday PM Peak Hour				Saturday Peak Hour			
				Control				Control				Control				Control	
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**
Fourth Avenue and 34th Street																	
34th Street	WB	LTR	0.81	58.2	E	LTR	0.40	39.9	D	LTR	0.48	42.0	D	LTR	0.36	38.9	D
Third Avenue	NB	L	0.40	12.9	B	L	0.45	18.2	B	L	0.78	51.9	D	L	0.56	24.3	C
		T	0.75	11.9	B	T	0.74	20.0	C	T	0.73	19.5	B	T	0.78	21.2	C
	SB	TR	0.58	16.2	B	TR	0.46	14.1	B	TR	0.72	12.1	B	TR	0.53	15.1	B
	Overall Intersection	-	**0.77**	**17.3**	**B**	-	**0.63**	**19.2**	**B**	-	**0.69**	**18.6**	**B**	-	**0.65**	**20.0**	**B**
Fourth Avenue and 36th Street																	
36th Street	WB	LTR	1.12	129.9	F	LTR	0.70	48.0	D	LTR	0.94	77.9	E	LTR	0.68	46.3	D
Fourth Avenue	NB	T	0.65	8.8	A	T	0.83	24.3	C	T	0.76	19.0	B	T	0.87	25.3	C
	SB	TR	0.64	16.9	B	TR	0.57	18.1	B	TR	0.82	14.4	B	TR	0.59	18.5	B
	Overall Intersection	-	**0.79**	**26.0**	**C**	-	**0.78**	**24.6**	**C**	-	**0.85**	**22.9**	**C**	-	**0.80**	**25.0**	**C**
Fourth Avenue and 37th Street																	
37th Street	EB	LTR	0.55	44.0	D	LTR	0.50	43.1	D	LTR	0.73	51.7	D	LTR	0.59	44.4	D
Fourth Avenue	NB	TR	0.72	9.9	A	TR	0.78	20.1	C	TR	0.79	20.8	C	TR	0.84	22.6	C
	SB	L	0.63	39.8	D	L	0.54	26.9	C	L	0.62	21.4	C	L	0.61	38.6	D
		T	0.54	14.6	B	T	0.45	13.3	B	T	0.72	10.5	B	T	0.47	13.6	B
	Overall Intersection	-	**0.68**	**13.8**	**B**	-	**0.70**	**19.7**	**B**	-	**0.77**	**19.0**	**B**	-	**0.77**	**21.7**	**C**
Fourth Avenue and 38th Street																	
38th Street	EB	L	0.81	57.0	E	L	0.68	43.2	D	L	0.68	48.6	D	L	0.74	45.7	D
		LT	0.81	56.6	E	LT	0.64	41.6	D	LT	0.69	48.9	D	LT	0.67	42.4	D
		R	0.56	44.1	D	R	0.54	38.6	D	R	0.46	41.0	D	R	0.50	37.5	D
Fourth Avenue	NB	TR	0.94	23.7	C	TR	0.63	23.1	C	TR	0.57	18.3	B	TR	0.60	22.2	C
	SB	T	0.61	19.1	B	T	0.52	20.9	C	T	0.79	16.5	B	T	0.62	22.7	C
	Overall Intersection	-	**0.88**	**30.1**	**C**	-	**0.62**	**28.8**	**C**	-	**0.76**	**24.4**	**C**	-	**0.66**	**29.3**	**C**
Fourth Avenue and 39th Street																	
39th Street	EB	L	0.22	37.6	D	L	0.28	38.1	D	L	0.22	38.3	D	L	0.15	34.5	C
		TR	0.68	48.1	D	TR	0.69	47.5	D	TR	0.78	54.4	D	TR	0.74	50.6	D
	WB	L	0.52	49.6	D	L	0.31	39.2	D	L	0.67	63.7	E	L	0.34	40.1	D
		TR	0.85	66.7	E	TR	0.84	62.9	E	TR	0.95	82.3	F	TR	0.69	49.0	D
Fourth Avenue	NB	TR	0.82	13.2	B	TR	0.52	15.9	B	TR	0.52	14.9	B	TR	0.56	16.3	B
	SB	L	0.69	55.4	E	L	0.29	17.0	B	L	0.23	8.2	A	L	0.57	26.0	C
		TR	0.76	20.4	C	TR	0.67	19.0	B	TR	0.96	23.3	C	TR	0.70	19.6	B
	Overall Intersection	-	**0.83**	**24.0**	**C**	-	**0.72**	**25.9**	**C**	-	**0.96**	**29.9**	**C**	-	**0.71**	**24.5**	**C**
Fourth Avenue and 40th Street																	
40th Street	EB	LTR	0.64	46.0	D	LTR	0.24	28.5	C	LTR	0.49	40.8	D	LTR	0.31	29.7	C
Fourth Avenue	NB	TR	0.83	15.7	B	TR	0.60	22.7	C	TR	0.53	15.2	B	TR	0.66	23.9	C
	SB	L	0.75	46.5	D	L	0.47	26.0	C	L	0.47	10.6	B	L	0.91	76.0	E
		T	0.57	15.5	B	T	0.53	20.9	C	T	0.75	11.3	B	T	0.66	23.3	C
	Overall Intersection	-	**0.78**	**19.0**	**B**	-	**0.45**	**22.5**	**C**	-	**0.68**	**14.8**	**B**	-	**0.62**	**26.6**	**C**

(1) Control delay is measured in seconds per vehicle.
(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.

TABLE 11-31 - TRAFFIC LEVELS OF SERVICE
INDUSTRY CITY EIS
2027 NO ACTION CONDITION

INTERSECTION & APPROACH		Weekday AM Peak Hour Control Mvt.	V/C	Delay	LOS	Weekday Midday Peak Hour Control Mvt.	V/C	Delay	LOS	Weekday PM Peak Hour Control Mvt.	V/C	Delay	LOS	Saturday Peak Hour Control Mvt.	V/C	Delay	LOS
UNSIGNALIZED INTERSECTIONS																	
First Avenue and 39th Street																	
First Avenue	NB	LR	-	51.3	F	LR	-	15.1	C	LR	-	24.5	C	LR	-	9.5	A
39th Street	WB	LT	-	16.2	C	LT	-	10.3	B	LT	-	10.9	B	LT	-	8.1	A
	Overall Intersection	-	**-**	**6.6**	**A**	-	**-**	**6.5**	**A**	-	**-**	**7.6**	**A**	-	**-**	**5.6**	**A**
First Avenue and 41st Street																	
First Avenue	SB	LT	-	7.4	A	LT	-	7.4	A	LT	-	7.9	A	LT	-	7.3	A
41st Street	WB	LR	-	10.0	A	LR	-	10.0	A	LR	-	10.4	B	LR	-	8.9	A
	Overall Intersection	-	**-**	**2.1**	**A**	-	**-**	**1.6**	**A**	-	**-**	**2.0**	**A**	-	**-**	**3.0**	**A**
First Avenue and 42nd Street																	
First Avenue	NB	LTR	-	7.7	A	LTR	-	7.6	A	LTR	-	7.5	A	LTR	-	7.4	A
	SB	LTR	-	7.7	A	LTR	-	8.2	A	LTR	-	7.8	A	LTR	-	7.6	A
42nd Street	EB	LTR	-	13.9	B	LTR	-	12.5	B	LTR	-	14.1	B	LTR	-	11.0	B
	Overall Intersection	-	**-**	**2.7**	**A**	-	**-**	**2.4**	**A**	-	**-**	**4.2**	**A**	-	**-**	**4.1**	**A**
First Avenue and 43rd Street																	
First Avenue	NB	LT	-	7.5	A	LT	-	7.5	A	LT	-	7.4	A	LT	-	7.3	A
43rd Street	EB	LR	-	12.8	B	LR	-	12.7	B	LR	-	11.8	B	LR	-	9.6	A
	WB	LTR	-	12.6	B	LTR	-	12.6	B	LTR	-	11.1	B	LTR	-	9.5	A
	Overall Intersection	-	**-**	**7.6**	**A**	-	**-**	**7.2**	**A**	-	**-**	**6.8**	**A**	-	**-**	**4.8**	**A**
First Avenue and 44th Street																	
First Avenue	SB	LT	-	7.7	A	LT	-	8.0	A	LT	-	8.0	A	LT	-	7.6	A
	Overall Intersection	-	**-**	**1.0**	**A**	-	**-**	**1.5**	**A**	-	**-**	**1.5**	**A**	-	**-**	**1.0**	**A**
Second Avenue and 29th Street																	
Second Avenue	NB	LTR	-	7.6	A	LTR	-	8.0	A	LTR	-	7.9	A	LTR	-	7.3	A
	SB	LTR	-	9.5	A	LTR	-	7.7	A	LTR	-	7.7	A	LTR	-	7.5	A
29th Street	EB	LTR	-	12.2	B	LTR	-	11.6	B	LTR	-	12.2	B	LTR	-	9.2	A
	Overall Intersection	-	**-**	**10.4**	**B**	-	**-**	**9.8**	**A**	-	**-**	**10.2**	**B**	-	**-**	**8.0**	**A**
Second Avenue and 32nd Street																	
Second Avenue	NB	LTR	-	7.2	A	LTR	-	7.3	A	LTR	-	7.9	A	LTR	-	7.3	A
	SB	LTR	-	8.7	A	LTR	-	7.7	A	LTR	-	7.6	A	LTR	-	7.5	A
32nd Street	EB	LTR	-	8.6	A	LTR	-	8.4	A	LTR	-	8.4	A	LTR	-	8.4	A
	WB	LTR	-	16.3	C	LTR	-	11.5	B	LTR	-	12.5	B	LTR	-	12.5	B
	Overall Intersection	-	**-**	**5.1**	**A**	-	**-**	**6.5**	**A**	-	**-**	**7.5**	**A**	-	**-**	**8.1**	**A**
Second Avenue and 33rd Street																	
Second Avenue	SB	LT	-	8.9	A	LT	-	8.0	A	LT	-	8.0	A	LT	-	7.6	A
	Overall Intersection	-	**-**	**0.5**	**A**	-	**-**	**0.7**	**A**	-	**-**	**1.4**	**A**	-	**-**	**0.4**	**A**
Second Avenue and 34th Street																	
34th Street	WB	LR	-	12.7	B	LR	-	11.6	B	LR	-	10.9	B	LR	-	10.1	B
	Overall Intersection	-	**-**	**2.5**	**A**	-	**-**	**3.5**	**A**	-	**-**	**2.5**	**A**	-	**-**	**2.2**	**A**
Second Avenue and 35th Street																	
Second Avenue	SB	LT	-	9.2	A	LT	-	8.2	A	LT	-	8.0	A	LT	-	7.7	A
	Overall Intersection	-	**-**	**0.4**	**A**	-	**-**	**0.8**	**A**	-	**-**	**0.8**	**A**	-	**-**	**0.6**	**A**

(1) Control delay is measured in seconds per vehicle.
(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.

TABLE 11-31 - TRAFFIC LEVELS OF SERVICE
INDUSTRY CITY EIS
2027 NO ACTION CONDITION

INTERSECTION & APPROACH		Weekday AM Peak Hour				Weekday Midday Peak Hour				Weekday PM Peak Hour				Saturday Peak Hour			
		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS
Second Avenue and 36th Street																	
36th Street	WB	LR	-	14.7	B	LR	-	11.4	B	LR	-	11.3	B	LR	-	10.4	B
	Overall Intersection	-	**-**	**4.1**	**A**	-	**-**	**2.9**	**A**	-	**-**	**2.8**	**A**	-	**-**	**2.4**	**A**
Second Avenue and 37th Street																	
Second Avenue	SB	LT	-	10.6	B	LT	-	10.3	B	LT	-	10.0	A	LT	-	10.1	B
	Overall Intersection	-	**-**	**0.6**	**A**	-	**-**	**1.2**	**A**	-	**-**	**1.4**	**A**	-	**-**	**1.0**	**A**
Second Avenue and 40th Street																	
Second Avenue	SB	LT	-	9.2	A	LT	-	8.4	A	LT	-	8.4	A	LT	-	8.3	A
	Overall Intersection	-	**-**	**0.8**	**A**	-	**-**	**0.6**	**A**	-	**-**	**0.6**	**A**	-	**-**	**0.5**	**A**
Second Avenue and 41st Street																	
Second Avenue	NB	LT	-	8.7	A	LT	-	8.4	A	LT	-	8.6	A	LT	-	8.4	A
41st Street	EB	LR	-	20.2	C	LR	-	18.6	C	LR	-	22.9	C	LR	-	15.8	C
	WB	LTR	-	36.4	E	LTR	-	18.0	C	LTR	-	23.8	C	LTR	-	17.7	C
	Overall Intersection	-	**-**	**4.9**	**A**	-	**-**	**2.7**	**A**	-	**-**	**5.4**	**A**	-	**-**	**2.4**	**A**
Second Avenue and 44th Street																	
Second Avenue	NB	TR	-	26.5	D	TR	-	12.2	B	TR	-	15.8	C	TR	-	10.8	B
	SB	LT	-	37.7	E	LT	-	15.9	C	LT	-	16.6	C	LT	-	14.1	B
44th Street	EB	LTR	-	11.7	B	LTR	-	10.7	B	LTR	-	11.2	B	LTR	-	9.0	A
	Overall Intersection	-	**-**	**31.0**	**D**	-	**-**	**13.9**	**B**	-	**-**	**15.5**	**C**	-	**-**	**12.6**	**B**
Third Avenue and 31st Street																	
Third Avenue	SB	LT	-	0.3	A	LT	-	0.3	A	LT	-	0.1	A	LT	-	0.2	A
	Overall Intersection	-	**-**	**0.1**	**A**	-	**-**	**0.1**	**A**	-	**-**	**0.1**	**A**	-	**-**	**0.1**	**A**
Third Avenue and 38th Street																	
Third Avenue	SB	LT	-	0.3	A	LT	-	0.3	A	LT	-	0.1	A	LT	-	0.2	A
	Overall Intersection	-	**-**	**0.1**	**A**	-	**-**	**0.1**	**A**	-	**-**	**0.1**	**A**	-	**-**	**0.1**	**A**

(1) Control delay is measured in seconds per vehicle.
(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.

As a result of the additional vehicular demand experienced along the highway, there would be slight increases in density and decreases in speed along the segments studied between the existing and No Action conditions, with the exception of the southbound Gowanus Expressway mainline during the weekday PM peak hour due to the implementation of the separate HOV lane. Average travel speeds along the northbound Gowanus Expressway would range between approximately 21 to 34 mph during the weekday AM peak hour (the northbound Gowanus Expressway is the peak travel direction weekday AM peak period), 48 to 50 mph in the weekday PM and Saturday peak hours, and 36 mph during the weekday midday peak hour. Average travel speeds along the southbound Gowanus Expressway during the weekday PM peak hour (the southbound Gowanus Expressway is the peak direction during the weekday PM peak period) would range between approximately 32 to 44 mph, and approximately 47 to 50 mph during the other peak hours analyzed. These projected speeds would not be noticeably different than those experienced under existing conditions.

The LOS along each segment of the Gowanus Expressway is a function of the segment densities, and are summarized below.

For the northbound Gowanus Expressway:

- During the weekday AM peak hour, each segment would operate at unacceptable LOS F under the No Action condition, compared to ranging from LOS E to LOS F under existing conditions.
- During the weekday midday peak hour, northbound highway segments would operate between LOS E and LOS F under the No Action condition, with more segments operating at LOS F compared to existing conditions.
- During the weekday PM peak hour, northbound highway segments would operate between LOS D and LOS E under the No Action condition, with one additional segment operating at LOS E compared to existing conditions.
- During the Saturday peak hour, northbound highway segments would operate between LOS D and LOS E under No Action conditions similar to existing conditions.

For the southbound Gowanus Expressway:

- During the weekday AM peak hour, southbound highway segments would operate between LOS B and LOS D under the No Action condition, compared to LOS B to LOS C under existing conditions.
- During the weekday midday peak hour, southbound highway segments would operate between LOS C and LOS D under No Action conditions, with one additional segment operating at LOS D compared to existing conditions.
- During the weekday PM peak hour, southbound highway segments would operate between LOS D and LOS F under No Action conditions, compared to LOS E to LOS F under existing conditions. The improvement in LOS would be attributed to the shift of some traffic volumes from the general purpose lanes to the dedicated HOV lane.
- During the Saturday peak hour, southbound highway segments would operate between LOS C and LOS E under the No Action condition, compared to LOS C to LOS D under existing conditions.

PARKING

In order to estimate future parking conditions, existing occupancies for on- and off-street parking facilities were increased by the background traffic growth rate recommended by the *CEQR Technical Manual*. Vehicle trips generated by background development projects within the study area would park on-site, where parking is provided, or were otherwise assumed to park on-street. Development occurring within the Industry City complex as part of the No Action condition would be expected to park in off-street parking facilities located at the site of Buildings 11 and 21.

For the purposes of a conservative analysis, it was assumed that Industry City would not be able to renew their lease for the site where parking lots B and C are located. As a result, Industry City would need to develop new parking facilities on the Building 11 and Building 21 sites to accommodate the existing Industry City parking demand. The Building 11 site is along the east side of 2nd Avenue between 32nd and 33rd Streets and would have 200 parking spaces, and the Building 21 site is located along the east side of 1st Avenue between 39th and 41st Streets and would have 458 parking spaces.

In addition to the existing parking demand, auto trips generated by the No Action development occurring within the Industry City complex were assigned to the Building 11 and Building 21 parking facilities. Under the No Action condition, it is expected that the occupancy of these two parking facilities would be approximately 42 percent during the weekday AM peak hour, 56 percent during the weekday midday peak hour, 48 percent during the weekday PM peak hour, and 26 percent during the Saturday peak hour. Parking occupancy rates for each parking facility during each peak period is provided in **Table 11-32**.

Table 11-32
Inventory of No Action Industry City Parking Facilities

Location	Capacity	Occupancy			
		Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Peak Hour
A. Building 11 Site – South side of 32nd Street between 2nd and 3rd Avenues	200	52 26%	71 36%	64 32%	25 13%
B. Building 21 Site – Southeast corner of 1st Avenue and 39th Street	458	223 49%	300 66%	253 55%	144 31%
Total	**658**	**275**	**371**	**317**	**169**
Percent Occupied (%)		**42%**	**56%**	**48%**	**26%**

Available on-street parking is expected to decrease slightly under the No Action condition due to the projected increase of traffic in the area. Under the No Action condition, it is expected that on-street parking would be fully occupied during the weekday midday peak period, and approximately 79 percent to 84 percent of on-street parking spaces would be occupied during the weekday AM and PM peak periods. The on-street occupancy during the Saturday peak period is expected to be approximately 71 percent.

SUBWAY TRANSIT

Between 2016 and 2027, it is expected that subway demand in the vicinity of the Project Area will increase due to long-term background growth, development that could occur on the Industry City site pursuant to existing zoning, and other No Action development projects.

Existing subway volumes were increased based on annual background growth rates of 0.50 percent per year for the 2016 through 2021 period and 0.25 percent per year for the 2021 through 2027

period, as recommended in the *CEQR Technical Manual* for projects in Brooklyn outside of the downtown area. These background growth rates account for smaller projects and general increases in travel demand not attributable to specific development projects. In addition, trips associated with the No Action projects listed in **Table 11-29** and at Industry City were incorporated into the No Action subway volumes.

SUBWAY STATION ELEMENTS

Under the No Action condition, demand at all analyzed subway station elements is expected to increase due to new development and background growth. **Tables 11-33 and 11-34** show the results of the LOS analysis at the analyzed stairways and fare control area, respectively. All stairways analyzed are expected to operate at an acceptable LOS C or better in both the weekday AM and PM peak hours, except at the northbound platform stairway (P4), which would operate at LOS D (similar to existing conditions) in the weekday AM peak hour at a v/c ratio of 1.21. The fare control area is expected to operate at LOS B or better during both the weekday AM and PM peak hours in the No Action condition.

Table 11-33
2027 No Action Subway Station LOS – Stairways

Peak Hour	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor		Friction Factor	V/C Ratio	LOS
				Down	Up	Up	Down			
AM	S1	5.8	4.8	84	306	0.90	1.00	0.90	0.65	B
	S2	5.8	4.8	366	101	0.90	1.00	0.90	0.74	C
	S3	5.8	4.8	155	253	0.90	1.00	0.90	0.67	B
	M1A/M1B	13.2	11.0	239	560	0.80	1.00	0.90	0.58	B
	P1	6.0	5.0	53	162	0.75	1.00	0.90	0.40	A
	P2	5.8	4.8	319	106	0.75	1.00	0.90	0.71	C
	P3	5.7	4.7	144	259	0.75	1.00	0.90	0.77	C
	P4	5.7	4.7	328	331	0.75	1.00	0.90	1.21	D
PM	S1	5.8	4.8	201	85	0.90	1.00	0.90	0.46	B
	S2	5.8	4.8	132	182	0.90	1.00	0.90	0.52	B
	S3	5.8	4.8	249	126	0.90	1.00	0.90	0.60	B
	M1A/M1B	13.2	11.0	451	210	0.80	1.00	0.90	0.44	A
	P1	6.0	5.0	72	84	0.75	1.00	0.90	0.27	A
	P2	5.8	4.8	204	40	0.75	1.00	0.90	0.40	A
	P3	5.7	4.7	140	234	0.75	1.00	0.90	0.71	C
	P4	5.7	4.7	296	134	0.75	1.00	0.90	0.75	C

Table 11-34
2027 No Action Subway Station LOS – Fare Control Area

Peak Hour	Fare Control Area	Control Elements	Quantity	15-Minute Pedestrian Volumes		Surging Factor (Out Trips)	Friction Factor	V/C Ratio	LOS
				In	Out				
AM	C-018	Two-way Turnstile	6	605	660	0.90	0.90	0.48	B
PM	C-018	Two-way Turnstile	6	583	393	0.90	0.90	0.38	A

SUBWAY LINE-HAUL CAPACITY

Table 11-35 summarizes anticipated 2027 No Action subway line-haul conditions at the maximum load points along the three subway lines serving the 36th Street station. The No Action passenger volumes reflect background growth for the 2016 through 2027 period as well as demand

from new development in the vicinity of the Project Area. In the No Action condition, all subway lines analyzed would continue to operate below capacity in the peak direction during both peak hours.

Table 11-35
2027 No Action Conditions Subway Line-Haul Analysis

Peak Period	Line	Direction	Maximum Load Point (Leaving Station)	Average Trains Per Hour	Average Cars Per Hour	Average Passengers Per Hour[1]	Average Passengers Per Car[1]	Guideline Passengers Per Car[2]	V/C Ratio[3]
AM	D	NB	36 St	10.6	85	10,542	124	155	0.80
	N	NB	36 St	10.7	107	11,507	108	125	0.86
	R	NB	Union St	10.1	81	8,051	100	155	0.64
PM	D	SB	Atlantic Av-Barclays Ctr	10.0	80	9,545	119	155	0.77
	N	SB	Atlantic Av-Barclays Ctr	9.8	98	9,545	97	125	0.78
	R	SB	Jay St-MetroTech	10.3	82	6,522	79	155	0.51

Notes:
[1] No Action passenger volumes are based on 0.50 percent per year background growth for the first 5 years and 0.25 percent per year background growth for subsequent years for the 2016 through 2027 period plus demand from No Action developments expected by 2027
[2] Guideline capacities are based on MTA-NYCT rush hour loading guidelines, which vary by car type, line, and location based on frequency and type of service
[3] Volume-to-guideline capacity ratio

BUS TRANSIT

Demand on the local bus routes operating in proximity to the Project Area is expected to increase during the 2016 through 2027 period as a result of background growth as well as demand from new development, including development that could occur on the Industry City site pursuant to existing zoning. In fall 2018, MTA-NYCT converted the B35 LTD bus fleet from standard buses (capacity of 54 passengers per bus) to articulated buses (capacity of 85 passengers per bus). **Table 11-36** shows that existing levels of bus service would be sufficient to provide adequate supply to meet the projected demand in the 2027 No Action condition along each bus route analyzed.

Table 11-36
No Action Conditions Local Bus Analysis

Peak Hour	Route	Direction	Maximum Load Point	2027 Peak Hour Passengers[1]	No Action Conditions with Current Service Levels		
					Peak Hour Buses[2]	Average Passengers per Bus	Available Capacity[3,4]
AM	B35 LTD	EB	Church Ave and Utica Ave	408	7	58	187
		WB	Church Ave and Nostrand Ave	712	15	47	563
	B70	EB	8th Ave and 62nd St	244	6	41	80
		WB	8th Ave and 39th St	289	6	48	35
PM	B35 LTD	EB	Church Ave and Nostrand Ave	622	14	44	568
		WB	Church Ave and Nostrand Ave	384	11	35	551
	B70	EB	8th Ave and Bay Ridge Ave	121	4	30	95
		WB	8th Ave and 62nd St	97	4	24	119

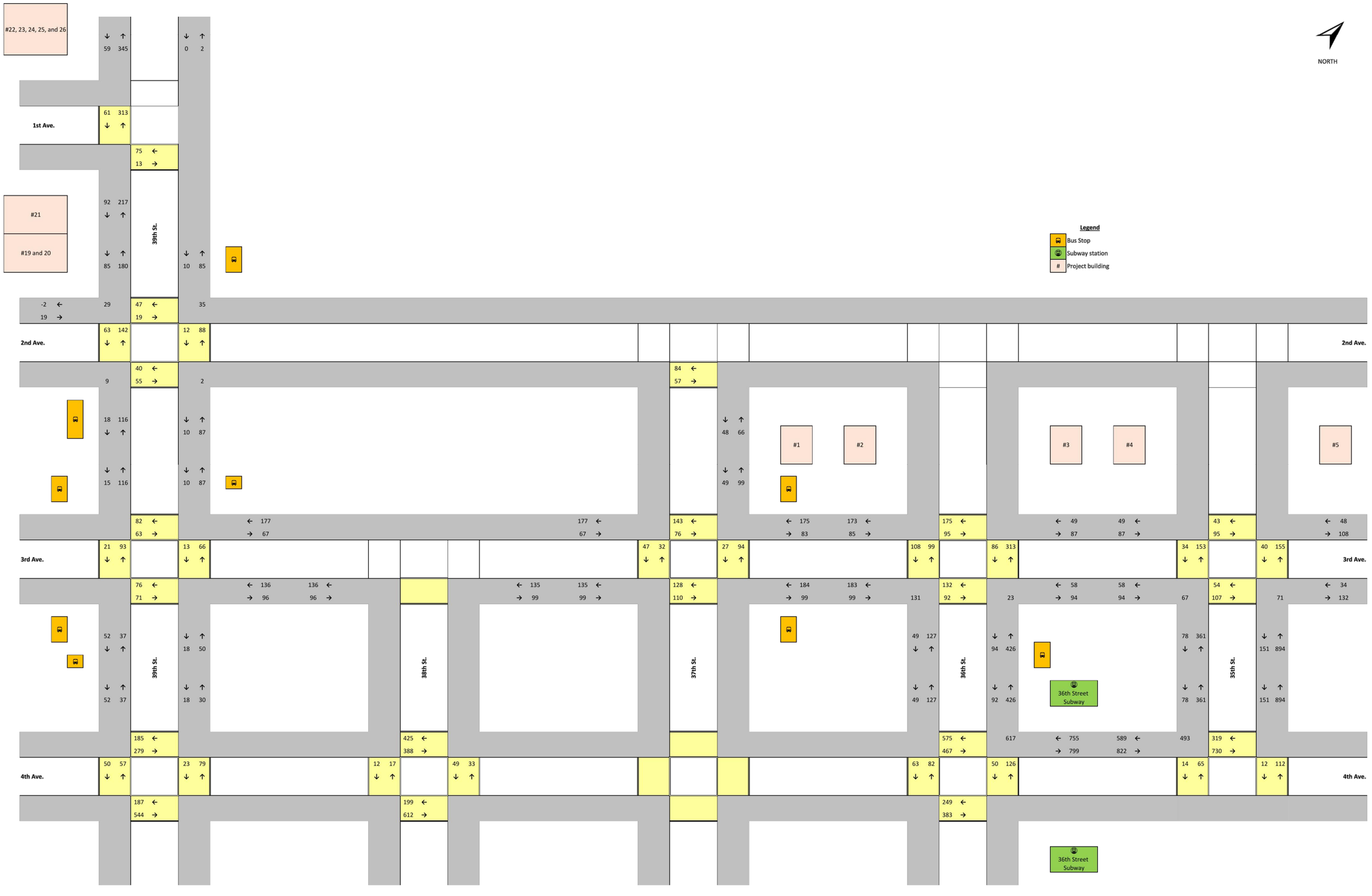
Notes:
[1] 2027 No Action passenger volumes are based on 0.50 percent per year background growth for the first 5 years and 0.25 percent per year background growth for subsequent years for the 2016 through 2027 period plus demand from No Action developments expected by 2027
[2] Based on most currently available data from NYCT
[3] Available capacity based on NYCT loading guidelines of 54 passengers per standard bus (B70) and 85 passengers per articulated bus (B35 LTD).
[4] The B35 LTD converted from standard buses to articulated bus in fall 2018

PEDESTRIANS

The 2027 No Action pedestrian volumes were developed by increasing existing pedestrian volumes to reflect expected growth in overall travel through and within the study area, and incorporating pedestrian volumes from projects expected to be completed. No Action pedestrian volume maps for the weekday AM, midday, PM, and Saturday peak hours are provided in **Figures 11-26 through 11-29**.

The No Action pedestrian LOS were determined for the locations analyzed in the existing condition, and for the new north crosswalk at the intersection of 2nd Avenue and 39th Street, which was identified as part of the Reconstruction of Sunset Park project. **Table 11-37** provides an overview of the pedestrian LOS for the peak hours analyzed. Detailed pedestrian LOS are provided in **Tables 11-38 through 11-40**. The summary of the No Action condition indicates that:

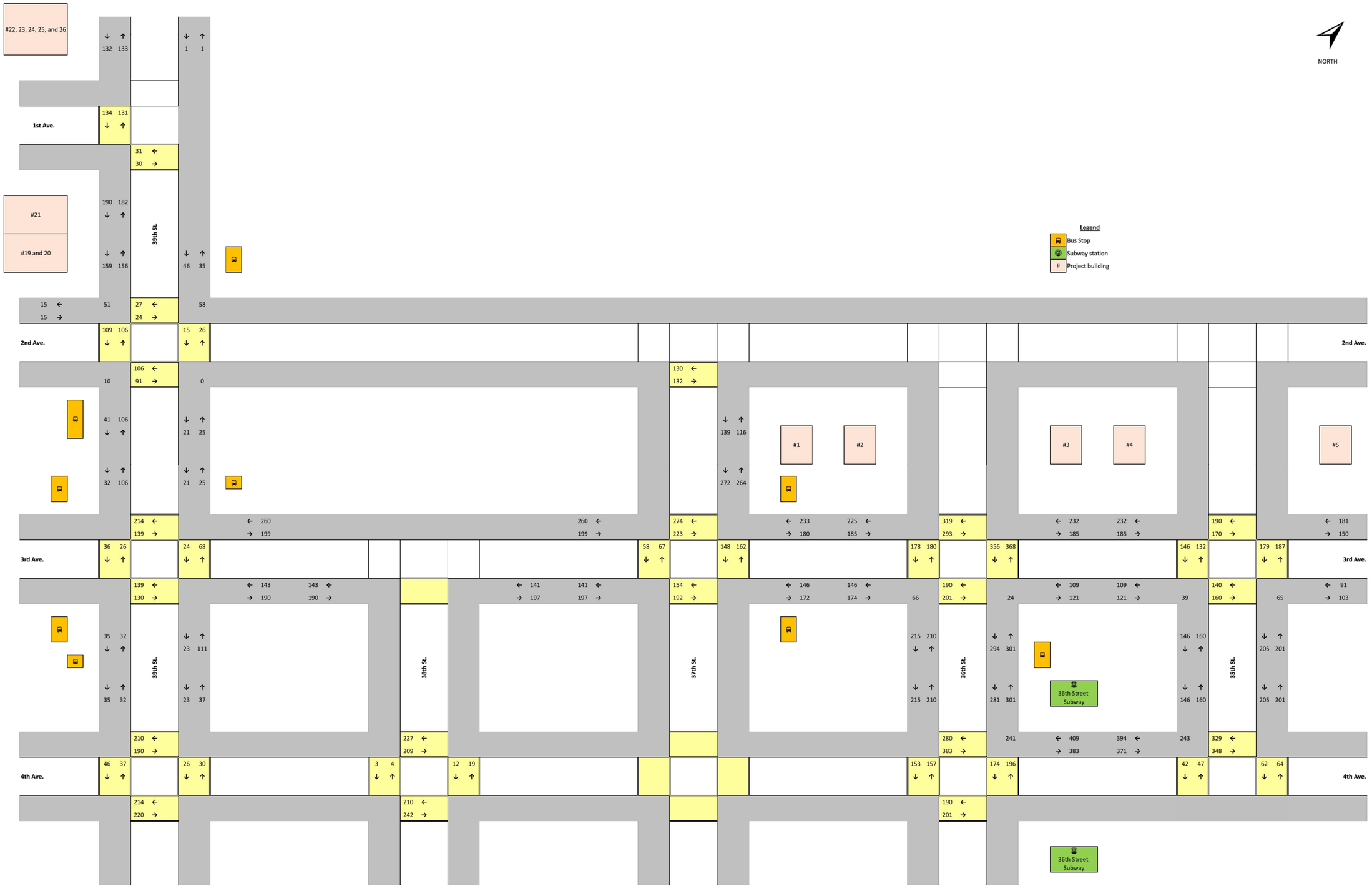
- During the weekday AM and Saturday peak hours, none of the 69 pedestrian elements analyzed would operate at unacceptable LOS (LOS D or worse).
- During the weekday midday and PM peak hours, one crosswalk element would operate at an unacceptable LOS—the north crosswalk at the intersection of 3rd Avenue and 36th Street—compared to none in the existing condition.



Industry City

2027 No Action Pedestrian Volumes
Weekday AM Peak Hour

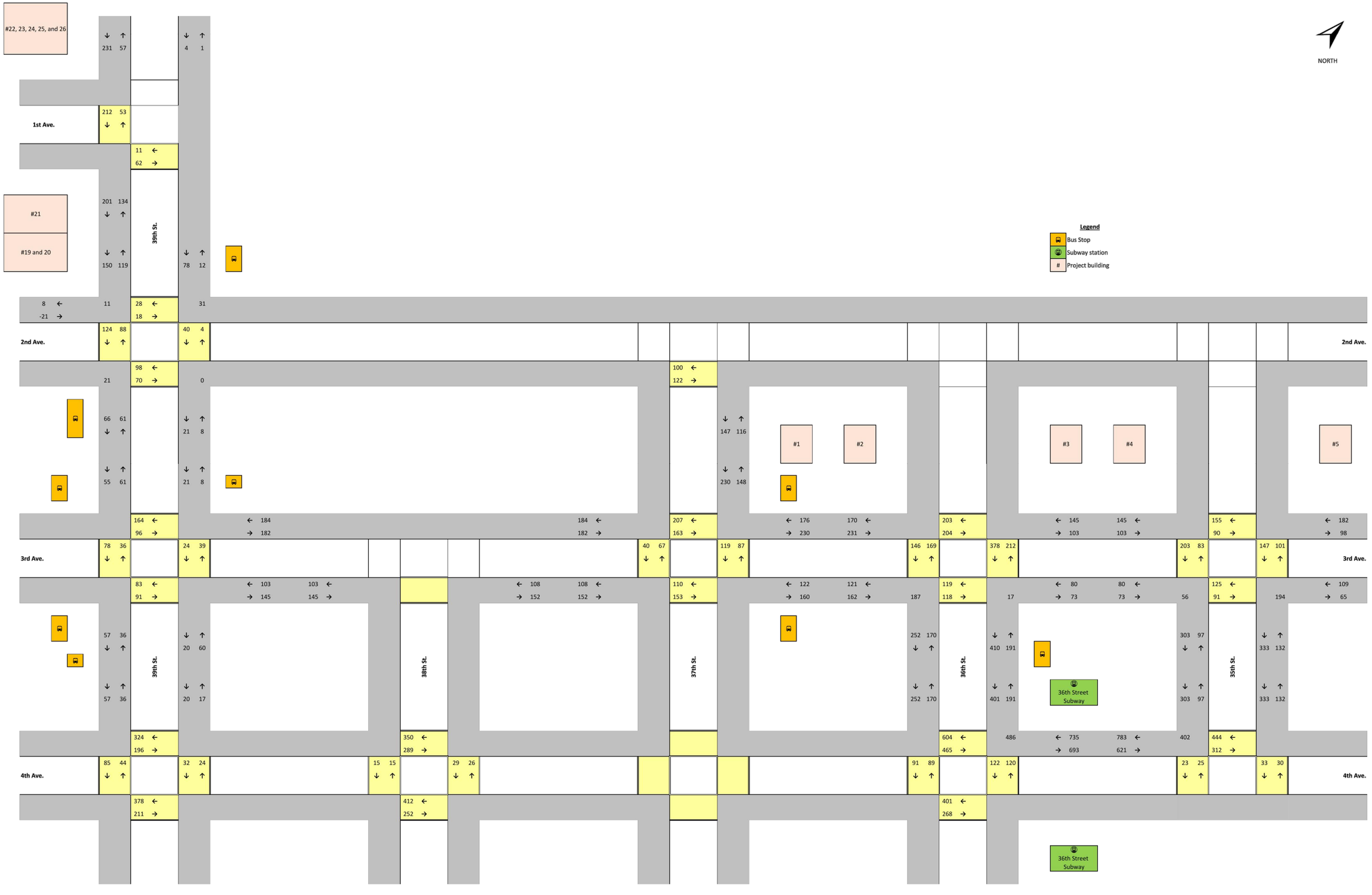
Figure 11-26



Industry City

2027 No Action Pedestrian Volumes
Weekday Midday Peak Hour

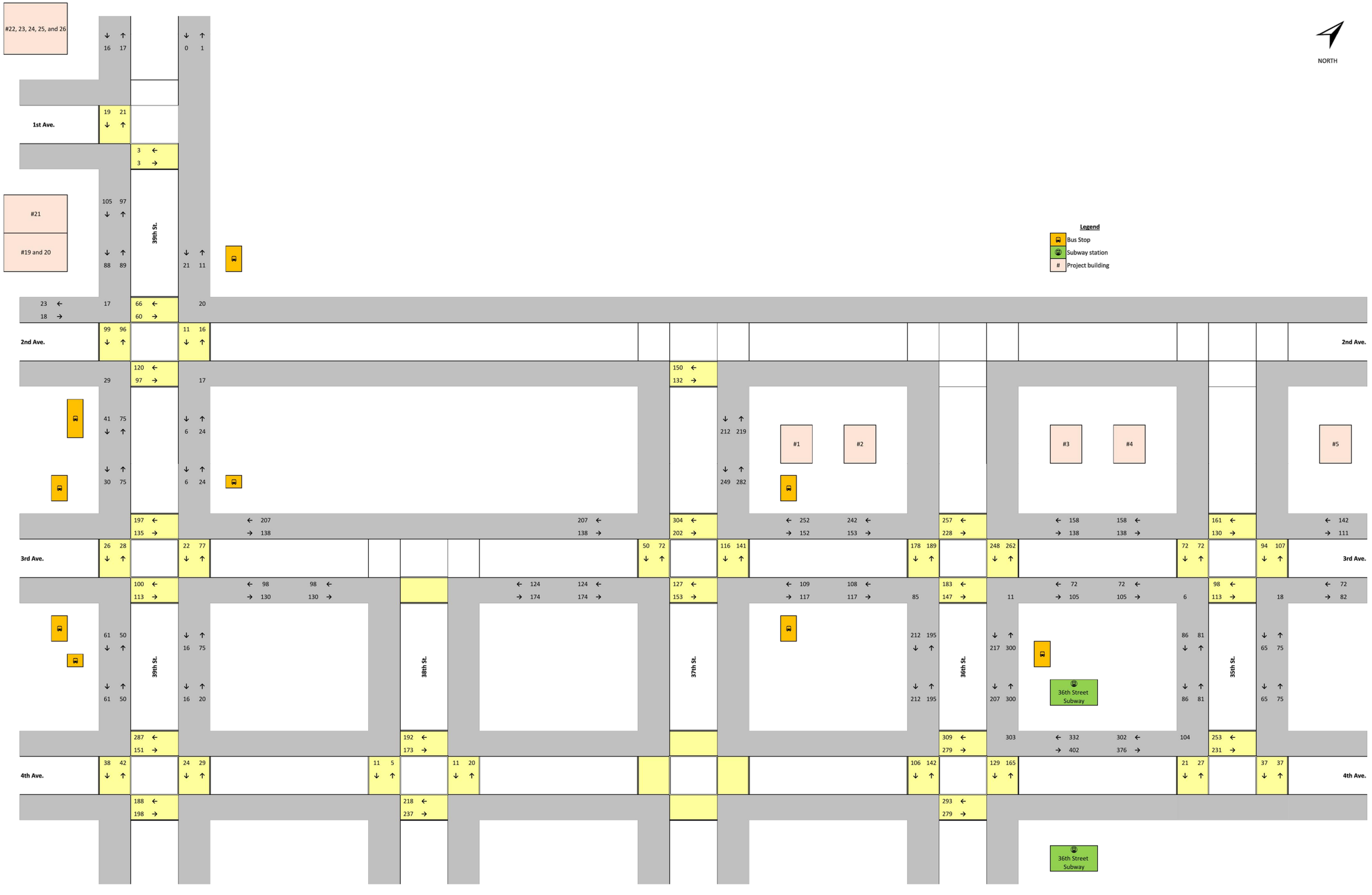
Figure
11-27



Industry City

2027 No Action Pedestrian Volumes
Weekday PM Peak Hour

Figure 11-28



Industry City

2027 No Action Pedestrian Volumes
Saturday Peak Hour

Figure 11-29

Table 11-37
2027 No Action Pedestrian LOS Summary

	Weekday			Saturday
	AM Peak Hour	Midday Peak Hour	PM Peak Hour	Peak Hour
Sidewalk Elements				
Sidewalks at Overall LOS A/B/C	24	24	24	24
Sidewalks at Overall LOS D	0	0	0	0
Sidewalks at Overall LOS E	0	0	0	0
Sidewalks at Overall LOS F	0	0	0	0
Crosswalk Elements				
Crosswalks at Overall LOS A/B/C	35	34	34	35
Crosswalks at Overall LOS D	0	1	1	0
Crosswalks at Overall LOS E	0	0	0	0
Crosswalks at Overall LOS F	0	0	0	0
Corner Elements				
Corners at Overall LOS A/B/C	10	10	10	10
Corners at Overall LOS D	0	0	0	0
Corners at Overall LOS E	0	0	0	0
Corners at Overall LOS F	0	0	0	0
Note: Includes 24 sidewalk, 35 crosswalk, and 10 corner analysis locations				

Table 11-38
2027 No Action Pedestrian LOS – Sidewalks

		Weekday AM Peak (8:00 AM–9:00 AM)			Weekday Midday Peak (12:30 PM–1:30 PM)			Weekday PM Peak (5:00 PM–6:00 PM)			Saturday Peak (1:45 PM–2:45 PM)		
Sidewalk	**Effective Width, ft**	**Volume, ped/hr**	**Avg Ped Space, SF/P**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, SF/P**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, SF/P**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, SF/P**	**LOS**
35th Street between 3rd Avenue and 4th Avenue (north side)	8.1	1,045	65.8	A	406	140.4	A	465	166.4	A	140	589.7	A
35th Street between 3rd Avenue and 4th Avenue (south side)	3.0	439	73.6	A	306	109.6	A	400	64.7	A	167	160.5	A
36th Street between 3rd Avenue and 4th Avenue (north side)	7.7	520	163.3	A	595	115.0	A	601	94.5	A	517	125.0	A
36th Street between 3rd Avenue and 4th Avenue (south side)	7.3	176	393.6	A	425	138.9	A	422	146.5	A	407	206.4	A
37th Street between 2nd Avenue and 3rd Avenue (north side)	4.3	148	254.2	A	536	70.8	A	378	99.2	A	531	95.2	A
39th Street between 3rd Avenue and 4th Avenue (north side)	5.9	68	602.9	A	134	367.1	A	80	624.3	A	91	679.9	A
39th Street between 3rd Avenue and 4th Avenue (south side)	2.6	89	259.9	A	67	437.7	A	93	294.3	A	111	255.3	A
39th Street between 2nd Avenue and 3rd Avenue (north side)	3.0	97	194.7	A	46	517.6	A	29	703.8	A	30	541.7	A
39th Street between 2nd Avenue and 3rd Avenue (south side)	7.0	134	440.9	A	147	491.9	A	127	361.0	A	116	494.2	A
39th Street between 1st Avenue and 2nd Avenue (north side)	4.2	95	397.2	A	81	362.3	A	90	285.3	A	32	753.4	A
39th Street between 1st Avenue and 2nd Avenue (south side)	4.1	309	134.5	A	372	88.1	A	335	84.0	A	202	63.1	A
39th Street between Waterfront and 1st Avenue (north side)	2.5	2	3,937.5	A	2	7,875.0	A	5	1,953.0	A	1	7,875.0	A
39th Street between Waterfront and 1st Avenue (south side)	8.9	404	216.8	A	265	258.5	A	288	226.1	A	33	851.1	A
2nd Avenue between 39th Street and 40th Street (west side)	7.7	19	4,114.6	A	30	2,412.9	A	8	5,911.6	A	41	1,035.7	A
3rd Avenue between 34th Street and 35th Street (east side)	6.5	166	328.9	A	194	306.6	A	174	407.5	A	154	344.0	A
3rd Avenue between 34th Street and 35th Street (west side)	2.1	156	140.8	A	331	71.7	A	280	65.6	A	253	83.4	A
3rd Avenue between 35th Street and 36th Street (east side)	7.5	152	516.0	A	230	324.5	A	153	463.2	A	177	411.0	A
3rd Avenue between 35th Street and 36th Street (west side)	8.5	136	612.0	A	417	245.6	A	248	365.7	A	296	302.7	A
3rd Avenue between 36th Street and 37th Street (east side)	4.4	283	180.8	A	320	132.2	A	283	157.4	A	226	165.5	A
3rd Avenue between 36th Street and 37th Street (west side)	1.2	258	50.6	B	413	27.1	C	406	26.8	C	404	33.6	C
3rd Avenue between 37th Street and 39th Street (west side)	6.4	244	286.1	A	459	132.6	A	366	170.8	A	345	188.3	A
3rd Avenue between 37th Street and 38th Street (east side)	7.0	234	339.1	A	338	187.7	A	260	250.9	A	298	210.0	A
3rd Avenue between 38th Street and 39th Street (east side)	7.3	232	346.4	A	333	202.8	A	248	298.2	A	228	332.4	A
4th Avenue between 35th Street and 36th Street (west side)	7.0	1,554	51.0	B	792	90.9	A	1,428	47.5	B	734	101.8	A

Note: Sidewalks were analyzed as non-platoon flow based on travel characteristics within the study area.

Table 11-39
2027 No Action Pedestrian LOS – Crosswalks

		Weekday AM Peak (8:00 AM–9:00 AM)			Weekday Midday Peak (12:30 PM–1:30 PM)			Weekday PM Peak (5:00 PM–6:00 PM)			Saturday Peak (1:45 PM–2:45 PM)		
Intersection	**Crosswalk**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**
2nd Avenue and 39th Street	North	100	107.0	A	41	151.1	A	44	160.4	A	27	229.5	A
	South	205	68.2	A	215	49.4	B	212	55.9	B	195	80.1	A
	East	95	125.8	A	197	80.4	A	168	80.8	A	217	68.0	A
	West	66	186.1	A	51	284.9	A	46	251.2	A	126	127.1	A
3rd Avenue and 35th Street	North	195	93.0	A	366	32.7	C	248	68.4	A	201	61.8	A
	South	187	93.5	A	278	48.1	B	286	48.9	B	144	100.1	A
	East	161	431.2	A	300	210.6	A	216	323.7	A	211	339.9	A
	West	138	444.4	A	360	149.2	A	245	217.3	A	291	200.4	A
3rd Avenue and 36th Street	North	399	28.1	C	724	17.2	D	590	16.2	D	510	27.5	C
	South	207	64.3	A	358	36.8	C	315	27.6	C	367	35.3	C
	East	224	227.1	A	391	142.1	A	237	207.8	A	330	158.1	A
	West	270	154.2	A	612	79.7	A	407	89.2	A	485	99.3	A
3rd Avenue and 37th Street	North	121	138.3	A	310	59.6	B	206	74.8	A	257	82.0	A
	South	79	177.9	A	125	141.3	A	107	180.8	A	122	128.5	A
	East	238	190.3	A	346	104.8	A	263	162.1	A	280	163.0	A
	West	219	300.1	A	497	154.6	A	370	182.6	A	506	147.3	A
3rd Avenue and 39th Street	North	79	214.3	A	92	116.4	A	63	208.6	A	99	181.6	A
	South	114	192.4	A	62	303.3	A	114	145.0	A	54	338.7	A
	East	147	331.8	A	269	142.8	A	174	263.1	A	213	217.1	A
	West	145	413.6	A	353	168.4	A	260	188.7	A	332	218.4	A
4th Avenue and 35th Street	North	124	88.6	A	126	179.6	A	63	178.2	A	74	254.8	A
	South	79	117.4	A	89	196.8	A	48	222.4	A	48	337.5	A
	West	1,049	45.4	B	677	51.3	B	756	72.5	A	484	88.2	A
4th Avenue and 36th Street	North	176	91.4	A	370	49.1	B	242	61.4	A	294	70.4	A
	South	145	76.6	A	310	65.3	A	180	74.2	A	248	47.2	B
	East	632	82.2	A	391	123.1	A	669	75.7	A	572	85.9	A
	West	1,042	38.7	C	663	50.0	B	1,069	36.4	C	588	67.0	A
4th Avenue and 38th Street	North	82	80.7	A	31	459.7	A	55	141.6	A	31	482.7	A
	South	29	316.0	A	7	2074.9	A	30	289.3	A	16	898.7	A
	East	811	34.8	C	452	116.5	A	664	59.0	B	455	107.1	A
	West	813	67.9	A	436	113.1	A	639	78.5	A	365	144.6	A
4th Avenue and 39th Street	North	102	89.6	A	56	154.2	A	56	169.5	A	53	224.6	A
	South	107	68.6	A	83	141.1	A	129	81.6	A	80	140.9	A
	East	731	30.3	C	434	71.2	A	589	56.1	B	386	107.0	A
	West	464	93.3	A	400	88.5	A	520	79.0	A	438	55.0	B

Table 11-40
2027 No Action Pedestrian LOS – Corners

		Weekday AM Peak (8:00 AM–9:00 AM)			Weekday Midday Peak (12:30 PM–1:30 PM)			Weekday PM Peak (5:00 PM–6:00 PM)			Saturday Peak (1:45 PM–2:45 PM)		
Intersection	**Corner**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**
2nd Avenue and 39th Street	NE	2	581.0	A	0	540.7	A	0	558.2	A	17	480.1	A
	NW	35	633.2	A	58	775.1	A	31	853.4	A	20	704.7	A
	SE	9	273.7	A	10	189.5	A	21	202.3	A	29	214.0	A
	SW	29	356.9	A	51	287.4	A	11	350.5	A	17	358.3	A
3rd Avenue and 35th Street	NE	71	251.4	A	65	112.7	A	194	159.0	A	18	208.5	A
	SE	67	221.6	A	39	129.9	A	56	153.7	A	6	240.5	A
3rd Avenue and 36th Street	NE	23	244.7	A	24	148.4	A	17	168.6	A	11	206.2	A
	SE	131	177.9	A	66	131.6	A	187	105.2	A	85	133.3	A
4th Avenue and 35th Street	SW	493	73.0	A	243	105.3	A	402	103.9	A	104	180.1	A
4th Avenue and 36th Street	NW	617	72.2	A	241	81.2	A	486	58.7	B	303	98.8	A

E. THE FUTURE WITH THE PROPOSED ACTIONS

The Proposed Project would allow for additional development of Industry City innovation economy, destination retail, local retail, food store, hotel, academic, and event spaces. The amount of warehouse space would be decreased as part of the Proposed Project and would be replaced by these uses. As part of the Proposed Project, parking garages will be developed on the Building 11 and Building 21 sites. The Proposed Project Build year would be 2027.

ROADWAY IMPROVEMENTS

As part of the proposed project, the following project improvements have been identified for the intersection of 1st Avenue and 39th Street to facilitate pedestrian and vehicular traffic to the parking garage on Building 21: (1) install a new traffic signal with three phases; (2) install "No Standing Anytime" regulations along the west side of the southbound receiving side to provide an additional travel lane; (3) install "No Standing Anytime" regulations along the north side of westbound approach for 250 feet from the intersection (a loss of four parking spaces) to allow for an additional travel lane; (4) install "No Standing Anytime" regulations along the south side of the eastbound receiving side for 50 feet from the intersection (a loss of two parking spaces) to accommodate truck turns; (5) restripe the eastbound approach from one 12-foot wide travel lane, one 9-foot wide parking lane, and one 12 foot wide westbound receiving side travel lane with a 9-foot wide parking lane (no parking is allowed along the north side of the westbound receiving side) to one 11-foot wide travel lane and one 9-foot wide parking lane, and one 14-foot wide westbound receiving side travel lane with an 8-foot wide hatched median transitioning back to the centerline after 150 feet; (6) shift the northbound approach centerline five feet to the west and restripe the approach from one 30 feet wide travel lane with parking to one 10-foot wide left turn lane and one 25-foot wide right turn lane with parking; (7) restripe the southbound receiving side from one 26-foot wide travel lane to one 11-foot wide travel lane and one 10-foot wide travel lane; (8) convert the west crosswalk from a school crosswalk to a high-visibility crosswalk and widen it from 10 feet to 13 feet; and (8) widen the east crosswalk from 10 feet to 13 feet.

TRAFFIC STREET NETWORK

The Proposed Project would generate a total of 988 vph (579 "ins" and 409 "outs") during the weekday AM peak hour, 2,089 vph (1,115 "ins" and 974 "outs") in the weekday midday peak hour, 2,408 vph (1,080 "ins" and 1,328 "outs") in weekday PM peak hour, and 2,408 vph (1,278 "ins" and 1,130 "outs") in the Saturday peak hour. The distribution of these vehicle trips and the resulting traffic volume increases and impacts on LOS for the 2027 With Action conditions are presented below.

TRIP DISTRIBUTION AND ASSIGNMENT

Autos

Industry City Innovation Economy/Warehouse/Academic

Industry City innovation economy, warehouse, and academic space were based on origin-destination surveys conducted of the Industry City innovation economy tenants. Based on the survey results, it is anticipated that most of the trips made by auto would originate from within Brooklyn (65 percent). Of the remaining trips, approximately 10 percent were assigned from Queens, 5 percent from Manhattan, 5 percent from the Bronx, and 5 percent from Staten Island. Approximately 10 percent of these trips are expected to originate from New Jersey and Long Island.

Trips from Brooklyn are largely expected to arrive via major roadways in the area such as the Gowanus Expressway (13 percent from the north and 15 percent from the south), the Prospect Expressway (5 percent), and 3rd and 4th Avenues (12 percent from the north and 15 percent from the south). The remaining Brooklyn trips (5 percent) are expected to arrive from the east via 39th Street and other streets such as 36th Street. Trips outside of Brooklyn are expected to arrive via the Gowanus Expressway (19 percent from the north and 14 percent from the south), a modest number of trips (2 percent) was assumed to arrive via 4th Avenue from the north. Departing trips were assigned along the same routes as arrivals except for the Gowanus Expressway trips; since there are no on-ramps within the vicinity of the Project Area, these trips would depart via 3rd Avenue and 4th Avenue.

Destination Retail/Event Space

The destination retail and event space uses would mostly serve visitors from within Brooklyn; project-generated vehicle assignments were based on population densities from the American Community Survey 2011–2015 within a 3-mile radius catchment area and accounted for geographical locations of the different census tracts. The majority of the trips would approach the Project Area using major roadways such as the Gowanus Expressway (5 percent from the north, 15 percent from the south), 3rd Avenue (10 percent from the north and 5 percent from the south), 4th Avenue (5 percent from the north and 5 percent from the south), Prospect Expressway (5 percent), and 39th Street (10 percent). The remaining trips would utilize other streets and approach the Project Area via north-south streets such as 2nd, 3rd, and 4th Avenues. Departing trips were assigned along the same routes as arrivals except for the Gowanus Expressway trips; as previously mentioned, since there are no on-ramps within the vicinity of the Project Area, these trips would depart via 3rd Avenue and 4th Avenue.

Local Retail/Food Store

The local retail and food store spaces are expected to serve the immediately surrounding areas. Therefore, auto trips were generally assigned from local origins within a one-mile radius of the Project Area based on population densities, and the proposed employment spaces. Auto trips would access the Project Area along roadways such as 2nd Avenue, 3rd Avenue, 4th Avenue, and 39th Street. A modest number of trips were assigned via the other streets such as 36th Street. Departing trips were assigned along the same routes as arrivals.

Hotel

Hotel trips by auto would be expected to arrive from one of the local airports: JFK Airport (40 percent) and LaGuardia Airport (20 percent), and from tourist attraction areas in Manhattan (20 percent) and Brooklyn (20 percent). The majority of the trips were assumed to arrive via the Gowanus Expressway (45 percent from the north and 45 percent from the south) with the remainder traveling along other roadways such 3rd Avenue, 4th Avenue, and the Prospect Expressway.

Taxis

The majority of taxi pick-ups and drop-offs for all development components were assigned to pick up and drop off along the building frontages.

Deliveries

Truck delivery trips for all land uses were assigned to the DOT designated truck routes. Trucks were assigned to the study area from regional origins via the Gowanus Expressway, 3rd and 4th Avenues, and 39th Street. Trucks were assigned along regional and local truck routes to the extent possible until reaching the immediate Project Area.

TRAFFIC VOLUME INCREMENTS

Project-generated auto trips were assigned to the garages being proposed at Buildings 11 and 21. Delivery trips for Buildings 1 through 11 would undertake loading/unloading activities curbside along the east-west streets fronting the buildings, while loading/unloading for Buildings 19 through 26 would occur at the respective loading docks associated with each site. The future 2027 Proposed Project vehicle trip increments for the weekday AM, midday, and PM, and Saturday peak hours are shown in **Figures 11-2 through 11-5**.

Compared to the No Action condition, northbound 1st Avenue would be expected to carry an additional 60 vph to 125 vph during the weekday AM peak hour and an additional 125 vph to 365 vph during the weekday midday, PM, and Saturday peak hours. Southbound 1st Avenue would be expected to carry an additional 55 vph to 185 vph during the weekday AM peak hour and an additional 135 vph to 465 vph during the weekday midday, PM, and Saturday peak hours. The majority of the traffic along this corridor would be destined to the Building 21 parking garage between 39th Street and 41st Street.

Traffic volumes along 2nd Avenue south of 39th Street would be expected to increase by approximately 10 vph to 50 vph in in the northbound direction during the peak hours analyzed. In the southbound direction, traffic volumes would be expected to increase by approximately 10 vph to 25 vph during the peak hours analyzed. North of 39th Street, northbound traffic volumes would be expected to increase by approximately 55 vph to 105 vph during the weekday AM peak hour and by approximately 35 vph to 70 vph during the weekday midday, PM, and Saturday peak hours. In the southbound direction, traffic volumes north of 39th Street would be expected to increase by approximately 5 vph to 25 vph during the weekday AM peak hour and by approximately 10 vph to 95 vph during the weekday midday, PM, and Saturday peak hours.

3rd Avenue traffic volumes south of 39th Street would be expected to increase by approximately 30 vph to 65 vph in the northbound direction during the weekday AM peak hour and by approximately 60 vph to 165 vph during the weekday midday, PM, and Saturday peak hours. In the southbound direction, traffic volumes would be expected to increase by approximately 50 vph to 95 vph in the weekday AM peak hour and by approximately 115 vph to 325 vph during the weekday midday, PM, and Saturday peak hours. North of 39th Street, 3rd Avenue traffic volumes would increase by approximately 100 vph to 175 vph in the northbound direction during the weekday AM peak hour and by approximately 200 vph to 375 vph during the weekday midday, PM, and Saturday peak hours. In the southbound direction, traffic volumes would be expected to increase by approximately 75 vph to 110 vph during the weekday AM peak hour and by approximately 145 vph to 350 vph during the weekday midday, PM, and Saturday peak hours.

Traffic volumes along 4th Avenue would be expected to increase by approximately 25 vph to 110 vph in the northbound direction. In the southbound direction, traffic volumes are expected to increase by approximately 15 vph to 120 vph during the weekday AM peak hour and by approximately 40 vph to 270 vph during the weekday midday, PM, and Saturday peak hours. The majority of the traffic in the southbound direction would be concentrated between the northbound Gowanus Expressway off-ramp at 38th Street and 39th Street.

Traffic volumes along 39th Street between 2nd Avenue and 4th Avenue are expected to increase by approximately 60 vph to 170 vph in each direction during the weekday AM peak hour and by approximately 125 vph to 400 vph during the weekday midday, PM, and Saturday peak hours. West of 2nd Avenue, traffic volumes are expected to increase by approximately 135 vph to 205

vph in each direction during the weekday AM peak hour and by approximately 310 vph to 500 vph during the weekday midday, PM, and Saturday peak hours.

Traffic volumes along 32nd Street are expected to increase by approximately 30 vph to 115 vph during the weekday AM peak hour, 30 vph to 215 vph during the weekday midday peak hour, 30 vph to 300 vph during the weekday PM peak hour, and 35 vph to 260 vph during the Saturday peak hour. Traffic volumes along the Finger Buildings (on the privately owned streets: 33rd Street, 34th Street, 35th Street, and 36th Street) are expected to increase by up to 15 vph during the weekday AM peak hour, up to 75 vph during the weekday midday and Saturday peak hours, and up to 120 vph during the weekday PM peak hour.

The With Action traffic volumes for the weekday AM, midday, PM, and Saturday peak hours are shown in **Figures 11-30 through 11-33**.

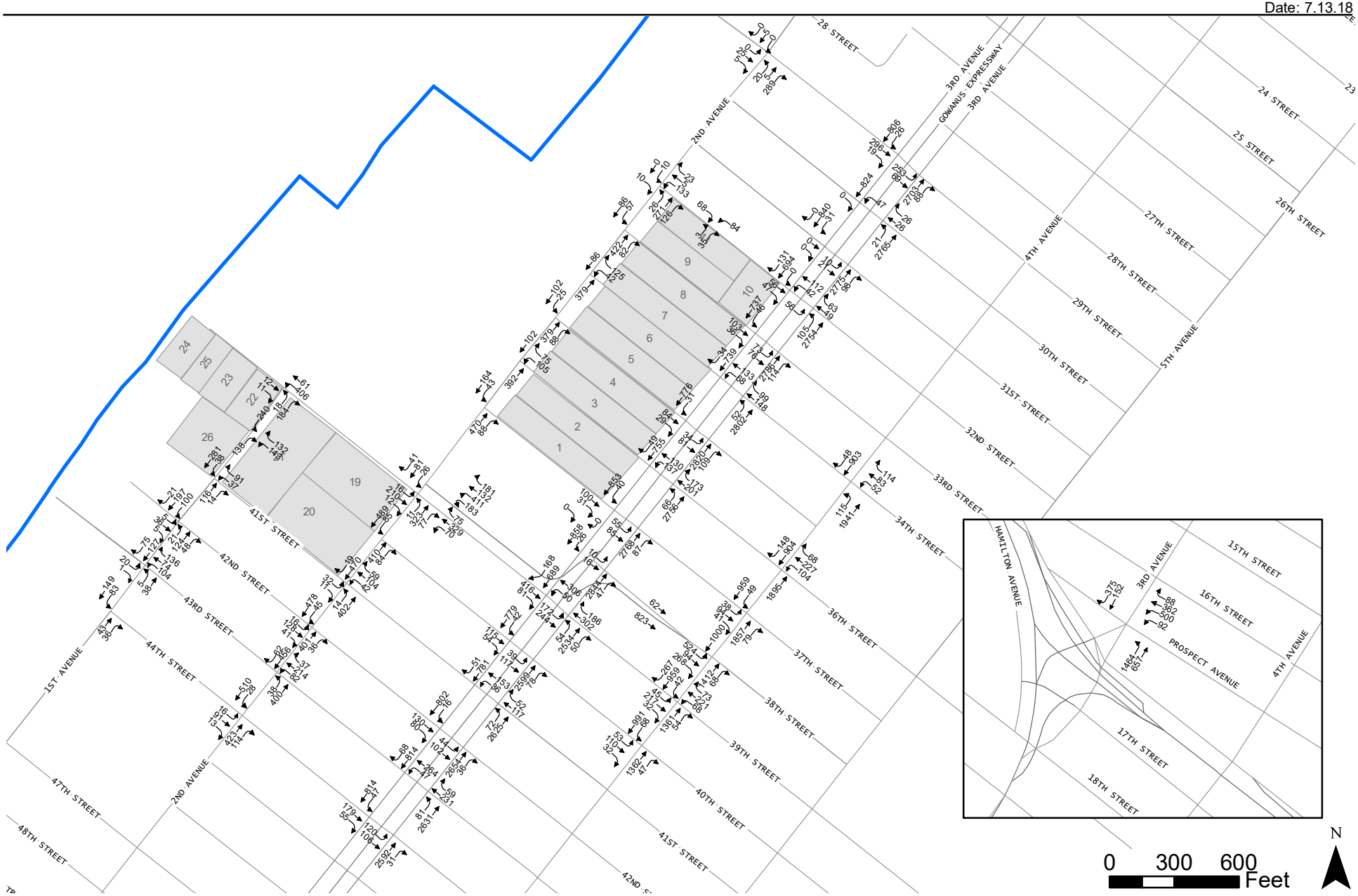
LEVEL OF SERVICE

Based on the traffic increments described above, the 2027 With Action traffic LOS were determined for the 41 analysis locations. **Tables 11-41a and 11-41b** provide an overview of the LOS that characterize the 2027 With Action "overall" intersection conditions and individual traffic movements during the weekday AM, midday, PM, and Saturday peak hours, respectively. Detailed traffic LOS are provided in **Table 11-42**.

Table 11-41a
2027 No Action vs. 2027 With Action Traffic LOS – Overall Intersections

	2027 No Action				2027 With Action			
	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Peak Hour	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Peak Hour
Intersections at Overall LOS A/B/C	32	38	39	39	30	34	30	35
Intersections at Overall LOS D	8	2	0	1	8	3	7	1
Intersections at Overall LOS E	0	0	1	1	1	2	1	2
Intersections at Overall LOS F	1	1	1	0	2	2	3	3
Number of significantly impacted intersections	-	-	-	-	15	15	22	14

Note: Includes the 41 analyzed intersections (25 signalized and 16 unsignalized). The intersection of 1st Avenue and 39th Street would be signalized in the With Action condition as part of project improvements.



Industry City

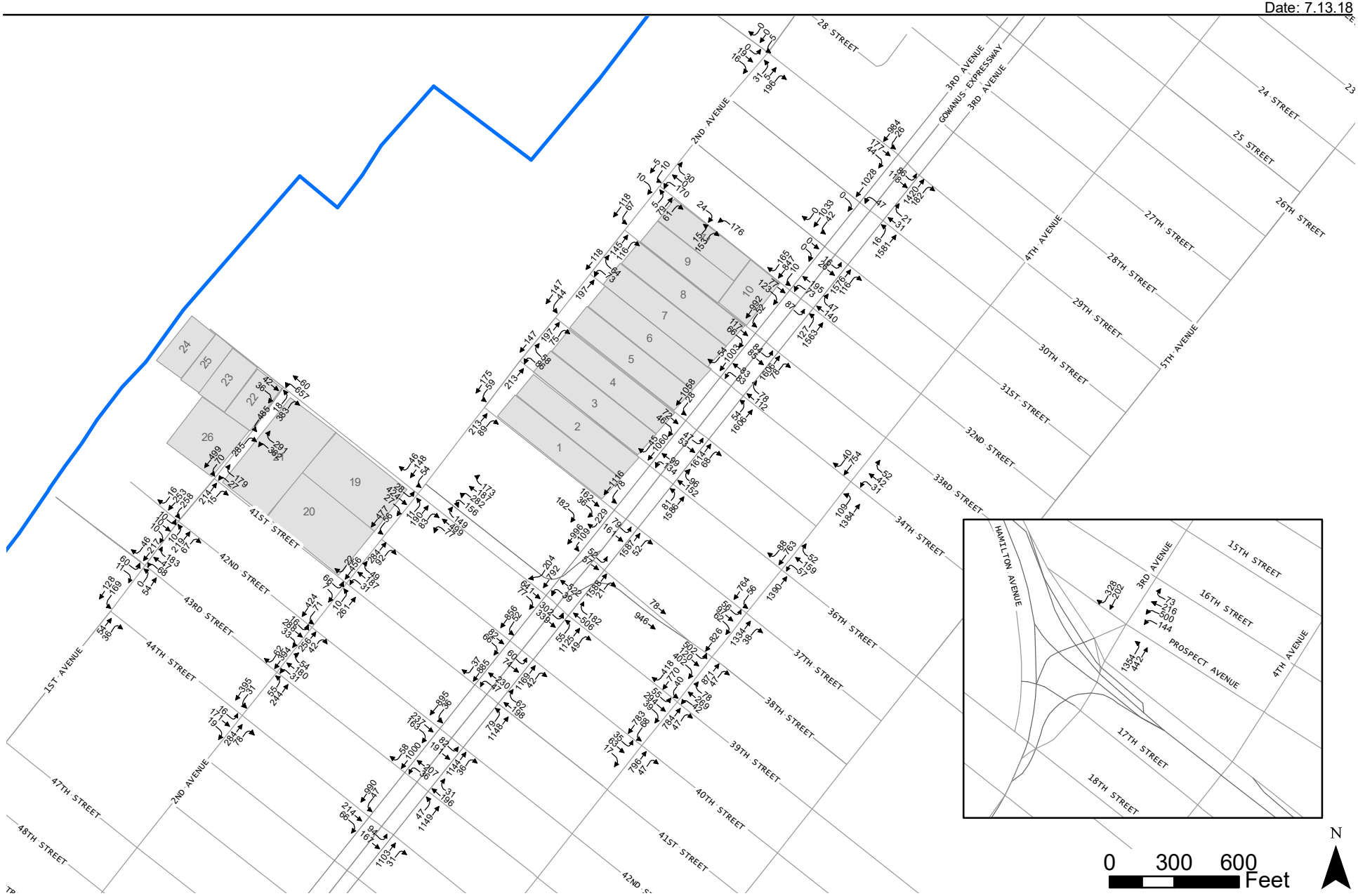
2027 With Action Traffic Volumes
Weekday AM Peak Hour

Figure 11-30

Project Site Buildings

Sources: 1. New York (City). Dept. of City Planning 2014. LION (Edition 14A). New York City: NYC Department of City Planning.

Date: 7.13.18



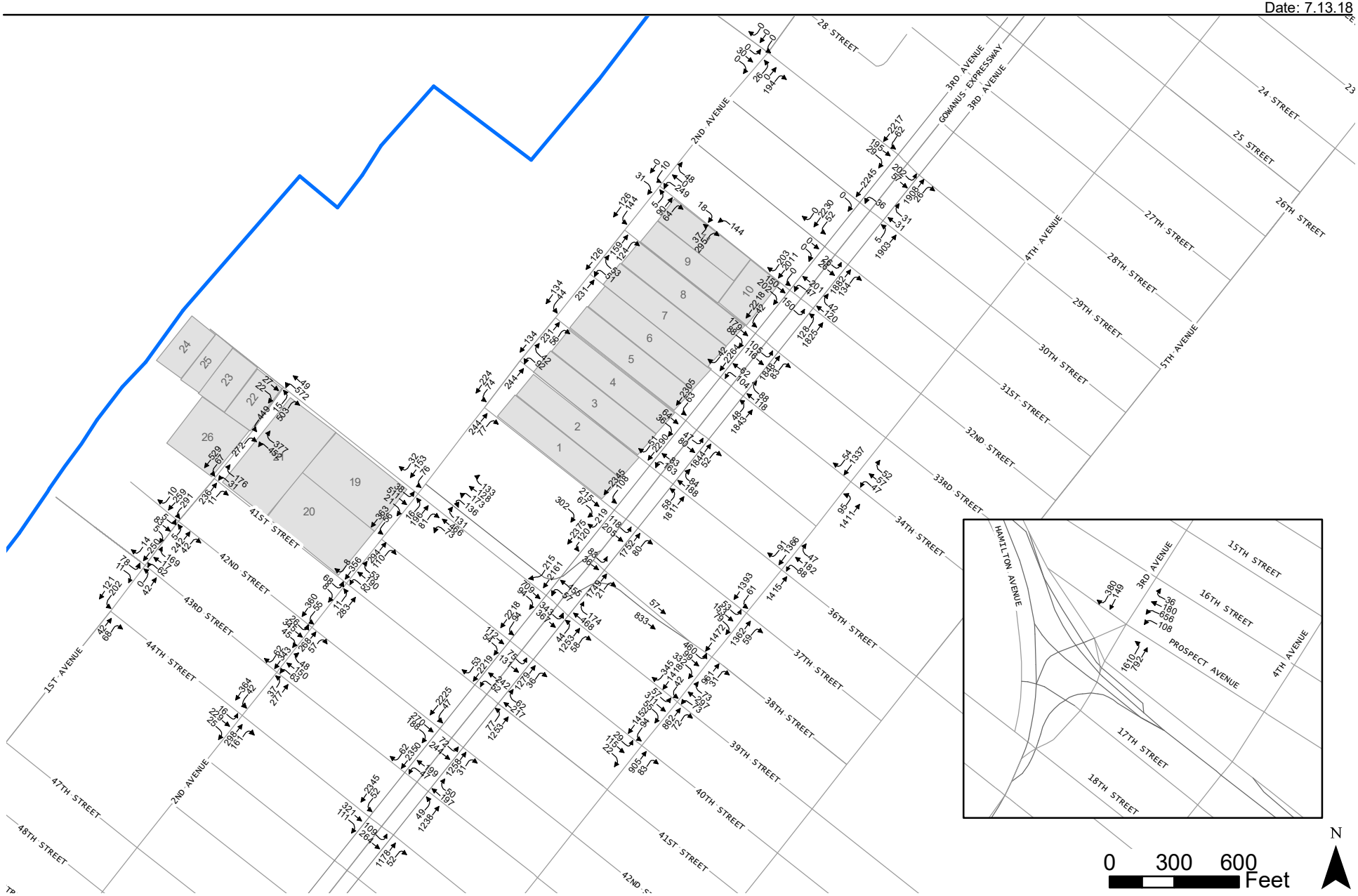
Industry City

2027 With Action Traffic Volumes
Weekday Midday Peak Hour

Figure 11-31

Project Site Buildings

Sources: 1. New York (City). Dept. of City Planning 2014. LION (Edition 14A). New York City: NYC Department of City Planning.



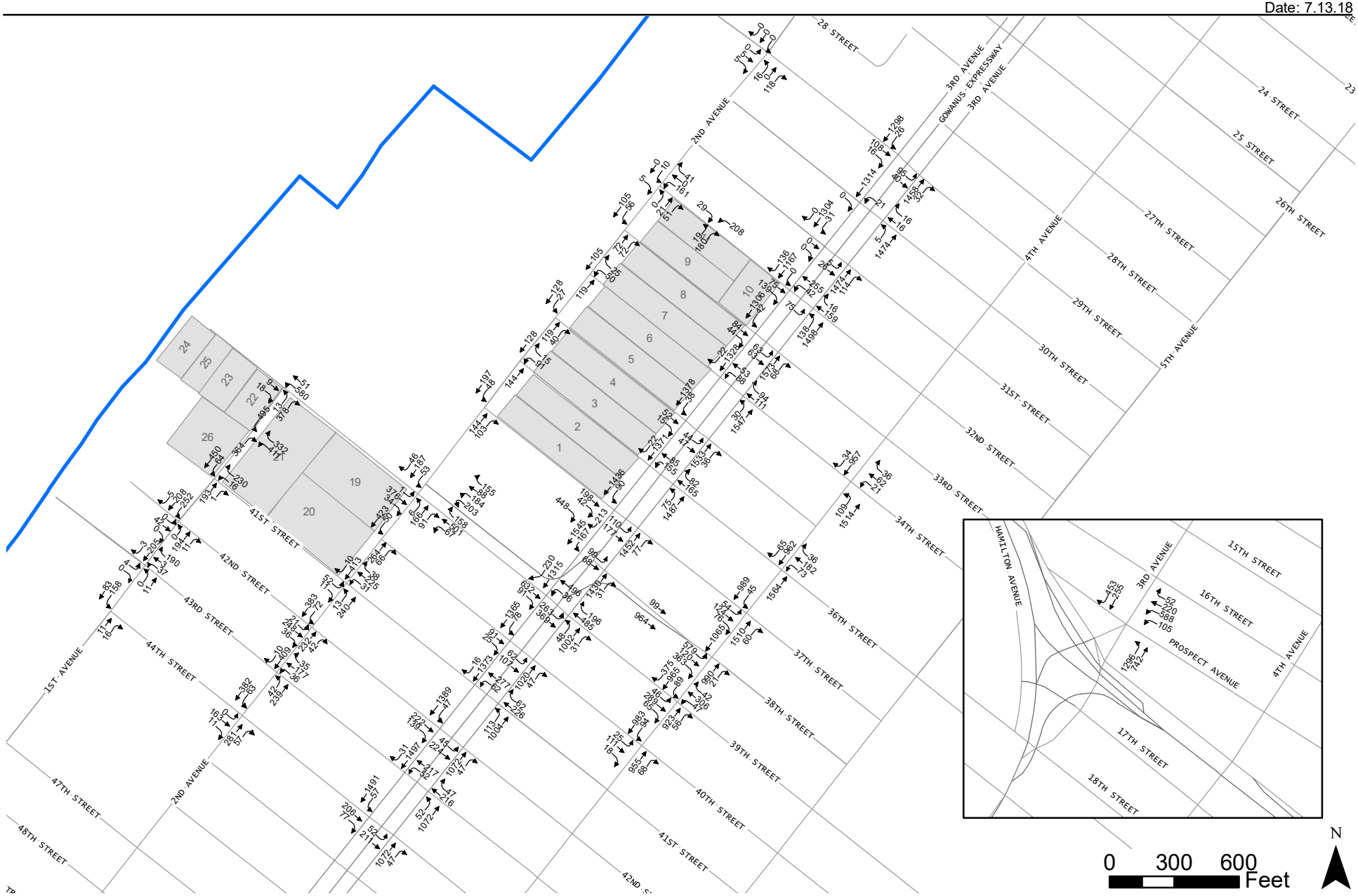
Industry City

2027 With Action Traffic Volumes
Weekday PM Peak Hour

Figure 11-32

Project Site Buildings

Sources: 1. New York (City). Dept. of City Planning 2014. LION (Edition 14A). New York City: NYC Department of City Planning.



Industry City

2027 With Action Traffic Volumes
Saturday Peak Hour

Figure
11-33

Project Site Buildings

Sources: 1. New York (City). Dept. of City Planning 2014. LION (Edition 14A). New York City: NYC Department of City Planning.

Table 11-41b
2027 No Action vs. 2027 With Action Traffic LOS – Traffic Movements

	2027 No Action				2027 With Action			
	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Weekday Saturday Peak Hour	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Weekday Saturday Peak Hour
Traffic Movements at LOS A/B/C and Acceptable LOS D	110	123	117	124	98	109	97	111
Traffic Movements at Unacceptable LOS D	12	8	12	10	19	10	14	5
Traffic Movements at LOS E	10	4	5	3	13	8	9	9
Traffic Movements at LOS F	7	4	5	2	11	14	21	16
Number of significantly impacted movements	-	-	-	-	26	25	36	23
Number of individual traffic movements	141	141	141	141	141	141	141	141

Note: * Number of movements may vary between peak hours due to turn prohibitions, parking regulations, and the presence of de facto left turn movements.

TABLE 11-42
INDUSTRY CITY EIS
NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON - WEEKDAY AM PEAK HOUR

INTERSECTION & APPROACH		2027 No Action Mvt.	V/C	Control Delay	LOS	2027 With Action Mvt.	V/C	Control Delay	LOS
SIGNALIZED INTERSECTIONS									
Second Avenue and 39th Street									
39th Street	EB	LTR	0.61	43.0	D	LTR	1.18	148.2	F
	WB 1	LTR	1.44	241.7	F	LTR	2.42	677.7	F
39th Street (ramp)	WB 2	LT	1.57	295.7	F	LT	1.64	328.1	F
		R	0.37	27.3	C	R	0.80	50.3	D
Second Avenue	NB	LTR	0.83	39.3	D	LTR	0.95	53.9	D
	SB	LTR	0.38	27.4	C	LTR	0.48	30.0	C
	Overall Intersection	**-**	**1.27**	**151.4**	**F**	**-**	**1.60**	**263.1**	**F**
Second Avenue and 42nd Street									
42nd Street	EB	LTR	0.32	23.7	C	LTR	0.53	28.2	C
Second Avenue	NB	TR	0.64	17.2	B	TR	0.65	17.4	B
	SB	LT	0.81	21.2	C	LT	0.85	23.2	C
	Overall Intersection	**-**	**0.62**	**19.8**	**B**	**-**	**0.72**	**21.8**	**C**
Second Avenue and 43rd Street									
43rd Street	WB	LTR	0.65	29.8	C	LTR	0.77	34.3	C
Second Avenue	NB	LT	0.66	18.8	B	LT	0.71	20.6	C
	SB	TR	0.79	22.4	C	TR	0.80	23.1	C
	Overall Intersection	**-**	**0.74**	**22.9**	**C**	**-**	**0.79**	**25.1**	**C**
Third Avenue and Prospect Avenue									
Prospect Avenue	WB	L	0.92	72.1	E	L	0.95	77.4	E
		T	1.06	118.0	F	T	1.07	120.6	F
		R	0.40	50.3	D	R	0.40	50.3	D
Third Avenue	NB	L	0.80	33.4	C	L	0.85	35.5	D
		T	0.60	4.1	A	T	0.61	4.2	A
	SB	T	0.23	43.0	D	T	0.26	43.5	D
		R	0.83	65.2	E	R	0.83	65.2	E
	Overall Intersection	**-**	**0.88**	**45.9**	**D**	**-**	**0.90**	**47.6**	**D**
Third Avenue and 29th Street									
29th Street	EB	LTR	0.74	52.6	D	LTR	0.85	63.3	E
Third Avenue	NB	TR	0.97	11.1	B	TR	1.01	20.0	B
	SB	LT	0.29	11.3	B	LT	0.32	11.6	B
		-	**-**	**15.2**	**B**	**-**	**-**	**22.3**	**C**
Third Avenue and 30th Street									
30th Street	EB	R	0.00	0.0	A	R	0.00	0.0	A
	WB	LTR	0.15	36.8	D	LTR	0.15	36.9	D
Third Avenue	NB	LT	0.95	16.0	B	LT	0.99	22.8	C
	SB	TR	0.28	4.1	A	TR	0.31	4.1	A
	Overall Intersection	**-**	**-**	**13.8**	**B**	**-**	**-**	**18.8**	**B**
Third Avenue and 32nd Street									
32nd Street	EB	LR	0.17	36.4	D	LR	0.34	39.6	D
	WB	LTR	0.27	37.7	D	LTR	0.29	38.1	D
Third Avenue	NB	LT	0.99	50.1	D	LT	1.05	51.8	D
	SB	LTR	0.30	8.1	A	LTR	0.33	8.1	A
	Overall Intersection	**-**	**-**	**40.6**	**D**	**-**	**-**	**41.6**	**D**
Third Avenue and 33rd Street									
33rd Street	EB	LTR	0.24	37.0	D	LTR	0.35	39.1	D
Third Avenue	NB	TR	1.01	28.7	C	TR	1.07	54.3	D
	SB	LT	0.28	5.9	A	LT	0.31	7.2	A
	Overall Intersection	**-**	**-**	**24.4**	**C**	**-**	**-**	**43.9**	**D**
Third Avenue and 34th Street									
34th Street	WB	LTR	0.54	44.9	D	LTR	0.66	49.4	D
Third Avenue	NB	LT	0.93	48.0	D	LT	0.99	47.1	D
	SB	TR	0.25	4.7	A	TR	0.28	4.9	A
	Overall Intersection	**-**	**-**	**39.3**	**D**	**-**	**-**	**38.5**	**D**

(1) Control delay is measured in seconds per vehicle.
(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.
(3) Movement delay and overall delay cannot be calculated; exceeds the HCS software threshold.
Denotes a significantly impacted movement.

TABLE 11-42
INDUSTRY CITY EIS
NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON - WEEKDAY AM PEAK HOUR

		2027 No Action				2027 With Action			
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS
Third Avenue and 35th Street									
35th Street	EB	LTR	0.33	39.0	D	LTR	0.32	39.0	D
Third Avenue	NB	TR	1.02	28.2	C	TR	1.10	56.9	E
	SB	LT	0.27	6.0	A	LT	0.31	5.3	A
	Overall Intersection	-	-	**24.2**	**C**	-	-	**45.5**	**D**
Third Avenue and 36th Street									
36th Street	WB	LT	0.49	42.9	D	LT	0.53	44.0	D
		R	0.71	56.9	E	R	0.75	60.0	E
Third Avenue	NB	LT	0.92	49.1	D	LT	1.01	47.1	D
	SB	TR	0.30	5.2	A	TR	0.35	5.0	A
	Overall Intersection	-	-	**40.2**	**D**	-	-	**38.4**	**D**
Third Avenue and 37th Street									
37th Street	EB	LTR	0.17	34.5	C	LTR	0.18	34.6	C
Third Avenue	NB	TR	0.99	19.7	B	TR	1.02	30.6	C
	SB	LT	0.31	7.4	A	LT	0.34	7.0	A
	Overall Intersection	-	-	**17.6**	**B**	-	-	**25.3**	**C**
Third Avenue and 39th Street									
	EB	LTR	1.05	122.9	F	LTR	1.45	269.4	F
	WB	LTR	0.94	90.2	F	LTR	1.33	205.5	F
Third Avenue	NB	LTR	0.87	48.8	D	LTR	0.88	48.9	D
	SB	TR	0.27	5.7	A	TR	0.32	5.9	A
	Overall Intersection	-	-	**51.5**	**D**	-	-	**86.1**	**F**
Third Avenue and 40th Street									
40th Street	EB	LTR	0.42	41.7	D	LTR	0.48	43.2	D
Third Avenue	NB	TR	0.91	5.4	A	TR	0.92	6.3	A
	SB	LT	0.30	6.4	A	LT	0.32	6.2	A
	Overall Intersection	-	-	**7.4**	**A**	-	-	**8.3**	**A**
Third Avenue and 41st Street									
41st Street	WB	LTR	0.42	42.4	D	LTR	0.55	46.2	D
Third Avenue	NB	LT	0.92	49.9	D	LT	0.94	50.3	D
	SB	TR	0.30	4.2	A	TR	0.33	4.5	A
	Overall Intersection	-	-	**39.5**	**D**	-	-	**39.6**	**D**
Third Avenue and 42nd Street									
42nd Street	EB	LTR	0.33	39.6	D	LTR	0.55	45.5	D
Third Avenue	NB	TR	0.94	8.7	A	TR	0.96	10.7	B
	SB	LT	0.30	5.1	A	LT	0.32	4.9	A
	Overall Intersection	-	-	**9.2**	**A**	-	-	**11.6**	**B**
Third Avenue and 43rd Street									
43rd Street	WB	LTR	0.35	38.8	D	LTR	0.41	39.8	D
Third Avenue	NB	LT	0.89	52.0	D	LT	0.91	52.3	D
	SB	TR	0.32	4.7	A	TR	0.35	5.4	A
	Overall Intersection	-	-	**40.6**	**D**	-	-	**40.3**	**D**
Third Avenue and 44th Street									
44th Street	EB	LTR	0.50	44.1	D	LTR	0.65	50.2	D
Third Avenue	NB	TR	0.87	24.9	C	TR	0.89	26.6	C
	SB	LT	0.30	5.5	A	LT	0.34	5.1	A
	Overall Intersection	-	-	**21.6**	**C**	-	-	**23.1**	**C**

(1) Control delay is measured in seconds per vehicle.
(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.
(3) Movement delay and overall delay cannot be calculated; exceeds the HCS software threshold.
Denotes a significantly impacted movement.

TABLE 11-42
INDUSTRY CITY EIS
NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON - WEEKDAY AM PEAK HOUR

		2027 No Action				2027 With Action			
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**
Fourth Avenue and 34th Street									
34th Street	WB	LTR	0.81	58.2	E	LTR	0.81	58.2	E
Third Avenue	NB	L	0.40	12.9	B	L	0.73	30.5	C
		T	0.75	11.9	B	T	0.76	12.1	B
	SB	TR	0.58	16.2	B	TR	0.60	16.6	B
	Overall Intersection	**-**	**0.77**	**17.3**	**B**	**-**	**0.77**	**18.1**	**B**
Fourth Avenue and 36th Street									
36th Street	WB	LTR	1.12	129.9	F	LTR	1.19	156.5	F
Fourth Avenue	NB	T	0.65	8.8	A	T	0.68	9.0	A
	SB	TR	0.64	16.9	B	TR	0.66	17.4	B
	Overall Intersection	**-**	**0.79**	**26.0**	**C**	**-**	**0.83**	**29.8**	**C**
Fourth Avenue and 37th Street									
37th Street	EB	LTR	0.55	44.0	D	LTR	0.62	46.4	D
Fourth Avenue	NB	TR	0.72	9.9	A	TR	0.75	10.2	B
	SB	L	0.63	39.8	D	L	0.73	55.1	E
		T	0.54	14.6	B	T	0.56	14.8	B
	Overall Intersection	**-**	**0.68**	**13.8**	**B**	**-**	**0.70**	**14.6**	**B**
Fourth Avenue and 38th Street									
38th Street	EB	L	0.81	57.0	E	L	0.85	61.3	E
		LT	0.81	56.6	E	LT	0.84	59.5	E
		R	0.56	44.1	D	R	0.82	58.4	E
Fourth Avenue	NB	TR	0.94	23.7	C	TR	0.97	27.2	C
	SB	T	0.61	19.1	B	T	0.63	19.6	B
	Overall Intersection	**-**	**0.88**	**30.1**	**C**	**-**	**0.92**	**34.1**	**C**
Fourth Avenue and 39th Street									
39th Street	EB	L	0.22	37.6	D	L	0.47	47.8	D
		TR	0.68	48.1	D	TR	0.78	53.4	D
	WB	L	0.52	49.6	D	L	0.64	61.3	E
		TR	0.85	66.7	E	TR	1.00	96.2	F
Fourth Avenue	NB	TR	0.82	13.2	B	TR	0.84	13.7	B
	SB	L	0.69	55.4	E	L	0.76	67.1	E
		TR	0.76	20.4	C	TR	0.88	26.9	C
	Overall Intersection	**-**	**0.83**	**24.0**	**C**	**-**	**0.92**	**31.0**	**C**
Fourth Avenue and 40th Street									
40th Street	EB	LTR	0.64	46.0	D	LTR	0.65	46.3	D
Fourth Avenue	NB	TR	0.83	15.7	B	TR	0.85	16.4	B
	SB	L	0.75	46.5	D	L	0.79	53.9	D
		T	0.57	15.5	B	T	0.57	15.6	B
	Overall Intersection	**-**	**0.78**	**19.0**	**B**	**-**	**0.79**	**19.6**	**B**

(1) Control delay is measured in seconds per vehicle.
(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.
(3) Movement delay and overall delay cannot be calculated; exceeds the HCS software threshold.
Denotes a significantly impacted movement.

TABLE 11-42
INDUSTRY CITY EIS
NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON - WEEKDAY AM PEAK HOUR

		2027 No Action				2027 With Action			
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**
UNSIGNALIZED INTERSECTIONS									
First Avenue and 39th Street							(SIGNALIZED)		
First Avenue	NB	LR	-	51.3	F	L	0.05	24.7	C
		-	-	-	-	R	0.32	8.3	A
39th Street	EB	TR	-	0.0	A	TR	0.09	26.9	C
	WB	LT	-	16.2	C	L	0.58	25.8	C
						LT	0.51	25.1	C
	Overall Intersection	**-**	**-**	**6.6**	**A**	**-**	**0.26**	**20.8**	**C**
First Avenue and 41st Street									
First Avenue	SB	LT	-	7.4	A	LT	-	7.6	A
41st Street	WB	LR	-	10.0	A	LR	-	11.6	B
	Overall Intersection	**-**	**-**	**2.1**	**A**	**-**	**-**	**3.1**	**A**
First Avenue and 42nd Street									
First Avenue	NB	LTR	-	7.7	A	LTR	-	7.8	A
	SB	LTR	-	7.7	A	LTR	-	8.1	A
42nd Street	EB	LTR	-	13.9	B	LTR	-	22.3	C
	Overall Intersection	**-**	**-**	**2.7**	**A**	**-**	**-**	**3.6**	**A**
First Avenue and 43rd Street									
First Avenue	NB	LT	-	7.5	A	LT	-	7.7	A
43rd Street	EB	LR	-	12.8	B	LR	-	15.2	C
	WB	LTR	-	12.6	B	LTR	-	14.1	B
	Overall Intersection	**-**	**-**	**7.6**	**A**	**-**	**-**	**8.4**	**A**
First Avenue and 44th Street									
First Avenue	SB	LT	-	7.7	A	LT	-	7.9	A
	Overall Intersection	**-**	**-**	**1.0**	**A**	**-**	**-**	**2.2**	**A**
Second Avenue and 29th Street									
Second Avenue	NB	LTR	-	7.6	A	LTR	-	7.6	A
	SB	LTR	-	9.5	A	LTR	-	9.5	A
29th Street	EB	LTR	-	12.2	B	LTR	-	12.2	B
	Overall Intersection	**-**	**-**	**10.4**	**B**	**-**	**-**	**10.4**	**B**
Second Avenue and 32nd Street									
Second Avenue	NB	LTR	-	7.2	A	LTR	-	7.2	A
	SB	LTR	-	8.7	A	LTR	-	9.1	A
32nd Street	EB	LTR	-	8.6	A	LTR	-	8.6	A
	WB	LTR	-	16.3	C	LTR	-	18.5	C
	Overall Intersection	**-**	**-**	**5.1**	**A**	**-**	**-**	**5.5**	**A**
Second Avenue and 33rd Street									
Second Avenue	SB	LT	-	8.9	A	LT	-	9.6	A
	Overall Intersection	**-**	**-**	**0.5**	**A**	**-**	**-**	**0.8**	**A**
Second Avenue and 34th Street									
34th Street	WB	LR	-	12.7	B	LR	-	14.8	B
	Overall Intersection	**-**	**-**	**2.5**	**A**	**-**	**-**	**3.6**	**A**
Second Avenue and 35th Street									
Second Avenue	SB	LT	-	9.2	A	LT	-	9.5	A
	Overall Intersection	**-**	**-**	**0.4**	**A**	**-**	**-**	**0.4**	**A**

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(3) Movement delay and overall delay cannot be calculated; exceeds the HCS software threshold.
Denotes a significantly impacted movement.

TABLE 11-42
INDUSTRY CITY EIS
NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON - WEEKDAY AM PEAK HOUR

		2027 No Action				2027 With Action			
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**
Second Avenue and 36th Street									
36th Street	WB	LR	-	14.7	B	LR	-	17.1	C
	Overall Intersection	**-**	**-**	**4.1**	**A**	**-**	**-**	**4.5**	**A**
Second Avenue and 37th Street									
Second Avenue	SB	LT	-	10.6	B	LT	-	14.9	B
	Overall Intersection	**-**	**-**	**0.6**	**A**	**-**	**-**	**0.8**	**A**
Second Avenue and 40th Street									
Second Avenue	SB	LT	-	9.2	A	LT	-	9.4	A
	Overall Intersection	**-**	**-**	**0.8**	**A**	**-**	**-**	**0.8**	**A**
Second Avenue and 41st Street									
Second Avenue	NB	LT	-	8.7	A	LT	-	8.8	A
41st Street	EB	LR	-	20.2	C	LR	-	103.2	F
	WB	LTR	-	36.4	E	LTR	-	120.9	F
	Overall Intersection	**-**	**-**	**4.9**	**A**	**-**	**-**	24.9	**C**
Second Avenue and 44th Street									
Second Avenue	NB	TR	-	26.5	D	TR	-	41.6	E
	SB	LT	-	37.7	E	LT	-	59.1	F
44th Street	EB	LTR	-	11.7	B	LTR	-	13.8	B
	Overall Intersection	**-**	**-**	**31.0**	**D**	**-**	**-**	**46.7**	**E**
Third Avenue and 31st Street									
Third Avenue	SB	LT	-	0.3	A	LT	-	0.3	A
	Overall Intersection	**-**	**-**	**0.1**	**A**	**-**	**-**	**0.1**	**A**
Third Avenue and 38th Street									
Third Avenue	SB	LT	-	0.3	A	LT	-	0.3	A
	Overall Intersection	**-**	**-**	**0.1**	**A**	**-**	**-**	**0.1**	**A**

(1) Control delay is measured in seconds per vehicle.
(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.
(3) Movement delay and overall delay cannot be calculated; exceeds the HCS software threshold.
Denotes a significantly impacted movement.

TABLE 11-42
INDUSTRY CITY EIS
NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON - WEEKDAY MIDDAY PEAK HOUR

INTERSECTION & APPROACH		2027 No Action Mvt.	V/C	Control Delay	LOS	2027 With Action Mvt.	V/C	Control Delay	LOS
SIGNALIZED INTERSECTIONS									
Second Avenue and 39th Street									
39th Street	EB	LTR	0.80	56.7	E	LTR	2.05	520.7	F
	WB 1	LTR	1.58	308.2	F	LTR	4.35	1547.0	F
39th Street (ramp)	WB 2	LT	1.18	132.7	F	LT	1.42	231.4	F
		R	0.33	26.1	C	R	1.20	162.7	F
Second Avenue	NB	LTR	0.53	29.6	C	LTR	0.73	37.2	D
	SB	LTR	0.56	31.6	C	LTR	0.81	47.1	D
	Overall Intersection	**-**	**1.07**	**114.4**	**F**	**-**	**2.02**	**608.7**	**F**
Second Avenue and 42nd Street									
42nd Street	EB	LTR	0.41	25.6	C	LTR	1.06	91.6	F
Second Avenue	NB	TR	0.45	14.1	B	TR	0.47	14.5	B
	SB	LT	0.73	20.3	C	LT	0.81	24.3	C
	Overall Intersection	**-**	**0.61**	**19.0**	**B**	**-**	**0.91**	**42.6**	**D**
Second Avenue and 43rd Street									
43rd Street	WB	LTR	0.35	23.9	C	LTR	0.59	29.3	C
Second Avenue	NB	LT	0.35	12.7	B	LT	0.44	14.2	B
	SB	TR	0.65	17.5	B	TR	0.69	18.6	B
	Overall Intersection	**-**	**0.53**	**17.3**	**B**	**-**	**0.65**	**20.0**	**C**
Third Avenue and Prospect Avenue									
Prospect Avenue	WB	L	0.85	58.1	E	L	0.92	64.8	E
		T	0.54	47.4	D	T	0.55	47.7	D
		R	0.31	42.5	D	R	0.31	42.5	D
Third Avenue	NB	L	0.98	66.2	E	L	1.08	98.1	F
		T	0.45	12.4	B	T	0.48	13.0	B
	SB	T	0.18	35.8	D	T	0.23	36.4	D
		R	0.63	46.1	D	R	0.63	46.1	D
	Overall Intersection	**-**	**0.82**	**50.8**	**D**	**-**	**0.88**	**65.2**	**E**
Third Avenue and 29th Street									
29th Street	EB	LTR	0.66	52.6	D	LTR	0.69	54.3	D
Third Avenue	NB	TR	0.61	5.0	A	TR	0.70	5.3	A
	SB	LT	0.32	11.1	B	LT	0.37	11.8	B
	Overall Intersection	**-**	**-**	**11.5**	**B**	**-**	**-**	**11.7**	**B**
Third Avenue and 30th Street									
30th Street	EB	R	0.00	0.0	A	R	0.00	0.0	A
	WB	LTR	0.16	37.8	D	LTR	0.16	37.8	D
Third Avenue	NB	LT	0.54	6.3	A	LT	0.62	6.8	A
	SB	TR	0.32	2.9	A	TR	0.37	2.7	A
	Overall Intersection	**-**	**-**	**5.8**	**A**	**-**	**-**	**5.9**	**A**
Third Avenue and 32nd Street									
32nd Street	EB	LR	0.12	33.8	C	LR	0.56	43.9	D
	WB	LTR	0.35	38.4	D	LTR	0.47	40.6	D
Third Avenue	NB	LT	0.57	6.0	A	LT	0.69	15.4	B
	SB	LTR	0.41	7.3	A	LTR	0.46	7.1	A
	Overall Intersection	**-**	**-**	**8.7**	**A**	**-**	**-**	**16.2**	**B**
Third Avenue and 33rd Street									
33rd Street	EB	LTR	0.35	41.5	D	LTR	0.52	45.9	D
Third Avenue	NB	TR	0.53	2.8	A	TR	0.64	2.8	A
	SB	LT	0.32	5.3	A	LT	0.42	7.2	A
	Overall Intersection	**-**	**-**	**6.0**	**A**	**-**	**-**	**7.4**	**A**
Third Avenue and 34th Street									
34th Street	WB	LTR	0.43	41.2	D	LTR	0.45	41.6	D
Third Avenue	NB	LT	0.49	3.1	A	LT	0.60	4.1	A
	SB	TR	0.32	5.3	A	TR	0.42	5.4	A
	Overall Intersection	**-**	**-**	**7.0**	**A**	**-**	**-**	**7.1**	**A**

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INDUSTRY CITY EIS
NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON - WEEKDAY MIDDAY PEAK HOUR

		2027 No Action				2027 With Action			
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**
Third Avenue and 35th Street									
35th Street	EB	LTR	0.36	42.2	D	LTR	0.39	42.8	D
Third Avenue	NB	TR	0.55	4.6	A	TR	0.68	6.1	A
	SB	LT	0.30	5.4	A	LT	0.39	4.7	A
	Overall Intersection	**-**	**-**	**6.9**	**A**	**-**	**-**	**7.3**	**A**
Third Avenue and 36th Street									
36th Street	WB	LT	0.37	42.4	D	LT	0.48	45.4	D
		R	0.42	46.0	D	R	0.54	51.9	D
Third Avenue	NB	LT	0.50	3.2	A	LT	0.61	3.8	A
	SB	TR	0.33	4.6	A	TR	0.43	4.3	A
	Overall Intersection	**-**	**-**	**7.6**	**A**	**-**	**-**	**0.6**	**A**
Third Avenue and 37th Street									
37th Street	EB	LTR	0.24	36.2	D	LTR	0.26	36.6	D
Third Avenue	NB	TR	0.52	15.5	B	TR	0.64	21.7	C
	SB	LT	0.36	7.1	A	LT	0.46	6.8	A
	Overall Intersection	**-**	**-**	**14.0**	**B**	**-**	**-**	**16.8**	**B**
Third Avenue and 39th Street									
	EB	LTR	1.21	158.8	F	LTR	2.18	581.0	F
	WB	LTR	0.98	124.2	F	LTR	1.85	424.9	F
Third Avenue	NB	LTR	0.43	3.7	A	LTR	0.46	4.0	A
	SB	TR	0.28	12.8	B	TR	0.39	16.9	B
	Overall Intersection	**-**	**-**	**46.7**	**D**	**-**	**-**	**19.0**	**B**
Third Avenue and 40th Street									
40th Street	EB	LTR	0.31	39.3	D	LTR	0.43	42.0	D
Third Avenue	NB	TR	0.49	5.0	A	TR	0.51	4.7	A
	SB	LT	0.29	6.3	A	LT	0.33	8.7	A
	Overall Intersection	**-**	**-**	**7.5**	**A**	**-**	**-**	**8.9**	**A**
Third Avenue and 41st Street									
41st Street	WB	LTR	0.55	48.5	D	LTR	0.91	77.6	E
Third Avenue	NB	LT	0.41	5.4	A	LT	0.46	5.3	A
	SB	TR	0.29	4.2	A	TR	0.34	6.6	A
	Overall Intersection	**-**	**-**	**8.7**	**A**	**-**	**-**	**14.7**	**B**
Third Avenue and 42nd Street									
42nd Street	EB	LTR	0.59	49.1	D	LTR	1.26	178.2	F
Third Avenue	NB	TR	0.44	7.0	A	TR	0.49	7.0	A
	SB	LT	0.28	3.1	A	LT	0.33	2.8	A
	Overall Intersection	**-**	**-**	**9.8**	**A**	**-**	**-**	**35.1**	**D**
Third Avenue and 43rd Street									
43rd Street	WB	LTR	0.40	43.1	D	LTR	0.66	52.4	D
Third Avenue	NB	LT	0.40	7.0	A	LT	0.45	6.6	A
	SB	TR	0.30	5.8	A	TR	0.38	9.7	A
	Overall Intersection	**-**	**-**	**9.0**	**A**	**-**	**-**	**12.2**	**B**
Third Avenue and 44th Street									
44th Street	EB	LTR	0.48	44.9	D	LTR	0.87	68.2	E
Third Avenue	NB	TR	0.38	11.8	B	TR	0.43	12.4	B
	SB	LT	0.32	4.4	A	LT	0.40	4.5	A
	Overall Intersection	**-**	**-**	**11.6**	**B**	**-**	**-**	**16.0**	**B**

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INDUSTRY CITY EIS
NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON - WEEKDAY MIDDAY PEAK HOUR

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INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS
Fourth Avenue and 34th Street									
34th Street	WB	LTR	0.40	39.9	D	LTR	0.40	39.9	D
Third Avenue	NB	L	0.45	18.2	B	L	0.52	21.3	C
		T	0.74	20.0	C	T	0.79	21.9	C
	SB	TR	0.46	14.1	B	TR	0.50	14.6	B
	Overall Intersection	**-**	**0.63**	**19.2**	**B**	**-**	**0.68**	**20.4**	**C**
Fourth Avenue and 36th Street									
36th Street	WB	LTR	0.70	48.0	D	LTR	0.82	56.5	E
Fourth Avenue	NB	T	0.83	24.3	C	T	0.89	27.5	C
	SB	TR	0.57	18.1	B	TR	0.62	19.1	B
	Overall Intersection	**-**	**0.78**	**24.6**	**C**	**-**	**0.86**	**27.9**	**C**
Fourth Avenue and 37th Street									
37th Street	EB	LTR	0.50	43.1	D	LTR	0.70	51.1	D
Fourth Avenue	NB	TR	0.78	20.1	C	TR	0.83	22.3	C
	SB	L	0.54	26.9	C	L	0.69	43.2	D
		T	0.45	13.3	B	T	0.49	13.9	B
	Overall Intersection	**-**	**0.70**	**19.7**	**B**	**-**	**0.80**	**22.8**	**C**
Fourth Avenue and 38th Street									
38th Street	EB	L	0.68	43.2	D	L	0.72	44.9	D
		LT	0.64	41.6	D	LT	0.66	42.3	D
		R	0.54	38.6	D	R	0.99	79.5	E
Fourth Avenue	NB	TR	0.63	23.1	C	TR	0.69	24.5	C
	SB	T	0.52	20.9	C	T	0.59	22.1	C
	Overall Intersection	**-**	**0.62**	**28.8**	**C**	**-**	**0.78**	**36.5**	**D**
Fourth Avenue and 39th Street									
39th Street	EB	L	0.28	38.1	D	L	0.97	132.7	F
		TR	0.69	47.5	D	TR	0.93	70.9	E
	WB	L	0.31	39.2	D	L	0.54	57.2	E
		TR	0.84	62.9	E	TR	1.20	157.5	F
Fourth Avenue	NB	TR	0.52	15.9	B	TR	0.56	16.6	B
	SB	L	0.29	17.0	B	L	0.37	20.0	B
		TR	0.67	19.0	B	TR	1.01	51.2	D
	Overall Intersection	**-**	**0.72**	**25.9**	**C**	**-**	**1.07**	**57.5**	**E**
Fourth Avenue and 40th Street									
40th Street	EB	LTR	0.24	28.5	C	LTR	0.25	28.8	C
Fourth Avenue	NB	TR	0.60	22.7	C	TR	0.64	23.5	C
	SB	L	0.47	26.0	C	L	0.51	28.7	C
		T	0.53	20.9	C	T	0.56	21.5	C
	Overall Intersection	**-**	**0.45**	**22.5**	**C**	**-**	**0.48**	**23.2**	**C**

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INTERSECTION & APPROACH	**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**
UNSIGNALIZED INTERSECTIONS								
First Avenue and 39th Street						(SIGNALIZED)		
First Avenue NB	LR	-	15.1	C	L	0.07	30.5	C
	-	-	-	-	R	0.84	30.2	C
39th Street EB	TR	-	0.0	A	TR	0.27	24.4	C
WB	LT	-	10.3	B	L	0.9	31.9	C
					LT	0.84	30.1	C
Overall Intersection	**-**	**-**	**6.5**	**A**	**-**	**0.63**	**30.3**	**C**
First Avenue and 41st Street								
First Avenue SB	LT	-	7.4	A	LT	-	8.0	A
41st Street WB	LR	-	10.0	A	LR	-	15.3	C
Overall Intersection	**-**	**-**	**1.6**	**A**	**-**	**-**	**3.8**	**A**
First Avenue and 42nd Street								
First Avenue NB	LTR	-	7.6	A	LTR	-	8.0	A
SB	LTR	-	8.2	A	LTR	-	10.0	A
42nd Street EB	LTR	-	12.5	B	LTR	-	41.5	E
Overall Intersection	**-**	**-**	**2.4**	**A**	**-**	**-**	**4.7**	**A**
First Avenue and 43rd Street								
First Avenue NB	LT	-	7.5	A	LT	-	7.9	A
43rd Street EB	LR	-	12.7	B	LR	-	21.8	C
WB	LTR	-	12.6	B	LTR	-	16.9	C
Overall Intersection	**-**	**-**	**7.2**	**A**	**-**	**-**	**9.5**	**A**
First Avenue and 44th Street								
First Avenue SB	LT	-	8.0	A	LT	-	8.4	A
Overall Intersection	**-**	**-**	**1.5**	**A**	**-**	**-**	**3.6**	**A**
Second Avenue and 29th Street								
Second Avenue NB	LTR	-	8.0	A	LTR	-	8.0	A
SB	LTR	-	7.7	A	LTR	-	7.7	A
29th Street EB	LTR	-	11.6	B	LTR	-	11.6	B
Overall Intersection	**-**	**-**	**9.8**	**A**	**-**	**-**	**9.8**	**A**
Second Avenue and 32nd Street								
Second Avenue NB	LTR	-	7.3	A	LTR	-	7.3	A
SB	LTR	-	7.7	A	LTR	-	7.8	A
32nd Street EB	LTR	-	8.4	A	LTR	-	8.4	A
WB	LTR	-	11.5	B	LTR	-	11.9	B
Overall Intersection	**-**	**-**	**6.5**	**A**	**-**	**-**	**6.8**	**A**
Second Avenue and 33rd Street								
Second Avenue SB	LT	-	8.0	A	LT	-	8.4	A
Overall Intersection	**-**	**-**	**0.7**	**A**	**-**	**-**	**1.3**	**A**
Second Avenue and 34th Street								
34th Street WB	LR	-	11.6	B	LR	-	12.6	B
Overall Intersection	**-**	**-**	**3.5**	**A**	**-**	**-**	**3.8**	**A**
Second Avenue and 35th Street								
Second Avenue SB	LT	-	8.2	A	LT	-	8.4	A
Overall Intersection	**-**	**-**	**0.8**	**A**	**-**	**-**	**0.8**	**A**

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INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**
Second Avenue and 36th Street									
36th Street	WB	LR	-	11.4	B	LR	-	13.2	B
	Overall Intersection	**-**	**-**	**2.9**	**A**	**-**	**-**	**3.7**	**A**
Second Avenue and 37th Street									
Second Avenue	SB	LT	-	10.3	B	LT	-	111.6	F
	Overall Intersection	**-**	**-**	**1.2**	**A**	**-**	**-**	**12.4**	**B**
Second Avenue and 40th Street									
Second Avenue	SB	LT	-	8.4	A	LT	-	8.7	A
	Overall Intersection	**-**	**-**	**0.6**	**A**	**-**	**-**	**0.6**	**A**
Second Avenue and 41st Street									
Second Avenue	NB	LT	-	8.4	A	LT	-	8.6	A
41st Street	EB	LR	-	18.6	C	LR	-	707.9	F
	WB	LTR	-	18.0	C	LTR	-	133.3	F
	Overall Intersection	**-**	**-**	**2.7**	**A**	**-**	**-**	83.7	**F**
Second Avenue and 44th Street									
Second Avenue	NB	TR	-	12.2	B	TR	-	18.1	C
	SB	LT	-	15.9	C	LT	-	27.0	D
44th Street	EB	LTR	-	10.7	B	LTR	-	16.3	C
	Overall Intersection	**-**	**-**	**13.9**	**B**	**-**	**-**	**21.6**	**C**
Third Avenue and 31st Street									
Third Avenue	SB	LT	-	0.3	A	LT	-	0.3	A
	Overall Intersection	**-**	**-**	**0.1**	**A**	**-**	**-**	**0.1**	**A**
Third Avenue and 38th Street									
Third Avenue	SB	LT	-	0.3	A	LT	-	3.3	A
	Overall Intersection	**-**	**-**	**0.1**	**A**	**-**	**-**	**1.4**	**A**

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INTERSECTION & APPROACH	**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**
SIGNALIZED INTERSECTIONS								
Second Avenue and 39th Street								
39th Street	EB	LTR	1.23	171.7	F	LTR	2.92	910.2	F
	WB 1	LTR	1.63	326.0	F	LTR	4.31	1531.0	F
39th Street (ramp)	WB 2	LT	0.75	38.4	D	LT	0.95	59.8	E
		R	0.20	24.4	C	R	0.82	60.6	E
Second Avenue	NB	LTR	0.52	29.4	C	LTR	0.69	35.3	D
	SB	LTR	0.59	32.3	C	LTR	0.85	50.8	D
	Overall Intersection	**-**	**0.97**	**117.4**	**F**	**-**	**1.86**	**702.7**	**F**
Second Avenue and 42nd Street								
42nd Street	EB	LTR	0.42	25.1	C	LTR	1.05	82.6	F
Second Avenue	NB	TR	0.42	13.6	B	TR	0.44	13.9	B
	SB	LT	0.57	16.0	B	LT	0.66	18.3	B
	Overall Intersection	**-**	**0.51**	**17.0**	**B**	**-**	**0.81**	**41.3**	**D**
Second Avenue and 43rd Street								
43rd Street	WB	LTR	0.42	24.9	C	LTR	0.72	33.9	C
Second Avenue	NB	LT	0.39	13.3	B	LT	0.50	15.1	B
	SB	TR	0.53	15.2	B	TR	0.57	16.0	B
	Overall Intersection	**-**	**0.49**	**16.5**	**B**	**-**	**0.63**	**20.6**	**C**
Third Avenue and Prospect Avenue								
Prospect Avenue	WB	L	1.10	117.7	F	L	1.16	140.6	F
		T	0.62	55.9	E	T	0.63	56.4	E
		R	0.19	45.0	D	R	0.19	45.0	D
Third Avenue	NB	L	0.93	53.3	D	L	1.07	89.6	F
		T	0.67	13.5	B	T	0.71	14.6	B
	SB	T	0.13	32.9	C	T	0.18	33.5	C
		R	0.66	44.7	D	R	0.66	44.7	D
	Overall Intersection	**-**	**0.88**	**55.4**	**E**	**-**	**0.95**	**74.4**	**E**
Third Avenue and 29th Street								
29th Street	EB	LTR	0.59	48.7	D	LTR	0.65	51.4	D
Third Avenue	NB	TR	0.61	6.0	A	TR	0.72	7.8	A
	SB	LT	0.75	32.3	C	LT	0.80	57.9	E
	Overall Intersection	**-**	**-**	**22.3**	**C**	**-**	**-**	**35.5**	**D**
Third Avenue and 30th Street								
30th Street	EB	R	0.00	0.0	A	R	0.00	0.0	A
	WB	LTR	0.18	38.2	D	LTR	0.18	38.2	D
Third Avenue	NB	LT	0.60	9.7	A	LT	0.71	13.7	B
	SB	TR	0.74	2.6	A	TR	0.79	2.9	A
	Overall Intersection	**-**	**-**	**6.3**	**A**	**-**	**-**	**8.4**	**A**
Third Avenue and 32nd Street								
32nd Street	EB	LR	0.17	38.3	D	LR	1.09	117.0	F
	WB	LTR	0.33	42.0	D	LTR	0.47	44.8	D
Third Avenue	NB	LT	0.59	5.1	A	LT	0.73	24.0	C
	SB	LTR	0.75	2.9	A	LTR	0.79	3.8	A
	Overall Intersection	**-**	**-**	**5.4**	**A**	**-**	**-**	**23.3**	**C**
Third Avenue and 33rd Street								
33rd Street	EB	LTR	0.37	38.6	D	LTR	0.70	52.6	D
Third Avenue	NB	TR	0.61	5.4	A	TR	0.73	7.6	A
	SB	LT	0.70	3.0	A	LT	0.81	28.1	C
	Overall Intersection	**-**	**-**	**5.6**	**A**	**-**	**-**	**20.7**	**C**
Third Avenue and 34th Street								
34th Street	WB	LTR	0.56	47.3	D	LTR	0.58	48.0	D
Third Avenue	NB	LT	0.55	4.3	A	LT	0.67	6.4	A
	SB	TR	0.67	2.5	A	TR	0.79	4.0	A
	Overall Intersection	**-**	**-**	**6.0**	**A**	**-**	**-**	**7.4**	**A**

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INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**
Third Avenue and 35th Street									
35th Street	EB	LTR	0.29	35.5	D	LTR	0.34	41.8	D
Third Avenue	NB	TR	0.58	4.9	A	TR	0.71	4.9	A
	SB	LT	0.69	6.0	A	LT	0.81	43.3	D
	Overall Intersection	**-**	**-**	**6.4**	**A**	**-**	**-**	**26.3**	**C**
Third Avenue and 36th Street									
36th Street	WB	LT	0.48	45.2	D	LT	0.58	48.8	D
		R	0.33	42.6	D	R	0.43	46.5	D
Third Avenue	NB	LT	0.58	5.5	A	LT	0.70	6.7	A
	SB	TR	0.70	2.9	A	TR	0.82	4.2	A
	Overall Intersection	**-**	**-**	**6.8**	**A**	**-**	**-**	**0.6**	**A**
Third Avenue and 37th Street									
37th Street	EB	LTR	0.37	38.3	D	LTR	0.38	38.6	D
Third Avenue	NB	TR	0.59	9.3	A	TR	0.73	11.5	B
	SB	LT	0.75	9.9	A	LT	0.88	55.9	E
	Overall Intersection	**-**	**-**	**11.9**	**B**	**-**	**-**	**36.3**	**D**
Third Avenue and 39th Street									
	EB	LTR	1.23	165.9	F	LTR	2.28	621.7	F
	WB	LTR	0.75	56.9	E	LTR	1.60	321.2	F
Third Avenue	NB	LTR	0.48	6.3	A	LTR	0.51	6.8	A
	SB	TR	0.67	4.1	A	TR	0.81	5.2	A
	Overall Intersection	**-**	**-**	**26.8**	**C**	**-**	**-**	**19.0**	**B**
Third Avenue and 40th Street									
40th Street	EB	LTR	0.37	39.0	D	LTR	0.49	45.1	D
Third Avenue	NB	TR	0.46	4.6	A	TR	0.48	4.5	A
	SB	LT	0.72	8.4	A	LT	0.78	43.9	D
	Overall Intersection	**-**	**-**	**8.3**	**A**	**-**	**-**	**30.0**	**C**
Third Avenue and 41st Street									
41st Street	WB	LTR	0.59	49.3	D	LTR	0.87	70.2	E
Third Avenue	NB	LT	0.44	5.0	A	T	0.48	5.1	A
	SB	TR	0.71	2.0	A	TR	0.79	2.9	A
	Overall Intersection	**-**	**-**	**5.9**	**A**	**-**	**-**	**9.0**	**A**
Third Avenue and 42nd Street									
42nd Street	EB	LTR	0.56	45.4	D	LTR	1.32	198.4	F
Third Avenue	NB	TR	0.45	5.1	A	TR	0.49	5.0	A
	SB	LT	0.71	3.3	A	LT	0.79	50.0	D
	Overall Intersection	**-**	**-**	**6.7**	**A**	**-**	**-**	**54.2**	**D**
Third Avenue and 43rd Street									
43rd Street	WB	LTR	0.52	46.4	D	LTR	0.79	61.3	E
Third Avenue	NB	LT	0.43	6.8	A	LT	0.48	6.6	A
	SB	TR	0.75	4.4	A	TR	0.86	9.4	A
	Overall Intersection	**-**	**-**	**7.3**	**A**	**-**	**-**	**11.9**	**B**
Third Avenue and 44th Street									
44th Street	EB	LTR	0.77	57.5	E	LTR	1.20	151.3	F
Third Avenue	NB	TR	0.42	12.2	B	TR	0.47	12.8	B
	SB	LT	0.71	6.7	A	LT	0.82	48.7	D
	Overall Intersection	**-**	**-**	**13.0**	**B**	**-**	**-**	**49.4**	**D**

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Denotes a significantly impacted movement.

TABLE 11-42
INDUSTRY CITY EIS
NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON - WEEKDAY PM PEAK HOUR

		2027 No Action				2027 With Action			
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**
Fourth Avenue and 34th Street									
34th Street	WB	LTR	0.48	42.0	D	LTR	0.48	42.0	D
Third Avenue	NB	L	0.78	51.9	D	L	0.94	88.6	F
		T	0.73	19.5	B	T	0.79	21.5	C
	SB	TR	0.72	12.1	B	TR	0.76	12.9	B
	Overall Intersection	**-**	**0.69**	**18.6**	**B**	**-**	**0.80**	**21.2**	**C**
Fourth Avenue and 36th Street									
36th Street	WB	LTR	0.94	77.9	E	LTR	1.09	119.3	F
Fourth Avenue	NB	T	0.76	19.0	B	T	0.83	21.2	C
	SB	TR	0.82	14.4	B	TR	0.87	16.8	B
	Overall Intersection	**-**	**0.85**	**22.9**	**C**	**-**	**0.93**	**29.9**	**C**
Fourth Avenue and 37th Street									
37th Street	EB	LTR	0.73	51.7	D	LTR	0.95	77.3	E
Fourth Avenue	NB	TR	0.79	20.8	C	TR	0.86	23.8	C
	SB	L	0.62	21.4	C	L	0.84	47.6	D
		T	0.72	10.5	B	T	0.77	11.2	B
	Overall Intersection	**-**	**0.77**	**19.0**	**B**	**-**	**0.89**	**24.5**	**C**
Fourth Avenue and 38th Street									
38th Street	EB	L	0.68	48.6	D	L	0.73	51.1	D
		LT	0.69	48.9	D	LT	0.73	50.7	D
		R	0.46	41.0	D	R	0.90	67.5	E
Fourth Avenue	NB	TR	0.57	18.3	B	TR	0.62	19.3	B
	SB	T	0.79	16.5	B	T	0.85	18.6	B
	Overall Intersection	**-**	**0.76**	**24.4**	**C**	**-**	**0.87**	**29.4**	**C**
Fourth Avenue and 39th Street									
39th Street	EB	L	0.22	38.3	D	L	1.18	211.2	F
		TR	0.78	54.4	D	TR	1.14	131.1	F
	WB	L	0.67	63.7	E	L	1.52	345.1	F
		TR	0.95	82.3	F	TR	1.31	203.4	F
Fourth Avenue	NB	TR	0.52	14.9	B	TR	0.55	15.4	B
	SB	L	0.23	8.2	A	L	0.29	9.3	A
		TR	0.96	23.3	C	TR	1.23	121.9	F
	Overall Intersection	**-**	**0.96**	**29.9**	**C**	**-**	**1.44**	**110.7**	**F**
Fourth Avenue and 40th Street									
40th Street	EB	LTR	0.49	40.8	D	LTR	0.51	41.2	D
Fourth Avenue	NB	TR	0.53	15.2	B	TR	0.55	15.6	B
	SB	L	0.47	10.6	B	L	0.50	11.4	B
		T	0.75	11.3	B	T	0.78	11.8	B
	Overall Intersection	**-**	**0.68**	**14.8**	**B**	**-**	**0.70**	**15.3**	**B**

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TABLE 11-42
INDUSTRY CITY EIS
NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON - WEEKDAY PM PEAK HOUR

		2027 No Action				2027 With Action			
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**
UNSIGNALIZED INTERSECTIONS									
First Avenue and 39th Street							(SIGNALIZED)		
First Avenue	NB	LR	-	24.5	C	L	0.05	24.8	C
		-	-	-	-	R	0.96	41.6	D
39th Street	EB	TR	-	0.0	A	TR	0.21	28.8	C
	WB	LT	-	10.9	B	L	0.74	28.0	C
						LT	0.71	27.5	C
	Overall Intersection	**-**	**-**	**7.6**	**A**	**-**	**0.76**	**33.6**	**C**
First Avenue and 41st Street									
First Avenue	SB	LT	-	7.9	A	LT	-	8.6	A
41st Street	WB	LR	-	10.4	B	LR	-	18.4	C
	Overall Intersection	**-**	**-**	**2.0**	**A**	**-**	**-**	**4.2**	**A**
First Avenue and 42nd Street									
First Avenue	NB	LTR	-	7.5	A	LTR	-	7.9	A
	SB	LTR	-	7.8	A	LTR	-	9.6	A
42nd Street	EB	LTR	-	14.1	B	LTR	-	284.7	F
	Overall Intersection	**-**	**-**	**4.2**	**A**	**-**	**-**	**30.9**	**D**
First Avenue and 43rd Street									
First Avenue	NB	LT	-	7.4	A	LT	-	7.9	A
43rd Street	EB	LR	-	11.8	B	LR	-	20.0	C
	WB	LTR	-	11.1	B	LTR	-	13.4	B
	Overall Intersection	**-**	**-**	**6.8**	**A**	**-**	**-**	**7.8**	**A**
First Avenue and 44th Street									
First Avenue	SB	LT	-	8.0	A	LT	-	8.6	A
	Overall Intersection	**-**	**-**	**1.5**	**A**	**-**	**-**	**4.0**	**A**
Second Avenue and 29th Street									
Second Avenue	NB	LTR	-	7.9	A	LTR	-	7.9	A
	SB	LTR	-	7.7	A	LTR	-	7.7	A
29th Street	EB	LTR	-	12.2	B	LTR	-	12.5	B
	Overall Intersection	**-**	**-**	**10.2**	**B**	**-**	**-**	**10.4**	**B**
Second Avenue and 32nd Street									
Second Avenue	NB	LTR	-	7.9	A	LTR	-	7.9	A
	SB	LTR	-	7.6	A	LTR	-	7.7	A
32nd Street	EB	LTR	-	8.4	A	LTR	-	8.4	A
	WB	LTR	-	12.5	B	LTR	-	14.7	B
	Overall Intersection	**-**	**-**	**7.5**	**A**	**-**	**-**	**9.6**	**A**
Second Avenue and 33rd Street									
Second Avenue	SB	LT	-	8.0	A	LT	-	8.6	A
	Overall Intersection	**-**	**-**	**1.4**	**A**	**-**	**-**	**2.2**	**A**
Second Avenue and 34th Street									
34th Street	WB	LR	-	10.9	B	LR	-	11.9	B
	Overall Intersection	**-**	**-**	**2.5**	**A**	**-**	**-**	**2.8**	**A**
Second Avenue and 35th Street									
Second Avenue	SB	LT	-	8.0	A	LT	-	8.1	A
	Overall Intersection	**-**	**-**	**0.8**	**A**	**-**	**-**	**0.8**	**A**

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INDUSTRY CITY EIS
NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON - WEEKDAY PM PEAK HOUR

		2027 No Action				2027 With Action			
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**
Second Avenue and 36th Street									
36th Street	WB	LR	-	11.3	B	LR	-	12.9	B
	Overall Intersection	**-**	**-**	**2.8**	**A**	**-**	**-**	**3.1**	**A**
Second Avenue and 37th Street									
Second Avenue	SB	LT	-	10.0	A	LT	-	51.9	F
	Overall Intersection	**-**	**-**	**1.4**	**A**	**-**	**-**	**6.3**	**A**
Second Avenue and 40th Street									
Second Avenue	SB	LT	-	8.4	A	LT	-	8.7	A
	Overall Intersection	**-**	**-**	**0.6**	**A**	**-**	**-**	**0.6**	**A**
Second Avenue and 41st Street									
Second Avenue	NB	LT	-	8.6	A	LT	-	8.7	A
41st Street	EB	LR	-	22.9	C	LR	-	1810.0	F
	WB	LTR	-	23.8	C	LTR	-	197.4	F
	Overall Intersection	**-**	**-**	**5.4**	**A**	**-**	**-**	199.2	**F**
Second Avenue and 44th Street									
Second Avenue	NB	TR	-	15.8	C	TR	-	34.1	D
	SB	LT	-	16.6	C	LT	-	33.8	D
44th Street	EB	LTR	-	11.2	B	LTR	-	21.1	C
	Overall Intersection	**-**	**-**	**15.5**	**C**	**-**	**-**	**30.7**	**D**
Third Avenue and 31st Street									
Third Avenue	SB	LT	-	0.1	A	LT	-	0.1	A
	Overall Intersection	**-**	**-**	**0.1**	**A**	**-**	**-**	**0.1**	**A**
Third Avenue and 38th Street									
Third Avenue	SB	LT	-	0.1	A	LT	-	2.4	A
	Overall Intersection	**-**	**-**	**0.1**	**A**	**-**	**-**	**1.4**	**A**

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INDUSTRY CITY EIS
NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON - SATURDAY PEAK HOUR

INTERSECTION & APPROACH		2027 No Action Mvt.	V/C	Control Delay	LOS	2027 With Action Mvt.	V/C	Control Delay	LOS
SIGNALIZED INTERSECTIONS									
Second Avenue and 39th Street									
39th Street	EB	LTR	0.33	32.7	C	LTR	1.64	337.1	F
	WB 1	LTR	1.33	193.8	F	LTR	4.97	1828.0	F
39th Street (ramp)	WB 2	LT	0.94	57.2	E	LT	1.07	90.1	F
		R	0.29	25.6	C	R	0.92	75.5	E
Second Avenue	NB	LTR	0.49	29.0	C	LTR	0.71	36.8	D
	SB	LTR	0.61	32.3	C	LTR	0.85	48.6	D
	Overall Intersection	**-**	**0.92**	**71.4**	**E**	**-**	**2.08**	**673.6**	**F**
Second Avenue and 42nd Street									
42nd Street	EB	LTR	0.17	21.3	C	LTR	0.70	32.9	C
Second Avenue	NB	TR	0.34	12.5	B	TR	0.38	12.9	B
	SB	LT	0.59	16.0	B	LT	0.73	19.7	B
	Overall Intersection	**-**	**0.43**	**15.3**	**B**	**-**	**0.72**	**21.8**	**C**
Second Avenue and 43rd Street									
43rd Street	WB	LTR	0.25	22.2	C	LTR	0.55	27.3	C
Second Avenue	NB	LT	0.29	11.9	B	LT	0.42	13.7	B
	SB	TR	0.52	14.9	B	TR	0.58	15.9	B
	Overall Intersection	**-**	**0.42**	**15.1**	**B**	**-**	**0.57**	**18.3**	**B**
Third Avenue and Prospect Avenue									
Prospect Avenue	WB	L	0.78	52.7	D	L	0.84	56.3	E
		T	0.54	46.8	D	T	0.54	46.9	D
		R	0.21	39.9	D	R	0.21	39.9	D
Third Avenue	NB	L	0.83	49.2	D	L	0.92	56.1	E
		T	0.66	16.6	B	T	0.69	17.7	B
	SB	T	0.25	36.7	D	T	0.31	37.5	D
		R	0.79	53.3	D	R	0.79	53.3	D
	Overall Intersection	**-**	**0.80**	**42.4**	**D**	**-**	**0.85**	**45.7**	**D**
Third Avenue and 29th Street									
29th Street	EB	LTR	0.32	40.8	D	LTR	0.34	41.3	D
Third Avenue	NB	TR	0.47	4.6	A	TR	0.54	4.6	A
	SB	LT	0.42	12.3	B	LT	0.49	13.2	B
	Overall Intersection	**-**	**-**	**9.9**	**A**	**-**	**-**	**10.2**	**B**
Third Avenue and 30th Street									
30th Street	EB	R	0.00	0.0	A	R	0.00	0.0	A
	WB	LTR	0.09	36.6	D	LTR	0.09	36.6	D
Third Avenue	NB	LT	0.43	5.0	A	LT	0.50	5.6	A
	SB	TR	0.37	1.5	A	TR	0.43	1.5	A
	Overall Intersection	**-**	**-**	**3.8**	**A**	**-**	**-**	**4.1**	**A**
Third Avenue and 32nd Street									
32nd Street	EB	LR	0.08	33.0	C	LR	0.58	44.5	D
	WB	LTR	0.22	35.2	D	LTR	0.41	38.9	D
Third Avenue	NB	LT	0.50	4.5	A	LT	0.64	7.6	A
	SB	LTR	0.41	5.4	A	LTR	0.48	5.5	A
	Overall Intersection	**-**	**-**	**6.5**	**A**	**-**	**-**	**11.3**	**B**
Third Avenue and 33rd Street									
33rd Street	EB	LTR	0.13	37.2	D	LTR	0.32	40.6	D
Third Avenue	NB	TR	0.53	4.8	A	TR	0.66	5.4	A
	SB	LT	0.38	3.5	A	LT	0.47	6.3	A
	Overall Intersection	**-**	**-**	**5.0**	**A**	**-**	**-**	**7.3**	**A**
Third Avenue and 34th Street									
34th Street	WB	LTR	0.49	42.6	D	LTR	0.51	43.1	D
Third Avenue	NB	LT	0.45	2.9	A	LT	0.57	4.0	A
	SB	TR	0.35	4.8	A	TR	0.46	5.0	A
	Overall Intersection	**-**	**-**	**7.1**	**A**	**-**	**-**	**7.2**	**A**

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		2027 No Action				2027 With Action			
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**
Third Avenue and 35th Street									
35th Street	EB	LTR	0.13	37.2	D	LTR	0.17	37.8	D
Third Avenue	NB	TR	0.44	3.3	A	TR	0.57	3.8	A
	SB	LT	0.40	5.6	A	LT	0.50	5.2	A
	Overall Intersection	**-**	**-**	**5.2**	**A**	**-**	**-**	**5.2**	**A**
Third Avenue and 36th Street									
36th Street	WB	LT	0.31	40.7	D	LT	0.43	43.4	D
		R	0.30	41.9	D	R	0.41	45.6	D
Third Avenue	NB	LT	0.45	4.2	A	LT	0.57	4.2	A
	SB	TR	0.37	3.5	A	TR	0.47	3.3	A
	Overall Intersection	**-**	**-**	**6.8**	**A**	**-**	**-**	**7.0**	**A**
Third Avenue and 37th Street									
37th Street	EB	LTR	0.29	37.0	D	LTR	0.32	37.5	D
Third Avenue	NB	TR	0.45	13.9	B	TR	0.58	20.5	C
	SB	LT	0.45	7.5	A	LT	0.57	7.6	A
	Overall Intersection	**-**	**-**	**13.1**	**B**	**-**	**-**	**15.9**	**B**
Third Avenue and 39th Street									
	EB	LTR	1.06	123.0	F	LTR	2.05	521.6	F
	WB	LTR	0.89	77.3	E	LTR	1.84	418.3	F
Third Avenue	NB	LTR	0.35	4.3	A	LTR	0.39	4.6	A
	SB	TR	0.42	16.0	B	TR	0.55	19.9	B
	Overall Intersection	**-**	**-**	**33.0**	**C**	**-**	**-**	**180.3**	**F**
Third Avenue and 40th Street									
40th Street	EB	LTR	0.20	36.9	D	LTR	0.30	38.8	D
Third Avenue	NB	TR	0.34	4.4	A	TR	0.37	4.0	A
	SB	LT	0.47	9.3	A	LT	0.51	10.1	B
	Overall Intersection	**-**	**-**	**8.3**	**A**	**-**	**-**	**9.1**	**A**
Third Avenue and 41st Street									
41st Street	WB	LTR	0.49	45.9	D	LTR	0.87	70.7	E
Third Avenue	NB	LT	0.34	4.8	A	T	0.40	4.7	A
	SB	TR	0.42	3.1	A	TR	0.47	5.6	A
	Overall Intersection	**-**	**-**	**6.9**	**A**	**-**	**-**	**12.4**	**B**
Third Avenue and 42nd Street									
42nd Street	EB	LTR	0.31	40.4	D	LTR	1.00	91.2	F
Third Avenue	NB	TR	0.38	7.4	A	TR	0.44	7.3	A
	SB	LT	0.45	3.4	A	LT	0.50	3.8	A
	Overall Intersection	**-**	**-**	**7.0**	**A**	**-**	**-**	**16.9**	**B**
Third Avenue and 43rd Street									
43rd Street	WB	LTR	0.49	45.9	D	LTR	0.88	71.2	E
Third Avenue	NB	LT	0.32	6.2	A	LT	0.38	5.9	A
	SB	TR	0.45	2.7	A	TR	0.53	6.8	A
	Overall Intersection	**-**	**-**	**7.0**	**A**	**-**	**-**	**13.0**	**B**
Third Avenue and 44th Street									
44th Street	EB	LTR	0.38	42.3	D	LTR	0.82	62.3	E
Third Avenue	NB	TR	0.34	11.3	B	TR	0.40	11.9	B
	SB	LT	0.45	3.5	A	LT	0.54	3.6	A
	Overall Intersection	**-**	**-**	**9.0**	**A**	**-**	**-**	**13.0**	**B**

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NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON - SATURDAY PEAK HOUR

		2027 No Action				2027 With Action			
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**
Fourth Avenue and 34th Street									
34th Street	WB	LTR	0.36	38.9	D	LTR	0.36	38.9	D
Third Avenue	NB	L	0.56	24.3	C	L	0.68	33.8	C
		T	0.78	21.2	C	T	0.84	23.7	C
	SB	TR	0.53	15.1	B	TR	0.57	15.9	B
	Overall Intersection	**-**	**0.65**	**20.0**	**B**	**-**	**0.69**	**22.0**	**C**
Fourth Avenue and 36th Street									
36th Street	WB	LTR	0.68	46.3	D	LTR	0.84	57.5	E
Fourth Avenue	NB	T	0.87	25.3	C	T	0.93	29.8	C
	SB	TR	0.59	18.5	B	TR	0.64	19.6	B
	Overall Intersection	**-**	**0.80**	**25.0**	**C**	**-**	**0.90**	**29.4**	**C**
Fourth Avenue and 37th Street									
37th Street	EB	LTR	0.59	44.4	D	LTR	0.82	56.6	E
Fourth Avenue	NB	TR	0.84	22.6	C	TR	0.91	26.7	C
	SB	L	0.61	38.6	D	L	0.89	94.7	F
		T	0.47	13.6	B	T	0.51	14.1	B
	Overall Intersection	**-**	**0.77**	**21.7**	**C**	**-**	**0.89**	**26.9**	**C**
Fourth Avenue and 38th Street									
38th Street	EB	L	0.74	45.7	D	L	0.77	48.0	D
		LT	0.67	42.4	D	LT	0.69	43.3	D
		R	0.50	37.5	D	R	0.90	60.7	E
Fourth Avenue	NB	TR	0.60	22.2	C	TR	0.65	23.4	C
	SB	T	0.62	22.7	C	T	0.69	24.4	C
	Overall Intersection	**-**	**0.66**	**29.3**	**C**	**-**	**0.77**	**33.9**	**C**
Fourth Avenue and 39th Street									
39th Street	EB	L	0.15	34.5	C	L	0.89	118.3	F
		TR	0.74	50.6	D	TR	1.15	134.1	F
	WB	L	0.34	40.1	D	L	0.87	117.6	F
		TR	0.69	49.0	D	TR	1.13	130.9	F
Fourth Avenue	NB	TR	0.56	16.3	B	TR	0.60	17.2	B
	SB	L	0.57	26.0	C	L	0.71	37.4	D
		TR	0.70	19.6	B	TR	0.99	43.5	D
	Overall Intersection	**-**	**0.71**	**24.5**	**C**	**-**	**1.05**	**58.5**	**E**
Fourth Avenue and 40th Street									
40th Street	EB	LTR	0.31	29.7	C	LTR	0.33	30.0	C
Fourth Avenue	NB	TR	0.66	23.9	C	TR	0.70	25.1	C
	SB	L	0.91	76.0	E	L	1.04	115.0	F
		T	0.66	23.3	C	T	0.69	24.2	C
	Overall Intersection	**-**	**0.62**	**26.6**	**C**	**-**	**0.69**	**29.1**	**C**

(1) Control delay is measured in seconds per vehicle.
(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.
(3) Movement delay and overall delay cannot be calculated; exceeds the HCS software threshold.
Denotes a significantly impacted movement.

TABLE 11-42
INDUSTRY CITY EIS
NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON - SATURDAY PEAK HOUR

		2027 No Action				2027 With Action			
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**
UNSIGNALIZED INTERSECTIONS									
First Avenue and 39th Street							(SIGNALIZED)		
First Avenue	NB	LR	-	9.5	A	L	0.03	23.8	C
		-	-	-	-	R	0.68	17.2	B
39th Street	EB	TR	-	0.0	A	TR	0.11	25	C
	WB	LT	-	8.1	A	L	0.85	32.6	C
						LT	0.82	31.8	C
	Overall Intersection	**-**	**-**	**5.6**	**A**	**-**	**0.5**	**26.6**	**C**
First Avenue and 41st Street									
First Avenue	SB	LT	-	7.3	A	LT	-	7.8	A
41st Street	WB	LR	-	8.9	A	LR	-	13.3	B
	Overall Intersection	**-**	**-**	**3.0**	**A**	**-**	**-**	**4.1**	**A**
First Avenue and 42nd Street									
First Avenue	NB	LTR	-	7.4	A	LTR	-	7.9	A
	SB	LTR	-	7.6	A	LTR	-	9.3	A
42nd Street	EB	LTR	-	11.0	B	LTR	-	60.7	F
	Overall Intersection	**-**	**-**	**4.1**	**A**	**-**	**-**	**6.9**	**A**
First Avenue and 43rd Street									
First Avenue	NB	LT	-	7.3	A	LT	-	7.7	A
43rd Street	EB	LR	-	9.6	A	LR	-	14.6	B
	WB	LTR	-	9.5	A	LTR	-	10.9	B
	Overall Intersection	**-**	**-**	**4.8**	**A**	**-**	**-**	**5.7**	**A**
First Avenue and 44th Street									
First Avenue	SB	LT	-	7.6	A	LT	-	7.9	A
	Overall Intersection	**-**	**-**	**1.0**	**A**	**-**	**-**	**4.7**	**A**
Second Avenue and 29th Street									
Second Avenue	NB	LTR	-	7.3	A	LTR	-	7.3	A
	SB	LTR	-	7.5	A	LTR	-	7.5	A
29th Street	EB	LTR	-	9.2	A	LTR	-	9.2	A
	Overall Intersection	**-**	**-**	**8.0**	**A**	**-**	**-**	**8.0**	**A**
Second Avenue and 32nd Street									
Second Avenue	NB	LTR	-	7.3	A	LTR	-	7.3	A
	SB	LTR	-	7.5	A	LTR	-	7.6	A
32nd Street	EB	LTR	-	8.4	A	LTR	-	8.4	A
	WB	LTR	-	12.5	B	LTR	-	14.7	B
	Overall Intersection	**-**	**-**	**8.1**	**A**	**-**	**-**	**8.3**	**A**
Second Avenue and 33rd Street									
Second Avenue	SB	LT	-	7.6	A	LT	-	7.9	A
	Overall Intersection	**-**	**-**	**0.4**	**A**	**-**	**-**	**1.5**	**A**
Second Avenue and 34th Street									
34th Street	WB	LR	-	10.1	B	LR	-	10.7	B
	Overall Intersection	**-**	**-**	**2.2**	**A**	**-**	**-**	**2.7**	**A**
Second Avenue and 35th Street									
Second Avenue	SB	LT	-	7.7	A	LT	-	7.9	A
	Overall Intersection	**-**	**-**	**0.6**	**A**	**-**	**-**	**0.7**	**A**

(1) Control delay is measured in seconds per vehicle.
(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.
(3) Movement delay and overall delay cannot be calculated; exceeds the HCS software threshold.
Denotes a significantly impacted movement.

TABLE 11-42
INDUSTRY CITY EIS
NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON - SATURDAY PEAK HOUR

		2027 No Action				2027 With Action			
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**
Second Avenue and 36th Street									
36th Street	WB	LR	-	10.4	B	LR	-	11.8	B
	Overall Intersection	**-**	**-**	**2.4**	**A**	**-**	**-**	**3.3**	**A**
Second Avenue and 37th Street									
Second Avenue	SB	LT	-	10.1	B	LT	-	449.7	F
	Overall Intersection	**-**	**-**	**1.0**	**A**	**-**	**-**	**45.0**	**E**
Second Avenue and 40th Street									
Second Avenue	SB	LT	-	8.3	A	LT	-	8.6	A
	Overall Intersection	**-**	**-**	**0.5**	**A**	**-**	**-**	**0.5**	**A**
Second Avenue and 41st Street									
Second Avenue	NB	LT	-	8.4	A	LT	-	8.7	A
41st Street	EB	LR	-	15.8	C	LR	-	213.1	F
	WB	LTR	-	17.7	C	LTR	-	(3)	F
	Overall Intersection	**-**	**-**	**2.4**	**A**	**-**	**-**	(3)	**F**
Second Avenue and 44th Street									
Second Avenue	NB	TR	-	10.8	B	TR	-	17.0	C
	SB	LT	-	14.1	B	LT	-	27.4	D
44th Street	EB	LTR	-	9.0	A	LTR	-	13.1	B
	Overall Intersection	**-**	**-**	**12.6**	**B**	**-**	**-**	**21.2**	**C**
Third Avenue and 31st Street									
Third Avenue	SB	LT	-	0.2	A	LT	-	0.2	A
	Overall Intersection	**-**	**-**	**0.1**	**A**	**-**	**-**	**0.1**	**A**
Third Avenue and 38th Street									
Third Avenue	SB	LT	-	0.2	A	LT	-	3.6	A
	Overall Intersection	**-**	**-**	**0.1**	**A**	**-**	**-**	**1.9**	**A**

(1) Control delay is measured in seconds per vehicle.
(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.
(3) Movement delay and overall delay cannot be calculated; exceeds the HCS software threshold.
Denotes a significantly impacted movement.

- In the weekday AM peak hour, three of the 41 intersections analyzed would operate at overall LOS E or F compared to one in the No Action condition. Twenty-four individual traffic movements out of approximately 141 such movements analyzed would operate at LOS E or F, compared to 17 movements under No Action conditions. Overall, 15 of the 41 intersections would have significant impacts.
- In the weekday midday peak hour, four intersections would operate at overall LOS E or F compared to one in the No Action condition. Twenty-two individual movements would operate at LOS E or F compared to eight movements under the No Action conditions. Overall, 15 of the 41 intersections would have significant impacts.
- In the weekday PM peak hour, four intersections would operate at overall LOS E or F compared to two in the No Action condition. Thirty individual movements would operate at LOS E or F compared to ten movements under the No Action conditions. Overall, 22 of the 41 intersections would have significant impacts.
- In the Saturday peak hour, five intersections would operate at overall LOS E or F compared to one in the No Action condition. Twenty-five individual movements would operate at LOS E or F compared to five movements under the No Action conditions. Overall, 14 of the 41 intersections would have significant impacts.

Based on the analysis results, the majority of the traffic movements would continue to operate at acceptable LOS; 26 intersections would have at least one movement operating at an unacceptable LOS during at least one peak hour. Traffic movements that operate at unacceptable LOS under the No Action conditions would continue to do so under the With Action conditions; additional movements that would be expected to operate at unacceptable LOS as a result of the Proposed Project are listed below:

1st Avenue and 42nd Street

- Eastbound 42nd Street approach (weekday midday, PM, and Saturday)

2nd Avenue and 37th Street

- Southbound 2nd Avenue approach (weekday midday, PM, and Saturday)

2nd Avenue and 39th Street

- Eastbound 39th Street approach (weekday AM and Saturday)
- Southbound Gowanus Expressway Off-Ramp shared left-through movement (weekday PM)
- Southbound Gowanus Expressway Off-Ramp right turn movement (weekday AM, midday, PM, and Saturday)
- Northbound 2nd Avenue approach (weekday AM)
- Southbound 2nd Avenue approach (weekday midday, PM, and Saturday)

2nd Avenue and 41st Street

- Eastbound 41st Street approach (weekday AM, midday, PM, and Saturday)
- Westbound 41st Street approach (weekday midday, PM, and Saturday)

2nd Avenue and 42nd Street

- Eastbound 42nd Street approach (weekday midday and PM)

2nd Avenue and 44th Street

- Northbound 2nd Avenue approach (weekday AM and PM)
- Southbound 2nd Avenue approach (weekday PM)

3rd Avenue and 29th Street

- Southbound 3rd Avenue approach (weekday PM)

3rd Avenue and 32nd Street

- Eastbound 32nd Street approach (weekday PM)

3rd Avenue and 33rd Street

- Eastbound 33rd Street approach (weekday midday and PM)
- Northbound 3rd Avenue approach (weekday AM)

3rd Avenue and 34th Street

- Westbound 34th Street approach (weekday AM)

3rd Avenue and 35th Street

- Northbound 3rd Avenue approach (weekday AM)

3rd Avenue and 36th Street

- Westbound 36th Street left-through movement (weekday midday)
- Westbound 36th Street right turn movement (weekday PM and Saturday)

3rd Avenue and 37th Street

- Southbound 3rd Avenue approach (weekday PM)

3rd Avenue and 40th Street

- Eastbound 40th Street approach (weekday PM)

3rd Avenue and 41st Street

- Westbound 41st Street approach (weekday AM)

3rd Avenue and 42nd Street

- Eastbound 42nd Street approach (weekday AM and Saturday)
- Southbound 3rd Avenue approach (weekday PM)

3rd Avenue and 43rd Street

- Westbound 43rd Street approach (weekday midday)

3rd Avenue and 44th Street

- Eastbound 44th Street approach (weekday AM, midday, and Saturday)
- Southbound 3rd Avenue approach (weekday PM)

4th Avenue and 37th Street

- Eastbound 37th Street approach (weekday AM, midday, and Saturday)
- Southbound 4th Avenue left turn movement (weekday AM, PM, and Saturday)

4th Avenue and 38th Street

- Eastbound 38th Street right turn movement (weekday AM, midday, PM, and Saturday)

4th Avenue and 39th Street

- Eastbound 39th Street left turn movement (weekday AM, midday, PM, and Saturday)
- Westbound 39th Street left turn movement (weekday midday and Saturday)
- Southbound 4th Avenue through-right movement (weekday midday and PM)

Of the 41 intersections analyzed, the Proposed Project would result in significant adverse traffic impacts at 15 intersections (at 26 movements) during the weekday AM peak hour, 15 intersections (at 25 movements) during the weekday midday peak hour, 22 intersections (at 36 movements) during the weekday PM peak hour, and 14 intersections (at 23 movements) during the Saturday peak hour. The significantly impacted traffic movements are identified below:

1st Avenue and 42nd Street

- Eastbound 42nd Street approach (weekday PM)

2nd Avenue and 37th Street

- Southbound 2nd Avenue approach (weekday midday, PM, and Saturday)

2nd Avenue and 39th Street

- Eastbound 39th Street approach (weekday AM, midday, PM, and Saturday)
- Westbound 39th Street approach (weekday AM, midday, PM, and Saturday)
- Southbound Gowanus Expressway Off-Ramp left-through movement (weekday AM, midday, PM, and Saturday)
- Southbound Gowanus Expressway Off-Ramp right turn movement (weekday AM, midday, PM, and Saturday)
- Northbound 2nd Avenue approach (weekday AM)
- Southbound 2nd Avenue approach (weekday midday, PM, and Saturday)

2nd Avenue and 41st Street

- Westbound 41st Street approach (weekday AM, midday, PM, and Saturday)

2nd Avenue and 42nd Street

- Eastbound 42nd Street approach (weekday midday and PM)

2nd Avenue and 44th Street

- Northbound 2nd Avenue approach (weekday AM and PM)
- Southbound 2nd Avenue approach (weekday AM and PM)

3rd Avenue and Prospect Avenue

- Westbound Prospect Avenue left turn movement (weekday AM, midday, and PM)
- Northbound 3rd Avenue left turn movement (weekday midday, PM, and Saturday)

3rd Avenue and 29th Street

- Eastbound 29th Street approach (weekday AM)

- Southbound 3rd Avenue approach (weekday PM)

3rd Avenue and 32nd Street

- Eastbound 32nd Street approach (weekday PM)

3rd Avenue and 33rd Street

- Eastbound 33rd Street approach (weekday PM)
- Northbound 3rd Avenue approach (weekday AM)

3rd Avenue and 35th Street

- Northbound 3rd Avenue approach (weekday AM)

3rd Avenue and 36th Street

- Westbound 36th Street right turn movement (weekday midday)

3rd Avenue and 37th Street

- Southbound 3rd Avenue approach (weekday PM)

3rd Avenue and 39th Street

- Eastbound 39th Street approach (weekday AM, midday, PM, and Saturday)
- Westbound 39th Street approach (weekday AM, midday, PM, and Saturday)

3rd Avenue and 40th Street

- Eastbound 40th Street approach (weekday PM)

3rd Avenue and 41st Street

- Westbound 41st Street approach (weekday midday, PM, and Saturday)

3rd Avenue and 42nd Street

- Eastbound 42nd Street approach (weekday AM, midday, PM, and Saturday)
- Southbound 3rd Avenue approach (weekday PM)

3rd Avenue and 43rd Street

- Westbound 43rd Street approach (weekday midday, PM, and Saturday)

3rd Avenue and 44th Street

- Eastbound 44th Street approach (weekday AM, midday, PM, and Saturday)
- Southbound 3rd Avenue approach (weekday PM)

4th Avenue and 34th Street

- Northbound 4th Avenue left turn movement (weekday PM)

4th Avenue and 36th Street

- Westbound 36th Street approach (weekday AM, midday, PM, and Saturday)

4th Avenue and 37th Street

- Eastbound 37th Street approach (weekday midday, PM, and Saturday)
- Southbound 4th Avenue left turn movement (weekday AM, PM, and Saturday)

4th Avenue and 38th Street

- Eastbound 38th Street left turn movement (weekday AM)
- Eastbound 38th Street right turn movement (weekday AM, midday, PM, and Saturday)

4th Avenue and 39th Street

- Eastbound 39th Street left turn movement (weekday AM, midday, PM, and Saturday)
- Eastbound 39th Street through-right movement (weekday AM, midday, PM, and Saturday)
- Westbound 39th Street left turn movement (weekday AM, midday, PM, and Saturday)
- Westbound 39th Street through-right movement (weekday AM, midday, PM, and Saturday)
- Southbound 4th Avenue left turn movement (weekday AM)
- Southbound 4th Avenue through-right movement (weekday midday and PM)

4th Avenue and 40th Street

- Southbound 4th Avenue left turn movement (weekday AM and Saturday)

The identification and evaluation of traffic capacity improvements needed to mitigate potential significant adverse traffic impacts created by the Proposed Project are presented in Chapter 20, "Mitigation."

GOWANUS EXPRESSWAY

TRAFFIC VOLUMES

The project-generated vehicular volumes using the Gowanus Expressway were added to the 2027 No Action volumes to develop the 2027 With Action highway volumes. Northbound Gowanus Expressway volumes would increase by approximately 110 vph during the weekday AM peak hour and by approximately 180 to 200 vph during the weekday midday, PM, and Saturday peak hours; these trips would exit to the local street network at the intersection of 4th Avenue and 38th Street. In the southbound direction, the Gowanus Expressway traffic volumes would increase by approximately 95 vph during the weekday AM and Saturday peak hours and by approximately 130 vph during the weekday midday and PM peak hours; these trips would exit to the local street network at the intersection of 2nd Avenue and 39th Street. The With Action traffic volume increments were assigned through the general purpose lanes since there are no available path for vehicles traveling on the HOV managed lane to exit into the local street network.

LEVEL OF SERVICE

Table 11-43 provides a comparison of the future No Action speeds, densities, and LOS with the With Action conditions for the mainline highway segments analyzed during the weekday and Saturday peak hours in accordance with the methodology from *HCM 6*. Per the *CEQR Technical Manual* impact criteria, traffic impacts would be expected to occur during the weekday AM and midday peak hours along the northbound Gowanus Expressway.

Table 11-43
2027 No Action vs. 2027 With Action Highway LOS Summary

Segment					Weekday AM Peak Hour						Weekday MD Peak Hour					
					No Action			With Action			No Action			With Action		
	Description	Length	Type	# Lanes	Speed (mph)	Density (pc/ln/mi)	LOS	Speed (mph)	Density (pc/ln/mi)	LOS	Speed (mph)	Density (pc/ln/mi)	LOS	Speed (mph)	Density (pc/ln/mi)	LOS
Northbound Gowanus Expressway	62nd St to 49th St	3500 ft.	Basic	2	34.0	46.8	F	32.9	48.9	F	36.0	48.7	F	36.0	50.9	F
	49th St Ramp from Belt Pkwy to 47th St	500 ft.	Merge	3 w/ 1 left ramp	30.8	49.0	F	19.5	77.7	F	36.0	47.1	F	36.0	49.3	F
	47th St to 40th St	1700 ft.	Overlap	3	29.8	49.0	F	19.5	77.7	F	36.0	47.1	F	36.0	49.3	F
	40th St to 38th St Exit	500 ft.	Diverge	3 w/ 1 right ramp	33.3	47.9	F	31.6	44.7	E	36.0	47.1	F	36.0	49.3	F
	38th St to 19th St	4910 ft.	Basic	3	21.3	62.7	F	21.3	57.2	F	36.0	41.5	E	36.0	41.7	E
Southbound Gowanus Expressway	24th St to 33rd St	2200 ft.	Basic	3	50.0	28.4	D	50.0	29.0	D	50.0	31.4	D	50.0	32.4	D
	33rd St to 39th St Exit	1500 ft.	Diverge	3 w/ 1 right ramp	47.2	30.0	D	47.1	30.8	D	47.3	33.2	D	47.1	34.4	D
	39th St to 43rd St	1240 ft.	Basic	3	49.7	22.5	C	49.7	22.5	C	49.7	26.6	D	49.7	26.6	D
	43rd St to 49th St – Ramp to Belt Pkwy	1500 ft.	Diverge	3 w/ 1 left ramp	50.0	22.5	C	50.0	22.5	C	50.0	26.6	C	50.0	26.6	C
	49th St to 55th St	1560 ft.	Basic	2	50.0	24.0	C	50.0	24.1	C	50.0	29.4	D	50.0	29.4	D
	55th St to 62nd St	1850 ft.	Basic	3	50.0	16.0	B	50.0	16.0	B	50.0	19.6	C	50.0	19.6	C

Note: Highlighted section denotes that the highway segment is significantly impacted.

Table 11-43 (cont'd)
2027 No Action vs. 2027 With Action Highway LOS Summary

Segment					Weekday PM Peak Hour						Saturday Peak Hour					
					No Action			With Action			No Action			With Action		
	Description	Length	Type	# Lanes	Speed (mph)	Density (pc/ln/mi)	LOS	Speed (mph)	Density (pc/ln/mi)	LOS	Speed (mph)	Density (pc/ln/mi)	LOS	Speed (mph)	Density (pc/ln/mi)	LOS
Northbound Gowanus Expressway	62nd St. to 49th St.	3500 ft.	Basic	2	50.0	38.3	E	50.0	39.9	E	50.0	37.1	E	50.0	38.4	E
	49th St. Ramp from Belt Pkwy. to 47th St.	500 ft.	Merge	3 w/ 1 left ramp	50.0	35.4	E	50.0	36.8	E	50.0	37.0	E	50.0	38.3	E
	47th St. to 40th St.	1700 ft.	Overlap	3	47.8	37.0	E	47.6	38.6	E	47.7	38.8	E	47.5	40.4	E
	40th St. to 38th St. Exit	500 ft.	Diverge	3 w/ 1 right ramp	47.8	37.0	E	47.6	38.6	E	47.7	38.8	E	47.5	40.4	E
	38th St. to 19th St.	4910 ft.	Basic	3	50.0	30.5	D	50.0	30.6	D	50.0	31.8	D	50.0	31.8	D
Southbound Gowanus Expressway	24th St. to 33rd St.	2200 ft.	Basic	3	32.0	56.3	F	32.0	57.8	F	50.0	33.8	D	50.0	34.5	D
	33rd St. to 39th St. Exit	1500 ft.	Diverge	3 w/ 1 right ramp	32.0	56.3	F	32.0	57.8	F	47.3	35.8	E	47.2	36.6	E
	39th St. to 43rd St.	1240 ft.	Basic	3	32.0	51.4	F	32.0	51.5	F	49.7	30.2	D	49.7	30.2	D
	43rd St. to 49th St. – Ramp to Belt Pkwy.	1500 ft.	Diverge	3 w/ 1 left ramp	35.6	45.7	F	35.6	45.7	F	50.0	30.2	D	50.0	30.2	D
	49th St. to 55th St.	1560 ft.	Basic	2	44.2	42.3	E	44.2	42.3	E	50.0	31.3	D	50.0	31.3	D
	55th St. to 62nd St.	1850 ft.	Basic	3	38.3	33.2	D	38.3	33.2	D	50.0	20.9	C	50.0	20.9	C

Note: Highlighted section denotes that the highway segment is significantly impacted.

As a result of the additional vehicular demand experienced along the highway, there would be slight increases in density speed along the segments studied between the No Action and With Action conditions (generally fewer than three passenger cars per lane per mile), with the exception of the northbound Gowanus Expressway mainline between 40th Street and 49th Street during the weekday AM peak hour where the speeds are expected to decrease from approximately 30 to 31 mph to approximately 20 mph, and the immediate segments to the north which would be expected to experience a decrease in density albeit with a slight decrease in travel speeds as well (from approximately 21 to 33 mph to 20 to 32 mph). The decrease in density could be attributed vehicles passing through and finding more space after passing the weaving sections ahead of the 38th Street exit.

Average travel speeds along the northbound Gowanus Expressway during the With Action condition would range between approximately 20 to 33 mph during the weekday AM peak hour (the northbound Gowanus Expressway is the peak travel direction weekday AM peak period), 48 to 50 mph in the weekday PM and Saturday peak hours, and 36 mph during the weekday midday peak hour. Average travel speeds along the southbound Gowanus Expressway during the weekday PM peak hour (the southbound Gowanus Expressway is the peak direction during the weekday PM peak period) would range between approximately 32 to 44 mph, and approximately 47 to 50 mph during the other peak hours analyzed. The change in travel speeds between the No Action and With Action conditions would be expected to be less than one mile per hour with the exception of the northbound Gowanus Expressway during the weekday AM peak hour.

The LOS along each segment of the Gowanus Expressway is a function of the segment densities, and are summarized below.

For the northbound Gowanus Expressway:

- During the weekday AM peak hour, all five segments would operate at unacceptable LOS E or F under the With Action condition, similar to the No Action condition.
- During the weekday midday peak hour, northbound highway segments would operate between LOS E and LOS F under the With Action condition, similar to the No Action conditions.
- During the weekday PM and Saturday peak hours, northbound highway segments would operate between LOS D and LOS E under the With Action condition, similar to the No Action conditions.

For the southbound Gowanus Expressway:

- During the weekday AM peak hour, southbound highway segments would operate between LOS B and LOS D under the With Action condition, similar to the No Action conditions.
- During the weekday midday peak hour, southbound highway segments would operate between LOS C and LOS D under the With Action conditions, similar to the No Action conditions.
- During the weekday PM peak hour, southbound highway segments would operate between LOS D and LOS F under the With Action conditions, similar to the No Action conditions.
- During the Saturday peak hour, southbound highway segments would operate between LOS C and LOS E under the With Action condition, similar to the No Action conditions.

The Proposed Project would result in significant adverse traffic impacts to the northbound Gowanus Expressway during the weekday AM and midday peak hours. Segments of the northbound Gowanus Expressway would be expected to operate at LOS F during the weekday AM and midday peak hours; per the *CEQR Technical Manual* criteria a density increase of 2.0 pc/mi/ln or greater for a highway segment operating at LOS F is considered a significant impact. It is worth noting that these segments operate at LOS E or LOS F under existing conditions during the weekday AM and midday peak hours. The addition of about 110 vehicles during the weekday AM peak hour and 200 vehicles during the weekday midday peak hour to these segments due to the Proposed Action represent less than two percent and five percent increase in traffic volume, respectively, as compared to the No Action conditions. This can be visualized as an additional vehicle per lane passing through these segments every 100 seconds during the weekday AM peak hour, and one additional vehicle per lane every minute during the weekday midday peak hour.

PARKING

The weekday peak parking demand for the Proposed Project would occur during midday hours when employee demand would be maximized and other visitors, shoppers, etc. would also park their cars during the day. On Saturdays, the peak parking demand would occur during the afternoon hours when retail shopping activities peak. The weekday peak parking demand of about 1,072 spaces is expected to occur between 1 PM and 2 PM. During a typical Saturday, the peak parking demand of about 1,367 spaces would occur between 3 PM and 4 PM. **Table<u>s</u> 11-44<u>a and 11-44b</u>** provides the projected hourly parking accumulation from the Proposed Project for weekday and Saturday conditions.

Table 11-44a
Proposed Project-Generated Parking Demand – Weekday

Time	Destination Retail			Local Retail			Industry City Innovation Economy			Hotel			Academic			Food Store			Event Space			Warehouse			Total		
	In	Out	Dm	In	Out	Dm	In	Out	Dm	In	Out	Dm	In	Out	Dm	In	Out	Dm	In	Out	Dm	In	Out	Dm	In	Out	Dm
12 AM–1 AM	0	0	0	0	0	0	0	0	0	5	1	118	0	2	0	0	0	0	0	0	0	0	0	0	5	3	118
1 AM–2 AM	0	0	0	0	0	0	0	0	0	5	1	122	4	4	0	0	0	0	0	0	0	0	0	0	9	5	122
2 AM–3 AM	0	0	0	0	0	0	0	0	0	0	0	122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	122
3 AM–4 AM	0	0	0	0	0	0	0	0	0	0	0	122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	122
4 AM–5 AM	0	0	0	0	0	0	0	0	0	0	0	122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	122
5 AM–6 AM	0	0	0	0	0	0	0	0	0	0	0	122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	122
6 AM–7 AM	0	0	0	0	0	0	11	2	9	0	0	122	0	0	0	0	0	0	0	0	0	0	0	0	11	2	131
7 AM–8 AM	39	39	0	0	0	0	65	17	57	3	5	120	16	0	16	87	71	16	3	0	3	-21	-4	-17	192	128	195
8 AM–9 AM	240	152	88	3	3	0	131	37	151	37	52	105	127	7	136	96	72	40	8	7	4	-180	-39	-158	462	291	366
9 AM–10 AM	194	80	202	1	1	0	90	29	212	17	32	90	48	3	181	75	79	36	43	4	43	-58	-19	-197	410	209	567
10 AM–11 AM	259	121	340	1	1	0	93	46	259	16	23	83	40	2	219	74	66	44	31	6	68	-30	-21	-206	484	244	807
11 AM–12 PM	647	530	457	14	14	0	56	57	258	107	48	142	32	32	219	86	86	44	7	41	34	-45	-45	-206	904	763	948
12 PM–1 PM	382	285	554	2	2	0	34	40	252	21	29	134	19	8	230	78	78	44	23	18	39	-21	-17	-210	538	443	1,043
1 PM–2 PM	940	929	565	9	9	0	29	28	253	21	38	117	7	14	223	72	64	52	40	7	72	-32	-32	-210	1,086	1,057	1,072
2 PM–3 PM	645	714	496	4	4	0	41	40	254	18	38	97	6	15	214	103	100	55	34	9	97	-23	-27	-206	828	893	1,007
3 PM–4 PM	603	534	565	4	4	0	50	70	234	18	38	77	17	17	214	124	118	61	19	21	95	-23	-53	-176	812	749	1,070
4 PM–5 PM	549	601	513	4	4	0	16	73	177	23	43	57	30	37	207	132	119	74	13	28	80	-30	-72	-134	737	833	974
5 PM–6 PM	553	625	441	8	8	0	58	135	100	83	61	79	22	195	34	147	135	86	3	44	39	-43	-124	-53	831	1,079	726
6 PM–7 PM	575	667	349	5	5	0	12	112	0	35	52	62	17	17	34	133	112	107	3	42	0	-11	-54	-10	769	953	542
7 PM–8 PM	509	509	349	4	4	0	0	0	0	73	49	86	8	18	24	112	128	91	0	0	0	0	-7	-3	706	701	547
8 PM–9 PM	288	352	285	3	3	0	0	0	0	33	22	97	10	15	19	69	97	63	0	0	0	0	-3	0	403	486	464
9 PM–10 PM	114	399	0	1	1	0	0	0	0	20	13	104	4	5	18	43	66	40	0	0	0	0	0	0	182	484	162
10 PM–11 PM	0	0	0	0	0	0	0	0	0	14	8	110	0	8	10	27	48	19	0	0	0	0	0	0	41	64	139
11 PM–12 AM	0	0	0	0	0	0	0	0	0	8	4	114	0	8	2	6	25	0	0	0	0	0	0	0	14	37	116

Table 11-44b
Proposed Project-Generated Parking Demand – Saturday

Time	Destination Retail			Local Retail			Industry City Innovation Economy			Hotel			Academic			Food Store			Event Space			Warehouse			Total		
	In	Out	Dm	In	Out	Dm	In	Out	In	In	In	Dm	In	Out	Dm	In	Out	Dm	In	Out	Dm	In	Out	Dm	In	Out	Dm
12 AM–1 AM	0	0	0	0	0	0	0	0	0	4	0	86	0	0	0	0	0	0	0	0	0	0	0	0	4	0	86
1 AM–2 AM	0	0	0	0	0	0	0	0	0	4	0	90	0	0	0	0	0	0	0	0	0	0	0	0	4	0	90
2 AM–3 AM	0	0	0	0	0	0	0	0	0	0	0	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90
3 AM–4 AM	0	0	0	0	0	0	0	0	0	0	0	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90
4 AM–5 AM	0	0	0	0	0	0	0	0	0	0	0	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90
5 AM–6 AM	0	0	0	0	0	0	0	0	0	0	0	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90
6 AM–7 AM	0	0	0	0	0	0	12	0	12	0	0	90	0	0	0	0	0	0	0	0	0	0	0	0	12	0	102
7 AM–8 AM	63	0	63	1	0	1	19	3	28	6	10	86	7	0	7	45	22	23	0	0	0	-3	0	-3	138	35	205
8 AM–9 AM	121	7	177	1	0	2	23	7	44	15	22	79	31	5	33	81	61	43	0	0	0	-21	-4	-20	251	98	358
9 AM–10 AM	114	12	279	1	0	3	27	8	63	19	27	71	25	6	52	81	72	52	2	0	2	-7	-2	-25	262	123	497
10 AM–11 AM	204	51	432	5	1	7	23	13	73	22	27	66	25	4	73	121	93	80	7	0	9	-3	-2	-26	404	187	714
11 AM–12 PM	802	344	890	7	7	7	6	5	74	23	25	64	5	5	73	116	116	80	10	1	18	-4	-4	-26	965	499	1,180
12 PM–1 PM	509	509	890	8	7	8	8	9	73	26	26	64	10	10	73	130	153	57	16	3	31	-8	-8	-26	699	709	1,170
1 PM–2 PM	681	655	916	8	7	9	10	9	74	25	39	50	1	10	64	173	171	59	15	9	37	-6	-8	-24	907	892	1,185
2 PM–3 PM	770	631	1,055	9	9	9	15	16	73	40	32	58	28	28	64	184	170	73	7	19	25	-9	-9	-24	1,044	896	1,333
3 PM–4 PM	662	611	1,106	8	7	10	11	17	67	26	43	41	1	9	56	143	133	83	14	14	25	-3	-6	-21	862	828	1,367
4 PM–5 PM	363	401	1,068	7	7	10	13	32	48	30	30	41	19	24	51	169	161	91	17	11	31	-3	-8	-16	615	658	1,324
5 PM–6 PM	573	573	1,068	6	5	11	6	26	28	31	31	41	6	25	32	168	174	85	7	17	21	-5	-15	-6	792	836	1,280
6 PM–7 PM	516	630	954	5	7	9	2	27	3	40	40	41	6	19	19	153	146	92	3	18	6	-1	-6	-1	724	881	1,123
7 PM–8 PM	401	745	610	5	7	7	0	3	0	32	21	52	5	12	12	143	146	89	3	9	0	0	-1	0	589	942	770
8 PM–9 PM	356	662	304	4	7	4	0	0	0	24	16	60	6	11	7	116	128	77	0	0	0	0	0	0	506	824	452
9 PM–10 PM	231	535	0	3	7	0	0	0	0	17	7	70	3	4	6	75	118	34	0	0	0	0	0	0	329	671	110
10 PM–11 PM	0	0	0	0	0	0	0	0	0	12	4	78	0	3	3	50	61	23	0	0	0	0	0	0	62	68	104
11 PM–12 AM	0	0	0	0	0	0	0	0	0	6	2	82	0	3	0	20	43	0	0	0	0	0	0	0	26	48	82

As part of the Proposed Project, parking garages will be developed on the Building 11 and Building 21 sites. The parking garage on the Building 11 site would have up to 384 spaces (an increase of 184 spaces above the 200 spaces under the No Action condition) and the parking garage on the Building 21 site would have at least 1,350 spaces (an increase of 892 spaces above the 458 spaces under the No Action condition). Therefore, with the Proposed Project, there would be a net increase of 1,076 parking spaces in these two garages. Auto trips generated by the Proposed Project are expected to park in these garages.

As discussed in Section D, "The Future without The Proposed Actions," it was assumed that Industry City would not be able to renew their lease for the sites where parking lots B and C are located; existing Industry City demand at these lots would instead park in facilities located on the site of Building 11 and Building 21. In addition to the existing parking demand, auto trips generated by the No Action development occurring within the Industry City complex would park at these two sites, similar to auto trips generated by the Proposed Project. Therefore, the With Action condition occupancy at these two parking facilities would include the No Action parking demand detailed in **Table 11-32**; these garages would be approximately 49 percent occupied during the weekday AM peak hour, 83 percent occupied during the weekday midday peak hour, 74 percent occupied during the weekday PM peak hour, and 89 percent occupied during the Saturday peak hour. Parking occupancy rates for each parking facility during each peak period is provided in **Table 11-45**.

Table 11-45
Inventory of With Action Industry City Parking Facilities

Location	Capacity	Condition	Occupancy			
			Weekday AM Peak Hour (9 AM to 10 AM)	Weekday Midday Peak Hour (1 PM to 2 PM)	Weekday PM Peak Hour (4 PM to 5 PM)	Saturday Peak Hour (3 PM to 4 PM)
A. Building 11 Garage – South side of 32nd Street between 2nd and 3rd Avenues	384	No Action Demand	52	71	64	25
		Proposed Project Demand	172	304	297	343
		With Action Occupancy	**224 58%**	**375 98%**	**361 94%**	**368 96%**
B. Building 21 Garage – Southeast corner of 1st Avenue and 39th Street	1,350	No Action Demand	223	300	253	144
		Proposed Project Demand	395	768	677	1,024
		With Action Occupancy	**618 46%**	**1,068 79%**	**930 69%**	**1,168 87%**
Total	**1,734**		**842**	**1,443**	**1,291**	**1,536**
Percent Occupied (%)			**49%**	**83%**	**74%**	**89%**

Note: As indicated in **Figure 1-8**, the potential capacity of the Building 11 garage is 334–384 spaces, and the potential capacity of the Building 21 garage is 1,350–1,600 spaces, for a total range of 1,684–1,984 spaces at Industry City in the With Action condition.

SUBWAY TRANSIT

As shown in **Table 11-5**, the Proposed Project would generate a net increment of approximately 1,874 subway trips (1,658 "project ins" and 216 "project outs") during the weekday AM peak hour and 3,991 subway trips (767 "project ins" and 3,224 "project outs") during the weekday PM peak hour. All project-generated subway trips were assigned to use the 36th Street subway station on the BMT 4th Avenue Line (served by the D, N, and R lines).

SUBWAY STATION ELEMENTS

Tables 11-46 and 11-47 summarize the results of the LOS analysis for the 36th Street station at the analyzed stairways and fare control area, respectively. Five of the eight analyzed stairways are expected to operate over practical capacity (LOS D or worse) and would be significantly adversely impacted by project-generated demand in both peak hours based on the impact criteria in **Table 11-12** in the earlier part of this chapter, one additional stairway would operate over practical capacity and be significantly impacted during only the weekday PM peak hour. All other analyzed stairways and the fare control area would operate at LOS C or better during both the weekday AM and PM peak hours and would therefore not be significantly adversely impacted by the Proposed Project based on *CEQR Technical Manual* criteria.

Table 11-46
2027 With Action Subway Station LOS – Stairways

Peak Hour	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes				Surging Factor		Friction Factor	V/C Ratio	LOS	WIT (in.)
				Project Increment		Total Volumes							
				Down	Up	Down	Up	Up	Down				
AM	S1	5.8	4.8	39	18	123	324	0.90	1.00	0.90	0.75	C	
	S2	5.8	4.8	7	52	373	153	0.90	1.00	0.90	0.84	C	
	S3	5.8	4.8	22	449	177	702	0.90	1.00	0.90	1.48	E	27.47 *
	M1A/ M1B	13.2	11.0	61	467	300	1,027	0.80	1.00	0.90	0.99	C	
	P1	6.0	5.0	12	91	65	253	0.75	1.00	0.90	0.60	B	
	P2	5.8	4.8	28	39	347	145	0.75	1.00	0.90	0.83	C	
	P3	5.7	4.7	8	272	152	531	0.75	1.00	0.90	1.36	E	20.04 *
	P4	5.7	4.7	19	117	347	448	0.75	1.00	0.90	1.49	E	11.64 *
PM	S1	5.8	4.8	157	119	358	204	0.90	1.00	0.90	0.90	C	
	S2	5.8	4.8	101	24	233	206	0.90	1.00	0.90	0.71	C	
	S3	5.8	4.8	750	97	999	223	0.90	1.00	0.90	1.92	F	53.22 *
	M1A/ M1B	13.2	11.0	907	216	1,358	426	0.80	1.00	0.90	1.18	D	25.24 *
	P1	6.0	5.0	181	42	253	126	0.75	1.00	0.90	0.62	B	
	P2	5.8	4.8	423	18	627	58	0.75	1.00	0.90	1.09	D	5.01
	P3	5.7	4.7	121	126	261	360	0.75	1.00	0.90	1.17	D	9.47 *
	P4	5.7	4.7	282	54	578	188	0.75	1.00	0.90	1.31	D	17.26 *

Note:
* Denotes a significant adverse impact

Table 11-47
2027 With Action Subway Station LOS – Fare Control Area

Peak Hour	Fare Control Area	Control Elements	Quantity	15-Minute Pedestrian Volumes				Surging Factor (Out Trips)	Friction Factor	V/C Ratio	LOS
				Project Increment		Total Volumes					
				In	Out	In	Out				
AM	C-018	Two-way Turnstile	6	68	518	673	1,178	0.90	0.90	0.67	B
PM	C-018	Two-way Turnstile	6	1,008	240	1,591	633	0.90	0.90	0.90	C

As shown in **Table 11-46**, the calculated width increment threshold for stairways S3, P3, and P4 stairways exceeds the criteria for significant adverse impacts during both the weekday AM and PM peak hours:

- The Proposed Project would add approximately 471 trips and 847 trips in the peak 15 minutes to the northwest street stair (S3) during the weekday AM and PM peak hours, respectively.

Consequently, this stairway is expected to operate at a v/c ratio of 1.48 (LOS E) and 1.92 (LOS F) in the weekday AM and PM peak hours, respectively.

- The Proposed Project would add approximately 280 trips and 247 trips in the peak 15 minutes to the southbound platform stair (P3) during the weekday AM and PM peak hours, respectively. Consequently, this stairway would operate at a v/c ratio of 1.36 (LOS E) and 1.17 (LOS D) in the weekday AM and PM peak hours, respectively.
- The Proposed Project would add approximately 136 trips and 336 trips in the peak 15 minutes to the northbound platform stair (P4) during the weekday AM and PM peak hours, respectively. Consequently, this stairway is expected to operate at a v/c ratio of 1.49 (LOS E) and 1.31 (LOS D) in the weekday AM and PM peak hours, respectively.
- In addition, the M1A/M1B stairway would be significantly impacted during the weekday PM peak hour. The Proposed Project would add approximately 1,123 trips in the peak 15 minutes to this stairway and the stairway would be expected to operate at a v/c ratio of 1.18 (LOS D) during the weekday PM peak hour.

Potential mitigation measures for the significant adverse impacts to these four stairways are discussed in Chapter 20, "Mitigation."

SUBWAY LINE-HAUL CAPACITY

Table 11-48 summarizes anticipated 2027 With Action subway line-haul conditions at the maximum load points along the three subway lines serving the 36th Street station. In the With Action condition, all subway lines analyzed would continue to operate below capacity in the peak direction during both peak hours, therefore significant adverse impacts to subway line haul conditions are not anticipated based on *CEQR Technical Manual* criteria.

Table 11-48
2027 With Action Conditions Subway Line-Haul Analysis

Peak Period	Line	Direction	Maximum Load Point (Leaving Station)	Average Trains Per Hour	Average Cars Per Hour	Incremental Passengers Per Car	Average Passengers Per Hour	Average Passengers Per Car	Guideline Passengers Per Car[1]	V/C Ratio[2]
AM	D	NB	36 St	10.6	85	0.67	10,599	125	155	0.81
	N	NB	36 St	10.7	107	0.60	11,571	108	125	0.87
	R	NB	Union St	10.1	81	0.38	8,082	100	155	0.65
PM	D	SB	Atlantic Av-Barclays Ctr	10.0	80	2.53	9,747	122	155	0.79
	N	SB	Atlantic Av-Barclays Ctr	9.8	98	2.32	9,772	100	125	0.80
	R	SB	Jay St-MetroTech	10.3	82	1.32	6,631	80	155	0.52

Notes:
[1] Guideline capacities are based on MTA-NYCT rush hour loading guidelines, which vary by car type, line, and location based on frequency and type of service
[2] Volume to guideline capacity ratio

BUS TRANSIT

As shown in **Table 11-5**, the Proposed Project would generate 528 incremental bus trips (379 "project ins" and 149 "project outs") during the weekday AM peak hour and 1,311 incremental bus trips (474 "project ins" and 837 "project outs") during the weekday PM peak hour. As shown in **Table 11-49**, demand on the B35 LTD route is expected to increase by approximately 18 eastbound trips and 120 westbound trips at the maximum load points during the weekday AM peak hour and by 265 eastbound trips and 150 westbound trips at the maximum load points during the weekday PM peak hour. Demand on the B70 route is expected to increase by approximately one eastbound trip and 40 westbound trips at the maximum load points during the weekday AM

peak hour and by six eastbound trips and four westbound trips at the maximum load points during the weekday PM peak hour.

Table 11-49
With Action Conditions Local Bus Analysis

Peak Hour	Route	Direction	Maximum Load Point	Peak Hour Buses	No Action Available Capacity[1]	Project Increment	Available Capacity with Proposed Project[2]
AM	B35 LTD	EB	Church Ave and Utica Ave	8	187	18	169
		WB	Church Ave and Nostrand Ave	15	563	120	443
	B70	EB	8th Ave and 62nd St	6	80	1	79
		WB	8th Ave and 39th St	6	35	40	-5*
PM	B35 LTD	EB	Church Ave and Nostrand Ave	14	568	265	303
		WB	Church Ave and Nostrand Ave	11	551	150	401
	B70	EB	8th Ave and Bay Ridge Ave	4	95	6	89
		WB	8th Ave and 62nd St	4	119	4	115

Notes:
[1] Available capacity based on NYCT loading guidelines of 54 passengers per standard bus (B70) and 85 passengers per articulated bus (B35 LTD).
* Denotes a significant adverse impact.

As shown in **Table 11-49**, based on projected levels of bus service in the No Action condition, the Proposed Project would result in the following capacity shortfalls:

- Westbound B70 service would experience a capacity shortfall of five passengers during the weekday AM peak hour.

Therefore, the B70 bus route would be significantly adversely impacted during the weekday AM peak hour based on *CEQR Technical Manual* criteria. As discussed in Chapter 20, "Mitigation," the significant impacts to bus transit could be mitigated by increasing bus service along this route.

PEDESTRIANS

The project-generated pedestrian volumes were distributed through the pedestrian network and added to the 2027 No Action volumes to develop the 2027 With Action pedestrian volumes.

Auto trips generated by the Proposed Project were assigned to the parking garages at Building 11 and Building 21; these trips were assigned to exit the parking garages and walk to their destinations.

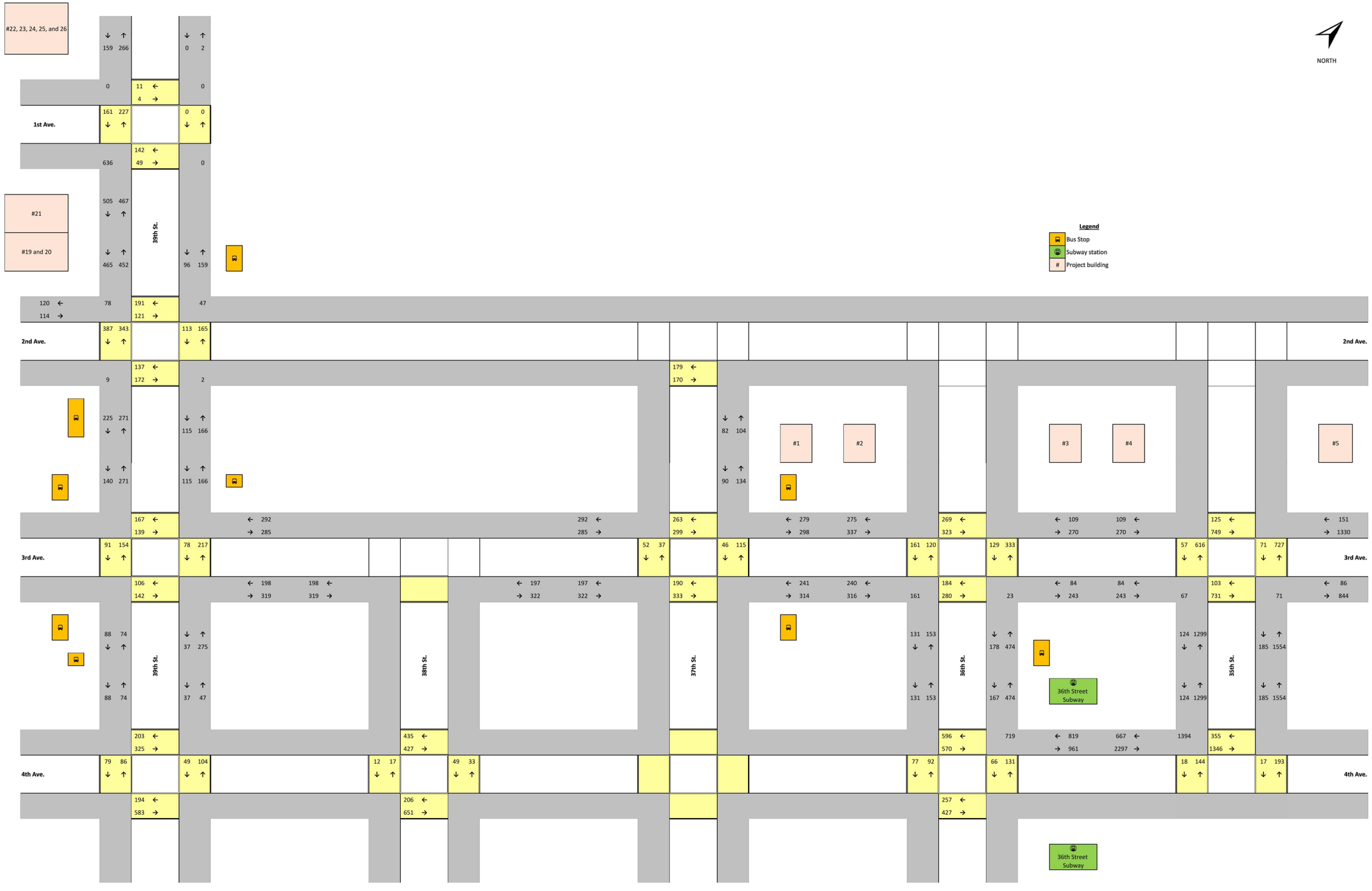
Bus transit options within a quarter mile of the Project Area include the B35 bus route which operates along 39th Street, the B37 bus route which operates along 3rd Avenue, and the B70 bus line which operates along 36th Street, 37th Street, and 39th Street. The closest subway station is the 36th Street subway station, which provides service to the D, N, and R subway lines. Transit trips would be expected to walk primarily along 35th Street, 36th Street, and 3rd Avenue towards the Project Area.

Walk-only trips were assigned along 2nd Avenue, 3rd Avenue, and 4th Avenue as well as along east-west streets adjacent to the Project Area buildings. Approximately 25 percent of walk trips were expected to originate from the north, 35 percent from the south, and 40 percent from the east.

The With Action pedestrian volumes are provided in **Figures 11-34 through 11-37**.

Pedestrian analyses were performed based on these volumes and the With Action pedestrian LOS were determined for the analysis locations. Eight additional pedestrian elements at the intersection

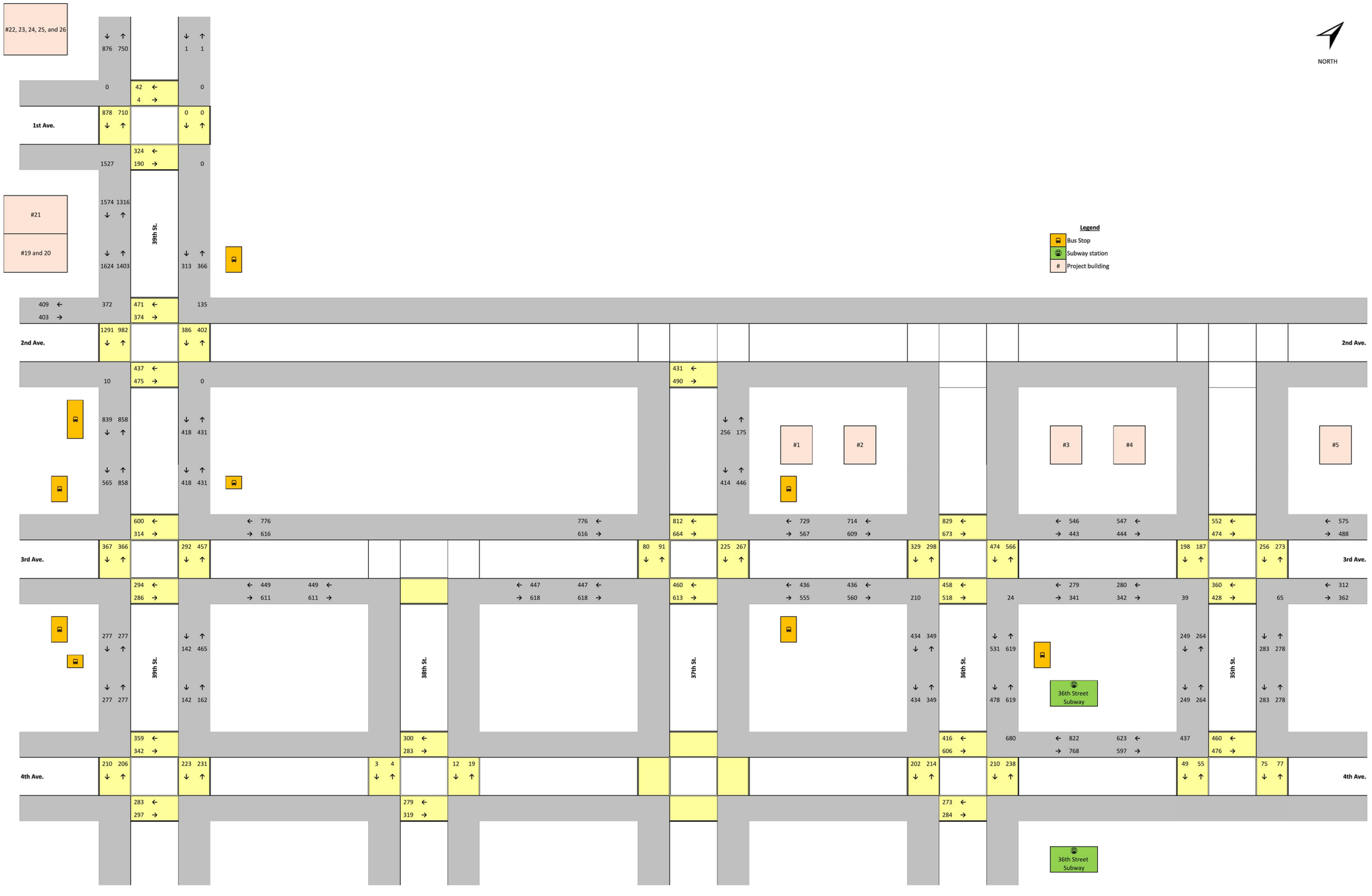
Date: 7.11.2018



Industry City

2027 With Action Pedestrian Volumes
Weekday AM Peak Hour

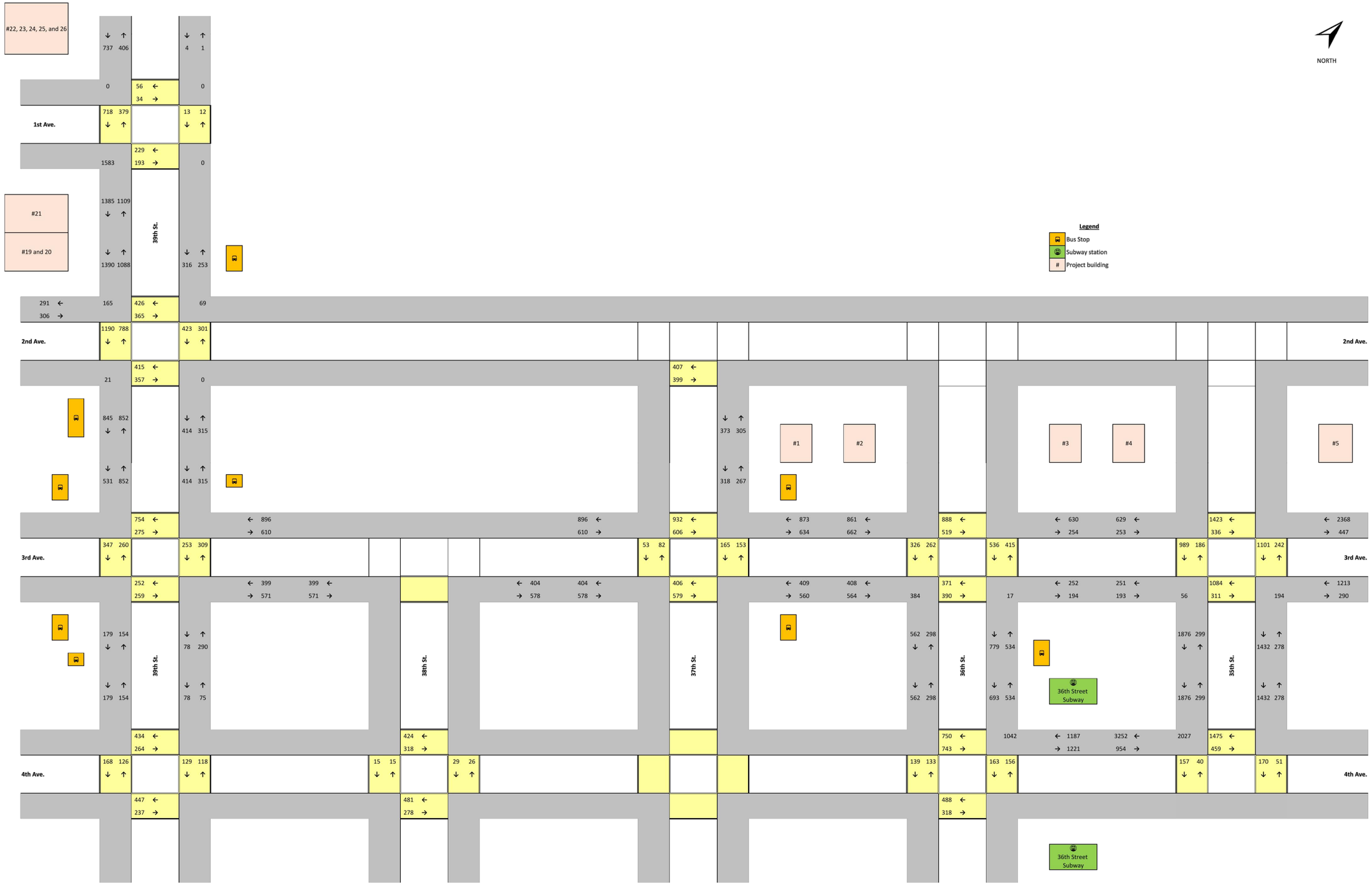
Figure 11-34



Industry City

2027 With Action Pedestrian Volumes
Weekday Midday Peak Hour

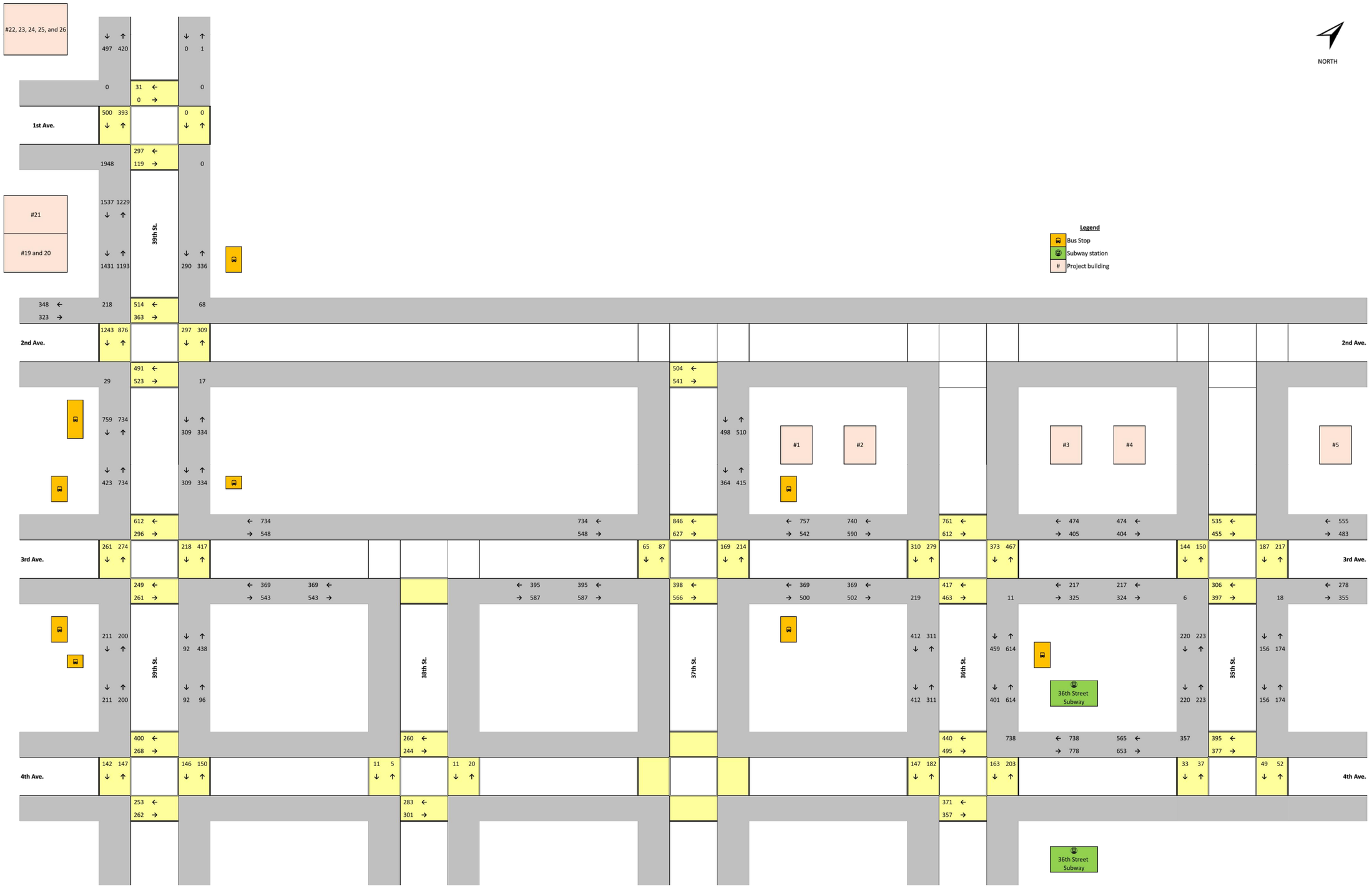
Figure 11-35



Industry City

2027 With Action Pedestrian Volumes
Weekday PM Peak Hour

Figure 11-36



Industry City

2027 With Action Pedestrian Volumes
Saturday Peak Hour

Figure 11-37

of 1st Avenue and 39th Street (four crosswalks and four corners) were included as part of the With Action analysis to assess pedestrian LOS this intersection which would be signalized as part of the project improvements to facilitate vehicle and pedestrian traffic. **Table 11-50** provides an overview of the LOS. Detailed pedestrian LOS are provided in **Table 11-51 through 11-53**. The summary of the With Action condition indicates that:

- During the weekday AM peak hour, six of the 77 pedestrian elements analyzed would operate at unacceptable LOS (LOS D or worse). This includes two sidewalk elements and four crosswalk elements.
- During the weekday midday peak hour, 16 pedestrian elements would operate at unacceptable LOS including two sidewalk elements, 12 crosswalk elements, and two corner elements.
- During the weekday PM peak hour, 20 pedestrian elements would operate at unacceptable LOS including four sidewalk elements, 14 crosswalk elements, and two corner elements.
- During the Saturday peak hour, 13 pedestrian elements would operate at unacceptable LOS including three sidewalk elements, eight crosswalk elements, and two corner elements.

Pedestrian elements that operate at unacceptable LOS under the No Action condition would continue to do so under the With Action condition; additional pedestrian elements that would be expected to operate at unacceptable LOS as a result of the Proposed Project are listed below:

- The south sidewalk along 35th Street between 3rd Avenue and 4th Avenue during the weekday AM and PM peak hours.
- The north sidewalk along 39th Street between 2nd Avenue and 3rd Avenue during the Saturday peak hour.
- The south sidewalk along 39th Street between 1st Avenue and 2nd Avenue during the weekday midday, PM, and Saturday peak hours.
- The west sidewalk along 3rd Avenue between 34th Street and 35th Street during the weekday AM, midday, PM, and Saturday peak hours.
- The west sidewalk along 4th Avenue between 35th Street and 36th Street during the weekday PM peak hour.
- The south crosswalk at the intersection of 1st Avenue and 39th Street during the weekday midday, PM, and Saturday peak hours.
- The east crosswalk at the intersection of 1st Avenue and 39th Street during the weekday midday and PM peak hours.
- The north, east, and west crosswalks at the intersection of 2nd Avenue and 39th Street during the weekday midday, PM, and Saturday peak hours.
- The south crosswalk at the intersection of 2nd Avenue and 39th Street during the weekday AM, midday, PM, and Saturday peak hours.
- The north crosswalk at the intersection of 3rd Avenue and 35th Street during the weekday AM, midday, and PM peak hours.
- The south crosswalk at the intersection of 3rd Avenue and 35th Street during the weekday AM and PM peak hours.
- The west crosswalk at the intersection of 3rd Avenue and 35th Street during the weekday PM peak hour.

- The north crosswalk at the intersection of 3rd Avenue and 36th Street during the weekday AM and Saturday peak hours.
- The south crosswalk at the intersection of 3rd Avenue and 36th Street during the weekday midday, PM, and Saturday peak hours.
- The west crosswalk at the intersection of 3rd Avenue and 36th Street during the weekday PM peak hour.
- The north crosswalk at the intersection of 3rd Avenue and 39th Street during the weekday midday, PM, and Saturday peak hours.
- The south crosswalk at the intersection of 3rd Avenue and 39th Street during the weekday midday peak hour.
- The west crosswalk at the intersection of 4th Avenue and 35th Street during the weekday PM peak hour.
- The north crosswalk at the intersection of 4th Avenue and 39th Street during the weekday midday peak hour.
- The southeast and southwest corners at the intersection of 2nd Avenue and 39th Street during the weekday midday, PM, and Saturday peak hours.

Of the 77 pedestrian elements analyzed, the proposed project would result in significant adverse impacts at six pedestrian elements during the weekday AM peak hour, 14 pedestrian elements during the weekday midday peak hour, 18 pedestrian elements during the weekday PM peak hour, and 12 pedestrian elements during the Saturday peak hour. Mitigation measures that could be implemented to mitigate these potential significant adverse pedestrian impacts are discussed in Chapter 20, "Mitigation." The impacted pedestrian elements are identified below:

- The south sidewalk along 35th Street between 3rd Avenue and 4th Avenue during the weekday AM and PM peak hours.
- The north sidewalk along 39th Street between 2nd Avenue and 3rd Avenue during the Saturday peak hour.
- The south sidewalk along 39th Street between 1st Avenue and 2nd Avenue during the weekday midday, PM, and Saturday peak hours.
- The west sidewalk along 3rd Avenue between 34th Street and 35th Street during the weekday AM, midday, PM, and Saturday peak hours.
- The west sidewalk along 4th Avenue between 35th Street and 36th Street during the weekday PM peak hour.
- The north, east, and west crosswalks at the intersection of 2nd Avenue and 39th Street during the weekday midday, PM, and Saturday peak hours.
- The south crosswalk at the intersection of 2nd Avenue and 39th Street during the weekday AM, midday, PM, and Saturday peak hours.
- The north crosswalk at the intersection of 3rd Avenue and 35th Street during the weekday AM, midday, and PM peak hours.
- The south crosswalk at the intersection of 3rd Avenue and 35th Street during the weekday AM and PM peak hours.
- The west crosswalk at the intersection of 3rd Avenue and 35th Street during the weekday PM peak hour.

- The north crosswalk at the intersection of 3rd Avenue and 36th Street during the weekday AM, midday, PM, and Saturday peak hours.
- The south crosswalk at the intersection of 3rd Avenue and 36th Street during the weekday midday, PM, and Saturday peak hours.
- The west crosswalk at the intersection of 3rd Avenue and 36th Street during the weekday PM peak hour.
- The north crosswalk at the intersection of 3rd Avenue and 39th Street during the weekday midday, PM, and Saturday peak hours.
- The south crosswalk at the intersection of 3rd Avenue and 39th Street during the weekday midday peak hour.
- The west crosswalk at the intersection of 4th Avenue and 35th Street during the weekday PM peak hour.
- The north crosswalk at the intersection of 4th Avenue and 39th Street during the weekday midday peak hour.
- The southeast and southwest corners at the intersection of 2nd Avenue and 39th Street during the weekday midday, PM, and Saturday peak hours.

Table 11-50
2027 No Action vs. 2027 With Action Pedestrian LOS Summary

	2027 No Action				2027 With Action			
	Weekday				Weekday			
	AM Peak Hour	Midday Peak Hour	PM Peak Hour	Saturday Peak Hour	AM Peak Hour	Midday Peak Hour	PM Peak Hour	Saturday Peak Hour
Sidewalk Elements								
Sidewalks at Overall LOS A/B/C	24	24	24	24	22	22	20	21
Sidewalks at Overall LOS D	0	0	0	0	1	1	0	2
Sidewalks at Overall LOS E	0	0	0	0	1	0	3	0
Sidewalks at Overall LOS F	0	0	0	0	0	1	1	1
Number of significantly impacted sidewalk elements	-	-	-	-	2	2	4	3
Crosswalk Elements								
Crosswalks at Overall LOS A/B/C	35	34	34	35	35	27	25	31
Crosswalks at Overall LOS D	0	1	1	0	3	7	6	5
Crosswalks at Overall LOS E	0	0	0	0	1	2	6	2
Crosswalks at Overall LOS F	0	0	0	0	0	3	2	1
Number of significantly impacted crosswalk elements	-	-	-	-	4	10	12	7
Corner Elements								
Corners at Overall LOS A/B/C	10	10	10	10	14	12	12	12
Corners at Overall LOS D	0	0	0	0	0	0	0	2
Corners at Overall LOS E	0	0	0	0	0	2	2	0
Corners at Overall LOS F	0	0	0	0	0	0	0	0
Number of significantly impacted corner elements	-	-	-	-	0	2	2	2
Note: Includes 24 sidewalk, 39 crosswalk, and 14 corner analysis locations								

Table 11-51
2027 With Action Pedestrian LOS – Sidewalks

		Weekday AM Peak (8:00 AM–9:00 AM)			Weekday Midday Peak (12:30 PM–1:30 PM)			Weekday PM Peak (5:00 PM–6:00 PM)			Saturday Peak (1:45 PM–2:45 PM)		
Sidewalk	**Effective Width, ft**	**Volume, ped/hr**	**Avg Ped Space, SF/P**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, SF/P**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, SF/P**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, SF/P**	**LOS**
35th Street between 3rd Avenue and 4th Avenue (north side)	8.1	1,739	39.0	C	561	101.4	A	1,710	44.5	B	330	250.1	A
35th Street between 3rd Avenue and 4th Avenue (south side)	3.0	1,423	21.3	D	513	65.1	A	2,175	9.1	E	443	60.0	A
36th Street between 3rd Avenue and 4th Avenue (north side)	7.7	652	130.2	A	1,150	59.1	B	1,313	42.6	B	1,073	59.8	B
36th Street between 3rd Avenue and 4th Avenue (south side)	7.3	284	243.9	A	783	75.1	A	860	71.5	A	723	116.0	A
37th Street between 2nd Avenue and 3rd Avenue (north side)	2.1	224	80.3	A	860	19.7	D	678	25.4	C	1,008	22.8	D
39th Street between 3rd Avenue and 4th Avenue (north side)	5.9	312	131.2	A	607	80.6	A	368	135.5	A	530	116.5	A
39th Street between 3rd Avenue and 4th Avenue (south side)	2.6	162	142.6	A	554	52.3	B	333	81.8	A	411	68.5	A
39th Street between 2nd Avenue and 3rd Avenue (north side)	3.0	281	66.7	A	849	26.8	C	729	26.8	C	643	23.9	D
39th Street between 2nd Avenue and 3rd Avenue (south side)	7.0	496	118.9	A	1,697	41.8	B	1,697	25.8	C	1,493	37.5	C
39th Street between 1st Avenue and 2nd Avenue (north side)	4.2	255	147.8	A	679	42.4	B	569	44.4	B	626	37.6	C
39th Street between 1st Avenue and 2nd Avenue (south side)	4.1	972	42.0	B	3,027	7.7	F	2,494	8.3	E	2,766	*	F
39th Street between Waterfront and 1st Avenue (north side)	2.5	2	3,937.5	A	2	7,875.0	A	5	1,953.0	A	1	7,875.0	A
39th Street between Waterfront and 1st Avenue (south side)	8.9	425	206.0	A	1,626	41.3	B	1,143	56.4	B	917	29.5	C
2nd Avenue between 39th Street and 40th Street (west side)	7.7	234	334.0	A	812	88.8	A	597	78.8	A	671	62.7	A
3rd Avenue between 34th Street and 35th Street (east side)	6.5	930	58.1	B	674	87.9	A	1,503	46.5	B	633	83.3	A
3rd Avenue between 34th Street and 35th Street (west side)	2.1	1,481	12.5	E	1,063	20.9	D	2,815	1.3	F	1,038	18.7	D
3rd Avenue between 35th Street and 36th Street (east side)	7.5	327	239.7	A	622	119.7	A	446	158.7	A	542	134.0	A
3rd Avenue between 35th Street and 36th Street (west side)	8.5	379	219.5	A	991	103.1	A	884	102.3	A	879	101.6	A
3rd Avenue between 36th Street and 37th Street (east side)	4.4	556	91.7	A	996	41.8	B	972	45.1	B	871	42.2	B
3rd Avenue between 36th Street and 37th Street (west side)	8.4	612	148.9	A	1,323	60.4	A	1,523	50.9	B	1,330	72.1	A
3rd Avenue between 37th Street and 39th Street (west side)	6.4	677	102.8	A	1,392	43.0	B	1,506	40.7	B	1,282	50.0	B
3rd Avenue between 37th Street and 38th Street (east side)	7.0	519	152.7	A	1,065	59.1	B	982	65.9	B	982	63.2	A
3rd Avenue between 38th Street and 39th Street (east side)	7.3	517	155.3	A	1,060	63.2	A	970	75.8	A	912	82.7	A
4th Avenue between 35th Street and 36th Street (west side)	7.0	2,964	25.8	C	1,590	44.7	B	4,206	14.3	E	1,516	48.8	B

Note: Sidewalks were analyzed as non-platoon flow based on travel characteristics within the study area.
* The available sidewalk area would not be sufficient to accommodate all pedestrians; some pedestrians would need to walk in the street

Denotes significantly impacted pedestrian element

Table 11-52
2027 With Action Pedestrian LOS – Crosswalks

		Weekday AM Peak (8:00 AM–9:00 AM)			Weekday Midday Peak (12:30 PM–1:30 PM)			Weekday PM Peak (5:00 PM–6:00 PM)			Saturday Peak (1:45 PM–2:45 PM)		
Intersection	**Crosswalk**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**
1st Avenue and 39th Street	North	0	-	A	0	-	A	25	544.1	A	0	-	A
	South	388	55.2	B	1588	17.6	D	1097	15.6	D	893	20.0	D
	East	191	54.8	B	514	20.2	D	422	20.7	D	416	25.2	C
	West	15	846.7	A	46	273.5	A	90	140.2	A	31	410.6	A
2nd Avenue and 39th Street	North	278	22.8	D	788	5.3	F	724	6.3	F	606	7.0	F
	South	730	14.8	E	2,273	3.2	F	1,978	4.3	F	2,119	5.3	F
	East	309	37.6	C	912	16.1	D	772	16.1	D	1,014	13.5	E
	West	312	35.2	C	845	14.8	E	791	12.2	E	877	15.9	D
3rd Avenue and 35th Street	North	798	18.3	D	529	21.5	D	1,343	9.5	E	404	28.5	C
	South	673	21.9	D	385	33.6	C	1,175	9.2	E	294	46.9	B
	East	834	75.3	A	788	75.3	A	1,395	45.3	B	703	96.4	A
	West	874	59.7	B	1,026	47.6	B	1,759	21.7	D	990	53.8	B
3rd Avenue and 36th Street	North	462	23.8	D	1,040	11.0	E	951	9.4	E	840	15.2	D
	South	281	46.6	B	627	19.5	D	588	13.5	E	589	20.3	D
	East	464	102.5	A	976	53.5	B	761	60.5	A	880	56.1	B
	West	592	65.6	A	1,502	29.1	C	1,407	22.8	D	1,373	31.1	C
3rd Avenue and 37th Street	North	161	102.3	A	492	35.8	C	318	46.2	B	383	53.7	B
	South	89	157.0	A	171	101.5	A	135	141.8	A	152	100.5	A
	East	523	80.9	A	1,073	28.9	C	985	37.4	C	964	41.7	B
	West	562	115.2	A	1,476	46.7	B	1,538	38.3	C	1,473	45.3	B
3rd Avenue and 39th Street	North	295	45.6	B	749	7.2	F	562	12.0	E	635	15.7	D
	South	245	87.1	A	733	22.7	D	607	24.9	C	535	30.6	C
	East	248	192.8	A	580	61.9	A	511	84.1	A	510	85.7	A
	West	306	188.2	A	914	57.2	B	1,029	42.0	B	908	72.3	A
4th Avenue and 35th Street	North	210	52.1	B	152	148.4	A	221	49.7	B	101	186.5	A
	South	162	57.9	B	104	167.7	A	197	49.0	B	70	228.7	A
	West	1,701	25.5	C	936	35.6	C	1,934	22.8	D	772	53.2	B
4th Avenue and 36th Street	North	197	81.2	A	448	40.3	B	319	46.2	B	366	56.3	B
	South	169	65.0	A	416	48.1	B	272	48.6	B	329	35.6	C
	East	684	75.8	A	557	84.6	A	806	61.8	A	728	66.3	A
	West	1,166	34.5	C	1,022	30.5	C	1,493	24.8	C	935	39.6	C
4th Avenue and 38th Street	North	82	78.6	A	31	451.6	A	55	137.6	A	31	472.7	A
	South	29	295.9	A	7	1849.1	A	30	253.9	A	16	813.6	A
	East	857	32.6	C	598	86.6	A	759	50.8	B	584	82.1	A
	West	862	63.7	A	583	83.3	A	742	67.1	A	504	103.2	A
4th Avenue and 39th Street	North	153	53.9	B	454	17.5	D	247	35.9	C	296	38.2	C
	South	165	43.6	B	416	26.9	C	294	35.0	C	289	37.6	C
	East	777	28.1	C	580	51.6	B	684	47.2	B	515	78.0	A
	West	528	75.9	A	701	40.4	B	698	49.3	B	668	30.4	C

Denotes significantly impacted pedestrian element

Table 11-53
2027 With Action Pedestrian LOS – Corners

		Weekday AM Peak (8:00 AM–9:00 AM)			Weekday Midday Peak (12:30 PM–1:30 PM)			Weekday PM Peak (5:00 PM–6:00 PM)			Saturday Peak (1:45 PM–2:45 PM)		
Intersection	**Corner**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**	**Volume, ped/hr**	**Avg Ped Space, sf/p**	**LOS**
1st Avenue and 39th Street	NE	0	384.7	A	0	174.7	A	0	209.0	A	0	218.7	A
	NW	0	8505.7	A	0	2744.4	A	0	1087.6	A	0	4087.7	A
	SE	636	94.2	A	1527	25.6	C	1583	32.6	C	1948	31.8	C
	SW	0	348.4	A	0	56.6	B	0	76.4	A	0	109.7	A
2nd Avenue and 39th Street	NE	2	163.0	A	0	49.1	B	0	55.9	B	17	50.7	B
	NW	47	150.6	A	135	46.1	B	69	46.4	B	68	54.8	B
	SE	9	64.4	A	10	8.9	E	21	14.5	E	29	16.6	D
	SW	78	67.7	A	372	9.4	E	165	12.0	E	218	19.7	D
3rd Avenue and 35th Street	NE	71	45.0	B	65	56.4	B	194	31.3	C	18	72.7	A
	SE	67	39.4	C	39	61.7	A	56	30.9	C	6	83.4	A
3rd Avenue and 36th Street	NE	23	164.9	A	24	77.9	A	17	79.3	A	11	93.7	A
	SE	161	106.1	A	210	54.0	B	384	41.3	B	219	56.9	B
4th Avenue and 35th Street	SW	1394	34.4	C	437	71.1	A	2027	26.3	C	357	91.2	A
4th Avenue and 36th Street	NW	719	63.3	A	680	47.1	B	1,042	34.8	C	738	55.1	B

Denotes a significantly impacted pedestrian element

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