APPENDIX E

TRANSPORTATION

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TECHNICAL MEMORANDUM

TO: **New York City Department of City Planning (DCP)**

FROM: **Philip Habib & Associates (PHA)**

DATE: **May 30, 2025**

PROJECT: **Herkimer-Williams EIS (PHA No. 202004)**

RE: **Transportation Planning Factors & Travel Demand Forecast**

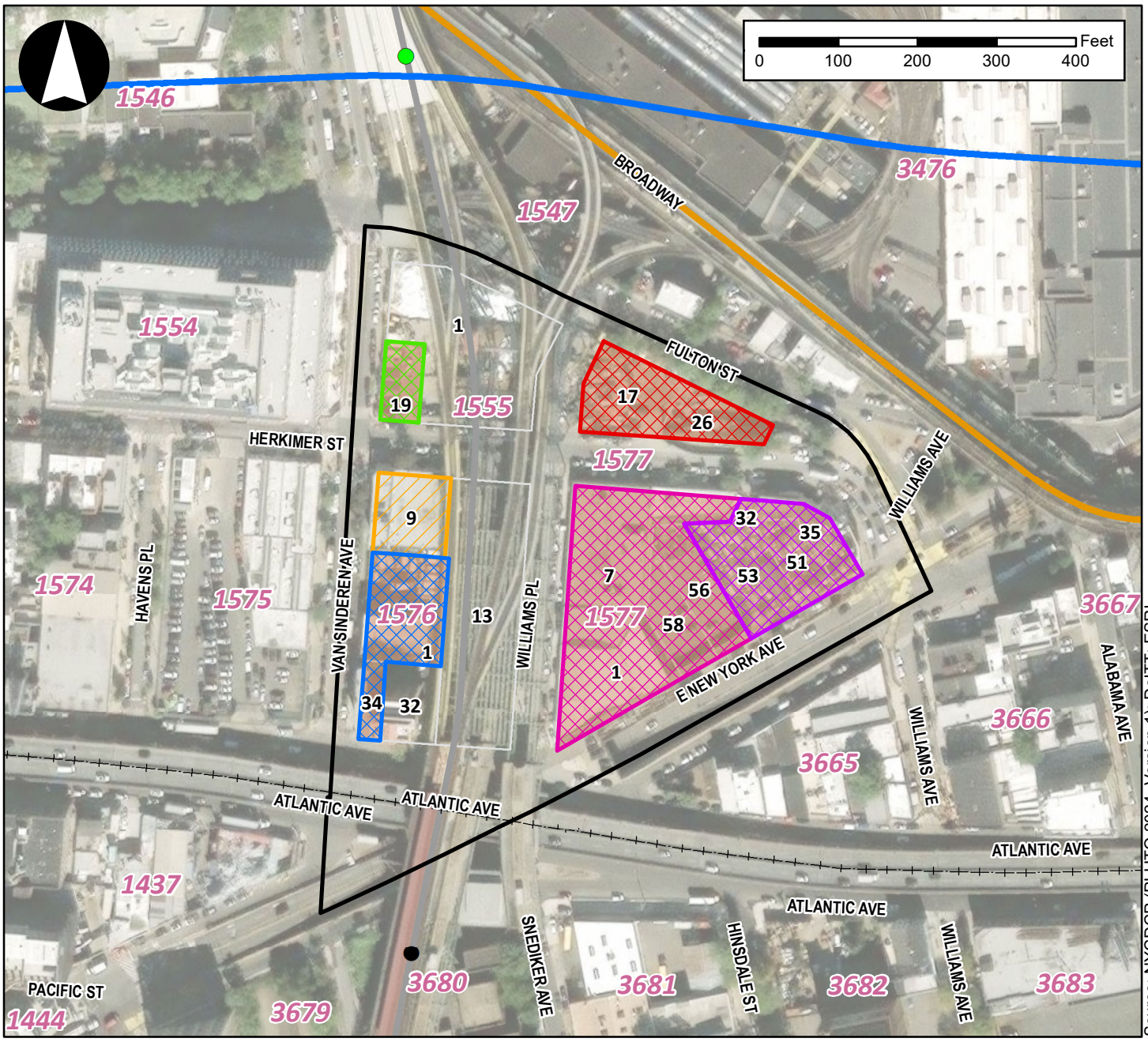
This memorandum summarizes the transportation planning factors to be used for the analyses of traffic, transit, pedestrian, and parking conditions for the *Herkimer-Williams EIS*. Estimates of the peak travel demand from the Proposed Actions' Reasonable Worst Case Development Scenario (RWCDS) are provided, along with a discussion of trip assignment methodologies and study area definitions.

THE PROPOSED ACTIONS

Broadway Junction Partners LLC, the Applicant, and the co-applicants, the New York City Economic Development Corporation (NYCEDC) and New York City Department of Citywide Administrative Services (DCAS), as representative agency of the City of New York, seek discretionary actions to facilitate the redevelopment of portions of four blocks in the East New York neighborhood of Brooklyn Community District (CD) 5. The Project Area includes Block 1555, Lots 1 and 19; Block 1576, Lots 1, 9, 13, 32, and 34; and Block 1577, Lots 1, 7, 17, 26, 32, 35, 51, 53, 56, and 58 (refer to **Figure 1**). The Applicant is seeking City Planning Commission (CPC) approval of discretionary actions, including: (i) a Zoning Map Amendment to rezone the Project Area from an M1-2 zoning district to C6-4 and M1-6 zoning districts; (ii) special permits within a Large-Scale General Development (LSGD) pursuant to Sections 74-743(a)(1) and (2) of the *Zoning Resolution of the City of New York* (ZR) to distribute floor area across the LSGD and to modify rear yard and height and setback regulations, respectively; (iii) a ZR Section 74-161 special permit to allow Use Group VI retail uses in excess of 20,000 sf of floor area in the proposed M1-6 zoning district; (iv) Zoning Text Amendments to (a) ZR Appendix F to designate a Mandatory Inclusionary Housing ("MIH") Area over the C6-4 zoning district-portion of the Project Area and (b) ZR Section 74-742 with respect to the contiguity of ownership of zoning lots in an LSGD when there is an intervening elevated rail line; and (v) a combination acquisition and site selection of real property by the City for an easement acquired by DCAS to construct a publicly accessible open space at 1519 Herkimer Street (also known as Parcel 1; Block 1555, Lot 19) within the LSGD (collectively, the "Proposed Actions"). DCAS is applicant and NYCEDC is co-applicant only for the combination acquisition and site selection action.

The Proposed Actions would facilitate the redevelopment of the several projected development sites within the Project Area. The projected development sites are Projected Development Site 1A (Block 1555, Lot 19), Projected Development Site 1B (Block 1576, Lots 1 and 34), Projected Development Site

Project Location Map - Aerial View



Legend

- Project Area
- Projected Development Site 1A
- Projected Development Site 1B
- Projected Development Site 1C
- Projected Development Site 1D
- Projected Development Site 1E
- Projected Development Site 2
- LSGD Development Sites
- Subway Station (Express)
- Subway Station (Local)
- Atlantic Branch Line (LIRR)
- A/C Line
- J/Z Line
- L Line
- 1555 Tax Blocks
- 1 Tax Lots



1C (Block 1577, Lots 17 and 26), Projected Development Site 1D (Block 1577, Lots 32, 35, 51, and 53), and Projected Development Site 1E (Block 1577, Lots 1, 7, 56, and 58). Additionally, Projected Development Site 2 comprises Block 1576, Lot 9. Projected Development Sites 1A through 1E are under the ownership or control of the Applicant and are coterminous with the LSGD (refer to **Figure 1**). Projected Development Site 2 is owned by Calvary Church and is not under the ownership or control of the Applicant and is not included within the LSGD. Within the Project Area, no redevelopment would occur on Block 1555, Lot 1 and Block 1576, Lots 13 and 32; therefore, these lots are not considered projected development sites.

Approval of the Proposed Actions would facilitate the development of five new buildings and potentially, a small retail kiosk on the projected development sites in the Project Area. The new mixed-use development on the projected development sites would contain a combined total of approximately 1,589,202 gross square feet (gsf), including approximately 435,766 gsf of commercial office space, 113,760 gsf of commercial retail space, 834,763 gsf of residential space (1,112 dwelling units [DUs]), 22,985 gsf of community facility (house of worship) space, and 98,483 gsf of light industrial space for Use Groups III-X, as well as approximately 174 parking spaces (approximately 83,445 gsf) and 20,080 sf of publicly accessible area ("PAA") space (the "Proposed Development"). Pursuant to the City's MIH program, up to 20-30 percent or approximately 222-334 units would be designated as permanently affordable at an average of 40-80 percent area median income (AMI) depending on the selected Option (the Applicant intends to map both Options 1 and 2). In addition to the approximately 222-334 permanently affordable units pursuant to MIH, the Applicant intends to work with the New York City Department of Housing and Preservation (HPD) to allow the proposed DUs in the Proposed Development to be designated as 100 percent affordable units as well, pursuant to available subsidy.

THE REASONABLE WORST CASE DEVELOPMENT SCENARIO (RWCDS)

Proposed Development

To assess the possible effects of the Proposed Actions, a RWCDS was established for both the future without the Proposed Actions (the "No-Action condition") and the future with the Proposed Actions (the "With-Action condition") for an analysis year of 2036. In the 2036 future absent the Proposed Actions (the No-Action condition), the Project Area would remain as under existing conditions. Overall, it is assumed that the Project Area would be occupied by approximately 9,000 gsf of office space, approximately 12,904 gsf of community facility (house of worship) space, approximately 50,422 gsf of light industrial space, and 31 parking spaces (refer to **Table 1**). The incremental difference between the No-Action condition and With-Action condition provides the basis by which the potential environmental effects are evaluated.

In the 2036 future with the Proposed Actions (the "With-Action condition"), the Proposed Actions would be approved and the Project Area would be redeveloped with the Proposed Development. In total, across the six projected development sites, the Proposed Development comprises five new buildings and potentially, a small retail kiosk containing a combined total of approximately 1,589,202 gsf, including approximately 435,766 gsf of commercial office space, 113,760 gsf of commercial retail space, 834,763 gsf of residential space (1,112 DUs), 22,985 gsf of community facility (house of worship) space, and 98,483 gsf of light industrial space for Use Groups III-X, as well as approximately 174 parking spaces (approximately 83,445 gsf) and 20,080 sf of PAA space (refer to **Table 1**).

As shown in **Table 1**, by 2036, the incremental (net) change that would result from the Proposed Development would be the net addition of approximately 834,763 gsf of residential space (1,112 DUs, of which approximately 222-334 units would be designated as permanently affordable pursuant to MIH), 426,766 gsf of commercial office space, 33,899 gsf of local retail space, 39,931 gsf of destination retail space, 39,931 gsf of supermarket space, 48,061 gsf of light industrial space, 10,081 gsf of community facility (house of worship) space, 143 off-street parking spaces, and 0.46 acres (20,080 sf) of PAA space in the Project Area.

Table 1
2036 RWCDS No-Action and With-Action Land Uses – Proposed Development

Land Use	No-Action Condition	With-Action Condition	Net Increment
Residential			
Residential	0 gsf (0 DUs)	834,763 gsf (1,112 DUs)	**+ 834,763 gsf** **(+ 1,112 DUs)**
Commercial			
Local Retail	0 gsf	33,899 gsf	+ 33,899 gsf
Destination Retail	0 gsf	39,931 gsf	+ 39,931 gsf
Office	9,000 gsf	435,766 gsf	+ 426,766 gsf
Supermarket	0 gsf	39,931 gsf	+ 39,931 gsf
Total Commercial	***9,000 gsf***	***549,526 gsf***	***+ 540,526 gsf***
Community Facility			
House of Worship	12,904 gsf	22,985 gsf	+ 10,081 gsf
Academic University	0 gsf	0 gsf	+ 0 gsf
Total Community Facility	***12,904 gsf***	***22,985gsf***	***+ 10,081 gsf***
Industrial			
Light Industrial	50,422 gsf	98,483 gsf	+ 48,061 gsf
Open Space (PAA Space)			
Open Space (PAA Space)[1]	0 acres (0 sf)	0.46 acres (20,080 sf)	**+ 0.46 acres** **(+ 20,080 sf)**
Parking			
Parking Spaces	31 spaces	174 spaces	**+ 143 spaces**

Note:
[1] It should be noted that references to With-Action condition open spaces are those that are identified as PAA spaces only; as such, the Proposed Actions would result in the increment of up to approximately 20,080 sf of PAA space but would not result in any gain or loss of publicly owned open space.

Alternate Community Facility Scenario

In addition, pursuant to the LSGD (for Projected Development Sites 1A through 1E), floors one through four of the new building on Projected Development Site 1B could be developed with either residential, commercial office, or light industrial uses, the second floor of the new building on Projected Development Site 1C could be developed with either residential or retail uses, and floors one through eight of the new building on Projected Development Site 1D could be developed with either residential or community facility uses. Therefore, a second RWCDS (the "Alternate Community Facility Scenario") will be assessed for conservative analysis purposes, where deemed appropriate for any technical area in the EIS where this development scenario serves as the more conservative RWCDS compared to the Proposed Development.

Under the Alternate Community Facility Scenario, the Applicant could potentially construct five new buildings and potentially, a small retail kiosk containing a combined total of approximately 1,620,348 gsf, including approximately 688,065 gsf of residential uses (911 DUs), 461,749 gsf of commercial office space, 137,026 gsf of commercial retail space, 114,691 gsf of community facility space (including 22,985

gsf of house of worship space and 91,706 gsf of academic university space), and 111,933 gsf of light industrial space for Use Groups III-X, as well as approximately 200 parking spaces (approximately 106,884 gsf) and 20,080 sf of PAA space. Pursuant to the City's MIH program, up to 20-30 percent or 182-273 units would be designated as permanently affordable at an average of 40-80 percent AMI depending on the selected Option (as mentioned, the Applicant intends to map both Options 1 and 2). Like the Proposed Development, the Applicant intends to work with HPD to allow the proposed DUs in the Alternate Community Facility Scenario to be designated as 100 percent affordable units, pursuant to available subsidy.

As shown in **Table 2**, by 2036, the incremental (net) change that would result from the Alternate Community Facility Scenario would be the net addition of approximately 688,065 gsf of residential space (911 DUs, of which 182-273 units would be designated as permanently affordable pursuant to MIH), 452,749 gsf of commercial office space, 39,931 gsf of destination retail space, 39,931 gsf of supermarket space, 61,511 gsf of light industrial space, 101,787 gsf of community facility space (of which, approximately 10,081 gsf would consist of house of worship space, and up to approximately 91,706 gsf would consist of academic university space), 169 off-street parking spaces, and 20,080 sf of PAA space in the Project Area.

Table 2
2036 RWCDS No-Action and With-Action Land Uses – Alternate Community Facility Scenario

Land Use	No-Action Condition	With-Action Condition	Net Increment
Residential			
Residential	0 gsf (0 DUs)	688,065 gsf (911 DUs)	**+ 688,065 gsf** **(+ 911 DUs)**
Commercial			
Local Retail	0 gsf	57,165 gsf	+ 57,165 gsf
Destination Retail	0 gsf	39,931 gsf	+ 39,931 gsf
Office	9,000 gsf	461,749 gsf	+ 452,749 gsf
Supermarket	0 gsf	39,931 gsf	+ 39,931 gsf
Total Commercial	***9,000 gsf***	***598,775 gsf***	***+ 589,775 gsf***
Community Facility			
House of Worship	12,904 gsf	22,985 gsf	+10,081 gsf
Academic University	0 gsf	91,706 gsf	+ 91,706 gsf
Total Community Facility	***12,904 gsf***	***114,691 gsf***	***+ 101,787 gsf***
Industrial			
Light Industrial	50,422 gsf	111,933 gsf	+ 61,511 gsf
Open Space (PAA Space)			
Open Space (PAA Space)[1]	0 acres (0 sf)	0.46acres (20,080 sf)	**+ 0.46 acres** **(+ 20,080 sf)**
Parking			
Parking Spaces	31 spaces	200 spaces	**+ 169 spaces**

Note:

[1] It should be noted that references to With-Action condition open spaces are those that are identified as PAA spaces only; as such, the Proposed Actions would result in the increment of up to approximately 20,080 sf of PAA space but would not result in any gain or loss of publicly owned open space.

TRANSPORTATION PLANNING FACTORS

The trip generation rates, temporal and directional distributions, modal splits, vehicle occupancies and truck trip factors used to forecast travel demand for the residential, office, local retail, and light industrial uses included in the RWCDS are summarized in **Table 3**. They were based on factors cited in the 2021 *City Environmental Quality Review* (CEQR) *Technical Manual*; 2015-2019 American Community Survey

(ACS) journey-to-work data for Brooklyn census tracts in proximity to the Project Area (tracts 365.01, 365.02, 367, 369, 405, 908, 1142.01, 1144, and 1198); American Association of State Highway Transportation Officials (AASHTO) Census Transportation Planning Products (CTPP) reverse journey-to-work five-year data for Brooklyn census tracts 365.01, 365.02, 367, 369, 405, 908, 1142.01, 1144, and 1198; data provided by New York City Department of Transportation (DOT); and factors developed for recent environmental reviews. Factors are shown for the weekday AM and PM peak hours (i.e., the typical peak periods for commuter travel demand) and the weekday midday and Saturday peak hours (i.e., the typical peak periods for retail demand).

Residential

The residential travel demand forecasts were based on person trip and truck trip generation rates and temporal distributions cited in the 2021 *CEQR Technical Manual*. The directional in/out splits were based on data provided by DOT. The modal splits and auto vehicle occupancies for residential uses were derived from 2015-2019 ACS journey-to-work data. Although residential-based trips in the weekday midday and Saturday peak hours would likely be more local in nature than in the commuter peak hours (and therefore have a higher walk share, for example), the modal splits based on the ACS journey-to-work data were conservatively assumed for all periods. The taxi vehicle occupancy was based on data from the 2016 *East New York Neighborhood Plan FEIS*.

Local Retail

The person and truck trip generation rates and temporal distributions for the local retail use were based on data from the 2021 *CEQR Technical Manual*. The modal splits, directional in/out splits, and vehicle occupancy rates were based on data provided by DOT.

It should be noted that, consistent with 2021 *CEQR Technical Manual* guidance, the travel demand forecast reflects the fact that some local retail trip generation can be considered "linked trips" (i.e., internal trips between land uses on a site that do not use the public street or sidewalk) or "diverted trips" (i.e., trips already on the network that alter their route to access a site). Under 2021 *CEQR Technical Manual* guidance, up to a 50 percent credit can be taken for linked and/or diverted trips.

As shown in **Tables 1** and **2**, under the Proposed Actions, a substantial amount of residential, non-retail commercial, and community facility uses would be developed across the Project Area. These proposed uses are expected to generate substantially more trips than would the proposed local retail uses developed under the Proposed Actions, and it is anticipated that many of these trips would involve a stop at one or more local retail establishments within the Project Area. Furthermore, many of the proposed retail and non-retail uses would be accessed from the publicly accessible open spaces, such as Projected Development Sites 1C and 1D. As these publicly accessible open spaces would facilitate an internal circulation function, it is expected that many of these trips would be considered linked trips as they would not occur on public streets or sidewalks and would therefore not be included in the total number of pedestrian trips generated by the Proposed Actions' RWCDS. The local retail trips from projected development sites in the Project Area that would not be considered linked trips would be diverted to/from Projected Development Site 1E within the Project Area and would therefore be included in the total number of pedestrian trips generated by the Proposed Actions' RWCDS. Consequently, the travel demand forecast for the local retail use reflects a 50 percent credit consistent with 2021 *CEQR Technical Manual* guidance.

Office

The person and truck trip generation rates and temporal distributions for the office space were based on data from the 2021 *CEQR Technical Manual*. The modal splits for the weekday AM, weekday PM, and Saturday periods were based on DOT Office Mode Choice Surveys. The modal splits for the weekday midday period and the taxi vehicle occupancy rate were based on the 2016 *East New York Neighborhood Plan FEIS*. The directional in/out splits were based on data provided by DOT. Auto vehicle occupancy rates were based on AASHTO CTPP reverse journey-to-work five-year data for Brooklyn census tracts 365.01, 365.02, 367, 369, 405, 908, 1142.01, 1144, and 1198.

Light Industrial

The person trip generation rates and temporal distributions, weekday midday modal splits, directional in/out splits, taxi vehicle occupancy, and truck trip generation rates were based on data from the 2016 *East New York Rezoning FEIS*. The weekday AM, weekday PM, and Saturday modal splits and auto vehicle occupancy rates were based on AASHTO CTPP reverse journey-to-work five-year data for Brooklyn census tracts 365.01, 365.02, 367, 369, 405, 908, 1142.01, 1144, and 1198.

Community Facility (House of Worship)

The forecast of travel demand for the house of worship use was based on the 2016 *East New York Neighborhood Plan FEIS*.

Community Facility (Academic University)

The forecast of travel demand for the academic university space use was based on data sourced from the 2007 *Proposed Manhattanville in West Harlem Rezoning and Academic Mixed-Use Development FEIS*, the 2021 *CEQR Technical Manual*, and DOT. Modal splits were adjusted for area characteristics to have a lower walk share and higher subway share. In addition, the Saturday modal splits were assumed to be the same as the weekday midday modal splits.

Open Space (PAA Space)

The person trip generation rates and temporal distributions for the open space (PAA space) were based on data from the 2021 *CEQR Technical Manual*. The directional in/out splits were based on data provided by DOT. Modal splits were based on data from the 2023 *Kingsboro Psychiatric Center Mixed-Use Project DEIS.* Vehicle occupancies were based on data from the 2013 *Domino Sugar Rezoning FEIS TM003*. Truck trip generation and temporal distribution rates were based on data from the 2021 *Gowanus Neighborhood Plan FEIS*.

Supermarket

The person trip generation rates and temporal distributions for the supermarket space were based on data from the 2021 *CEQR Technical Manual*. Modal and directional in/out splits were based on data provided by DOT. Vehicle occupancy rates, truck trip generation rates, and truck temporal distributions were based on data from the 2021 *Gowanus Neighborhood Plan FEIS*.

Destination Retail

The person trip generation rates and temporal distributions for the destination retail space were based on data from the 2021 *CEQR Technical Manual*. Modal splits, vehicle occupancy rates, and truck trip generation and temporal distribution rates were based on data from the 2021 *Gowanus Neighborhood Plan FEIS*. Directional in/out splits were based on data provided by DOT.

TRIP GENERATION

The net incremental change in person and vehicle trips expected to result from the Proposed Actions by the 2036 analysis year was derived based on the net change in land uses shown in **Tables 1** and **2** and the transportation planning factors shown in **Table 3**. **Tables 4** and **5** show estimates of the net incremental change in peak hour person trips and vehicle trips (versus the No-Action condition) that would occur in 2036 with implementation of the Proposed Actions, assuming the development of the Proposed Development under the With-Action condition.

Table 3

Transportation Planning Factors

Land Use:	Residential	Local Retail	Office		Light Industrial		House of Worship
Trip Generation							
	(1)	(1)	(1)		(8)		(8)
Weekday	8.18	329	18.0		14.7		19.2
Saturday	9.08	358	3.9		2.2		21.8
	per DU	per 1,000 gsf	per 1,000 gsf		per 1,000 gsf		per 1,000 gsf
Temporal Distribution							
	(1)	(1)	(1)		(8)		(8)
AM	9.3%	4.8%	12.4%		13.2%		7.9%
MD	5.6%	8.0%	11.0%		11.0%		4.0%
PM	8.5%	10.9%	10.5%		14.2%		7.2%
Saturday	8.4%	11.7%	14.1%		10.7%		15.8%
Modal Splits							
	(2)	(7)	(4)(8)		(4)(8)		(8)
	All Periods	All Periods	AM/PM/SAT	MD	AM/PM/SAT	MD	All Periods
Auto	20.9%	11.0%	56.9%	2.0%	56.9%	2.0%	5.0%
Taxi	0.5%	0.0%	0.6%	3.0%	0.6%	3.0%	1.0%
Subway	64.3%	3.0%	23.3%	6.0%	23.3%	6.0%	2.9%
Railroad	1.1%	0.0%	1.2%	0.0%	1.2%	0.0%	0.1%
Bus	7.2%	2.0%	9.2%	6.0%	9.2%	6.0%	6.0%
Bike	0.7%	0.0%	0.4%	0.0%	0.4%	0.0%	0.0%
Walk/Other	5.3%	84.0%	8.4%	83.0%	8.4%	83.0%	85.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In/Out Splits	(7)		(7)		(7)		(8)		(8)	
	In	Out	In	Out	In	Out	In	Out	In	Out
AM	22%	78%	52%	48%	86%	14%	88%	12%	54%	46%
MD	50%	50%	50%	50%	52%	48%	50%	50%	50%	50%
PM	62%	38%	50%	50%	16%	84%	12%	88%	52%	48%
Saturday	55%	45%	50%	50%	48%	52%	47%	53%	71%	29%

Vehicle Occupancy	(2)(8)	(7)	(4)(8)	(4)(8)	(8)
	All Periods	All Periods	All Periods	All Periods	All Periods
Auto	1.10	1.20	1.06	1.06	1.65
Taxi	1.30	1.20	1.20	1.20	1.40
Truck Trip Generation:	(1)	(1)	(1)	(8)	(8)
Weekday	0.06	0.35	0.32	0.67	0.29
Saturday	0.02	0.04	0.01	0.67	0.29
	per DU	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf
Truck Temporal Distribution:	(1)	(1)	(1)	(8)	(8)
AM	12.0%	8.0%	10.0%	14.0%	9.6%
MD	9.0%	11.0%	11.0%	9.0%	11.0%
PM	2.0%	2.0%	2.0%	1.0%	1.0%
Saturday	9.0%	11.0%	11.0%	0.0%	0.0%

Truck In/Out Splits:										
	In	Out	In	Out	In	Out	In	Out	In	Out
All Periods	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%

Notes:

(1) Based on data from the 2021 CEQR Technical Manual.
(2) Based on 2015-2019 ACS Journey-to-Work census data for Brooklyn census tracts 365.01, 365.02, 367, 369, 405, 908, 1142.01, 1144 and 1198.
(3) Based on data from *Domino Sugar Rezoning FEIS TM003* (2013).
(4) Based on 2012-2016 AAsHTO CTPP Reverse Journey-to-Work census data for Brooklyn census tracts 365.01, 365.02, 367, 369, 405, 908, 1142.01, 1144 and 1198.
(5) Based on data from the *Proposed Manhattanville in West Harlem Rezoning and Academic Mixed-Use Development FEIS* (2007).
(6) Based on data from the *Gowanus Neighborhood Rezoning FEIS* (2021).
(7) Based on data provided by NYCDOT.
(8) Based on data from the East New York Rezoning Proposal FEIS (2016).
(9) Weekday daily trip estimate based on following equation: 141.77 + 66.626 x gross SF (in thousands).
(10) The Columbia Manhattanville On-line Travel Survey was also utilized and adjusted for area characteristics to have a lower walk only
(11) Based on data from the *Kingsboro Psychiatric Center Mixed-Use Project DEIS* (2023).

Table 3
Transportation Planning Factors (Cont.)

Land Use:	Community Facility (Academic University)		Open Space		Supermarket		Destination Retail	
Trip Generation								
	(1)		(1)		(1)		(1)	
Weekday	26.60		44.0		256		78.2	
Saturday	13.50		62.0		300		92.5	
	per 1,000 gsf		per acre		per 1,000 gsf		per 1,000 gsf	
Temporal Distribution								
	(1) (5)		(1)		(1)		(1)	
AM	16.0%		3.0%		4.0%		3.0%	
MD	9.0%		14.0%		7.0%		9.0%	
PM	26.0%		14.0%		10.6%		9.0%	
Saturday	16.0%		16.0%		9.5%		11.0%	
Modal Splits								
	(5)(10)		(11)		(7)		(6)	
	AM/PM	MD/SAT	All Periods		Weekday	SAT	Weekday	SAT
Auto	6.0%	5.0%	0.0%		25.0%	25.0%	59.0%	59.0%
Taxi	2.5%	2.0%	0.0%		5.0%	5.0%	3.0%	5.0%
Subway	73.0%	13.0%	0.0%		5.0%	2.0%	18.0%	18.0%
Railroad	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%
Bus	3.5%	5.0%	0.0%		6.0%	6.0%	15.0%	13.0%
Bike	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%
Walk/Other	15.0%	75.0%	100.0%		59.0%	62.0%	5.0%	5.0%
	100.0%	100.0%	100.0%		100.0%	100.0%	100.0%	100.0%
In/Out Splits	(7)		(7)		(7)		(7)	
	In	Out	In	Out	In	Out	In	Out
AM	94%	6%	59%	41%	51%	49%	63%	37%
MD	46%	54%	55%	45%	51%	49%	53%	47%
PM	44%	56%	55%	45%	50%	50%	49%	51%
Saturday	57%	43%	55%	45%	49%	51%	52%	48%
Vehicle Occupancy	(5)		(3)		(6)		(6)	
	All Periods		All Periods		Weekday	SAT	Weekday	SAT
Auto	1.20		2.00		1.58	1.90	2.00	2.70
Taxi	1.30		2.00		1.58	1.90	2.00	2.80
Truck Trip Generation:	(5)		(6)		(6)		(6)	
Weekday	0.03		0.01		0.35		0.35	
Saturday	0.03		0.01		0.02		0.02	
	per 1,000 sf		per acre		per 1,000 sf		per 1,000 sf	
Truck Temporal Distribution:	(5)		(6)		(6)		(6)	
AM	9.7%		6.0%		8.0%		7.7%	
MD	9.1%		6.0%		11.0%		11.0%	
PM	5.1%		1.0%		2.0%		1.0%	
Saturday	0.0%		6.0%		11.0%		11.0%	
Truck In/Out Splits:								
	In	Out	In	Out	In	Out	In	Out
All Periods	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%

Notes:

(1) Based on data from the 2021 CEQR Technical Manual.
(2) Based on 2015-2019 ACS Journey-to-Work census data for Brooklyn census tracts 365.01, 365.02, 367, 369, 405, 908, 1142.01, 1144 and 1198.
(3) Based on data from Domino Sugar Rezoning FEIS TM003 (2013).
(4) Based on 2012-2016 AAsHTO CTPP Reverse Journey-to-Work census data for Brooklyn census tracts 365.01, 365.02, 367, 369, 405, 908, 1142.01, 1144 and 1198.
(5) Based on data from the Proposed Manhattanville in West Harlem Rezoning and Academic Mixed-Use Development FEIS (2007).
(6) Based on data from the Gowanus Neighborhood Plan FEIS (2021).
(7) Based on data provided by DOT.
(8) Based on data from the East New York Neighborhood Plan FEIS (2016).
(9) Weekday daily trip estimate based on following equation: 141.77 + 66.626 x gross SF (in thousands).
(10) The Columbia Manhattanville On-line Travel Survey was also utilized and adjusted for area characteristics to have a lower walk only share, higher subway share in comparison. Shuttle mode is added to subway. Saturday modal split assumed to be the same as the weekday midday modal split.
(11) Based on data from the Kingsboro Psychiatric Center Mixed-Use Project DEIS (2023).

Table 4
Travel Demand Forecast – Proposed Development

Land Use:	Residential		Local Retail						Office		Light Industrial		House of Worship		Open Space		Supermarket		Destination Retail		Total	
Size/Units:	1,112 DU		33,899 gsf						426,766 gsf		48,061 gsf		10,081 gsf		0.46 acres		39,931 gsf		39,931 gsf			
Peak Hour Trips:			Unlinked		Diverted		Total															
AM	846		268		62		330		953		93		15		8		409		94		2,748	
MD	509		443		286		729		845		78		8		8		716		281		3,174	
PM	774		606		360		966		807		100		14		8		1,084		281		4,034	
Saturday	848		708		438		1,146		235		11		35		8		1,138		406		3,827	
Person Trips :																						
AM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	38	138	15	14	0	0	15	14	466	76	45	7	0	0	0	0	52	50	35	21	651	306
Taxi	0	3	0	0	0	0	0	0	5	1	1	0	0	0	0	0	10	10	2	1	18	15
Subway	120	426	4	3	0	0	4	3	191	31	19	3	0	0	0	0	10	10	10	6	354	479
Railroad	2	8	0	0	0	0	0	0	10	2	1	0	0	0	0	0	0	0	0	0	13	10
Bus	14	48	2	2	0	0	2	2	75	12	7	1	0	0	0	0	13	13	9	5	120	81
Bike	0	5	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	3	6
Walk/Other	9	35	117	111	32	30	149	141	69	11	8	1	8	7	4	4	123	118	3	2	373	319
Total	**183**	**663**	**138**	**130**	**32**	**30**	**170**	**160**	**819**	**134**	**81**	**12**	**8**	**7**	**4**	**4**	**208**	**201**	**59**	**35**	**1,532**	**1,216**
MD	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	53	53	24	24	0	0	24	24	9	8	1	1	0	0	0	0	91	88	88	78	266	252
Taxi	0	0	0	0	0	0	0	0	13	12	1	1	0	0	0	0	18	18	4	4	36	35
Subway	164	164	6	6	0	0	6	6	26	24	3	3	0	0	0	0	18	18	27	24	244	239
Railroad	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
Bus	18	18	5	5	0	0	5	5	26	24	3	3	0	0	0	0	22	21	22	20	96	91
Bike	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Walk/Other	15	14	186	187	143	143	329	330	365	338	31	31	4	4	4	4	215	207	7	7	970	935
Total	**255**	**254**	**221**	**222**	**143**	**143**	**364**	**365**	**439**	**406**	**39**	**39**	**4**	**4**	**4**	**4**	**364**	**352**	**148**	**133**	**1,617**	**1,557**
PM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	101	62	33	33	0	0	33	33	73	386	7	50	0	0	0	0	136	136	81	85	431	752
Taxi	3	1	0	0	0	0	0	0	1	4	0	1	0	0	0	0	27	27	4	4	35	37
Subway	307	189	9	9	0	0	9	9	30	158	3	20	0	0	0	0	26	26	25	26	400	428
Railroad	6	3	0	0	0	0	0	0	2	8	0	1	0	0	0	0	0	0	0	0	8	12
Bus	35	20	6	6	0	0	6	6	12	62	0	9	0	0	0	0	33	33	21	21	107	151
Bike	3	2	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	4	5
Walk/Other	26	16	256	254	180	180	436	434	11	56	1	8	7	7	4	4	320	320	7	7	812	852
Total	**481**	**293**	**304**	**302**	**180**	**180**	**484**	**482**	**130**	**677**	**11**	**89**	**7**	**7**	**4**	**4**	**542**	**542**	**138**	**143**	**1,797**	**2,237**
Saturday	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	98	80	39	39	0	0	39	39	64	70	3	2	1	1	0	0	139	145	125	115	469	452
Taxi	3	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0	28	29	11	10	43	42
Subway	299	245	11	11	0	0	11	11	27	29	2	2	1	0	0	0	11	12	37	35	388	334
Railroad	6	3	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	7	4
Bus	34	26	7	7	0	0	7	7	10	12	0	0	1	1	0	0	33	35	27	25	112	106
Bike	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
Walk/Other	26	20	297	297	219	219	516	516	9	10	1	1	21	9	4	4	346	360	11	10	934	930
Total	**469**	**379**	**354**	**354**	**219**	**219**	**573**	**573**	**112**	**123**	**6**	**5**	**24**	**11**	**4**	**4**	**557**	**581**	**211**	**195**	**1,956**	**1,871**
Vehicle Trips :																						
AM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	35	126	13	12	0	0	13	12	440	72	43	7	0	0	0	0	33	32	18	11	582	260
Taxi Balanced	3	3	0	0	0	0	0	0	5	5	1	1	0	0	0	0	12	12	2	2	23	23
Truck	3	3	0	0	0	0	0	0	7	7	3	3	0	0	0	0	1	1	1	1	15	15
Total	**41**	**132**	**13**	**12**	**0**	**0**	**13**	**12**	**452**	**84**	**47**	**11**	**0**	**0**	**0**	**0**	**46**	**45**	**21**	**14**	**620**	**298**
MD	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	48	48	21	21	0	0	21	21	8	8	1	1	0	0	0	0	58	56	44	39	180	173
Taxi Balanced	0	0	0	0	0	0	0	0	21	21	2	2	0	0	0	0	22	22	4	4	49	49
Truck	3	3	0	0	0	0	0	0	8	8	2	2	0	0	0	0	1	1	1	1	15	15
Total	**51**	**51**	**21**	**21**	**0**	**0**	**21**	**21**	**37**	**37**	**5**	**5**	**0**	**0**	**0**	**0**	**81**	**79**	**49**	**44**	**244**	**237**
PM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	92	56	28	28	0	0	28	28	69	364	6	47	0	0	0	0	86	86	41	43	322	624
Taxi Balanced	4	4	0	0	0	0	0	0	4	4	1	1	0	0	0	0	34	34	4	4	47	47
Truck	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
Total	**96**	**60**	**28**	**28**	**0**	**0**	**28**	**28**	**74**	**369**	**7**	**48**	**0**	**0**	**0**	**0**	**120**	**120**	**45**	**47**	**370**	**672**
Saturday	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	89	72	33	33	0	0	33	33	60	66	3	2	1	1	0	0	73	76	46	43	305	293
Taxi Balanced	5	5	0	0	0	0	0	0	2	2	0	0	0	0	0	0	30	30	8	8	45	45
Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**94**	**77**	**33**	**33**	**0**	**0**	**33**	**33**	**62**	**68**	**3**	**2**	**1**	**1**	**0**	**0**	**103**	**106**	**54**	**51**	**350**	**338**

Note: A 50% linked/diverted-trip credit was applied to the Local Retail use.

Table 5
Travel Demand Forecast Summary – Proposed Development

Peak Hour	Vehicle Trips			Pedestrian Trips																	
				Auto[1]			Subway			Rail			Bus			Walk/Other			Total Pedestrian Trips[2]		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
AM	620	298	918	585	203	788	354	479	833	13	10	23	120	81	201	373	319	692	1,445	1,092	2,537
MD	244	237	481	149	138	287	244	239	483	3	3	6	96	91	187	970	935	1,905	1,462	1,406	2,868
PM	370	672	1,042	249	587	836	400	428	828	8	12	20	107	151	258	812	852	1,664	1,576	2,030	3,606
Saturday	350	338	688	283	267	550	388	334	722	7	4	11	112	106	218	934	930	1,864	1,724	1,641	3,365

Notes:

[1]Auto trips en route to nearby on-street parking. Assumes all uses except for the uses on Projected Development Site 1D and the supermarket use on Projected Development Site 1E park off-site in the vicinity of the respective projected development site.

[2]Includes walk-only trips and pedestrians en route to/from nearby subway stations, rail stations, and bus stops.

As shown in **Table 4**, the Proposed Development would generate a net increase of approximately 2,748 person trips (in + out combined) in the weekday AM peak hour, 3,174 in the weekday midday, 4,034 in the weekday PM, and 3,827 in the Saturday peak hour. As shown in **Table 5**, peak hour vehicle trips (including auto, taxi, and truck trips) would increase by a net total of approximately 918, 481, 1,042, and 688 (in + out combined) during these same periods, respectively. Peak hour subway trips would increase by a net total of approximately 833, 483, 828, and 722 trips, respectively; peak hour rail trips would increase by a net total of approximately 23, 6, 20, and 11, respectively; and peak hour bus trips would increase by approximately 201, 187, 258, and 218 respectively. In addition, the Proposed Actions under the RWCDS for the Proposed Development would generate a total of 2,537, 2,868, 3,606, and 3,365 pedestrian trips (including walk-only, subway, rail, and bus trips, and trips to/from on-street parking[1]) in the weekday AM, midday, PM, and Saturday midday peak hours, respectively. Of the incremental pedestrian trips, approximately 692, 1,905, 1,664, and 1,864 trips would be made entirely on foot (walk-only trips) during the weekday AM, midday, and PM peak hours and Saturday peak hour, respectively.

Tables 6 and **7** show an estimate of the net incremental change in peak hour person trips and vehicle trips (versus the No-Action condition) that would occur in 2036 with implementation of the Proposed Actions, assuming development of the Alternate Community Facility Scenario under the With-Action condition. As shown in **Table 6**, the Alternate Community Facility Scenario would generate a net increase of approximately 3,342 person trips (in + out combined) in the weekday AM peak hour, 3,911 in the weekday midday, 5,174 in the weekday PM, and 4,819 in the Saturday peak hour.

As shown in **Table 7**, peak hour vehicle trips (including auto, taxi, and truck trips) would increase by a net total of approximately 986, 519, 1,144, and 728 (in + out combined) during these same periods, respectively. Peak hour subway trips would increase by a net total of approximately 1,046, 465, 1,235, and 665 trips, respectively; peak hour rail trips would increase by a net total of approximately 21, 6, 19, and 9, respectively; and peak hour bus trips would increase by approximately 213, 197, 286, and 232 respectively. In addition, the Proposed Actions under the RWCDS for the Alternate Community Facility Scenario would generate a total of 3,042, 3,520, 4,512, and 4,088 pedestrian trips (including walk-only,

[1] The on-site accessory parking (174 spaces) is assumed to be utilized by tenants of all uses on Projected Development Site 1D, and the supermarket use on Projected Development Site 1E under the RWCDS for the Proposed Development. As such, pedestrian trips to/from the on-site parking for all other proposed uses have been include in the total pedestrian volumes.

subway, rail, and bus trips, and trips to/from on-street parking[2]) in the weekday AM, midday, PM, and Saturday midday peak hours, respectively. Of the incremental pedestrian trips, approximately 993, 2,616, 2,261, and 2,856 trips would be made entirely on foot (walk-only trips) during the weekday AM, midday, and PM peak hours and Saturday peak hour, respectively.

[2] The on-site accessory parking (200 spaces) is assumed to be utilized by tenants of the light industrial and local retail uses on Projected Development Site 1B, all uses on Projected Development Site 1D, and the supermarket and destination retail uses on Projected Development Site 1E under the RWCDS for the Alternate Community Facility Scenario. As such, pedestrian trips to/from the on-site parking for all other proposed uses have been include in the total pedestrian volumes.

Table 6
Travel Demand Forecast – Alternate Community Facility Scenario

Land Use:	Residential		Local Retail						Office		Light Industrial	
Size/Units:	911 DU		57,165 gsf						452,749 gsf		61,511 gsf	
Peak Hour Trips:			Unlinked		Diverted		Total					
AM	694		450		152		602		1,011		119	
MD	417		751		514		1,265		896		100	
PM	635		1,022		512		1,534		856		128	
Saturday	695		1,196		880		2,076		249		14	
Person Trips :												
AM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	31	113	25	24	0	0	25	24	494	81	60	9
Taxi	0	3	0	0	0	0	0	0	5	1	1	0
Subway	99	350	7	6	0	0	7	6	202	33	25	3
Railroad	1	6	0	0	0	0	0	0	11	2	1	0
Bus	12	38	4	4	0	0	4	4	80	13	8	1
Bike	0	4	0	0	0	0	0	0	3	1	0	0
Walk/Other	8	29	196	184	79	73	275	257	73	12	10	1
Total	**151**	**543**	**232**	**218**	**79**	**73**	**311**	**291**	**868**	**143**	**105**	**14**
MD	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	44	44	42	42	0	0	42	42	10	8	1	1
Taxi	0	0	0	0	0	0	0	0	14	13	1	1
Subway	134	135	11	11	0	0	11	11	28	25	3	3
Railroad	3	3	0	0	0	0	0	0	0	0	0	0
Bus	14	14	7	7	0	0	7	7	28	25	3	3
Bike	1	1	0	0	0	0	0	0	0	0	0	0
Walk/Other	13	11	316	315	257	257	573	572	387	358	42	42
Total	**209**	**208**	**376**	**375**	**257**	**257**	**633**	**632**	**467**	**429**	**50**	**50**
PM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	83	51	55	55	0	0	55	55	77	409	9	64
Taxi	2	0	0	0	0	0	0	0	1	4	0	1
Subway	254	155	15	15	0	0	15	15	31	169	4	26
Railroad	5	3	0	0	0	0	0	0	2	8	0	1
Bus	28	17	10	10	0	0	10	10	13	66	1	11
Bike	3	1	0	0	0	0	0	0	1	3	0	0
Walk/Other	20	13	432	430	256	256	688	686	12	60	1	10
Total	**395**	**240**	**512**	**510**	**256**	**256**	**768**	**766**	**137**	**719**	**15**	**113**
Saturday	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	80	66	66	66	0	0	66	66	68	74	4	4
Taxi	2	1	0	0	0	0	0	0	1	1	0	0
Subway	245	200	17	17	0	0	17	17	29	31	2	2
Railroad	4	3	0	0	0	0	0	0	1	1	0	0
Bus	28	22	13	13	0	0	13	13	11	13	0	0
Bike	3	3	0	0	0	0	0	0	0	0	0	0
Walk/Other	21	17	503	501	440	440	943	941	9	10	1	1
Total	**383**	**312**	**599**	**597**	**440**	**440**	**1,039**	**1,037**	**119**	**130**	**7**	**7**
Vehicle Trips :												
AM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	28	103	21	20	0	0	21	20	466	77	57	9
Taxi Balanced	3	3	0	0	0	0	0	0	5	5	1	1
Truck	3	3	0	0	0	0	0	0	7	7	3	3
Total	**34**	**109**	**21**	**20**	**0**	**0**	**21**	**20**	**478**	**89**	**61**	**13**
MD	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	40	40	36	36	0	0	36	36	9	8	1	1
Taxi Balanced	0	0	0	0	0	0	0	0	23	23	2	2
Truck	3	3	1	1	0	0	1	1	8	8	2	2
Total	**43**	**43**	**37**	**37**	**0**	**0**	**37**	**37**	**40**	**39**	**5**	**5**
PM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	75	46	46	46	0	0	46	46	73	386	8	60
Taxi Balanced	2	2	0	0	0	0	0	0	4	4	1	1
Truck	0	0	0	0	0	0	0	0	1	1	0	0
Total	**77**	**48**	**46**	**46**	**0**	**0**	**46**	**46**	**78**	**391**	**9**	**61**
Saturday	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	72	60	56	56	0	0	56	56	64	70	4	4
Taxi Balanced	3	3	0	0	0	0	0	0	2	2	0	0
Truck	0	0	0	0	0	0	0	0	0	0	0	0
Total	**75**	**63**	**56**	**56**	**0**	**0**	**56**	**56**	**66**	**72**	**4**	**4**

Note: A 50% linked/diverted-trip credit was applied to the Local Retail use.

Table 6
Travel Demand Forecast – Alternate Community Facility Scenario (Cont.)

Land Use:	House of Worship		Community Facility (Higher Education)		Open Space		Supermarket		Destination Retail		Total	
Size/Units:	10,081 gsf		91,706 gsf		0.46 acres		39,931 gsf		39,931 gsf			
Peak Hour Trips:												
AM	15		390		8		409		94		3,342	
MD	8		220		8		716		281		3,911	
PM	14		634		8		1,084		281		5,174	
Saturday	35		198		8		1,138		406		4,819	
Person Trips :												
AM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	0	0	22	1	0	0	52	50	35	21	719	299
Taxi	0	0	9	1	0	0	10	10	2	1	27	16
Subway	0	0	268	17	0	0	10	10	10	6	621	425
Railroad	0	0	0	0	0	0	0	0	0	0	13	8
Bus	0	0	13	1	0	0	13	12	9	5	139	74
Bike	0	0	0	0	0	0	0	0	0	0	3	5
Walk/Other	8	7	54	4	4	4	123	119	3	2	558	435
Total	**8**	**7**	**366**	**24**	**4**	**4**	**208**	**201**	**59**	**35**	**2,080**	**1,262**
MD	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	0	0	5	6	0	0	91	88	88	78	281	267
Taxi	0	0	2	2	0	0	18	18	4	4	39	38
Subway	0	0	13	15	0	0	18	18	27	24	234	231
Railroad	0	0	0	0	0	0	0	0	0	0	3	3
Bus	0	0	5	6	0	0	22	21	22	20	101	96
Bike	0	0	0	0	0	0	0	0	0	0	1	1
Walk/Other	4	4	76	90	4	4	215	207	7	7	1,321	1,295
Total	**4**	**4**	**101**	**119**	**4**	**4**	**364**	**352**	**148**	**133**	**1,980**	**1,931**
PM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	0	0	17	21	0	0	136	136	81	85	458	821
Taxi	0	0	7	9	0	0	27	27	4	4	41	45
Subway	0	0	204	259	0	0	26	26	25	26	559	676
Railroad	0	0	0	0	0	0	0	0	0	0	7	12
Bus	0	0	10	12	0	0	33	33	21	21	116	170
Bike	0	0	0	0	0	0	0	0	0	0	4	4
Walk/Other	7	7	42	53	4	4	320	320	7	7	1,101	1,160
Total	**7**	**7**	**280**	**354**	**4**	**4**	**542**	**542**	**138**	**143**	**2,286**	**2,888**
Saturday	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	1	1	6	4	0	0	139	145	125	115	489	475
Taxi	0	0	2	2	0	0	28	29	11	10	44	43
Subway	1	0	15	11	0	0	11	12	37	35	357	308
Railroad	0	0	0	0	0	0	0	0	0	0	5	4
Bus	1	1	6	4	0	0	33	35	27	25	119	113
Bike	0	0	0	0	0	0	0	0	0	0	3	3
Walk/Other	21	9	84	64	4	4	346	360	11	10	1,440	1,416
Total	**24**	**11**	**113**	**85**	**4**	**4**	**557**	**581**	**211**	**195**	**2,457**	**2,362**
Vehicle Trips :												
AM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	0	0	18	1	0	0	33	32	18	11	641	253
Taxi Balanced	0	0	8	8	0	0	12	12	2	2	31	31
Truck	0	0	0	0	0	0	1	1	1	1	15	15
Total	**0**	**0**	**26**	**9**	**0**	**0**	**46**	**45**	**21**	**14**	**687**	**299**
MD	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	0	0	4	5	0	0	58	56	44	39	192	185
Taxi Balanced	0	0	4	4	0	0	22	22	4	4	55	55
Truck	0	0	0	0	0	0	1	1	1	1	16	16
Total	**0**	**0**	**8**	**9**	**0**	**0**	**81**	**79**	**49**	**44**	**263**	**256**
PM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	0	0	14	18	0	0	86	86	41	43	343	685
Taxi Balanced	0	0	12	12	0	0	34	34	4	4	57	57
Truck	0	0	0	0	0	0	0	0	0	0	1	1
Total	**0**	**0**	**26**	**30**	**0**	**0**	**120**	**120**	**45**	**47**	**401**	**743**
Saturday	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	1	1	5	3	0	0	73	76	46	43	321	313
Taxi Balanced	0	0	4	4	0	0	30	30	8	8	47	47
Truck	0	0	0	0	0	0	0	0	0	0	0	0
Total	**1**	**1**	**9**	**7**	**0**	**0**	**103**	**106**	**54**	**51**	**368**	**360**

Table 7
Travel Demand Forecast Summary – Alternate Community Facility Scenario

Peak Hour	Vehicle Trips			Pedestrian Trips																	
				Auto[1]			Subway			Rail			Bus			Walk/Other			Total Pedestrian Trips[2]		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
AM	687	299	986	588	181	769	621	425	1,046	13	8	21	139	74	213	558	435	993	1,919	1,123	3,042
MD	263	256	519	64	62	126	234	231	465	3	3	6	101	96	197	1,321	1,295	2,616	1,723	1,687	3,410
PM	401	743	1,144	174	537	711	559	676	1,235	7	12	19	116	170	286	1,101	1,160	2,261	1,957	2,555	4,512
Saturday	368	360	728	165	161	326	357	308	665	5	4	9	119	113	232	1,440	1,416	2,856	2,086	2,002	4,088

Notes:

[1]Auto trips en route to nearby on-street parking. Assumes all uses except for the uses on Projected Development Site 1D and the supermarket use on Projected Development Site 1E park off-site in the vicinity of the respective projected development site.

[2]Includes walk-only trips and pedestrians en route to/from nearby subway stations, rail stations, and bus stops.

As shown in **Tables 4** and **6**, the Alternate Community Facility Scenario would generate a greater amount of overall travel demand during the weekday AM, midday, and PM, and Saturday peak hours than the Proposed Development. However, as shown in **Tables 5** and **7**, the Proposed Development would generate a greater amount of rail trips during the weekday AM, weekday PM, and Saturday peak hours than the Alternate Community Facility Scenario, while both the Proposed Development and Alternate Community Facility Scenario would generate an equal amount of rail trips during the weekday midday peak hour. In addition, the Proposed Development would generate a greater amount of subway trips during the weekday midday and Saturday peak hours than the Alternate Community Facility Scenario. Therefore, the rail screening analysis focuses on the Proposed Development during the commuter peak periods, while the bus, subway, pedestrian, and traffic screening analyses focus on the Alternate Community Facility Scenario.

LEVEL 1 SCREENING ASSESSMENT

The 2021 *CEQR Technical Manual* describes a two-level screening procedure for the preparation of a "preliminary analysis" to determine if quantified operational analyses of transportation conditions are warranted. As discussed in the following sections, the preliminary analysis begins with a trip generation (Level 1) analysis to estimate the numbers of person and vehicle trips attributable to the proposed action. According to the 2021 *CEQR Technical Manual*, if a proposed action is expected to result in fewer than 50 peak hour vehicle trips and fewer than 200 peak hour transit or pedestrian trips, further quantified analyses are not warranted. When these thresholds are exceeded, detailed trip assignments (a Level 2 assessment) are to be performed to estimate the incremental trips that could occur at specific transportation elements and to identify potential locations for further analysis. If the trip assignments show that the proposed action would generate 50 or more peak hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips traversing a sidewalk, corner area or crosswalk, then further quantified operational analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, vehicular and pedestrian safety, and parking.

Traffic

Based on 2021 *CEQR Technical Manual* guidelines, a quantified traffic analysis is typically required if a proposed action would result in 50 or more vehicle trips in a peak hour at one or more intersections. As shown in **Table 7**, under the Alternate Community Facility Scenario, the net number of incremental vehicle trips — 986, 519, 1,144, and 728 in the weekday AM, midday, and PM, and Saturday peak hours,

respectively — would exceed the 50-trip threshold in each of these peak hours. Therefore, a Level 2 screening analysis is warranted for all periods to determine which intersections would require a quantified analysis under the Alternate Community Facility Scenario.

Transit

According to the general thresholds used by the Metropolitan Transportation Authority and specified in the 2021 *CEQR Technical Manual*, detailed transit analyses are generally not required if a proposed action is projected to result in fewer than 200 peak hour rail or bus transit riders. If a proposed action would result in 50 or more bus passengers being assigned to a single bus route in one direction, or if it would result in an increase of 200 or more passengers at a single subway station or on a single subway line, a detailed bus and/or subway analysis would be warranted. Transit analyses typically focus on the weekday AM and PM commuter peak hours as it is during these periods that overall demand on the subway and bus systems is usually highest.

As shown in **Table 7**, the Alternate Community Facility Scenario is expected to generate approximately 1,046 and 1,235 incremental subway trips in the weekday AM and PM peak hours, respectively. As these trips exceed the 200-trip 2021 *CEQR Technical Manual* analysis threshold, a Level 2 screening analysis is warranted to determine which subway stations and routes would require quantified analysis. Additionally, as also shown in **Table 7**, the Alternate Community Facility Scenario is expected to generate 213 incremental trips by bus in the weekday AM peak hour and 286 new trips by bus in the PM peak hour. As the number of incremental bus trips would exceed the 50-trip 2021 *CEQR Technical Manual* analysis threshold, a Level 2 screening analysis is warranted to determine which, if any, bus routes would require quantified analysis. Lastly, as shown in **Table 5**, the Proposed Development is expected to generate approximately 23 and 20 incremental trips by rail in the weekday AM and PM peak hours, respectively. As these trips do not exceed the 200-trip 2021 *CEQR Technical Manual* analysis threshold, a detailed analysis of rail transit is not required and significant adverse impacts to surrounding rail stations would not occur because of the Proposed Actions.

Pedestrians

According to 2021 *CEQR Technical Manual* guidelines, a quantified analysis of pedestrian conditions is typically required if a proposed action would result in 200 or more peak hour pedestrian trips at any pedestrian element (sidewalk, corner area, or crosswalk). As shown in **Table 7**, the Alternate Community Facility Scenario would generate an incremental demand of approximately 2,273, 3,284, 3,801, and 3,762 total pedestrian trips (including walk-only trips and pedestrians en route to/from nearby subway stations, rail stations, and bus stops) in the weekday AM, weekday midday, weekday PM, and Saturday peak hours, respectively. As these trips would exceed the 200-trip threshold in each period, a Level 2 screening analysis is warranted to determine which pedestrian elements would require quantified analysis.

LEVEL 2 SCREENING ASSESSMENT

As discussed above, when Level 1 screening analysis thresholds are exceeded, detailed trip assignments (a Level 2 assessment) are performed to estimate the incremental trips that could occur at specific transportation elements and to identify potential locations for further analysis. As the Level 1 screening analysis thresholds were exceeded for traffic, subway, bus, and pedestrians, Level 2 screening assessments for these modes were prepared and are discussed below. If the trip assignments show that

the Proposed Actions would generate 50 or more peak hour vehicle trips at an intersection, 200 or more subway trips at a station or on a single subway line, 50 or more peak hour bus trips on single bus route in one direction, or 200 or more peak hour pedestrian trips traversing a sidewalk, corner area or crosswalk, then further quantified operational analyses may be warranted to assess the potential for significant adverse impacts on traffic, subway and pedestrian conditions.

Traffic

As shown in **Figure 1**, the street network in proximity to the Project Area is an irregular grid pattern of streets and avenues. The Project Area is generally bound by Fulton Street to the north, Van Sinderen Avenue to the west, Atlantic Avenue to the south, and East New York Avenue to the east. The Project Area is bifurcated in the east-west direction by Herkimer Street and in the north-south direction by Williams Place. Near the Project Area, Fulton Street operates as a two-way, east-west minor arterial. Atlantic Avenue operates as a two-way, east-west principal arterial, connecting Brooklyn's waterfront with Jamaica, Queens. Within the Project Area, Atlantic Avenue is a DOT-designated Through Truck Route with three to four lanes of traffic in each direction separated by a median; the segment of Atlantic Avenue between Georgia Avenue and Eastern Parkway is not separated by a median due to its elevation of above the Long Island Rail Road (LIRR). Van Sinderen Avenue is a discontinuous street separated by Atlantic Avenue that operates as a two-way, north-south street north of Atlantic Avenue and a one-way southbound local street south of Atlantic Avenue. Williams Place is a local northbound street bounded by Fulton Street to the north and Atlantic Avenue to the south. Herkimer Street is an eastbound local street bounded by East New York Avenue and operates as a major collector east of Van Sinderen Avenue. East New York Avenue operates as a two-way, northeast-southwest arterial and provides access to the Jackie Robinson Parkway. Other study area corridors of note include Eastern Parkway and Jamaica Avenue. Eastern Parkway and Jamaica Avenue are both principal arterials that typically operate with three moving lanes in each direction that are separated by a median.

Traffic Assignment and Analyzed Intersections

As shown in **Table 7** and discussed above, the Alternate Community Facility Scenario is expected to result in an incremental increase of approximately 986, 519, 1,144, and 728 vehicle trips in the weekday AM, midday, and PM, and Saturday peak hours, respectfully. As these traffic volumes exceed 50 trips in each peak hour (the 2021 *CEQR Technical Manual* Level 1 screening threshold for a detailed analysis), a preliminary assignment of these incremental traffic volumes was prepared for each period to help identify individual intersections for analysis (a Level 2 screening assessment).

The assignments of auto and taxi trips to the street network in proximity to the Project Area are based on the anticipated origins and destinations of vehicle trips associated with the different land uses proposed under the Proposed Actions. The origins/destinations of the residential trips were based on 2012-2016 ACS journey-to-work data, while those for the office, light industrial, and community facility (academic university) trips used for the assignments were based on 2012-2016 AASHTO CTPP reverse journey-to-work data for Brooklyn census tracts 365.01, 365.02, 367, 369, 405, 908, 1142.01, 1144, and 1198. The origins/destinations for the local retail and community facility (house of worship) uses that are mostly local in nature were based on population density in neighborhoods within a half-mile radius of the Project Area. The origins/destinations for the supermarket use were based on population density in neighborhoods within a one-mile radius of the Project Area. The origins/destinations for the destination retail use were based on population density in neighborhoods within a two-mile radius of the Project Area. **Table 8** shows the distributions of incremental auto and taxi trips by land use based on

the origin/destination data. Using these distributions, auto and taxi trips were first assigned to various portals on the periphery of the East New York neighborhood, and from there via the most direct route to the Project Area. As the Alternate Community Facility Scenario includes on-site parking, auto trips were assigned directly to the proposed parking garage entrances on Van Sinderen Avenue for Projected Development Site 1B and East New York Avenue for Projected Development Sites 1D and 1E. Similarly, vehicle trips for Projected Development Sites 1A, 1C, and 2 were conservatively assigned to their respective frontages. Although some drivers may park at on-street parking spaces, assigning all trips to the Project Area can be considered a conservative approach with respect to the traffic impact analysis as it concentrates project traffic at analyzed intersections in proximity to the Project Area rather than dispersing traffic to outlying parking facilities.

Taxis were generally assigned to the projected development site frontages. Trucks were assigned to DOT-designated truck routes—i.e., Atlantic Avenue (a Through Truck Route) and Pennsylvania Avenue (a Local Truck Route) — and then to the most direct paths to and from the Project Area's loading docks on East New York Avenue for Projected Development Sites 1D and 1E. Similarly, truck trips for Projected Development Sites 1A, 1B, 1C, and 2 were assigned to their respective frontages. The assignment of net incremental peak hour vehicle trips at intersections in proximity to the Project Area are shown in **Figures 2a**, **2b**, **2c**, and **2d**.

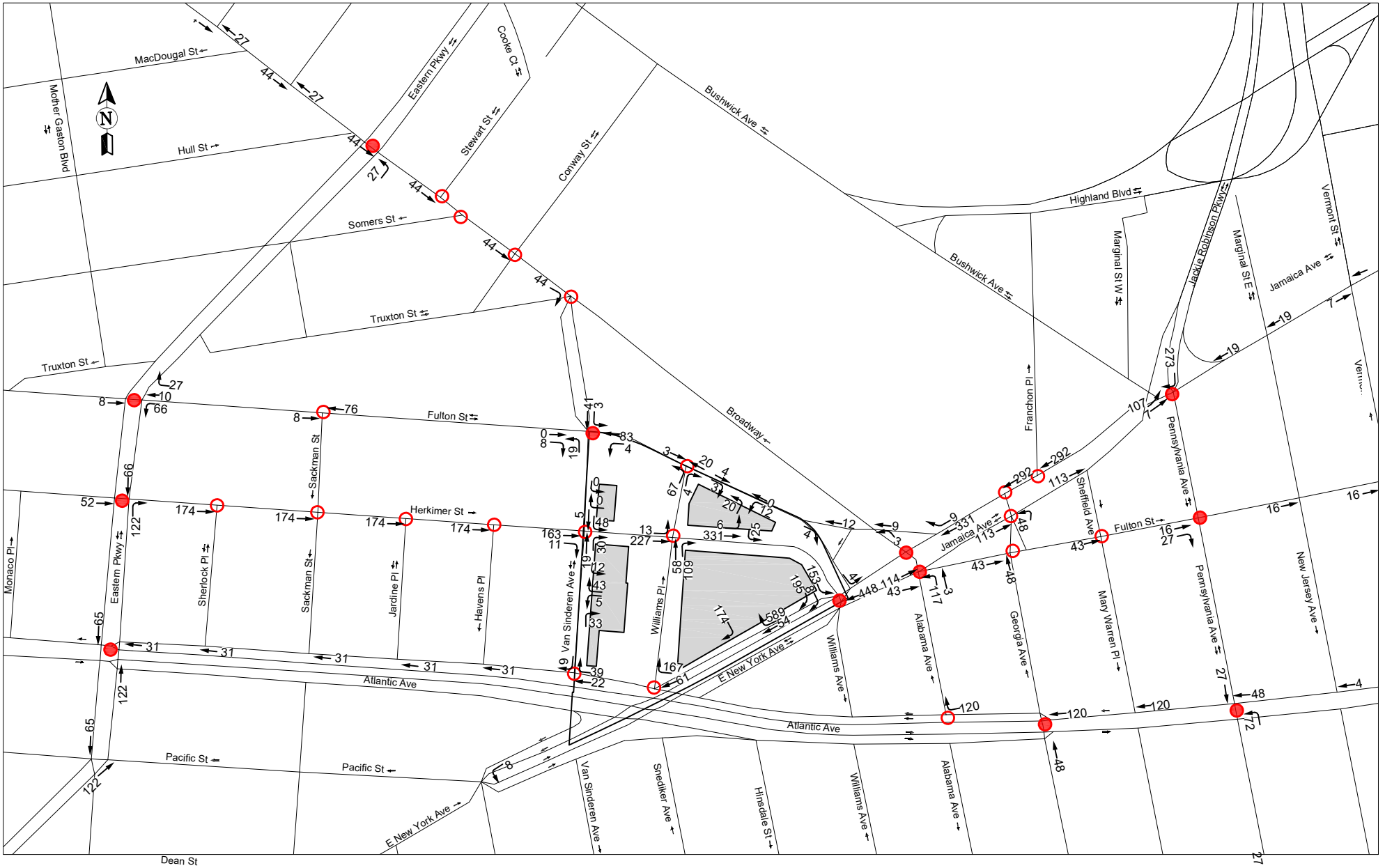
Table 8
Geographical Directional Distribution of Auto/Taxi Trips

	Brooklyn									
Land Use	**N**	**S**	**E**	**W**	**Manhattan**	**Bronx**	**Queens**	**Long Island**	**Staten Island/NJ**	**Upstate NY/ CT/PA**
Residential[1]	0.0%	6.7%	3.6%	23.0%	17.1%	2.7%	33.8%	11.1%	0.4%	1.6%
Office/Light Industrial/ Community Facility (Academic University)[2]	0.6%	15.0%	4.0%	25.7%	0.0%	1.7%	24.7%	21.6%	3.7%	3.0%
Local Retail/ Community Facility (House of Worship)[3]	2.5%	50.3%	16.2%	31.0%	-	-	-	-	-	-
Supermarket[4]	7.9%	41.6%	23.2%	27.3%	-	-	-	-	-	-
Destination Retail[5]	19.7%	27.6%	19.4%	33.3%	-	-	-	-	-	-

Notes:
[1] Based on 2012-2016 ACS journey-to-work data for Brooklyn census tracts 365.01, 365.02, 367, 369, 405, 908, 1142.01, 1144, and 1198.
[2] Based on 2012-2016 ACS reverse journey-to-work five-year data for Brooklyn census tracts 365.01, 365.02, 367, 369, 405, 908, 1142.01, 1144, and 1198.
[3] Based on population density within 0.5-mile of the Project Area.
[4] Based on population density within one mile of the Project Area.
[5] Based on population density within two miles of the Project Area.

Representative intersections most likely to be used by concentrations of action-generated vehicles traveling to and from the Project Area were then identified for detailed analysis based on the preliminary assignments. Existing bottleneck locations and prevailing travel patterns in the traffic study area were also taken into consideration. **Figures 2a**, **2b**, **2c**, and **2d** show the locations of the 30 intersections (13 signalized and 17 unsignalized) selected for detailed analysis pending further consultation with DCP and DOT. The 30 intersections selected for analysis are listed on the subsequent page and shown in **Figures 2a**, **2b**, **2c**, and **2d**.

Weekday AM Incremental Project Vehicle Trip Assignments



LEGEND

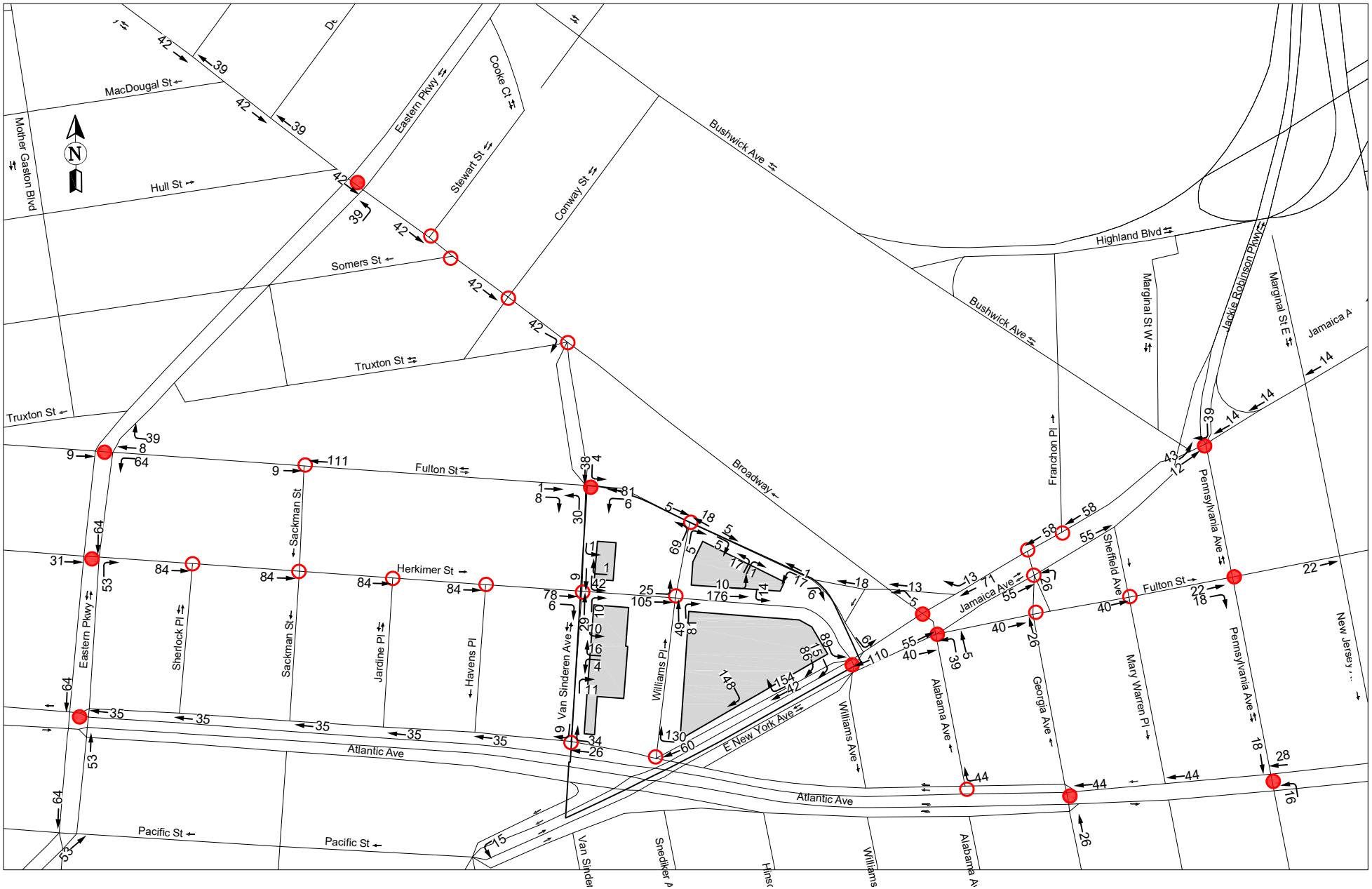
Development Site

Analysis Location (Signalized)

Analysis Location (Unsignalized)

2 = Weekday AM Incremental Project Traffic Volume

Weekday MD Incremental Project Vehicle Trip Assignments



LEGEND

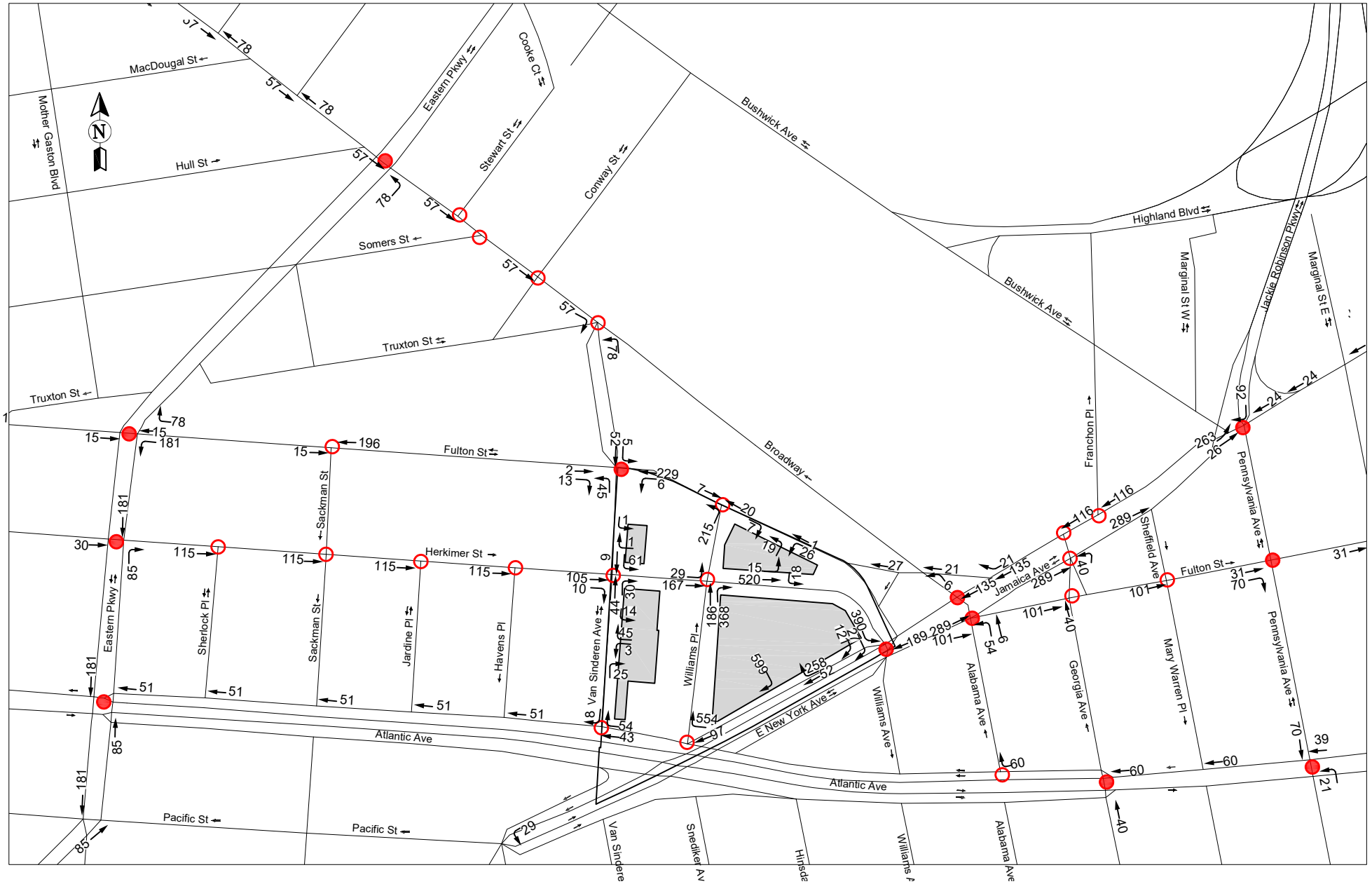
Development Site

Analysis Location (Signalized)

Analysis Location (Unsignalized)

2 = Weekday MD Incremental Project Traffic Volume

Weekday PM Incremental Project Vehicle Trip Assignments



LEGEND

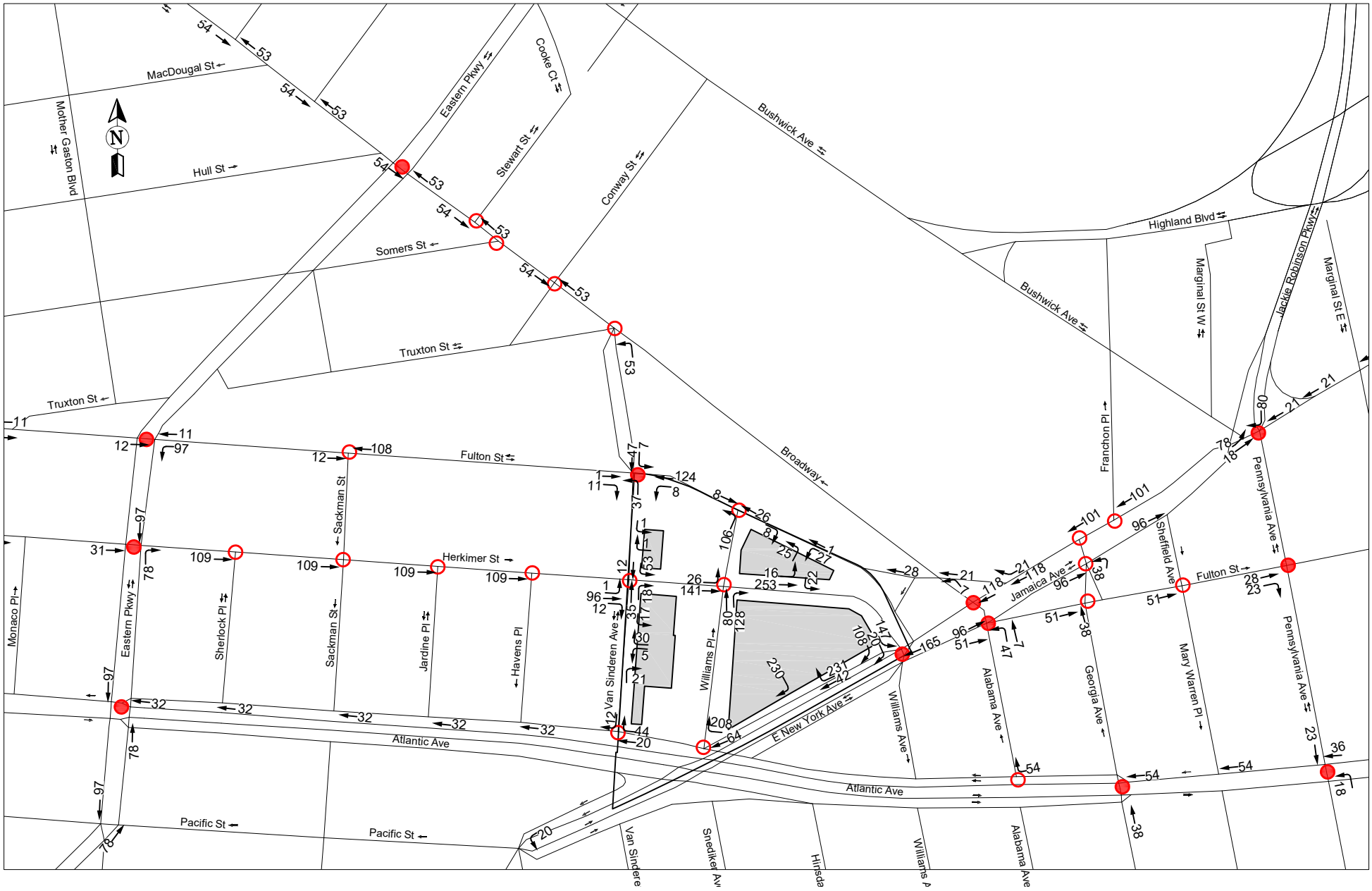
Development Site

Analysis Location (Signalized)

Analysis Location (Unsignalized)

2 = Weekday PM Incremental Project Traffic Volume

Saturday Incremental Project Vehicle Trip Assignments



LEGEND

Development Site

Analysis Location (Signalized)

Analysis Location (Unsignalized)

2 = Saturday Incremental Project Traffic Volume

Traffic Analysis Locations

Signalized Intersections

1. Jamaica Avenue and Jackie Robinson Parkway and Pennsylvania Avenue
2. Jamaica Avenue and Georgia Avenue
3. Jamaica Avenue/East New York Avenue and Alabama Avenue and Broadway/Fulton Street
4. East New York Avenue and Wiliams Avenue and Herkimer Street/Fulton Street
5. East New York Avenue and Atlantic Avenue and Williams Place
6. Atlantic Avenue and Eastern Parkway
7. Atlantic Avenue and Georgia Avenue
8. Atlantic Avenue and Pennsylvania Avenue
9. Herkimer Street and Eastern Parkway
10. Fulton Street and Eastern Parkway
11. Fulton Street and Van Sinderen Avenue
12. Fulton Street and Pennsylvania Avenue
13. Broadway and Eastern Parkway

Unsignalized Intersections

1. Atlantic Avenue Westbound and Van Sinderen Avenue
2. Atlantic Avenue Westbound and Alabama Avenue
3. Herkimer Street and Sherlock Place
4. Herkimer Street and Sackman Street
5. Herkimer Street and Jardine Place
6. Herkimer Street and Havens Place
7. Herkimer Street and Van Sinderen Avenue
8. Herkimer Street and Williams Place
9. Fulton Street and Sackman Street
10. Fulton Street and Williams Place
11. Fulton Street and Georgia Avenue
12. Fulton Street and Sheffield Avenue
13. Broadway and Stewart Street
14. Broadway and Somers Street
15. Broadway and Conway Street
16. Broadway and Truxton Street
17. Broadway and Van Sinderen Avenue

Transit

As discussed previously, according to the general thresholds used by the MTA and specified in the 2021 *CEQR Technical Manual*, if a proposed action would result in an increase of 200 or more passengers at a single subway station or on a single subway line, a detailed subway analysis would be warranted. Additionally, if a proposed action would result in 50 or more bus passengers being assigned to a single bus route (in one direction), a detailed bus analysis would be warranted. A map of transit services located near the Project Area is shown in **Figure 3**.

Subway Assignment and Analyzed Stations

As shown in **Table 7**, the Alternate Community Facility Scenario is expected to generate a net total of approximately 1,046 and 1,235 incremental subway trips in the weekday AM and PM peak hours, respectively. Three NYCT subway stations located within a quarter-mile of the Project Area are expected to be used by action-generated demand (refer to **Figure 3**). Many subway trips are expected to use the Broadway Junction station complex, which is located to the northwest of the Project Area and is served by the A (8th Avenue express), C (8th Avenue local), J (Nassau Street local), L (14th Street-Canarsie local), and Z (Nassau Street express) trains. In addition, it is anticipated that some incremental subway trips would also likely occur at the Alabama Avenue (J/Z) station located to the east of the Project Area and the Atlantic Avenue (L) station located directly south of the Project Area.

Incremental subway trips generated by the Proposed Actions were assigned to the three stations serving the Project Area based on census origin/destination data and each station's proximity to the five new buildings and potential retail kiosk. The numbers of peak hour trips assigned to each station are shown in **Table 9**. As shown in **Table 9**, the highest number of peak hour subway trips is expected to occur at the Broadway Junction station complex which would experience an incremental increase of approximately 902 and 1,059 subway trips (in and out combined) during the weekday AM and PM peak hours, respectively. The Alabama Avenue and Atlantic Avenue stations would experience significantly fewer incremental increases of subway trips, with approximately 107 and 139 incremental subway trips anticipated at the Alabama Avenue station during the weekday AM and PM peak hours, respectively, and approximately 37 incremental subway trips anticipated at the Atlantic Avenue station in the both weekday AM and PM peak hours.

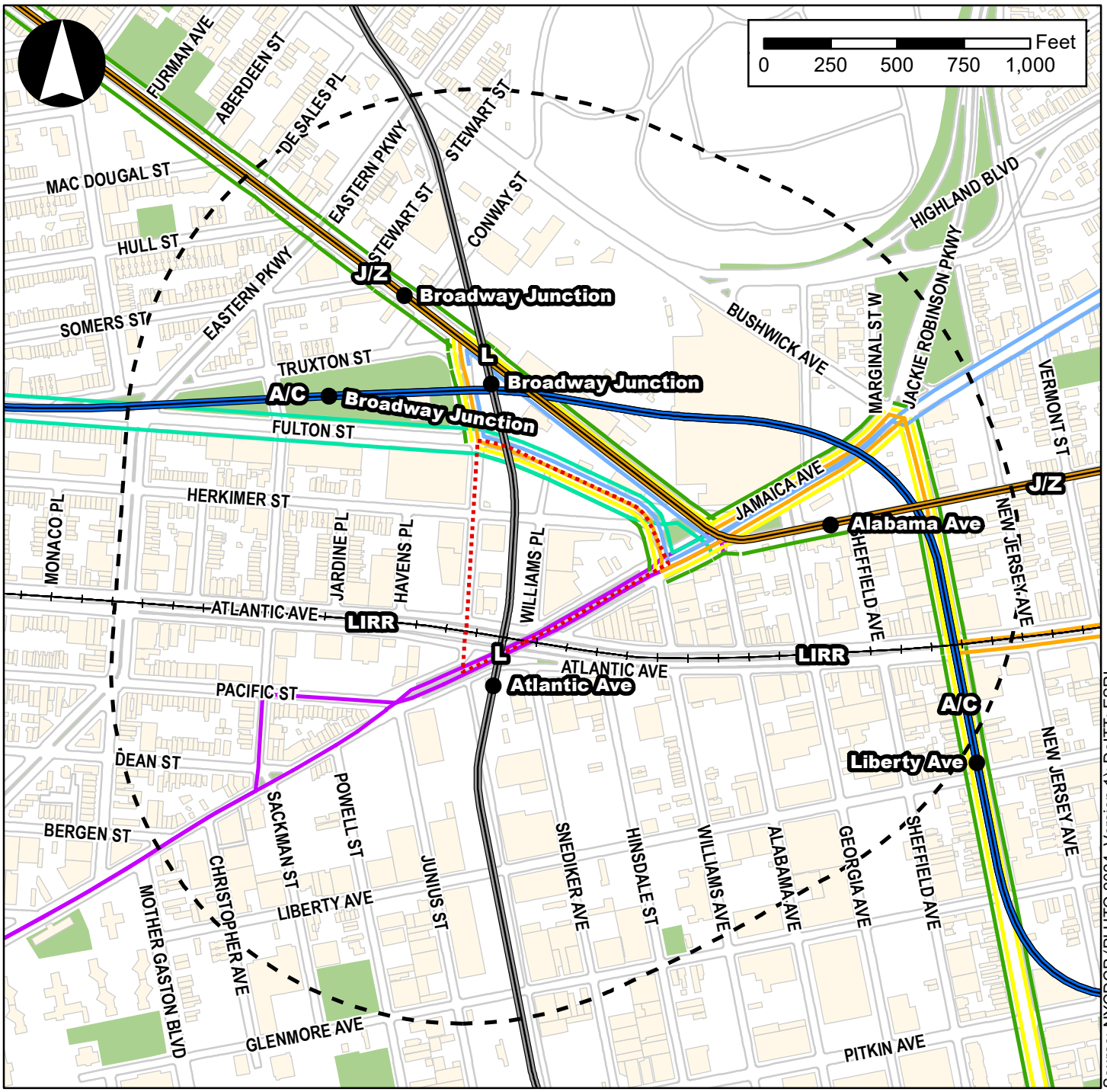
Table 9
Net Incremental Peak Hour Subway Trips by Station – Alternate Community Facility Scenario

Station	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Broadway Junction (A, C, J, L, Z)	516	386	902	488	571	1,059
Alabama Avenue (J, Z)	80	27	107	59	80	139
Atlantic Avenue (L)	25	12	37	12	25	37
Total	**621**	**425**	**1,046**	**559**	**676**	**1,235**

As shown in **Table 9**, based on these assignments, it is estimated that new subway demand from the Alternate Community Facility Scenario would likely exceed the 200-trip 2021 *CEQR Technical Manual* analysis threshold in the AM and PM periods at the Broadway Junction (A/C/J/L/Z) station complex, and therefore this station was selected for detailed analysis. Key circulation elements (e.g., stairs and fare arrays) expected to be used by concentrations of new demand from the Alternate Community Facility Scenario will be analyzed.

Subway Line Haul

As discussed above, the Project Area is currently served by a total of five NYCT subway routes, including the A, C, J, L, and Z. **Table 10** shows the assignment of net incremental subway trips generated by the Alternate Community Facility Scenario to the five subway routes by direction during the weekday AM and PM peak hours. As shown in **Table 10**, the Alternative Community Facility Scenario is expected to generate more than 200 incremental trips along the A line during AM and PM peak hours in both



Legend

- Project Area
- Quarter-Mile Radius
- Subway Station (Local)
- Subway Station (Express)
- Atlantic Branch Line (LIRR)
- A/C Line
- L Line
- J/Z Line
- B12
- B20
- B25
- B83
- Q24
- Q56

directions. All other peak direction trips are expected to experience fewer than 200 incremental trips on any one route during the AM and PM peak hours. As incremental peak hour demand from the Alternate Community Facility Scenario is expected to generate 200 or more new peak hour subway trips along the A line during the PM peak hour, the analysis threshold for subway line haul analysis on this line is exceeded and therefore, an analysis of subway line haul conditions will be included in the EIS for these lines. The analysis will use subway service and ridership data provided by NYCT to assess existing, future No-Action, and future With-Action conditions at the maximum load points during the weekday PM peak hour.

Table 10
Net Incremental Peak Hour Subway Trips by Route and Direction – Alternate Community Facility Scenario

Line	Direction	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
A	Manhattan-Bound	27	149	176	23	200	223
	Queens-Bound	173	18	191	182	29	211
C	Manhattan-Bound	2	93	95	1	119	120
	Brooklyn-Bound	103	0	103	107	3	110
J/Z	Manhattan-Bound	58	33	91	38	57	95
	Queens-Bound	52	24	76	49	57	106
L	Manhattan-Bound	54	81	135	40	156	196
	Brooklyn-Bound	152	27	179	119	55	174
Total		**621**	**425**	**1,046**	**559**	**676**	**1,235**

Bus Assignment and Analyzed Routes

As shown in **Figure 3**, six NYCT Bus Company local bus services operate within approximately quarter-mile of the Project Area—the B12, B20, B25, B83, Q24, and Q56. These services and the principal corridors on which they operate in proximity to the Project Area are listed in **Table 11**.

Table 11
Bus Routes Serving the Project Area

Route	Operating Agency	Route Endpoints	Corridors Served in Proximity to the Project Area
B12	NYCT Bus	Lefferts Gardens – East New York	East New York Avenue
B20	NYCT Bus	Ridgewood – Spring Creek	Fulton Street / Broadway / Jamaica Avenue/ Pennsylvania Avenue
B25	NYCT Bus	DUMBO – Broadway Junction	Fulton Street
B83	NYCT Bus	Spring Creek – Broadway Junction	Fulton Street / Broadway / Jamaica Avenue/ Pennsylvania Avenue
Q24	NYCT Bus	Broadway Junction – Jamaica, Queens	Fulton Street / Broadway / Jamaica Avenue/ Pennsylvania Avenue
Q56	NYCT Bus	Broadway Junction – Jamaica, Queens	Fulton Street / Broadway / Jamaica Avenue/ Pennsylvania Avenue

As shown in **Table 7**, the Alternate Community Facility Scenario would generate an incremental increase of approximately 213 and 286 bus trips during the weekday AM and PM peak hours, respectively. These bus trips were assigned to each route based on proximity to the projected development sites and current ridership patterns. **Table 12** provides the bus route assignment of action-generated bus person trips for the weekday AM and PM peak hours. As shown in **Table 12**, all six routes are expected to experience fewer than 50 new trips per direction in each peak hour. Therefore, based on 2021 *CEQR Technical Manual* guidance, significant adverse impacts to local bus service are not anticipated, and a detailed analysis of local bus conditions is not warranted in the EIS.

Table 12
Net Incremental Bus Route Assignments – Alternate Community Facility Scenario

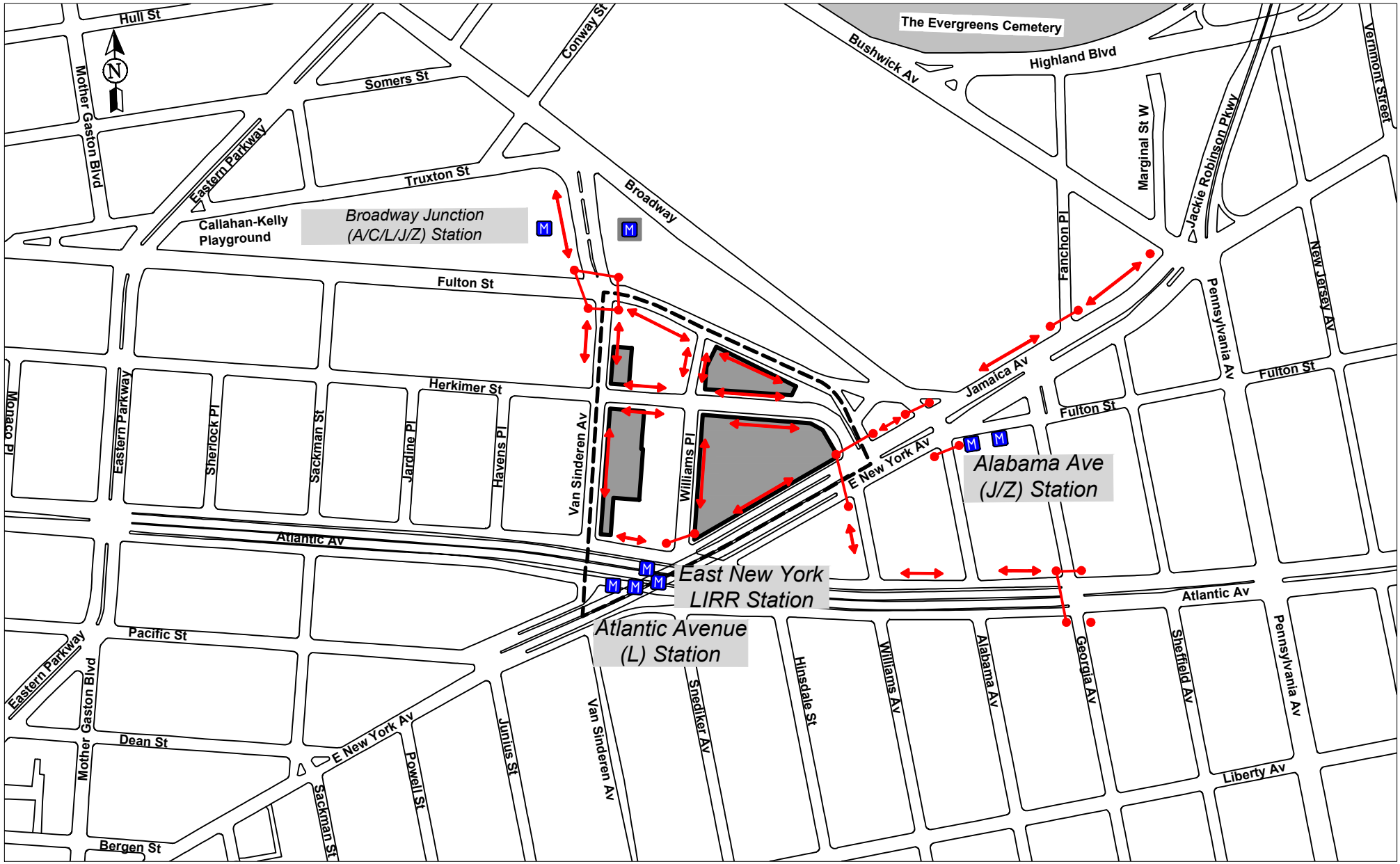
Route	Direction	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
B12	EB	36	0	36	29	0	29
	WB	0	19	19	0	43	43
B20	NB	11	4	15	9	9	18
	SB	7	6	13	6	13	19
B25	EB	23	0	23	19	0	19
	WB	0	12	12	0	28	28
B83	NB	20	0	20	17	0	17
	SB	0	11	11	0	25	25
Q24	EB	4	9	13	4	21	25
	WB	17	2	19	14	5	19
Q56	EB	0	11	11	0	26	26
	WB	13	0	13	19	0	19
Total		**139**	**74**	**213**	**116**	**170**	**286**

Pedestrians

Based on 2021 *CEQR Technical Manual* guidance, detailed pedestrian analyses are generally warranted if a proposed action is projected to result in 200 or more new peak hour pedestrians at any sidewalk, corner area, or crosswalk. As shown in **Table 7**, the Alternate Community Facility Scenario would generate an incremental increase of approximately 993, 2,616, 2,261, and 2,856 walk-only trips (in and out combined) during the weekday AM, midday, and PM and Saturday peak periods, respectively. In addition to the walk-only trips, transit trips (subway, bus, and rail trips) also include walk portions of the trip. Therefore, the Alternate Community Facility Scenario would generate a total of approximately 2,273, 3,284, 3,801, and 3,762 pedestrian trips in the weekday AM, weekday midday, weekday PM, and Saturday peak periods, respectively. During the weekday AM and PM peak hours, new pedestrian trips would be most concentrated on sidewalks and crosswalks adjacent to the Project Area and along corridors connecting the Project Area to nearby transit stations and bus stops. In the midday and Saturday periods, pedestrian trips would tend to be more dispersed, as people travel throughout the area for dining, shopping, and/or running errands.

Based on a preliminary assignment of incremental peak hour pedestrian trips, a total of 54 elements (22 sidewalks, 12 crosswalks, and 20 corner areas) that would exceed the 200-trip 2021 *CEQR Technical Manual* analysis threshold in one or more peak hours were selected for detailed analyses (refer to **Figure**

Analyzed Pedestrian Elements



LEGEND

- Development Site
- Project Area
- Subway Station Entrance
- Proposed Subway Station Entrance
- Analyzed Corner
- Analyzed Sidewalk
- Analyzed Crosswalk

4). These pedestrian elements, listed below, are primarily located in the immediate proximity of the Project Area, along Atlantic Avenue, East New York Avenue, and Jamaica Avenue.

Pedestrian Analysis Locations

Sidewalks

1. East sidewalk along Van Sinderen Avenue between Broadway and Fulton Street
2. West sidewalk along Van Sinderen Avenue between Truxton Street and Fulton Street
3. East sidewalk along Van Sinderen Avenue between Fulton Street and Herkimer Street
4. West sidewalk along Van Sinderen Avenue between Fulton Street and Herkimer Street
5. East sidewalk along Van Sinderen Avenue between Herkimer Street and Atlantic Avenue
6. East sidewalk along Williams Place between Fulton Street and Herkimer Street
7. West sidewalk along Williams Place between Fulton Street and Herkimer Street
8. East sidewalk along Williams Place between Herkimer Street and Atlantic Avenue/East New York Avenue
9. South sidewalk along Fulton Street between Van Sinderen Avenue and Williams Place
10. South sidewalk along Fulton Street between Williams Place and East New York Avenue
11. North sidewalk along Herkimer Street between Van Sinderen Avenue and Williams Place
12. South sidewalk along Herkimer Street between Van Sinderen Avenue and Williams Place
13. North sidewalk along Herkimer Street between Williams Place and East New York Avenue
14. South sidewalk along Herkimer Street between Williams Place and East New York Avenue
15. North sidewalk along Atlantic Avenue between Van Sinderen Avenue and Williams Place
16. North sidewalk along East New York Avenue between Williams Place and Williams Avenue/Herkimer Street
17. North sidewalk along East New York Avenue between Williams Avenue/Herkimer Street and Broadway
18. North sidewalk along Jamaica Avenue between Broadway and Fanchon Place
19. North sidewalk along Jamaica Avenue between Fanchon Place and Bushwick Avenue/Pennsylvania Avenue
20. West sidewalk along Williams Avenue between East New York Avenue and Atlantic Avenue
21. North sidewalk along Atlantic Avenue between Williams Avenue and Alabama Avenue
22. North sidewalk along Atlantic Avenue between Alabama Avenue and Georgia Avenue

Crosswalks

1. North crosswalk of Van Sinderen Avenue and Fulton Street
2. East crosswalk of Van Sinderen Avenue and Fulton Street
3. South crosswalk of Van Sinderen Avenue and Fulton Street
4. West crosswalk of Van Sinderen Avenue and Fulton Street
5. North crosswalk of Williams Place and East New York Avenue/Atlantic Avenue
6. North crosswalk of East New York Avenue and Herkimer Street/Williams Avenue
7. West crosswalk of East New York Avenue and Herkimer Street/Williams Avenue
8. North crosswalk of East New York Avenue/Jamaica Avenue and Broadway/Alabama Avenue
9. South crosswalk of East New York Avenue/Jamaica Avenue and Broadway/Alabama Avenue
10. North crosswalk of Fanchon Place and Jamaica Avenue
11. North crosswalk of Georgia Avenue and Atlantic Avenue
12. West crosswalk of Georgia Avenue and Atlantic Avenue

Corner Areas

1. Northeast corner of Van Sinderen Avenue and Fulton Street
2. Southeast corner of Van Sinderen Avenue and Fulton Street
3. Southwest corner of Van Sinderen Avenue and Fulton Street
4. Northwest corner of Van Sinderen Avenue and Fulton Street
5. Northeast corner of Williams Place and East New York Avenue/Atlantic Avenue
6. Northwest corner of Williams Place and East New York Avenue/Atlantic Avenue
7. Northeast corner of East New York Avenue and Herkimer Street/Williams Avenue
8. Southwest corner of East New York Avenue and Herkimer Street/Williams Avenue
9. Northwest corner of East New York Avenue and Herkimer Street/Williams Avenue
10. Northeast corner of East New York Avenue/Jamaica Avenue and Broadway/Alabama Avenue
11. Southeast corner of East New York Avenue/Jamaica Avenue and Broadway/Alabama Avenue
12. Southwest corner of East New York Avenue/Jamaica Avenue and Broadway/Alabama Avenue
13. Northwest corner of East New York Avenue/Jamaica Avenue and Broadway/Alabama Avenue
14. Northeast corner of Fanchon Place and Jamaica Avenue
15. Northwest corner of Fanchon Place and Jamaica Avenue
16. Northwest corner of Bushwick Avenue and Jamaica Avenue/Jackie Robinson Parkway
17. Northeast corner of Georgia Avenue and Atlantic Avenue
18. Southeast corner of Georgia Avenue and Atlantic Avenue
19. Southwest corner of Georgia Avenue and Atlantic Avenue
20. Northwest corner of Georgia Avenue and Atlantic Avenue

Vehicular and Pedestrian Safety

Under 2021 *CEQR Technical Manual* guidance, an evaluation of vehicular and pedestrian safety is needed for locations within traffic and pedestrian study areas that have been identified as high crash locations. These are defined as locations along a Vision Zero priority intersection or locations where five or more pedestrian/bicyclist injury crashes have occurred in any consecutive 12 months of the most recent three-year period for which data are available. In addition, any location along a Vision Zero priority corridor with three or more pedestrian/bicyclist injury crashes in any consecutive 12 months of the most recent three-year period for which data is available should be identified as a high crash location. For these locations, crash trends will be identified to determine whether projected vehicular and pedestrian traffic would further impact safety, or whether existing unsafe conditions could adversely impact the flow of the projected new trips.[3]

Vision Zero Brooklyn Pedestrian Safety Action Plan

Consistent with the City's Vision Zero initiative, the *Vision Zero Brooklyn Pedestrian Safety Action Plan* was released in 2015 and was last updated in 2023. The plan identifies a series of engineering/planning, enforcement, and education/awareness campaign strategies to enhance pedestrian safety along the borough's Priority Corridors and Priority Intersections. These strategies include measures such as reducing the speed limit to 25 miles per hour, expanding exclusive pedestrian crossing time, installing additional lighting around key transit stops, expanding the bicycle network, prioritizing targeted enforcement and deploying speed cameras, and targeting intensive street-level outreach. In proximity

[3] Vision Zero seeks to eliminate all deaths from traffic crashes regardless of whether on foot, bicycle, or inside of a motor vehicle. Vision Zero corridors and intersections are identified as locations that disproportionately account for pedestrian fatalities and severe injuries, thus prioritizing them for safety interventions.

to the Project Area, the plan identifies Eastern Parkway, Bushwick Avenue, Broadway, Fulton Street, Atlantic Avenue, East New York Avenue, and Pennsylvania Avenue as "Priority Corridors" (refer to **Figure 5**). The plan also identifies Eastern Parkway at Atlantic Avenue, and Fulton Street at Pennsylvania Avenue as "Priority Intersections" (refer to **Figure 5**). The Project Area is also located within a "Priority Area" and "Bike Priority Area" and is adjacent to a Senior Pedestrian Focus Area (SPFA).

Crash Data

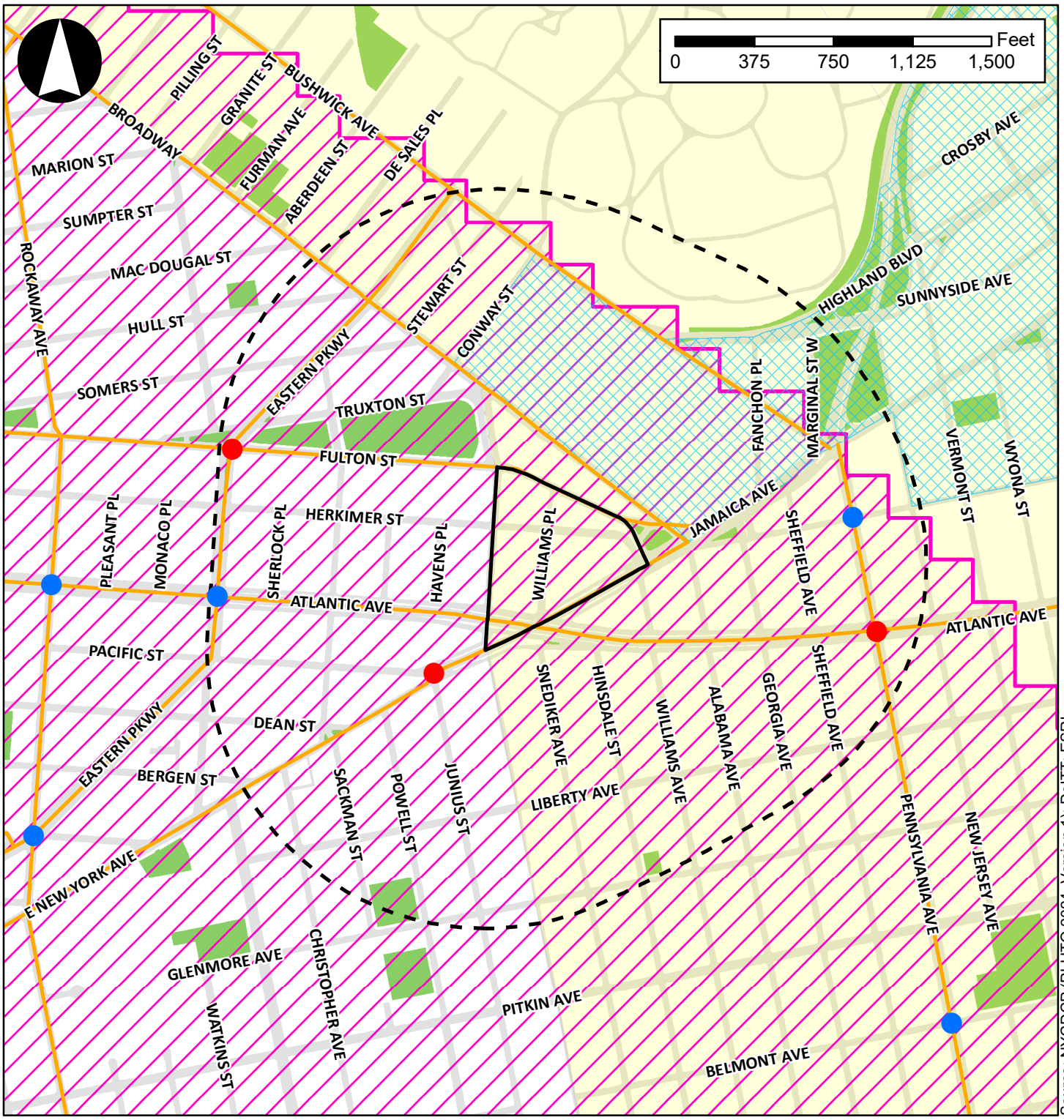
Table 13 shows the crash data summary for the most recent three-year reporting non-Covid-19 period between January 1, 2018 and December 31, 2019 and January 1, 2023 and December 31, 2023 that were obtained from DOT. The data obtained quantify the total number of reportable crashes (crashes involving a fatality, injury, or more than $1,000 in property damage), as well as a yearly breakdown of fatalities, injuries, and vehicular crashes involving pedestrians and bicycles at each location. **Table 13** summarizes the crash data for each intersection within the quarter-mile study area during the study period, including a breakdown of pedestrian and bicycle crashes by year.

During the three-year period, a total of 2,184 reportable and non-reportable crashes, two fatalities, 861 total injuries, and 107 pedestrian/bicyclist injury crashes occurred at intersections within the quarter-mile study area. As shown in **Table 13**, four intersections within the quarter-mile study area, all of which are located along a Priority Corridor, were found to have experienced a total of three or more pedestrian/bicyclist-related crashes in any one year during the three-year period, and were therefore identified as high-crash locations and are listed below.

Therefore, including the four Priority Intersections discussed above (Eastern Parkway at Atlantic Avenue, Pennsylvania Avenue at Fulton Street, Rockaway Avenue at Eastern Parkway, and Pennsylvania Avenue at Belmont Avenue), a total of eight intersections within the quarter-mile study area were identified as high-crash locations and are listed below. Four of the eight intersections identified as high-crash locations are traffic and pedestrian analysis locations and are identified below with a "*." The four analyzed high crash locations will be assessed qualitatively for street user safety in the EIS, where crash trends will be identified to determine whether projected vehicular and pedestrian traffic would further impact safety conditions, or whether existing unsafe conditions could adversely impact the flow of the projected new trips.

<u>High Crash Locations</u>

1. Pennsylvania Avenue at Fulton Street*
2. Eastern Parkway at Atlantic Avenue*
3. Eastern Parkway at Fulton Street*
4. Atlantic Avenue at Pennsylvania Avenue*
5. East New York Avenue at Pacific Street/Junius Street
6. Rockaway Avenue at Atlantic Avenue
7. Rockaway Avenue at Eastern Parkway
8. Pennsylvania Avenue at Belmont Avenue



Source: NYCDCP (PLUTO 2024, Version 1); DoITT; ESRI

Legend

- Project Area
- Quarter-Mile Radius
- Vision Zero Priority Corridor
- Vision Zero Priority Area
- Senior Pedestrian Focus Area
- Bike Priority Area
- Vision Zero Priority Intersections
- High Crash Locations

Table 13
Crash Data Summary – 2018, 2019, 2023

Intersection		Pedestrian Injury Crashes			Bicycle Injury Crashes			Total Pedestrian/Bicyclist Injury Crashes			Total Crashes (Reportable + Non-Reportable)		
		2018	2019	2023	2018	2019	2023	2018	2019	2023	2018	2019	2023
Bushwick Avenue	Highland Boulevard	1	0	0	0	0	0	1	0	0	19	17	6
	Stewart Street	0	0	0	0	0	0	0	0	0	16	10	7
	Conway Street	0	0	0	0	0	0	0	0	0	26	28	11
	Fanchon Place	0	0	0	0	0	0	0	0	0	3	7	1
	Pennsylvania Avenue / Jamaica Avenue / Jackie Robinson Parkway	1	0	0	1	2	0	2	2	0	64	69	39
	Eastern Parkway / Vanderveer Street	1	1	0	0	0	0	1	1	0	39	42	11
Highland Boulevard	Fanchon Place	0	0	0	0	0	0	0	0	0	11	7	3
Jamaica Avenue	Georgia Avenue	0	1	0	0	0	0	0	1	0	16	16	0
	Fanchon Place	1	0	0	0	0	0	1	0	0	5	7	3
	Sheffield Avenue	0	0	0	0	0	0	0	0	0	4	4	0
	Jackie Robinson Parkway EB en Jamaica Avenue	0	0	0	0	0	0	0	0	0	0	0	0
	Alabama Avenue / Broadway / East New York Avenue	0	2	1	1	0	0	1	2	1	16	33	5
Broadway	Somers Street	1	0	0	0	0	1	1	0	1	4	2	1
	Conway Street	0	2	0	0	0	0	0	2	0	5	9	4
	De Sales Place	0	0	0	0	0	0	0	0	0	0	0	0
	Eastern Parkway / Hull Street	1	0	1	0	1	0	1	1	1	13	20	11
	Van Sinderen Avenue / Truxton Street	0	0	1	0	0	0	0	0	1	1	2	2
	Stewart Street	0	0	0	0	0	0	0	0	0	1	0	0
Fulton Street	Eastern Parkway	1	4	3	0	0	1	1	**4**	**4**	12	17	11
	Sackman Street	0	0	1	0	0	0	0	0	1	4	3	1
	Van Sinderen Avenue	0	2	1	0	0	0	0	2	1	6	7	4
	Williams Place	0	0	0	0	0	0	0	0	0	3	6	1
	Sheffield Avenue	0	1	0	1	0	0	1	1	0	5	5	4
	Pennsylvania Avenue	1	2	2	1	0	0	2	2	2	25	32	17
	New Jersey Avenue	0	0	0	0	1	0	0	1	0	2	3	5
	Georgia Avenue	0	1	0	0	2	0	0	3	0	16	11	5
	Herkimer Street/Williams Avenue/E New York Avenue	0	0	0	0	0	0	0	0	0	4	12	3
Eastern Parkway	Atlantic Avenue	1	2	0	0	0	0	1	2	0	85	83	19
	Herkimer Street	0	2	0	0	0	0	0	2	0	12	11	3
	Truxton Street	0	0	0	0	0	0	0	0	0	2	1	1
	Somers Street / Sackman Street	0	0	0	0	0	0	0	0	0	6	5	0
	Pacific Street / Mother Gaston Blvd	2	0	0	0	0	0	2	0	0	18	16	6
Truxton Street	Sackman Street	0	0	0	0	0	0	0	0	0	1	2	1
	Conway Street	0	0	0	0	0	0	0	0	0	3	0	1

Note: Shading denotes a high-crash location based on 2021 *CEQR Technical Manual* criteria.
Source: DOT/NYPD

Table 13
Crash Data Summary – 2018, 2019, 2023 (Cont.)

Intersection		Pedestrian Injury Crashes			Bicycle Injury Crashes			Total Pedestrian/Bicyclist Injury Crashes			Total Crashes (Reportable + Non-Reportable)		
		2018	2019	2023	2018	2019	2023	2018	2019	2023	2018	2019	2023
Herkimer Street	Sherlock Place	0	0	0	0	0	0	0	0	0	0	3	1
	Sackman Street	0	0	1	0	0	0	0	0	1	2	1	1
	Jardine Place	0	0	0	0	0	0	0	0	0	3	0	0
	Havens Place	0	0	0	0	1	0	0	1	0	1	2	0
	Van Sinderen Avenue	0	1	0	0	0	0	0	1	0	3	6	0
	Williams Place	0	0	0	0	0	0	0	0	0	2	2	1
Atlantic Avenue	Sherlock Place	0	0	0	0	0	0	0	0	0	3	2	1
	Sackman Street	0	0	0	1	0	0	1	0	0	8	5	2
	Jardine Place	0	0	0	0	0	0	0	0	0	2	2	0
	Havens Place	0	0	0	0	0	0	0	0	0	4	1	1
	Van Sinderen Avenue	0	0	0	0	0	0	0	0	0	2	3	1
	Williams Place / East New York Ave / Snediker Ave	2	0	0	0	0	0	2	0	0	23	19	3
	Hinsdale Street	1	1	0	0	1	0	1	2	0	8	12	1
	Williams Avenue	0	0	2	0	0	0	0	0	2	5	6	3
	Alabama Avenue	0	0	0	0	0	0	0	0	0	15	7	6
	Georgia Avenue	0	2	1	0	0	0	0	2	1	42	40	7
	Sheffield Avenue	0	0	0	0	0	0	0	0	0	18	9	6
	Pennsylvania Avenue	1	1	1	1	0	2	2	1	**3**	99	91	40
Pacific Street	Sackman Street	0	1	0	0	0	1	0	1	1	7	4	2
	East New York Avenue / Junius Street	2	0	0	1	0	0	**3**	0	0	20	20	10
East New York Avenue	Christopher Avenue	0	0	0	0	0	0	0	0	0	4	1	0
	Powell Street	0	0	1	0	0	0	0	0	1	6	3	2
	Bergen Street	0	0	0	0	0	0	0	0	0	0	0	0
	Van Sinderen Avenue	0	0	0	0	0	0	0	0	0	5	3	0
Liberty Avenue	Christopher Avenue	0	0	0	0	0	0	0	0	0	0	2	0
	Sackman Street	0	0	0	0	0	0	0	0	0	3	2	4
	Powell Street	1	0	1	0	0	0	1	0	1	6	5	1
	Junius Street	0	0	0	0	0	0	0	0	0	3	5	3
	Van Sinderen Avenue	0	0	0	0	0	0	0	0	0	6	1	3
	Snediker Avenue	0	0	0	0	1	0	0	1	0	9	10	3
	Hinsdale Street	0	1	0	0	0	0	0	1	0	3	5	1
	Williams Avenue	0	0	0	0	0	0	0	0	0	7	9	3
	Alabama Avenue	0	2	2	0	0	0	0	2	2	8	10	3
	Georgia Avenue	0	0	0	0	0	0	0	0	0	3	5	2
	Sheffield Avenue	0	0	0	0	0	0	0	0	0	2	4	2
Glenmore Avenue	Powell Street	0	0	0	0	1	0	0	1	0	1	1	3
	Junius Street	0	2	0	0	0	0	0	2	0	3	6	0
	Van Sinderen Avenue	0	0	0	0	0	0	0	0	0	0	1	0
	Snediker Avenue	0	0	0	0	0	0	0	0	0	1	7	0
	Hinsdale Street	0	0	0	0	0	0	0	0	0	3	4	2
Dean Street	Mother Gaston Boulevard	0	0	0	0	0	0	0	0	0	5	0	1
	Sackman Street / East New York Avenue	0	0	0	0	0	0	0	0	0	15	12	3
Rockaway Ave	Atlantic Ave	2	4	4	1	0	1	**3**	**4**	**5**	55	35	22
	Eastern Parkway	1	2	0	1	0	0	2	2	0	52	32	16
Pennsylvania Ave	Belmont Ave	1	0	0	0	0	0	1	0	0	10	6	4

Note: Shading denotes a high-crash location based on 2021 *CEQR Technical Manual* criteria.
Source: DOT/NYPD

Parking

Parking demand from retail, office, light industrial, and community facility uses typically peaks in the midday period and declines during the afternoon and evening, while parking demand from residential uses peaks in the overnight period. Parking demand forecasts were prepared to determine if the on-site parking provided under the Proposed Actions' RWCDS (both the Proposed Development and the Alternate Community Facility Scenario) would be sufficient to accommodate all of the projected demand for both a typical weekday and a typical Saturday. **Tables 14** and **15** show forecasts of the total parking demand for the Proposed Actions under the Proposed Development on a weekday and Saturday, respectively. **Tables 16** and **17** show similar forecasts for the Proposed Actions under the Alternate Community Facility Scenario on a weekday and Saturday, respectively. The hourly parking patterns used to estimate parking demand were primarily based on data from DOT and from previously approved environmental reviews. As the Proposed Actions' residential component is expected to be comprised of rental units, 2015–2019 ACS auto ownership data for rental households in Brooklyn census tracts 365.01, 365.02, 367, 369, 405, 908, 1142.01, 1144, and 1198 were used to estimate residential overnight parking demand. Accordingly, an auto ownership rate of 0.32 autos per household was utilized for the residential component.

As shown in **Tables 14** through **17**, parking demand from office, retail, and community facility uses typically peaks in the midday period and declines during the late afternoon and evening. By contrast, parking demand from the residential use peaks overnight. Therefore, some of the parking spaces used by residents would be available to accommodate commercial and community facility demand during daytime hours.

As shown in **Tables 14** and **15**, parking demand generated by the Proposed Actions under the Proposed Development would peak at approximately 1,171 spaces during the 2:00 PM to 3:00 PM period on weekdays, and at approximately 494 spaces during the 11:00 AM to 12:00 PM period on Saturdays. As shown in **Tables 16** and **17**, parking demand generated by the Proposed Actions under the Alternate Community Facility Scenario would also peak at approximately 1,242 spaces during the 2:00 PM to 3:00 PM period on weekdays, and at approximately 457 spaces during the 11:00 AM to 12:00 PM period on Saturdays.

Under the RWCDS for the Proposed Development, up to a total of approximately 174 parking spaces would be provided within the Project Area. Under the RWCDS for the Alternate Community Facility Scenario, up to a total of approximately 200 parking spaces would be provided within the Project Area. Approximately 31 parking spaces would exist under the No-Action condition. Therefore, the total increase in parking demand for the Proposed Actions under the Proposed Development would result in parking shortfalls of approximately 997 spaces during the 2:00 PM to 3:00 PM period on weekdays, and approximately 320 spaces during the 11:00 AM to 12:00 PM period on Saturdays. The total increase in parking demand for the Proposed Actions under the Alternate Community Facility Scenario would result in parking shortfalls of approximately 1,042 spaces during the 2:00 PM to 3:00 PM period on weekdays, and approximately 257 spaces during the 11:00 AM to 12:00 PM period on Saturdays.

As the Project Area is located outside of CEQR Parking Zones 1 and 2 (within which a parking shortfall from a proposed action would not be considered significant), the inability of the Proposed Actions and the surrounding area to accommodate future parking demands under either RWCDS could potentially be considered significant. Much of the shortfall is highest during the midday peak hours when parking demand for commercial, retail, and community facility uses that would be developed under the

Proposed Actions would typically peak. However, it is important to consider that some of the spaces used by residents would be available to accommodate commercial and community facility demand during daytime hours.

In addition, under 2021 *CEQR Technical Manual* guidance, one of the factors to be considered in determining significance of a parking shortfall is the availability of alternative modes of transportation. The Project Area is well served by alternate modes of transportation within a quarter-mile of the Project Area, including three subway stations – Broadway Junction station (located approximately 400 feet or an approximate two-minute walk from the western boundary of the Project Area), Alabama Avenue station (located approximately 400 feet or an approximate two-minute walk from the eastern boundary of the Project Area), and Atlantic Avenue station (located approximately 300 feet or an approximate two-minute walk from the southern boundary of Project Area). The Broadway Junction station is a major subway transfer point for five subway lines, including the A and C lines, which serve the 8th Avenue express and local lines, respectively, the J and Z lines, which serve the Nassau Street local and express lines, respectively, and the L line, which serve the 14th Street-Canarsie local line. The Alabama Avenue station provides service to the J and Z lines, while the Atlantic Avenue station provides service to the L line. In addition, the Project Area is located adjacent to a major bus hub located at the intersection of East New York Avenue, Broadway, and Fulton Street. Six NYCT Bus Company local bus services operate within a quarter-mile of the Project Area, four of which operate solely in Brooklyn – the B12, which runs between Lefferts Gardens and East New York, the B20, which runs between Ridgewood and Spring Creek, the B25, which runs between DUMBO and Broadway Junction, and the B83, which runs in Brooklyn between Spring Creek and Broadway Junction, and two of which operate between Broadway Junction, Brooklyn and Jamaica, Queens – the Q24 and Q56. Lastly, the East New York LIRR station on the LIRR's Atlantic Branch is located approximately 300 feet or an approximate two-minute walk from the southern boundary of Project Area and is generally served by the West Hempstead Branch and the City Terminal Zone Atlantic Branches of the LIRR.

Within a quarter-mile radius of the Project Area, there is a shared bicycle lane along Liberty Avenue, which provides connections to East New York Avenue and Georgia Avenue. In addition, there are conventional bicycle lanes along Pacific Street, Bergen Street, Saint Marks Avenue, and Thomas S Boyland Street as well as shared bicycle lanes along East New York Avenue, Vermont Avenue, Miller Avenue, and Pitkin Avenue within a half-mile radius of the Project Area. Moreover, there are numerous Citi Bike dock stations located to the east of East New York Avenue, with three dock stations installed in close vicinity to the Project Area. These locations are along the following corridors: Van Sinderen Avenue near Truxton Street (adjacent to the Broadway Junction station), Van Sinderen Avenue near Atlantic Avenue (across from the southeastern corner of the Project Area), and Fulton Street near Williams Avenue (across from the northeastern corner of the Project Area).

Furthermore, the area surrounding the Project Area will be undergoing ongoing changes as part of the Broadway Junction Improvement project to improve pedestrian safety, enhance connections to transit, and revitalize the area surrounding the station. These improvements would include installing new elevators and escalators at the Broadway Junction station to make the station fully ADA accessible and improving the streetscape and pedestrian and bicyclist safety improvements on Van Sinderen Avenue between Atlantic Avenue and Fulton Street (on the east side of the Project Area). Groundbreaking for the Broadway Junction Improvement project is anticipated in 2027 and work is anticipated to be completed by 2030. Therefore, the Project Area is well served by alternate modes of transportation and the parking shortfalls under both the Proposed Development and the Alternate Community Facility Scenario are unlikely to be considered significant. Although the Project Area is well served by alternate modes of transportation and a parking shortfall is unlikely to be considered significant, the projected weekday and Saturday demands

associated with the Proposed Actions' RWCDS would not be fully accommodated in the Project Area and a detailed analysis of parking conditions within a quarter-mile radius and a half-mile radius of the Project Area will be provided between certification of the DEIS and FEIS publication.

Table 14
Total Weekday Hourly Parking Accumulation for the Project Area – Proposed Development

	Residential			Local Retail			Office			Light Industrial			House of Worship			Supermarket			Destination Retail			Total		
	1,112 DUs			33,899 gsf			435,766 gsf			98,483 gsf			22,985 gsf			39,931 gsf			39,931 gsf					
	1,730 Total auto trips/day			666 Total auto trips/day			2,884 Total auto trips/day			486 Total auto trips/day			14 Total auto trips/day			1,618 Total auto trips/day			922 Total auto trips/day					
	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.
12-1 AM	16	6	366	0	0	0	3	9	5	0	0	0	0	0	0	0	2	0	0	0	0	19	17	371
1-2	6	3	369	0	0	0	2	7	0	0	0	0	0	0	0	0	0	0	0	0	0	8	10	369
2-3	3	0	372	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2	372
3-4	3	3	372	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	372
4-5	3	3	372	0	0	0	6	2	4	0	0	0	0	0	0	0	0	0	0	0	0	9	5	376
5-6	3	12	363	0	0	0	9	3	10	0	0	0	0	0	0	0	0	0	0	0	0	12	15	373
6-7	9	29	343	0	0	0	32	6	36	0	0	0	0	0	0	5	2	3	2	0	2	48	37	384
7-8	20	74	289	6	6	0	106	13	129	7	1	6	1	0	1	18	14	7	5	3	4	163	111	436
8-9	35	126	198	10	10	0	260	23	366	90	12	84	1	1	1	30	25	12	17	10	11	443	207	672
9-10	29	69	158	15	13	2	449	74	741	72	13	143	1	1	1	35	33	14	28	6	33	629	209	1,092
10-11	23	40	141	18	18	2	109	57	793	11	10	144	0	0	1	44	42	16	33	17	49	238	184	1,146
11-12	33	37	137	19	20	1	40	42	791	5	13	136	0	0	1	50	47	19	36	28	57	183	187	1,142
12-1 PM	48	48	137	23	23	1	5	8	788	2	2	136	1	0	2	53	51	21	43	37	63	175	169	1,148
1-2	43	38	142	26	26	1	8	8	788	2	2	136	0	0	2	58	55	24	44	39	68	181	168	1,161
2-3	43	42	143	29	27	3	56	53	791	20	8	148	0	0	2	56	59	21	36	41	63	240	230	**1,171**
3-4	52	43	152	29	28	4	90	101	780	8	8	148	0	0	2	59	59	21	35	41	57	273	280	1,164
4-5	55	46	161	29	29	4	81	164	697	8	54	102	1	1	2	70	67	24	37	42	52	281	403	1,042
5-6	68	43	186	31	31	4	70	372	395	13	97	18	1	0	3	67	70	21	41	42	51	291	655	678
6-7	92	56	222	36	36	4	33	242	186	4	20	2	1	1	3	86	86	21	36	35	52	288	476	490
7-8	74	50	246	27	29	2	32	129	89	1	3	0	0	1	2	67	70	18	34	32	54	235	314	411
8-9	68	37	277	19	19	2	17	54	52	0	0	0	0	1	1	54	59	13	22	35	41	180	205	386
9-10	58	28	307	11	13	0	14	37	29	0	0	0	0	1	0	36	43	6	8	35	14	127	157	356
10-11	46	18	335	3	3	0	10	23	16	0	0	0	0	0	0	15	17	4	3	12	5	77	73	360
11-12	35	14	356	2	2	0	6	11	11	0	0	0	0	0	0	6	8	2	1	6	0	50	41	369

Notes:
35% diverted-trip credit applied to Local Retail use.
Anticipates 0.32 autos/DU based on 2015-2019 ACS auto ownership data for rental households in Brooklyn census tracts 365.01, 365.02, 367, 369, 405, 908, 1142.01, 1144, and 1198.
190 denotes the total peak peaking accumulation.

Table 15
Total Saturday Hourly Parking Accumulation for the Project Area – Proposed Development

	Residential			Local Retail			Office			Light Industrial			House of Worship			Supermarket			Destination Retail			Total		
	1,112 DUs			33,899 gsf			435,766 gsf			98,483 gsf			22,985 gsf			39,931 gsf			39,931 gsf					
	1,922 Total auto trips/day			726 Total auto trips/day			914 Total auto trips/day			116 Total auto trips/day			16 Total auto trips/day			1,576 Total auto trips/day			808 Total auto trips/day					
	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.
12-1 AM	30	20	366	0	0	0	4	16	11	0	0	0	0	0	0	0	1	14	0	2	0	34	39	391
1-2	20	11	375	0	0	0	2	11	2	0	0	0	0	0	0	0	0	14	0	0	0	22	22	391
2-3	17	5	387	0	0	0	1	3	0	0	0	0	0	0	0	0	0	14	0	0	0	18	8	401
3-4	11	6	392	0	0	0	2	2	0	0	0	0	0	0	0	0	0	14	0	0	0	13	8	406
4-5	8	3	397	0	0	0	6	2	4	0	0	0	0	0	0	0	0	14	0	0	0	14	5	415
5-6	3	6	394	0	0	0	7	3	8	0	0	0	0	0	0	0	0	14	0	0	0	10	9	416
6-7	6	9	391	0	0	0	22	9	21	0	0	0	0	0	0	4	1	17	0	0	0	32	19	429
7-8	12	26	377	2	2	0	26	15	32	1	0	1	1	0	1	15	11	21	1	0	1	58	54	433
8-9	20	46	351	7	7	0	44	16	60	13	1	13	0	0	1	30	25	26	13	0	14	127	95	465
9-10	30	62	319	15	12	3	39	19	80	12	1	24	2	1	2	38	35	29	21	8	27	157	138	484
10-11	38	64	293	19	20	2	36	28	88	5	2	27	1	1	2	47	45	31	34	17	44	180	177	487
11-12	50	68	275	26	24	4	37	29	96	4	6	25	1	3	0	55	53	33	44	27	61	217	210	**494**
12-1 PM	60	74	261	28	28	4	62	67	91	5	11	19	1	1	0	64	64	33	48	36	73	268	281	481
1-2	59	63	257	29	29	4	35	43	83	6	7	18	0	1	-1	62	64	31	46	43	76	237	250	468
2-3	63	60	260	33	33	4	34	44	73	6	3	21	0	0	-1	58	58	31	51	48	79	245	246	467
3-4	63	63	260	34	34	4	25	36	62	3	2	22	0	0	-1	58	60	29	46	52	73	229	247	449
4-5	68	56	272	35	35	4	17	27	52	2	7	17	1	0	0	73	76	26	38	54	57	234	255	428
5-6	89	72	289	42	42	4	12	27	37	1	15	3	1	0	1	61	60	27	21	51	27	227	267	388
6-7	63	52	300	30	30	4	9	15	31	0	3	0	0	1	0	61	62	26	12	34	5	175	197	366
7-8	59	49	310	23	25	2	11	14	28	0	0	0	0	0	0	58	61	23	8	8	5	159	157	368
8-9	59	46	323	17	17	2	7	9	26	0	0	0	0	0	0	48	50	21	6	5	6	137	127	378
9-10	52	35	340	14	14	2	7	6	27	0	0	0	0	0	0	34	37	18	12	3	15	119	95	402
10-11	44	35	349	5	6	1	7	7	27	0	0	0	0	0	0	15	17	16	3	8	10	74	73	403
11-12	37	30	356	4	5	0	5	9	23	0	0	0	0	0	0	7	8	15	0	8	2	53	60	396

Notes:
35% diverted-trip credit applied to Local Retail use.
Anticipates 0.32 autos/DU based on 2015-2019 ACS auto ownership data for rental households in Brooklyn census tracts 365.01, 365.02, 367, 369, 405, 908, 1142.01, 1144, and 1198.
190 denotes the total peak peaking accumulation.

Table 16
Total Weekday Hourly Parking Accumulation for the Project Area – Alternate Community Facility Scenario

	Residential			Local Retail			Office			Light Industrial			House of Worship			Community Facility (Academic University)			Supermarket			Destination Retail			Total		
	911 DUs			57,165 gsf			461,749 gsf			111,933 gsf			22,985 gsf			91,706 gsf			39,931 gsf			39,931 gsf					
	1,418 Total auto trips/day			1,124 Total auto trips/day			3,054 Total auto trips/day			554 Total auto trips/day			14 Total auto trips/day			122 Total auto trips/day			1,618 Total auto trips/day			922 Total auto trips/day					
	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.
12-1 AM	13	5	300	0	1	1	3	10	6	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	16	18	307
1-2	5	2	303	0	0	1	2	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	10	304
2-3	3	0	306	0	0	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2	307
3-4	3	2	307	0	0	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	4	308
4-5	3	3	307	0	0	1	6	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	5	312
5-6	3	10	300	0	0	1	10	3	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	13	312
6-7	8	26	282	2	0	3	34	6	39	0	0	0	0	0	0	0	0	0	5	2	3	2	0	2	51	34	329
7-8	17	61	238	9	8	4	111	14	136	8	1	7	1	0	1	8	2	6	18	14	7	5	3	4	177	103	403
8-9	29	104	163	17	15	6	276	24	388	102	14	95	1	1	1	7	2	11	30	25	12	17	10	11	479	195	687
9-10	23	57	129	28	25	9	476	78	786	83	15	163	1	1	1	5	4	12	35	33	14	28	6	33	679	219	1,147
10-11	21	30	120	33	31	11	117	60	843	13	11	165	0	0	1	5	6	11	44	42	16	33	17	49	266	197	1,216
11-12	26	29	117	33	33	11	43	43	843	6	15	156	0	0	1	5	7	9	50	47	19	37	28	58	200	202	1,214
12-1 PM	39	39	117	41	39	13	6	8	841	2	3	155	1	0	2	5	5	9	53	51	21	43	38	63	190	183	1,221
1-2	34	30	121	45	45	13	9	9	841	3	3	155	0	0	2	5	6	8	58	55	24	44	39	68	198	187	1,232
2-3	34	35	120	48	45	16	60	55	846	22	9	168	0	0	2	4	6	6	56	59	21	36	41	63	260	250	**1,242**
3-4	43	35	128	50	47	19	95	107	834	9	9	168	0	0	2	3	5	4	59	59	21	35	41	57	294	303	1,233
4-5	45	37	136	48	50	17	85	174	745	9	60	117	1	1	2	4	5	3	70	67	24	38	42	53	300	436	1,097
5-6	55	35	156	52	52	17	75	394	426	15	110	22	1	0	3	5	6	2	67	70	21	41	42	52	311	709	699
6-7	75	46	185	62	62	17	34	255	205	4	24	2	1	1	3	2	2	2	86	86	21	36	36	52	300	512	487
7-8	61	41	205	44	49	12	32	136	101	1	3	0	0	1	2	2	2	2	67	70	18	34	32	54	241	334	394
8-9	55	33	227	27	29	10	17	58	60	0	0	0	0	1	1	1	2	1	54	59	13	23	35	42	177	217	354
9-10	48	25	250	14	20	4	15	40	35	0	0	0	0	1	0	0	1	0	36	43	6	7	35	14	120	165	309
10-11	38	14	274	5	7	2	11	26	20	0	0	0	0	0	0	0	0	0	15	17	4	2	11	5	71	75	305
11-12	28	10	292	4	4	2	6	13	13	0	0	0	0	0	0	0	0	0	6	8	2	0	5	0	44	40	309

Notes:
50% linked/diverted-trip credit applied to Local Retail use.
Anticipates 100 percent rental units (0.32 autos/DU based on 2015-2019 ACS auto ownership data for rental households in Brooklyn census tracts 365.01, 365.02, 367, 369, 405, 908, 1142.01, 1144, and 1198).
190 denotes the total peak peaking accumulation.

Table 17
Total Saturday Hourly Parking Accumulation for the Project Area – Alternate Community Facility Scenario

	Residential 911 DUs 1,576 otal auto trips/day			Local Retail 57,165 gsf 1,220 Total auto trips/day			Office 461,749 gsf 968 Total auto trips/day			Light Industrial 111,933 gsf 132 Total auto trips/day			House of Worship 22,985 gsf 16 Total auto trips/day			Community Facility (Academic University) 91,706 gsf 62 Total auto trips/day			Supermarket 39,931 gsf 1,576 Total auto trips/day			Destination Retail 39,931 gsf 808 Total auto trips/day			Total		
	In	Out	Accum	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.
12-1 AM	25	17	300	0	2	0	4	17	12	0	0	0	0	0	0	0	0	5	0	1	0	0	2	0	29	39	317
1-2	17	9	308	0	0	0	2	12	2	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	19	21	315
2-3	14	4	318	0	0	0	1	3	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	15	7	323
3-4	9	5	322	0	0	0	2	2	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	11	7	327
4-5	6	3	325	0	0	0	7	2	5	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	13	5	335
5-6	3	5	323	0	0	0	8	3	10	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	11	8	338
6-7	5	8	320	0	0	0	24	10	24	0	0	0	0	0	0	0	0	5	4	1	3	0	0	0	33	19	352
7-8	9	20	309	3	2	1	27	16	35	1	0	1	1	0	1	1	0	6	15	11	7	1	0	1	58	49	361
8-9	17	35	291	13	10	4	46	17	64	13	1	13	0	0	1	2	1	7	30	25	12	13	0	14	134	89	406
9-10	25	52	264	23	19	8	40	19	85	14	1	26	2	1	2	3	2	8	38	35	15	21	8	27	166	137	435
10-11	30	52	242	33	32	9	38	29	94	6	2	30	1	1	2	4	3	9	47	45	17	34	17	44	193	181	447
11-12	41	56	227	42	41	10	39	30	103	5	7	28	1	3	0	3	3	9	55	53	19	44	27	61	230	220	**457**
12-1 PM	49	61	215	47	47	10	66	71	98	6	12	22	1	1	0	6	4	11	64	64	19	48	36	73	287	296	448
1-2	49	52	212	50	50	10	37	46	89	7	8	21	0	1	-1	3	3	11	62	64	17	46	43	76	254	267	435
2-3	52	49	215	58	57	11	36	47	78	7	4	24	0	0	-1	3	4	10	58	58	17	51	48	79	265	267	433
3-4	52	52	215	57	57	11	26	38	66	3	3	24	0	0	-1	2	2	10	58	60	15	46	52	73	244	264	413
4-5	57	46	226	58	58	11	18	28	56	2	9	17	1	0	0	2	3	9	73	76	12	38	54	57	249	274	388
5-6	73	60	239	71	71	11	13	28	41	1	16	2	1	0	1	1	2	8	61	61	12	21	51	27	242	289	341
6-7	52	42	249	48	51	8	10	16	35	1	3	0	0	1	0	1	2	7	61	62	11	12	34	5	185	211	315
7-8	48	41	256	39	42	5	13	15	33	0	0	0	0	0	0	0	2	5	58	61	8	8	8	5	166	169	312
8-9	48	38	266	30	30	5	8	9	32	0	0	0	0	0	0	0	0	5	48	50	6	6	5	6	140	132	320
9-10	42	30	278	22	25	2	7	8	31	0	0	0	0	0	0	0	0	5	34	37	3	12	3	15	117	103	334
10-11	36	28	286	9	10	1	8	8	31	0	0	0	0	0	0	0	0	5	15	17	1	3	8	10	71	71	334
11-12	29	23	292	7	6	2	4	10	25	0	0	0	0	0	0	0	0	5	7	7	1	0	8	2	47	54	327

Notes:
50% linked/diverted-trip credit applied to Local Retail use.
Anticipates 100 percent rental units (0.32 autos/DU based on 2015-2019 ACS auto ownership data for rental households in Brooklyn census tracts 365.01, 365.02, 367, 369, 405, 908, 1142.01, 1144, and 1198).
190 denotes the total peak peaking accumulation.