TECHNICAL MEMORANDUM 004
NEW YORK CITY BOROUGH-BASED JAIL SYSTEM
CEQR No. 18DOC001Y
ULURP Nos. 190333 PSY, N190334 ZRY, 190335 ZSX, 190336 ZMX, N190337 ZRX, 190338 HAX, 190339 ZSK, 190340 ZSM, 190341 PQM, 190342 ZSQ, 190116 MMK, 190252 MMM, 190117 MMQ
February 14, 2024

A. INTRODUCTION

The City of New York, through the New York City Department of Correction (DOC) and the Mayor's Office of Criminal Justice (MOCJ), is proposing to implement the New York City Borough-Based Jail System project as part of the City's continued commitment to create a modern, humane, and safe justice system. On August 23, 2019, DOC, as lead agency, issued a Notice of Completion for the Final Environmental Impact Statement (FEIS) for the proposal. The City Planning Commission (CPC) approved the proposal on September 3, 2019 and referred the application to the New York City Council (City Council). The actions as approved by the CPC are referred to as the "FEIS project" in this Technical Memorandum.

Following issuance of the Notice of Completion, City Council proposed certain modifications to the Uniform Land Use Review Procedure (ULURP) applications as a result of its review. These modifications were assessed in a Technical Memorandum dated October 11, 2019 (Technical Memorandum No. 1) and subsequently approved by the City Council on October 17, 2019. Subsequent modifications to the project by DOC and MOCJ related to the scope of the original City Council approval, including changes to the build/analysis year, programmatic changes to support areas and parking, and the relocation of the accessory parking garage curb cut for the Manhattan Borough-Based Jail, were assessed in a Technical Memorandum dated October 14, 2020 (Technical Memorandum No. 2). Further analysis of the effects of this Manhattan curb cut relocation was necessary due to changes associated with a new nearby bicycle lane (independent of the Borough-Based Jails System project). This was addressed and assessed in Technical Memorandum No. 3, which was specific to changes associated to the Manhattan Borough-Based Jail, and dated and issued July 28, 2021. A mayoral zoning override (specifically related to a relocation of the accessory parking garage curb cut for the Manhattan site) relied on both the assessments provided in Technical Memorandum No. 2 and Technical Memorandum No. 3.

As discussed in this Technical Memorandum, additional changes specific to the Brooklyn Borough-Based Jail are presented and assessed. These changes are related to reductions from the FEIS project to the anticipated population/beds in Brooklyn, a change to the anticipated completion year of the modified project, changes to the number of parking spaces associated with the Brooklyn Site, and an overall update to the transportation analyses with more current traffic data and traffic conditions.

The project as described in the FEIS would result in the construction of four detention facilities (one in each borough for The Bronx, Brooklyn, Manhattan, and Queens), with community facility and/or retail space at each site along with support space for quality educational programming, recreation, therapeutic services, publicly accessible community space, and staff parking. Per the two preceding Technical Memoranda relevant to Brooklyn (Technical Memorandum No. 1 and Technical Memorandum No. 2), the project was modified subsequent to the FEIS with several changes, including, most notably, a reduction in the number of beds for people in detention at each facility, modest reductions to the program floor area at each site, a change to the anticipated completion year of the project, and changes to the number of parking spaces at the Bronx and Queens Sites (hereafter the "previously modified project").

It is imperative to note the modifications to the project require an overview/assessment of the effects on transportation. The newly modified project would not result in any changes to height, bulk of the maximum zoning envelope, permitted floor area, setbacks, or approved ULURP site plan for the Brooklyn Site. This Technical Memorandum does not address or assess the environmental implications or effects as it relates to other technical areas, such as zoning, land use, and public policy; socioeconomic conditions; neighborhood character; community facilities; air quality; hazardous materials; water and sewer infrastructure; solid waste and sanitation services; eliminate change; energy; shadows; historic and cultural resources; urban design and visual resources; natural resources; and hazardous materials.

The project modifications outlined in this Technical Memorandum are referred to as the "newly modified project" and are summarized below. This Technical Memorandum describes the proposed changes and analyzes whether the newly modified project would result in any new or different significant adverse transportation environmental impacts not already identified in the FEIS or preceding Memoranda for the Brooklyn Borough-Based Jail Site. As set forth below, this Technical Memorandum concludes that the modified project would not result in any new or different significant adverse impacts not already identified in the FEIS.

B. DESCRIPTION OF THE NEWLY MODIFIED PROJECT

The Brooklyn Site encompasses the existing Brooklyn Detention Complex and is currently in operation as a detention facility with 815 beds. As discussed in the FEIS, it is assumed that Rikers Island would continue operating as the city's main detention center under the No-Action condition and that the existing 815-bed Brooklyn Detention Complex would remain in operation. Therefore, the analysis provided in this Technical Memorandum is based on the increment of the newly modified project, described below, to the No-Action condition described in the FEIS (see **Table 1**) and is equivalent to 225 beds and 30,000 sf community facility space.

The newly modified project includes the changes discussed below and summarized in **Table 1**. At this time, DOC and MOCJ project that each of the detention facilities, including the Brooklyn Site, would need to house approximately 1,040 beds. In comparison, the FEIS project would have provided approximately 1,150 beds and the previously modified project would have provided approximately 886 beds. This change would also result in a proportional change in the number of uniformed employees in the detention facility. The retail space previously proposed at the Brooklyn Site would instead be a community facility space. The on-site staff parking garage would be reduced to 100 spaces, as compared to 292 spaces provided in the FEIS and in the previously modified project. These programmatic details are reflected in the following analyses.

In addition, it is anticipated that the construction of the project is expected to be completed by 2029 instead of 2027 (as per the previously modified project). Based on the revised schedule, the Brooklyn Site is anticipated to begin construction in early 2024 and complete construction by mid-2029. This Technical Memorandum analyzes the transportation effects of a completion year of 2029.

Based on the proposed changes, it is assumed that proposed project modifications would not alter the conclusions of the FEIS with respect to land use, zoning, and public policy; socioeconomic conditions; community facilities and services; open space; shadows; urban design and visual resources; historic and cultural resources; hazardous materials; natural resources; water and sewer infrastructure; solid waste and sanitation services; air quality, energy; noise; public health, neighborhood character; greenhouse gases and climate change and construction.

Table 1
Brooklyn Site Project Details

Project Elements	No-Action (1)	FEIS	Previously Modified	Newly Modified	Newly Modified Increment
Beds	815	1,150	886	1,040	225
Other Uses	-	Local Retail (30,000 sf)	Local Retail (30,000 sf)	Community Facility (30,000 sf)	Community Facility (30,000 sf)
Parking Spaces	12	292	292	100	88
Construction Completion	-	2026	2027	2029	-

Notes:
(1) The No-Action condition remains the same as discussed in the FEIS.

C. TRIP GENERATION & SCREENING

METHODOLOGY

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 project. According to the *CEQR Technical Manual*, if the proposed project 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 in this Technical Memorandum. When these thresholds are exceeded, detailed trip assignments (a Level 2 analysis) are to be performed to estimate the incremental trips that would be incurred at specific transportation elements and to identify potential locations for further analyses in this Technical Memorandum. If the trip assignments show that the project 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 in this Technical Memorandum to assess the potential for significant adverse impacts on traffic, transit, pedestrians, vehicular and pedestrian safety, and parking.

PLANNING FACTORS

The transportation planning factors used to forecast the travel demand that would be generated by the project's land uses are primarily consistent with the factors discussed and summarized in Section 3.9, "Transportation-Brooklyn," of the FEIS. A majority of these factors were based on data provided by DOC and Correctional Health Services (CHS) and data from counts conducted at existing detention facilities in Manhattan and Brooklyn. Some modal splits were also based on data from surveys conducted at existing detention facilities in Manhattan and Brooklyn. Some factors summarized in the FEIS were updated based on the 2021 *CEQR Technical Manual,* census data for Brooklyn census tracts, and data provided by NYCDOT. The community facility use (previously analyzed as local retail in the FEIS) was conservatively assumed as medical office space as per guidance received from NYCDOT, and utilized the most recent NYCDOT trip generation and other planning factors for medical offices in Brooklyn. Also consistent with the FEIS, all factors are shown for the weekday AM, midday, and PM peak hours and the Saturday peak hour. These factors are presented in **Table 2**.

Table 2
Transportation Planning Factors - Brooklyn Site

Land Use:	Uniformed Staff	Non-Uniformed Staff	Clinic Staff	Authorized Visitors	Other Visitors	Community Facility (Medical Office)
Size/Units:						30,000 gsf
Trip Generation:	(1)	(1)	(1)	(1)	(3)	(6)
Weekday	2.00	2.00	2.00	0.89	0.3	(see note 10)
Saturday	2.00	2.00	2.00	0.19	0.3	37.0
	trips/employee	trips/employee	trips/employee	trips/bed	trips/bed	per 1,000 sf
Temporal Distribution:	(1)	(1)	(1)	(1)	(3)	(6,7)
AM	29.1%	36.6%	3.3%	5.2%	0.5%	2.4%
Midday	29.8%	39.0%	10.3%	4.4%	9.6%	8.4%
PM	0.0%	0.0%	0.0%	8.2%	9.0%	8.5%
Saturday	29.0%	39.0%	10.3%	4.3%	11.7%	6.1%
	(2)	(4)	(4)	(4)	(2)	(8)
Modal Splits:	All Periods	All Periods	All Periods	All Periods	All Periods	All Periods
Auto	77.4%	26.5%	26.5%	26.5%	10.0%	22.0%
Taxi	5.3%	0.4%	0.4%	0.4%	2.5%	4.0%
Subway	13.4%	53.8%	53.8%	53.8%	72.8%	13.0%
Bus	1.3%	10.2%	10.2%	10.2%	8.6%	13.0%
Walk/Ferry/Other	2.6%	9.1%	9.1%	9.1%	6.1%	48.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	(1)	(1)	(1)	(1)	(3)	(6,7)
In/Out Splits:	In Out	In Out	In Out	In Out	In Out	In Out
AM	65.0% 35.0%	100.0% 0.0%	100.0% 0.0%	60.8% 39.2%	100.0% 0.0%	78.0% 22.0%
Midday	37.0% 63.0%	0.0% 100.0%	100.0% 0.0%	73.1% 26.9%	47.6% 52.4%	45.0% 55.0%
PM	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	31.8% 68.3%	55.3% 44.7%	39.0% 61.0%
Saturday	43.0% 57.0%	0.0% 100.0%	100.0% 0.0%	71.4% 28.6%	26.9% 73.1%	37.0% 63.0%
Vehicle Occupancy:	(2)	(4,5)	(4,5)	(4,5)	(2)	(8)
Auto	1.15	1.09	1.09	1.09	1.50	1.50
Taxi	1.00	1.42	1.42	1.42	1.00	1.50
Truck/bus						
Trip Generation:	(1)					(8)
Weekday	0.06					0.29
Saturday	0.06					0.29
	per bed					per 1,000sf
	(1)					(8)
AM	2.9%					3.0%
Midday	5.9%					11.0%
PM	9.8%					1.0%
Saturday	5.9%					0.0%
	In Out					In Out
All	55.0% 45.0%					50.0% 50.0%

Notes :

(1) Trip generation rate, temporal distribution, and in/out splits assumes DOC & CHS staff do not typically leave facility during their 8-hour work shifts. DOC & CHS temporal distribution and in/out splits are derived from DOC & CHS staff schedule and information for existing Manhattan and Brooklyn jails. Authorized Visitor rates are derived from day-time count data collected at the Manhattan and Brooklyn jails in July 2018. Rates were determined by discounting expected trips made by DOC & CHS staff from the count data. Authorized Visitor Saturday trip generation rate based on similar ratio between weekday and saturday rates for office use provided in Table 16-2 of the 2021 City Environmental Quality (CEQR) Technical Manual (3.9 trips/18 trips = 0.22 ratio).

(2) Based on survey data collected at Brooklyn House of Detention, May and June 2018.

(3) Based on Manhattan and Brooklyn House of Detention average hourly weekday and weekend visitation data for 2017 provided by DOC.

(4) Based on AASHTO CTTP reverse journey to work 5-Year (2012-2016) data for Kings County Census Tract 9, 37, 41, 43, 45, 69 and 71.

(5) Taxi occupancy rate based on Atlantic Yards Arena and Redevelopment FSEIS, 2014.

(6) Based on 2021 City Environmental Quality Review (CEQR) Technical Manual.

(7) Based on DOT 24 hour citywide Medical Office distribution data; AM peak 6:30-7:30 used 7:00-8:00 data, midday and Saturday peak 2:45-3:45 used 3:00-4:00 data.

(8) Based on data provided by NYCDOT.

(9) Based on 330 Jay Street FEIS, 1999.

(10) Weekday trip rate was 74.6 per 1,000 sf for medical office less than 15,000 sf, for medical office larger than 15,000 sf, used the equation: 66.626X+141.77, where X=size of gsf in 1,000 sf.

DEMAND FORECAST & LEVEL 1 SCREENING

Under the newly modified project that would be implemented, there would be 1,040 beds along with 462 (weekday) and 392 (Saturday) uniformed staff at the Brooklyn Site . This represents the incremental difference of provided 225 beds along with 234 (weekday) and 203 (Saturday) uniformed staff compared to the No-Action condition, which it is anticipated that the existing Brooklyn Detention Complex would continue to operate as a detention facility. Compared to the With-Action condition discussed in the FEIS, which would have provided 1,150 beds along with 513 (weekday) and 435 (Saturday) uniformed staff, there would also be fewer authorized visitors and other visitors under the newly modified project because there will be fewer beds. Accordingly, there would be fewer project-generated vehicle, transit, and pedestrian incremental trips and less parking demand for on- and off-street public parking compared to the FEIS project.

Based on the trip generation assumptions mentioned above, **Table 3** shows estimates of the total net incremental changes in peak-hour person and vehicle trips that would occur in 2029 with the implementation of the project compared to the No-Action Condition. **Table 3** summarizes those trips by mode and peak hour. As shown in **Table 3**, the newly modified project would generate 295 incremental person trips (in and out combined) in the weekday AM peak hour, 443 incremental person trips in the weekday midday peak hour, 204 incremental person trips in the weekday PM peak hour, and 305 incremental person trips in the Saturday peak hour. As shown in **Table 3**, the newly modified project would generate a net total of approximately 142, 175, 43, and 133 (in and out combined) incremental vehicle trips (including auto, taxi, and truck trips) during these same periods, respectively. The newly modified project would generate peak-hour subway trips amounting to approximately 81, 110, 38, and 90 incremental trips, respectively, and bus trips amounting to approximately 19, 39, 25, and 24 incremental trips, respectively. Lastly, trips made entirely on foot (walk-only trips) would amount to a net total of approximately 39, 99, 90, and 45 incremental trips during the weekday AM, midday, PM, and Saturday peak hours, respectively. Further, consistent with 2021 *CEQR Technical Manual* guidance, additional walk trips are also assumed to be generated by those walking between the facility and nearby parking facility. These would amount to a net total of approximately 146, 180, 44, and 136 incremental person trips during the same periods, respectively. Therefore, the newly modified project would likely exceed CEQR thresholds for further traffic and pedestrian screening/analyses in at least one of the analyzed peak hours.

Table 4a and **4b** show a summary of peak-hour person and vehicle trips that would occur with the implementation of the FEIS project and the newly modified project, respectively. **Table 4c** shows a summary of the estimates of the total net incremental changes in peak-hour person and vehicle trips that would occur in 2029 with the implementation of the newly modified project compared to the trips analyzed in the FEIS project. As shown in **Table 4c**, compared to the FEIS project, the newly modified project increment would generate approximately 14, 39, and 39 fewer incremental vehicle trips in the weekday AM, weekday midday, and Saturday peak hours, respectively, and 7 more incremental vehicle trips in the weekday PM peak hour (see **Table 4c**). This would represent decreases ranging from approximately 9 to 23 percent in net incremental peak hour vehicle trips compared with the trips analyzed in the FEIS project, and an increase (weekday PM) of approximately 19 percent in net incremental peak hour vehicle trips compared with the trips analyzed in the FEIS project. Though there would be fewer peak hour vehicle trips in the weekday AM, weekday midday, and Saturday peak hours, a Level 2 screening and a detailed traffic analysis are conducted in this Technical Memorandum to account for numerous changes to the street network, minor changes to the assignment to several uses as result of recent census data, and changes to existing vehicular volumes from 2018 to 2023 within the study area.

Table 3
Travel Demand Forecast

Land Use:		Uniformed Staff		Non-uniformed Staff		Clinic Staff		Authorized Visitors		Other Visitors		Community Facility (Medical Office)		Total	
Size/Units:	**Weekday**	234		129		41		225 beds				30,000 gsf			
	Saturday	203		129		41									
Peak Hour Trips:															
	AM	136		94		3		10		0		52		295	
	Midday	139		101		8		9		6		180		443	
	PM	0		0		0		16		6		182		204	
	Saturday	118		101		8		2		8		68		305	
Person Trips:															
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	**Auto**	68	37	25	0	1	0	2	1	0	0	9	3	105	41
	Taxi	5	3	0	0	0	0	0	0	0	0	2	0	7	3
	Subway	12	6	50	0	2	0	3	2	0	0	5	1	72	9
	Bus	1	1	10	0	0	0	1	0	0	0	5	1	17	2
	Walk/Ferry/Other	2	1	9	0	0	0	1	0	0	0	21	5	33	6
	Total	88	48	94	0	3	0	7	3	0	0	42	10	234	61
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Midday	**Auto**	40	68	0	27	2	0	2	1	0	0	18	22	62	118
	Taxi	3	5	0	0	0	0	0	0	0	0	3	4	6	9
	Subway	7	11	0	54	4	0	3	1	3	3	11	13	28	82
	Bus	1	1	0	11	1	0	1	0	0	0	11	13	14	25
	Walk/Ferry/Other	1	2	0	9	1	0	1	0	0	0	38	47	41	58
	Total	52	87	0	101	8	0	7	2	3	3	81	99	151	292
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PM	**Auto**	0	0	0	0	0	0	1	3	0	0	16	24	17	27
	Taxi	0	0	0	0	0	0	0	0	0	0	3	4	3	4
	Subway	0	0	0	0	0	0	3	6	3	3	9	14	15	23
	Bus	0	0	0	0	0	0	1	1	0	0	9	14	10	15
	Walk/Ferry/Other	0	0	0	0	0	0	0	1	0	0	35	54	35	55
	Total	0	0	0	0	0	0	5	11	3	3	72	110	80	124
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Saturday	**Auto**	39	52	0	27	2	0	0	0	0	1	6	9	47	89
	Taxi	3	4	0	0	0	0	0	0	0	0	1	2	4	6
	Subway	7	8	0	54	4	0	2	0	2	4	3	6	18	72
	Bus	1	1	0	11	1	0	0	0	0	1	3	6	5	19
	Walk/Ferry/Other	1	2	0	9	1	0	0	0	0	0	12	20	14	31
	Total	51	67	0	101	8	0	2	0	2	6	25	43	88	217
Vehicle Trips :															
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	**Auto**	59	32	23	0	1	0	2	1	0	0	6	2	91	35
	Taxi	5	3	0	0	0	0	0	0	0	0	1	0	6	3
	Taxi Balanced	7	7	0	0	0	0	0	0	0	0	1	1	8	8
	Truck/Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	66	39	23	0	1	0	2	1	0	0	7	3	99	43
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Midday	**Auto**	35	59	0	25	2	0	2	1	0	0	12	15	51	100
	Taxi	3	5	0	0	0	0	0	0	0	0	2	3	5	8
	Taxi Balanced	7	7	0	0	0	0	0	0	0	0	5	5	12	12
	Truck/Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	42	66	0	25	2	0	2	1	0	0	17	20	63	112
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PM	**Auto**	0	0	0	0	0	0	1	3	0	0	11	16	12	19
	Taxi	0	0	0	0	0	0	0	0	0	0	2	3	2	3
	Taxi Balanced	0	0	0	0	0	0	0	0	0	0	5	5	5	5
	Truck/Bus	1	1	0	0	0	0	0	0	0	0	0	0	1	1
	Total	1	1	0	0	0	0	1	3	0	0	16	21	18	25
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Saturday	**Auto**	34	45	0	25	2	0	0	0	0	1	4	6	40	77
	Taxi	3	4	0	0	0	0	0	0	0	0	1	1	4	5
	Taxi Balanced	6	6	0	0	0	0	0	0	0	0	2	2	8	8
	Truck/Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	40	51	0	25	2	0	0	0	0	1	6	8	48	85

Table 4a
Summary of Travel Demand Forecast – FEIS Project

Travel Demand Forecast Summary for FEIS Project(1,150 Beds, 335 Beds Increment)																		
Peak Hour	Vehicle Trips			Person Trips														
				Auto[1]			Subway			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
AM	107	49	156	0	0	0	62	11	73	17	2	19	13	3	16	92	16	108
MD	81	133	214	0	0	0	32	78	110	12	28	40	372	380	752	416	486	902
PM	17	19	36	0	0	0	14	17	31	6	8	14	194	195	389	214	220	434
SAT	70	102	172	0	0	0	25	68	93	8	24	32	252	216	468	285	308	593

1- Trips en route to/from nearby on-street and off-street parking spaces.
2- Includes walk-only trips and pedestrians en route to/from nearby subway stations, bus stops, and off-site parking spaces.

Table 4b
Summary of Travel Demand Forecast – Newly Modified Project

Travel Demand Forecast Summary for Newly Modified (1,040 Beds, 225 Beds Increment)																		
Peak Hour	Vehicle Trips			Person Trips														
				Auto[1]			Subway			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
AM	99	43	142	105	41	146	72	9	81	17	2	19	33	6	39	227	58	285
MD	63	112	175	62	118	180	28	82	110	14	25	39	41	58	99	145	283	428
PM	18	25	43	17	27	44	15	23	38	10	15	25	35	55	90	77	120	197
SAT	48	85	133	47	89	136	18	72	90	5	19	24	14	31	45	84	211	295

1- Trips en route to/from nearby on-street and off-street parking spaces.
2- Includes walk-only trips and pedestrians en route to/from nearby subway stations, bus stops, and off-site parking spaces.

Table 4c
Comparison Summary of Travel Demand Forecast (Newly Modified – FEIS)

Travel Demand Forecast Difference (Newly Modified - FEIS)																		
Peak Hour	Vehicle Trips			Person Trips														
				Auto[1]			Subway			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
AM	-8	-6	-14	105	41	146	10	-2	8	0	0	0	20	3	23	135	42	177
MD	-18	-21	-39	62	118	180	-4	4	0	2	-3	-1	-331	-322	-653	-271	-203	-474
PM	1	6	7	17	27	44	1	6	7	4	7	11	-159	-140	-299	-137	-100	-237
SAT	-22	-17	-39	47	89	136	-7	4	-3	-3	-5	-8	-238	-185	-423	-201	-97	-298

1- Trips en route to/from nearby on-street and off-street parking spaces.
2- Includes walk-only trips and pedestrians en route to/from nearby subway stations, bus stops, and off-site parking spaces.

As presented in **Table 4c**, compared with the FEIS project, the newly modified project would generate 8 and 7 more incremental subway trips during the weekday AM and weekday PM peak hours, respectively. This would represent increases ranging from approximately 11 to 23 percent in net incremental peak hour subway trips compared with the FEIS project. All other periods would remain unchanged or decrease slightly. As shown in **Table 4b**, subway trips generated by the newly modified project would not exceed CEQR threshold (200 or more peak hour subway trips) for detailed subway analyses. As such, as with the FEIS project (see **Table 4a**), incremental subway trips generated under the newly modified project would not result in significant adverse subway station or subway line haul impacts in the commuter peak hours.

Similarly, compared with the FEIS project, the modified project would generate no additional incremental bus trips during weekday AM peak hour and 11 additional incremental bus trips during the weekday PM peak hours, respectively. This would represent increases up to

approximately 79 percent in net incremental peak hour bus trips compared with the FEIS project. All other periods would decrease slightly. As shown in **Table 4b**, bus trips generated by the newly modified project would not exceed CEQR threshold (50 or more peak hour bus trips in any direction) for detailed bus analysis. As such, as with the FEIS project (see **Table 4a**), incremental bus trips generated under the newly modified project would not result in significant adverse bus line haul impacts in commuter peak hours.

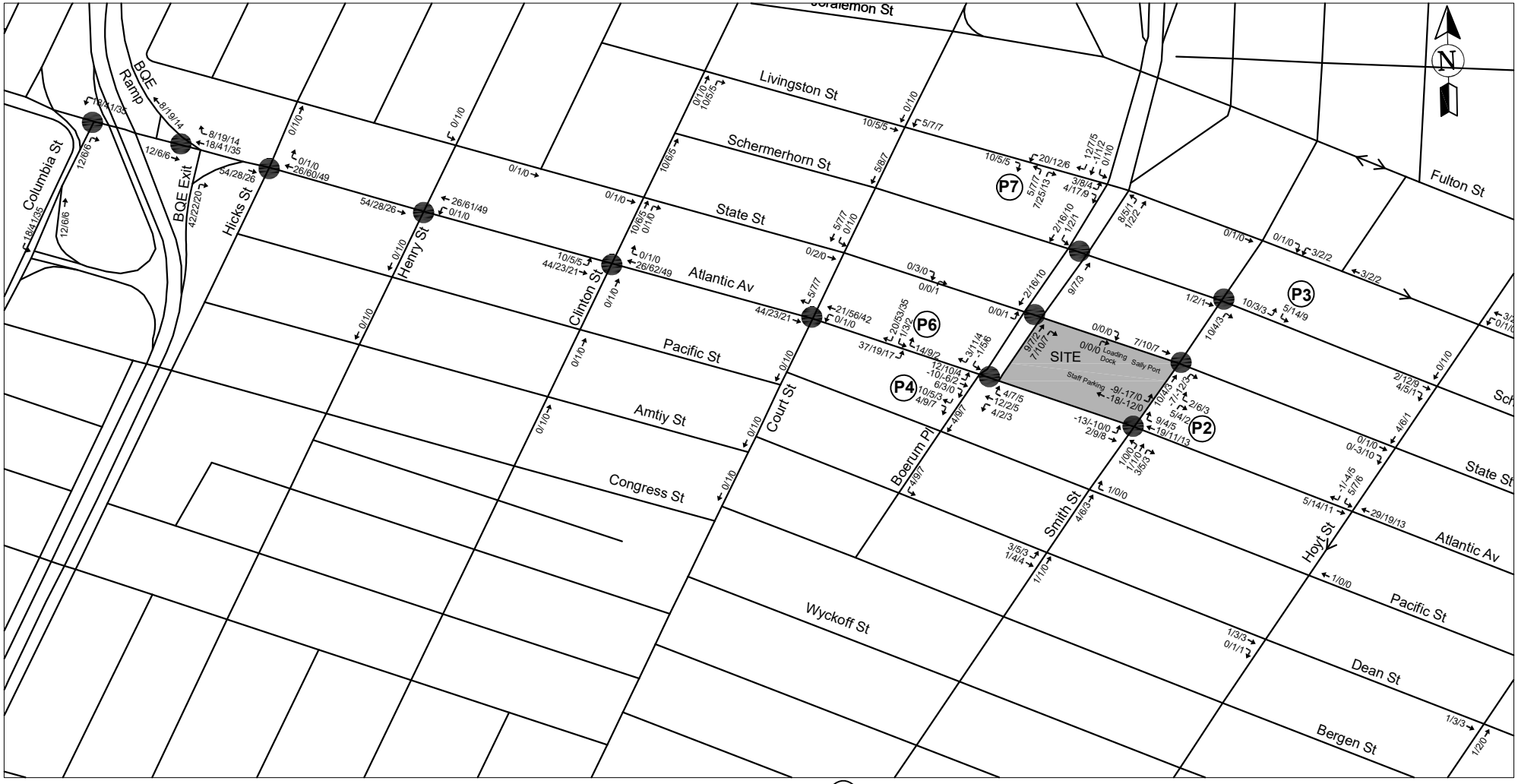
As presented in **Table 4c**, compared with the FEIS project, the modified project would generate 177 more incremental pedestrian trips (including walk-only trips, trips to/from area transit services and off-site parking facilities) during the weekday AM peak hour. During the weekday midday, weekday PM, and Saturday peak hours, the newly modified project would generate 474, 237, and 298 fewer pedestrian trips, respectively, compared to the FEIS project. The AM increase would represent approximately 164 percent in net incremental peak hour pedestrian trips compared with the FEIS project. The decreases during the other peak hours would represent a 50 to 55 percent decrease from the FEIS project. As shown in **Table 4b**, pedestrian trips generated by the newly modified would exceed the 200-trip threshold in the weekday AM, weekday midday, and Saturday peak hours. As such, a Level 2 screening assessment is therefore warranted.

LEVEL 2 SCREENING

TRAFFIC

Traffic assignment patterns and distributions discussed in the FEIS and used to assign the traffic demand were updated to assign the traffic generated by the newly modified project based on new guidance in the 2021 *CEQR Technical Manual* and recent census data for Brooklyn census tracts. Based on the *CEQR Technical Manual*, worker auto trips that cannot be accommodated in the on-site parking garage were assigned to park at the nearest off-site parking facility with available capacity (and walk to/from the project site). Staff, worker, and visitor distributions and patterns remain consistent with the origin-destination data obtained in surveys conducted at existing detention facilities in Manhattan and Brooklyn for the EIS. In addition, population densities were updated based on the most recent (2020) census data of census tracts within a one-mile radius of the project area to assign local trips generated by the proposed medical office.

Figure 1 shows the traffic assignment of vehicle trips for the site, during the weekday AM, weekday midday, and Saturday peak periods. As shown in **Figure 1,** traffic entering and exiting the area in proximity to the site, i.e., the "study area", would generally utilize the corridors that provide direct access to the Brooklyn-Queens Expressway (BQE), the Brooklyn Bridge, and neighborhoods to the east. Traffic would be concentrated along Atlantic Avenue in both directions as it provides access to the BQE and is the main east-west corridor in the study area. Additionally, Boerum Place would carry some traffic as it provides a direct connection to/from the Brooklyn Bridge. Staff vehicles were generally assigned to parking facilities within 600 feet of the Brooklyn Site with availability (based on off-street parking survey conducted by PHA in 2023). Twelve intersections exceeded the 50 vehicles per hour threshold for detailed traffic in the FEIS. Based on the assignment for the newly modified project, only five intersections (of the twelve) are expected to exceed the 50 vehicles per hour threshold for detailed traffic analysis. However, given the numerous changes to the areas street network, minor changes to the assignment to several uses as result of recent census data, and changes to existing vehicular volumes from 2018 to 2023 within the study area, all 12 intersections (listed below) analyzed in the FEIS are also analyzed in this Technical Memorandum.



Legends: 28/18/13 - AM/MD/Saturday

- Intersection with more than 50 incremental project vehicle trips in one or more peak hours

P2 - Off-Street Public Parking Facility

Borough Based Jails - Brooklyn

Figure 1

Weekday AM/Midday/Saturday Peak Hour Increment Vehicle Trips

Intersections:

1- Atlantic Avenue and Smith Street
2- Atlantic Avenue and Boerum Place
3- Atlantic Avenue and Court Street (exceeds the CEQR threshold)
4- Atlantic Avenue and Clinton Street (exceeds the CEQR threshold)
5- Atlantic Avenue and Henry Street (exceeds the CEQR threshold)
6- Atlantic Avenue and Hicks Street (exceeds the CEQR threshold)
7- Atlantic Avenue and the BQE Exit and Entrance Ramps (exceeds the CEQR threshold)
8- Atlantic Avenue and Columbia Street
9- State Street and Smith Street
10- State Street and Boerum Place
11- Schermerhorn Street and Smith Street
12- Schermerhorn Street and Boerum Place

PEDESTRIANS

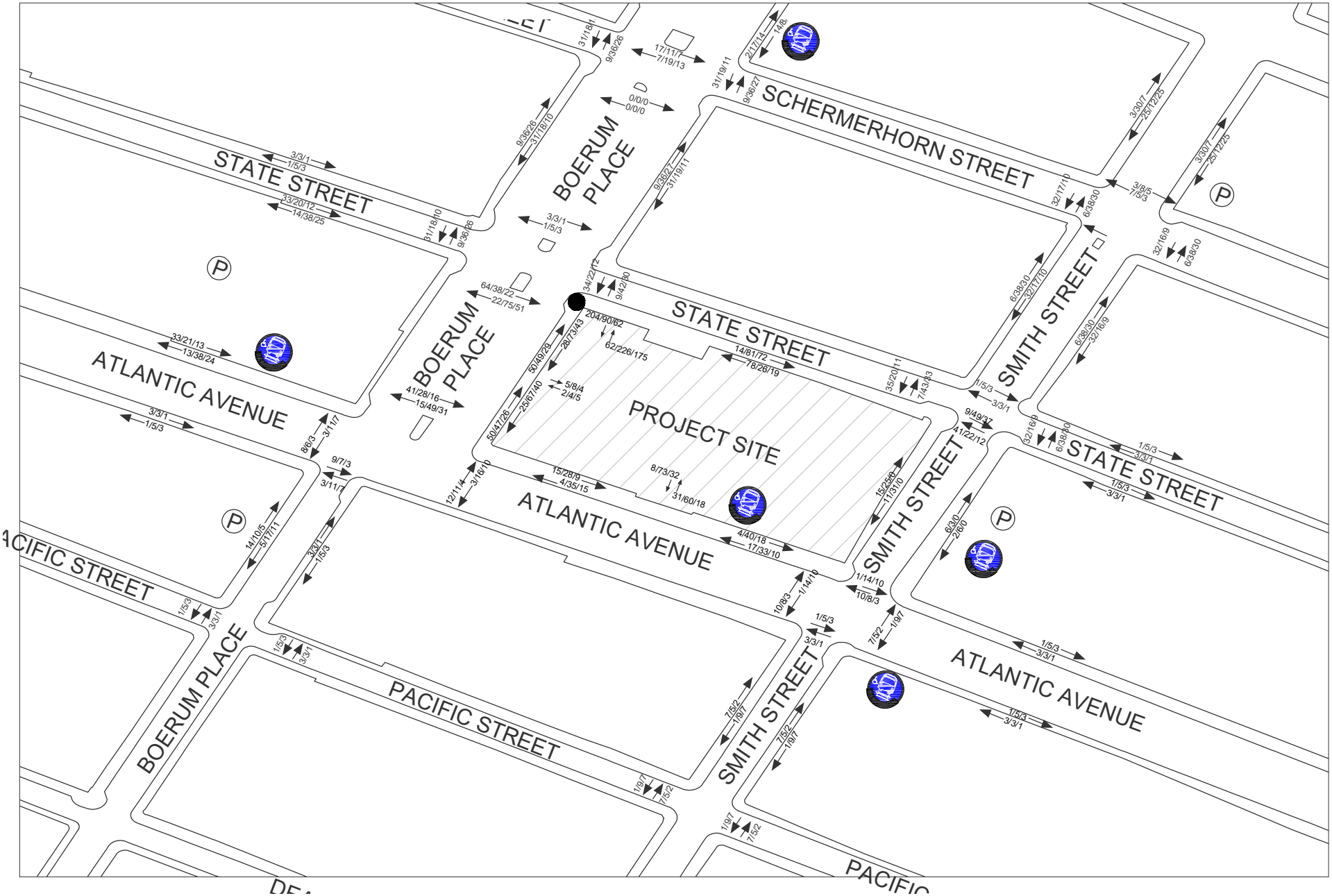
As shown in **Table 4**, the newly modified project would generate 285, 428, and 295 pedestrian trips during the weekday AM, weekday midday, and Saturday peak periods, respectively. As presented in Section 3.9, "Transportation-Brooklyn," of the FEIS, pedestrian trips would be concentrated on sidewalks, corners, and crosswalks along corridors providing access to the future detention facility entrances and other uses' entrances. Pedestrian site entrances, subway entrances, bus stops, and the general assignment patterns would remain as analyzed in the FEIS. As such subway riders are expected to utilize elements along corridors connecting the site to nearby subway stations including the Bergen Street (F/G), Hoyt-Schermerhorn (A/G), Hoyt Street (2/3), Jay Street-Metrotech (A/C/F/R), and Borough Hall (4/5). Also consistent with the FEIS, trips associated with pedestrians that would primarily walk or utilize one of several bus routes would be well dispersed across the study area. A significant portion of pedestrian trips would be walk-only trips and would be generated by the community facility use. At the site, these walk-only trips would be concentrated along the Atlantic Avenue frontage and on the sidewalks around the southern side of the site.

Based on the pedestrian assignment, shown in **Figure 2**, only one pedestrian element at the southeast corner of Boreum Place and State Street is likely to exceed the CEQR threshold in the weekday midday peak period. Therefore, based on the CEQR guidelines, a detailed pedestrian analysis is necessary at this corner during the weekday midday peak hour (even though this corner would experience fewer trips under the newly modified project compared to the FEIS project). It should be noted that the pedestrian analysis will only consider the effect of the newly modified project on this one corner (and not the six other elements analyzed in the FEIS) as it is the only element that exceeds the CEQR threshold and there were also no known major physical changes that would affect the adjacent elements. It should be noted that none of the seven pedestrian elements were impacted under the FEIS.

PARKING

According to *CEQR Technical Manual* guidance, on- and off-street parking analyses may be warranted if a quantified traffic analysis is necessary based on the Levels 1 and 2 screening assessments. Based on the screening assessments detailed above, a quantified traffic analysis is warranted, and the parking demand must be evaluated.

A parking demand forecast was prepared to determine if the proposed 100-space on-site accessory parking would be sufficient to accommodate all projected demand under the newly modified project. **Tables 5 and 6** show the estimated future parking demand generated by the newly modified project during a typical weekday and Saturday, respectively. The incremental parking demand is shown as the existing demand is currently accommodated in the study area's parking demand.



Borough Based Jails - Brooklyn

Figure 2

Pedestrian Volumes - Project Increment

Public Parking Facility | MTA Bus Stop | Proposed Analysis Location | Projected Development Site

Table 5: With-Action Net Incremental Weekday Hourly Parking Demand

Hour	Uniformed Staff[1]	Non-Uniformed Staff	Medical Staff	Authorized Visitors	Other Visitors[2]	Local Retail	Total
12-1 AM	33	0	3	0	0	0	36
1-2 AM	33	0	3	0	0	0	36
2-3 AM	33	0	3	0	0	0	36
3-4 AM	33	0	3	0	0	0	36
4-5 AM	40	0	3	0	0	0	43
5-6 AM	42	0	3	0	0	0	45
6-7 AM	92	32	3	0	0	1	128
7-8 AM	83	32	5	2	0	5	127
8-9 AM	72	32	3	4	0	16	127
9-10 AM	74	32	3	6	0	24	139
10-11 AM	76	32	3	5	0	26	142
11-12 PM	77	32	3	5	0	24	141
12-1 PM	86	32	3	6	0	21	148
1-2 PM	80	32	3	7	1	23	146
2-3 PM	107	25	3	6	2	23	166
3-4 PM	63	0	6	7	2	20	98
4-5 PM	53	0	4	6	1	15	79
5-6 PM	53	0	4	4	0	8	69
6-7 PM	51	0	4	1	0	3	59
7-8 PM	49	0	4	0	0	1	54
8-9 PM	48	0	4	0	0	0	52
9-10 PM	35	0	4	0	0	0	39
10-11 PM	59	0	4	0	0	0	63
11-12 PM	33	0	6	0	0	0	39

Note:
[1]To be conservative for parking analysis purposes, uniformed staff hourly parking demand is based on in/out patterns observed at the existing Manhattan and Brooklyn facilities (unlike in the traffic analysis).
[2]Other visitors refers to family/friends visiting persons who are detained.

Table 6: With-Action Net Incremental Saturday Hourly Parking Demand

Hour	Uniformed Staff[1]	Non-Uniformed Staff	Medical Staff	Authorized Visitors	Other Visitors[2]	Local Retail	Total
12-1 AM	33	0	3	0	0	0	36
1-2 AM	33	0	3	0	0	0	36
2-3 AM	33	0	3	0	0	0	36
3-4 AM	33	0	3	0	0	0	36
4-5 AM	39	0	3	0	0	0	42
5-6 AM	40	0	3	0	0	0	43
6-7 AM	77	32	3	0	0	0	112
7-8 AM	66	32	5	1	0	2	106
8-9 AM	56	32	3	2	0	9	102
9-10 AM	58	32	3	3	0	12	108
10-11 AM	60	32	3	3	0	14	112
11-12 PM	61	32	3	3	0	12	111
12-1 PM	67	32	3	3	0	11	116
1-2 PM	64	32	3	3	1	10	113
2-3 PM	91	25	3	2	1	7	129
3-4 PM	59	0	6	2	0	5	72
4-5 PM	50	0	4	2	0	4	60
5-6 PM	50	0	4	1	0	2	57
6-7 PM	47	0	4	0	0	0	51
7-8 PM	45	0	4	0	0	0	49
8-9 PM	44	0	4	0	0	0	48
9-10 PM	35	0	4	0	0	0	39
10-11 PM	59	0	4	0	0	0	63
11-12 PM	33	0	6	0	0	0	39

Note:
[1]To be conservative for parking analysis purposes, uniformed staff hourly parking demand is based on in/out patterns observed at the existing Manhattan and Brooklyn facilities (unlike in the traffic analysis).
[2]Other visitors refers to family/friends visiting persons who are detained.

As shown in **Tables 5 and 6,** it is expected that the parking demand generated by the newly modified project would peak at approximately 166 and 129 spaces during the 2:00-3:00 PM peak hour on a typical weekday and typical Saturday, respectively. As such, parking demand at the Brooklyn Site would exceed its on-site accessory parking capacity during both a typical weekday and a typical Saturday. Any excess demand from the Brooklyn Site would also have to utilize parking spaces on-street and at off-street parking facilities. As such, on- and off-street parking analyses are provided in this Technical Memorandum.

STREET USER SAFETY

Under *2021 CEQR Technical Manual* guidance, an evaluation of vehicular and pedestrian safety is needed for locations within the analyzed traffic and pedestrian study areas that have been identified as high crash locations. An assessment of street user safety is warranted and presented below at intersections within the study area.

D. ANALYSIS METHODOLOGY

E. TRAFFIC

As discussed in Section 3.9, "Transportation-Brooklyn," of the FEIS, the Highway Capacity Manual (HCM) methodology and the Highway Capacity Software (HCS, version 5.5) were utilized for analysis. This methodology is also utilized for this Technical Memorandum. As such, the Level of Service (LOS)/delay relationship for signalized and unsignalized intersections using the HCM methodology remains the same as defined in Section 3.9, "Transportation-Brooklyn," of the FEIS. However, some impact criteria defined in the *CEQR Technical Manual* have changed since the publication of the FEIS; the criteria for traffic is outlined below.

SIGNIFICANT IMPACT CRITERIA

The identification of significant adverse traffic impacts at analyzed intersections is based on criteria presented in the 2021 *CEQR Technical Manual*. If a lane group is LOS A, B, C, or D in the Future With-Action (i.e., delay less than or equal to 55.0 seconds/vehicle for signalized intersections and 35.0 seconds/vehicle for unsignalized intersections), the impact is not considered significant. If the lane-group LOS would deteriorate from LOS A, B, C, or D in the No-Action Condition to LOS E or F in the With-Action Condition, a significant traffic impact is identified. For a lane group that would operate at LOS E in the With-Action Condition, an increase in delay of 5.0 or more seconds compared to the No-Action Condition is considered a significant impact. For a lane group that would operate at LOS F in the With-Action Condition, a projected No-Action Condition increase in delay of 4.0 or more seconds is considered a significant impact.

Similar to the FEIS, the same criteria apply to signalized and unsignalized intersections. However, for traffic on a minor street at an unsignalized intersection to result in a significant impact, 90 passenger car equivalents (PCEs) must be projected in the With-Action Condition in any peak hour.

PEDESTRIANS

The LOS criteria defined in Section 3.9, "Transportation-Brooklyn," of the FEIS for pedestrian crosswalk/corner area and sidewalk conditions remains the same and are based on the Highway Capacity Manual methodology. Based on the 2021 *CEQR Technical Manual,* the analysis of any sidewalk conditions includes a "platoon" factor in the calculation of pedestrian flow to more accurately estimate the dynamics of walking; this generally results in one level LOS poorer than average flows. In addition, impact criteria defined in the *CEQR Technical Manual* have changed since the publication of the FEIS and are discussed below.

SIGNIFICANT IMPACT CRITERIA

Sidewalks

The 2021 *CEQR Technical Manual* impact criteria for a central business district (CBD) location are used to identify significant adverse impacts due to the Proposed Project. These criteria define a significant adverse sidewalk impact to have occurred under platoon conditions if the average pedestrian space under the No-Action Condition is greater than or equal to 34.7 square feet/pedestrian (sf/ped), and the average pedestrian space under the With-Action Condition is 31.4

sf/ped or less (LOS D or worse). If the average pedestrian space under the With-Action Condition is greater than 31.4 sf/ped (LOS C or better), the impact should not be considered significant. If the pedestrian space under the No-Action Condition is between 6.4 and 34.7 sf/ped, a reduction in pedestrian space under the With-Action Condition should be considered significant based on **Table 7**, which shows a sliding-scale that identifies what decrease in pedestrian space is considered a significant impact for a given pedestrian space value in the No-Action Condition. If the reduction in pedestrian space is less than the value in **Table 7**, the impact is not considered significant. If the average pedestrian space under the No-Action Condition is less than or equal to 6.3 sf/ped, then a reduction in pedestrian space greater than or equal to 0.3 sf/ped, under the With-Action Condition, should be considered significant.

Table 7
Significant Impact Criteria for Sidewalks w/ Platooned Flow in a CBD Location

No-Action Pedestrian Flow (sf/ped)			With-Action Condition Pedestrian Flow Increment to be Considered a Significant Impact (sf/ped)
≥ 34.7			With-Action Condition ≤ 31.4
34.0	to	34.6	Reduction ≥ 3.3
33.0	to	33.9	Reduction ≥ 3.2
32.1	to	32.9	Reduction ≥ 3.1
31.1	to	32.0	Reduction ≥ 3.0
30.2	to	31.0	Reduction ≥ 2.9
29.2	to	30.1	Reduction ≥ 2.8
28.3	to	29.1	Reduction ≥ 2.7
27.3	to	28.2	Reduction ≥ 2.6
26.4	to	27.2	Reduction ≥ 2.5
25.4	to	26.3	Reduction ≥ 2.4
24.5	to	25.3	Reduction ≥ 2.3
23.5	to	24.4	Reduction ≥ 2.2
22.6	to	23.4	Reduction ≥ 2.1
21.6	to	22.5	Reduction ≥ 2.0
20.7	to	21.5	Reduction ≥ 1.9
19.7	to	20.6	Reduction ≥ 1.8
18.8	to	19.6	Reduction ≥ 1.7
17.8	to	18.7	Reduction ≥ 1.6
16.9	to	17.7	Reduction ≥ 1.5
15.9	to	16.8	Reduction ≥ 1.4
15.0	to	15.8	Reduction ≥ 1.3
14.0	to	14.9	Reduction ≥ 1.2
13.1	to	13.9	Reduction ≥ 1.1
12.1	to	13.0	Reduction ≥ 1.0
11.2	to	12.0	Reduction ≥ 0.9
10.2	to	11.1	Reduction ≥ 0.8
9.3	to	10.1	Reduction ≥ 0.7
8.3	to	9.2	Reduction ≥ 0.6
7.4	to	8.2	Reduction ≥ 0.5
6.4	to	7.3	Reduction ≥ 0.4
≤6.3			Reduction ≥ 0.3

Source: *2021 CEQR Technical Manual*

Corner Areas & Crosswalks

For CBD areas, the 2021 *CEQR Technical Manual* criteria define a significant adverse corner area or crosswalk impact to have occurred if the average pedestrian space under the No-Action Condition is greater than or equal to 21.5 sf/ped and, under the With-Action Condition, the average pedestrian space decreases to 19.4 sf/ped or less (LOS D or worse). If the pedestrian space under the With-Action Condition is greater than 19.4 sf/ped (LOS C or better), the impact should not be considered significant. If the average pedestrian space under the No-Action Condition is between 5.1 and 21.4 sf/ped, a decrease in pedestrian space under the With-Action Condition should be considered significant based on **Table 8,** which shows a sliding-scale that identifies what decrease in pedestrian space is considered a significant impact for a given amount of pedestrian space in the No-Action Condition. If the decrease in pedestrian space is less than the value in **Table 8**, the impact is not considered significant. If the average pedestrian space under the No-Action Condition is less than or equal to 5.0 sf/ped, then a decrease in pedestrian space greater than or equal to 0.2 sf/ped should be considered significant.

Table 8
Significant Impact Criteria for Corners and Crosswalks in a CBD Location

No-Action Pedestrian Space (sf/ped)			**With-Action Condition Pedestrian Space Reduction to be Considered a Significant Impact (sf/ped)**
≥ 21.5			With-Action Condition ≤ 19.4
21.3	to	21.4	Reduction ≥ 2.1
20.4	to	21.2	Reduction ≥ 2.0
19.5	to	20.3	Reduction ≥ 1.9
18.6	to	19.4	Reduction ≥ 1.8
17.7	to	18.5	Reduction ≥ 1.7
16.8	to	17.6	Reduction ≥ 1.6
15.9	to	16.7	Reduction ≥ 1.5
15.0	to	15.8	Reduction ≥ 1.4
14.1	to	14.9	Reduction ≥ 1.3
13.2	to	14.0	Reduction ≥ 1.2
12.3	to	13.1	Reduction ≥ 1.1
11.4	to	12.2	Reduction ≥ 1.0
10.5	to	11.3	Reduction ≥ 0.9
9.6	to	10.4	Reduction ≥ 0.8
8.7	to	9.5	Reduction ≥ 0.7
7.8	to	8.6	Reduction ≥ 0.6
6.9	to	7.7	Reduction ≥ 0.5
6.0	to	6.8	Reduction ≥ 0.4
5.1	to	5.9	Reduction ≥ 0.3
≤ 5.0			Reduction ≥ 0.2
Source: 2021 *CEQR Technical Manual*			

PARKING

When a detailed analysis is warranted, the parking analysis identifies the supply of on-street and off-street public parking near a project and determines the extent to which the supply is utilized in existing conditions, in the future without the Proposed Action, and in the future with the Proposed Action. The analysis considers anticipated changes in the study area's parking supply and demand and compares project-generated parking demand with future parking availability to determine if a parking shortfall is likely to occur. The displacement of existing parking capacity attributable to the project is also considered. Typically, the analysis encompasses the parking facilities—public parking lots and garages and on-street curbside spaces—that vehicular traffic destined to the project site or area would likely utilize. According to the 2021 *CEQR Technical Manual*, a quarter-mile radius around a project site is generally assumed as the distance that someone driving to the site would be willing to walk.

SIGNIFICANT IMPACT CRITERIA

Should a project generate the need for more parking than it provides, a shortfall of spaces may be considered significant. The availability of off-street and on-street parking spaces within a convenient walking distance (about a quarter-mile), as well as the availability of alternative modes of transportation, are considered in making this determination.

Under the 2021 *CEQR Technical Manual* guidance, different criteria for determining significance are used based on whether a proposed project is located in residential or commercial areas designated as Parking Zones 1 and 2 as shown in Map 16-2, "CEQR Parking Zones, May 2010," in the 2021 *CEQR Technical Manual*. As the Project Site is within Zone 1 as shown in Map 16-2, the inability of the Proposed Action or the surrounding area to accommodate future parking demands would be considered a parking shortfall. However, it would generally not be considered significant due to the magnitude of available alternative modes of transportation.

VEHICULAR AND PEDESTRIAN SAFETY EVALUATION

Under the *2021 CEQR Technical Manual* guidance, an evaluation of vehicular and pedestrian safety is needed for locations within the analyzed traffic and pedestrian study areas that have been identified as high crash locations. These are defined as locations at a Vision Zero priority intersections or intersections 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 would 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. The determination of potential significant safety impacts depends on the type of area where the project site is located, traffic and pedestrian volumes, crash types and severity, and other contributing factors.

F. TRAFFIC

The FEIS concluded that the proposed project at the Brooklyn Site would have the potential to result in significant adverse impacts to vehicular traffic at ten intersections in one or more peak hours. The FEIS identified mitigation for some, but not all, of the Brooklyn Site's potential anticipated traffic impacts; some impacts would remain unmitigated and therefore constitute unavoidable significant adverse traffic impacts. An assessment of the potential environmental traffic impacts of the newly modified project at the Brooklyn Site is provided below.

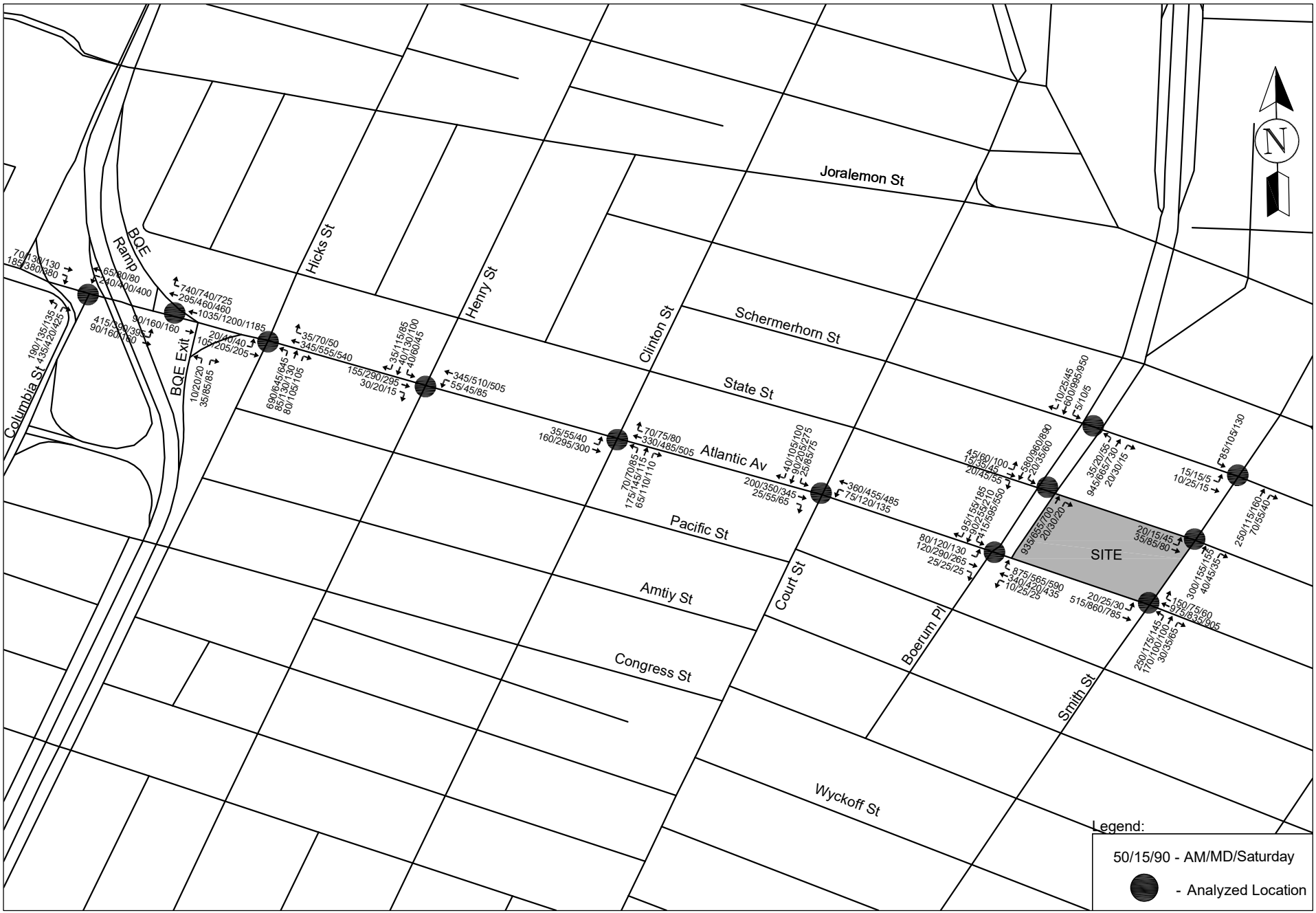
EXISTING

EXISTING VOLUMES & CONDITIONS

To establish the 2023 existing conditions traffic network, recent data was obtained from NYCDOT's Traffic Information Management System (TIMS) and AECOM—including ATR counts, turning movement counts, and vehicle classification counts. The various datasets were collected between late 2021 and mid-2023. The 2018 data collected for the FEIS was also utilized in the factoring of data near locations with limited recent data. In addition, spot counts were conducted at key locations that underwent direction or configuration improvements between 2018 and 2023. Updated physical inventory data was also obtained in 2023 for operational analysis—e.g., the number of traffic lanes, lane widths, pavement markings, turn prohibitions, bus stops, and typical parking regulations. This physical inventory determined street improvements and changes that were complete since the publication of the FEIS. The most recent signal timing plans for signalized intersections within the study area were also obtained from NYCDOT. **Figure 3** shows existing traffic volumes during weekday AM (7:00-8:00 AM), weekday midday (3:00-4:00 PM), and Saturday (3:00-4:00 PM) peak hours.

INTERSECTION CAPACITY ANALYSIS

The v/c ratios, delays, and LOS for the individual lane groups at each analyzed intersection during each peak hour under existing conditions are shown in **Table 9**. A lane group is considered congested if it operates at LOS E or F and/or with a v/c ratio of 0.90 or above. A v/c ratio of 1.00 or above reflects capacity conditions. As shown in **Table 9**, six analyzed intersections (State Street at: Smith Street and Boreum Place, Boerum Place at Schermerhorn Street, and Atlantic Avenue at: Hicks, Henry, and Clinton Streets) currently have at least one congested lane group in one or more peak hours. One analyzed intersection in the weekday AM peak hour, one intersection in the weekday midday peak hour, and three intersections in the Saturday peak hour have one or more lane groups operating at capacity (v/c ratio $\geq$ 1.0). Overall, consistent with the 2018 Existing FEIS analysis, the data in **Table 9** indicates that traffic congestion at analyzed intersections in proximity to the Brooklyn Site is most evident in the weekday midday and Saturday peak hours.



Borough Based Jails - Brooklyn

Figure 3

Existing Weekday AM/Midday/Saturday Peak Hour Traffic Volumes

Table 9
Existing Intersection Capacity Analysis

	Existing Weekday AM						Existing Weekday Midday						Existing Saturday					
Intersection	Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	
1. Columbia Street & Atlantic Avenue (signalized)	EB	T	0.08	15.3	B		EB	T	0.13	23.7	C		EB	T	0.14	26.9	C	
	WB	L	0.56	28.1	C		WB	L	0.94	66.7	E	*	WB	L	1.05	122.9	F	*
	WB	LT	0.13	19.1	B		WB	LT	0.32	27.0	C		WB	LT	0.33	30.6	C	
	NB	LR	0.67	35.4	D		NB	LR	0.42	23.3	C		NB	LR	0.34	18.8	B	
	NB	R	0.61	34.1	C		NB	R	0.57	27.3	C		NB	R	0.59	24.5	C	
2. BQE NB Off-Ramp & Atlantic Avenue (signalized)	EB	L	0.85	42.4	D		EB	L	0.91	53.3	D	*	EB	L	0.92	56.3	E	*
	EB	T	0.05	0.7	A		EB	T	0.08	2.2	A		EB	T	0.07	2.8	A	
	WB	R	0.37	13.0	B		WB	R	0.52	15.5	B		WB	R	0.49	14.8	B	
	WB	T	0.87	26.0	C		WB	T	0.85	24.3	C		WB	T	0.82	21.6	C	
	NB	L	0.09	49.4	D		NB	L	0.15	51.2	D		NB	L	0.11	47.6	D	
3. Hicks Street & Atlantic Avenue (signalized)	EB	LT	0.23	26.8	C		EB	LT	0.32	23.9	C		EB	LT	0.32	23.9	C	
	WB	TR	0.51	32.9	C		WB	TR	0.60	29.2	C		WB	TR	0.63	29.7	C	
	NB	L	0.65	28.3	C		NB	L	0.66	34.6	C		NB	L	0.75	37.6	D	
	NB	TR	0.34	23.0	C		NB	TR	0.52	32.9	C		NB	TR	0.54	33.4	C	
4. Henry Street & Atlantic Avenue (signalized)	EB	TR	0.19	11.9	B		EB	TR	0.31	18.9	B		EB	TR	0.25	17.1	B	
	WB	LT	0.41	18.9	B		WB	LT	0.59	24.2	C		WB	LT	0.61	23.5	C	
	SB	LTR	0.38	32.8	C		SB	LTR	0.86	54.5	D		SB	LTR	0.71	46.3	D	
5. Clinton Street & Atlantic Avenue (signalized)	EB	LT	0.31	23.2	C		EB	LT	0.57	31.4	C		EB	LT	0.53	31.9	C	
	WB	TR	0.46	28.1	C		WB	TR	0.65	32.7	C		WB	TR	0.71	36.5	D	
	NB	LTR	0.66	35.5	D		NB	LTR	0.82	46.4	D		NB	LTR	0.82	49.6	D	
6. Court Street & Atlantic Avenue (signalized)	EB	TR	0.35	28.5	C		EB	TR	0.58	36.2	D		EB	TR	0.39	20.7	C	
	WB	L	0.48	56.0	E	*	WB	L	0.58	57.0	E	*	WB	L	1.05	148.9	F	*
	WB	T	0.68	25.9	C		WB	T	0.83	46.5	D		WB	T	0.71	22.9	C	
	SB	LTR	0.31	33.0	C		SB	LTR	0.80	49.2	D		SB	LTR	0.99	81.2	F	*
7. Boerum Place & Atlantic Avenue (signalized)	EB	L	0.21	15.6	B		EB	L	0.37	18.9	B		EB	L	0.35	18.4	B	
	EB	TR	0.51	38.2	D		EB	TR	1.02	94.2	F	*	EB	TR	0.87	101.7	F	*
	WB	LT	0.46	34.7	C		WB	LT	0.71	43.0	D		WB	LT	0.67	40.9	D	
	WB	R	1.05	57.2	E	*	WB	R	0.81	18.7	B		WB	R	0.77	15.7	B	
	SB	L	0.45	28.9	C		SB	L	0.61	31.7	C		SB	L	0.52	29.7	C	
	SB	T	0.19	25.3	C		SB	T	0.49	30.3	C		SB	T	0.38	27.8	C	
	SB	R	0.23	15.4	B		SB	R	0.41	18.5	B		SB	R	0.39	17.8	B	
8. Smith Street & Atlantic Avenue (signalized)	EB	LT	0.60	18.8	B		EB	LT	0.70	20.7	C		EB	LT	0.67	22.6	C	
	WB	TR	0.99	52.5	D	*	WB	TR	0.68	19.7	B		WB	TR	0.73	24.0	C	
	NB	L	0.73	44.0	D		NB	L	0.78	61.6	E	*	NB	L	0.59	43.2	D	
	NB	TR	0.61	38.6	D		NB	TR	0.81	69.9	E	*	NB	TR	0.90	78.8	E	*
9. State Street & Boerum Place (signalized)	EB	LTR	0.27	33.0	C		EB	LTR	0.45	37.1	D		EB	LTR	0.61	42.1	D	
	NB	TR	0.43	13.1	B		NB	TR	0.31	11.7	B		NB	TR	0.31	11.6	B	
	SB	LT	0.31	11.7	B		SB	LT	0.50	14.0	B		SB	LT	0.53	14.6	B	
10. State Street & Smith Street (signalized)	EB	LT	0.13	20.8	C		EB	LT	0.23	22.1	C		EB	LT	0.29	22.9	C	
	NB	TR	0.31	11.9	B		NB	TR	0.19	10.7	B		NB	TR	0.17	10.5	B	
11. Boerum Place & Schermerhorn Street (signalized)	NB	L	0.14	11.0	B		NB	L	0.11	9.4	A		NB	L	0.36	17.0	B	
	NB	TR	0.44	13.2	B		NB	TR	0.30	9.8	A		NB	TR	0.32	11.8	B	
	SB	LTR	0.30	11.6	B		SB	LTR	0.45	11.5	B		SB	LTR	0.49	13.8	B	
12. Smith Street & Schermerhorn Street (signalized)	EB	LT	0.10	22.6	C		EB	LT	0.14	23.2	C		EB	LT	0.05	20.6	C	
	NB	TR	0.87	46.9	D		NB	TR	0.57	30.0	C		NB	TR	0.63	32.7	C	
	SB	L	0.64	53.5	D		SB	L	0.96	106.7	F	*	SB	L	1.05	126.7	F	*

Notes - Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound. Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left. * Denotes congested lane group

THE FUTURE NO-ACTION CONDITION

NO-ACTION TRAFFIC GROWTH

Between 2023 and 2029, it is expected that transportation demand in the vicinity of the Brooklyn Site will increase due to long-term background growth as well as development that could occur pursuant to existing zoning. The No-Action traffic volumes reflect annual background growth rates of 0.25 percent per year for 2023 through 2028 and 0.125 percent per year for 2028 through 2029. These background growth rates, recommended in the 2021 *CEQR Technical Manual* for projects in Downtown Brooklyn, are applied to account for smaller projects and general increases in travel demand not attributable to specific development projects. In addition, discrete demand from major development projects in the vicinity of the Brooklyn Site is also reflected in the No-Action traffic network. These No-Action developments, as well as their associated programs, are described in **Table 10** and illustrated in **Figure 4**. As a result, **Figure 5** shows the total No-Action traffic volumes during the weekday AM, weekday midday, and Saturday peak hours.

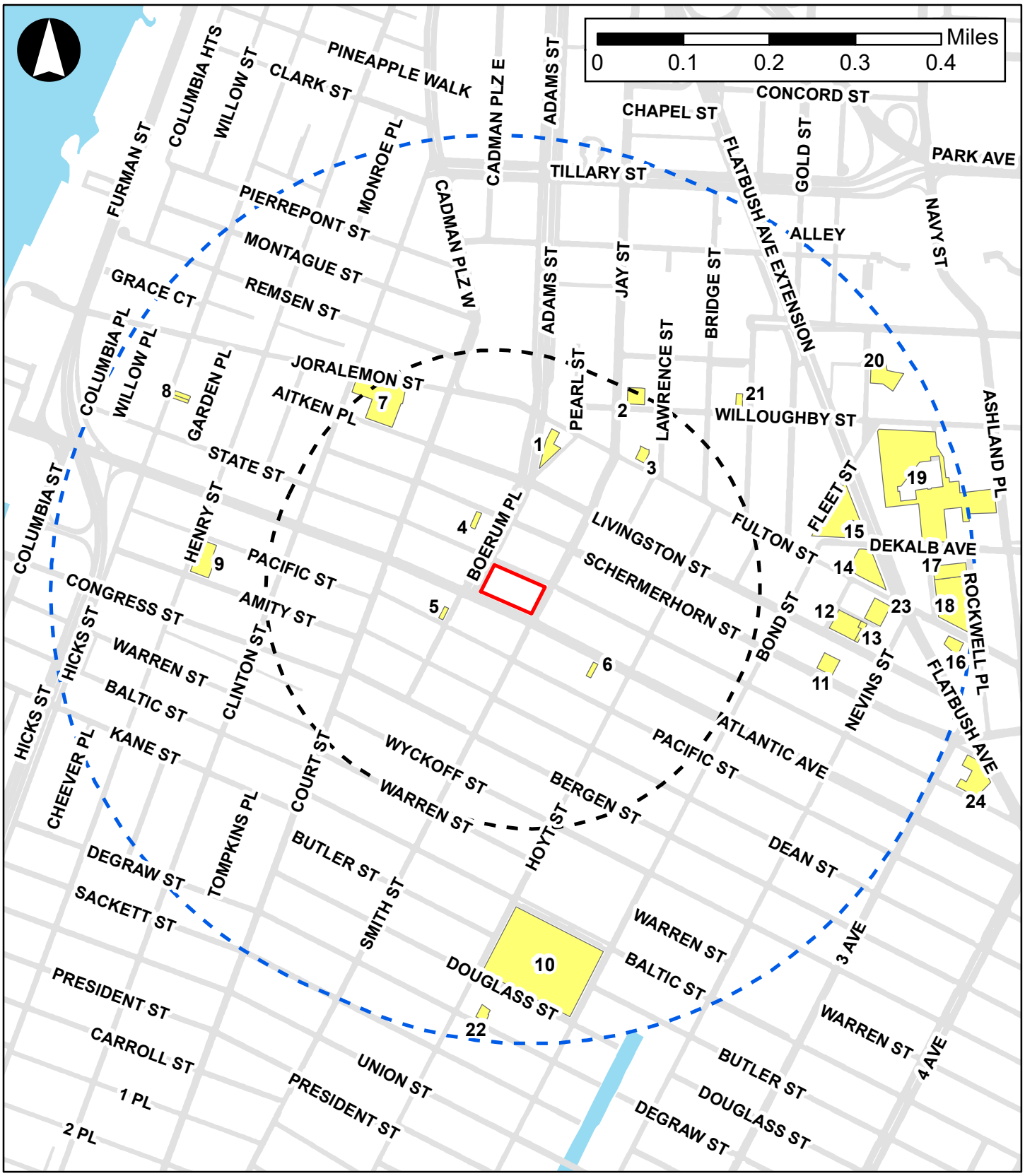
Table 10
Future No-Action Sites in Study Area

Map ID	Project Name	Total (GSF)	DU	Local Retail (GSF)	Destination Retail (GSF)	Office (GSF)	Hotel (GSF)	Hotel Rooms	Community Facility (GSF)	Health Club (GSF)	Storage/ Warehouse/ Manufacturing (GSF)	Parking
Quarter-Mile Radius												
1	7 Boerum Pl	264,399	138	21,466								47
2	51 Willoughby St	261,092	293	4,506								
3	461 Fulton St	13,134		4,755					3,607			
4	88 Schermerhorn St	44,314	55									
5	237 Pacific St	7,808	3	1,614								
6	330 Atlantic Ave	11,549	4	1,475								
7	57 Livingston St	32,966							32,966			
Half-Mile Radius												
8	295-297 Hicks St	19,568	2									2
9	347 Henry St	72,604	25									18
10	157 Douglass St	7,199									7,199	
11	285 Schermerhorn St	117,272	84	2,080					14,131			
12	15 Hanover Pl	303,763	314	11,845								63
13	291 Livingston St	50,914					50,914	104				
14	589 Fulton St	597,824	591	78,997								
15	9 DeKalb Ave	762,996	547	108,992								113
16	570 Fulton St	136,592	163	5,240								
17	12 Rockwell Pl	53,768	52									
18	625 Fulton St	960,869	1,044	38,177								405
19	75 DeKalb Ave	312,771	275						45,981			216
20	99 Fleet Pl	304,153	294	4,530								44
21	111 Willoughby St	204,834	229	3,745					26,310			
22	417 DeGraw St	13,997	6									2
23	540 Fulton St	385,628	327	75,491	24,553							

Shading denotes sites accounted for in background growth.

INTERSECTION CAPACITY ANALYSIS

The v/c ratios, delays, and LOS for those individual lane groups at each analyzed intersection during each peak hour under No-Action conditions are shown in **Table 11**. As shown in **Table 11**, seven analyzed intersections are expected to have at least one congested lane group in one or more peak hours in the No-Action condition. There would be two analyzed intersections with one or more lane groups operating at capacity (v/c ratio $\geq$ 1.0) in the weekday AM peak hour, three intersections in the weekday midday peak hour, and three intersections in the Saturday peak hour.



Legend

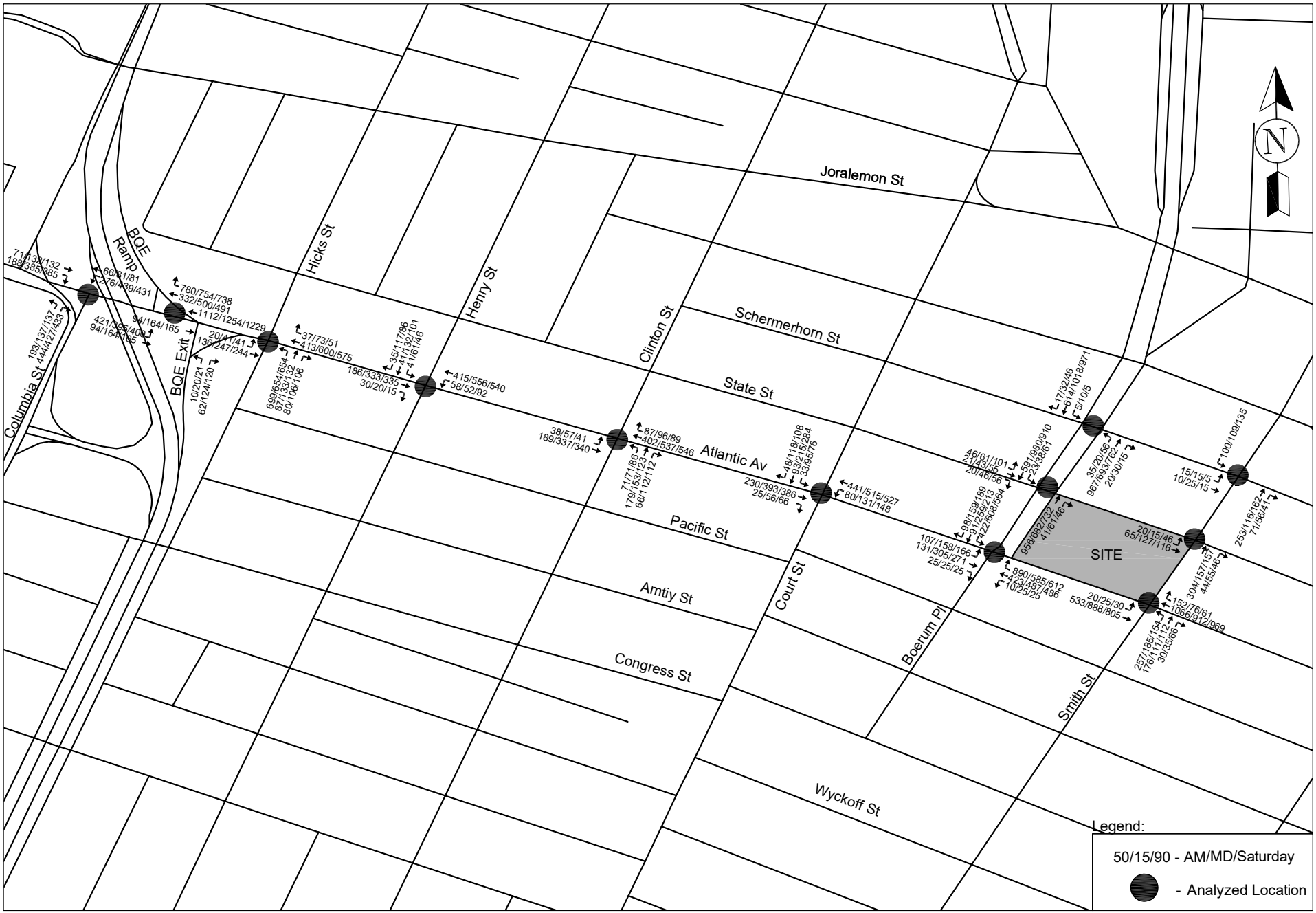
Project Site | 1/4-Mile Radius | 1/2-Mile Radius | No-Build Development Sites

Overall, the data presented in **Table 11** indicates that existing traffic congestion at analyzed intersections is expected to worsen in the future No-Action Condition.

WITH ACTION CONDITION

Figure 6 shows the total traffic volumes in each peak hour under 2029 With-Action conditions. The volumes shown in **Figure 6** are the combination of the net incremental traffic generated by the newly modified project (previously shown in **Figure 1**) and the No-Action volumes (previously shown in **Figure 5**).

The v/c ratios, delays, and LOS for analyzed lane groups during all peak hours under the With-Action condition are shown in **Table 12**. With the implementation of the newly modified project, six analyzed intersections are expected to have at least one impacted lane group in one or more peak hours in the With-Action condition. There would be three impacted lane groups at three analyzed intersections in the weekday AM peak hour, six impacted lane groups at six intersections in the weekday midday, and six impacted lane groups at six intersections in the Saturday peak hour. In comparison, as shown in **Table 13**, the FEIS project had the potential to impact six analyzed lane groups at five analyzed intersections during the weekday AM peak hour, 16 analyzed lane groups at ten analyzed intersections during the weekday midday peak hour, and 11 analyzed lane groups at eight analyzed intersections during the Saturday peak. As shown in **Table 13**, with the newly modified project, there would be three fewer intersections with impacts compared to the FEIS.



Borough Based Jails - Brooklyn

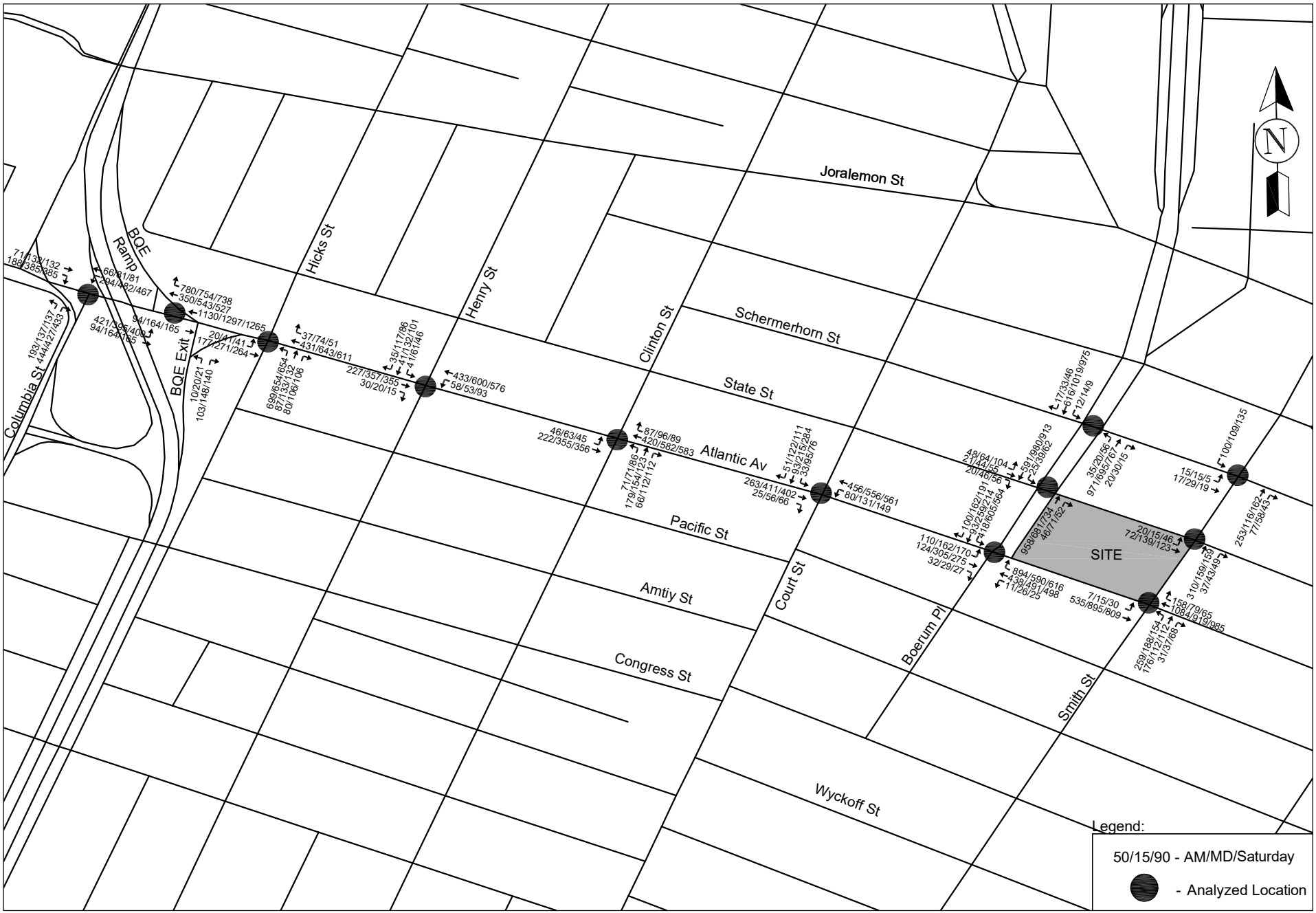
Figure 5

No Action Weekday AM/Midday/Saturday Peak Hour Traffic Volumes

Table 11 – No-Action Intersection Capacity Analysis

	Existing Weekday AM					No-Action Weekday AM					Existing Weekday Midday					No-Action Weekday Midday					Existing Saturday					No-Action Saturday				
Intersection	Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
1. Columbia Street & Atlantic Avenue (signalized)	EB	T	0.08	15.3	B	EB	T	0.08	15.3	B	EB	T	0.13	23.7	C	EB	T	0.14	23.7	C	EB	T	0.14	26.9	C	EB	T	0.14	27.0	C
	WB	L	0.56	28.1	C	WB	L	0.64	31.1	C	WB	L	0.94	66.7	E *	WB	L	1.03	90.3	F *	WB	L	1.05	122.9	F *	WB	L	1.14	151.1	F *
	WB	LT	0.13	19.1	B	WB	LT	0.13	19.1	B	WB	LT	0.32	27.0	C	WB	LT	0.33	27.3	C	WB	LT	0.33	30.6	C	WB	LT	0.35	31.1	C
	NB	LR	0.67	35.4	D	NB	LR	0.68	35.8	D	NB	LR	0.42	23.3	C	NB	LR	0.43	23.4	C	NB	LR	0.34	18.8	B	NB	LR	0.35	18.9	B
	NB	R	0.61	34.1	C	NB	R	0.62	34.7	C	NB	R	0.57	27.3	C	NB	R	0.58	27.5	C	NB	R	0.59	24.5	C	NB	R	0.60	24.8	C
2. BQE NB Off-Ramp & Atlantic Avenue (signalized)	EB	L	0.85	42.4	D	EB	L	0.88	48.0	D	EB	L	0.91	53.3	D *	EB	L	0.94	62.5	E *	EB	L	0.92	56.3	E *	EB	L	0.95	63.6	E *
	EB	T	0.05	0.7	A	EB	T	0.05	0.7	A	EB	T	0.08	2.2	A	EB	T	0.08	2.2	A	EB	T	0.07	2.8	A	EB	T	0.08	2.8	A
	WB	R	0.37	13	B	WB	R	0.42	13.7	B	WB	R	0.52	15.5	B	WB	R	0.57	16.5	B	WB	R	0.49	14.8	B	WB	R	0.52	15.4	B
	WB	T	0.87	26	C	WB	T	0.92	31.7	C *	WB	T	0.85	24.3	C	WB	T	0.87	25.8	C	WB	T	0.82	21.6	C	WB	T	0.83	22.6	C
	NB	L	0.09	49.4	D	NB	L	0.09	49.4	D	NB	L	0.15	51.2	D	NB	L	0.15	51.2	D	NB	L	0.11	47.6	D	NB	L	0.12	47.7	D
3. Hicks Street & Atlantic Avenue (signalized)	EB	LT	0.23	26.8	C	EB	LT	0.28	27.6	C	EB	LT	0.32	23.9	C	EB	LT	0.39	25.0	C	EB	LT	0.32	23.9	C	EB	LT	0.38	24.9	C
	WB	TR	0.51	32.9	C	WB	TR	0.60	35.1	D	WB	TR	0.60	29.2	C	WB	TR	0.65	30.4	C	WB	TR	0.63	29.7	C	WB	TR	0.66	30.8	C
	NB	L	0.65	28.3	C	NB	L	0.66	28.5	C	NB	L	0.66	34.6	C	NB	L	0.67	34.9	C	NB	L	0.75	37.6	D	NB	L	0.76	38.0	D
	NB	TR	0.34	23.0	C	NB	TR	0.35	23.1	C	NB	TR	0.52	32.9	C	NB	TR	0.53	33.2	C	NB	TR	0.54	33.4	C	NB	TR	0.55	33.6	C
4. Henry Street & Atlantic Avenue (signalized)	EB	TR	0.19	11.9	B	EB	TR	0.23	12.2	B	EB	TR	0.31	18.9	B	EB	TR	0.35	19.5	B	EB	TR	0.25	17.1	B	EB	TR	0.29	17.5	B
	WB	LT	0.41	18.9	B	WB	LT	0.49	20.2	C	WB	LT	0.59	24.2	C	WB	LT	0.66	26.1	C	WB	LT	0.61	23.5	C	WB	LT	0.67	25.4	C
	SB	LTR	0.38	32.8	C	SB	LTR	0.39	33.1	C	SB	LTR	0.86	54.5	D	SB	LTR	0.88	57.6	E *	SB	LTR	0.71	46.3	D	SB	LTR	0.73	47.2	D
5. Clinton Street & Atlantic Avenue (signalized)	EB	LT	0.31	23.2	C	EB	LT	0.37	24.2	C	EB	LT	0.57	31.4	C	EB	LT	0.67	34.6	C	EB	LT	0.53	31.9	C	EB	LT	0.61	34.0	C
	WB	TR	0.46	28.1	C	WB	TR	0.56	30.3	C	WB	TR	0.65	32.7	C	WB	TR	0.74	36.1	D	WB	TR	0.71	36.5	D	WB	TR	0.77	39.3	D
	NB	LTR	0.66	35.5	D	NB	LTR	0.68	36.4	D	NB	LTR	0.82	46.4	D	NB	LTR	0.85	49.7	D	NB	LTR	0.82	49.6	D	NB	LTR	0.85	52.4	D
6. Court Street & Atlantic Avenue (signalized)	EB	TR	0.35	28.5	C	EB	TR	0.40	29.2	C	EB	TR	0.58	36.2	D	EB	TR	0.65	38.2	D	EB	TR	0.39	20.7	C	EB	TR	0.42	21.2	C
	WB	L	0.48	56.0	E *	WB	L	0.52	57.2	E *	WB	L	0.58	57.0	E *	WB	L	0.63	59.7	E *	WB	L	1.05	148.9	F *	WB	L	1.15	180.7	F *
	WB	T	0.68	25.9	C	WB	T	0.84	35.6	D	WB	T	0.83	46.5	D	WB	T	0.94	78.8	E *	WB	T	0.71	22.9	C	WB	T	0.77	25.9	C
	SB	LTR	0.31	33.0	C	SB	LTR	0.36	34.0	C	SB	LTR	0.80	49.2	D	SB	LTR	0.88	57.6	E *	SB	LTR	0.99	81.2	F *	SB	LTR	1.04	95.4	F *
7. Boerum Place & Atlantic Avenue (signalized)	EB	L	0.21	15.6	B	EB	L	0.30	17.2	B	EB	L	0.37	18.9	B	EB	L	0.51	22.5	C	EB	L	0.35	18.4	B	EB	L	0.46	20.9	C
	EB	TR	0.51	38.2	D	EB	TR	0.55	39.5	D	EB	TR	1.02	94.2	F *	EB	TR	1.07	108	F *	EB	TR	0.87	101.7	F *	EB	TR	0.88	107.6	F *
	WB	LT	0.46	34.7	C	WB	LT	0.57	37.1	D	WB	LT	0.71	43.0	D	WB	LT	0.83	49.9	D	WB	LT	0.67	40.9	D	WB	LT	0.75	43.8	D
	WB	R	1.05	57.2	E *	WB	R	1.06	63.4	E *	WB	R	0.81	18.7	B	WB	R	0.84	20.9	C	WB	R	0.77	15.7	B	WB	R	0.80	17.4	B
	SB	L	0.45	28.9	C	SB	L	0.46	29.1	C	SB	L	0.61	31.7	C	SB	L	0.62	32	C	SB	L	0.52	29.7	C	SB	L	0.54	29.9	C
	SB	T	0.19	25.3	C	SB	T	0.19	25.3	C	SB	T	0.49	30.3	C	SB	T	0.49	30.4	C	SB	T	0.38	27.8	C	SB	T	0.38	27.9	C
	SB	R	0.23	15.4	B	SB	R	0.24	15.6	B	SB	R	0.41	18.5	B	SB	R	0.43	19.2	B	SB	R	0.39	17.8	B	SB	R	0.42	18.4	B
8. Smith Street & Atlantic Avenue (signalized)	EB	LT	0.60	18.8	B	EB	LT	0.64	20.1	C	EB	LT	0.70	20.7	C	EB	LT	0.73	21.6	C	EB	LT	0.67	22.6	C	EB	LT	0.71	23.7	C
	WB	TR	0.99	52.5	D *	WB	TR	1.07	76.0	E *	WB	TR	0.68	19.7	B	WB	TR	0.73	21.4	C	WB	TR	0.73	24.0	C	WB	TR	0.78	25.8	C
	NB	L	0.73	44.0	D	NB	L	0.75	45.6	D	NB	L	0.78	61.6	E *	NB	L	0.84	68.4	E *	NB	L	0.59	43.2	D	NB	L	0.64	45.4	D
	NB	TR	0.63	39.2	D	NB	TR	0.63	39.5	D	NB	TR	0.81	69.9	E *	NB	TR	0.87	79.4	E *	NB	TR	0.90	78.8	E *	NB	TR	0.95	90.6	F *
9. State Street & Boerum Place (signalized)	EB	LTR	0.27	33.0	C	EB	LTR	0.28	33.3	C	EB	LTR	0.45	37.1	D	EB	LTR	0.48	37.9	D	EB	LTR	0.61	42.1	D	EB	LTR	0.64	43.4	D
	NB	TR	0.43	13.1	B	NB	TR	0.46	13.4	B	NB	TR	0.31	11.7	B	NB	TR	0.34	12.0	B	NB	TR	0.31	11.6	B	NB	TR	0.34	12.0	B
	SB	LT	0.31	11.7	B	SB	LT	0.32	11.8	B	SB	LT	0.50	14.0	B	SB	LT	0.52	14.3	B	SB	LT	0.53	14.6	B	SB	LT	0.55	14.9	B
10. State Street & Smith Street (signalized)	EB	LT	0.13	20.8	C	EB	LT	0.20	21.6	C	EB	LT	0.23	22.1	C	EB	LT	0.33	23.4	C	EB	LT	0.29	22.9	C	EB	LT	0.37	24.2	C
	NB	TR	0.31	11.9	B	NB	TR	0.32	12.0	B	NB	TR	0.19	10.7	B	NB	TR	0.20	10.8	B	NB	TR	0.17	10.5	B	NB	TR	0.19	10.7	B
11. Boerum Place & Schermerhorn Street (signalized)	NB	L	0.14	11.0	B	NB	L	0.14	11.0	B	NB	L	0.11	9.4	A	NB	L	0.12	9.5	A	NB	L	0.36	17.0	B	NB	L	0.38	17.9	B
	NB	TR	0.44	13.2	B	NB	TR	0.45	13.3	B	NB	TR	0.30	9.8	A	NB	TR	0.31	10.0	A	NB	TR	0.32	11.8	B	NB	TR	0.33	11.9	B
	SB	LTR	0.30	11.6	B	SB	LTR	0.31	11.7	B	SB	LTR	0.45	11.5	B	SB	LTR	0.47	11.7	B	SB	LTR	0.49	13.8	B	SB	LTR	0.50	14.0	B
12. Smith Street & Schermerhorn Street (signalized)	EB	LT	0.10	22.6	C	EB	LT	0.10	22.6	C	EB	LT	0.14	23.2	C	EB	LT	0.14	23.2	C	EB	LT	0.05	20.6	C	EB	LT	0.05	20.6	C
	NB	TR	0.87	46.9	D	NB	TR	0.89	49.4	D	NB	TR	0.57	30.0	C	NB	TR	0.59	30.7	C	NB	TR	0.63	32.7	C	NB	TR	0.64	33.4	C
	SB	L	0.64	53.5	D	SB	L	0.76	65.6	E *	SB	L	0.96	106.7	F *	SB	L	1.02	122.0	F *	SB	L	1.05	126.7	F *	SB	L	1.12	148.1	F *

Notes - Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound. Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left. * Denotes congested lane group.



Borough Based Jails - Brooklyn

Figure 6

With Action Weekday AM/Midday/Saturday Peak Hour Traffic Volumes

Table 12 – With-Action Intersection Capacity Analysis

	No-Action Weekday AM					With-Action Weekday AM					No-Action Weekday Midday					With-Action Weekday Midday					No-Action Saturday					With-Action Saturday				
Intersection	Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
1. Columbia Street & Atlantic Avenue (signalized)	EB	T	0.08	15.3	B	EB	T	0.08	15.3	B	EB	T	0.14	23.7	C	EB	T	0.14	23.7	C	EB	T	0.14	27.0	C	EB	T	0.14	27.0	C
	WB	L	0.64	31.1	C	WB	L	0.68	33.1	C	WB	L	1.03	90.3	F	WB	L	1.14	126.7	F *	WB	L	1.14	151.1	F	WB	L	1.24	190.9	F *
	WB	LT	0.13	19.1	B	WB	LT	0.13	19.2	B	WB	LT	0.33	27.3	C	WB	LT	0.35	27.8	C	WB	LT	0.35	31.1	C	WB	LT	0.37	31.5	C
	NB	LR	0.68	35.8	D	NB	LR	0.68	35.8	D	NB	LR	0.43	23.4	C	NB	LR	0.43	23.4	C	NB	LR	0.35	18.9	B	NB	LR	0.35	18.9	B
	NB	R	0.62	34.7	C	NB	R	0.62	34.7	C	NB	R	0.58	27.5	C	NB	R	0.58	27.5	C	NB	R	0.60	24.8	C	NB	R	0.61	24.8	C
2. BQE NB Off-Ramp & Atlantic Avenue (signalized)	EB	L	0.88	48.0	D	EB	L	0.89	50.5	D	EB	L	0.94	62.5	E	EB	L	0.97	70.5	E *	EB	L	0.95	63.6	E	EB	L	0.97	70.5	E *
	EB	T	0.05	0.7	A	EB	T	0.05	0.7	A	EB	T	0.08	2.2	A	EB	T	0.08	2.2	A	EB	T	0.08	2.8	A	EB	T	0.08	2.8	A
	WB	R	0.42	13.7	B	WB	R	0.44	14.1	B	WB	R	0.57	16.5	B	WB	R	0.62	17.7	B	WB	R	0.52	15.4	B	WB	R	0.56	16.2	B
	WB	T	0.92	31.7	C	WB	T	0.92	31.7	C	WB	T	0.87	25.8	C	WB	T	0.87	25.8	C	WB	T	0.83	22.6	C	WB	T	0.83	22.6	C
	NB	L	0.09	49.4	D	NB	L	0.09	49.4	D	NB	L	0.15	51.2	D	NB	L	0.15	51.2	D	NB	L	0.12	47.7	D	NB	L	0.12	47.7	D
3. Hicks Street & Atlantic Avenue (signalized)	EB	LT	0.28	27.6	C	EB	LT	0.35	28.7	C	EB	LT	0.39	25.0	C	EB	LT	0.42	25.7	C	EB	LT	0.38	24.9	C	EB	LT	0.41	25.4	C
	WB	TR	0.60	35.1	D	WB	TR	0.62	35.7	D	WB	TR	0.65	30.4	C	WB	TR	0.69	31.7	C	WB	TR	0.66	30.8	C	WB	TR	0.70	31.9	C
	NB	L	0.66	28.5	C	NB	L	0.66	28.5	C	NB	L	0.67	34.9	C	NB	L	0.67	34.9	C	NB	L	0.76	38.0	D	NB	L	0.76	38.0	D
	NB	TR	0.35	23.1	C	NB	TR	0.35	23.1	C	NB	TR	0.53	33.2	C	NB	TR	0.53	33.2	C	NB	TR	0.55	33.6	C	NB	TR	0.55	33.6	C
4. Henry Street & Atlantic Avenue (signalized)	EB	TR	0.23	12.2	B	EB	TR	0.27	12.6	B	EB	TR	0.35	19.5	B	EB	TR	0.37	19.8	B	EB	TR	0.29	17.5	B	EB	TR	0.30	17.7	B
	WB	LT	0.49	20.2	C	WB	LT	0.51	20.7	C	WB	LT	0.66	26.1	C	WB	LT	0.71	27.8	C	WB	LT	0.67	25.4	C	WB	LT	0.72	26.9	C
	SB	LTR	0.39	33.1	C	SB	LTR	0.39	33.1	C	SB	LTR	0.88	57.6	E	SB	LTR	0.88	57.6	E	SB	LTR	0.73	47.2	D	SB	LTR	0.73	47.2	D
5. Clinton Street & Atlantic Avenue (signalized)	EB	LT	0.37	24.2	C	EB	LT	0.45	25.8	C	EB	LT	0.67	34.6	C	EB	LT	0.75	38.7	D	EB	LT	0.61	34.0	C	EB	LT	0.67	36.3	D
	WB	TR	0.56	30.3	C	WB	TR	0.58	30.8	C	WB	TR	0.74	36.1	D	WB	TR	0.79	38.5	D	WB	TR	0.77	39.3	D	WB	TR	0.81	41.5	D
	NB	LTR	0.68	36.4	D	NB	LTR	0.68	36.4	D	NB	LTR	0.85	49.7	D	NB	LTR	0.85	50.2	D	NB	LTR	0.85	52.4	D	NB	LTR	0.85	52.4	D
6. Court Street & Atlantic Avenue (signalized)	EB	TR	0.40	29.2	C	EB	TR	0.45	30.2	C	EB	TR	0.65	38.2	D	EB	TR	0.67	39.0	D	EB	TR	0.42	21.2	C	EB	TR	0.44	21.5	C
	WB	L	0.52	57.2	E	WB	L	0.52	57.2	E	WB	L	0.63	59.7	E	WB	L	0.63	59.7	E	WB	L	1.15	180.7	F	WB	L	1.16	183.4	F
	WB	T	0.84	35.6	D	WB	T	0.87	38.5	D	WB	T	0.94	78.8	E	WB	T	1.01	122.6	F *	WB	T	0.77	25.9	C	WB	T	0.82	29.2	C
	SB	LTR	0.36	34.0	C	SB	LTR	0.37	34.2	C	SB	LTR	0.88	57.6	E	SB	LTR	0.90	59.8	E	SB	LTR	1.04	95.4	F	SB	LTR	1.05	99.8	F *
7. Boerum Place & Atlantic Avenue (signalized)	EB	L	0.30	17.2	B	EB	L	0.32	17.5	B	EB	L	0.51	22.5	C	EB	L	0.53	23.1	C	EB	L	0.46	20.9	C	EB	L	0.48	21.5	C
	EB	TR	0.55	39.5	D	EB	TR	0.55	39.7	D	EB	TR	1.07	108.0	F	EB	TR	1.09	115.6	F *	EB	TR	0.88	107.6	F	EB	TR	0.91	124.8	F *
	WB	LT	0.57	37.1	D	WB	LT	0.59	37.7	D	WB	LT	0.83	49.9	D	WB	LT	0.85	51.6	D	WB	LT	0.75	43.8	D	WB	LT	0.77	45.0	D
	WB	R	1.06	63.4	E	WB	R	1.11	81.8	F *	WB	R	0.84	20.9	C	WB	R	0.90	27.2	C	WB	R	0.80	17.4	B	WB	R	0.82	19.1	B
	SB	L	0.46	29.1	C	SB	L	0.46	29.0	C	SB	L	0.62	32.0	C	SB	L	0.62	31.9	C	SB	L	0.54	29.9	C	SB	L	0.54	29.9	C
	SB	T	0.19	25.3	C	SB	T	0.20	25.4	C	SB	T	0.49	30.4	C	SB	T	0.49	30.4	C	SB	T	0.38	27.9	C	SB	T	0.38	27.9	C
	SB	R	0.24	15.6	B	SB	R	0.25	15.7	B	SB	R	0.43	19.2	B	SB	R	0.44	19.5	B	SB	R	0.42	18.4	B	SB	R	0.43	18.6	B
8. Smith Street & Atlantic Avenue (signalized)	EB	LT	0.64	20.1	C	EB	LT	0.53	17.3	B	EB	LT	0.73	21.6	C	EB	LT	0.70	20.3	C	EB	LT	0.71	23.7	C	EB	LT	0.71	24.0	C
	WB	TR	1.07	76.0	E	WB	TR	1.09	84.8	F *	WB	TR	0.73	21.4	C	WB	TR	0.74	21.8	C	WB	TR	0.78	25.8	C	WB	TR	0.79	26.5	C
	NB	L	0.75	45.6	D	NB	L	0.77	46.9	D	NB	L	0.84	68.4	E	NB	L	0.86	71.3	E	NB	L	0.64	45.4	D	NB	L	0.64	45.6	D
	NB	TR	0.63	39.5	D	NB	TR	0.64	39.7	D	NB	TR	0.87	79.4	E	NB	TR	0.90	84.2	F *	NB	TR	0.95	90.6	F	NB	TR	0.97	95.3	F *
9. State Street & Boerum Place (signalized)	EB	LTR	0.28	33.3	C	EB	LTR	0.30	33.6	C	EB	LTR	0.48	37.9	D	EB	LTR	0.51	38.9	D	EB	LTR	0.64	43.4	D	EB	LTR	0.66	44.7	D
	NB	TR	0.46	13.4	B	NB	TR	0.46	13.4	B	NB	TR	0.34	12.0	B	NB	TR	0.35	12.1	B	NB	TR	0.34	12.0	B	NB	TR	0.34	12.0	B
	SB	LT	0.32	11.8	B	SB	LT	0.33	11.9	B	SB	LT	0.52	14.3	B	SB	LT	0.52	14.4	B	SB	LT	0.55	14.9	B	SB	LT	0.55	15.0	B
10. State Street & Smith Street (signalized)	EB	LT	0.20	21.6	C	EB	LT	0.22	21.9	C	EB	LT	0.33	23.4	C	EB	LT	0.35	23.8	C	EB	LT	0.37	24.2	C	EB	LT	0.39	24.5	C
	NB	TR	0.32	12.0	B	NB	TR	0.32	12.0	B	NB	TR	0.20	10.8	B	NB	TR	0.19	10.7	B	NB	TR	0.19	10.7	B	NB	TR	0.19	10.7	B
11. Boerum Place & Schermerhorn Street (signalized)	NB	L	0.14	11.0	B	NB	L	0.15	11.1	B	NB	L	0.12	9.5	A	NB	L	0.12	9.5	A	NB	L	0.38	17.9	B	NB	L	0.39	18.2	B
	NB	TR	0.45	13.3	B	NB	TR	0.45	13.3	B	NB	TR	0.31	10.0	A	NB	TR	0.31	10.0	A	NB	TR	0.33	11.9	B	NB	TR	0.34	11.9	B
	SB	LTR	0.31	11.7	B	SB	LTR	0.33	11.9	B	SB	LTR	0.47	11.7	B	SB	LTR	0.48	11.8	B	SB	LTR	0.50	14.0	B	SB	LTR	0.51	14.1	B
12. Smith Street & Schermerhorn Street (signalized)	EB	LT	0.10	22.6	C	EB	LT	0.12	23.0	C	EB	LT	0.14	23.2	C	EB	LT	0.15	23.4	C	EB	LT	0.05	20.6	C	EB	LT	0.07	20.7	C
	NB	TR	0.89	49.4	D	NB	TR	0.92	53.9	D	NB	TR	0.59	30.7	C	NB	TR	0.61	31.6	C	NB	TR	0.64	33.4	C	NB	TR	0.65	33.9	C
	SB	L	0.76	65.6	E	SB	L	0.84	77.9	E *	SB	L	1.02	122.0	F	SB	L	1.06	135.7	F *	SB	L	1.12	148.1	F	SB	L	1.15	160.3	F *

Notes - Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound. Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left. * Denotes impacted lane group.

Table 13
Comparison of With-Action Impacted Intersection Movements

Analyzed Intersections	Weekday AM		Weekday MD		Saturday	
	FEIS	TechMemo 2023	FEIS	TechMemo 2023	FEIS	TechMemo 2023
1. Columbia Street & Atlantic Avenue			WB-L	WB-L	WB-L	WB-L
2. BQE NB Off-Ramp & Atlantic Avenue			EB-L	EB-L	EB-L	EB-L
3. Hicks Street & Atlantic Avenue						
4. Henry Street & Atlantic Avenue						
5. Clinton Street & Atlantic Avenue			EB-LT, WB-TR		EB-LT, NB-LTR	
6. Court Street & Atlantic Avenue	WB-T		EB-TR, WB-T	WB-T		SB-LTR
7. Boerum Place & Atlantic Avenue	EB-TR	WB-R	EB-L, EB-TR,WB-LT, SB-R	EB-TR	EB-L, EB-TR,WB-LT	EB-TR
8. Smith Street & Atlantic Avenue	EB-LT, WB-TR	WB-TR	EB-LT, NB-L	NB-TR	EB-LT	NB-TR
9. State Street & Boerum Place			EB-LTR		EB-LTR	
10. State Street & Smith Street			NB-TR			
11. Schermerhorn Street & Boerum Place	WB-LTR		WB-LTR		WB-LTR	
12. Schermerhorn Street & Smith Street	NB-TR	SB-L	NB-TR	SB-L	NB-TR	SB-L
Total Impacted Movement	6	3	16	6	11	6

MITIGATION

Many of these impacts discussed above could be mitigated through the implementation of traffic engineering improvements, including modification of existing traffic signal phasing and/or timing. **Table 14** summarizes the recommended mitigation measures for each of the intersections with significant adverse traffic impacts during the weekday AM, weekday midday, and Saturday peak hours. Implementation of the recommended traffic engineering improvements is subject to final review and approval by DOT. If this measure is deemed infeasible, other potential measures will be considered in consultation with the NYCDOT. In the absence of the application of mitigation measures, the impact would remain unmitigated.

The v/c ratios, delays, and LOS for analyzed lane groups during the weekday AM, weekday midday, and Saturday midday peak hours under With-Action conditions with mitigation measures are shown in **Tables 15** through **17**, respectively. **Tables 15** through **17** show that significant adverse impacts would be fully mitigated at all impacted lane groups during all the analyzed peak hours with the exception of one lane group – the westbound through lane group at the intersection of Court Street and Atlantic Avenue during the weekday midday peak hour. In comparison, the project analyzed in the FEIS would result in significant adverse impacts that would remain unmitigated at three, 13, and six lane groups in the weekday AM, weekday midday, and Saturday peak hours, respectively. **Table 18** shows the comparison summary of the number of traffic impacts between the FEIS and the newly modified project, while **Table 19** details the specific lane groups at each intersection with potentially unmitigated significant adverse traffic impacts for both the FEIS and newly modified project.

Table 14
Proposed Traffic Mitigation Measures Under the Newly Modified Project

Intersection	Signal Phase	No Action Signal Timing (Seconds) (1)			Proposed Signal Timing (Seconds) (1)			Recommended Mitigation
		AM	MD	SAT	AM	MD	SAT	
Columbia Street &	EB/WB	60	52	47	60	56	50	- Transfer 4s of green time from NB to EB/WB in midday; 3s in Saturday.
Atlantic Avenue	NB	53	61	66	53	57	63	
	PED	7	7	7	7	7	7	
BQE Off-Ramp &	EB/WB	33	33	33	33	32	32	- Transfer 1s of green time from EB/WB to EB-T/WB-T in midday and Saturday.
Atlantic Avenue	EB/WB-R	19	20	17	19	20	17	
	EB-T/WB-T	50	50	50	50	51	51	
	NB-L/WB-R	18	17	20	18	17	20	
Court Street &	EB/WB	48	46	64	48	46	63	- Transfer 1s of green time from EB/WB to SB in Saturday.
Atlantic Avenue	WB	22	24	12	22	24	12	- Potential impact to WB-T lane group would remain unmitigated in the midday peak hour.
	SB	43	49	37	43	49	38	
	PED	7	7	7	7	7	7	
Boerum Place &	EB-L/SB-R	26	26	26	23	26	26	- Transfer 3s of green time from EB-L/SB-R to SB/WB-R in AM.
Atlantic Avenue	EB/WB	43	42	42	43	43	43	- Transfer 1s of green time from SB/WB-R to EB/WB in midday and Saturday.
	SB-L/SB-T/WB-R	7	7	7	7	7	7	
	SB/WB-R	44	45	45	47	44	44	
Smith Street &	EB/WB	65	75	70	66	74	69	- Transfer 1s of green time from NB to EB/WB in AM.
Atlantic Avenue	NB	48	38	43	47	39	44	- Transfer 1s of green time from EB/WB to NB in midday and Saturday.
	PED	7	7	7	7	7	7	
Smith Street &	EB	33	33	35	31	32	34	- Transfer 1s of green time from EB to NB in AM.
Schermerhorn Street	NB	39	37	35	40	37	35	- Transfer 1s of green time from EB to SB-L in AM, midday and Saturday.
	SB-L	18	20	20	19	21	21	

Notes :
(1) Signal timings shown indicate green plus yellow (including all red) for each phase.

Table 15
With-Action Condition with Mitigation at Impacted Lane Groups – Weekday AM Peak Hour

Intersection	Appr.	Lane Group	No-Action Weekday AM V/C Ratio	No-Action Weekday AM Delay (sec/veh)	No-Action Weekday AM LOS	With-Action Weekday AM V/C Ratio	With-Action Weekday AM Delay (sec/veh)	With-Action Weekday AM LOS		With-Action Weekday AM With Mitigation V/C Ratio	With-Action Weekday AM With Mitigation Delay (sec/veh)	With-Action Weekday AM With Mitigation LOS
1. Columbia Street & Atlantic Avenue (signalized)	EB	T	0.08	15.3	B	0.08	15.3	B		0.08	15.3	B
	WB	L	0.64	31.1	C	0.68	33.1	C		0.68	33.1	C
	WB	LT	0.13	19.1	B	0.13	19.2	B		0.13	19.2	B
	NB	LR	0.68	35.8	D	0.68	35.8	D		0.68	35.8	D
	NB	R	0.62	34.7	C	0.62	34.7	C		0.62	34.7	C
2. BQE NB Off-Ramp & Atlantic Avenue (signalized)	EB	L	0.88	48.0	D	0.89	50.5	D		0.89	50.5	D
	EB	T	0.05	0.7	A	0.05	0.7	A		0.05	0.7	A
	WB	R	0.42	13.7	B	0.44	14.1	B		0.44	14.1	B
	WB	T	0.92	31.7	C	0.92	31.7	C		0.92	31.7	C
	NB	L	0.09	49.4	D	0.09	49.4	D		0.09	49.4	D
6. Court Street & Atlantic Avenue (signalized)	EB	TR	0.40	29.2	C	0.45	30.2	C		0.45	30.2	C
	WB	L	0.52	57.2	E	0.52	57.2	E		0.52	57.2	E
	WB	T	0.84	35.6	D	0.87	38.5	D		0.87	38.5	D
	SB	LTR	0.36	34.0	C	0.37	34.2	C		0.37	34.2	C
7. Boerum Place & Atlantic Avenue (signalized)	EB	L	0.30	17.2	B	0.32	17.5	B		0.35	19.6	B
	EB	TR	0.55	39.5	D	0.55	39.7	D		0.55	39.7	D
	WB	LT	0.57	37.1	D	0.59	37.7	D		0.59	37.7	D
	WB	R	1.06	63.4	E	1.11	81.8	F	*	1.08	66.5	E
	SB	L	0.46	29.1	C	0.46	29.0	C		0.43	26.6	C
	SB	T	0.19	25.3	C	0.20	25.4	C		0.18	23.3	C
	SB	R	0.24	15.6	B	0.25	15.7	B		0.24	15.7	B
8. Smith Street & Atlantic Avenue (signalized)	EB	LT	0.64	20.1	C	0.53	17.3	B		0.51	16.3	B
	WB	TR	1.07	76.0	E	1.09	84.8	F	*	1.08	77.4	E
	NB	L	0.75	45.6	D	0.77	46.9	D		0.79	49.3	D
	NB	TR	0.63	39.5	D	0.64	39.7	D		0.65	41.2	D
12. Smith Street & Schermerhorn Street (signalized)	EB	LT	0.10	22.6	C	0.12	23.0	C		0.13	24.6	C
	NB	TR	0.89	49.4	D	0.92	53.9	D		0.89	48.5	D
	SB	L	0.76	65.6	E	0.84	77.9	E	*	0.76	64.3	E

Notes
Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
* Denotes impacted lane group.

Table 16
With-Action Condition with Mitigation at Impacted Lane Groups – Weekday Midday Peak Hour

Intersection	Appr.	Lane Group	No-Action Weekday Midday V/C Ratio	No-Action Weekday Midday Delay (sec/veh)	No-Action Weekday Midday LOS	With-Action Weekday Midday V/C Ratio	With-Action Weekday Midday Delay (sec/veh)	With-Action Weekday Midday LOS		With-Action Weekday Midday With Mitigation V/C Ratio	With-Action Weekday Midday With Mitigation Delay (sec/veh)	With-Action Weekday Midday With Mitigation LOS	
1. Columbia Street & Atlantic Avenue (signalized)	EB	T	0.14	23.7	C	0.14	23.7	C		0.13	21.2	C	
	WB	L	1.03	90.3	F	1.14	126.7	F	*	1.05	92.0	F	
	WB	LT	0.33	27.3	C	0.35	27.8	C		0.33	24.6	C	
	NB	LR	0.43	23.4	C	0.43	23.4	C		0.46	26.6	C	
	NB	R	0.58	27.5	C	0.58	27.5	C		0.63	31.7	C	
2. BQE NB Off-Ramp & Atlantic Avenue (signalized)	EB	L	0.94	62.5	E	0.97	70.5	E	*	0.96	66.9	E	
	EB	T	0.08	2.2	A	0.08	2.2	A		0.08	2.2	A	
	WB	R	0.57	16.5	B	0.62	17.7	B		0.62	17.7	B	
	WB	T	0.87	25.8	C	0.87	25.8	C		0.86	24.2	C	
	NB	L	0.15	51.2	D	0.15	51.2	D		0.15	51.2	D	
6. Court Street & Atlantic Avenue (signalized)	EB	TR	0.65	38.2	D	0.67	39.0	D		0.67	39.0	D	
	WB	L	0.63	59.7	E	0.63	59.7	E		0.63	59.7	E	
	WB	T	0.94	78.8	E	1.01	122.6	F	*	1.01	122.6	F	*
	SB	LTR	0.88	57.6	E	0.90	59.8	E		0.9	59.8	E	
7. Boerum Place & Atlantic Avenue (signalized)	EB	L	0.51	22.5	C	0.53	23.1	C		0.52	22.2	C	
	EB	TR	1.07	108.0	F	1.09	115.6	F	*	1.06	104.9	F	
	WB	LT	0.83	49.9	D	0.85	51.6	D		0.82	48.0	D	
	WB	R	0.84	20.9	C	0.90	27.2	C		0.89	26.5	C	
	SB	L	0.62	32.0	C	0.62	31.9	C		0.63	32.9	C	
	SB	T	0.49	30.4	C	0.49	30.4	C		0.50	31.4	C	
	SB	R	0.43	19.2	B	0.44	19.5	B		0.45	20.3	C	
8. Smith Street & Atlantic Avenue (signalized)	EB	LT	0.73	21.6	C	0.70	20.3	C		0.71	21.2	C	
	WB	TR	0.73	21.4	C	0.74	21.8	C		0.76	22.8	C	
	NB	L	0.84	68.4	E	0.86	71.3	E		0.83	65.7	E	
	NB	TR	0.87	79.4	E	0.90	84.2	F	*	0.87	77.8	E	
12. Smith Street & Schermerhorn Street (signalized)	EB	LT	0.14	23.2	C	0.15	23.4	C		0.16	24.2	C	
	NB	TR	0.59	30.7	C	0.61	31.6	C		0.61	31.6	C	
	SB	L	1.02	122.0	F	1.06	135.7	F	*	0.98	109.6	F	

Notes
Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
* Denotes impacted lane group.

Table 17
With-Action Condition with Mitigation at Impacted Lane Groups – Saturday Peak Hour

Intersection	Appr.	Lane Group	No-Action Saturday V/C Ratio	No-Action Saturday Delay (sec/veh)	No-Action Saturday LOS	With-Action Saturday V/C Ratio	With-Action Saturday Delay (sec/veh)	With-Action Saturday LOS		With-Action Saturday With Mitigation V/C Ratio	With-Action Saturday With Mitigation Delay (sec/veh)	With-Action Saturday With Mitigation LOS
1. Columbia Street & Atlantic Avenue (signalized)	EB	T	0.14	27.0	C	0.14	27.0	C		0.13	24.9	C
	WB	L	1.14	151.1	F	1.24	190.9	F	*	1.14	147.5	F
	WB	LT	0.35	31.1	C	0.37	31.5	C		0.34	28.8	C
	NB	LR	0.35	18.9	B	0.35	18.9	B		0.37	20.9	C
	NB	R	0.60	24.8	C	0.61	24.8	C		0.63	27.8	C
2. BQE NB Off-Ramp & Atlantic Avenue (signalized)	EB	L	0.95	63.6	E	0.97	70.5	E	*	0.96	66.4	E
	EB	T	0.08	2.8	A	0.08	2.8	A		0.08	2.8	A
	WB	R	0.52	15.4	B	0.56	16.2	B		0.56	16.2	B
	WB	T	0.83	22.6	C	0.83	22.6	C		0.82	21.3	C
	NB	L	0.12	47.7	D	0.12	47.7	D		0.12	47.7	D
6. Court Street & Atlantic Avenue (signalized)	EB	TR	0.42	21.2	C	0.44	21.5	C		0.45	22.2	C
	WB	L	1.15	180.7	F	1.16	183.4	F		1.16	183.4	F
	WB	T	0.77	25.9	C	0.82	29.2	C		0.83	30.8	C
	SB	LTR	1.04	95.4	F	1.05	99.8	F	*	1.02	87.9	F
7. Boerum Place & Atlantic Avenue (signalized)	EB	L	0.46	20.9	C	0.48	21.5	C		0.47	20.7	C
	EB	TR	0.88	107.6	F	0.91	124.8	F	*	0.88	106.2	F
	WB	LT	0.75	43.8	D	0.77	45.0	D		0.74	42.8	D
	WB	R	0.80	17.4	B	0.82	19.1	B		0.82	18.8	B
	SB	L	0.54	29.9	C	0.54	29.9	C		0.55	30.8	C
	SB	T	0.38	27.9	C	0.38	27.9	C		0.39	28.8	C
	SB	R	0.42	18.4	B	0.43	18.6	B		0.44	19.4	B
8. Smith Street & Atlantic Avenue (signalized)	EB	LT	0.71	23.7	C	0.71	24.0	C		0.73	25.2	C
	WB	TR	0.78	25.8	C	0.79	26.5	C		0.80	27.7	C
	NB	L	0.64	45.4	D	0.64	45.6	D		0.62	43.8	D
	NB	TR	0.95	90.6	F	0.97	95.3	F	*	0.95	87.5	F
12. Smith Street & Schermerhorn Street (signalized)	EB	LT	0.05	20.6	C	0.07	20.7	C		0.07	21.4	C
	NB	TR	0.64	33.4	C	0.65	33.9	C		0.65	33.9	C
	SB	L	1.12	148.1	F	1.15	160.3	F	*	1.05	126.4	F

Notes
Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
* Denotes impacted lane group.

Table 18
Comparison Summary of Traffic Impacts between FEIS & Newly Modified Projects

Peak Hour	Lane Groups/ Intersections Analyzed: FEIS	Lane Groups/ Intersections Analyzed: Newly Modified	Lane Groups/ Intersections With No Significant: FEIS	Lane Groups/ Intersections With No Significant: Newly Modified	Lane Groups/ Intersections With Significant Impacts: FEIS	Lane Groups/ Intersections With Significant Impacts: Newly Modified	Mitigated Lane Groups/ Intersections: FEIS	Mitigated Lane Groups/ Intersections: Newly Modified	Unmitigated Lane Groups/ Intersections: FEIS	Unmitigated Lane Groups/ Intersections: Newly Modified
Weekday AM	52/12	46/12	46/7	43/9	6/5	3/3	3/3	3/3	3/2	0/0
Weekday Midday	50/12	46/12	34/2	40/6	16/10	6/6	3/2	5/5	13/8	1/1
Saturday	50/12	46/12	39/4	40/6	11/8	6/6	5/3	6/6	6/5	0/0

Table 19
Comparison of Lane Groups with Potentially Unmitigated Significant Traffic Impacts

Intersections	Weekday AM		Weekday MD		Saturday	
	FEIS	TechMemo 2023	FEIS	TechMemo 2023	FEIS	TechMemo 2023
1. Columbia Street & Atlantic Avenue	--	--	WB-L	--	WB-L	--
5. Clinton Street & Atlantic Avenue	--	--	EB-LT,WB-TR	--	EB-LT,NB-LTR	--
6. Court Street & Atlantic Avenue	--	--	WB-T	WB-T	--	--
7. Boerum Place & Atlantic Avenue	EB-TR	--	EB-L, EB-TR, WBLT, SB-R	--	--	--
8. Smith Street & Atlantic Avenue	EB-LT,WB-TR	--	EB-LT,NB-L	--	EB-LT	--
10. State Street & Smith Street	--	--	NB-TR	--	--	--
11. Schermerhorn Street & Boerum Place	--	--	WB-LTR	--	WB-LTR	--
12. Schermerhorn Street & Smith Street	--	--	NB-TR	--	NB-TR	--

Note: NB-northbound; SB-southbound; EB-eastbound; WB-westbound; L-left-turn; T-through; R-right-turn

G. PEDESTRIANS

The FEIS concluded that the FEIS project at the Brooklyn Site would not potentially result in significant adverse impacts to the seven analyzed pedestrian elements (four corners and three sidewalks). For the newly modified project, an assessment of potential environmental pedestrian impacts is needed for one pedestrian element at the Brooklyn Site, which is provided below. This pedestrian element, the southeast corner of Boreum Place and State Street, is expected to exceed the 2021 *CEQR Technical Manual* analysis threshold of 200 trips/hour in the Saturday midday peak hour.

EXISTING

Recent pedestrian data at Boreum Place and State Street was obtained from AECOM to conduct the following pedestrian analysis. The 2022 pedestrian data at this intersection was compared to 2018 data (collected for the FEIS) to determine a conservative factor of growth in pedestrian volumes at the southeast corner of the intersection. Field inventory conducted in 2023 showed that the geometry at the southeast corner of Boreum Place and State Street has remained unchanged since the completion of the FEIS except for temporary construction scaffolding along the adjacent sidewalks. The most recent signal timing plan for this intersection was also obtained from NYCDOT.

CORNER

Table 20 shows the average pedestrian space (in sf/ped) and level of service at the analyzed corner area. As shown in **Table 20**, the analyzed corner currently operates at an uncongested LOS A in the analyzed weekday midday peak hour.

Table 20
Existing Corner Conditions – Weekday Midday

Intersection	Corner	Average Pedestrian Space (ft^2/ped)	Level of Service
State Street & Boerum Place	Southeast	528.1	A

NO ACTION CONDITION

NO ACTION PEDESTRIAN GROWTH

Between 2023 and 2029, it is expected that transportation demand in the vicinity of the Brooklyn Site will increase due to long-term background growth as well as development that could occur pursuant to existing zoning. The No-Action pedestrian volumes reflect annual background growth rates of 0.25 percent per year through 2028 and 0.125 percent per year for 2028 through 2029. These background growth rates, recommended in the *CEQR Technical Manual* for projects in Downtown Brooklyn, are applied to account for smaller projects and general increases in travel demand not attributable to specific development projects. As was also done for the traffic analysis, discrete demand from major development projects in proximity of the analyzed corner is also reflected in the No-Action pedestrian network. (refer to sites in **Table 10**).

CORNER

Table 21 shows the average pedestrian space and LOS at the analyzed corner area in the No-Action condition. As shown in **Table 21**, the analyzed corner area is expected to continue to operate at an uncongested LOS A in the analyzed weekday midday peak hour in the future without the proposed project. It should be noted that the analysis of future conditions does not reflect current construction condition along the site frontages and uses dimensions comparable to the FEIS pedestrian analysis.

Table 21
No-Action Corner Conditions – Weekday Midday

Intersection	Corner	Average Pedestrian Space (ft^2/ped)	Level of Service
State Street & Boerum Place	Southeast	405.3	A

WITH ACTION CONDITION

CORNER

Table 22 shows the average pedestrian space and LOS at the analyzed corner area in the With-Action condition. As shown in **Table 22**, the analyzed corner area is expected to continue to operate at an uncongested LOS A in the analyzed weekday midday peak hour in the future with the newly modified project. As such, consistent with the FEIS, a significant adverse pedestrian impact is not likely as a result of the newly modified project based on the *CEQR Technical Manual* impact criteria. It should be noted that the analysis of future conditions does not reflect current construction condition along the site frontages and uses dimensions comparable to the FEIS pedestrian analysis.

Table 22
With-Action Corner Conditions – Weekday Midday

Intersection	Corner	Average Pedestrian Space (ft^2/ped)	Level of Service
State Street & Boerum Place	Southeast	250.7	A

H. PARKING

EXISTING

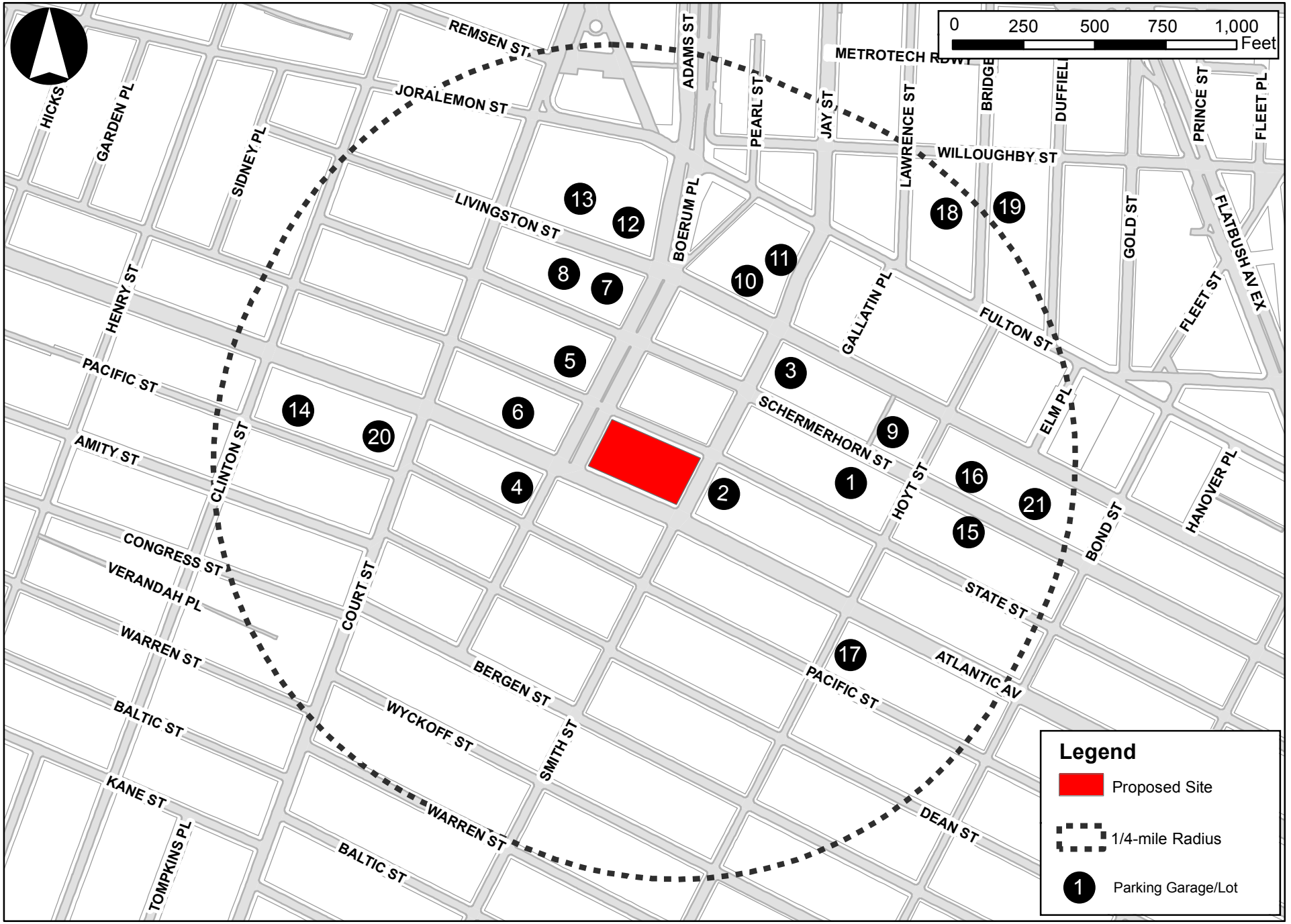
OFF-STREET PARKING

Based on a 2023 off-street parking survey, there are currently 21 off-street public parking facilities located within approximately ¼-mile of the Brooklyn Site. **Figure 7** shows the locations of these parking facilities and **Table 23** provides a summary of their names, addresses, license numbers, capacities, and estimated utilization during the weekday early morning, weekday midday, and the Saturday midday periods. Based on field observations and interviews with parking attendants conducted in late 2023, the 21 parking facilities have a combined licensed capacity of 3,106 spaces during the weekday early morning period, 3,174 spaces during the weekday midday period, and 3,106 spaces during the Saturday midday period. Two of these facilities (Nos. 10 and 11 in **Table 23**) are closed during the weekday early morning period and the weekends. Approximately 52 percent and 50 percent of off-street spaces within the parking study area are utilized during the weekday early morning and midday periods, respectively, leaving a residual supply of approximately 1,490 and 1,576 available parking spaces during these same periods, respectively. During the Saturday midday period, approximately 34 percent of spaces are utilized, leaving a residual supply of approximately 2,053 available parking spaces.

ON-STREET PARKING

A recent inventory of existing parking regulations within a ¼-mile radius of the Brooklyn Site was compiled from field surveys and online sources. On-street public parking is generally governed by alternate-side-of-the-street regulations to facilitate street cleaning as well as some regulations for authorized parking in vicinity of the Brooklyn Site. Some more restrictive regulations were observed at locations where additional traffic flow capacity is needed. Based on existing curbside parking regulations and taking into account curb space obstructed by curb cuts, fire hydrants, and other impediments, there are a total of approximately 1,933 legal curbside parking spaces during the weekday early morning period and 1,836 spaces during the weekday midday period within ¼-mile of the site, while during the Saturday midday period there are a total of approximately 1,902 legal curbside parking spaces.

As shown in **Table 24**, based on data collected during field surveys conducted in within ¼-mile of the site in early 2024, on-street parking within the overall parking study area is approximately 80, 97, and 93 percent utilized during the weekday early morning, weekday midday, and Saturday midday periods, respectively. Approximately 395, 51, and 130 on-street parking spaces are currently available within the study area during each of these periods, respectively.



Borough Based Jails - Brooklyn

Figure 7

Off-Street Parking Facilities

Table 23
Existing Off-Street Public Parking Facilities

Map No.	Garage	Address	License Number	Capacity	Utilization			Available Capacity		
					Weekday Early AM	Weekday Midday	Saturday Midday	Weekday Early AM	Weekday Midday	Saturday Midday
1	Edison NY Parking, LLC	182 Schermerhorn Street	2102186-DCA	150	15%	11%	15%	127	134	128
2	75 Smith Street Garage, LLC	75 Smith Street	2099899	64	80%	80%	80%	13	13	13
3	Edison NY Parking, LLC	160 Livingston Street	926765	145	33%	77%	41%	97	34	85
4	Atlantic Garage Management, LLC	238 Atlantic Avenue[1]	2052721	130	50%	80%	70%	65	26	39
5	MP Together, LLC	205 State Street	1214412	131	95%	42%	38%	6	76	81
6	Park Kwik, LLC	211 Atlantic Avenue	1178703	700	80%	50%	35%	140	350	455
7	Park Kwik, LLC	110 Livingston Street	1244225	225	53%	66%	44%	105	76	125
8	Edison NY Parking, LLC	75 Schermerhorn Street	1441857	198	58%	92%	32%	83	16	135
9	WOC Schermerhorn Garage Company, LLC	189 Schermerhorn Street	2041027-DCA	200	35%	80%	30%	130	40	140
10	Smith & Livingston Parking, LLC (G)	141 Livingston Street	2059649	18	Closed	161%	Closed	Closed	0	Closed
11	Smith & Livingston Parking, LLC (L)	22 Smith Street	2078637	50	Closed	28%	Closed	Closed	36	Closed
12	Livingston Car Park, LLC	111 Livingston Street	1100843	150	50%	20%	30%	75	120	105
13	Supreme 85 Parking, LLC	85 Livingston Street	1416193	160	20%	30%	30%	128	112	112
14	P.A.T.	165 Pacific Street	366200	30	43%	43%	40%	17	17	18
15	AP Schermerhorn Management, LLC	200 Schermerhorn Street	2051014	148	11%	19%	3%	131	120	143
16	Hoyt & Schermerhorn Parking, LLC	197 Schermerhorn Street	2078116	120	90%	4%	4%	12	115	115
17	C.N.A. Parking	99 Hoyt Street	1019603	10	90%	70%	50%	1	3	5
18	388 Garage, LLC	388 Bridge Street	2117275-DCWP	139	22%	14%	58%	109	119	59
19	Brookyln Metro Parking, LLC	100 Willoughby Street	2046303	167	9%	30%	3%	152	117	162
20	Laz Parking NY/NJ LLC	185 Pacific Street	2115077	130	50%	80%	70%	65	26	39
21	Laz Parking NY/NJ LLC	225 Schermerhorn Street	2114434-DCA	109	69%	76%	14%	34	26	94
			Total Weekday Early Morning	3,106	52%			1,490		
			Total Weekday Midday	3,174		50%			1,576	
			Total Saturday Midday	3,106			34%			2,053

Note:
[1]No response at 185 Pacific Street (assumed same utilization rate as nearby garage at 238 Atlantic Avenue).

Table 24
Existing On-Street Parking Utilization

	Legal Curbside Spaces	Estimated Utilization	Available Capacity
Weekday Early Morning	1,933	80%	395
Weekday Midday	1,836	97%	51
Saturday Midday	1,902	93%	130

Note : Some parking capacity reduction from 2018 as result of street improvements for new bikes lanes, lane configurations, bus lanes, CitiBike stands, outdoor dining, and other changes.

NO-ACTION CONDITIONS

Between 2023 and 2029, it is expected that parking demands in the vicinity of the Brooklyn Site will increase due to long-term background growth as well as developments expected to occur in the vicinity. The No-Action parking demand reflects annual background growth rates of 0.25 percent per year through 2028 and 0.125 percent per year for 2028 through 2029. These background growth rates, recommended in the *CEQR Technical Manual* for projects in Downtown Brooklyn, are applied to account for smaller projects and general increases in parking demand not attributable to specific development projects. As was also done for the traffic and pedestrian analyses, discrete demand from major development projects within or near the ¼-mile study area is also reflected in the No-Action demand (refer to Sites in **Table 10**).

No change in public parking capacity is anticipated under the No-Action condition within the ¼-mile study area. Future No-Action demand was determined by applying general background growth as well as discrete demand from planned developments near the site that would not provide sufficient accessory parking space. As shown in **Table 25**, based on the increased demand under the No-Action condition, weekday early morning, weekday midday, and Saturday midday overall public parking utilization within the study area is expected to increase to 73 percent, 71 percent, and 64 percent of capacity, with no deficit of spaces during any peak hour.

Table 25
No-Action Public Parking Capacity, Demand and Utilization

		Weekday Early AM	Weekday Midday	Saturday Midday
Public Parking Capacity				
Existing Condition	*Off-Street Supply*	*3,106*	*3,174*	*3,106*
	On-Street Supply	1,538	1,785	1,772
	Total Existing Supply	4,644	4,959	4,878
No-Action	**Total No-Action Supply**	4,644	4,959	4,878
Public Parking Demand				
Existing Condition	*Off-Street Demand*	1,616	1,598	1,053
	On-Street Demand	1,538	1,785	1,772
	Total Existing Demand	3,154	3,383	2,825
No-Action Condition	*Incremental Background Growth Demand*	44	47	39
	Estimated Demand No-Action Developments	576	509	614
	Total No-Action Demand	3,774	3,939	3,478
Parking Utilization				
No-Action	**Public Parking Utilization**	81%	79%	71%
	Public Parking Surplus/(Deficit)	870	1,020	1,400

WITH-ACTION CONDITIONS

As discussed previously, **Tables 5** and **6** present the hourly net incremental change in parking demand generated by the site under the With-Action condition. As shown in **Tables 5** and **6**, incremental parking demand generated by the newly modified project would peak just before the start of the uniformed staff shift change periods. The on-site staff parking would be unable to accommodate all parking demand generated by the newly modified project during the day, from the early morning to the mid-afternoon. In the weekday early morning period, total incremental parking demand would peak at 128 spaces during the 6:00-7:00 AM hour. In the weekday and Saturday midday periods (2:00-3:00 PM), peak parking demand would total 166 and 129 spaces, respectively. Given the limited parking capacity on-site, in the weekday early morning period (6:00-7:00 AM), approximately 128 autos would need to utilize public parking within the study area. In the weekday and Saturday midday periods (2:00-3:00 PM), approximately 166 and 129 autos would need to utilize public parking within the study area, respectively. In addition, although demand from the existing detention facility would be accommodated by the on-site parking facility during the weekday early morning and Saturday, weekday midday demand in excess of the proposed 100 spaces on the future facility would also need to utilize public parking within the study area. In the weekday midday period, approximately 36 autos would need to utilize public parking within the study area. It should also be noted that up to six on-street spaces (three on State Street and three on Smith Street) would be displaced due to the introduction of new curb cut needed to allow entry/exiting to and from the future sally port, loading dock and staff parking entrances.

As shown in **Table 26**, the area public parking supply would be able to adequately accommodate the excess parking demand expected to be generated by the newly modified project as well as any displaced demand. Consistent with the FEIS, the newly modified project would result in an overall increase in the future parking demand that would affect the study area's parking; however, the potential for a parking shortfall as a result of the newly modified project is unlikely because of the availability of on and off-street parking in the study area.

Table 26
With-Action Public Parking Capacity, Demand and Utilization

		Weekday Early AM	Weekday Midday	Saturday Midday
Public Parking Capacity				
No-Action Condition	**Total No-Action Supply**	4,644	4,959	4,878
With-Action Condition	*Displaced On-Street Parking on Site Frontage*	-6	-6	-6
	Total With-Action Supply	4,638	4,953	4,872
Public Parking Demand				
No-Action Condition	**Total No-Action Off-Street Parking Demand**	3,774	3,939	3,478
With-Action Condition	*Excess Existing Demand to Divert*	0	36	0
	Incremental Project Parking Demand	128	166	129
	Total With-Action Off-Street Parking Demand	3,902	4,141	3,607
Parking Utilization				
With-Action Condition	**Public Parking Utilization**	84%	84%	74%
	Public Parking Surplus/Deficit	736	812	1,265

I. STREET USER SAFETY

RECENT NYCDOT INITIATIVES

VISION ZERO BROOKLYN PEDESTRIAN SAFETY ACTION PLAN

Since the publication of the FEIS, the City's Vision Zero initiative has been updated. The *Vision Zero Brooklyn Pedestrian Safety Action Plan* was initially released on February 19, 2015. The *Vision Zero Brooklyn Pedestrian Safety Action Plan Update*, released in 2019, identifies Atlantic Avenue, Fulton Street, and Court Street as "Priority Corridors," the intersections of Atlantic Avenue at Clinton Street, Court Street, and Hoyt Street as "Priority Intersections," and the Project Site being located within a "Priority Area". Actions (most of which have not changed from the FEIS) recommended in the *Vision Zero Brooklyn Pedestrian Safety Action Plan* to enhance pedestrian safety in Brooklyn are summarized below.

<u>Engineering And Planning</u>

- Implement at least 50 Vision Zero safety engineering improvements at Priority Corridors, Intersections, and Areas citywide, informed by community input.
- Expand exclusive pedestrian crossing time, install expanded speed limit signage, and modify signal timing to reduce off-speak speeding on Priority Corridors and Intersections where feasible.
- Expand community outreach and engagement with regard to Priority Corridors, Intersections, and Areas.
- Expand the off-hour delivery program to reduce truck conflicts with pedestrians.
- Coordinate with MTA to ensure bus operations contribute to a safe pedestrian environment.
- Expand a bicycle network in Brooklyn that improves safety for all road users.

- Proactively design for pedestrian safety in high-growth areas in Brooklyn.

Enforcement

- Deploy speed cameras at Priority Corridors, Intersections, and Areas.
- Focus enforcement and deploy dedicated resources to Brooklyn NYPD precincts that overlap substantially with Priority Areas.
- Prioritize targeted enforcement at all Priority Corridors, Intersections, and Areas annually.
- Focus failure-to-yield enforcement on nighttime hour (9 PM to midnight).
- Initiate a series of target truck enforcement blitzes to reduce failure to yield and keep trucks on truck routes.

Education And Awareness Campaigns

- Target child and senior safety education at Priority Corridors and Priority Areas.
- Target intensive street-level outreach at Priority Corridors, Intersections, and Areas.

STUDY AREA HIGH CRASH LOCATIONS

Crash data for analyzed intersections in the traffic and pedestrian study areas were obtained from NYCDOT for the three-year period between January 1, 2017 and December 31, 2019 (the most recent three-year period for which data are available). The data quantifies the total number of reportable and non-reportable crashes (reportable crashes are those involving a fatality, injury, or more than $1,000 in property damage), as well as the total number of crashes involving injuries to pedestrians or bicyclists. During the three-year reporting period, a total of 797 reportable and non-reportable crashes, 437 total injuries, 172 pedestrian/bicyclist-related injury crashes, and one fatality occurred at study area intersections. **Table 27** provides a summary of these crashes by year and location, including a breakdown of pedestrian and bicycle crashes.

According to the 2021 *CEQR Technical Manual*, a high crash location is defined as any analysis location identified at Vision Zero priority intersections or intersections 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 analysis location along a Vision Zero priority corridor with three or more pedestrian/bicyclist injury crashes in any consecutive 12 months of the most recent 3-year period for which data is available should be identified as a high crash location. As shown in **Table 27**, five intersections have been identified as high crash locations based on the criteria outlined above and are discussed below. All of these five intersections have been included in the traffic analyses, discussed above.

Table 27
Crash Data Summary

Intersection		Pedestrian Injury Crashes			Bicycle Injury Crashes			Total Pedestrian/Bicyclist Injury Crashes			Total Crashes (Reportable + Non-Reportable)		
		2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019
COURT STREET	WARREN STREET	0	0	0	1	0	0	1	0	0	3	6	0
	WYCKOFF STREET	1	2	0	0	0	0	1	2	0	1	2	1
	DEAN STREET	0	0	0	0	0	0	0	0	0	1	4	3
	PACIFIC STREET	0	0	2	0	1	0	0	1	2	3	5	6
	STATE STREET	0	1	2	0	0	0	0	1	2	1	5	5
	SCHERMERHORN STREET	1	0	1	0	0	0	1	0	1	2	3	5
	LIVINGSTON STREET	1	1	2	1	0	0	2	1	2	3	5	5
	REMSEN STREET	2	0	2	0	1	0	2	1	2	3	2	5
	JORALEMON STREET	1	1	0	1	0	0	2	1	0	4	7	4
BERGEN STREET	COURT STREET	1	1	0	0	0	1	1	1	1	3	2	4
	BOERUM PLACE	0	0	1	0	0	0	0	0	1	1	0	1
	HOYT STREET	0	0	0	1	0	1	1	0	1	1	2	1
SMITH/JAY STREET	WARREN STREET	0	1	0	0	0	1	0	1	1	1	2	2
	WYCKOFF STREET	0	1	0	2	1	0	2	2	0	2	6	0
	BERGEN STREET	1	1	1	1	1	1	2	2	2	2	4	3
	DEAN STREET	1	0	0	1	0	0	2	0	0	3	5	6
	PACIFIC STREET	1	0	0	0	0	0	1	0	0	1	1	5
	ATLANTIC AVENUE	1	0	2	2	1	1	3	1	3	6	15	18
	STATE STREET	0	0	0	1	0	0	1	0	0	2	0	3
	SCHERMERHORN STREET	0	2	0	2	4	0	2	6	0	3	11	4
	LIVINGSTON STREET	3	1	3	1	1	0	4	2	3	4	9	10
	FULTON STREET	0	2	1	0	1	1	0	3	2	0	4	3
	WILLOUGHBY STREET	2	1	1	0	2	1	2	3	2	4	8	6
BOERUM PLACE	DEAN STREET	0	0	0	1	0	0	1	0	0	1	2	0
	PACIFIC STREET	0	0	0	0	0	0	0	0	0	0	4	2
	STATE STREET	0	2	0	2	1	1	2	3	1	5	7	10
	SCHERMERHORN STREET	0	0	2	0	3	0	0	3	2	4	5	12
	LIVINGSTON STREET / RED	1	1	1	1	0	1	2	1	2	7	16	13
	FULTON	0	3	0	0	0	2	0	3	2	5	13	9
HOYT STREET	WYCKOFF STREET	0	1	0	0	0	0	0	1	0	0	2	2
	DEAN STREET	2	0	1	0	0	0	2	0	1	3	5	3
	PACIFIC STREET	0	0	0	0	0	1	0	0	1	2	2	3
	STATE STREET	0	0	0	0	0	0	0	0	0	0	0	2
	SCHERMERHORN STREET	1	1	0	0	0	1	1	1	1	4	5	8
	LIVINGSTON STREET	1	1	2	0	0	0	1	1	2	3	6	6
	FULTON STREET	0	0	0	0	0	0	0	0	0	1	0	1
ATLANTIC AVENUE	HOYT STREET	1	0	2	1	2	0	2	2	2	6	11	10
	HICKS STREET	1	0	2	1	1	0	2	1	2	16	25	18
	HENRY STREET	0	1	2	0	1	0	0	2	2	0	9	8
	CLINTON STREET	2	1	0	0	1	2	2	2	2	6	14	7
	COURT STREET	4	6	1	1	0	1	5	6	2	11	12	14
	BOERUM PLACE	3	3	0	1	0	0	4	3	0	18	35	24
	COLUMBIA STREET / FURMAN	0	0	0	0	1	0	0	1	0	5	10	11
	BROOKLYN QUEENS EXPWY ET	0	0	0	0	0	0	0	0	0	0	1	1
CLINTON STREET	AMITY STREET	1	0	0	0	0	0	1	0	0	2	0	2
	PACIFIC STREET	0	0	0	0	0	0	0	0	0	2	4	1
	STATE STREET	0	0	0	0	0	0	0	0	0	1	1	1
	SCHERMERHORN STREET	0	0	0	0	0	1	0	0	1	1	5	2
	AITKEN PLACE / LIVINGSTON	0	0	0	0	0	0	0	0	0	2	0	1
LIVINGSTON STREET	GALLATIN PLACE	0	0	0	0	0	0	0	0	0	3	4	7
	ELM PLACE	0	1	0	0	0	0	0	1	0	4	2	3
WILLOUGHBY STREET	PEARL STREET	0	0	0	0	0	0	0	0	0	1	1	5
	LAWRENCE STREET	1	2	1	0	0	0	1	2	1	1	4	1
FULTON STREET	BRIDGE STREET	0	1	0	2	0	0	2	1	0	2	5	2
	DUFFIELD STREET	0	0	0	0	0	0	0	0	0	0	2	2
	ELM PLACE	0	0	1	0	0	0	0	0	1	1	1	3
	LAWRENCE STREET/GALLATIN	0	0	2	0	0	0	0	0	2	3	4	4

Note: Shading denotes high crash locations

ATLANTIC AVENUE AT CLINTON STREET

This is a Vision Zero Priority Intersection. A total of two pedestrian injury crashes and zero bicycle injury crashes occurred at this intersection in 2017, one pedestrian injury crash and one bicycle injury crash occurred in 2018, and zero pedestrian injury crashes and two bicycle injury crashes occurred in 2019. The intersection is signalized and includes pedestrian signals with countdown clocks and striped crosswalks at each approach. Along Clinton Street, there is an unprotected bike lane adjacent to the parking lane located along the western curb. All pedestrian and bicycle injury crashes occurred when the road surface was dry during clear and cloudy weather conditions with the exception of one 2018 pedestrian injury crash that occurred on a wet road surface during rainy weather conditions. The two bicycle injury crashes in 2019 occurred in the dark with the street lighting. It is worth noting that Clinton Street appears to have less street lighting near the intersection with Atlantic Avenue.

ATLANTIC AVENUE AT COURT STREET

A total of four pedestrian injury crashes occurred in 2017, six in 2018, and one in 2019 at this intersection. A total of two bicycle crashes occurred within the study period; one bicycle injury crash occurred at this intersection in 2017, zero bicycle injury crashes occurred in 2018, and one bicycle injury crash occurred in 2019. The intersection is signalized and includes pedestrian signals with countdown clocks and striped crosswalks at each approach. All the pedestrian injury crashes occurred during daylight, except for two crashes that occurred in the dark and one crash not reported in 2017. In addition, all pedestrian injury crashes in 2018 occurred on dry road surfaces with the exception of two that occurred on a wet road surface, one of these were reported with rainy conditions. The two bicycle injury crashes occurred in clear weather with a dry road surface. There does not seem to be apparent contributing factor to the pedestrian crashes that occurred in 2017 and 2018 other than the reported "failure to yield." However, it should be noted that there was construction with scaffolding on the northeast corner of the intersection in 2017 and 2018. In addition, this intersection is included in a major safety project of New York City's Vision Zero Plan.

ATLANTIC AVENUE AT BOERUM PLACE

A total of three pedestrian injury crashes and one bicycle injury crash occurred in 2017, three pedestrian injury crashes and zero bicycle injury crashes occurred in 2018, and zero pedestrian and bicycle injury crashes occurred in 2019. One crash in 2017 was reported to be in the dark with street lightning and cloudy weather, and another crash in 2018 occurred in the dark with street lighting. The intersection is signalized and includes pedestrian signals with countdown clocks and striped crosswalks at each approach. A southbound unprotected bike lane is located along Boerum Place near the western curb. There is also a northbound unprotected bike lane located along Boerum Place adjacent to the parking lane near the eastern curb. This intersection has an irregular geometry with the Boerum Place northbound approach beginning at Atlantic Avenue and the southbound approach continuing past Atlantic Avenue. In addition, north of Atlantic Avenue, the Boerum Place northbound and southbound vehicular traffic lanes are separated by a pedestrian island. This intersection is included in a major safety project in New York City's Vision Zero Plan, which will most likely result in improved safety. In 2017 and 2018, the Boerum Place southbound approach had an additional pedestrian island/median that divided vehicular traffic. However, in 2019, one island/median was removed and the other pedestrian island that currently separates northbound and southbound vehicular traffic was widened.

SMITH STREET AT SCHERMERHORN STREET

A total of zero pedestrian injury crashes and two bicycle injury crashes occurred in 2017, two pedestrian injury crashes and four bicycle injury crashes occurred in 2018, and no pedestrian and bicycle injury crashes occurred in 2019. The intersection is signalized and includes pedestrian signals with countdown clocks and striped crosswalks at each approach. In addition, there is a pedestrian island located on the south crosswalk. All the pedestrian injury crashes involved pedestrians crossing with the signal. Of the six bicycle injury crashes, four occurred in the dark with street lighting. A lack of protected bike lanes and poor lighting along Smith Street may have contributed to the bicycle injury crashes. However, protected bike lanes located along the eastern and western curb of Smith Street were installed in 2020 (from conventional bike lanes during the study period), which would likely improve bicyclist safety at this intersection. Based on improvements shared by DOT, Schermerhorn Street has planned upgrades to its bike lanes underway. In addition, this intersection is included in a major safety project of New York City's Vision Zero Plan, which will most likely further enhance the safety of the intersection.

ATLANTIC AVENUE AT SMITH STREET

A total of one pedestrian injury crash and two bicycle injury crashes occurred in 2017, zero pedestrian injury crashes and one bicycle injury crash occurred in 2018, and two pedestrian injury crashes and one bicycle injury crash occurred in 2019. The intersection is signalized and includes pedestrian signals with countdown clocks and striped crosswalks at each approach. Along Smith Street, there is an unprotected bike lane adjacent to the parking lane located along the eastern curb. All four bicycle injury crashes occurred in daylight and on a dry road surface, except for the 2018 bicycle injury crash that occurred on a wet road surface. Both pedestrian injury crashes in 2019 occurred when the pedestrian was crossing with the signal in the dark with street lighting. Since then, New York City has installed a leading pedestrian interval (LPI).

J. CONCLUSION

This Technical Memorandum concludes that the newly modified project would not result in any new or different significant adverse transportation impacts not already identified in the approved FEIS. However, the newly modified project would result in fewer impacted lane groups; more mitigatable impacted lane groups; and far fewer unmitigated lane groups, as compared to the approved FEIS.

Prepared by:

Philip Habib
Principal
Philip Habib & Associates

March 26, 2024
Date

Submitted by:

Patrick Benn
Deputy Commissioner
NYC Department of Correction

3/26/24
Date

✶