A. INTRODUCTION

This section considers mitigation measures to address potential significant adverse impacts generated by the proposed project at the Brooklyn Site. The potential for significant adverse impacts were identified in the technical areas of historic and cultural resources, transportation, construction-period transportation and construction-period noise. Measures have been examined to minimize or eliminate these anticipated impacts, and are discussed below.

As described below, measures to further mitigate adverse impacts will be refined and evaluated between the Draft and Final EIS. Therefore, the Final EIS may include more complete information and commitments on all practicable mitigation measures to be implemented with the proposed project.

B. PRINCIPAL CONCLUSIONS

HISTORIC AND CULTURAL RESOURCES

As discussed in Section 3.5, "Historic and Cultural Resources-Brooklyn," the Brooklyn Central Courthouse (also known as the Kings County Criminal Court) at 120 Schermerhorn Street is located within 90 feet of the project site. To avoid the potential for direct, physical impacts to the courthouse building during construction of the proposed project, a Construction Protection Plan (CPP) would be developed in coordination with the New York City Landmarks Preservation Commission (LPC) and implemented in consultation with a licensed professional engineer. The Brooklyn Central Courthouse would also potentially be directly and indirectly impacted through the construction of new pedestrian bridges from 275 Atlantic Street to the courthouse. Mitigation cannot be fully defined due to the fact that there are no designs or details with respect to the proposed pedestrian bridges. Therefore, to minimize or mitigate the potential significant adverse impact to the historic appearance of the State Street façade of the courthouse resulting from the construction of pedestrian bridges, consultation would be undertaken with LPC regarding their design and how and where the bridges would connect to the south façade of the Brooklyn Central Courthouse. Following consultation with LPC, if the significant adverse impact of the new pedestrian bridges cannot be fully or partially mitigated, the bridges would constitute an unmitigated adverse impact. The Applicant may also consider other options, such as the potential construction of a tunnel from 275 Atlantic Avenue to 120 Schermerhorn Street, which would avoid the significant adverse impact.

TRANSPORTATION

As discussed in Section 3.9, "Transportation-Brooklyn," the proposed project would have the potential to result in significant adverse impacts to vehicular traffic at 10 analyzed intersections during some or all of the analyzed peak periods. Mitigation measures that could address these potential traffic impacts are discussed below. In addition, as discussed in Section 3.9, there is no

anticipated potential for transit, pedestrian, or parking-related impacts likely as a result of the proposed project; therefore, those transportation modes will not be discussed below.

Traffic

As described in Section 3.9, "Transportation-Brooklyn," the proposed project would have the potential to result in significant adverse traffic impacts at 10 study area intersections during one or more analyzed peak hours; specifically, 7 lane groups at six analyzed intersections during the analyzed weekday AM peak hour, 18 lane groups at 10 analyzed intersections during the analyzed midday peak hour, and 10 lane groups at 7 analyzed intersections during the analyzed Saturday peak hour. Implementation of signal timing changes are being proposed and would provide mitigation for some of the potential traffic impacts. These proposed traffic engineering improvements are subject to review and approval by the New York City Department of Transportation (DOT). If these measures are deemed infeasible, other potential measures will be considered in consultation with DOT. In the absence of the application of mitigation measures, the impacts would remain unmitigated.

Table 3.15-1 shows, assuming all the proposed mitigation measures were to be implemented, that potential significant adverse impacts would be fully mitigated at four lane groups at four analyzed intersections during the analyzed weekday AM peak hour, four lane groups at three analyzed intersections in the analyzed midday peak hour, and four lane groups at two analyzed intersections during the analyzed Saturday peak hour. **Table 3.15-2** provides a more detailed summary of the analyzed intersections and lane groups that have the potential for unmitigated significant adverse traffic impacts. As shown in **Table 3.15-2**, impacts would remain at three lane groups at two analyzed intersections during the analyzed weekday AM peak hour, at 14 lane groups at eight intersections during the analyzed weekday midday peak hour, and 6 lane groups at five analyzed intersections during the analyzed Saturday peak hour.

Table 3.15-1
Summary of Lane Groups/Intersections with Potentially Significant Adverse Traffic Impacts

Net Increment	Lane Groups/ Intersections Analyzed	Lane Groups/ Intersections With No Significant Impacts	Lane Groups/ Intersections With Significant Impacts	Mitigated Lane Groups/ Intersections	Unmitigated Lane Groups/ Intersections
Weekday AM	52/12	45/6	7/6	4/4	3/2
Weekday Midday	50/12	32/2	18/10	4/2	14/8
Saturday	50/12	40/5	10/7	4/2	6/5

Table 3.15-2
Lane Groups With Potentially Unmitigated Significant Adverse Traffic Impacts

Intersection	Peak Hour		
	Weekday AM	Weekday Midday	Saturday
Columbia Street and Atlantic Avenue	---	WB-L	WB-L
Clinton Street and Atlantic Avenue	---	EB-LT, WB-TR	EB-LT, NB-LTR
Court Street and Atlantic Avenue	---	WB-T	---
Boerum Place and Atlantic Avenue	EB-TR	EB-L, EB-TR, WB-LT, SB-R	---
Smith Street and Atlantic Avenue	EB-LT, WB-TR	EB-LT, NB-L	EB-LT
State Street and Smith Street	---	NB-TR	---
Schermerhorn Street and Boerum Place	---	WB-LTR	WB-LTR
Schermerhorn Street and Smith Street	---	NB-L, NB-TR	NB-TR

Notes:
NB—northbound, SB—southbound, EB—eastbound, WB—westbound L—left-turn, T—through, R—right-turn

CONSTRUCTION

Construction Traffic

As described in Section 3.14, "Construction-Brooklyn," traffic conditions during the period when construction-related traffic is anticipated to be highest were evaluated. The analysis determined that construction traffic associated with peak construction period activity would have the potential to result in significant adverse traffic impacts at 14 study area intersections during one or more analyzed construction period peak hours. Specifically, 18 lane groups at 12 analyzed intersections during the construction AM peak hour and 15 lane groups at 11 analyzed intersections during the construction midday peak hour. Although these impacts would be temporary, measures to address these temporary impacts were considered. Implementation of signal-timing changes are being proposed and would provide mitigation for some of the temporary traffic impacts. These proposed traffic engineering improvements are subject to review and approval by DOT. In the absence of the application of mitigation measures, the potential temporary impacts would remain unmitigated.

Table 3.15-3 shows that with the implementation of all of the proposed mitigation measures, potential significant adverse impacts due to construction-related vehicle trips would be fully mitigated at eight lane groups at six analyzed intersections during the construction AM peak hour. During the construction midday peak hour, five lane groups at five analyzed intersections would be fully mitigated. **Table 3.15-4** provides a more detailed summary of the intersections and lane groups that have the potential for unmitigated significant adverse traffic impacts during construction. As shown in **Table 3.15-4**, potential impacts would remain at 10 lane groups at eight analyzed intersections during both the analyzed construction AM and midday peak hours.

Table 3.15-3
Summary of Lane Groups/Intersections with Potentially Significant Adverse Traffic Impacts

Net Increment	Lane Groups/ Intersections Analyzed	Lane Groups/ Intersections With No Significant Impacts	Lane Groups/ Intersections With Significant Impacts	Mitigated Lane Groups/ Intersections	Unmitigated Lane Groups/ Intersections
AM Peak Hour	73/15	55/3	18/12	8/4	10/8
Midday Peak Hour	76/15	61/4	15/11	5/3	10/8

Table 3.15-4
Lane Groups With Potentially Unmitigated Significant Adverse Traffic Impacts

Intersection	AM Peak Hour	Midday Peak Hour
Columbia Street and Atlantic Avenue	NB-R	WB-L
Hicks Street and Atlantic Avenue	EB-LT	---
Clinton Street and Atlantic Avenue	EB-LT	WB-TR
Court and Atlantic Avenue	---	WB-T
Smith Street and Atlantic Avenue	EB-LT, WB-TR, NB-TR	---
Bond Street and Atlantic Avenue	WB-TR	
Nevins Street and Atlantic Avenue	---	SB-LTR
Smith Street and Livingston Street	SB-TR	EB-LTR
Boerum Place and Livingston Street	---	EB-L, EB-TR
Adams Street and Livingston Street	WB-L	NB-TR
Jay Street and Livingston Street	SB-TR	NB-R, SB-L

Notes:
NB—northbound, SB—southbound, EB—eastbound, WB—westbound L—left-turn, T—through, R—right-turn

A Construction Transportation Monitoring Plan (CTMP) will be developed by the Department of Design and Construction (DDC) prior to commencement of construction-related activities. The CTMP will include transportation data collection as well as traffic and pedestrian analyses. The data collection will include traffic and pedestrian counts, worker shift schedules, worker origin-destination and modal split survey data, parking surveys, and truck frequency data. A traffic management plan for the project would be developed as part of the CTMP in order to address the effect of construction-related activity on transportation systems and verify the need for implementing construction-related mitigation measures identified in this EIS or additional measures if warranted. The CTMP would be submitted to DOT and OCMC for review and approval and would be an on-going process for addressing the effects of construction.

The analyzed traffic locations as well as others that may experience temporary disruptions would be included in the CTMP that would be initiated at the start of construction. Because detailed plans for the proposed detention facility and detailed construction logistics, including any necessary street or sidewalk closures, are not known at this time, the level of specificity necessary to quantify the extent to which traffic operations would be disrupted as a result of street network access accommodations requested to facilitate the construction effort cannot be made at this time. As the design-build process is initiated, an updated assessment of traffic conditions around the project site would be made as part of the CTMP. The CTMP, in coordination with DOT and OCMC, will identify feasible measures that could mitigate any potential disruptions.

Construction Pedestrians

According to a preliminary assessment of construction generated pedestrian activity, seventeen pedestrian elements were identified as potential impact locations. Because detailed plans for the proposed detention facility and detailed construction logistics, including any necessary street or

sidewalk closures, are not known at this time, the level of specificity necessary to quantify the extent to which pedestrian operations would be disrupted as a result of construction activity cannot be made at this time. However, an assessment of pedestrian conditions would be included in the CTMP described above. In the event it is found that measures fully mitigating such temporary impacts are infeasible, then unmitigable significant adverse impacts could occur at the identified pedestrian elements.

Construction Noise

Section 3.14, "Construction-Brooklyn," concludes that construction of the proposed project would have the potential to result in a significant adverse construction noise impact at the southern and western façades of 239 State Street and the southern and eastern façades of the Kings County Criminal Court. Source or path controls beyond those already identified in Section 3.14 were considered for feasibility and effectiveness in reducing the level of construction noise at the receptors that have the potential to experience significant adverse construction noise impacts. These measures may include enclosing the concrete pump and concrete mixer trucks at any time that the mixer barrels would be spinning in a shed or tunnel including two or three walls and a roof, with the opening or openings facing away from receptors. Additionally, selecting quieter equipment models for cranes, generators, compressors, and lifts may result in a reduction in noise levels from construction during superstructure and subsequent phases. This is subject to the availability of quieter equipment in the quantities necessary to complete the proposed project in the projected timeframe. These measures, if implemented, would partially mitigate the predicted construction noise impacts, because there would still be times when construction of the proposed project would result in exceedances of acceptable noise levels at these receptors. Therefore, construction of the proposed project would result in unmitigated significant adverse noise impacts at the southern and western façades of 239 State Street and the southern and eastern façades of the Kings County Criminal Court.

C. HISTORIC AND CULTURAL RESOURCES

As discussed in Section 3.5, "Historic and Cultural Resources-Brooklyn," the Brooklyn Central Courthouse (also known as Kings County Criminal Court) at 120 Schermerhorn Street is located within 90 feet of the project site. To avoid the potential for direct, physical impacts to the courthouse building during construction of the proposed project, a CPP would be developed in coordination with LPC and implemented in consultation with a licensed professional engineer. The CPP would be prepared as set forth in Section 522 of the *City Environmental Quality Review* (*CEQR) Technical Manual* and in compliance with the procedures included in the New York City Department of Building (DOB)'s Technical Policy and Procedure Notices (TPPN) #10/88 and LPC's *Guidelines for Construction Adjacent to a Historic Landmark* and *Protection Programs for Landmark Buildings*. The CPP would include provisions for preconstruction inspections, monitoring the buildings for cracks and movement, installation of physical protection as appropriate at the Brooklyn Central Courthouse, and provisions for stopping work as appropriate if monitoring thresholds are exceeded or damage occurs to the affected historic resource. The Brooklyn Central Courthouse would also potentially be directly and indirectly impacted through the construction of new pedestrian bridges from 275 Atlantic Street to the courthouse. Mitigation cannot be fully defined due to the fact that there are no designs or details with respect to the proposed pedestrian bridges. Therefore, to minimize or mitigate the potential significant adverse impact to the historic appearance of the State Street façade of the courthouse resulting from the construction of pedestrian bridges, consultation would be undertaken with LPC regarding their

design and how and where the bridges would connect to the south façade of the Brooklyn Central Courthouse. Following consultation with LPC, if the significant adverse impact of the new pedestrian bridges cannot be fully or partially mitigated, the bridges would constitute an unmitigated adverse impact. The Applicant may also consider other options, such as the potential construction of a tunnel from 275 Atlantic Avenue to 120 Schermerhorn Street, which would avoid the significant adverse impact.

D. TRANSPORTATION

The proposed project would result, as detailed below, in the potential for significant adverse impacts to vehicular traffic at 10 analyzed intersections. Mitigation measures that could address these potential traffic impacts are discussed below.

TRAFFIC

As described in Section 3.9, "Transportation-Brooklyn," the proposed project would result in the potential for significant adverse traffic impacts at 10 study area intersections during one or more analyzed peak hours; specifically, 7 lane groups at 6 analyzed intersections during the analyzed weekday AM peak hour, 18 lane groups at 10 analyzed intersections during the analyzed midday peak hour, and 10 lane groups at 7 analyzed intersections during the analyzed Saturday peak hour. As demonstrated below, some of these potential impacts could be mitigated through the implementation of traffic signal timing modifications.

The types of mitigation measures proposed herein are standard measures that are routinely identified by the City and considered feasible for implementation. **Table 3.15-5** summarizes the recommended mitigation measures for each of the intersections with potentially significant adverse traffic impacts during the analyzed weekday AM and midday peak hours, and Saturday peak hour. Implementation of the recommended traffic engineering improvements, specifically traffic signal timing changes, is subject to review and approval by DOT. If these measures are deemed infeasible, other potential measures will be considered in consultation with DOT. In the absence of the application of mitigation measures, the impacts would remain unmitigated.

Table 3.15-6 shows the v/c ratios, delays, and levels of service (LOS) for lane groups at each analyzed intersection with implementation of the recommended mitigation measures and compares them with No Action and With Action conditions for the analyzed weekday AM, weekday midday, and Saturday peak hours, respectively. According to *CEQR Technical Manual* criteria, a potential impact is considered fully mitigated when the resulting LOS degradation under the Action-with-Mitigation condition compared with the No Action condition is no longer deemed significant following the impact criteria described in Section 3.9. **Table 3.15-6** through **3.15-8** show that potential significant adverse impacts would be fully mitigated at four lane groups at four analyzed intersections during the analyzed weekday AM peak hour, four lane groups at three analyzed intersections in the analyzed midday peak hour, and four lane groups at two analyzed intersections during the analyzed Saturday peak hour. In total, potential significant adverse impacts to one or more lane groups would remain unmitigated in one or more analyzed peak hours at eight analyzed intersections. Consequently, these potential impacts would constitute unavoidable significant adverse traffic impacts as a result of the proposed project (see also Section 3.16, "Unavoidable Adverse Impacts-Brooklyn").

Table 3.15-5
Proposed Traffic Mitigation Measures

Intersection	Signal Phase	No Action Signal Timing (Seconds)[1]			Proposed Signal Timing (Seconds)[1]			Recommended Mitigation
		AM	MD	SAT	AM	MD	SAT	
Columbia Street & Atlantic Avenue	EB/WB	70	50	50	70	50	50	- All potential impacts would remain unmitigated in the weekday midday and Saturday peak hours.
	NB	50	70	70	50	70	70	
BQE Off-Ramp & Atlantic Avenue	EB/WB	50	50	50	50	50	50	- Transfer 3s of green time from EB-T/WB-T to EB/WB-R in midday and Saturday.
	EB/WB-R	17	17	17	17	20	20	
	EB-T/WB-T	32	32	32	32	32	32	
	NB-L/WB-R	21	21	21	21	21	21	
Clinton Street & Atlantic Avenue	PED	8	8	8	8	8	8	- Transfer 1s of green time from NB to EB/WB in AM.
	EB/WB	57	57	70	58	57	70	- All potential impacts would remain unmitigated in the weekday midday and Saturday peak hours.
	NB	55	55	42	54	55	42	
Court Street & Atlantic Avenue	PED	7	7	7	7	7	7	- Transfer 3s of green time from SB to EB/WB in AM and midday.
	WB	13	13	11	13	13	13	
	EB/WB	58	61	65	61	64	58	- Potential impact to WB-T lane group would remain unmitigated in the midday peak hour.
	SB	42	49	37	39	46	42	
Boerum Place & Atlantic Avenue	EB-L/SB-R	26	26	26	26	26	26	- Transfer 2s of green time from SB/WB-R to EB/WB in Saturday.
	EB/WB	43	42	42	43	42	44	
	SB-L/SB-T/WB-R	7	7	7	7	7	7	- All potential impacts would remain unmitigated in the weekday AM and midday peak hours.
	SB/WB-R	44	45	45	44	45	43	
Smith Street & Atlantic Avenue	PED	7	7	7	7	7	7	- All potential impacts would remain unmitigated in the weekday AM, weekday midday and Saturday peak hours.
	EB/WB	65	75	70	65	75	70	
	NB	48	38	43	48	38	43	
State Street & Boerum Place	EB	42	42	42	42	43	43	- Transfer 1s of green time from NB to EB in midday.
	NB/SB	78	78	78	78	77	77	
State Street & Smith Street	EB	36	36	36	36	36	36	- All potential impacts would remain unmitigated in the weekday midday peak hour.
	NB	54	54	54	54	54	54	
Schermerhorn Street & Boerum Place	WB	42	42	42	45	42	42	- Transfer 3s of green time from NB/SB to WB in AM.
	NB/SB	78	78	78	75	78	78	- All potential impacts would remain unmitigated in the weekday midday and Saturday peak hours.
Schermerhorn Street & Smith Street	WB	36	36	36	34	36	36	- Transfer 2s of green time from WB to NB in AM.
	NB	36	36	36	38	36	36	- All potential impacts would remain unmitigated in the weekday midday and Saturday peak hours.
	SB	18	18	18	18	18	18	

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

Table 3.15-6
Action-With-Mitigation Conditions at Potentially Impacted Intersections
Weekday AM Peak Hour

	No-Action Weekday AM					With-Action Weekday AM					Action-with-Mitigation Weekday AM				
Intersection	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Clinton Street & Atlantic Avenue (signalized)	EB	LT	0.78	34.2	C	EB	LT	0.91	47.4	D	EB	LT	0.89	43.1	D
	WB	TR	0.84	38.8	D	WB	TR	0.88	42.5	D	WB	TR	0.86	40.1	D
	NB	LTR	0.90	54.9	D	NB	LTR	0.90	54.9	D	NB	LTR	0.92	58.9	E
Court Street & Atlantic Avenue (signalized)	EB	TR	0.52	23.2	C	EB	TR	0.60	24.9	C	EB	TR	0.57	21.8	C
	WB	L	0.36	21.2	C	WB	L	0.39	23.6	C	WB	L	0.37	20.6	C
	WB	T	0.99	57.8	E	WB	T	1.05	75.4	E	WB	T	1.00	60.2	E
	SB	LTR	0.57	38.8	D	SB	LTR	0.57	38.8	D	SB	LTR	0.63	42.9	D
Boerum Place & Atlantic Avenue (signalized)	EB	L	0.64	26.1	C	EB	L	0.68	28	C	EB	L	0.67	27.7	C
	EB	TR	0.97	81.0	F	EB	TR	1.17	145.6	F	EB	TR	1.17	145.6	F
	WB	LT	0.79	44.9	D	WB	LT	0.83	48.3	D	WB	LT	0.83	48.3	D
	WB	R	1.09	72.7	E	WB	R	1.09	74.1	E	WB	R	1.09	74.1	E
	SB	L	0.44	28.8	C	SB	L	0.48	29.5	C	SB	L	0.48	29.5	C
Smith Street & Atlantic Avenue (signalized)	---	---	---	---	---	EB	DefL	2.73	854.7	F	EB	DefL	2.73	854.7	F
	---	---	---	---	---	EB	T	1.09	86.8	F	EB	T	1.09	86.8	F
	EB	LT	0.92	39.4	D	EB	LT	n/a	238.2	F	EB	LT	n/a	238.2	F
	WB	TR	1.19	123.4	F	WB	TR	1.23	140.5	F	WB	TR	1.23	140.5	F
	NB	L	0.67	41.1	D	NB	L	0.68	41.6	D	NB	L	0.68	41.6	D
	NB	TR	1.22	165.3	F	NB	TR	1.23	167.0	F	NB	TR	1.23	167.0	F
Boerum Place & Schermerhorn Street (signalized)	WB	LTR	0.74	51.3	D	WB	LTR	0.88	66.0	E	WB	LTR	0.80	53.7	D
	NB	L	0.16	11.3	B	NB	L	0.17	11.5	B	NB	L	0.17	13.0	B
	NB	T	0.47	13.6	B	NB	T	0.47	13.6	B	NB	T	0.49	15.3	B
	SB	TR	0.34	11.9	B	SB	TR	0.35	12.2	B	SB	TR	0.37	13.7	B
Smith Street & Schermerhorn Street (signalized)	WB	TR	0.66	34.4	C	WB	TR	0.66	34.4	C	WB	TR	0.71	39.2	D
	NB	L	0.19	21.8	C	NB	L	0.33	24.2	C	NB	L	0.30	22.4	C
	NB	TR	1.15	123.6	F	NB	TR	1.20	142.5	F	NB	TR	1.13	111.8	F
	SB	L	0.50	43.7	D	SB	L	0.50	43.7	D	SB	L	0.50	43.7	D
	SB	R	0.26	38.1	D	SB	R	0.26	38.1	D	SB	R	0.26	38.1	D

Note:
- Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
- Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
- Shading denotes potential significant adverse impact per *CEQR Technical Manual* criteria.

Table 3.15-7
Action-With-Mitigation Conditions at Potentially Impacted Intersections
Weekday Midday Peak Hour

	No-Action Weekday Midday					With-Action Weekday Midday					Action-with-Mitigation Weekday Midday				
Intersection	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Columbia Street &	EB	T	0.15	25.2	C	EB	T	0.15	25.2	C	EB	T	0.15	25.2	C
Atlantic Avenue	WB	L	1.39	232.1	F	WB	L	1.74	386.4	F	WB	L	1.74	386.4	F
(signalized)	WB	LT	0.53	34.1	C	WB	LT	0.59	36.4	D	WB	LT	0.59	36.4	D
	NB	LR	0.32	16.5	B	NB	LR	0.32	16.5	B	NB	LR	0.32	16.5	B
	NB	R	0.33	16.7	B	NB	R	0.33	16.7	B	NB	R	0.33	16.7	B
BQE NB Off-Ramp &	EB	L	0.48	40.0	D	EB	L	0.55	47.5	D	EB	L	0.50	44.5	D
Atlantic Avenue	EB	T	0.12	3.2	A	EB	T	0.12	3.2	A	EB	T	0.12	3.2	A
(signalized)	WB	R	0.71	21.5	C	WB	R	0.81	26.3	C	WB	R	0.84	30.8	C
	WB	T	0.69	15.0	B	WB	T	0.69	15.0	B	WB	T	0.66	12.8	B
	NB	L	0.23	49.4	D	NB	L	0.23	49.4	D	NB	L	0.23	49.4	D
Clinton Street &	EB	LT	1.17	128.3	F	EB	LT	1.32	187.6	F	EB	LT	1.32	187.6	F
Atlantic Avenue	WB	TR	0.84	39.5	D	WB	TR	0.93	48.5	D	WB	TR	0.93	48.5	D
(signalized)	NB	LTR	0.85	49.4	D	NB	LTR	0.86	50.7	D	NB	LTR	0.86	50.7	D
Court Street &	EB	TR	1.04	92.2	F	EB	TR	1.14	126.4	F	EB	TR	1.04	87.8	F
Atlantic Avenue	WB	L	0.60	44.5	D	WB	L	0.66	50.5	D	WB	L	0.62	45.0	D
(signalized)	WB	T	1.42	297.3	F	WB	T	1.59	374.0	F	WB	T	1.51	331.8	F
	SB	LTR	0.52	33.7	C	SB	LTR	0.53	33.8	C	SB	LTR	0.57	37.1	D
Boerum Place &	EB	L	0.79	40.5	D	EB	L	0.87	50.5	D	EB	L	0.87	50.5	D
Atlantic Avenue	EB	TR	1.49	385.8	F	EB	TR	1.64	451.0	F	EB	TR	1.64	451.0	F
(signalized)	WB	LT	1.55	305.2	F	WB	LT	1.80	415.3	F	WB	LT	1.80	415.3	F
	WB	R	0.84	20.8	C	WB	R	0.87	23.5	C	WB	R	0.87	23.5	C
	SB	L	0.66	33.8	C	SB	L	0.68	34.3	C	SB	L	0.68	34.3	C
	SB	T	0.85	55.7	E	SB	T	0.85	55.7	E	SB	T	0.85	55.7	E
	SB	R	0.72	33.3	C	SB	R	0.97	68.6	E	SB	R	0.97	68.6	E
Smith Street &	EB	LT	0.96	43.2	D	EB	LT	1.39	206.3	F	EB	LT	1.39	206.3	F
Atlantic Avenue	WB	TR	0.91	35.0	D	WB	TR	0.95	40.3	D	WB	TR	0.95	40.3	D
(signalized)	NB	L	1.16	162.1	F	NB	L	1.21	182.3	F	NB	L	1.21	182.3	F
	NB	TR	1.24	181.4	F	NB	TR	1.25	183.3	F	NB	TR	1.25	183.3	F
State Street &	EB	LTR	1.06	104.5	F	EB	LTR	1.09	115.6	F	EB	LTR	1.06	104.0	F
Boerum Place	NB	TR	0.40	12.7	B	NB	TR	0.42	12.9	B	NB	TR	0.42	13.4	B
(signalized)	SB	LT	0.83	23.4	C	SB	LT	0.89	27.6	C	SB	LT	0.91	29.6	C
State Street &	EB	LT	0.73	38.5	D	EB	LT	0.79	43.3	D	EB	LT	0.79	43.3	D
Smith Street (signalized)	NB	TR	0.87	44.5	D	NB	TR	1.15	118.3	F	NB	TR	1.15	118.3	F
Boerum Place &	WB	LTR	1.35	218.9	F	WB	LTR	1.68	363.3	F	WB	LTR	1.68	363.3	F
Schermerhorn Street	NB	L	0.43	22.0	C	NB	L	0.44	22.9	C	NB	L	0.44	22.9	C
(signalized)	NB	T	0.40	12.6	B	NB	T	0.40	12.6	B	NB	T	0.40	12.6	B
	SB	TR	0.57	15.1	B	SB	TR	0.58	15.3	B	SB	TR	0.58	15.3	B
Smith Street &	WB	TR	1.53	330.7	F	WB	TR	1.53	330.7	F	WB	TR	1.53	330.7	F
Schermerhorn Street	NB	L	0.41	30.5	C	NB	L	0.77	48.9	D	NB	L	0.77	48.9	D
(signalized)	NB	TR	1.42	243.8	F	NB	TR	1.58	310.2	F	NB	TR	1.58	310.2	F
	SB	L	1.32	215.9	F	SB	L	1.32	215.9	F	SB	L	1.32	215.9	F
	SB	R	0.65	55.8	E	SB	R	0.65	55.8	E	SB	R	0.65	55.8	E

Note:
- Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
- Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
- Shading denotes potential significant adverse impact per *CEQR Technical Manual* criteria.

Table 3.15-8
Action-With-Mitigation Conditions at Potentially Impacted Intersections
Saturday Peak Hour

	No-Action Weekday Midday					With-Action Weekday Midday					Action-with-Mitigation Weekday Midday				
Intersection	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Columbia Street &	EB	T	0.16	25.3	C	EB	T	0.16	25.3	C	EB	T	0.16	25.3	C
Atlantic Avenue	WB	L	1.26	195.6	F	WB	L	1.47	285.0	F	WB	L	1.47	285.0	F
(signalized)	WB	LT	0.39	29.7	C	WB	LT	0.41	30.0	C	WB	LT	0.41	30.0	C
	NB	LR	0.41	17.9	B	NB	LR	0.41	17.9	B	NB	LR	0.41	17.9	B
	NB	R	0.52	20.5	C	NB	R	0.52	20.5	C	NB	R	0.52	20.5	C
BQE NB Off-Ramp &	EB	L	0.79	57.8	E	EB	L	0.86	70.3	E	EB	L	0.79	59.9	E
Atlantic Avenue	EB	T	0.15	3.3	A	EB	T	0.15	3.3	A	EB	T	0.15	3.3	A
(signalized)	WB	R	0.67	20.0	B	WB	R	0.74	22.5	C	WB	R	0.77	25.9	C
	WB	T	0.51	10.7	B	WB	T	0.51	10.7	B	WB	T	0.49	9.2	A
	NB	L	0.31	50.8	D	NB	L	0.31	50.8	D	NB	L	0.31	50.8	D
Clinton Street &	EB	LT	1.02	62.0	E	EB	LT	1.09	86.9	F	EB	LT	1.09	86.9	F
Atlantic Avenue	WB	TR	0.62	21.4	C	WB	TR	0.67	22.8	C	WB	TR	0.67	22.8	C
(signalized)	NB	LTR	1.13	125.3	F	NB	LTR	1.14	129.3	F	NB	LTR	1.14	129.3	F
Boerum Place &	EB	L	0.92	51.2	D	EB	L	0.96	61.0	E	EB	L	0.93	51.4	D
Atlantic Avenue	EB	TR	1.25	270.5	F	EB	TR	1.32	298.4	F	EB	TR	1.25	263.2	F
(signalized)	WB	LT	1.09	106.3	F	WB	LT	1.17	136.0	F	WB	LT	1.06	95.2	F
	WB	R	0.82	19.0	B	WB	R	0.82	19.4	B	WB	R	0.82	19.4	B
	SB	L	0.59	31.1	C	SB	L	0.61	31.6	C	SB	L	0.64	33.7	C
	SB	T	0.53	31.1	C	SB	T	0.53	31.1	C	SB	T	0.55	33.1	C
	SB	R	0.53	22.1	C	SB	R	0.71	29.8	C	SB	R	0.73	32.8	C
Smith Street &	EB	LT	1.01	56.0	E	EB	LT	1.44	232.0	F	EB	LT	1.44	232.0	F
Atlantic Avenue	WB	TR	0.91	35.3	D	WB	TR	0.94	39.4	D	WB	TR	0.94	39.4	D
(signalized)	NB	L	0.79	57.8	E	NB	L	0.80	59.8	E	NB	L	0.80	59.8	E
	NB	TR	1.27	183.1	F	NB	TR	1.27	184.6	F	NB	TR	1.27	184.6	F
Boerum Place &	WB	LTR	0.98	86.9	F	WB	LTR	1.24	172.6	F	WB	LTR	1.24	172.6	F
Schermerhorn Street	NB	L	0.49	22.7	C	NB	L	0.51	23.8	C	NB	L	0.51	23.8	C
(signalized)	NB	T	0.41	12.8	B	NB	T	0.42	12.8	B	NB	T	0.42	12.8	B
	SB	TR	0.48	13.6	B	SB	TR	0.49	13.8	B	SB	TR	0.49	13.8	B
Smith Street &	WB	TR	1.27	173.5	F	WB	TR	1.27	173.5	F	WB	TR	1.27	173.5	F
Schermerhorn Street	NB	L	0.23	22.6	C	NB	L	0.46	27.7	C	NB	L	0.46	27.7	C
(signalized)	NB	TR	1.08	97.5	F	NB	TR	1.16	124.2	F	NB	TR	1.16	124.2	F
	SB	L	0.87	72.8	E	SB	L	0.87	72.8	E	SB	L	0.87	72.8	E
	SB	R	0.30	39.1	D	SB	R	0.30	39.1	D	SB	R	0.30	39.1	D

Note:
- Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
- Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
- Shading denotes potential significant adverse impact per *CEQR Technical Manual* criteria.

F. CONSTRUCTION

CONSTRUCTION TRAFFIC

As described in Section 3.14, "Construction-Brooklyn," traffic associated with peak construction period activity would have the potential to result in significant adverse traffic impacts at 14 study area intersections during one or more analyzed peak hours. Specifically, 18 lane groups at 12 analyzed intersections during the construction AM peak hour and 15 lane groups at 11 analyzed intersections during the construction midday peak hour. Although these potential impacts would be temporary, measures to address these temporary impacts were considered. As demonstrated below, some of these potential impacts could be mitigated through the implementation of traffic signal timing modifications.

The types of mitigation measures proposed herein are standard measures that are routinely identified by the City and considered feasible for implementation. **Table 3.15-9** summarizes the recommended mitigation measures for each of the intersections with potential significant adverse traffic impacts during the construction AM and midday peak hours. Implementation of the recommended traffic signal timing changes, is subject to review and approval by DOT. In the absence of the application of mitigation measures, the temporary impacts would remain unmitigated.

A CTMP will be developed by DDC prior to commencement of construction-related activities. The CTMP will include transportation data collection as well as traffic and pedestrian analyses. The data collection will include traffic and pedestrian counts, worker shift schedules, worker origin-destination and modal split survey data, parking surveys, and truck frequency data. A traffic management plan for the project would be developed as part of the CTMP in order to address the effect of construction-related activity on transportation systems and verify the need for implementing construction-related mitigation measures identified in this EIS or additional measures if warranted. The CTMP would be submitted to DOT and OCMC for review and approval and would be an on-going process for addressing the effects of construction.

The analyzed traffic locations as well as others that may experience temporary disruptions would be included in the CTMP that would be initiated at the start of construction. Because detailed plans for the proposed detention facility and detailed construction logistics, including any necessary street or sidewalk closures, are not known at this time,, the level of specificity necessary to quantify the extent to which traffic operations would be disrupted as a result of street network access accommodations requested to facilitate the construction effort cannot be made at this time. As the design-build process is initiated, an updated assessment of traffic conditions around the project site would be made as part of the CTMP. DDC, through the CTMP, and in coordination with DOT and OCMC, will identify feasible measures that could mitigate any potential disruptions.

Table 3.15-9
Proposed Traffic Mitigation Measures During Peak Construction Period

Intersection	Signal Phase	No Action Signal Timing (Seconds)[1] AM	No Action Signal Timing (Seconds)[1] MD	Proposed Signal Timing (Seconds)[1] AM	Proposed Signal Timing (Seconds)[1] MD	Recommended Mitigation
Columbia Street & Atlantic Avenue	EB/WB NB	70 50	50 70	69 51	50 70	- Transfer 1s of green time from EB/WB to NB in AM. - All potential impacts would remain unmitigated in the weekday midday peak hour.
BQE Off-Ramp & Atlantic Avenue	EB/WB EB/WB-R EB-T/WB-T NB-L/WB-R	50 17 32 21	50 17 32 21	50 17 32 21	50 23 29 18	- Transfer 3s of green time from EB-T/WB-T to EB/WB-R in midday. - Transfer 3s of green time from NB-L/WB-R to EB/WB-R in midday.
Hicks Street & Atlantic Avenue	PED WB EB/WB NB	7 7 47 59	7 7 56 50	7 7 47 59	7 7 56 50	- All potential impacts would remain unmitigated in the weekday AM peak hour.
Clinton Street & Atlantic Avenue	PED EB/WB NB	8 57 55	8 57 55	8 58 54	8 58 54	- Transfer 1s of green time from NB to EB/WB in midday. - Potential impact to WB-TR lane group would remain unmitigated in the midday peak hour. - All potential impacts would remain unmitigated in the weekday AM peak hour.
Court Street & Atlantic Avenue	PED WB EB/WB SB	7 13 58 42	7 13 61 49	7 13 58 42	7 13 61 49	- All potential impacts would remain unmitigated in the weekday midday peak hour.
Smith Street & Atlantic Avenue	PED EB/WB NB	7 65 48	7 75 38	7 65 48	7 74 39	- Transfer 1s of green time from EB/WB to NB in midday. - All potential impacts would remain unmitigated in the weekday AM peak hour.
Hoyt Street & Atlantic Avenue	PED EB/WB SB	7 65 48	7 70 43	7 67 46	7 66 47	- Transfer 2s of green time from SB to EB/WB in AM. - Transfer 4s of green time from EB/WB to SB in midday.
Bond Street & Atlantic Avenue	EB/WB NB	65 55	70 50	65 55	70 50	- All potential impacts would remain unmitigated in the weekday AM peak hour.
Nevins Street & Atlantic Avenue	PED WB EB/WB SB	7 12 60 41	7 12 64 37	7 12 62 39	7 12 64 37	- Transfer 2s of green time from SB to EB/WB in AM. - All potential impacts would remain unmitigated in the weekday midday peak hour.
3rd Avenue & Atlantic Avenue	PED EB/WB PED NB	7 61 7 45	7 64 7 42	7 64 7 42	7 61 7 45	- Transfer 3s of green time from NB to EB/WB in AM.
Smith Street & Livingston Street	PED EB/WB NB/SB	7 42 41	7 42 41	7 42 41	7 42 41	- All potential impacts would remain unmitigated in the weekday AM and midday peak hours.
Boerum Place & Livingston Street	PED EB/WB SB NB/SB	7 36 22 52	7 36 22 52	7 39 20 51	7 39 22 49	- Transfer 2s of green time from SB to EB/WB in AM. - Transfer 1s of green time from NB/SB to EB/WB in AM. - Transfer 3s of green time from NB/SB to EB/WB in midday. - Potential impact to EB-L and EB-TR lane groups would remain unmitigated in the midday peak hour.
Adams Street & Tillary Street	EB/WB SB-L/WB-R SB/WB-R NB/SB	38 15 25 42	38 15 25 42	38 15 25 42	38 15 25 42	- All potential impacts would remain unmitigated in the weekday AM and midday peak hours.
Jay Street & Tillary Street	PED EB/WB EB-L/WB-L/NB-R NB/SB	7 48 28 37	7 48 28 37	7 44 30 39	7 48 28 37	- Transfer 2s of green time from EB/WB to EB-L/WB-L/NB-R in AM. - Transfer 2s of green time from EB/WB to NB/SB to in AM. - Transfer 3s of green time from NB/SB to EB/WB in midday. - Potential impact to SB-TR lane group would remain unmitigated in the midday peak hour. - All potential impacts would remain unmitigated in the weekday midday peak hour.

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

CONSTRUCTION PEDESTRIANS

According to a preliminary assessment of construction generated pedestrian activity, seventeen pedestrian elements were identified as potential impact locations. A Because detailed plans for the proposed detention facility and detailed construction logistics, including any necessary street or sidewalk closures, are not known at this time, the level of specificity necessary to quantify the extent to which pedestrian operations would be disrupted as a result of construction activity cannot be made at this time. However, an assessment of pedestrian conditions would be included in the CTMP described above. Mitigation measures to address potential impacts to pedestrian elements (sidewalks, corners and crosswalks) typically include signal timing changes, sidewalk and crosswalk widenings or the relocation of street furniture and obstructions. In the event it is found that measures fully mitigating such temporary impacts are infeasible, then unmitigable significant adverse impacts could occur at the identified pedestrian elements.

In addition to the standard traffic mitigation measures identified above, the City will continue to explore other options to further reduce traffic impacts in the vicinity of the Brooklyn Site. Potential options could include remote parking and shuttle service for construction workers, incentives to encourage transit use, the use of traffic enforcement agents/construction flaggers to facilitate traffic circulation, staged deliveries and queuing, and staggered work hours.

Tables 3.15-10 and **3.15-11** show the v/c ratios, delays, and LOS for lane groups at each analyzed intersection with implementation of the recommended mitigation measures and compares them with No Action and Construction With Action conditions for the analyzed periods. **Tables 3.15-10** and **3.15-11** show that, according to *CEQR Technical Manual* criteria, potential significant adverse impacts due to construction-related vehicle trips would be fully mitigated at eight lane groups at six analyzed intersections during the construction AM peak hour. During the construction midday peak hour, five lane groups at five analyzed intersections would be fully mitigated. In total, impacts to one or more lane groups would remain unmitigated in one or more analyzed construction period peak hours at eleven analyzed intersections.

Table 3.15-10
Construction-With-Mitigation Conditions at Potentially Impacted Intersections
AM Peak Hour

	No Action AM Peak Hour					Construction With Action AM Peak Hour					Construction-with-Mitigation AM Peak Hour				
Intersection	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Columbia Street &	EB	T	0.08	9.3	A	EB	T	0.08	9.3	A	EB	T	0.08	9.8	A
Atlantic Avenue	WB	L	0.68	27.5	C	WB	L	0.73	30.8	C	WB	L	0.75	32.4	C
(signalized)	WB	LT	0.19	14.7	B	WB	LT	0.20	14.7	B	WB	LT	0.20	15.2	B
	NB	LR	0.60	35.8	D	NB	LR	0.78	46.0	D	NB	LR	0.76	43.9	D
	NB	R	0.52	33.9	C	NB	R	0.88	59.2	E	NB	R	0.87	55.8	E
Hicks Street &	EB	LT	0.56	33.2	C	EB	LT	0.94	58.0	E	EB	LT	0.94	58.0	E
Atlantic Avenue	WB	TR	0.69	33.2	C	WB	TR	0.69	33.3	C	WB	TR	0.69	33.3	C
(signalized)	NB	L	0.65	31.0	C	NB	L	0.65	31.0	C	NB	L	0.65	31.0	C
	NB	LT	0.80	38.8	D	NB	LT	0.80	38.8	D	NB	LT	0.80	38.8	D
	NB	R	0.47	26.0	C	NB	R	0.47	26.0	C	NB	R	0.47	26.0	C
Clinton Street &	EB	LT	0.78	34.2	C	EB	LT	1.13	106.1	F	EB	LT	1.13	106.1	F
Atlantic Avenue	WB	TR	0.84	38.8	D	WB	TR	0.84	39.1	D	WB	TR	0.84	39.1	D
(signalized)	NB	LTR	0.90	54.9	D	NB	LTR	0.90	54.9	D	NB	LTR	0.90	54.9	D
Smith Street &	EB	LT	0.92	39.4	D	EB	LT	0.98	50.5	D	EB	LT	0.98	50.5	D
Atlantic Avenue	WB	TR	1.19	123.4	F	WB	TR	1.25	149.0	F	WB	TR	1.25	149.0	F
(signalized)	NB	L	0.67	41.1	D	NB	L	0.73	44.8	D	NB	L	0.73	44.8	D
	NB	TR	1.22	165.3	F	NB	TR	1.23	168.6	F	NB	TR	1.23	168.6	F
Hoyt Street &	EB	T	0.46	16.0	B	EB	T	0.46	16.0	B	EB	T	0.45	14.5	B
Atlantic Avenue	EB	R	0.17	13.4	B	EB	R	0.17	13.4	B	EB	R	0.16	12.1	B
(signalized)	WB	T	1.05	69.5	E	WB	T	1.09	80.9	F	WB	T	1.05	67.3	E
	SB	LTR	0.61	37.6	D	SB	LTR	0.63	38.3	D	SB	LTR	0.67	41.3	D
Bond Street &	EB	T	0.61	18.8	B	EB	T	0.62	18.9	B	EB	T	0.62	18.9	B
Atlantic Avenue	WB	TR	1.05	70.6	E	WB	TR	1.10	88.1	F	WB	TR	1.10	88.1	F
(signalized)	NB	LTR	0.75	39.8	D	NB	LTR	0.82	45.0	D	NB	LTR	0.82	45.0	D
Nevins Street &	EB	T	0.56	21.4	C	EB	T	0.57	21.5	C	EB	T	0.55	19.6	B
Atlantic Avenue	EB	R	0.15	16.3	B	EB	R	0.15	16.3	B	EB	R	0.14	14.9	B
(signalized)	WB	LT	1.20	122.6	F	WB	LT	1.24	141.8	F	WB	LT	1.20	122.3	F
	SB	LTR	0.53	40	D	SB	LTR	0.53	40	D	SB	LTR	0.56	42.8	D
Third Avenue &	EB	TR	0.58	21.1	C	EB	TR	0.59	21.3	C	EB	TR	0.56	18.4	B
Atlantic Avenue	WB	T	1.19	127.6	F	WB	T	1.24	146.9	F	WB	T	1.18	118.5	F
(signalized)	WB	R	0.54	27.2	C	WB	R	0.54	27.2	C	WB	R	0.51	24.4	C
	NB	LTR	0.58	36.0	D	NB	LTR	0.58	36.0	D	NB	LTR	0.63	39.6	D
Smith Street &	EB	LTR	0.63	28.7	C	EB	LTR	0.63	28.7	C	EB	LTR	0.63	28.7	C
Livingston Street	WB	LTR	0.72	32.6	C	WB	LTR	0.72	32.6	C	WB	LTR	0.72	32.6	C
(signalized)	NB	LT	0.74	31.2	C	NB	LT	0.74	31.4	C	NB	LT	0.74	31.4	C
	NB	R	0.25	21.0	C	NB	R	0.32	24.1	C	NB	R	0.32	24.1	C
	SB	L	0.49	30.1	C	SB	L	0.54	33.4	C	SB	L	0.54	33.4	C
	SB	TR	0.45	24.0	C	SB	TR	1.03	91.1	F	SB	TR	1.03	91.1	F
Boerum Place &	EB	LTR	0.59	48.8	D	EB	LTR	0.82	73.2	E	EB	LTR	0.67	53.2	D
Livingston Street	WB	LT	0.32	38.8	D	WB	LT	0.65	48.9	D	WB	LT	0.59	43.8	D
(signalized)	WB	R	0.93	91.3	F	WB	R	0.93	91.3	F	WB	R	0.82	67.1	E
	NB	L	0.24	27.7	C	NB	L	0.27	28.9	C	NB	L	0.28	29.9	C
	NB	TR	0.88	41.3	D	NB	TR	0.88	41.8	D	NB	TR	0.90	44.3	D
	SB	L	0.49	24.8	C	SB	L	0.49	25.1	C	SB	L	0.54	28.9	C
	SB	TR	0.34	13.9	B	SB	TR	0.40	14.6	B	SB	TR	0.42	16.4	B
Adams Street &	EB	TR	0.45	38.4	D	EB	TR	0.45	38.4	D	EB	TR	0.45	38.4	D
Tillary Street	WB	L	0.58	52.0	D	WB	L	0.86	81.5	F	WB	L	0.86	81.5	F
(signalized)	WB	T	0.32	36.5	D	WB	T	0.32	36.5	D	WB	T	0.32	36.5	D
	WB	R	0.99	75.5	E	WB	R	0.99	75.5	E	WB	R	0.99	75.5	E
	NB	TR	1.11	103.1	F	NB	TR	1.11	102.4	F	NB	TR	1.11	102.4	F
	SB	L	0.57	39.5	D	SB	L	0.57	39.5	D	SB	L	0.57	39.5	D
	SB	T	0.55	21.7	C	SB	T	0.59	22.4	C	SB	T	0.59	22.4	C
Jay Street &	EB	L	0.22	42.6	D	EB	L	0.22	42.6	D	EB	L	0.20	40.7	D
Tillary Street	EB	TR	0.65	34.7	C	EB	TR	0.65	34.7	C	EB	TR	0.72	39.4	D
(signalized)	WB	L	0.29	44.5	D	WB	L	0.53	51.3	D	WB	L	0.49	47.9	D
	WB	TR	0.59	33.1	C	WB	TR	0.62	33.8	C	WB	TR	0.68	38.1	D
	NB	L	0.66	56.1	E	NB	L	0.74	66.2	E	NB	L	0.68	57.6	E
	NB	T	0.28	36.8	D	NB	T	0.28	36.8	D	NB	T	0.27	35	C
	NB	R	0.85	48.6	D	NB	R	0.85	48.6	D	NB	R	0.78	37.3	D
	SB	L	0.35	40.6	D	SB	L	0.35	40.6	D	SB	L	0.33	38.1	D
	SB	TR	0.67	53.4	D	SB	TR	0.84	70.1	E	SB	TR	0.79	61.6	E

Note:
- Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
- Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
- Shading denotes potential significant adverse impact per *CEQR Technical Manual* criteria.

Table 3.15-11
Construction-With-Mitigation Conditions at Potentially Impacted Intersections
Midday Peak Hour

	No Action Midday Peak Hour					Construction With Action Midday Peak Hour					Construction-with-Mitigation Midday Peak Hour				
Intersection	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Columbia Street &	EB	T	0.15	25.2	C	EB	T	0.15	25.2	C	EB	T	0.15	25.2	C
Atlantic Avenue	WB	L	1.39	232.1	F	WB	L	1.86	435.9	F	WB	L	1.86	435.9	F
(signalized)	WB	LT	0.53	34.1	C	WB	LT	0.62	37.6	D	WB	LT	0.62	37.6	D
	NB	LR	0.32	16.5	B	NB	LR	0.32	16.5	B	NB	LR	0.32	16.5	B
	NB	R	0.33	16.7	B	NB	R	0.33	16.7	B	NB	R	0.33	16.7	B
BQE NB Off-Ramp &	EB	L	0.48	40.0	D	EB	L	0.60	54.2	D	EB	L	0.47	44.5	D
Atlantic Avenue	EB	T	0.12	3.2	A	EB	T	0.13	3.2	A	EB	T	0.12	2.6	A
(signalized)	WB	R	0.71	21.5	C	WB	R	0.89	33.4	C	WB	R	0.93	40.7	D
	WB	T	0.69	15.0	B	WB	T	0.78	18.9	B	WB	T	0.75	15.9	B
	NB	L	0.23	49.4	D	NB	L	0.23	49.4	D	NB	L	0.29	53.8	D
Clinton Street &	—	—	—	—		EB	DefL	1.47	295.3	F	EB	DefL	1.40	262.9	F
Atlantic Avenue	—	—	—	—		EB	T	1.08	96.3	F	EB	T	1.06	89.5	F
(signalized)	EB	LT	1.17	128.3	F	EB	LT	n/a	137.0	F	EB	LT	n/a	124.9	F
	WB	TR	0.84	39.5	D	WB	TR	1.06	80.2	F	WB	TR	1.04	73.0	E
	NB	LTR	0.85	49.4	D	NB	LTR	0.85	49.4	D	NB	LTR	0.87	52.7	D
Court Street &	EB	TR	1.04	92.2	F	EB	TR	1.00	80.8	F	EB	TR	1.00	80.8	F
Atlantic Avenue	WB	L	0.60	44.5	D	WB	L	0.59	42.9	D	WB	L	0.59	42.9	D
(signalized)	WB	T	1.42	297.3	F	WB	T	1.88	500.7	F	WB	T	1.88	500.7	F
	SB	LTR	0.52	33.7	C	SB	LTR	0.52	33.7	C	SB	LTR	0.52	33.7	C
Smith Street &	EB	LT	0.96	43.2	D	EB	LT	0.93	36.3	D	EB	LT	0.95	40	D
Atlantic Avenue	WB	TR	0.91	35.0	D	WB	TR	0.91	35.0	D	WB	TR	0.92	37.5	D
(signalized)	NB	L	1.16	162.1	F	NB	L	1.18	169.6	F	NB	L	1.13	150.0	F
	NB	TR	1.24	181.4	F	NB	TR	1.25	183.3	F	NB	TR	1.21	166.5	F
Hoyt Street &	EB	T	0.59	14.5	B	EB	T	0.59	14.5	B	EB	T	0.63	18.1	B
Atlantic Avenue	EB	R	0.38	13.6	B	EB	R	0.42	14.3	B	EB	R	0.45	17.9	B
(signalized)	WB	T	0.78	26.1	C	WB	T	0.77	25.8	C	WB	T	0.82	30.7	C
	SB	LTR	1.11	121.2	F	SB	LTR	1.23	164.1	F	SB	LTR	1.11	115.1	F
Nevins Street &	EB	T	0.78	23.8	C	EB	T	0.80	24.8	C	EB	T	0.80	24.8	C
Atlantic Avenue	EB	R	0.39	18.3	B	EB	R	0.38	18.2	B	EB	R	0.38	18.2	B
(signalized)	WB	LT	1.24	157.3	F	WB	LT	1.25	159	F	WB	LT	1.25	159	F
	SB	LTR	1.10	121.3	F	SB	LTR	1.17	148.4	F	SB	LTR	1.17	148.4	F
Smith Street &	EB	LTR	0.98	68.1	E	EB	LTR	1.64	329.8	F	EB	LTR	1.64	329.8	F
Livingston Street	WB	LTR	0.71	33.3	C	WB	LTR	0.71	33.6	C	WB	LTR	0.71	33.6	C
(signalized)	NB	LT	0.67	28.8	C	NB	LT	0.67	28.8	C	NB	LT	0.67	28.8	C
	NB	R	0.20	19.1	B	NB	R	0.20	19.2	B	NB	R	0.20	19.2	B
	SB	L	0.60	33.4	C	SB	L	0.60	34.0	C	SB	L	0.60	34.0	C
	SB	TR	0.71	31.5	C	SB	TR	0.71	31.7	C	SB	TR	0.71	31.7	C
Boerum Place &	EB	L	0.70	64.0	E	EB	L	1.46	283.1	F	EB	L	1.29	211.3	F
Livingston Street	EB	TR	0.86	70.0	E	EB	TR	1.26	187.1	F	EB	TR	1.15	140.5	F
(signalized)	WB	LT	0.39	40.3	D	WB	LT	0.56	48.9	D	WB	LT	0.45	40.9	D
	WB	R	1.01	121.1	F	WB	R	1.01	121.1	F	WB	R	0.89	87.3	F
	NB	L	0.34	33.4	C	NB	L	0.33	33.2	C	NB	L	0.36	36.9	D
	NB	TR	0.74	34.4	C	NB	TR	0.73	34.2	C	NB	TR	0.78	38.0	D
	SB	L	0.50	23.1	C	SB	L	0.51	23	C	SB	L	0.53	25.8	C
Adams Street &	EB	TR	0.60	41.2	D	EB	TR	0.60	41.2	D	EB	TR	0.60	41.2	D
Tillary Street	WB	L	1.08	126.1	F	WB	L	1.02	109.0	F	WB	L	1.00	104.3	F
(signalized)	WB	T	0.66	43.6	D	WB	T	0.66	43.6	D	WB	T	0.66	43.6	D
	WB	R	1.05	92.2	F	WB	R	1.05	92.2	F	WB	R	1.05	92.2	F
	NB	TR	0.96	60.4	E	NB	TR	1.04	81.3	F	NB	TR	1.04	81.3	F
	SB	L	0.57	39.6	D	SB	L	0.57	39.6	D	SB	L	0.57	39.6	D
	SB	T	0.66	24.2	C	SB	T	0.66	24.1	C	SB	T	0.66	24.1	C
Jay Street &	EB	L	0.17	41.7	D	EB	L	0.17	41.7	D	EB	L	0.17	41.7	D
Tillary Street	EB	TR	0.88	44.9	D	EB	TR	0.91	47.5	D	EB	TR	0.91	47.5	D
(signalized)	WB	L	0.57	51.8	D	WB	L	0.57	51.8	D	WB	L	0.57	51.8	D
	WB	TR	0.89	45.0	D	WB	TR	0.88	44.3	D	WB	TR	0.88	44.3	D
	NB	L	0.94	110.6	F	NB	L	0.94	110.6	F	NB	L	0.94	110.6	F
	NB	T	0.45	40.3	D	NB	T	0.58	44.3	D	NB	T	0.58	44.3	D
	NB	R	0.78	41.3	D	NB	R	0.97	71.0	E	NB	R	0.97	71.0	E
	SB	L	0.89	102.1	F	SB	L	1.01	137.2	F	SB	L	1.01	137.2	F
	SB	TR	1.13	140.2	F	SB	TR	1.13	140.2	F	SB	TR	1.13	140.2	F

Note:
- Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
- Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
- Shading denotes potential significant adverse impact per *CEQR Technical Manual* criteria.

CONSTRUCTION NOISE

Section 3.14, "Construction-Brooklyn," concludes that construction of the proposed project would have the potential to result in a significant adverse construction noise impact at two noise receptors adjacent to the construction work area. The construction noise analysis concluded that construction of the proposed project would have the potential to result in construction noise levels that exceed *CEQR Technical Manual* noise impact criteria for an extended period at the southern and western façades of 239 State Street and the southern and eastern façades of the Kings County Criminal Court. Source or path controls beyond those already identified in Section 3.14 were considered for feasibility and effectiveness in reducing the level of construction noise at the receptors that have the potential to experience significant adverse construction noise impacts. These measures may include enclosing the concrete pump and concrete mixer trucks at any time that the mixer barrels would be spinning in a shed or tunnel including two or three walls and a roof, with the opening or openings facing away from receptors. This measure would provide approximately 10 to 15 dBA reduction in concrete operation noise. However, it would not substantially reduce noise from hoist or tower crane operations, which are major contributors to the predicted construction noise impacts. Additionally, selecting quieter equipment models for cranes, generators, compressors, and lifts may result in up to a 10 dBA reduction in noise levels from construction during superstructure and subsequent phases. This is subject to the availability of quieter equipment in the quantities necessary to complete the proposed project in the projected timeframe. These measures, if implemented, would partially mitigate the predicted construction noise impacts, because there would still be times when construction of the proposed project would result in exceedances of acceptable noise levels at these receptors. Therefore, construction of the proposed project would result in unmitigated significant adverse noise impacts at the southern and western façades of 239 State Street and the southern and eastern façades of the Kings County Criminal Court. ✷