

A. INTRODUCTION

As required by the Court Order, this Supplemental Environmental Impact Statement (SEIS) has been prepared to examine the potential for impacts from the Project accounting for a prolonged construction of Phase II (the Extended Build-Out Scenario). Such potential impacts were identified in the areas of community facilities, construction-period open space, transportation (operational and during construction) and construction noise. Since significant adverse impacts were identified in each of these technical areas in the 2006 FEIS, this chapter examines whether the mitigation imposed by ESD in 2006 (based on the 2006 FEIS and its 2016 build year) should be adjusted in light of the conclusions of the SEIS, and whether any additional mitigation should be imposed on Phase II to account for any new or different environmental impacts from the prolonged construction of Phase II.

Significant adverse impacts that cannot be fully mitigated through reasonably practicable measures are also identified and discussed in Chapter 7, “Unavoidable Adverse Impacts.” These include impacts in the areas of community facilities, operational transportation, construction transportation and construction noise.

B. COMMUNITY FACILITIES

The project site for Phase II is located in Sub-District 1 of Community School Districts (CSD) 13. As discussed in Chapter 4B, “Operational Community Facilities,” based on current CEQR methodology Phase II of the Project under the Extended Build-Out scenario would introduce 1,430 elementary school students by 2035, increasing the elementary school utilization rate in CSD 13/Sub-District 1 by 88 percentage points, and bringing total utilization to 220 percent (under the conservative assumption that no new school capacity would be created between 2019 and 2035). Phase II would also introduce 592 intermediate school students by 2035, increasing the intermediate school utilization rate in CSD 13/Sub-District 1 by 69 percentage points, and bringing total utilization to 160 percent (also assuming no new school capacity would be created between 2019 and 2035). Therefore, Phase II would exceed the *City Environmental Quality Review (CEQR) Technical Manual* threshold for a significant adverse impact on elementary and intermediate schools.

As analyzed in Chapter 3D, “Construction Community Facilities,” the significant adverse impact on elementary and intermediate schools could occur as early as 2021. More rapid construction of the Phase II buildings would result in the significant adverse impact occurring earlier.

Mitigation for the projected shortfall in school seats for elementary and intermediate schools in CSD 13/Sub-District 1 could consist of one or a combination of the following measures:

Atlantic Yards Arena and Redevelopment Project DSEIS

- Building a new school on the project site;
- Shifting the boundaries of school catchment areas within the CSDs to move students to schools with available capacity;
- Creating new satellite facilities in less crowded schools; and/or
- Building new school facilities off-site.

To partially mitigate the significant adverse impact on public schools, the project sponsors have committed to provide adequate space for the construction and operation of a 100,000-gsf elementary and intermediate school facility on the Phase II project site. The project sponsors' obligation to provide space for an elementary and intermediate public school on the Phase II project site was included in 2006 and 2009 MGPP and the Amended Memorandum of Environmental Commitments (MEC).

If built at the election of the New York City Department of Education (DOE), the new school facility on the Phase II project site would partially mitigate the projected shortfall in school seats for elementary and intermediate schools located within CSD 13/Sub-District 1. While the final school program and capacity would be developed at a later date, based on DOE's 2015-2019 Proposed Capital Plan, it is anticipated that this school would provide approximately 757 seats for elementary and/or intermediate students.

As per the MEC, the proposed school would be located in one of the Phase II residential buildings, as determined by the project sponsors and the New York City School Construction Authority (SCA) on behalf of DOE. At this time, the project sponsors have identified two possible sites for the potential new school: Building 6 or Building 15. Based upon currently available information, the more likely site for the school would be in Building 15.

The DOE's *2015-2019 Proposed Five-Year Capital Plan, February 2014*, proposes to allocate capital funds for the creation of the school facility at Atlantic Yards. Discussion between the project sponsors and SCA regarding the inclusion of the school in either Building 6 or Building 15 have recently commenced. Pending the adoption of the Proposed Capital Plan, finalization of the location of the Phase II school, and approval of that school site pursuant to the SCA's enabling legislation, the SCA and project sponsors would engage in a collaborative design process. As soon as practicable after receipt of the request from DOE or SCA, the project sponsors would consult and cooperate with SCA in its public review process for site selection, thereafter cooperate with DOE and SCA in their design process in accordance with SCA/DOE practice, and construct the building containing the proposed school as soon as practicable after SCA approves the design of the proposed school, completes its public review process, and authorizes commencement of construction of the core and shell of the school and the financing of the school.

The new school facility would be designed in accordance with DOE's requirements, and would include standard school facilities such as classroom, administration, and assembly space, gymnasium, cafeteria, library, and outdoor rooftop play areas. The school would have a separate entrance from the other uses within the building.

The floor area provided for the school would be in addition to the floor area assumed to be developed under the proposed Phase II development program, as described in Table 1-1 in Chapter 1, "Project Description," but was considered in the relevant technical analysis areas in this SEIS, as appropriate. The provision of a school as part of Phase II would fit within the development envelopes established in the Design Guidelines.

The other potential mitigation measures identified above—shifting the boundaries of school catchment areas within the CSDs; creating new satellite facilities in less crowded schools; and building new school facilities off-site—could be implemented at the discretion of DOE. If not implemented, the significant adverse impacts on elementary schools within CSD 13/Sub-District 1 would remain.

It should be noted that in keeping with DOE’s mandate to respond to local needs and provide new capacity where warranted, it is likely that new capacity would be created by 2035 to meet additional student demand that exceeds the 2019-based capacity assumptions used in this analysis. Each year, Capital Plan amendments are prepared, which allow DOE to reassess priorities, to take into account shifts in enrollments, variations in housing growth, changes in building conditions, new educational initiatives, and adjustments in the construction marketplace, and incorporate any impact from financial changes implemented by the City or State. In addition, DOE and SCA annually undertake a comprehensive assessment of conditions in order to determine the need for realignment strategies, such as increasing the utilization of existing facilities, changing grade configurations of schools, and adjustments to local school zones.

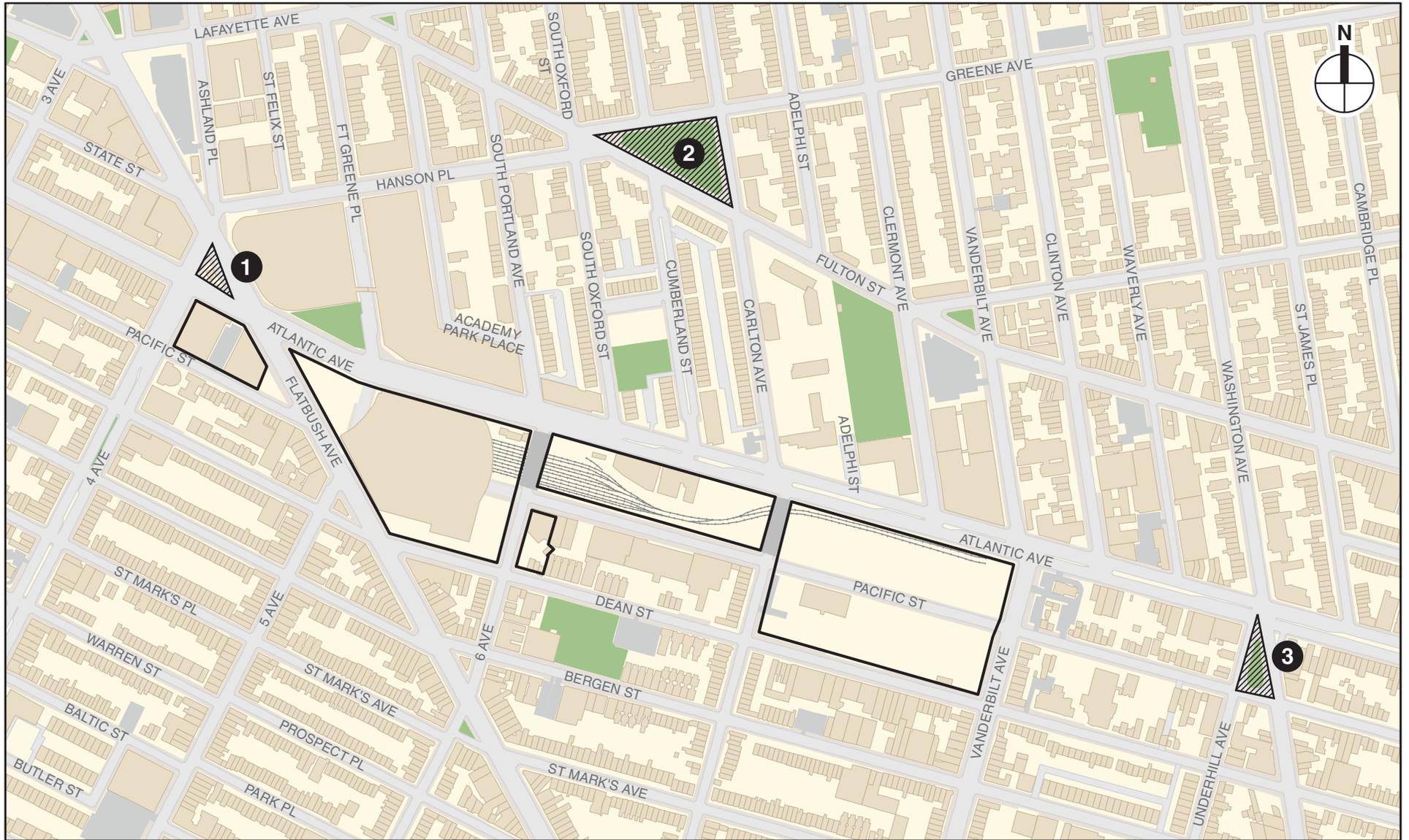
C. OPEN SPACE

Chapter 4C, “Operational Open Space,” finds that Phase II of the Project would not result in significant adverse impacts related to open space upon the Project’s completion. However, the 2006 FEIS identified a temporary significant adverse impact on passive open space resources in the non-residential (¼-mile) study area during Phase II construction. This impact would continue until a portion of the Phase II open space is phased in. As analyzed in Chapter 3E, “Construction Open Space” the Extended Build-Out Scenario would prolong the temporary significant adverse impact on the passive worker ratio in the non-residential study area that was identified in the FEIS by between approximately 7 and 9 years, compared with the Phase II schedule analyzed in the 2006 FEIS (the analysis in Chapter 3E uses the commercial mixed-use variation and assumes that all of the Phase I buildings are built by 2018).

While the temporary significant adverse impact on passive open space resources in the non-residential study area would be fully mitigated by new Phase II open spaces that would be gradually completed during the construction of the Phase II buildings, Phase II under the Extended Build Out Scenario would prolong the duration of the temporary significant adverse impact, compared to the Phase II schedule analyzed in the 2006 FEIS. In response to this finding, the project sponsors and ESD will explore additional mitigation measures between the Draft and Final Supplemental Environmental Impact Statement, which could be implemented to improve passive open space conditions in the non-residential study area in the event there is a prolonged delay in construction.

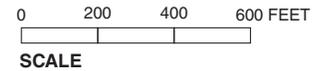
The *CEQR Technical Manual* lists potential on- and off-site mitigation measures. These measures include creating new public open spaces on-site or elsewhere in the study area of the type needed to serve the proposed population and offset their impact on existing open spaces in the study area, and improving existing open spaces in the study area to increase their utility, safety, and capacity to meet identified needs in the study area.

One or more of the following plaza or open space areas could be improved as a mitigation measure to address a prolonged construction-period open space impact (see **Figure 5-1**):



-  Project Site Boundary
-  Potential Open Space Mitigation Locations

- 1** Times Plaza
- 2** Cuyler Gore Park
- 3** Lowry Triangle



Atlantic Yards Arena and Redevelopment Project DSEIS

- Times Plaza: currently an approximately 0.17-acre triangle formed by Flatbush Avenue, Atlantic Avenue, and 4th Avenue is occupied by a paved sidewalk area, bike racks, and the Times Plaza Control House (an MTA structure, built in 1908 as a subway entrance, which today functions as a skylight for the Atlantic Avenue-Barclays Center subway station).
- Lowry Triangle: this 0.11 acre New York City Department of Parks and Recreation (DPR) open space is bounded by Atlantic Avenue, Underhill Avenue, Washington Avenue, and Pacific Street. It contains passive open space features such as seating and plantings.
- Cuyler Gore Park: this 1.16 acre DPR open space is bounded by Fulton Street, Carlton Avenue, and Greene Avenue. It contains passive open space features such as seating and plantings.

Improvements at the selected plaza or open space could include seating, plantings and other open space amenities.

In addition, if a Phase II building construction site were to remain undeveloped for an extended period of time, if practicable, the project sponsors would arrange for its utilization as temporary open space, until such time as construction is ready to resume, in accordance with the MEC.

D. OPERATIONAL TRANSPORTATION

TRAFFIC

As presented in Chapter 4D, “Operational Transportation,” with development of Phase II under the Extended Build-Out Scenario, a total of 56 intersections are expected to have one or more movements that would experience significant adverse impacts in one or more of the five peak hours analyzed. The following provides a discussion and assessment of proposed mitigation measures to address these traffic impacts. As noted in the assessment, the proposed measures would eliminate the majority of these impacts; however, unmitigated impacts would remain at a total of ten intersections.

TRAFFIC MITIGATION MEASURES IMPLEMENTED UNDER PHASE I

Several improvements to the street system in the vicinity of the project site—such as the widening of both Atlantic Avenue and Flatbush Avenue and the conversion of 6th Avenue to two-way operation—were incorporated into the Project in order to facilitate traffic operations, and have been implemented in conjunction with the opening of the Arena. A major new on-site entrance to the Atlantic Avenue – Barclays Center subway station complex has also been developed as part of Phase I, thereby improving transit accessibility. In addition to these project-related improvements, the following traffic mitigation measures have been implemented or are planned in conjunction with the development of Phase I, and are therefore reflected in the Future Without Phase II baseline condition. These measures include some of those recommended in the 2006 FEIS as well as additional measures that were not included in the FEIS but have now been proposed based on observed conditions. (Some mitigation measures recommended in the 2006 FEIS are no longer being considered based on observed traffic conditions and NYCDOT determinations.)

Physical Roadway Improvements

- Reconfiguration of the Atlantic Avenue/Flatbush Avenue/4th Avenue intersection
- Operational modifications to Pacific Street

- Construction of an expanded Times Plaza at the intersection of 4th, Flatbush, and Atlantic Avenues
- Operational modifications to the Atlantic Avenue/Vanderbilt Avenue intersection
- Lane restriping at various locations

Demand Management

- Limiting the supply of on-site Arena parking in order to maximize the use of available off-site parking spaces spread throughout the area, thereby reducing concentrations of Arena traffic at the site itself
- Transit service improvements to accommodate Arena event-related ridership including providing additional subway service and increased LIRR departures from Atlantic Terminal during the post-event period
- A transit marketing program that includes providing transit information on event ads, on event tickets and on the venue website
- On-line parking reservation systems for event-goers to reduce the need for those who elect to drive to circulate in search of parking
- High-occupancy-vehicle parking discounts
- On-site bicycle parking

Traffic Operational Improvements

- Parking regulation adjustments
- Signal timing and phasing adjustments
- Signal installations and upgrades

TRAFFIC MITIGATION MEASURES PROPOSED FOR PHASE II UNDER THE EXTENDED BUILD-OUT SCENARIO

A range of operational changes to the surrounding street network are recommended to mitigate the significant adverse traffic impacts identified in Chapter 4D, “Operational Transportation,” as resulting from development of Phase II under the Extended Build-Out Scenario. These measures typically include signal phasing and timing modifications, parking regulation modifications, and changes to lane striping and pavement markings. The measures developed to mitigate the significant adverse traffic impacts for each analyzed intersection in the Future With Phase II under the Extended Build-Out Scenario are summarized in **Table 5-1** and discussed below. The recommended traffic mitigation measures will be further reviewed with NYCDOT between the Draft SEIS (DSEIS) and the Final SEIS (FSEIS) potentially resulting in elimination or modification of certain mitigation measures. Additional measures will also be explored between the DSEIS and FSEIS in coordination with NYCDOT to reduce or eliminate any unmitigated significant impacts. In the absence of NYCDOT approval and implementation of mitigation measures, additional unmitigated conditions would remain.

**Table 5-1
Recommended Traffic Mitigation Measures**

| Intersection | Signal Phase | Future Without Phase II Signal Timing (Seconds) (1) | | | | | Proposed Signal Timing (Seconds) (1) | | | | | Recommended Mitigation |
|---|--------------|---|----|----|--------------|-----|--|----|----|--------------|-----|---|
| | | AM | MD | PM | Pre- game | SAT | AM | MD | PM | Pre- game | SAT | |
| 1. Tillary St (EB/WB) @ Flatbush Ave Ext (NB/SB) | EB-L/WB-L | 24 | 24 | 24 | 24 | 24 | 25 | 25 | 25 | 25 | 25 | - Transfer 1s of green time from NB to EB-L/WB-L in all time periods. - Transfer 1s of green time from NB to NB/SB in PM. |
| | EB/WB | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | |
| | NB | 17 | 17 | 17 | 17 | 17 | 16 | 16 | 15 | 16 | 16 | |
| | NB/SB | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 42 | 41 | 41 | |
| 2. Myrtle Ave (EB/WB) @ Flatbush Ave Ext (NB/SB) | EB/WB | 55 | 58 | 55 | 55 | 55 | 54 | 57 | 55 | 55 | 54 | - Transfer 1s of green time from EB/WB to NB/SB in AM, MD, and SAT. |
| | NB/SB | 65 | 62 | 65 | 65 | 65 | 66 | 63 | 65 | 65 | 66 | |
| 3. Willoughby St (EB/WB) @ Flatbush Ave Ext (NB/SB) | EB/WB | 55 | 55 | 55 | 55 | 55 | 54 | 55 | 55 | 55 | 55 | - Install "No Standing 7-10AM Mon-Fri" along north curb of WB approach up to Fleet Pl. - Restripe EB approach as one 12' left-turn lane and one 11' right-turn lane. - Transfer 1s of green time from EB/WB to NB/SB in AM. |
| | NB/SB | 65 | 65 | 65 | 65 | 65 | 66 | 65 | 65 | 65 | 65 | |
| 4. Dekalb Ave (WB) @ Flatbush Ave Ext (NB/SB) | WB | 45 | 45 | 45 | 45 | 45 | 44 | 45 | 44 | 44 | 44 | - Restripe WB approach as one 10' left-turn lane, one 10' thru-right lane, and one 12' right-turn lane. - Transfer 1s of green time from WB to NB/SB in AM, PM, Pregame and SAT. |
| | NB/SB | 65 | 65 | 65 | 65 | 65 | 66 | 65 | 66 | 66 | 66 | |
| | Peds | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |
| 5. Fulton St (EB/WB) @ Flatbush Ave/ Flatbush Ave Ext (NB/SB) | Peds | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | - Restripe WB approach as one 9' right-turn lane and one 12' left-thru lane. - Transfer 1s of green time from EB/WB to NB/SB in AM and SAT. |
| | EB/WB | 38 | 39 | 38 | 38 | 38 | 37 | 39 | 38 | 38 | 37 | |
| | SB | 23 | 26 | 28 | 28 | 28 | 23 | 26 | 28 | 28 | 28 | |
| | NB/SB | 52 | 48 | 47 | 47 | 47 | 53 | 48 | 47 | 47 | 48 | |
| 7. Lafayette Ave (EB) @ Flatbush Ave (NB/SB) | EB | 39 | 37 | 37 | 37 | 40 | 38 | 36 | 36 | 37 | 39 | - Restripe EB approach as one 14' left-turn lane, one 12' left-thru lane, one 11' thru lane, and 8' of hatching. - Transfer 1s of green time from EB to NB/SB in AM, MD, PM, and SAT. |
| | NB/SB | 62 | 64 | 58 | 58 | 61 | 63 | 65 | 59 | 58 | 62 | |
| | SB-L | 19 | 19 | 25 | 25 | 19 | 19 | 19 | 25 | 25 | 19 | |
| 8. 4th Ave (WB) @ Flatbush Ave (NB/SB) | NB/SB | 60 | 60 | 60 | 60 | 60 | 61 | 60 | 61 | 61 | 62 | - Transfer 1s of green time from Ped phase to NB/SB in AM, PM, and Pregame. - Transfer 2s of green time from Ped phase to NB/SB in SAT. |
| | Peds | 60 | 60 | 60 | 60 | 60 | 59 | 60 | 59 | 59 | 58 | |
| 9. Atlantic Ave (EB/WB) @ Flatbush Ave (NB/SB) | EB-T | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | - Transfer 1s of green time from NB/SB to EB/WB in MD and Pregame. |
| | EB/WB | 44 | 44 | 44 | 44 | 44 | 44 | 45 | 44 | 45 | 44 | |
| | NB/SB | 61 | 61 | 61 | 61 | 61 | 61 | 60 | 61 | 60 | 61 | |
| 11. 5th Ave (EB/WB) @ Flatbush Ave (NB/SB) | EB | 55 | 55 | 55 | 55 | 52 | 55 | 55 | 53 | 55 | 50 | - Transfer 2s from EB to NB/SB in PM and SAT. |
| | NB/SB | 65 | 65 | 65 | 65 | 68 | 65 | 65 | 67 | 65 | 70 | |
| 12. Dean St (EB) @ Flatbush Ave (NB/SB) | EB | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | - Restripe EB approach as a 9' thru-lane and a 9' thru-right lane. - Install "No Standing Anytime" on the north curb of the EB receiving side. - Move bike lane on EB receiving side to north curb and create two travel lanes. |
| | NB/SB | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | |

Table 5-1 (cont'd)
Recommended Traffic Mitigation Measures

| Intersection | Signal Phase | Future Without Phase II Signal Timing (Seconds) (1) | | | | | Proposed Signal Timing (Seconds) (1) | | | | | Recommended Mitigation |
|--|----------------|---|----------|----------|--------------|----------|--|----------|----------|--------------|----------|--|
| | | AM | MD | PM | Pre- game | SAT | AM | MD | PM | Pre- game | SAT | |
| 13. Bergen St (WB) @ Flatbush Ave (NB/SB) | WB NB/SB | 59 61 | 55 65 | 55 65 | 55 65 | 55 65 | 63 57 | 55 65 | 56 64 | 55 65 | 58 62 | - Install "No Standing 7AM-7PM Except Sun" on SB approach up to Dean St. - Install "No Standing 12-7PM Sat" for 250' on NB approach to eliminate friction. - Transfer 4s of green time from NB/SB to WB in AM. - Transfer 1s of green time from NB/SB to WB in PM. - Transfer 3s of green time from NB/SB to WB in SAT. |
| 17. Sterling Pl (WB) @ Flatbush Ave (NB/SB) | WB NB/SB | 55 65 | 55 65 | 55 65 | 55 65 | 55 65 | 55 65 | 55 65 | 55 65 | 55 65 | 54 66 | - Transfer 1s of green time from WB to NB/SB in SAT. |
| 19. Myrtle Ave (EB/WB) @ Vanderbilt Ave (NB/SB) | EB/WB NB/SB | 65 25 | 60 30 | 65 25 | 65 25 | 65 25 | 64 26 | 59 31 | 64 26 | 64 26 | 64 26 | - Transfer 1s of green time from EB/WB to NB/SB in all periods. |
| 20. Dekalb Ave (WB) @ Vanderbilt Ave (NB/SB) | WB NB/SB | 36 24 | 36 24 | 36 24 | 36 24 | 36 24 | 35 25 | 35 25 | 35 25 | 35 25 | 35 25 | - Restripe WB approach as one 10' parking lane, one 12' travel lane, 4' of hatching, a 5' bike lane, and a 9' parking lane. - Transfer 1s of green time from WB to NB/SB in all periods. |
| 22. Fulton St (EB/WB) @ Carlton Ave (NB) | EB/WB NB | 53 37 | 53 37 | 53 37 | 53 37 | 53 37 | 51 39 | 53 37 | 53 37 | 53 37 | 53 37 | - Install "No Standing 7-10AM, Mon-Fri" for 100' on WB approach. - Transfer 2s of green time from EB/WB to NB in AM. |
| 23. Fulton St (EB/WB) @ Vanderbilt Ave (NB/SB) | EB/WB NB/SB | 53 37 | 53 37 | 53 37 | 53 37 | 53 37 | 51 39 | 52 38 | 50 40 | 51 39 | 49 41 | - Install "No Standing Anytime" for 100' on EB approach. - Install "No Standing Anytime" for 100' on WB approach. - Transfer 1s from EB/WB to NB/SB in MD peak hour. - Transfer 2s from EB/WB to NB/SB in AM and Pregame peak hours. - Transfer 3s from EB/WB to NB/SB in PM peak hour. - Transfer 4s from EB/WB to NB/SB in SAT peak hour. |
| 25. Schermerhorn St (WB) @ Boerum Pl (NB/SB) | WB NB/SB | 42 78 | 42 78 | 42 78 | 42 78 | 42 78 | 42 78 | 42 78 | 39 81 | 40 80 | 42 78 | - Install "No Standing, 4-7PM, Mon-Fri" for 250' on WB approach to provide additional right-turn lane. - Transfer 2s of green time from WB to NB/SB in Pregame peak hour. - Transfer 3s of green time from WB to NB/SB in PM peak hour. |
| 26. State St (EB) @ Boerum Pl (NB/SB) | EB NB/SB | 42 78 | 42 78 | 42 78 | 42 78 | 42 78 | 39 81 | 42 78 | 42 78 | 42 78 | 42 78 | - Install "No Standing 7-10AM, Mon-Fri" for 100' on south curb of EB approach. - Restripe SB approach as one 10' left-turn lane and three 10' thru lanes. - Transfer 3s of green time from EB to NB/SB in AM. |

**Table 5-1 (cont'd)
Recommended Traffic Mitigation Measures**

| Intersection | Signal Phase | Future Without Phase II Signal Timing (Seconds) (1) | | | | | Proposed Signal Timing (Seconds) (1) | | | | | Recommended Mitigation |
|---|--------------|---|----|----|--------------|-----|--|----|----|--------------|-----|--|
| | | AM | MD | PM | Pre- game | SAT | AM | MD | PM | Pre- game | SAT | |
| 27. Atlantic Ave (EB/WB) @ Hicks St (NB) | WB to BQE | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | - Transfer 1s of green time from NB to EB/WB in SAT. |
| | EB/WB | 50 | 42 | 60 | 60 | 60 | 50 | 42 | 60 | 60 | 61 | |
| | NB | 63 | 41 | 53 | 53 | 53 | 63 | 41 | 53 | 53 | 52 | |
| 28. Atlantic Ave (EB/WB) @ Henry St (SB) | EB/WB | 72 | 50 | 70 | 70 | 72 | 72 | 51 | 70 | 70 | 73 | - Transfer 1s of green time from SB to EB/WB in MD and SAT. |
| | SB | 48 | 40 | 50 | 50 | 48 | 48 | 39 | 50 | 50 | 47 | |
| 29. Atlantic Ave (EB/WB) @ Clinton St (NB) | EB/WB | 57 | 46 | 57 | 57 | 70 | 57 | 46 | 57 | 57 | 70 | - Install "No Standing Anytime" for 100' on WB approach to provide additional right-turn lane. |
| | Peds | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| | NB | 55 | 36 | 55 | 55 | 42 | 55 | 36 | 55 | 55 | 42 | |
| 30. Atlantic Ave (EB/WB) @ Boerum Pl (NB/SB) | EB-L | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 24 | 26 | - Install "No Standing Anytime for 250' on EB approach to provide additional right-turn lane. - Transfer 1s of green time from EB-L to EB/WB and SB in Pregame peak hour. - Transfer 1s of green time from SB to EB/WB in AM and SAT peak hours. |
| | EB/WB | 43 | 27 | 42 | 42 | 42 | 44 | 27 | 42 | 43 | 43 | |
| | SB | 51 | 37 | 52 | 52 | 52 | 50 | 37 | 52 | 53 | 51 | |
| 31 Atlantic Ave (EB/WB) @ Smith St (NB) | EB/WB | 72 | 50 | 80 | 80 | 75 | 72 | 50 | 80 | 80 | 75 | - Install "No Standing Anytime" for 100' on WB approach. - Install "No Standing 12-7PM Sat" for 250' on EB approach. - Restripe WB approach as two 10' thru lanes and one 9.5' right-turn lane. |
| | NB | 48 | 40 | 40 | 40 | 45 | 48 | 40 | 40 | 40 | 45 | |
| 33. Atlantic Ave (EB/WB) @ Bond St (NB) | EB/WB | 72 | 60 | 75 | 75 | 75 | 72 | 60 | 75 | 76 | 76 | - Install "No Standing 7-10AM, Mon-Fri" for 250' on WB approach to eliminate friction. - Transfer 1s of green time from NB to EB/WB in Pregame and SAT. |
| | NB | 48 | 30 | 45 | 45 | 45 | 48 | 30 | 45 | 44 | 44 | |
| 34. Atlantic Ave (EB/WB) @ Neveins St (SB) | EB/WB | 72 | 60 | 78 | 78 | 78 | 75 | 61 | 81 | 80 | 82 | - Install "No Standing Anytime" for 100' on west curb of SB approach. - Realign SB approach striping as one 13' left-turn lane and one 13' thru-right lane. - Transfer 3s of green time from SB to EB/WB in AM and PM - Transfer 1s of green time from SB to EB/WB in MD. - Transfer 2s of green time from SB to EB/WB in Pregame. - Transfer 4s of green time from SB to EB/WB in SAT. |
| | SB | 48 | 30 | 42 | 42 | 42 | 45 | 29 | 39 | 40 | 38 | |
| 36. Atlantic Ave (EB/WB) @ 4th Ave (NB/SB) | EB-T/WB-T | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | - Restripe NB approach as two 12' left-turn lanes, two 11' right-turn lanes, and 5' of hatching. - Transfer 1s of green time from NB to EB/WB in Pregame. - Transfer 1s of green time from SB to EB/WB in Pregame. |
| | EB/WB | 50 | 44 | 40 | 40 | 44 | 50 | 44 | 40 | 42 | 44 | |
| | SB | 33 | 37 | 43 | 43 | 37 | 33 | 37 | 43 | 42 | 37 | |
| | NB | 30 | 32 | 30 | 30 | 32 | 30 | 32 | 30 | 29 | 32 | |

**Table 5-1 (cont'd)
Recommended Traffic Mitigation Measures**

| Intersection | Signal Phase | Future Without Phase II Signal Timing (Seconds) (1) | | | | | Proposed Signal Timing (Seconds) (1) | | | | | Recommended Mitigation |
|---|--------------|---|----------|----------|--------------|----------|--|----------|----------|--------------|----------|--|
| | | AM | MD | PM | Pre- game | SAT | AM | MD | PM | Pre- game | SAT | |
| 37. Atlantic Ave (EB/WB) @ Fort Greene PI (NB/SB) | EB | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | - Transfer 3s of green time from NB/SB to EB/WB in SAT. |
| | EB/WB | 60 | 57 | 60 | 60 | 57 | 60 | 57 | 60 | 60 | 60 | |
| | NB/SB | 45 | 48 | 45 | 45 | 48 | 45 | 48 | 45 | 45 | 45 | |
| 38. Atlantic Ave (EB/WB) @ 6th Ave/S. Portland Ave (NB/SB) | WB | 17 | 11 | 15 | 15 | 15 | 15 | 10 | 13 | 15 | 15 | <ul style="list-style-type: none"> - Restripe WB approach as one 11' left-turn lane, three 10' thru- and thru-right lanes, and one 7.5' parking lane. - Realign striping along SB approach as one 12' left turn lane, one 12' thru-right lane, and an 8.5' parking lane. - Restripe NB receiving side as one 19' travel lane with parking. (shift centerline of SB approach 2' to the east) - Install "No Standing 4-7 PM Monday-Friday" on south curb of EB approach to eliminate friction. - Transfer 2s of green time from WB to EB/WB in PM - Transfer 1s of green time from WB to EB/WB in MD. - Transfer 2s of green time from WB to NB/SB in AM. |
| | EB/WB | 60 | 38 | 63 | 63 | 63 | 60 | 39 | 65 | 63 | 63 | |
| | NB/SB | 43 | 41 | 42 | 42 | 42 | 45 | 41 | 42 | 42 | 42 | |
| 40. Atlantic Ave (EB/WB) @ Carlton Ave (NB/SB) | EB/WB | 78 | 52 | 78 | 78 | 71 | 78 | 52 | 78 | 78 | 71 | <ul style="list-style-type: none"> - Install "No Standing Anytime for 100' on WB approach. - Restripe WB approach as one 11' left-turn lane, three 10' thru lanes, and one 10' right-turn lane. - Restripe NB approach as one 10' left-thru lane, one 10' right-turn lane, 2.5' of hatching, and a 5' bike lane. - Restripe SB receiving side as one 11' travel lane. |
| | NB | 42 | 38 | 42 | 42 | 49 | 42 | 38 | 42 | 42 | 49 | |
| 41. Atlantic Ave (EB/WB) @ Clermont Ave (NB/SB) | EB/WB SB | 78 42 | 54 36 | 78 42 | 78 42 | 78 42 | 78 42 | 55 35 | 79 41 | 80 40 | 81 39 | <ul style="list-style-type: none"> - Install "No Standing 4-7PM Mon-Fri" on west curb of SB approach for 100'. - Transfer 1s of green time from SB to EB/WB in MD and PM. - Transfer 2s of green time from SB to EB/WB in Pregame. - Transfer 3s of green time from SB to EB/WB in SAT. |

**Table 5-1 (cont'd)
Recommended Traffic Mitigation Measures**

| Intersection | Signal Phase | Future Without Phase II Signal Timing (Seconds) (1) | | | | | Proposed Signal Timing (Seconds) (1) | | | | | Recommended Mitigation |
|--|--------------|---|----|----|--------------|-----|--|----|----|--------------|-----|--|
| | | AM | MD | PM | Pre- game | SAT | AM | MD | PM | Pre- game | SAT | |
| 42. Atlantic Ave (EB/WB) @ Vanderbilt Ave (NB/SB) | WB | 13 | 11 | 13 | 13 | 13 | 13 | 11 | 13 | 15 | 14 | - Install "No Standing Anytime" for 250' on EB approach to eliminate friction. - Restripe SB approach as two 10' thru and thru-right lanes and a 6' bike lane. (shift centerline of SB approach 2' to the east) - Restripe the NB receiving side as one 10' travel lane and a 6' bike lane. - Restripe the WB approach as one 12' left-turn lane, two 10' thru lanes, and one 18' thru-right lane. - Allow EB right turn to go during NB phase - Transfer 3s of green time from EB/WB to NB in AM. - Transfer 1s of green time from EB/WB to NB in Pregame and SAT. - Transfer 1s of green time from EB/WB to WB in SAT. - Transfer 1s of green time from NB/SB to NB in PM. - Transfer 2s green time from EB/WB to WB in Pregame. - Transfer 1s of green time from EB/WB to NB/SB in Pregame. |
| | EB/WB | 54 | 30 | 56 | 56 | 54 | 51 | 30 | 56 | 52 | 52 | |
| | NB | 13 | 11 | 13 | 13 | 13 | 16 | 11 | 14 | 14 | 14 | |
| | NB/SB | 40 | 38 | 38 | 38 | 40 | 40 | 38 | 37 | 39 | 40 | |
| 43. Atlantic Ave (EB/WB) @ Clinton Ave (NB/SB) | EB/WB | 72 | 50 | 78 | 78 | 70 | 73 | 50 | 78 | 78 | 70 | - Transfer 1s of green time from SB to EB/WB in AM. |
| | SB | 48 | 40 | 42 | 42 | 50 | 47 | 40 | 42 | 42 | 50 | |
| 45. Atlantic Ave (EB/WB) @ Underhill Ave (SB/ Washington Ave (NB/SB) | WB | 16 | 12 | 16 | 16 | 16 | 16 | 12 | 15 | 16 | 16 | - Install "No Standing, 7-10AM, Mon-Fri" for 250' along WB approach to eliminate friction. - Transfer 1s of green time from WB to EB/WB in PM. |
| | EB/WB | 61 | 41 | 65 | 65 | 65 | 61 | 41 | 66 | 65 | 65 | |
| | NB/SB | 43 | 37 | 39 | 39 | 39 | 43 | 37 | 39 | 39 | 39 | |
| 46. Atlantic Ave (EB/WB) @ Grand Ave (SB) | EB/WB | 78 | 54 | 78 | 78 | 78 | 78 | 54 | 78 | 78 | 78 | - Install "No Standing Anytime" for 100' along EB approach to provide additional right-turn lane. |
| | SB | 42 | 36 | 42 | 42 | 42 | 42 | 36 | 42 | 42 | 42 | |
| 50. Pacific St (EB/WB) @ Vanderbilt Ave (NB/SB) | WB | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 25 | 29 | 29 | - Transfer 4s of green time from WB to NB/SB in PM. |
| | NB/SB | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 65 | 61 | 61 | |
| 51. Dean St (EB) @ 3rd Ave (NB/SB) | EB | 71 | 45 | 65 | 65 | 65 | 71 | 45 | 64 | 65 | 64 | - Transfer 1s of green time from EB to NB/SB in PM and SAT. |
| | NB/SB | 49 | 45 | 55 | 55 | 55 | 49 | 45 | 56 | 55 | 56 | |
| 52. Dean St (EB) @ 4th Ave (NB/SB) | EB | 72 | 60 | 50 | 50 | 60 | 71 | 60 | 50 | 51 | 60 | - Transfer 1s of green time from EB to NB/SB in AM. - Transfer 2s of green time from NB/SB to EB in Pregame. |
| | NB/SB | 48 | 60 | 70 | 70 | 60 | 49 | 60 | 70 | 69 | 60 | |
| 53. Dean St (EB) @ 5th Ave (NB/SB) | EB | 31 | 31 | 31 | 31 | 31 | 34 | 34 | 31 | 33 | 34 | - Install "No Standing 4-7PM, Mon-Fri" for 250' on the south curb along the EB approach to eliminate friction. - Transfer 1s of green time from SB to NB/SB in all periods. - Transfer 2s of green time from SB to EB in Pregame. - Transfer 3s of green time from SB to EB in AM, MD and SAT. |
| | SB | 48 | 48 | 48 | 48 | 48 | 44 | 44 | 47 | 45 | 44 | |
| | NB/SB | 41 | 41 | 41 | 41 | 41 | 42 | 42 | 42 | 42 | 42 | |

Table 5-1 (cont'd)
Recommended Traffic Mitigation Measures

| Intersection | Signal Phase | Future Without Phase II Signal Timing (Seconds) (1) | | | | | Proposed Signal Timing (Seconds) (1) | | | | | Recommended Mitigation |
|--|--------------|---|----------|----------|--------------|----------|--|----------|----------|--------------|----------|--|
| | | AM | MD | PM | Pre- game | SAT | AM | MD | PM | Pre- game | SAT | |
| 54. Dean St (EB) @ 6th Ave (NB/SB) | EB NB/SB | 24 36 | 24 36 | 22 38 | 22 38 | 24 36 | 25 35 | 27 33 | 26 34 | 22 38 | 28 32 | - Install "No Standing Anytime" along entire north curb of EB approach. - Restripe EB approach to include a 5' curbside bike lane, one 10.5' left-turn lane, one 10' thru-right lane, and an 8' parking lane. - Transfer 1s of green time from NB/SB to EB in AM (for ped. mitigation). - Transfer 3s of green time from NB/SB to EB in MD. - Transfer 4s of green time from NB/SB to EB in PM (2 sec. for ped. mitigation). - Transfer 4s of green time from NB/SB to EB in SAT (also needed for ped. mitigation). |
| 55. Dean St (EB) @ Carlton Ave (NB) | EB NB | 26 34 | 26 34 | 26 34 | 26 34 | 26 34 | 26 34 | 26 34 | 30 30 | 28 32 | 30 30 | - Transfer 2s of green time from NB to EB in Pregame. - Transfer 4s of green time from NB to EB in PM and SAT. |
| 56. Dean St (EB) @ Vanderbilt Ave (NB/SB) | EB NB/SB | 30 60 | 32 58 | 31 59 | 31 59 | 32 58 | 29 61 | 32 58 | 31 59 | 31 59 | 33 57 | - Install "No Standing Anytime" for 100' along south curb of EB approach. - Restore parking on north curb of EB approach. - Install "No Standing 7-10AM Mon-Fri" along south curb of EB approach from 100' to 250'. - Restripe EB approach as an 8' parking lane, a 5' bike lane, a 10' left-thru lane, and an 11' right-turn lane. - Transfer 1s of green time from EB to NB/SB in AM. - Transfer 1s of green time from NB/SB to EB in SAT. |
| 58. Dean St (EB) @ Washington Ave (NB/SB) | EB NB/SB | 26 34 | 26 34 | 26 34 | 26 34 | 26 34 | 26 34 | 26 34 | 26 34 | 26 34 | 26 34 | - Install "No Standing Anytime" on south curb of EB approach for 100'. - Restripe EB approach as a 7.5' parking lane, a 5' bike lane, one 11.5' thru lane, and one 10' right-turn lane. |
| 59. Bergen St (WB) @ 4th Ave (NB/SB) | WB NB/SB | 72 48 | 65 55 | 50 70 | 50 70 | 65 55 | 72 48 | 65 55 | 50 70 | 51 69 | 65 55 | - Install "No Standing 7AM-7PM, Except Sun" on north curb of WB approach for 100'. - Transfer 1s of green time from NB/SB to WB in Pregame. |
| 60. Bergen St (WB) @ 5th Ave (NB/SB) | WB NB/SB | 40 80 | 40 80 | 40 80 | 40 80 | 40 70 | 40 80 | 43 77 | 43 77 | 41 79 | 43 77 | - Extend "No Standing 7-10AM, Mon-Fri" on north curb for 250' to eliminate friction. - Transfer 3s of green time from NB/SB to WB in MD, PM, and SAT. - Transfer 1s of green time from NB/SB to WB in Pregame. |
| 61. Bergen St (WB) @ Carlton Ave (NB) | WB NB | 24 36 | 24 36 | 24 36 | 24 36 | 24 36 | 27 33 | 25 35 | 26 34 | 25 35 | 24 36 | - Transfer 3s of green time from NB to WB in AM. - Transfer 1s of green time from NB to WB in MD, and Pregame. - Transfer 2s of green time from NB to WB in PM and SAT. |

Table 5-1 (cont'd)
Recommended Traffic Mitigation Measures

| Intersection | Signal Phase | Future Without Phase II Signal Timing (Seconds) (1) | | | | | Proposed Signal Timing (Seconds) (1) | | | | | Recommended Mitigation |
|---|--------------|---|----|----|--------------|-----|--|----|----|--------------|-----|---|
| | | AM | MD | PM | Pre- game | SAT | AM | MD | PM | Pre- game | SAT | |
| 62. Bergen St (WB) @ Vanderbilt Ave (NB/SB) | WB | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | - Restripe WB approach with one 10' left-turn lane, a 5' bike lane, 3' of hatching, one 12' thru lane, and one 10' right-turn lane. - Install "No Standing Anytime" on SB approach for entire block to eliminate friction. - Install "No Standing Anytime" on north curb of WB approach for 100'. |
| | NB/SB | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | |
| 63. Saint Marks PI (EB) @ 4th Ave (NB/SB) | EB | 68 | 55 | 50 | 50 | 55 | 67 | 55 | 49 | 50 | 54 | - Transfer 1s of green time from EB to NB/SB in AM, PM, and SAT. |
| | NB/SB | 52 | 65 | 70 | 70 | 65 | 53 | 65 | 71 | 70 | 66 | |
| 65. Saint Marks Ave (EB) @ Vanderbilt Ave (NB/SB) | EB | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 28 | 29 | 29 | - Restripe NB approach as one 10' thru-right lane, a 5' bike lane, and a 9' parking lane. - Install "No Standing, 4-7PM, Mon-Fri" on both curbs of EB approach for 250' to eliminate friction. - Transfer 1s of green time from EB to NB/SB in PM. |
| | NB/SB | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 62 | 61 | 61 | |
| 66. Prospect PI (WB) @ Vanderbilt Ave (NB/SB) | WB | 29 | 29 | 29 | 29 | 29 | 27 | 29 | 28 | 28 | 27 | - Install "No Standing Anytime" for 100' on north curb of WB approach. - Restripe WB approach as a left-thru lane and a right-turn lane. - Transfer 2s of green time from WB to NB/SB in AM and SAT. - Transfer 1s of green time from WB to NB/SB in PM and Pregame. |
| | NB/SB | 61 | 61 | 61 | 61 | 61 | 63 | 61 | 62 | 62 | 63 | |
| 67. Park PI (EB) @ Vanderbilt Ave (NB/SB) | EB | 29 | 29 | 29 | 29 | 29 | 28 | 29 | 29 | 29 | 29 | - Install "No Standing, 7-10AM, Mon-Fri" on both curbs of EB approach for 250' to eliminate friction. - Transfer 1s of green time from EB to NB/SB in AM. |
| | NB/SB | 61 | 61 | 61 | 61 | 61 | 62 | 61 | 61 | 61 | 61 | |
| 68. Union St (EB/WB) @ 5th Ave (NB/SB) | EB/WB | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 44 | - Transfer 1s of green time from EB/WB to NB/SB in SAT. |
| | NB/SB | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 46 | |
| 69. Eastern Parkway (EB/WB) @ Washington Ave (NB/SB) (120s cycle) | EB/WB | 63 | | 63 | 63 | | 63 | | 63 | 63 | | - Install "No Standing, 4-8PM, Mon-Fri" for 100' on NB and SB approaches. - Transfer 1s of green time from SB to NB/SB in AM. |
| | SB | 18 | | 18 | 18 | | 17 | | 18 | 18 | | |
| | NB/SB | 39 | | 39 | 39 | | 40 | | 39 | 39 | | |
| 69. Eastern Parkway (EB/WB) @ Washington Ave (NB/SB) (90s cycle) | EB/WB | | 44 | | 44 | 44 | | 44 | | 44 | 44 | - Install "No Standing, 4-8PM, Mon-Fri" for 100' on NB and SB approaches. - Transfer 1s of green time from SB to NB/SB in MD and SAT. |
| | SB | | 16 | | 16 | 16 | | 15 | | 16 | 15 | |
| | NB/SB | | 30 | | 30 | 30 | | 31 | | 30 | 31 | |
| 70. Bergen St (WB) @ 6th Ave (NB/SB) | WB | 29 | 24 | 28 | 28 | 24 | 31 | 24 | 28 | 28 | 26 | - Transfer 2s of green time from NB/SB to WB in AM and SAT. |
| | NB/SB | 31 | 36 | 32 | 32 | 36 | 29 | 36 | 32 | 32 | 34 | |
| 71. Union St (EB/WB) @ 4th Ave (NB/SB) | EB/WB | 40 | 66 | 40 | 40 | 66 | 40 | 66 | 40 | 40 | 65 | - Transfer 1s of green time from EB/WB to NB/SB in SAT. |
| | NB/SB | 80 | 54 | 80 | 80 | 54 | 80 | 54 | 80 | 80 | 55 | |

Notes :

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

Atlantic Avenue

Measures recommended for impacted intersections along the Atlantic Avenue corridor include minor signal timing adjustments (typically four seconds or less); changes in signal phasing; and the installation of new curbside parking restrictions and/or new lane striping along one or more approaches at Boerum Place, Clinton, Smith, Bond and Nevins Streets, and 4th, 6th/S. Portland, Carlton, Clermont, Vanderbilt, Washington/Underhill and Grand Avenues. At a number of these locations, the recommended curbside parking restrictions are to facilitate the introduction of new right-turn lanes.

Flatbush Avenue

Measures recommended for impacted intersections along the Flatbush Avenue corridor include minor signal timing adjustments of four seconds or less; installation of new curbside parking restrictions along one or more approaches at Willoughby, Dean and Bergen Streets; and restriping one or more approaches at the intersections with DeKalb and Lafayette Avenues and Willoughby, Fulton and Dean Streets. At Dean Street, parking would be eliminated along the north curb between Flatbush and 6th Avenues and the bike lane would be relocated adjacent to the north curb to provide for two travel lanes.

3rd Avenue

A minor one-second signal timing adjustment is recommended to mitigate the significant adverse traffic impact at Dean Street.

4th Avenue

Mitigation measures recommended to address the significant adverse traffic impacts along 4th Avenue include minor signal timing adjustments of two seconds or less; restriping the northbound 4th Avenue approach at Atlantic Avenue to provide two left-turn lanes and two right-turn lanes; and installation of a new curbside parking restriction along the north curb of the westbound approach at Bergen Street.

5th Avenue

Mitigation measures recommended to address significant adverse traffic impacts at intersections along 5th Avenue include minor signal timing adjustments of three seconds or less, and installation of new curbside parking restrictions along the south curb of the eastbound approach at Dean Street and the north curb of the westbound approach at Bergen Street.

6th Avenue

Mitigation measures recommended to address significant adverse traffic impacts at intersections along 6th Avenue include minor signal timing adjustments of four seconds or less and new curbside parking restrictions and lane restriping at Atlantic Avenue and at Dean Street.

Carlton Avenue

Mitigation measures recommended to address significant adverse traffic impacts at intersections along Carlton Avenue include minor signal timing adjustments of four seconds or less; installation of new curbside parking restrictions at Fulton Street and at Atlantic Avenue; and restriping the northbound and westbound approaches at Atlantic Avenue.

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Vanderbilt Avenue

Measures recommended for impacted intersections along the Vanderbilt Avenue corridor include minor signal timing adjustments of four seconds or less; implementation of new curbside parking restrictions along one or more approaches at Fulton, Dean and Bergen Streets, Atlantic and St. Mark's Avenues, Prospect Place and Park Place; and restriping one or more approaches at DeKalb, Atlantic and St. Mark's Avenues, Dean and Bergen Streets, and Prospect Place.

Washington Avenue/Underhill Avenue

Measures recommended for impacted intersections along the Washington Avenue/Underhill Avenue corridors include minor (one second) signal timing adjustments; implementation of new curbside parking restrictions along one or more approaches at Atlantic Avenue, Dean Street and Eastern Parkway; and restriping the eastbound approach at Dean Street.

Adams Street/Boerum Place

Measures recommended for impacted intersections along the Adams Street/Boerum Place corridor include minor signal timing adjustments of three seconds or less; implementation of new curbside parking restrictions along one or more approaches at Atlantic Avenue and Schermerhorn and State Streets; and restriping one or more approaches at Atlantic Avenue and Schermerhorn and State Streets.

EFFECTIVENESS OF MITIGATION MEASURES ON TRAFFIC

The operational measures described above represent a traffic mitigation plan that would be implemented as Phase II demand develops through 2035. The primary objective is an improvement in traffic conditions and a reduction in congestion in the study area.

Under *CEQR Technical Manual* criteria, a significant adverse traffic impact is considered fully mitigated when the resulting level of service (LOS) degradation under the Action-with-Mitigation condition compared to the No-Action condition is no longer deemed significant following the impact criteria described in Section E in Chapter 4D, "Operational Transportation." Under these criteria, if a lane group under the Action-with-Mitigation condition is within LOS A, B or C, or marginally acceptable LOS D (average control delay less than or equal to 45.0 seconds/vehicle for signalized intersections and 30.0 seconds/vehicle for unsignalized intersections), the impact has been mitigated. If the lane group is projected to operate at worse than mid-LOS D (i.e., delay greater than 45 seconds/vehicle at signalized intersections or 30 seconds/vehicle at unsignalized intersections) or at LOS E or F under the Action-With-Mitigation condition, then the impact is considered mitigated when:

- The lane group would operate at LOS D under the No-Action condition and would experience an increase of less than five seconds of delay under the Action-With-Mitigation condition;
- The lane group would operate at LOS E under the No-Action condition and would experience an increase in projected delay of less than four seconds; and
- The lane group would operate at LOS F under the No-Action condition and would experience an increase in projected delay of less than three seconds.

Based on these criteria, the recommended operational improvements would fully address all significant adverse impacts from Phase II under the Extended Build-Out Scenario at a total of 46 out of 56 impacted intersections, and reduce the number of impacts at eight of the remaining ten

intersections. **Table 5-2** shows a summary comparison of intersection levels of service and the number of intersections with significant adverse impacts in each analyzed peak hour for the Future Without and With Phase II conditions and the Future With Phase II Mitigated condition. **Table 5-3** shows the v/c ratios, delays and levels of service for those lane groups where significant adverse traffic impacts would remain unmitigated under the *CEQR Technical Manual* criteria described above. (V/c ratios, delays and levels of service for all lane groups at all analyzed intersections in all periods in the Future With Phase II With Mitigation condition are provided in **Table A-5** in **Appendix A**.) As shown in **Table 5-2**, significant adverse impacts would remain unmitigated at four of the 41 intersections impacted in the weekday AM peak hour, none of the 21 intersections impacted in the midday peak hour, seven of the 38 intersections impacted in the PM peak hour, none of the 26 intersections impacted in the weekday pregame peak hour and eight of the 47 intersections impacted in the Saturday pregame peak hour. The number of lane groups operating at LOS E or F of the approximately 305 analyzed would be lower in all analyzed peak hours in the Future With Phase II with Mitigation than in the future with or without Phase II.

The following provides a discussion of unmitigated significant adverse traffic impacts by corridor. The potential for queuing and spill-back along the principal arterials serving the project site (Flatbush, Atlantic, 4th and Vanderbilt Avenues) in the Future With Phase II With Mitigation condition under the Extended Build-Out Scenario is also discussed.

Table 5-2
Intersection Level of Service Summary Comparison
Future With Phase II vs. Mitigation Condition

| | Future Without Phase II | | | | | Future With Phase II | | | | | Future With Phase II With Mitigation | | | | |
|--|-------------------------|------|------|----------|------|----------------------|----|-----|----------|-----|--------------------------------------|----|----|----------|-----|
| | AM | MD | P M | Pre-game | SAT | AM | MD | P M | Pre-game | SAT | AM | MD | PM | Pre-game | SAT |
| Overall LOS A/B/C | 29 | 43 | 32 | 36 | 27 | 25 | 41 | 27 | 34 | 21 | 27 | 45 | 32 | 39 | 26 |
| Overall LOS D | 11 | 13 | 10 | 20 | 10 | 10 | 13 | 12 | 18 | 12 | 19 | 14 | 14 | 17 | 14 |
| Overall LOS E | 19 | 10 | 16 | 11 | 16 | 20 | 9 | 11 | 13 | 15 | 15 | 10 | 15 | 12 | 13 |
| Overall LOS F | 12 | 5 | 13 | 4 | 18 | 16 | 8 | 21 | 6 | 23 | 10 | 2 | 10 | 3 | 18 |
| Total number of intersections with significant impacts | ---- | ---- | ---- | ---- | ---- | 41 | 21 | 38 | 26 | 47 | 4 | 0 | 7 | 0 | 8 |
| No. of lane groups at LOS E or F of the approximately 305 analyzed | 86 | 55 | 99 | 61 | 95 | 92 | 61 | 105 | 65 | 106 | 83 | 54 | 96 | 53 | 91 |

Atlantic Avenue

As shown in **Table 5-3**, six of the 17 significantly impacted intersections along the Atlantic Avenue corridor would continue to have unmitigated impacts in one or more peak hours in the Future With Phase II With Mitigation under the Extended Build-Out Scenario. At Boerum Place, the westbound right-turn would remain unmitigated in the weekday AM and Saturday pregame peak hours. At 4th Avenue, unmitigated impacts to the eastbound Atlantic Avenue through-movement would remain in the weekday PM and Saturday pregame peak hours. At Flatbush Avenue, impacts to the westbound right-turn would remain unmitigated in the weekday AM and PM and Saturday pregame peak hours. The Saturday pregame peak hour impact to the westbound through-right movement would also remain unmitigated. At the intersection with 6th Avenue/S. Portland Avenue, the PM peak hour impact to the southbound left-turn on S. Portland

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Avenue would remain unmitigated, as would the PM and Saturday pregame peak hour impacts to the westbound left-turn movement at Carlton Avenue. Lastly, at Vanderbilt Avenue, unmitigated impacts would remain on the westbound left-turn in the PM and Saturday pregame periods, the southbound through-right lane group in the PM, and the northbound left-turn in the Saturday pregame peak hour. Although these impacts would remain unmitigated under *CEQR Technical Manual* criteria, delays would be reduced compared to the Future With Phase II condition for nine of the 15 lane groups along Atlantic Avenue with unmitigated impacts.

Flatbush Avenue

As shown in **Table 5-3**, two of the 11 significantly impacted intersections along the Flatbush Avenue corridor would continue to have unmitigated impacts in one or more peak hours in the Future With Phase II With Mitigation under the Extended Build-Out Scenario. In addition to the unmitigated impacts at Atlantic Avenue described above, unmitigated impacts would remain on the southbound Flatbush Avenue Extension approach at Willoughby Street in the weekday PM peak hour and the southbound approach in the PM and Saturday pregame peak hours.

4th Avenue

As shown in **Table 5-3**, one of the six impacted intersections along the 4th Avenue corridor would continue to have unmitigated impacts in one or more peak hours in the Future With Phase II With Mitigation under the Extended Build-Out Scenario. As discussed above, unmitigated impacts to the eastbound Atlantic Avenue through-movement at 4th Avenue would remain in the weekday PM and Saturday pregame peak hours.

5th Avenue

All significant adverse impacts at the four impacted intersections along the 5th Avenue corridor would be fully mitigated in all peak hours by the recommended mitigation measures.

6th Avenue/S. Portland Avenue

As shown in **Table 5-3**, both of the two impacted intersections along the 6th Avenue/S. Portland Avenue corridor would continue to have unmitigated impacts in one or more peak hours in the Future With Phase II With Mitigation under the Extended Build-Out Scenario. As discussed above, the PM peak hour impact to the southbound left-turn on S. Portland Avenue at Atlantic Avenue would remain unmitigated. In addition, the AM peak hour impact to the eastbound left-turn on Dean Street at 6th Avenue would remain unmitigated. Delay for both of these impacts would be reduced compared to the Future With Phase II condition.

Carlton Avenue

One of the four impacted intersections along Carlton Avenue would continue to have unmitigated impacts. As noted above, impacts to the westbound left-turn movement on Atlantic Avenue would remain in the PM and Saturday pregame peak hours although the delay for both of these impacts would be reduced compared to the Future With Phase II condition.

**Table 5-3
Lane Groups With Unmitigated Significant Adverse Impacts
in the Future With Phase II with Mitigation**

| Weekday AM Peak Hour | LANE GROUP | Future Without Phase II | | | Future With Phase II | | | Future With Phase II w/Mitigation | | |
|---|-------------|-------------------------|--------------|-----|----------------------|--------------|-----|-----------------------------------|--------------|-----|
| | | V/C Ratio | Delay (sec.) | LOS | V/C Ratio | Delay (sec.) | LOS | V/C Ratio | Delay (sec.) | LOS |
| 9. Atlantic Avenue (E-W) @ Flatbush Avenue (N-S) | WB - R | 0.79 | 50.1 | D | 0.87 | 58.0 | E | 0.87 | 58.0 | E |
| 18. Tillary Street (E-W) @ Adams Street-Brooklyn Bridge (N-S) | NB - T (ML) | 1.10 | 90.1 | F | 1.16 | 114.9 | F | 1.16 | 114.9 | F |
| 30. Atlantic Avenue (E-W) @ Boerum Place (N-S) | WB - R | 1.11 | 70.6 | E | 1.17 | 94.9 | F | 1.17 | 93.8 | F |
| 54. Dean Street (EB) @ 6th Avenue (N-S) | EB - L | 0.76 | 29.8 | C | 1.53 | 279.3 | F | 1.23 | 151.1 | F |

| Weekday PM Peak Hour | LANE GROUP | Future Without Phase II | | | Future With Phase II | | | Future With Phase II w/Mitigation | | |
|---|-----------------------|-------------------------|---------------|--------|----------------------|----------------|--------|-----------------------------------|---------------|--------|
| | | V/C Ratio | Delay (sec.) | LOS | V/C Ratio | Delay (sec.) | LOS | V/C Ratio | Delay (sec.) | LOS |
| 3. Willoughby Street (E-W) @ Flatbush Avenue Extension (N-S) | SB - TR | 1.13 | 91.2 | F | 1.15 | 98.3 | F | 1.15 | 98.3 | F |
| 9. Atlantic Avenue (E-W) @ Flatbush Avenue (N-S) | WB - R | 1.20 | 154.9 | F | 1.24 | 168.9 | F | 1.24 | 168.9 | F |
| 18. Tillary Street (E-W) @ Adams Street-Brooklyn Bridge (N-S) | WB - L NB - T (ML) | 1.56 1.07 | 302.5 79.7 | F E | 1.58 1.10 | 308.6 91.0 | F F | 1.58 1.10 | 308.6 91.0 | F F |
| 36. Atlantic Avenue (E-W) @ 4th Avenue(N-S) | EB - T | 1.18 | 127.4 | F | 1.25 | 155.0 | F | 1.25 | 155.0 | F |
| 38. Atlantic Avenue (E-W) @ 6th Ave-South Portland Ave (N-S) | SB - L | 1.13 | 123.1 | F | 1.27 | 181.1 | F | 1.19 | 147.3 | F |
| 40. Atlantic Avenue (E-W) @ Carlton Avenue (N-S) | WB - L | 0.81 | 62.4 | E | 1.35 | 235.1 | F | 1.31 | 215.1 | F |
| 42. Atlantic Avenue (E-W) @ Vanderbilt Avenue (N-S) | WB - L SB - TR | 0.93 1.11 | 75.7 96.3 | E F | 1.09 1.18 | 116.9 128.1 | F F | 1.03 1.18 | 98.4 125.3 | F F |

| Saturday Pregame Peak Hour | LANE GROUP | Future Without Phase II | | | Future With Phase II | | | Future With Phase II w/Mitigation | | |
|---|-----------------------|-------------------------|---------------|--------|----------------------|----------------|--------|-----------------------------------|----------------|--------|
| | | V/C Ratio | Delay (sec.) | LOS | V/C Ratio | Delay (sec.) | LOS | V/C Ratio | Delay (sec.) | LOS |
| 3. Willoughby Street (E-W) @ Flatbush Avenue Extension (N-S) | SB - TR | 1.11 | 83.7 | F | 1.13 | 93.2 | F | 1.13 | 93.2 | F |
| 9. Atlantic Avenue (E-W) @ Flatbush Avenue (N-S) | WB - TR WB - R | 1.05 1.39 | 72.8 225.3 | E F | 1.13 1.46 | 103.1 253.4 | F F | 1.13 1.46 | 103.1 253.4 | F F |
| 18. Tillary Street (E-W) @ Adams Street-Brooklyn Bridge (N-S) | WB - L NB - T (ML) | 1.21 0.99 | 157.9 60.4 | F E | 1.22 1.05 | 161.3 78.7 | F E | 1.22 1.05 | 161.3 78.7 | F E |
| 24. Livingston Street (E-W) @ Boerum Place (N-S) | SB - L | 1.01 | 87.9 | F | 1.02 | 93.9 | F | 1.02 | 93.9 | F |
| 30. Atlantic Avenue (E-W) @ Boerum Place (N-S) | WB - R | 1.19 | 109.7 | F | 1.28 | 147.0 | F | 1.28 | 146.1 | F |
| 36. Atlantic Avenue (E-W) @ 4th Avenue(N-S) | EB - T | 1.08 | 87.1 | F | 1.16 | 116.3 | F | 1.16 | 116.3 | F |
| 40. Atlantic Avenue (E-W) @ Carlton Avenue (N-S) | WB - L | 0.34 | 20.0 | B | 0.84 | 62.1 | E | 0.81 | 56.8 | E |
| 42. Atlantic Avenue (E-W) @ Vanderbilt Avenue (N-S) | WB - L NB - L | 0.79 0.73 | 40.9 39.6 | D D | 0.98 0.88 | 76.2 58.3 | E E | 0.89 0.84 | 57.5 51.3 | E D |

Notes:

L-Left, T-Through, R-Right, DefL-Analysis considers a defacto left lane on this approach

V/C Ratio - Volume to Capacity Ratio, sec. - Seconds

LOS - Level of Service

Analysis is based on the 2000 Highway Capacity Manual methodology (HCS+, version 5.5)

Lane groups shown are those with unmitigated significant adverse impacts under CEQR Technical Manual guidelines.

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Vanderbilt Avenue

As shown in **Table 5-3**, of the ten impacted intersections along the Vanderbilt Avenue corridor, only the intersection with Atlantic Avenue would continue to have unmitigated impacts in one or more peak hours in the Future With Phase II With Mitigation under the Extended Build-Out Scenario. As discussed above, unmitigated impacts would remain on the westbound left-turn in the PM and Saturday pregame periods, the southbound through-right lane group in the PM, and the northbound left-turn in the Saturday pregame peak hour. Although these impacts would remain unmitigated under *CEQR Technical Manual* criteria, delays would be reduced compared to the Future With Phase II condition.

Washington Avenue/Underhill Avenue

All significant adverse impacts at the three impacted intersections along the Washington Avenue/Underhill Avenue corridors would be fully mitigated in all peak hours by the recommended mitigation measures.

Dean Street/Bergen Street

As shown in **Table 5-3**, none of the six impacted intersections along the Bergen Street corridor and one of the eight impacted intersections along the Dean Street corridor would continue to have unmitigated impacts in the Future With Phase II With Mitigation under the Extended Build-Out Scenario. As discussed above, the AM peak hour impact to the eastbound left-turn on Dean Street at 6th Avenue would remain unmitigated, although delay would be reduced compared to the Future With Phase II condition.

Adams Street/Boerum Place

As shown in **Table 5-3**, unmitigated impacts would remain at three of the four impacted intersections along the Adams Street/Boerum Place corridor. At the intersection of Adams Street with Tillary Street, impacts to the northbound mainline through movement would remain unmitigated in the AM, PM and Saturday pregame peak hours, as would impacts to the westbound left-turn movement in the PM and Saturday pregame peak hours. Although no practicable mitigation was identified for these impacts, it should be noted that improvements are planned at this intersection by NYCDOT in the Future Without Phase II condition. Measures will be explored between the DSEIS and FSEIS in coordination with NYCDOT to mitigate the significant adverse impacts at this location.

As discussed above the AM and Saturday pregame peak hour impacts to the westbound right turn on Atlantic Avenue at Boerum Place would remain unmitigated although delays would be reduced compared to the Future With Phase II condition. Lastly, the Saturday pregame peak hour impact to the southbound left-turn at Livingston Street would also remain unmitigated. No practicable mitigation was identified for this impact.

As noted previously, the recommended traffic mitigation measures will be further reviewed with NYCDOT between the DSEIS and FSEIS, potentially resulting in elimination or modification of certain mitigation measures. Additional measures will also be explored between the DSEIS and FSEIS in coordination with NYCDOT to reduce or eliminate any unmitigated significant adverse traffic impacts. In the absence of NYCDOT approval and implementation of mitigation measures, additional unmitigated conditions would remain.

Potential Queuing and Spillback

As discussed previously in Chapter 4D, “Operational Transportation,” the 2006 FEIS acknowledged the potential for queuing and spillback at locations operating substantially over capacity, and that such queuing may potentially affect both upstream and downstream intersections along a corridor. For example, extensive queues may spill back through upstream intersections, while at downstream intersections, forecasted volumes may not occur, as traffic will be effectively metered at the first queued location along the corridor. As there would be similar potential in the Future with Phase II under the Extended Build-Out Scenario, this SEIS also examines this issue with respect to the principal arterials serving the project site (Flatbush, Atlantic, 4th and Vanderbilt Avenues). The following compares the potential for queuing and spillback in the Future With Phase II to conditions with the recommended traffic mitigation measures.

In the Future With Phase II, the northbound and/or southbound through movements along Flatbush Avenue are projected to operate substantially over capacity in one or more peak hours (and therefore experience queuing that could potentially spill back to upstream intersections) at a total of six intersections – Fulton Street and 7th, 4th, Atlantic, Lafayette and Myrtle Avenues. With implementation of the recommended traffic mitigation measures, the northbound and/or southbound approaches at Myrtle and 7th Avenues would no longer operate substantially over capacity in one or more peak hours.

Along the Atlantic Avenue corridor there would be a total of nine intersections where the through movements on eastbound and/or westbound Atlantic Avenue are expected to operate substantially over capacity in one or more peak hours (and therefore potentially experience queuing and spill back) in the Future With Phase II. These include the intersections at Boerum Place, Ft. Greene Place, Vanderbilt and 4th Avenues, and Hicks, Henry, Clinton, Smith and Nevins Streets. With implementation of the recommended traffic mitigation measures, there would only be five such intersections – Boerum Place, 4th Avenue, and Smith, Nevins and Henry Streets.

There were no intersections where the through movements on northbound and/or southbound 4th Avenue were projected to operate substantially over capacity in one or more peak hours and therefore potentially experience queuing and spill back in the Future With Phase II. This would be unchanged with implementation of the recommended traffic mitigation measures.

Lastly, in the Future With Phase II there are projected to be a total of four intersections where the through movements on northbound and/or southbound Vanderbilt Avenue are expected to operate substantially over capacity in one or more peak hours and therefore potentially experience queuing and spill back—Myrtle and DeKalb Avenues and Fulton and Bergen Streets. With implementation of the recommended traffic mitigation measures, there would only be two such intersections – Myrtle Avenue and DeKalb Avenue.

PROPOSED IMPLEMENTATION SCHEDULE FOR TRAFFIC MITIGATION MEASURES

Subject to NYCDOT approval, the mitigation measures described above would be implemented to mitigate the significant adverse traffic impacts resulting from the development of Phase II of the Project. As the development of Phase II would occur over a prolonged period under the Extended Build-Out Scenario, it is possible that some of the significant adverse traffic impacts could occur prior to full build-out of Phase II in 2035. Therefore, a screening analysis was

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prepared to estimate the likely point in time at which the mitigation plan developed for Phase II traffic impacts would potentially need to be implemented.

Under *CEQR Technical Manual* guidelines, significant adverse traffic impacts are generally considered unlikely to occur when new development would generate fewer than 50 vehicle trips in any peak hour, and individual intersections with fewer than 50 new peak hour vehicle trips are also typically screened out from further analysis. The highest numbers of new vehicle trips generated by Phase II at any one intersection are expected to occur at the intersections of Atlantic Avenue and Flatbush Avenue, and Atlantic Avenue and Vanderbilt Avenue in the Saturday 1-2 PM peak hour. Based on the travel demand forecast and vehicle trip assignments discussed in Chapter 4D, “Operational Transportation,” new Saturday peak hour vehicle trips generated by Phase II are expected to reach the 50-trip threshold at these intersections upon completion of approximately 1,135 dwelling units along with a proportional amount of the planned retail space. This would equate to approximately 23 percent of the Phase II residential and retail development planned under the commercial mixed-use variation or approximately 25 percent of the development planned under the residential mixed-use variation.

As described in Chapter 4D, “Operational Transportation,” although the specific location of the proposed school on the Phase II project site has not been finalized, it is assumed for the purposes of the transportation analyses that it would be located within Building 15. As the public school use would generate negligible vehicular traffic during the Saturday peak hour, a further screening was conducted for the weekday AM peak hour (the peak hour for school demand). This screening analysis focused on the Dean Street/6th Avenue intersection adjacent to Building 15 where vehicle trips from the public school are expected to be most concentrated. New vehicle trips generated by Phase II during the weekday AM peak hour are expected to reach the 50-trip threshold at the Dean Street/6th Avenue intersection upon completion of the public school along with approximately 888 dwelling units and a proportional amount of retail space. This would equate to approximately 18 percent of the residential and retail development planned under the commercial mixed-use variation or 20 percent under the residential mixed-use variation.

Based on this screening analysis, implementation of the traffic mitigation measures developed to address Saturday peak hour traffic impacts from full build-out of Phase II in 2035 would likely need to begin upon completion of approximately 23 to 25 percent of Phase II residential and retail development, while those mitigation measures associated with weekday peak hour traffic impacts would likely warrant earlier implementation – i.e., upon completion of the public school and 18 to 20 percent of planned residential and retail development. The above levels of trip-making were applied to the three illustrative construction phasing plans to determine the approximate points in time that significant adverse traffic impacts would be triggered by Phase II of the Project and would therefore require the implementation of some or all of the recommended mitigation measures.¹ Since the Saturday trip-making is generally the worst case condition with respect to Phase II-generated vehicle trips, the Saturday trigger of approximately 1,135 dwelling units along with a proportional amount of planned retail space would also be applicable to the weekday conditions. Under Construction Phasing Plan 1, some or all of the

¹ As described in Chapter 4D, “Operational Transportation,” the proposed number of dwelling units that would be constructed in Phase II would total 4,508 under the residential mixed-used variation and 4,932 under the commercial mixed-use variation. However, to be conservative, the traffic analysis for this SEIS assess the potential effects of the development of 4,932 dwelling units in Phase II for both the weekday and Saturday analysis conditions.

weekday and Saturday traffic mitigation measures would need to be implemented by the 1st quarter of 2025 with the completion of Buildings 11 to 14 on the project site (approximately 1,342 dwelling units). Under Construction Phasing Plan 2, some or all of the weekday mitigation measures would need to be implemented by the 1st quarter of 2022 with the completion of Buildings 5 and 15 on the project site (the public school and approximately 974 dwelling units). For the Saturday conditions under Construction Phasing Plan 2, some or all of the mitigation measures would need to be implemented by the 2nd quarter of 2023 with the completion of Buildings 5, 14, and 15 on the project site (the public school and approximately 1,259 dwelling units). Under Construction Phasing Plan 3, some or all of the weekday and Saturday traffic mitigation measures would need to be implemented by the 3rd quarter of 2029 with the completion of Buildings 11 to 14 on the project site (approximately 1,342 dwelling units).

If, as described above under “Community Facilities” the proposed public school is to be located in Building 15, some or all of the traffic mitigation measures would need to be implemented upon completion of the school and development of approximately 888 dwelling units and a proportional amount of retail space (a condition that could occur with the development of one or two of the next Phase II buildings, depending on the sequence).

Implementation of some or all of the traffic mitigation measures developed for full build-out of Phase II in 2035 at these earlier points in time would be subject to approval by NYCDOT.

COMPARISON OF SEIS FINDINGS AND PREVIOUS FINDINGS

As discussed in Chapter 4D, “Operational Transportation,” the traffic analysis in the 2006 FEIS included a total of 93 intersections of which 70 are also analyzed in this SEIS. It was projected in the FEIS that with full build-out of the Project, 46 of the 70 intersections would have significant adverse impacts in the weekday AM peak hour in 2016, 27 in the midday, 45 in the PM, 39 in the 7-8 PM pregame peak hour, and 41 in the Saturday pregame peak hour. An extensive traffic mitigation plan was proposed in the 2006 FEIS to address these impacts. This plan included physical roadway improvements (such as the major reconfiguration of the Atlantic Avenue/Flatbush Avenue/4th Avenue intersection), demand management strategies, transit service recommendations and traffic operational improvements. Many of these measures were associated with impacts related to traffic from an event at the Arena, and were implemented in conjunction with the opening of the Arena, while some mitigation measures recommended in the FEIS are no longer being considered based on observed traffic conditions.

With implementation of the traffic mitigation plan recommended in the 2006 FEIS for full build-out of the Project, all significant impacts were projected to be fully mitigated at 33 out of 68 impacted intersections, the number of significant impacts would be reduced at a further 32 intersections, and no significant impacts would be mitigated at a total of three intersections. As shown in **Table 5-4**, there were projected to be 11 intersections with unmitigated significant adverse impacts in the weekday AM peak hour, none in the midday, 15 in the PM, six in the 7-8 PM pregame peak hour, and 15 during the Saturday pregame peak hour.

As shown in **Table 5-2**, the results of the traffic analysis in this SEIS are that with development of Phase II under the Extended Build-Out Scenario, 41 of 71 analyzed intersections would have significant adverse impacts in the weekday AM peak hour, 21 in the midday, 38 in the PM, 26 in the 7-8 PM pregame peak hour, and 47 in the Saturday pregame peak hour. As many of the major physical roadway improvements, demand management strategies and transit service recommendations included in the 2006 FEIS traffic mitigation plan were associated with Arena traffic (which is included in the Future Without Phase II), the traffic mitigation plan for impacts

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associated with development of Phase II under the Extended Build-Out Scenario primarily consists of standard mitigation measures such as changes to lane restriping, signal timing and phasing, and curbside parking regulations.

With implementation of the traffic mitigation described above for impacts associated with development of Phase II under the Extended Build-Out Scenario, all significant impacts would be fully mitigated at 46 out of 56 impacted intersections and the number of significant impacts would be reduced at eight of the remaining ten impacted intersections. As shown in **Table 5-4**, there would be two intersections with unmitigated significant adverse impacts in the weekday AM peak hour, none in the midday, four in the PM, none in the 7-8 PM pregame peak hour, and three during the Saturday pregame peak hour. The number of lane groups operating at LOS E or F of the approximately 305 analyzed would be lower in all analyzed peak hours in the Future With Phase II with Mitigation than in the Future Without Phase II.

As discussed in detail in Chapter 4D, “Operational Transportation,” the traffic analysis in this SEIS and the analyses in previous environmental reviews differ with respect to travel demand factors, background conditions, impact criteria, the Project development program and the fact that this SEIS examines only the incremental effects of Phase II of the Project, with Phase I of the Project reflected in the background condition. By contrast, the 2006 FEIS assessed the effects of Phase I and Phase II combined. The analyses also differ with respect to the guidelines for determining whether an impact is mitigated. Previous *CEQR Technical Manual* criteria used for the 2006 FEIS considered a significant traffic impact to be mitigated if measures implemented returned projected future conditions to what they would be if a proposed action were not in place or to acceptable levels. By contrast, under the current *CEQR Technical Manual* criteria used for this SEIS, a significant adverse traffic impact is considered fully mitigated when the resulting level of service degradation under the Action-with-Mitigation condition compared to the No-Action condition is no longer deemed significant following the impact criteria described in Section E in Chapter 4D, “Operational Transportation.”

The differences between the findings of this SEIS and previous environmental reviews with respect to traffic impacts and proposed mitigation measures are generally related to these variables and changes in methodologies and are not directly attributable to the delay in the Project under the Extended Build-Out Scenario.

Table 5-4
Intersection Level of Service Summary Comparison
FEIS 2016 Mitigation Condition vs. SEIS 2035 Mitigation Condition

| | FEIS 2016 Future Without the Project | | | | | FEIS 2016 Full Build-Out With Mitigation | | | | | SEIS 2035 Future Without Phase II | | | | | SEIS 2035 Future With Phase II With Mitigation | | | | |
|--|--------------------------------------|------|------|----------|------|--|----|----|----------|-----|-----------------------------------|------|------|----------|------|--|----|----|----------|-----|
| | AM | MD | PM | Pre-game | SAT | AM | MD | PM | Pre-game | SAT | AM | MD | PM | Pre-game | SAT | AM | MD | PM | Pre-game | SAT |
| Overall LOS A/B/C | 36 | 56 | 43 | 60 | 49 | 43 | 60 | 44 | 60 | 48 | 29 | 43 | 32 | 36 | 27 | 27 | 45 | 32 | 39 | 26 |
| Overall LOS D | 15 | 10 | 15 | 8 | 10 | 15 | 8 | 16 | 6 | 11 | 11 | 13 | 10 | 20 | 10 | 19 | 14 | 14 | 17 | 14 |
| Overall LOS E | 9 | 2 | 6 | 0 | 8 | 7 | 1 | 10 | 1 | 3 | 19 | 10 | 16 | 11 | 16 | 15 | 10 | 15 | 12 | 13 |
| Overall LOS F | 9 | 1 | 5 | 1 | 2 | 5 | 1 | 0 | 3 | 8 | 12 | 5 | 13 | 4 | 18 | 10 | 2 | 10 | 3 | 18 |
| Total number of intersections with unmitigated impacts | ---- | ---- | ---- | ---- | ---- | 11 | 0 | 15 | 6 | 15 | ---- | ---- | ---- | ---- | ---- | 4 | 0 | 7 | 0 | 8 |
| No. of lane groups at LOS E or F of the approximately 305 analyzed | 67 | 32 | 62 | 31 | 52 | 49 | 17 | 62 | 29 | 49 | 86 | 55 | 99 | 61 | 95 | 83 | 54 | 96 | 53 | 91 |

TRANSIT

SUBWAY

Atlantic Avenue – Barclays Center Subway Station

As presented in Chapter 4D, “Operational Transportation,” with development of Phase II under the Extended Build-Out Scenario, up escalator ES359X would operate at a v/c ratio of 1.13 (LOS D) in the 7-8 PM pregame peak hour, compared to a v/c ratio of 0.79 (LOS C) in the Future Without Phase II. This would be considered a significant adverse impact under *CEQR Technical Manual* criteria. The impact would be fully mitigated by operating adjoining escalator ES358X in the up direction during the pregame period when there is a Nets game or other major event at the Arena. (Escalator ES358X currently operates in the down direction in all periods.) As shown in **Table 5-5**, with this proposed measure, escalators ES358X and ES359X would both operate at an acceptable LOS B with a v/c ratio of 0.57 during the weekday pregame peak hour, fully mitigating the significant adverse impact to escalator ES359X. As shown in **Table 5-6**, with the diversion of entering (down) trips from escalator ES358X to stair S1, this stair would continue to operate at an acceptable LOS A during the pregame peak hour.

In the absence of the implementation of the recommended mitigation measure for escalator ES359X, the significant adverse impact in the weekday pregame peak hour would remain unmitigated. However, as noted in Chapter 4D, “Operational Transportation,” should queuing occur at this escalator, it is expected that pedestrian demand would increasingly shift to the immediately adjacent 24-foot-wide stair S1 which is projected to operate at an uncongested LOS A during this period in the Future With Phase II.

Table 5-5
Future With Phase II With Mitigation Escalator Conditions
at the Atlantic Avenue-Barclays Center Subway Station

| Station No. | Station Element/Location | Peak Period | Width (inches) | Feet Per Minute | Guideline 15-Minute Capacity | Future Without Phase II | | | | Future With Phase II With Mitigation | | | |
|---|--------------------------|-------------|----------------|-----------------|------------------------------|-------------------------|----------------|-----|-----|--------------------------------------|----------------|-----|--------|
| | | | | | | 15-Minute Volumes | Surging Factor | V/C | LOS | 15-Minute Volumes | Surging Factor | V/C | LOS |
| ES358X Escalator (see note) @ Atlantic & Flatbush Aves | 7-8 PM | 40 | 90 | 945 | 190 | 1.00 | 0.20 | A | 482 | 0.90 | 0.57 | B | 0.366 |
| ES359X Up Escalator @ Atlantic & Flatbush Aves | 7-8 PM | 40 | 90 | 945 | 674 | 0.90 | 0.79 | C | 482 | 0.90 | 0.57 | B | -0.226 |

Notes:
Escalator ES358X assumed to operate in the down direction during the 7-8 PM pregame peak hour in the Future Without Phase II and in the up direction in the Future With Phase II with Mitigation. Assumes up volumes in the Future With Phase II equally distributed between escalators ES358X and ES359X in the mitigated condition.
Based on 2012 *CEQR Technical Manual* methodology.
V/C - volume to capacity ratio.
LOS - level of service.
* - denotes a significant adverse impact.

Table 5-6

**Future With Phase II With Mitigation Conditions
at Stair S1 at the Atlantic Avenue-Barclays Center Subway Station**

| Station No. | Element/Location | Peak Period | Total Width (feet) | Effective Width (feet) | Future Without Phase II | | | | | Future With Phase II With Mitigation | | | | | | | | |
|----------------|---|----------------|--------------------------|------------------------------|-------------------------|-----|-------------------|--------------------|------|--------------------------------------|----------------------|-----|-------------------|--------------------|------|-----|-----------------|-------------------------------|
| | | | | | 15-Minute Volumes | | Surging Factor | Friction Factor | V/C | LOS | 15-Minute Volumes | | Surging Factor | Friction Factor | V/C | LOS | WIT (inches) | WIT for Impact (inches) |
| | | | | | Down | Up | | | | | Down | Up | | | | | | |
| S1 | Entrance Stairway @ Atlantic & Flatbush Aves | 7-8 PM | 24.67 | 20.42 | 69 | 399 | 0.90 | 0.90 | 0.19 | A | 464 | 569 | 0.90 | 0.90 | 0.40 | A | ---- | ---- |

Notes:
 Future With Phase II With Mitigation volumes include down n volumes diverted from escalator ES258X.
 Based on 2012 *CEQR Technical Manual* methodology.
 V/C - volume to capacity ratio.
 LOS - level of service.
 WIT - width increment threshold.
 * - denotes a significant adverse impact based on *CEQR Technical Manual* criteria.

Comparison of SEIS Findings and Previous Findings

As previously discussed in Chapter 4D, “Operational Transportation,” the results of the analysis of subway station conditions in this SEIS are not directly comparable to the findings of the 2006 FEIS as this SEIS examines only the incremental effects of Phase II of the Project under the Extended Build-Out Scenario, with Phase I of the Project reflected in the background condition. By contrast, the 2006 FEIS assessed the incremental effects of Phase I and Phase II combined. The subway analyses also differ with respect to travel demand factors, analysis methodologies, background conditions and the Project development program. While the analysis of the Atlantic Avenue – Barclays Center subway station in the 2006 FEIS forecasted congested LOS E conditions in the weekday pregame peak hour at both of the new escalators at the Barclays Center entrance (which were both assumed in the FEIS to operate in the up direction during the pregame period), this was not considered an unacceptable condition for the pregame peak hour prior to a Nets game, especially given the uncongested conditions projected for adjacent stair S1. No significant adverse impacts were identified for these escalators as they were to be constructed as part of the Project.

Although this SEIS identifies a significant adverse escalator impact requiring mitigation under current *CEQR Technical Manual* guidelines, the analysis actually forecasts a better level of service (LOS D) at escalator ES359X during the impacted pregame period than was forecasted in the 2006 FEIS (LOS E). Therefore, the significant adverse impact to escalator ES359X would not be the result of any delay in constructing Phase II of the Project.

PEDESTRIANS

As discussed in Chapter 4D, “Operational Transportation,” the results of the analysis of pedestrian conditions show that demand from Phase II of the Project under the Extended Build-Out Scenario would significantly adversely impact a total of four crosswalks in one or more peak hours under the *CEQR Technical Manual* CBD criteria, and two sidewalks and one additional crosswalk under non-CBD criteria. A significant adverse pedestrian impact is considered mitigated if measures implemented return the anticipated conditions to an acceptable level following the same criteria used for determining impacts (see Tables 4D-15 through 4D-18 in Chapter 4D, “Operational Transportation”). Standard mitigation for projected significant pedestrian impacts can include providing additional signal green time or new signal phases; widening crosswalks; relocating or removing street furniture; providing curb extensions, neck-downs or lane reductions to reduce pedestrian crossing distance; sidewalk widening; and providing direct pedestrian connections from adjacent transit stations.

Discussed below are the mitigation measures proposed to address the significant adverse pedestrian impacts from development of Phase II under the Extended Build-Out Scenario. The mitigation measures generally consist of crosswalk widening and minor signal timing changes. Corner and crosswalk locations where signal timing changes associated with traffic mitigation measures are expected to affect pedestrian conditions are also discussed.

SIDEWALKS

As discussed in Chapter 4D, “Operational Transportation,” the north sidewalk on Dean Street between 6th and Carlton Avenues (location S12 in **Figure 5-2**) would not be impacted in any analyzed peak hour under the *CEQR Technical Manual* impact criteria for a CBD location, but would be significantly adversely impacted in the weekday PM and Saturday pregame peak hours under the non-CBD impact criteria. These impacts would occur where pedestrian flow is constrained by the presence of building stoops and tree pits midblock.

The significant impacts to this sidewalk under the non-CBD criteria could likely be fully mitigated by relocating the existing tree pits to provide additional pedestrian space. Given that the north sidewalk on Dean Street between 6th and Carlton Avenues would not be considered significantly adversely impacted under *CEQR Technical Manual* impact criteria for a CBD location, and that relocating the tree pits along this block would likely not be practicable, no mitigation is proposed for the impacts to this sidewalk under the non-CBD criteria. The significant impacts to the north sidewalk on Dean Street between 6th and Carlton Avenues in the weekday PM and Saturday pregame peak hours under the non-CBD criteria would therefore remain unmitigated. In other periods, this sidewalk is expected to operate at acceptable levels of service.

CROSSWALKS

Atlantic Avenue and 6th Avenue

The west crosswalk on Atlantic Avenue (location X1 in **Figure 5-2**) would be significantly adversely impacted under both CBD and non-CBD impact criteria in the PM and Saturday pregame peak hours. As shown in **Table 5-7**, these impacts would be fully mitigated by widening this crosswalk from 12 feet to 14 feet in width. The south crosswalk on 6th Avenue (X2) would be significantly impacted under both CBD and non-CBD criteria in the AM, PM and Saturday pregame peak hours, and under non-CBD criteria-only in the weekday pregame peak hour. All of these impacts with the exception of the non-CBD impact in the weekday PM peak hour could be fully mitigated by widening this crosswalk from 18 feet in width (in the Future With Phase II) to 27 feet in width in combination with signal timing changes in the PM peak hour proposed for traffic mitigation purposes.



Not To Scale

-  Phase I Development Sites
-  Phase II Development Sites

Analyzed Pedestrian Facility

-  Corner
-  Sidewalk
-  Crosswalk

Table 5-7
Future With Phase II With Mitigation Crosswalk Conditions

| Crosswalk Location | | Future w/o Phase II | | Future w/Phase II | | Future With Phase II With Mitigation | | | |
|-----------------------------------|------------------------------|---------------------|-------|-------------------|------|--------------------------------------|------|--|--|
| | | Width (feet) | SFP | Width (feet) | SFP | Width (feet) | SFP | Mitigation Measures and Effectiveness | |
| AM Peak Hour | | | | | | | | | |
| X2 | Atlantic Av @ 6th Av - south | 11.5 | 143.9 | 18.0 | 17.2 | 27.0 | 26.5 | CBD and non-CBD impacts mitigated through crosswalk widening and signal timing changes. | |
| X15 | Dean St @ 6th Av - north | 17.0 | 243.2 | 17.0 | 13.8 | 27.0 | 24.8 | CBD and non-CBD impacts mitigated through crosswalk widening and signal timing changes. | |
| PM Peak Hour | | | | | | | | | |
| X1 | Atlantic Av @ 6th Av - west | 12.0 | 23.3 | 12.0 | 18.6 | 14.0 | 21.9 | CBD and non-CBD impacts mitigated through crosswalk widening. | |
| X2 | Atlantic Av @ 6th Av - south | 11.5 | 104.7 | 18.0 | 12.4 | 27.0 | 21.4 | CBD impact mitigated through crosswalk widening and signal timing changes. Non-CBD impact to remain unmitigated. | |
| X12 | Dean St @ Carlton Av - north | 17.0 | 260.5 | 17.0 | 21.7 | 18.0 | 28.8 | Non-CBD impact mitigated through crosswalk widening and signal timing changes. No CBD impact. | |
| X15 | Dean St @ 6th Av - north | 17.0 | 116.0 | 17.0 | 10.5 | 27.0 | 24.3 | CBD and non-CBD impacts mitigated through crosswalk widening and signal timing changes. | |
| Pregame Peak Hour | | | | | | | | | |
| X2 | Atlantic Av @ 6th Av - south | 11.5 | 95.8 | 18.0 | 20.1 | 27.0 | 32.2 | Non-CBD impact mitigated through crosswalk widening. No CBD impact. | |
| X15 | Dean St @ 6th Av - north | 17.0 | 65.6 | 17.0 | 15.4 | 27.0 | 25.4 | CBD and non-CBD impacts mitigated through crosswalk widening. | |
| Saturday Pregame Peak Hour | | | | | | | | | |
| X1 | Atlantic Av @ 6th Av - west | 12.0 | 16.1 | 12.0 | 13.2 | 14.0 | 15.6 | CBD and non-CBD impacts mitigated through crosswalk widening. | |
| X2 | Atlantic Av @ 6th Av - south | 11.5 | 54.0 | 18.0 | 15.0 | 27.0 | 24.3 | CBD and non-CBD impacts mitigated through crosswalk widening. | |
| X12 | Dean St @ Carlton Av - north | 17.0 | 55.6 | 17.0 | 18.5 | 18.0 | 25.0 | CBD and non-CBD impacts mitigated through crosswalk widening and signal timing changes. | |
| X15 | Dean St @ 6th Av - north | 17.0 | 30.7 | 17.0 | 11.1 | 27.0 | 24.9 | CBD and non-CBD impacts mitigated through crosswalk widening and signal timing changes. | |

Notes:

SFP - square feet per pedestrian.

As noted above, this area of Atlantic Avenue is a major retail and commercial corridor and a pedestrian access route for both the Arena and the Atlantic Avenue – Barclays Center subway station. In addition, with full build-out of the Project, pedestrian densities along this corridor would be substantially higher than at present, and much of the demand on this crosswalk in the weekday pregame peak hour would be associated with Arena events and trips en route to and from area transit services (as at present). Consequently, in the Future With Phase II, conditions along Atlantic Avenue would be even more characteristic of a CBD location than at present.

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Therefore additional mitigation measures such as a further widening of the crosswalk or changes to signal timing and phasing (which would potentially impact traffic flow), are not recommended as the CBD criteria should be considered applicable at this location, and under the CBD criteria, the south crosswalk on 6th Avenue at Atlantic Avenue would not be considered significantly impacted.

As shown in **Table 5-1**, up to two-seconds of signal timing change is proposed in the AM, midday and PM peak hours at the Atlantic Avenue/6th Avenue intersection as part of the traffic mitigation plan. No additional crosswalk or corner impacts are expected to occur at this intersection during these peak hours as a result of this proposed traffic mitigation.

Atlantic Avenue and Vanderbilt Avenue

As shown in **Table 5-1**, signal timing changes of from one to three seconds are proposed in all analyzed peak hours at the Atlantic Avenue/Vanderbilt Avenue intersection as part of the traffic mitigation plan. No additional crosswalk or corner impacts are expected to occur at this intersection in any of these peak hours as a result of the proposed traffic mitigation under either CBD or non-CBD criteria.

Vanderbilt Avenue and Dean Street

As shown in **Table 5-1**, a one-second signal timing change is proposed in the AM and Saturday pregame peak hours at the Vanderbilt Avenue/Dean Street intersection as part of the traffic mitigation plan. No additional crosswalk or corner impacts are expected to occur at this intersection in either of these peak hours as a result of the proposed traffic mitigation under either CBD or non-CBD criteria.

Carlton Avenue and Dean Street

The north crosswalk on Carlton Avenue (X12) would be significantly adversely impacted under both CBD and non-CBD criteria in the Saturday pregame peak hour and under the non-CBD criteria-only during the PM peak hour. As shown in **Table 5-7**, all of the impacts under both CBD criteria and non-CBD criteria could be fully mitigated by widening this crosswalk from 17 feet to 18 feet in width in combination with signal timing changes of two to four seconds proposed as part of the traffic mitigation plan. The proposed traffic signal timing changes are not expected to result in any additional crosswalk or corner impacts at this intersection in any peak hour under either CBD or non-CBD criteria.

6th Avenue and Dean Street

The north crosswalk on 6th Avenue (X15) would be significant adversely impacted under both CBD and non-CBD criteria in all four analyzed peak hours. As shown in **Table 5-7**, all of the impacts under both CBD and non-CBD criteria could be fully mitigated by widening this crosswalk from 17 feet to 27 feet in width and increasing the signal green time for pedestrians on this crosswalk by one second in the AM peak hour, four seconds in the PM and Saturday pregame peak hours. (Included are two seconds of signal timing change in the PM and four seconds in the Saturday pregame peak hours proposed for traffic mitigation purposes.) The proposed traffic signal timing changes are not expected to result in any additional crosswalk or corner impacts at this intersection in any peak hour under either CBD or non-CBD criteria.

It should also be noted that the proposed public school to be developed under Phase II would likely be located in Building 15 adjacent to the 6th Avenue/Dean Street intersection. As discussed in Chapter 4D, “Operational Transportation,” the installation of designated school

crossings, including high visibility crosswalks, may therefore be warranted at this intersection in the Future With Phase II.

The recommended pedestrian mitigation measures described above will be further reviewed with NYCDOT between the DSEIS and FSEIS potentially resulting in elimination or modification of certain mitigation measures. Additional measures will also be explored between the DSEIS and FSEIS in coordination with NYCDOT to reduce or eliminate any unmitigated significant impacts. In the absence of NYCDOT approval and implementation of mitigation measures, additional unmitigated conditions would remain.

COMPARISON OF SEIS FINDINGS AND PREVIOUS FINDINGS

The 2006 FEIS analysis of pedestrian conditions with full build-out of the Project in 2016 identified a total of two crosswalks as being significantly adversely impacted in one or more peak hours under both CBD and non-CBD criteria—the north crosswalk on Carlton Avenue at Dean Street and the north crosswalk on 6th Avenue at Dean Street. No significant impacts were identified at any analyzed sidewalks or corner areas in any peak hour under either CBD or non-CBD criteria in the 2006 FEIS. The mitigation proposed for the crosswalk impacts included widening the Carlton Avenue crosswalk from 16 to 20 feet in width, and widening the Dean Street crosswalk from 16 to 17 feet in width. A further one-foot widening of each of these crosswalks (to 21 and 18 feet in width, respectively) was proposed in the 2009 Technical Memorandum to accommodate additional pedestrian demand from the relocation of up to 100 parking spaces originally planned for the Arena Block garage to the garage on Block 1129.

As discussed above, the findings of this SEIS analysis are that Phase II demand under the Extended Build-Out Scenario would significantly adversely impact four crosswalks in one or more peak hours under current *CEQR Technical Manual* impact criteria for a CBD area, and that two sidewalks and one additional crosswalk would be considered impacted if non-CBD criteria were used. Impacted pedestrian facilities would include the two crosswalks along Dean Street at Carlton Avenue and 6th Avenue identified as impacted in the previous environmental analyses. Measures recommended to mitigate these impacts include signal timing changes and widening the impacted crosswalks by up to nine feet. With the recommended mitigation measures, all significant impacts under the CBD criteria would be fully mitigated; however, impacts to both sidewalks and one of the crosswalks would remain unmitigated under non-CBD criteria.

As discussed in detail in Chapter 4D, “Operational Transportation,” the pedestrian analyses in this SEIS and the analyses in the 2006 FEIS differ with respect to travel demand factors, impact criteria, background conditions, the Project development program, and the fact that this SEIS examines only the incremental effects of Phase II of the Project, with Phase I of the Project reflected in the background condition. By contrast, the 2006 FEIS assessed the effects of Phase I and Phase II combined. The differences between the findings of this SEIS and the 2006 FEIS with respect to pedestrian impacts and proposed mitigation measures are generally related to these variables and changes in methodologies and are not directly attributable to the delay in the Project under the Extended Build-Out Scenario.

PARKING

As discussed in Chapter 4D, “Operational Transportation,” with full build-out of the Project, sufficient parking capacity would be provided on-site to accommodate all Project demand from non-Arena uses in the Future With Phase II. The projected amount of parking capacity available at off-street public parking facilities within ½-mile of the Arena in the Future With Phase II is

also expected to be sufficient to accommodate all of the demand generated by a Nets game at the Arena irrespective of the amount of parking provided for Arena patrons on the project site.

The proposed traffic mitigation plan does, however, incorporate modifications to curbside parking regulations that would potentially affect existing curbside parking at a total of 28 locations throughout the traffic study area. NYCDOT survey data from 2011 (prior to the opening of the Arena) indicate that there are a total of approximately 9,395 on-street parking spaces (metered and un-metered) in the neighborhoods within ½-mile of the Arena.¹ Overall peak utilization was found to total approximately 84 percent on a weekday afternoon, 81 percent on a weekday evening, and 66 percent on a Saturday afternoon, although there was considerable variation by neighborhood. April 2013 data from a subsequent NYCDOT study found increased utilization of the on-street parking supply in this area during a weekday evening Nets game at the Arena, with a peak utilization level of approximately 87 percent on blocks closest to the Arena.²

Depending on the peak hour, it is estimated that the net number of on-street parking spaces within ½-mile of the Arena that would be displaced by the recommended traffic mitigation measures would represent from 0.4 percent to 1.1 percent of the existing 9,395 on-street parking spaces in this area. As shown in **Table 5-8**, on weekdays, the recommended modifications to curbside parking regulations would displace a total of approximately 127 on-street parking spaces during the AM peak period, 66 in the midday, 107 in the PM, 61 in the pregame period and 79 in the Saturday pregame period. Of these displaced parking spaces, approximately 105, 51, 69, 34 and 56 would be located within ½-mile of the Arena in each peak period, respectively. (The remaining displaced parking spaces would be distributed among more distant intersections within the traffic study area, some located as far as one mile from the project site.) In addition, approximately seven on-street parking spaces would potentially be created as a result of a lane re-stripping recommended for Dean Street at Vanderbilt Avenue. As noted previously, the recommended traffic mitigation measures (and therefore the related changes in curbside parking regulations) would be implemented over time as Phase II is developed through 2035, and as directed by NYCDOT.

The displaced parking spaces would include metered parking (typically with one-hour or two-hour time limits) and non-metered parking that is subject to street cleaning regulations. They would be distributed at intersections throughout the neighborhoods encompassing the traffic study area, including portions of Downtown Brooklyn, Prospect Heights, Park Slope, Boerum Hill and Ft. Greene. It is expected that drivers currently parking in the on-street spaces that would be displaced would need to find other on-street spaces or park in off-street public parking facilities in the vicinity. (As noted above, overall, on-street parking within ½-mile of the Arena currently operates at approximately 84 percent of capacity on a weekday afternoon, 81 percent on a weekday evening and 66 percent of capacity on a Saturday afternoon, although it varies by neighborhood.) Based on this analysis, with the implementation of the proposed mitigation measures that would eliminate on-street parking, on-street parking capacity would remain available in the overall study area.

¹ *Analysis of Parking Conditions Around Yankee Stadium and Atlantic Yards*, NYCDOT Division of Traffic and Planning, July 6, 2012.

² *Barclays Center On-Street Parking Impact Study*, NYCDOT, September 26, 2013.

Table 5-8
Approximate Number of On-Street Parking Spaces Displaced by Proposed Traffic Mitigation Measures

| No. | Intersection | | Curb Face | Existing Curbside Regulation | Proposed Curbside Regulation | Spaces Displaced | | | | |
|---|-----------------------------------|----------|-----------|--|--|------------------|-----------|------------|-----------|-----------|
| | Location | Approach | | | | AM | MD | PM | Pre-game | SAT |
| 3 | Willoughby St @ Flatbush Av Ext | WB | N | NSA (109')/NP 8:30-10AM Thurs. | NSA (109')/NS 7-10AM M-F | 2 | 0 | 0 | 0 | 0 |
| 13* | Bergen St @ Flatbush Av | NB | E | NS 7-10AM, M-F; 1hr parking 10AM-7PM ex Su | NS 7-10AM, M-F & 12-7PM Sa; 1hr parking 10AM-7PM M-F | 0 | 0 | 0 | 0 | 5 |
| | | SB | W | NS 4-7PM, M-F; 1hr parking 9AM-4PM, M-F & 9AM-7PM Sa | NS 7AM-7PM, ex Sun | 12 | 12 | 0 | 0 | 12 |
| 22* | Fulton St @ Carlton Av | WB | N | NP 11:30AM-1PM Mon (139') | NS 7-10AM M-F (100')/NP 11:30AM-1PM (39') | 5 | 0 | 0 | 0 | 0 |
| 23* | Fulton St @ Vanderbilt Av | EB | S | NP 11:30AM-1PM Tu (188') | NSA (100')/NP 11:30AM-1PM Tu (88') | 5 | 5 | 5 | 5 | 5 |
| | | WB | N | NP 11:30AM-1PM Tu | NSA (100') | 4 | 4 | 4 | 4 | 4 |
| 25 | Schermerhorn St @ Boerum Pl | WB | N | NP Midnight-3AM, M,W,F; NSA ex Auth. Veh. (NYSJ) | NS 4-7PM, M-F; NP Midnight-3AM, M,W,F; NSA ex Auth. Veh. (NYSJ) | 0 | 0 | 13 | 0 | 0 |
| 26 | State St @ Boerum Pl | EB | S | NS 7AM-7PM, M-F ex Auth. Veh. NYSJ (134') | NS 7-10AM, M-F; NS 10AM-7PM, M-F ex Auth. Veh. NYSJ (100'); NS 7AM-7PM, M-F ex Auth. Veh. NYSJ (34') | 5 | 0 | 0 | 0 | 0 |
| 29 | Atlantic Av @ Clinton St | WB | N | NS ex trucks L&UL, 7AM-7PM ex Su (108') | NSA (100') | 3 | 3 | 3 | 5 | 3 |
| 30 | Atlantic Av @ Boerum Pl | EB | S | NPA | NSA | 1 | 1 | 1 | 1 | 1 |
| 31 | Atlantic Av @ Smith St | EB | S | NP midnight-3AM, Tu,Th,Sa; NS 4-7PM, M-F; 2hr parking 9AM-4PM, M-F, 9AM-7PM Sa | NP midnight-3AM, Tu,Th,Sa; NS 4-7PM, M-F & 12-7PM Sa; 2hr parking 9AM-4PM, M-F & 9AM-12PM Sa | 0 | 0 | 0 | 0 | 8 |
| | | WB | N | NP midnight-3AM, M, W, F; 2hr parking 9AM-7PM ex Sun | NSA (100') NP midnight-3AM, M, W, F; 2hr parking 9AM-7PM ex Sun | 5 | 5 | 5 | 5 | 5 |
| 33* | Atlantic Av @ Bond St | WB | N | NP midnight-3AM, M, W, F; 2hr parking 9AM-7PM ex Sun | NS 7-10AM, M-F; NP midnight-3AM, M, W, F; 2hr parking 10AM-7PM, M-F & 9AM-7PM Sa | 9 | 0 | 0 | 0 | 0 |
| 34* | Atlantic Av @ Nevins St | SB | W | NPA | NSA | 0 | 0 | 0 | 0 | 0 |
| 38* | Atlantic Av @ 6th-S Portland Aves | EB | S | NSA (104'); NSA Access-A-Ride Bus Stop (86'); NSA (60') | NSA (104'); NS 4-7 PM, M-F (86'); NSA (60') | 0 | 0 | 0 | 0 | 0 |
| 40* | Atlantic Av @ Carlton Av | WB | N | NP midnight-3AM, M, W, F | NSA (100') | 4 | 4 | 4 | 4 | 4 |
| 41* | Atlantic Av @ Clermont Av | SB | W | NP 11:30AM-1PM, Tu; NP 7AM-4PM School Days | NS 4-7PM, M-F (100') | 0 | 0 | 2 | 0 | 0 |
| 42* | Atlantic Av @ Vanderbilt Av | EB | S | NP midnight-3AM, Tu, Th, Sa | NSA | 2 | 2 | 2 | 2 | 2 |
| 45* | Atlantic Av @ Washington Av | WB | N | NP midnight-3AM, M, W, F | NS 7-10AM, M-F; NP midnight-3AM M, W, F | 9 | 0 | 0 | 0 | 0 |
| 46 | Atlantic Av @ Grand Av | WB | S | NP midnight-3AM, Tu, Th, Sa | NSA (100'); NP midnight-3AM, Tu, Th, Sa | 5 | 5 | 5 | 5 | 5 |
| 53* | Dean St @ 5th Av | EB | S | NS bus stop (99'); NPA (71') | NS bus stop (99'); NS 4-7PM, M-F | 0 | 0 | 4 | 0 | 0 |
| 54* | Dean St @ 6th Av | EB | N | NSA; temporary construction regulations | NSA | 10 | 10 | 10 | 10 | 10 |
| 56* | Dean St @ Vanderbilt Av | N | N | NSA (138'); NP 11:30AM-1PM, M & Th | NP 11:30AM-1PM, M & Th | -7 | -7 | -7 | -7 | -7 |
| | | S | S | NP 11:30AM-1PM Tu & F | NSA (100'); NS 7-10AM, M-F | 8 | 1 | 1 | 1 | 1 |
| 58 | Dean St @ Washington Av | EB | S | NP 8:30-10AM, Tu & F | NSA (100'); NP 8:30-10AM, Tu & F | 1 | 1 | 1 | 1 | 1 |
| 59* | Bergen St @ 4th Av | WB | N | NP 11AM-12:30PM, W | NS 7AM-7PM, Except Sun (100'); NP 11AM-12:30PM, W | 5 | 5 | 5 | 0 | 5 |
| 60* | Bergen St @ 5th Av | WB | N | NS bus stop (92'); NS 7-10AM, M-F (108'); NSA ex Auth. Veh. (ambulance) (50') | NS bus stop (92'); NS 7-10AM, M-F (250') | 0 | 0 | 0 | 0 | 0 |
| 62* | Bergen St @ Vanderbilt Av | WB | N | NP 8:30-10AM, M & Th | NSA (100'); NP 8:30-10AM, M & Th | 5 | 5 | 5 | 5 | 5 |
| | | SB | W | NP 8:30-10AM, M & Th | NSA | 5 | 5 | 5 | 5 | 5 |
| 65* | St Marks Ave @ Vanderbilt Av | N | N | NP 8:30-10AM, M & Th | NS 4-7, M-F; NP 8:30-10AM, M & Th | 0 | 0 | 12 | 0 | 0 |
| | | S | S | NP 8:30-10AM, Tu & F | NS 4-7, M-F; NP 8:30-10AM, Tu & F | 0 | 0 | 12 | 0 | 0 |
| 66* | Prospect Pl @ Vanderbilt Av | WB | N | NP 8:30-10AM, M & Th | NSA (100'); NP 8:30-10AM, M & Th | 5 | 5 | 5 | 5 | 5 |
| 67* | Park Pl @ Vanderbilt Av | N | N | NP 8:30-10AM, M & Th | NS 7-10AM, M-F; NP 8:30-10AM, M & Th | 12 | 0 | 0 | 0 | 0 |
| | | S | S | NP 9:30-11AM, Tu & F | NS 7-10AM, M-F; NP 9:30-11AM, Tu & F | 12 | 0 | 0 | 0 | 0 |
| 69 | Eastern Pkwy @ Washigton Av | NB | E | NP 9:30-11AM, Tu & F | NS 4-8PM, M-F; NP 9:30-11AM, Tu & F | 0 | 0 | 5 | 5 | 0 |
| | | SB | W | (no regulations posted) | NS 4-8PM, M-F | 0 | 0 | 5 | 5 | 0 |
| Total Spaces: | | | | | | 127 | 66 | 107 | 61 | 79 |
| Total Spaces Within 1/2-Mile of Barclays Center Arena: | | | | | | 105 | 51 | 69 | 34 | 56 |

Notes:
 * - denotes a location within 1/2-mile of the Barclays Center Arena
 NS/NSA - no standing/no standing anytime
 NP/NPA - no parking/no parking anytime
 Auth. Veh - authorized vehicles
 Unless otherwise noted, the proposed regulations extend for 250' or the length of block (whichever is less)

COMPARISON OF SEIS FINDINGS AND PREVIOUS FINDINGS

The traffic mitigation plan proposed in the 2006 FEIS for full build-out of the Project was expected to displace up to approximately 90 on-street parking spaces on weekdays and up to approximately 70 spaces on Saturdays. As discussed in detail in Chapter 4D, “Operational Transportation,” the traffic analysis in this SEIS and the analyses in previous environmental reviews differ with respect to travel demand factors, impact criteria, background conditions, the Project development program, and the fact that this SEIS examines only the incremental effects of Phase II of the Project, with Phase I of the Project reflected in the background condition. By contrast, the analysis in the 2006 FEIS assessed the incremental effects of Phase I and Phase II combined. The analyses also differ with respect to the guidelines for determining whether an impact is mitigated. The differences between the findings of this SEIS and previous environmental reviews with respect to proposed traffic mitigation measures and their effects on the on-street parking supply are generally related to these variables and changes in methodologies and are not directly attributable to the delay in the Project under the Extended Build-Out Scenario.

E. CONSTRUCTION TRAFFIC

As presented in Chapter 3H, “Construction Transportation,” detailed construction traffic analyses of the peak construction periods for Construction Phasing Plan 3, which represent the reasonable worst case periods for construction traffic impacts, show that significant adverse traffic impacts would occur at numerous locations throughout the construction period. While these analyses considered specific points in time during Phase II construction under Construction Phasing Plan 3 (primary worst-case in 2032 and secondary worst-case in 2027), the mitigation identified would be applicable to other construction periods (including Construction Phasing Plans 1 and 2) during which comparable or lower activities are anticipated. Overall, significant adverse traffic impacts were identified at 36 intersections during the 1st quarter of 2032 (when Buildings 5, 9, and 10, and the platform segments for Buildings 6 and 7 are assumed to be under concurrent construction at the project site, and Buildings 8, 11, 12, 13, 14, and 15 are assumed to be operational) and at 15 intersections during the 4th quarter of 2027 (when Buildings 11, 12, 13, and 15 are assumed to be under concurrent construction at the project site, and Building 14 is assumed to be operational) under the illustrative construction schedule for Construction Phasing Plan 3. The recommended operational traffic mitigation measures would be able to mitigate most construction impacts during these peak periods. In some cases, variations of the operational mitigation measures or additional measures have been recommended to fully mitigate the impacts during construction. However, there would be seven intersections—one during the 6-7 AM and six during the 3-4 PM construction traffic analysis peak hours—where impacts could not be mitigated or could only be partially mitigated. **Table 5-9** presents a summary of the significantly adverse impacted locations and recommended mitigation measures during construction for the 2032 and 2027 analysis periods.

**Table 5-9
Construction Phasing Plan 3 - 1st Quarter of 2032 and 4th Quarter of 2027
Significantly Impacted Locations and Recommended Mitigation Measures**

| Intersection | Weekday 6-7 AM | | | Weekday 3-4 PM | | |
|--|-----------------------------|---------|--|---------------------------------------|---------|---|
| | Impacted Lane Group | | Recommended Mitigation | Impacted Lane Group | | Recommended Mitigation |
| | 2032 | 2027 | | 2032 | 2027 | |
| Tillary Street at Flatbush Avenue Extension | WB - L | WB - L | Implement operational mitigation | WB - L | | Implement operational mitigation |
| Dekalb Avenue at Flatbush Avenue Extension | | | | SB - TR | | Implement operational mitigation |
| Fulton Street at Flatbush Avenue/Flatbush Avenue Extension | | | | NB - T | | Unmitigated |
| Lafayette Avenue/Schermerhorn Street at Flatbush Avenue | | | | NB - TR | | Implement operational mitigation, and Shift 1 additional second of green time from the SB left-turn phase to the NB/SB phase |
| 4th Avenue at Flatbush Avenue | | | | NB - T SB - TR | | Implement operational mitigation |
| Atlantic Avenue at Flatbush Avenue | WB - R | | Shift 2 seconds of green time from the NB/SB phase to the EB/WB phase | WB - R | WB - R | 2032: Unmitigated 2027: Shift 1 second of green time from the NB/SB phase to the EB/WB phase |
| Bergen Street at Flatbush Avenue | | | | WB - LT | | Implement operational mitigation, and Shift 3 additional seconds of green time from the NB/SB phase to the WB phase |
| Tillary Street at Adams Street/Brooklyn Bridge | | | | NB - T (Mainline) | | Unmitigated |
| Myrtle Avenue at Vanderbilt Avenue | | | Implement operational mitigation | NB - LTR SB - LTR | | Implement operational mitigation |
| Dekalb Avenue at Vanderbilt Avenue | SB - LTR | | | NB - LT SB - TR | | Implement operational mitigation |
| Fulton Street at Vanderbilt Avenue | | | | NB - L SB - TR | | Implement operational mitigation |
| Schermerhorn Street and Boerum Place | | | | NB - L | | Implement operational mitigation |
| State Street at Boerum Place | | | | SB - LT | | Implement operational mitigation |
| Atlantic Avenue at Clinton Street | | | | EB - LT | | |
| Atlantic Avenue at Boerum Place | EB - TR WB - LT | EB - TR | Implement operational mitigation | EB - TR WB - LT | WB - LT | Implement operational mitigation, and 2032: Shift 1 second of green time from the EB left-turn phase to the EB/WB phase |
| Atlantic Avenue at Smith Street | EB - LT | EB - LT | Implement operational mitigation | EB - LT | EB - LT | Implement operational mitigation |
| Atlantic Avenue at Nevins Street | | | | WB - LT | WB - LT | Implement operational mitigation |
| Atlantic Avenue at 4th Avenue | | | | EB - T | | Implement operational mitigation |
| Atlantic Avenue at 6th Avenue/South Portland Avenue | NB - L NB - TR SB - L | | Implement operational mitigation, and Shift 1 additional second of green time from the EB/WB phase to the NB/SB phase Partially mitigated | WB - L NB - L NB - TR SB - L | NB - L | Implement operational mitigation, and 2032: Partially mitigated 2027: Shift 1 additional second of green time from the WB phase to the NB/SB phase |

Table 5-9 (cont'd)
Construction Phasing Plan 3 - 1st Quarter of 2032 and 4th Quarter of 2027
Significantly Impacted Locations and Recommended Mitigation Measures

| Intersection | Weekday 6-7 AM | | | Weekday 3-4 PM | | |
|---|---------------------|---------------------|---|---|----------|---|
| | Impacted Lane Group | | Recommended Mitigation | Impacted Lane Group | | Recommended Mitigation |
| | 2032 | 2027 | | 2032 | 2027 | |
| Atlantic Avenue at Carlton Avenue | NB - LTR | | Implement operational mitigation | WB - L NB - LTR | | Implement operational mitigation Partially mitigated |
| Atlantic Avenue at Clermont Avenue | EB - L | | Unmitigated | EB - L SB - LR | | Implement operational mitigation, and Shift 1 additional second of green time from the SB phase to the EB/WB phase |
| Atlantic Avenue at Vanderbilt Avenue | | | | EB - T EB - R WB - L NB - L SB - TR | | Implement operational mitigation Partially mitigated |
| Atlantic Avenue at Clinton Avenue | | | | SB - LR | SB - LR | 2032: Shift 2 seconds of green time from the EB/WB phase to the SB phase 2027: Shift 1 second of green time from the EB/WB phase to the SB phase |
| Atlantic Avenue at Washington Avenue/Underhill Avenue | | | | EB - TR | | Implement operational mitigation, and Shift 1 additional second of green time from the WB phase to the EB/WB phase |
| Dean Street at 5th Avenue | EB - LTR NB - TR | EB - LTR NB - TR | Implement operational mitigation | EB - LTR NB - TR | | Implement operational mitigation |
| Dean Street at 6th Avenue | EB - L | | Implement operational mitigation | EB - L | | Implement operational mitigation |
| Dean Street at Carlton Avenue | EB - LT | | Install "No Standing 6 AM to 7 AM Monday to Friday" for 100-feet on the south curb of the EB approach to eliminate friction Shift 1 second of green time from the NB phase to the EB phase | EB - LT | EB - LT | Implement operational mitigation |
| Dean Street at Vanderbilt Avenue | | EB - TR | Implement operational mitigation | EB - TR | EB - TR | Implement operational mitigation |
| Bergen Street at 4th Avenue | | | | WB - LTR | WB - LTR | Implement operational mitigation |
| Bergen Street at 5th Avenue | WB - TR | WB - TR | Implement operational mitigation | WB - L WB - TR | WB - TR | Implement operational mitigation |
| Bergen Street at Carlton Avenue | WB - TR | WB - TR | Implement operational mitigation | WB - TR | WB - TR | Implement operational mitigation, and 2032: Shift 2 additional seconds of green time from the NB phase to the WB phase |
| Bergen Street at Vanderbilt Avenue | WB - TR | | Implement operational mitigation | WB - TR SB - TR | SB - TR | Implement operational mitigation |
| Saint Marks Avenue at 4th Avenue | | SB - L | Implement operational mitigation, and Shift 1 additional second of green time from the EB phase to the NB/SB phase | | | |
| Saint Marks Avenue at Vanderbilt Avenue | | | | SB - T | | Implement operational mitigation, and Shift 1 additional second of green time from the EB phase to the NB/SB phase |

**Table 5-9 (cont'd)
Construction Phasing Plan 3 - 1st Quarter of 2032 and 4th Quarter of 2027
Significantly Impacted Locations and Recommended Mitigation Measures**

| Intersection | Weekday 6-7 AM | | | Weekday 3-4 PM | | |
|--------------------------------------|---------------------|------|------------------------|---------------------|------|--|
| | Impacted Lane Group | | Recommended Mitigation | Impacted Lane Group | | Recommended Mitigation |
| | 2032 | 2027 | | 2032 | 2027 | |
| Prospect Place at Vanderbilt Avenue | | | | SB - TR | | Implement operational mitigation, and Shift 1 additional second of green time from the WB phase to the NB/SB phase |
| Eastern Parkway at Washington Avenue | | | | NB - LTR SB - TR | | Implement operational mitigation |
| Bergen Street at 6th Avenue | | | | WB - LTR | | Shift 1 second of green time from the NB/SB phase to the WB phase |

Notes: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; L = Left-turn; T = Through; R = Right-turn

As described in the above sections, some or all of the 2035 Future With Phase II operational traffic mitigation measures would need to be implemented prior to the completion of Phase II of the Project. In addition, based on the two worst-case periods analyzed for construction, the recommended traffic mitigation measures during construction would need to be implemented prior to peak construction activities. These recommended traffic mitigation measures during construction would also be subject to approval by NYCDOT and could be implemented at their discretion to address actual conditions experienced at these earlier points in time.

F. CONSTRUCTION NOISE

RECEPTOR CONTROL MEASURES

The results of the detailed construction noise analysis indicates that of the approximately 489 buildings in the study area, elevated noise levels are predicted to occur at one or more floors of approximately 124 buildings under Construction Phasing Plan 1, at one or more floors of approximately 160 buildings under Construction Phasing Plan 2, and at one or more floors of approximately 134 buildings under Construction Phasing Plan 3. This is as compared to the approximately 176 buildings predicted to experience significant adverse noise impacts at one or more floors resulting from construction of Phase II of the Project in the 2006 FEIS. Most of the locations predicted to experience significant adverse construction noise impacts according to this SEIS analysis are the same as those predicted to experience impacts in the 2006 FEIS, but there are 21 buildings under Construction Phasing Plan 1, 30 buildings under Construction Phasing Plan 2, and 24 buildings under Construction Phasing Plan 3 predicted to experience significant adverse construction noise impacts at one or more floors that were not predicted to experience significant adverse construction noise impacts in the 2006 FEIS. Of these there are 13 buildings predicted to experience significant adverse construction noise impacts where mitigation (i.e., alternate ventilation and/or storm windows) is feasible and practicable, and one building at which there would be no feasible and practicable mitigation for the predicted significant adverse construction noise impacts at balcony locations.

Generally, where the results of this SEIS construction noise analysis differ from those of the 2006 FEIS construction noise analysis, it is due to a combination of the extended construction

schedule under each of the three illustrative construction phasing plans, and the refined analysis methodology. The refinement of the analysis methodology for the SEIS, specifically using a greater number of receptor locations, when compared to the methodology used in the 2006 FEIS of representing many buildings on one block by one receptor location, more precisely indicates which buildings and building façades would experience significant adverse construction noise impacts. Additionally, the refined analysis methodology more precisely calculates background (i.e., non-construction) noise levels at each noise receptor, particularly at the rear façades and upper elevations of buildings. This tended to result in lower background noise levels and thus higher construction noise level increments at these receptors.

Affected locations include residential and institutional areas adjacent or with a line of sight to the proposed development sites. However, most affected buildings have receptor noise control measures (i.e., double-glazed windows and air-conditioning) or have previously been offered these measures by the project sponsors (in accordance with the mitigation requirements stipulated in the 2006 FEIS and MEC), and would consequently be expected to experience interior $L_{10(1)}$ values less than 45 dBA during most of the construction period (i.e., the periods during which exterior $L_{10(1)}$ noise levels at receptor locations due to construction are less than 75 dBA, as shown in **Appendix B**), which would be considered an acceptable level according to CEQR criteria.

Overall, there are approximately 13 buildings represented by six noise receptors predicted to experience significant adverse noise impacts as a result of construction of Phase II of the Project under one or more of the three Construction Phasing Plans analyzed that may not have and have not previously been offered receptor control measures. These 13 locations may not have sufficient receptor controls to consistently provide interior noise levels during construction considered acceptable according to CEQR criteria. These include one church building whose windows and alternate means of ventilation cannot be confirmed, and 12 residential buildings whose alternate means of ventilation cannot be confirmed.

Table 5-10 lists the locations where significant adverse construction noise impacts are predicted to occur that neither already have receptor control measures nor have previously been offered receptor control measures by the project sponsors, and where receptor control noise measures are proposed to partially mitigate the significant impacts predicted to occur there.

Some potential receptor controls that could be used to mitigate the impacts at the 13 buildings predicted to experience significant adverse construction noise impacts warranting mitigation include the provision of air-conditioning so that the impacted structures can maintain a closed-window condition and the provision of storm windows to a building without double-glazed windows to increase the amount of noise attenuation provided by the building façades. Therefore, at the ten buildings shown in **Table 5-1**, receptor mitigation measures would include the offer of an alternate means of ventilation to those particular residences that do not already have it and the offer of storm windows to the building that does not have double-glazed windows. At the start of Phase II construction, the status of alternate means of ventilation and windows at these 13 buildings would be confirmed by surveying these buildings. Those that do not have an alternate means of ventilation at that time would be offered an alternate means of ventilation so that they can maintain a closed window condition. The building without double-glazed windows would be offered storm windows to increase the attenuation provided by the building façades. With these receptor control measures, interior L_{10} noise levels would be below the CEQR 45 dBA L_{10} recommended level during most periods of time (i.e., the periods during which exterior $L_{10(1)}$ noise levels at receptor locations due to construction are less than 75 dBA, as shown in **Appendix B**), and the significant adverse construction noise impacts at these locations would be partially mitigated.

Table 5-10
Summary of SEIS Impact Locations Without Receptor Controls

| Building/Location | Associated Land Use | Maximum Number of Stories | Façade | Associated Receptor(s) | Impacted Floor(s) | Range of Maximum Increase in dBA During Significant Impact Period | Proposed Receptor Control Measure |
|--|--------------------------------|---------------------------|--------|------------------------|-------------------|---|---|
| 856 Atlantic Avenue | Mixed Residential & Commercial | 5 | South | 16C | Top | 3.1-10.5 | Offer of alternate means of ventilation |
| 849 Pacific Street | Residential | 2 | North | 17A | All | 3.1-11.2 | Offer of alternate means of ventilation |
| | | | South | 17C | All | 3.1-11.7 | |
| 854 Pacific Street | Residential | 6 | North | 50A | 5 to top | 3.0-8.5 | Offer of alternate means of ventilation |
| | | | South | 50B | 5 to top | 3.2-11.7 | |
| | | | West | 50C | 4 to top | 3.3-13.6 | |
| 856 Pacific Street | Institutional | 3 | West | 51C | Top | 3.3-8.2 | Offer of storm windows and alternate means of ventilation |
| 678 Dean Street 680 Dean Street 684 Dean Street 686 Dean Street 688 Dean Street 690 Dean Street | Residential | 4 | North | 60A | All | 3.4-11.1 | Offer of alternate means of ventilation |
| 536 Clinton Avenue 538 Clinton Avenue 540 Clinton Avenue | Residential | 4 | West | 113C | Top | 4.0-9.7 | Offer of alternate means of ventilation |

Additionally, there is one recently constructed residential building with outdoor balconies predicted to experience significant adverse noise impacts as a result of construction of Phase II of the Project under Construction Phasing Plan 1. At this location, there are no feasible or practicable mitigation to mitigate the construction noise impacts.

SOURCE AND PATH CONTROL MEASURES

The “Noise Reduction Measures” section of Chapter 3J, “Construction Noise” describes several noise control measures, including source and path control measures that would be required wherever feasible and practicable during project construction. However, the detailed construction noise analysis conservatively did not take credit for some of the identified source and path controls. These measures would be utilized where feasible and practicable. Implementation of one or more of these measures during part or all of the construction period would be expected to result in lower noise levels than those described in Chapter 3J, “Construction Noise,” and partial mitigation of the construction noise impacts at receptors adjacent to the areas where these measures would be implemented. *