Chapter 23: Mitigation

A. INTRODUCTION

The preceding chapters of this Draft Environmental Impact Statement (DGEIS) discuss the potential for significant adverse environmental impacts to result from the proposed Willets Point Development Plan and anticipated development on Lot B. Such potential impacts were identified in the areas of historic resources, traffic, subway stations, bus line haul, pedestrian facilities, and noise. Measures have been examined to minimize or eliminate these anticipated impacts. These mitigation measures are discussed below.

Because this is a Draft GEIS, not all proposed mitigation has been identified or defined in detail. Additional measures will be evaluated between the DGEIS and the Final GEIS (FGEIS). The FGEIS will contain full information and commitments on all mitigation measures to be implemented with the proposed Plan.

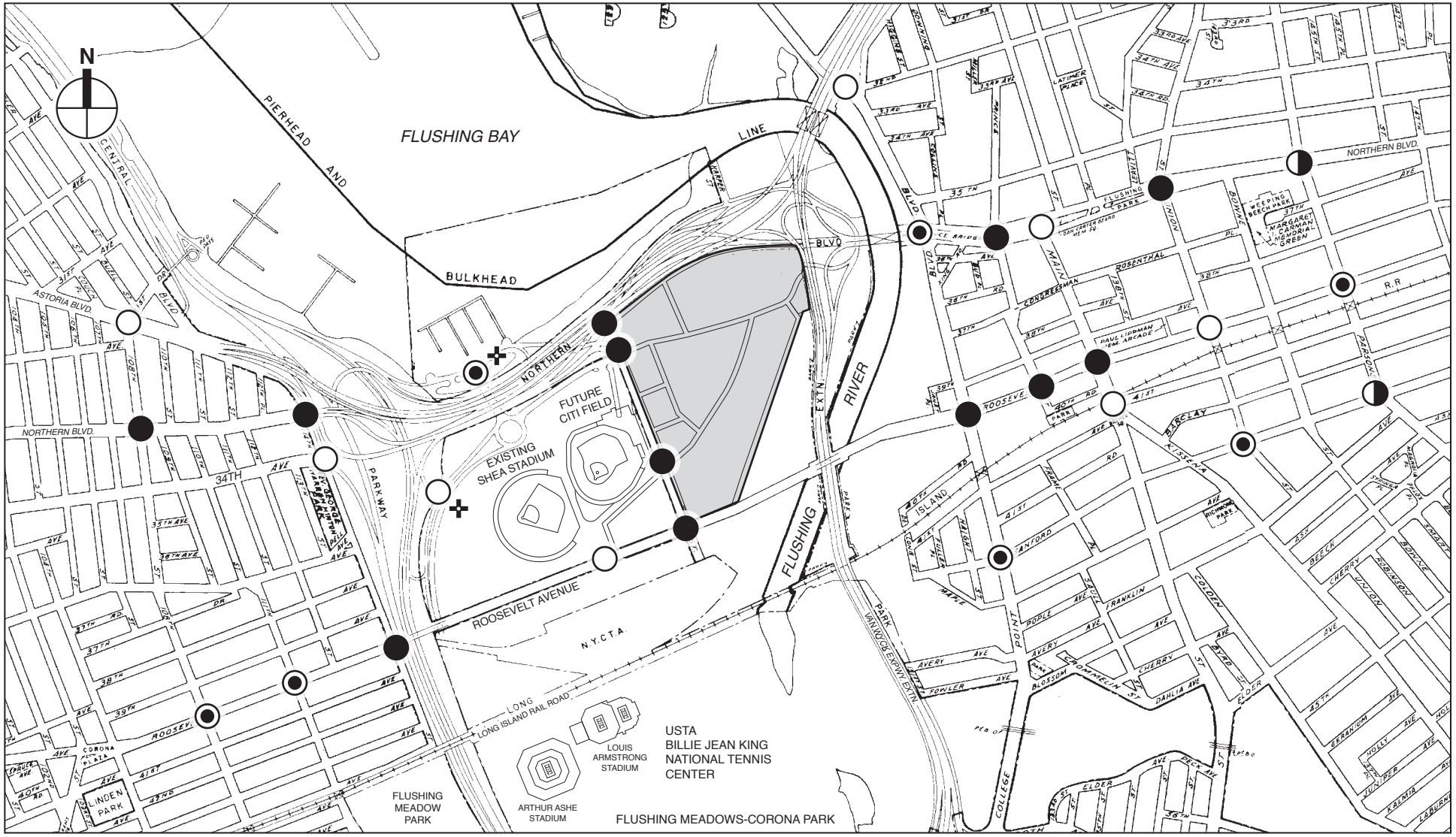
B. HISTORIC RESOURCES

As discussed in Chapter 8, "Historic Resources," there are substantial challenges inherent in retaining the historic building located in the District—the Former Empire Millwork Corporation Building—and the proposed Plan contemplates demolition of this building. Nonetheless, the New York City Economic Development Corporation (NYCEDC) would encourage future developers to retain part or all of the building as part of their formal request for proposals (RFP) process.

Demolition of the Former Empire Millwork Corporation Building would constitute a significant adverse impact on historic resources. Measures to mitigate this impact would be developed in consultation with the New York State Office of Parks, Recreation and Historic Preservation (OPRHP). The mitigation measures could include recording the building through a Historic American Buildings Survey (HABS)-level photographic documentation and accompanying narrative.

C. TRAFFIC AND PARKING

As discussed in Chapter 17, "Traffic and Parking," the proposed Plan and anticipated development on Lot B would result in significant adverse traffic impacts at a number of locations within the primary and secondary traffic study areas. The sections below identify the mitigation needed at each location, while Figures 23-1 through 23-7 present graphic overviews of the ability of the standard traffic engineering and operational improvements identified to mitigate significant traffic impacts. Table 23-1 presents a summary of significant adverse traffic impacts and their ability to be mitigated, and Table 23-2 summarizes the unmitigated traffic study area locations by time period. Details of the intersection capacity results and relevant traffic mitigation measures are provided in Tables 23-3 and 23-4 and in Tables 23-8 through 23-14 at the end of this chapter.



Willets Point Development District

Unsignalized Intersection

No Significant Impact

Mitigated Impact

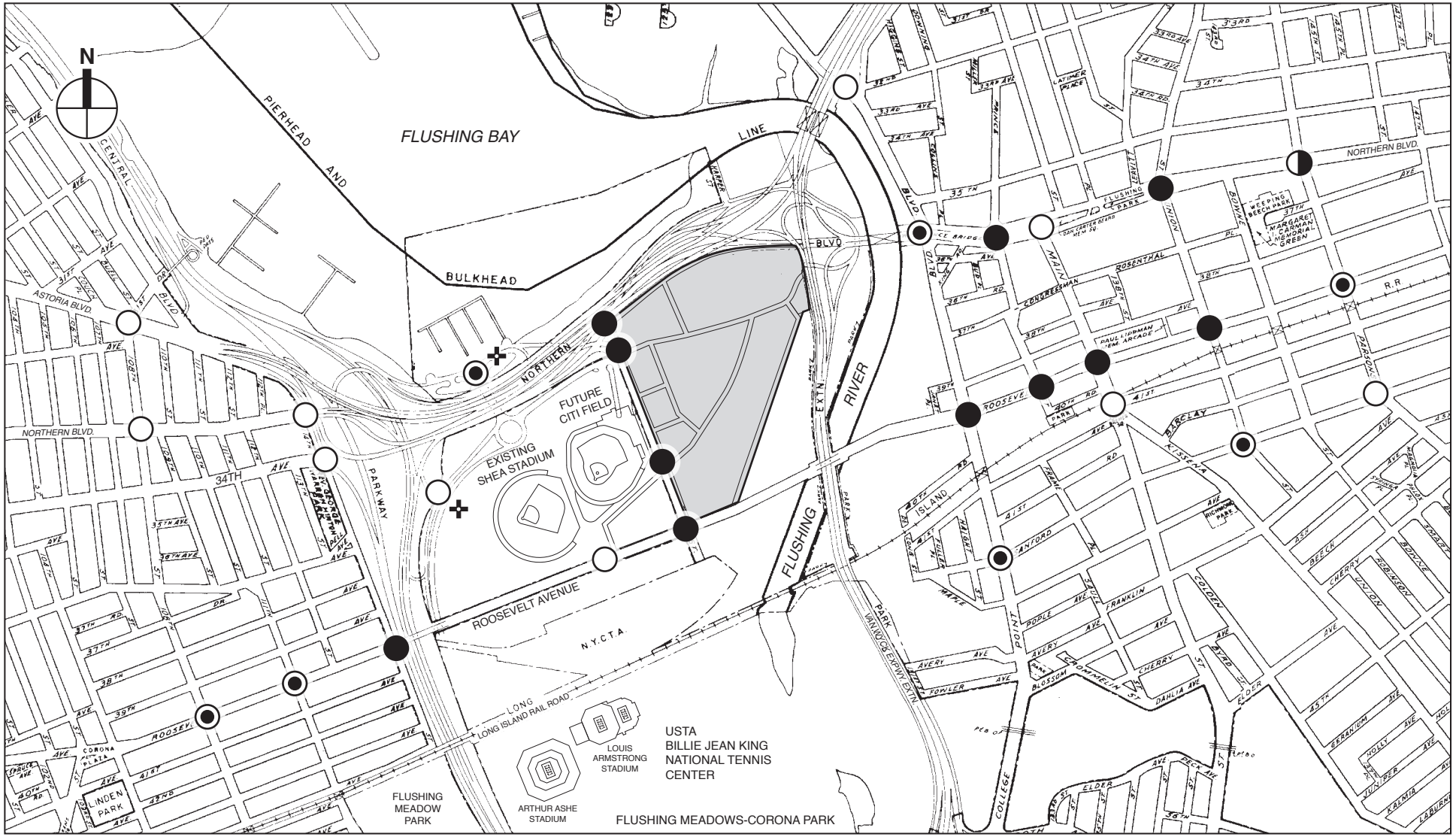
Partially Mitigated Impact

Unmitigated Impact

Figure 23-1

Traffic Mitigation Overview

Weekday Non-Game AM Peak Hour



Willets Point Development District

Unsignalized Intersection

No Significant Impact

Mitigated Impact

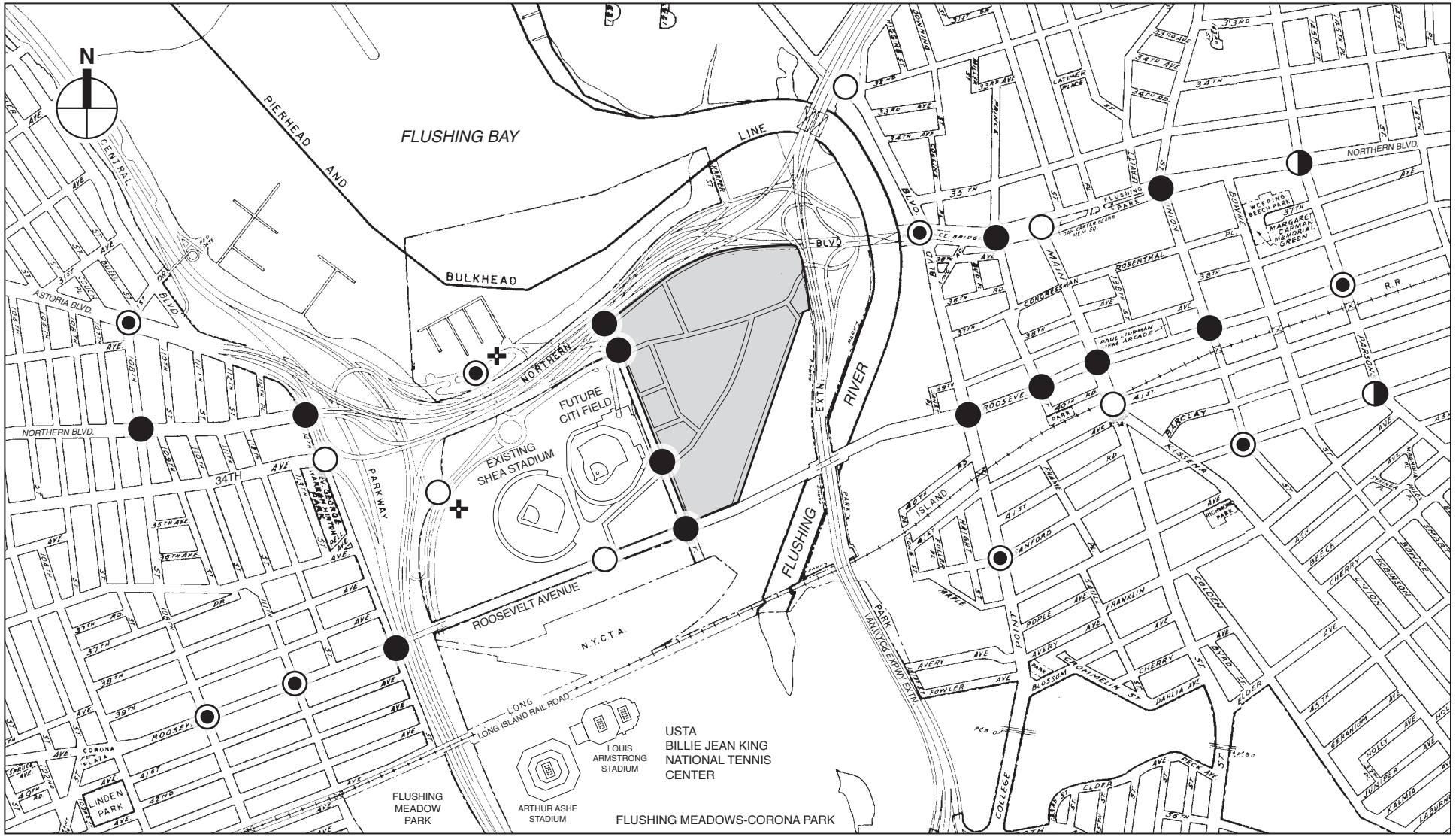
Partially Mitigated Impact

Unmitigated Impact

Figure 23-2

Traffic Mitigation Overview

Weekday Non-Game Midday Peak Hour



Willets Point Development District

Unsignalized Intersection

No Significant Impact

Mitigated Impact

Partially Mitigated Impact

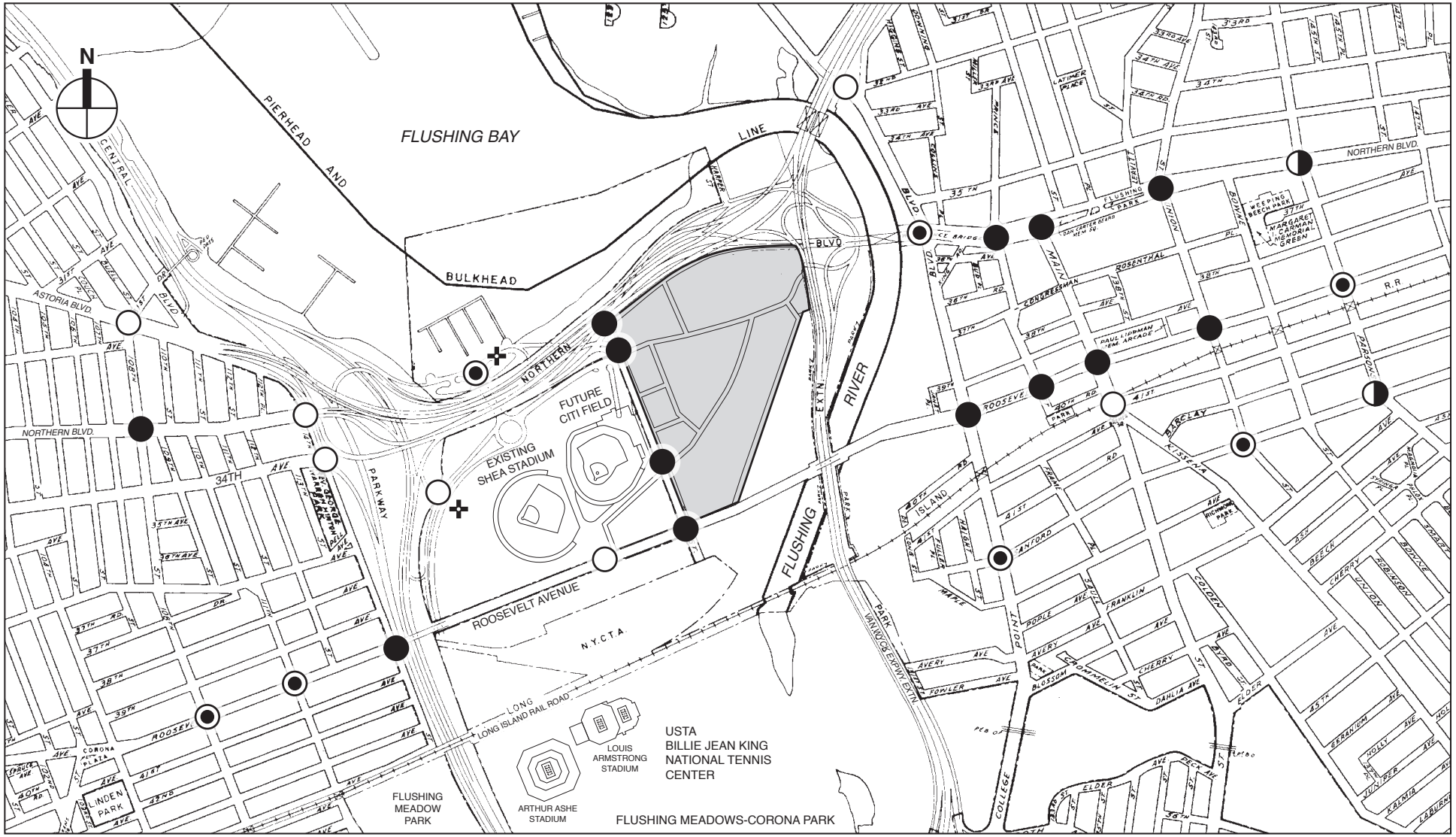
Unmitigated Impact

Figure 23-3

Traffic Mitigation Overview

Weekday Non-Game PM Peak Hour

4.17.08



Willets Point Development District

Unsignalized Intersection

No Significant Impact

Mitigated Impact

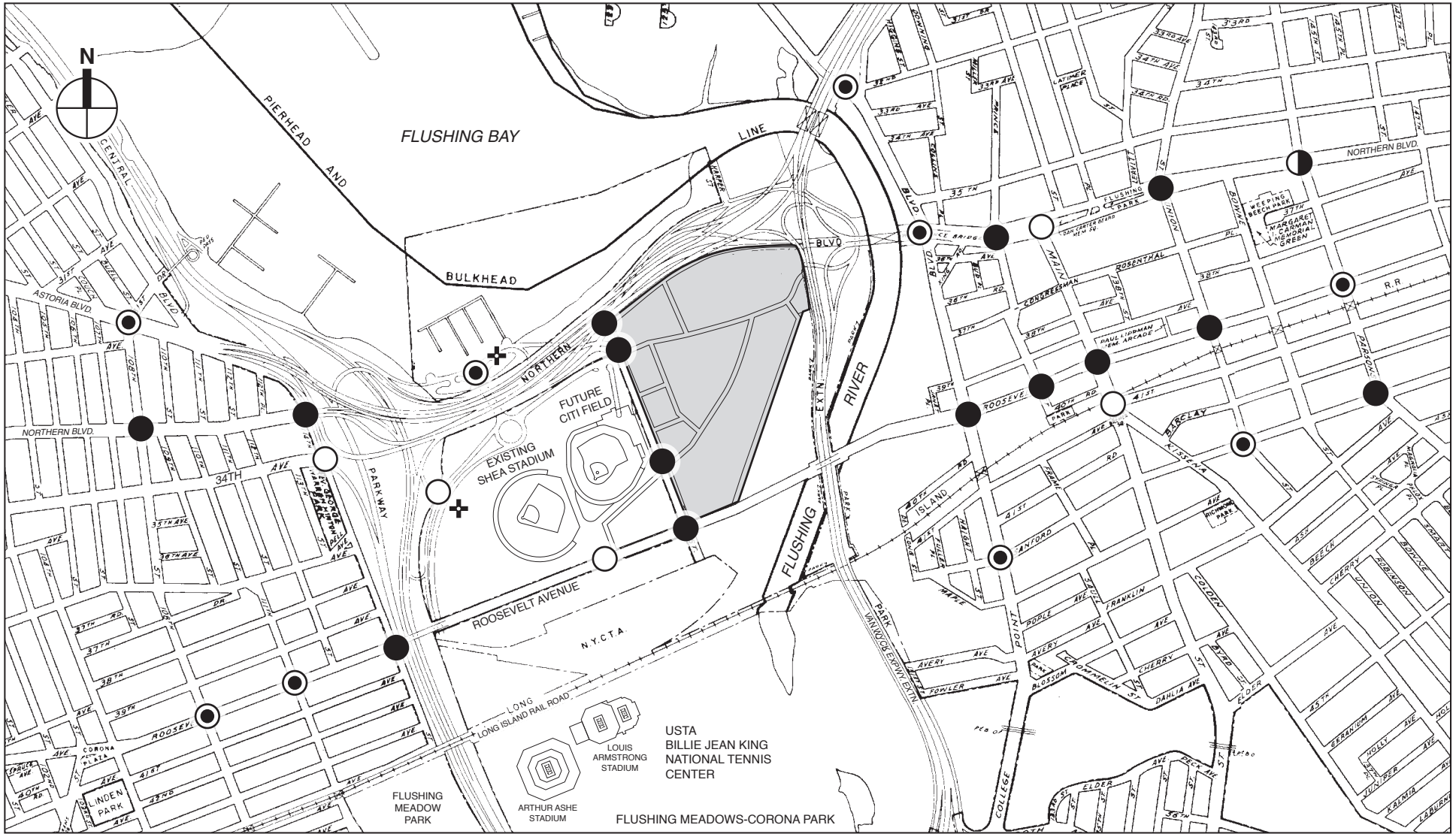
Partially Mitigated Impact

Unmitigated Impact

Figure 23-4

Traffic Mitigation Overview

Saturday Non-Game Midday Peak Hour



Willets Point Development District

Unsignalized Intersection

No Significant Impact

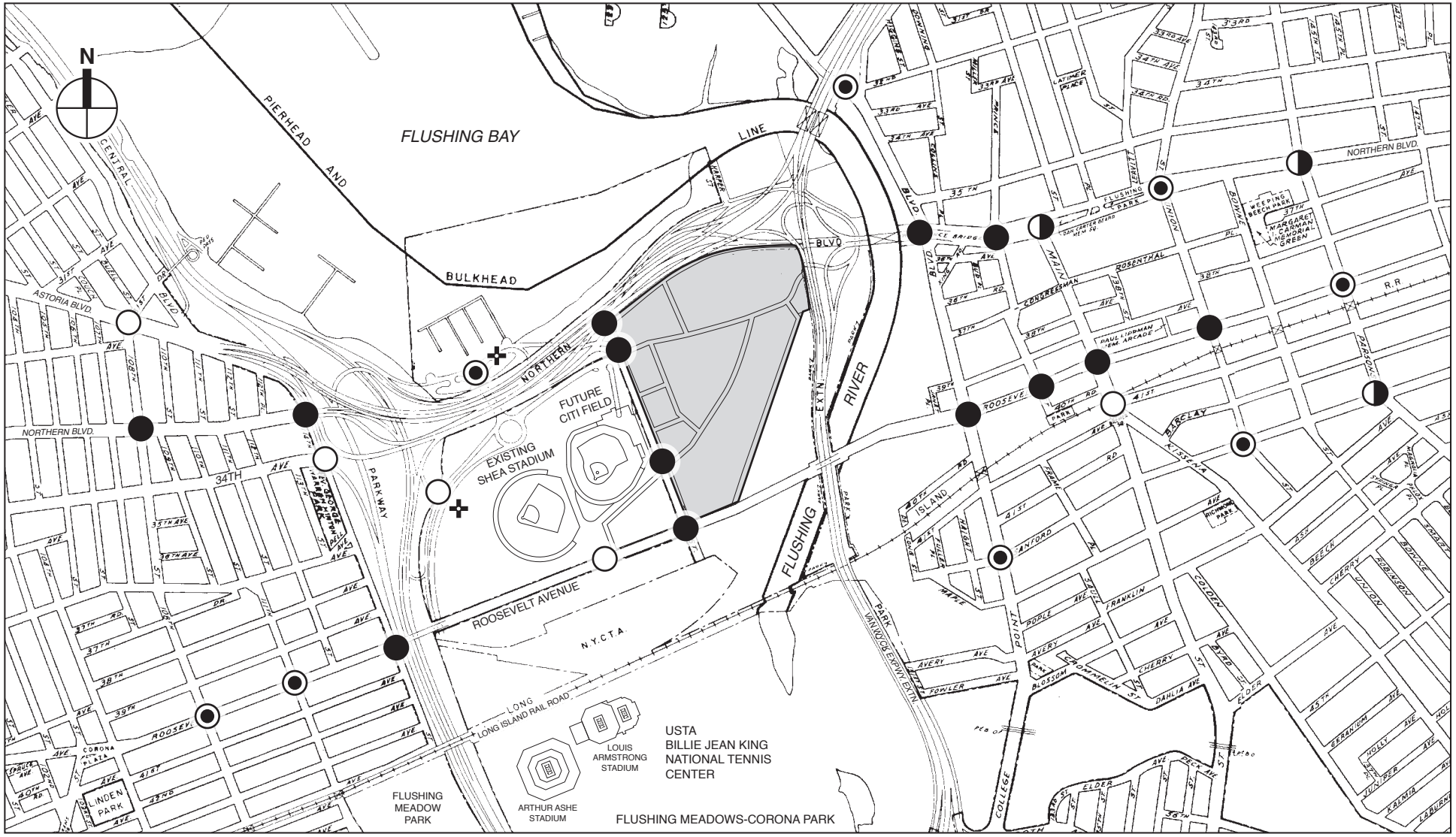
Mitigated Impact

Partially Mitigated Impact

Unmitigated Impact

Figure 23-5

Traffic Mitigation Overview
Weekday Pre-Game Peak Hour



Willets Point Development District

Unsignalized Intersection

No Significant Impact

Mitigated Impact

Partially Mitigated Impact

Unmitigated Impact

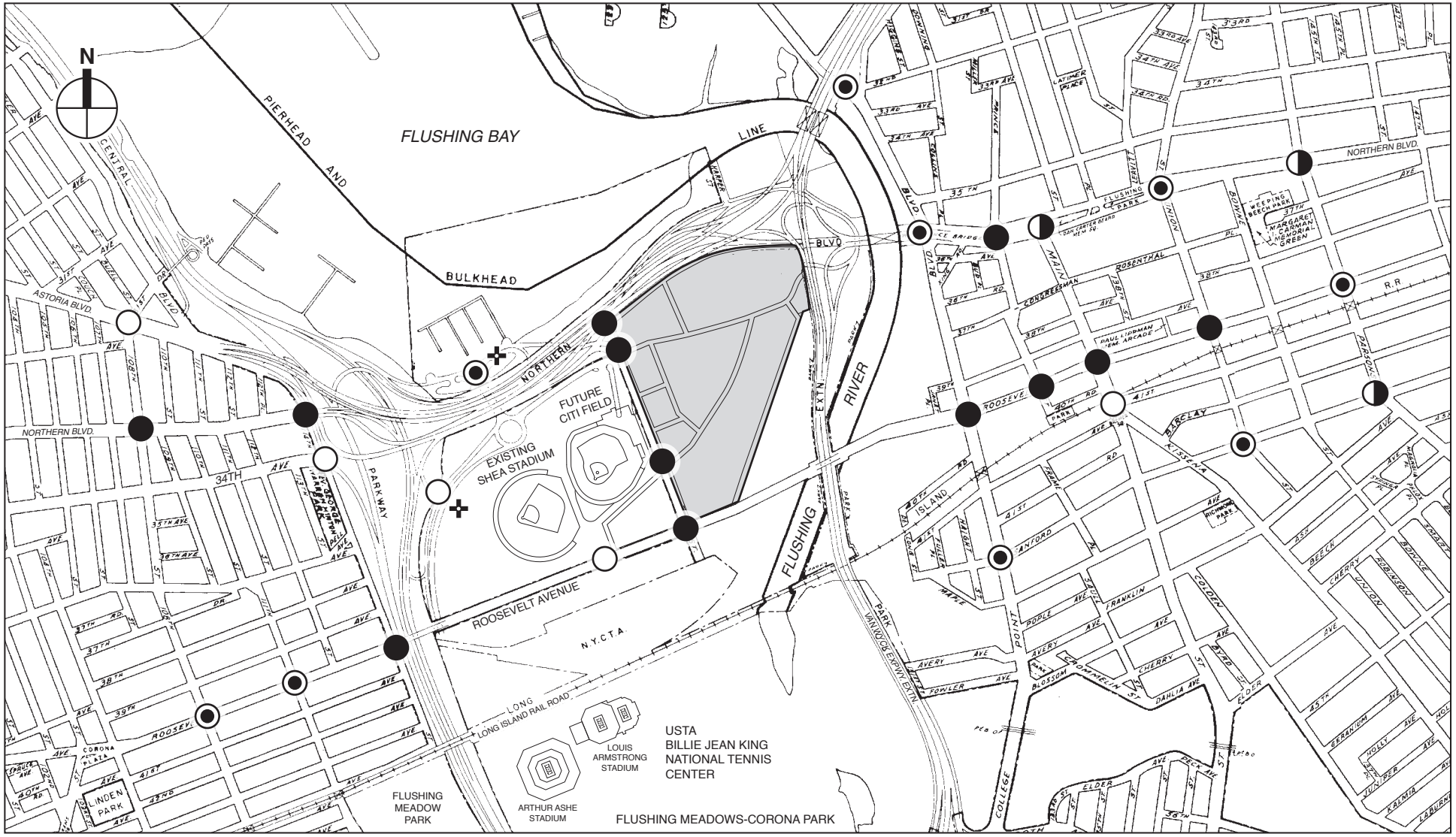
0 1000 2000 FEET

SCALE

Figure 23-6

Traffic Mitigation Overview

Saturday Pre-Game Peak Hour



Willets Point Development District

Unsignalized Intersection

No Significant Impact

Mitigated Impact

Partially Mitigated Impact

Unmitigated Impact

Figure 23-7

Traffic Mitigation Overview
Saturday Post-Game Peak Hour

Table 23-1
Traffic Impact Mitigation Summary—Year 2017

Study Intersections	Without a Mets Game				With a Mets Game		
	Weekday AM	Weekday Midday	Weekday PM	Saturday Midday	Weekday PM Pre-game	Saturday Midday Pre-game	Saturday PM Post-game
No Significant Impact	8	10	6	7	5	5	5
Fully Mitigated Impact	7	7	8	7	9	8	9
Partially Mitigated Impact	2	1	2	2	1	3	3
Unmitigated Impact	12	11	13	13	14	13	12

The overall finding of the traffic mitigation analysis is that the majority of locations analyzed under the proposed Plan would be significantly impacted, and that the need for a broad range of mitigation measures would be substantial. Approximately one-half, or less, depending on the peak hour, of the significantly impacted locations could be fully or partially mitigated with traffic signal operation changes, such as signal phasing and/or timing changes, or the signalization of an unsignalized intersection, and limited parking prohibitions, while an additional location could be fully mitigated with a turn prohibition. Using signal timing modification measures, installation of new traffic signal equipment, limited parking prohibitions, and a minor turn prohibition, significant impacts occurring in one or more of the analysis peak hours could be fully or partially mitigated at the following traffic study area locations:

- Astoria Boulevard at 108th Street;
- Northern Boulevard at Main Street;
- Northern Boulevard at Union Street;
- Northern Boulevard at Parsons Boulevard;
- Roosevelt Avenue at 108th Street;
- Roosevelt Avenue at 111th Street;
- Roosevelt Avenue at Parsons Boulevard;
- Sanford Avenue at College Point Boulevard;
- Sanford Avenue at Union Street;
- Sanford Avenue at Parsons Boulevard;
- College Point Boulevard at 32nd Avenue;
- Northern Boulevard service road at College Point Boulevard; and
- Boat Basin Road at World's Fair Marina.

The following intersections could only be partially mitigated or not mitigated at all:

- In the weekday AM peak hour, there would be two partially mitigated intersections—Northern Boulevard at Parsons Boulevard, and Sanford Avenue at Parsons Boulevard—and 12 unmitigatable intersections, including: Northern Boulevard at 108th, 114th, 126th, Prince, and Union Streets; 34th Avenue at 126th Street; Roosevelt Avenue at 114th, 126th, Prince, and Main Streets, and at College Point Boulevard; and 126th Street at the new Willets Point Boulevard.

- In the weekday midday peak hour, Northern Boulevard at Parsons Boulevard would be partially mitigated, and 11 intersections could not be mitigated, including: Northern Boulevard at 126th, Prince, and Union Streets; 34th Avenue at 126th Street; Roosevelt Avenue at 114th, 126th, Prince, Main, and Union Streets, and at College Point Boulevard; and 126th Street at the new Willets Point Boulevard.
- In the non-game weekday PM peak hour, the Parsons Boulevard intersection at Northern Boulevard and at Sanford Avenue would be partially mitigated, and 13 intersections would not be mitigated, including: Northern Boulevard at 108th, 114th, 126th, Prince, and Union Streets; 34th Avenue at 126th Street; Roosevelt Avenue at 114th, 126th, Prince, Main, and Union Streets, and at College Point Boulevard; and 126th Street at the new Willets Point Boulevard.
- In the non-game Saturday midday peak hour, there would be two partially mitigated intersections—Northern Boulevard at Parsons Boulevard, and Sanford Avenue at Parsons Boulevard—and 13 unmitigatable intersections, including: Northern Boulevard at 108th, 126th, Main, Prince, and Union Streets; 34th Avenue at 126th Street; Roosevelt Avenue at 114th, 126th, Prince, Main, and Union Streets, and at College Point Boulevard; and 126th Street at the new Willets Point Boulevard.
- In the weeknight pre-game peak hour, Northern Boulevard at Parsons Boulevard could only be partially mitigated, and 14 intersections could not be mitigated, including: Northern Boulevard at 108th, 114th, 126th, Prince, and Union Streets; 34th Avenue at 126th Street; Roosevelt Avenue at 114th, 126th, Prince, Main, and Union Streets, and at College Point Boulevard; Sanford Avenue at Parsons Boulevard; and 126th Street at the new Willets Point Boulevard.
- In the Saturday pre-game peak hour, Northern Boulevard at Main Street and at Parsons Boulevard, and Sanford Avenue at Parsons Boulevard, would be partially mitigated, while 13 intersections could not be mitigated at all, including: Northern Boulevard at 108th, 114th, 126th, and Prince Streets; 34th Avenue at 126th Street; Roosevelt Avenue at 114th, 126th, Prince, Main, and Union Streets, and at College Point Boulevard; College Point Boulevard at the Northern Boulevard service road; and 126th Street at the new Willets Point Boulevard.
- In the Saturday post-game peak hour, there would be three partially mitigated intersections—Northern Boulevard at Main Street and at Parsons Boulevard, and Sanford Avenue at Parsons Boulevard—similar to the Saturday pre-game peak hour, and 12 unmitigatable intersections, including: Northern Boulevard at 108th, 114th, 126th, and Prince Streets; 34th Avenue at 126th Street; Roosevelt Avenue at 114th, 126th, Prince, Main, and Union Streets, and at College Point Boulevard; and 126th Street at the new Willets Point Boulevard.

A summary of the traffic mitigation findings for each analysis location, including the proposed mitigation measures, where applicable, is provided below.

ASTORIA BOULEVARD

The analyzed intersection at 108th Street would be significantly impacted during the weekday PM non-game and weeknight pre-game peak hours. The impacts on the eastbound Astoria Boulevard approach could be fully mitigated by prohibiting the eastbound left turns onto 108th Street at all times. The prohibited left turns could instead use the eastbound exclusive left-turn lane at the intersection immediately upstream, Astoria Boulevard at 31st Street. The prohibited left turn volume would range between 5 vehicles per hour (vph) and 20 vph during the seven peak hours.

Table 23-2
Summary of Unmitigated Intersections

Intersections	Without a Mets Game				With a Mets Game		
	Weekday AM	Weekday Midday	Weekday PM	Saturday Midday	Pre-game Weekday PM	Pre-game Saturday Midday	Post-game Saturday PM
Astoria Boulevard at 108th Street							
Northern Boulevard at 108th Street	x		x	x	X	x	x
Northern Boulevard at 114th Street	x		x		X	x	x
Northern Boulevard at 126th Street	x	x	x	x	X	x	x
Northern Boulevard at Prince Street	x	x	x	x	X	x	x
Northern Boulevard at Main Street				x			
Northern Boulevard at Union Street	x	x	x	x	X		
Northern Boulevard at Parsons Boulevard							
34th Avenue at 114th Street							
34th Avenue at 126th Street	x	x	x	x	X	x	x
Roosevelt Avenue at 108th Street							
Roosevelt Avenue at 111th Street							
Roosevelt Avenue at 114th Street	x	x	x	x	X	x	x
Roosevelt Avenue at 126th Street	x	x	x	x	X	x	x
Roosevelt Avenue at College Point Boulevard	x	x	x	x	X	x	x
Roosevelt Avenue at Prince Street	x	x	x	x	X	x	x
Roosevelt Avenue at Main Street	x	x	x	x	X	x	x
Roosevelt Avenue at Union Street		x	x	x	X	x	x
Roosevelt Avenue at Parsons Boulevard							
Kissena Boulevard at Main Street							
Sanford Avenue at College Point Boulevard							
Sanford Avenue at Union Street							
Sanford Avenue at Parsons Boulevard					X		
32nd Avenue at College Point Boulevard							
World's Fair Marina at Boat Basin Road							
Northern Boulevard at College Point Boulevard						x	
Stadium Road at Grand Central Parkway							
New Willets Point Boulevard at 126th Street	x	x	x	x	X	x	x
Roosevelt Avenue at New Citi Field Internal Street							

Notes: x means the intersection would be unmitigated in the corresponding peak hour.

NORTHERN BOULEVARD

Six of the seven intersections analyzed along Northern Boulevard would be significantly impacted on non-game days during each of the AM, PM, and Saturday midday peak hours, and four would be significantly impacted during the weekday midday peak hour. For the game day peak hours, six of the Northern Boulevard intersections would be significantly impacted in the weeknight pre-game peak hour, and all seven would be significantly impacted in the Saturday pre- and post-game peak hours.

NORTHERN BOULEVARD AT 108TH STREET

Six of the seven peak hours would be significantly impacted—weekday midday being the exception—and none could be mitigated. With significant impacts typical on the Northern Boulevard approaches, signal timing modifications at this intersection would not be possible without creating new significant impacts on the congested cross street, and geometric modifications to improve capacity would not be feasible.

NORTHERN BOULEVARD AT 114TH STREET

Mitigation would not be necessary during the weekday midday and Saturday midday peak hours on non-game days, and the significant adverse impacts during the other peak hours would be unmitigatable. Similar to Northern Boulevard at 108th Street, mitigation options—including signal timing modifications and geometric capacity improvements—would not be feasible.

NORTHERN BOULEVARD AT 126TH STREET

None of the significant impacts expected during all seven analysis peak hours could be mitigated. Because this intersection is the convergence point of Northern Boulevard, 126th Street, and two highway exit ramps, it would carry significant project-generated traffic volumes, in addition to substantial No Build traffic. The geometric characteristics of the intersection and the fact that significant impacts would occur on all approaches eliminate the possibility of full or partial mitigation.

NORTHERN BOULEVARD AT PRINCE STREET

None of the significant impacts expected during all seven analysis peak hours could be mitigated. With impacts occurring on the Northern Boulevard approaches, the geometric complexity and signal timing characteristics of this intersection, and the cross-street congestion provide no opportunity for mitigation.

NORTHERN BOULEVARD AT MAIN STREET

Mitigation would not be required during the weekday non-game and weeknight pre-game peak hours, and signal timing modifications could partially mitigate the significant impacts during the Saturday pre- and post-game peak hours. The significant impacts during the Saturday midday peak hour on non-game days could not be mitigated.

NORTHERN BOULEVARD AT UNION STREET

Signal timing modifications could fully mitigate the significant impacts during the Saturday pre- and post-game peak hours. Significant impacts during the other five peak hours could not be mitigated.

NORTHERN BOULEVARD AT PARSONS BOULEVARD

Prohibiting parking between 7:00 AM and 7:00 PM (except Sunday) along the east side of northbound Parsons Boulevard and the west side of southbound Parsons Boulevard (currently metered) to provide daylighted right-turn lanes on both approaches, could partially mitigate significant impacts in all seven time periods.

34TH AVENUE

One of the two study locations along 34th Avenue, the intersection at 126th Street (and the Grand Central Parkway and eastbound Northern Boulevard ramps), would be significantly impacted during all seven peak hours, since the intersection would be a key gateway to the District. The other intersection, 34th Avenue at 114th Street, would not be significantly impacted during any peak hour.

34TH AVENUE AT 126TH STREET

None of the significant impacts expected during all seven analysis peak hours could be mitigated. As a key entrance point to the District, this intersection would carry significant volumes of project-generated traffic. Its geometric complexity, with approaches from two exit ramps in addition to the 126th Street northbound and 34th Avenue eastbound and westbound approaches, limits the capacity improvement options. Further, any signal timing modifications to improve delays on some approaches would worsen the significant impacts on other approaches.

ROOSEVELT AVENUE

All nine intersections would be significantly impacted during the seven analysis peak hours, except for the intersection of Roosevelt Avenue at Union Street during the AM peak hour. In each time period, four unmitigatable intersections would consistently be Roosevelt Avenue at College Point Boulevard, Roosevelt Avenue at Prince Street, and Roosevelt Avenue at Main Street, and Roosevelt Avenue at Union Street (except during the weekday AM, when it would not be significantly impacted). Although the number of project-generated trips expected along Roosevelt Avenue through these four intersections would not be particularly large, very limited mitigation options for the corridor in Downtown Flushing would be possible. This is due in part to narrow space for travel lanes and critical curbside activities, including bus stops, bus layover, and truck loading/unloading.

ROOSEVELT AVENUE AT 108TH STREET

Significant impacts would occur in all seven peak hours and could be fully mitigated by providing "No Standing Anytime" parking regulations within 100 feet of the intersection on the north side and south side of the westbound and eastbound Roosevelt Avenue approaches, respectively, to allow for two moving lanes at each approach; shifting the Q48 bus stop on the far side of the eastbound approach 25 feet farther downstream (to the east) to allow a transition back to one moving lane in the eastbound direction; providing "No Standing Anytime" regulations between the intersection and the relocated bus stop, and along the length of the bus stop; and prohibiting parking for 50 feet on the far side of the westbound approach to allow a transition back to one moving lane in the westbound direction. In addition, all of the impacted peak hours, except for weekday AM, would also require signal timing modifications to achieve full mitigation.

ROOSEVELT AVENUE AT 111TH STREET

Similar to the intersection at 108th Street, significant impacts would occur in all seven peak hours and could be fully mitigated by providing "No Standing Anytime" parking regulations within 100 feet of the intersection on the north side and south side of the westbound and eastbound approaches, respectively, to allow for a transition to two moving lanes at each approach; shifting the Q48 bus stop on the far side of the westbound approach and the eastbound approach 25 feet farther downstream to allow a transition back to one moving lane in the each direction; and providing "No Standing Anytime" regulations between the intersection and each relocated bus stop, and along the length of each bus stop.

ROOSEVELT AVENUE AT 114TH STREET

None of the significant impacts expected during all seven analysis peak hours could be mitigated. The combination of significant additional project-generated traffic volumes and

limited capacity improvement options—due primarily to geometric constraints—at this intersection eliminates the ability for full or partial mitigation.

ROOSEVELT AVENUE AT 126TH STREET

None of the significant impacts expected during all seven analysis peak hours could be mitigated. Similar to Roosevelt Avenue at 114th Street, mitigation options at this intersection, which would experience substantial traffic and pedestrian volumes at the southern end of the District, are also limited by geometric constraints. Further, significant impacts on all approaches to this intersection would make signal timing modifications ineffective.

ROOSEVELT AVENUE AT COLLEGE POINT BOULEVARD

None of the significant impacts expected during all seven analysis peak hours could be mitigated.

ROOSEVELT AVENUE AT PRINCE STREET

None of the significant impacts expected during all seven analysis peak hours could be mitigated.

ROOSEVELT AVENUE AT MAIN STREET

None of the significant impacts expected during all seven analysis peak hours could be mitigated.

ROOSEVELT AVENUE AT UNION STREET

Six out of the seven peak hours would be significantly impacted—weekday AM being the exception—and none could be mitigated.

ROOSEVELT AVENUE AT PARSONS BOULEVARD:

By prohibiting parking between 7:00 AM and 7:00 PM (except Sunday) along the north side and south side of westbound and eastbound Roosevelt Avenue, respectively, significant impacts in all seven peak hours would be fully mitigated.

SANFORD AVENUE

Two of the three intersections analyzed along Sanford Avenue would be significantly impacted during the weekday midday peak hour, while all three intersections would be significantly impacted during the other six peak hours.

SANFORD AVENUE AT COLLEGE POINT BOULEVARD

Significant impacts expected in all seven peak hours could be fully mitigated by providing "No Standing" parking regulations between 7:00 AM and 7:00 PM (except Sunday) on the north side of the westbound Sanford Avenue approach for a distance of 150 feet from the intersection; and by prohibiting parking from 10:00 AM to 7:00 PM (except Sunday) along the west side of the southbound College Point Boulevard approach to provide a daylighted right-turn lane.

SANFORD AVENUE AT UNION STREET

By prohibiting parking between 7:00 AM and 7:00 PM (except Sunday) along the north side of westbound Roosevelt Avenue, significant impacts in all seven peak hours could be fully mitigated.

SANFORD AVENUE AT PARSONS BOULEVARD

Significant impacts are expected in six of the seven peak hours, weekday midday being the exception. The weeknight pre-game peak hour could not be mitigated, but the other impacted peak hours could be partially mitigated with the following parking prohibitions: from 7:00 AM to 7:00 PM (except Sunday) along the east side of northbound Parsons Boulevard; and from 10:00 AM to 3:00 PM (except Sunday) along the north side of westbound Sanford Avenue to provide a daylighted right-turn lane.

OTHER STUDY AREA LOCATIONS

KISSENA BOULEVARD AT MAIN STREET

No significant impacts are expected during any of the analysis peak hours.

32ND AVENUE AT COLLEGE POINT BOULEVARD

The three significantly impacted game day peak hours could be fully mitigated by upgrading the signal controller type (from mechanical to computerized) and modifying the signal timing, including increasing the signal cycle length from 60 seconds to 90 seconds. Since the installation of a new signal controller would be a permanent change to the intersection, the signal timing modifications were applied to the non-game peak hours as well, even though they would not be significantly impacted.

WORLD'S FAIR MARINA AT BOAT BASIN ROAD

Significant impacts at this currently unsignalized intersection could be fully mitigated with the installation of a traffic signal, operating with a 90-second cycle, to provide sufficient gaps for northbound Boat Basin Road left-turn traffic toward the entrance ramp to the westbound Grand Central Parkway.

NORTHERN BOULEVARD SERVICE ROAD AT COLLEGE POINT BOULEVARD

Modifying signal timings would fully mitigate the significant impacts in six of the seven peak hours; the Saturday pre-game peak hour would be unmitigated.

STADIUM ROAD AT THE GRAND CENTRAL PARKWAY RAMP

No significant impacts are expected during any of the analysis peak hours.

126TH STREET AT THE NEW WILLETS POINT BOULEVARD

Because this intersection would be newly built as part of the proposed Plan, any marginally unacceptable or unacceptable delays would be considered significant adverse traffic impacts. As a result, in the non-game peak hours, the intersection would be unmitigatable despite it operating at overall marginally acceptable LOS D and the impacted lane groups operating at either

marginally unacceptable LOS D or unacceptable LOS E. Impacts expected in the three game-day peak hours would also be unmitigatable.

CITI FIELD INTERNAL STREET AT ROOSEVELT AVENUE

No significant impacts are expected at this proposed signalized intersection during any of the analysis peak hours.

IMPLEMENTATION

Each of the traffic capacity improvements described above require the approval of the New York City Department of Transportation (NYCDOT). Overall, these traffic improvements—including signal phasing and timing changes, traffic signal installations, and parking prohibitions—fall within the range of typical measures employed by NYCDOT in improving traffic conditions in New York City. New York City Transit (NYCT) would need to agree to the proposed movement of the Q48 bus stops on Roosevelt Avenue near 108th and 111th Streets.

With the implementation of the traffic mitigation measures described above, new parking prohibitions would result in the removal of approximately 40 to 50 parking or "standing" spaces during various times of the day and days of the week, including approximately 15 parking meters. Roosevelt Avenue would lose about 20 spaces (including about 12 meters) in the vicinity of 108th and 111th Streets, and Parsons Boulevard; Sanford Avenue would lose about 10 to 15 spaces near College Point and Parsons Boulevards and Union Street; Parsons Boulevard would lose approximately 10 spaces (including three meters) near Northern Boulevard and Sanford Avenue; and College Point Boulevard would lose approximately three spaces in the vicinity of Sanford Avenue. No designated truck loading/unloading or commercial vehicle zones or bus layover space would be affected by the parking modifications proposed for mitigation.

Of the traffic mitigation measures discussed above, one new traffic signal is proposed at a currently unsignalized intersection, Boat Basin Road at World's Fair Marina. Also, it is expected that the intersection of College Point Boulevard and 32nd Avenue would require traffic signal equipment upgrades from the current mechanical systems to computerized in order to accommodate variable signal phase green times among the seven analysis time periods. This signal improvement would be similar to NYCDOT's planned upgrade program for various signalized intersections throughout the City.

The analyzed proposed Plan includes a cumulative development plan, which represents the maximum envelope of development envisioned for the District. As a result, the mitigation identified in this chapter is what would be needed to address significant impacts due to the maximum development scenario established in the cumulative development plan. Were the eventual development plan scaled back from the maximum envelope and the number of projected vehicle trips were lessened, it is possible that the extent of the mitigation presented in this chapter would be beyond what would ultimately be required.

In order to verify the need and effectiveness of the proposed mitigation measures identified in the DGEIS, and later in the FGEIS, the lead agency will develop and conduct a detailed monitoring plan when the proposed Plan is fully built and occupied. The monitoring program will include all locations where significant traffic impacts have been identified that would require parking removal, physical mitigation measures (e.g.,. new traffic signal equipment, lane re-striping, turn prohibitions, intersection approach modifications, and bus stop relocation), and signal timing modifications in excess of three seconds. Data collection conducted for the

monitoring program will include 24-hour Automatic Traffic Recorder (ATR) machine counts, manual turning movement counts, pedestrian counts, and intersection geometric information. Additionally, in the areas where parking prohibitions would be needed to mitigate significant impacts, such as Downtown Flushing and Corona, curbside utilization surveys will be conducted to determine the number of vehicles that would be displaced and where the displaced vehicles would be accommodated. The traffic monitoring program will also include intersection capacity and level of service analyses to determine whether actual future Build conditions have, in fact, resulted in significant traffic impacts and verify the need for mitigation measures identified in the DGEIS and the FGEIS.

D. TRANSIT AND PEDESTRIANS

OVERVIEW

As discussed in Chapter 18, "Transit and Pedestrians," the proposed Plan would result in significant adverse impacts on subway station operations, bus line-haul, and street level pedestrian facilities. Potential measures to mitigate these impacts are described below.

SUBWAY STATION OPERATIONS

The projected decline in service levels at the street-level stairway on the north side of Roosevelt Avenue at the Willets Point-Shea Stadium subway station from LOS C or better under the No Build condition to LOS D, E, or F under the Build condition would constitute significant adverse subway station impacts. Because the worst service levels were identified for the weekday non-game PM peak period, the amount of stairway widening required would equal the amount needed to mitigate conditions during this analysis time period to LOS C/D or better. As shown in Table 23-3, the effective width necessary to achieve LOS C/D or better for the street-level stairway is 10.25 feet. For street-level stairway S2, this width represents a 4.25-foot widening from its existing effective width of 6 feet (actual tread width of 8 feet). To achieve the 10.25-foot effective stairway width, this stairway would need to be widened to an actual width of 12.25 feet.

The implementation of this mitigation measure would be coordinated with MTA/NYCT to allow enough time for design and specification approvals by MTA/NYCT and for the construction in order to address the increased demand that would result from development of the proposed Plan by 2017.

BUS LINE HAUL LEVELS

The proposed Plan would result in significant adverse impacts on the eastbound and westbound Q48 routes during the AM and PM peak periods and on the eastbound Q66 during the AM and PM peak periods. More specifically, the Q48 route would experience the following increases in passengers per bus between No Build and Build conditions:

- eastbound line-haul increasing from 52 to 177 average passengers per bus in the AM peak period;
- westbound line-haul increasing from 8 to 133 average passengers per bus in the AM peak period;

Table 23-3
2017 Mitigated Build Condition: Subway Station Vertical Circulation Analysis

Willets Point–Shea Stadium No. 7 Train Station Vertical Circulation Elements	Width (feet)	Effective Width (feet)	15-Minute Pedestrian Volumes		Friction Factor	15-Minute		
			Up	Down		SVCD Capacity	V/SVCD Ratio	LOS
Weekday AM Non-Game								
Street to Mezzanine								
Roosevelt Avenue (North) S2 Stairs	12.25	10.25	518	425	0.90	1384	0.68	B
Weekday PM Non-Game								
Street to Mezzanine								
Roosevelt Avenue (North) S2 Stairs	12.25	10.25	703	681	0.90	1384	1.00	D
Weekday Pre-Game								
Street to Mezzanine								
Roosevelt Avenue (North) S2 Stairs	12.25	10.25	507	599	0.90	1384	0.80	C
Saturday Pre-Game								
Street to Mezzanine								
Roosevelt Avenue (North) S2 Stairs	12.25	10.25	430	481	0.90	1384	0.66	B
Saturday Post-Game								
Street to Mezzanine								
Roosevelt Avenue (North) S2 Stairs	12.25	10.25	443	395	0.90	1384	0.61	B

Note: Capacities were calculated based on rates presented in the New York City Transit, *Station Planning and Design Guidelines* (January 2001), in accordance with the *CEQR Technical Manual*.

- westbound line-haul increasing from 45 to 374 average passengers per bus in the PM peak period.

To mitigate these significant adverse impacts, 14 additional or 20 total eastbound buses and eight additional or 13 total westbound buses would be required during the AM peak period. During the PM peak period, 27 additional or 31 total eastbound buses and 24 additional or 28 total westbound buses would be required.

The Q66 route would experience the following increases in passengers per bus between the No Build and Build conditions:

- eastbound line-haul increasing from 81 to 85 average passengers per bus in the AM peak period; and,
- eastbound line-haul increasing from 56 to 68 average passengers per bus in the PM peak period.

To mitigate these significant adverse impacts and return loading on these buses to NYCT guideline levels, nine additional or 24 total eastbound buses would be required during the AM peak period and three additional or 14 total eastbound buses would be required during the PM peak period. Table 23-4 provides a comparison of the existing service and the numbers of buses required to fully mitigate the identified significant adverse line haul impacts along the Q48 and Q66 bus routes.

The above mitigation measures consider potential service improvements to only the bus routes currently serving the immediate vicinity of the District. While MTA and NYCT routinely monitor changes in bus ridership and would make the necessary service adjustments where warranted, the projected service demand is significant in magnitude. These service adjustments are subject to the agencies' fiscal and operational constraints and, if implemented, are expected to take place over time.

Table 23-4
2017 Mitigated Build Condition: Bus Line Haul Levels

Route	Peak Period	Eastbound Buses per Hour		Westbound Buses per Hour	
		Existing	With Mitigation	Existing	With Mitigation
Q48	AM	6	20	5	13
	PM	4	31	4	28
Q66	AM	15	24	—	—
	PM	11	14	—	—

Notes: Both Q48 and Q66 operate standard buses with a guideline capacity of 54 passengers per bus.

Recognizing that these improvements may not be operationally viable or adequate in accommodating the projected future demand from developments planned for the District, discussions were initiated with NYCT to explore opportunities to extend existing bus routes from adjacent neighborhoods (e.g., downtown Flushing) and/or creating new bus routes. Potential bus service improvements discussed include: 1) increasing service frequency on the Q19 and providing westbound stop/loop service to Willets Point; 2) extending some or all bus routes that currently terminate in downtown Flushing to Willets Point, including the Q12, Q13, Q14, Q15, Q16, Q17, Q26, Q27, and Q28; and 3) possibly extending the limited QBx1 along Roosevelt Avenue and rerouting the X51 through Willets Point. To accommodate these potential service improvements, new bus stops and layover areas would be needed in and around the District. The City will collaborate with MTA and NYCT during and after this environmental review process to establish development guidelines and provisions to ensure that adequate bus service improvements would be implemented.

STREET LEVEL PEDESTRIAN OPERATIONS

Significant adverse pedestrian impacts were identified for the east crosswalk at the intersection of Northern Boulevard and 126th Street, for the north, east, and west crosswalks at the intersection of Roosevelt Avenue and 126th Street, and for the new crosswalk at the signalized intersection of Roosevelt Avenue and the Lot B driveway. Measures that could be implemented to mitigate these impacts are discussed below:

NORTHERN BOULEVARD AND 126TH STREET

- The east crosswalk would deteriorate to LOS D (19.0 SFP) during the Saturday pre-game peak period and LOS E (12.6 SFP) during the Saturday post-game peak period. Restriping this crosswalk from 14.5 feet to 22.5 feet would be required to return operations to acceptable conditions (20 SFP) during the peak period with the worst operating conditions, the Saturday post-game peak period. Widening this crosswalk to 21.5 feet would return operations to No Build levels. Because this widening could be constrained by the physical median along Northern Boulevard, achieving such widening may not be feasible. However, conditions at this crosswalk were identified only for the Saturday pre-game and post-game peak periods. At these times, game-day traffic management measures—such as the stationing of traffic control officers at this location to facilitate traffic and pedestrian flows, which currently occurs on game days but was not accounted for in the pedestrian analysis—would be in place. These measures make it unlikely that the physical widening of the existing crosswalk would be needed.

ROOSEVELT AVENUE AND 126TH STREET

- The north crosswalk would deteriorate to LOS D (16.0 SFP) during the weekday midday peak period, LOS E (11.8 SFP) during the weekday PM peak period, LOS E (12.9 SFP) during the weekday pre-game peak period, LOS E (12.2 SFP) during the Saturday non-game peak period, LOS E (14.6 SFP) during the Saturday pre-game peak period, and LOS D (18.0 SFP) during the Saturday post-game peak period. Restriping this crosswalk from 17.0 feet to 26.5 feet would mitigate these significant adverse impacts. The feasibility of this widening would be limited by the width of the adjoining sidewalks on the north side of Roosevelt Avenue. If such widening could not be achieved, the projected significant adverse impacts during certain time periods would remain unmitigated or partially mitigated.
- The east crosswalk would deteriorate to LOS D (17.8 SFP) during the weekday midday peak period, LOS D (15.5 SFP) during the weekday PM peak period, LOS D (16.9 SFP) during the weekday pre-game peak period, LOS E (11.8 SFP) during the Saturday non-game peak period, and LOS D (16.5 SFP) during the Saturday pre-game peak period. Restriping this crosswalk from 11.5 feet to 18.5 feet would mitigate these significant adverse impacts. The feasibility of this widening would be limited by the width of the adjoining sidewalks on the east side of 126th Street. If such widening could not be achieved, the projected significant adverse impacts during certain time periods would remain unmitigated or partially mitigated.
- The west crosswalk would deteriorate to LOS D (19.2 SFP) during the weekday PM peak period, LOS E (14.6 SFP) during the weekday pre-game peak period, LOS D (18.5 SFP) during the Saturday non-game peak period, and LOS E (12.1 SFP) during the Saturday pre-game peak period. Restriping this crosswalk from 16.0 feet to 25.5 feet would mitigate these significant adverse impacts. Because the required widening would exceed the width of the adjoining sidewalks on 126th Street, only partial mitigation could be implemented, and the projected significant adverse impacts during certain time periods would remain unmitigated or partially mitigated.

ROOSEVELT AVENUE AND LOT B DRIVEWAY

- Based on the assumed 24-foot crosswalk width, the new crosswalk would operate at LOS E (13.7 SFP) during the weekday PM peak period and at LOS D (18.2 SFP) during the Saturday non-game peak period. The crosswalk would need to be 32.5 feet wide to ensure acceptable operations during all analysis peak periods. The feasibility of constructing a crosswalk of this width would be limited by the width of the adjoining sidewalks along the north side of Roosevelt Avenue. If such a width could not be achieved, the projected significant adverse impacts during certain time periods would remain unmitigated.

E. NOISE

Future noise levels with the proposed Plan and the anticipated development on Lot B with the proposed traffic mitigation measures were calculated for receptor site 3 using the methodology described in Chapter 20, "Noise," for the 2017 analysis year. Receptor 3 was analyzed as it is nearby the proposed additional signal at the intersection of Boat Basin Road and World's Fair Marina, which is the only mitigation measure that has the potential to substantially affect noise levels. No Build values presented in Chapter 20 were used to assess impacts. Build values for 2017 with the proposed traffic mitigation measures in place are shown in Table 23-5. Values that exceed *CEQR Technical Manual*'s impact criteria are shown in bold.

Table 23-5
2017 Build Noise Levels With Traffic Mitigation Measures (dBA)

Site	Location	Day	Time Period	No Build $L_{eq(1)}$	Build $L_{eq(1)}$	Build Mitigation $L_{eq(1)}$	Mitigation—No Build Increase
3	World's Fair Marina Park	Weekday	AM	69.8	71.1	71.3	1.5
		Weekday	MD	70.9	72.8	72.8	1.9
		Weekday	PM	72.2	73.9	74.2	2.0
		Saturday	MD	68.7	72.2	72.4	**3.7**
		Weekday	pre-game	71.9	72.2	72.2	0.3
		Saturday	pre-game	69.4	69.6	69.6	0.2
		Saturday	post-game	67.8	68.3	69.0	1.2

In 2017, when the proposed Plan would be completed, Leq(1) noise levels due to project-generated traffic with the proposed traffic mitigation plan would exceed the *CEQR Technical Manual's* impact criteria and result in significant adverse noise impacts during the non-game Saturday midday (MD) time period at noise receptor location 3. There would be no feasible or practicable measures to mitigate this impact. Noise barriers or berms are impractical at this location due to space constraints. As a result, this would be an unmitigatable significant adverse impact.

While this noise level increase does exceed the CEQR threshold for a significant impact, the resultant L_{eq} of 72.4 dBA is not an uncommon level for a park in New York City. Noise levels of this magnitude frequently occur at parks or portions of parks that are adjacent to heavily trafficked roadways.

The noise levels and the impacts predicted exclude noise from aircraft operations at LaGuardia Airport, which is adjacent to the District. Excluding aircraft noise results in lower baseline levels and therefore a more conservative analysis, as the project-generated noise causes a larger increase on a lower baseline level. If the noise from aircraft operations were included in the baseline noise levels, it is unlikely that the impact identified at the World's Fair Marina Park would occur.

The impact would occur at the same location and time as would occur without the traffic mitigation measures. While the addition of a traffic signal at this location does increase noise levels, and increase the magnitude of the impact during the Saturday midday (MD) time period, the changes in noise levels are less than a decibel, and would have no perceptible effect.

F. CONSTRUCTION

As discussed in Chapter 21, "Construction Impacts," significant adverse traffic impacts could occur at some of the study area intersections through which construction-related traffic would travel, albeit expected at notably lower magnitudes than the operational impacts identified in Chapter 17. Where impacts during construction may occur, measures recommended to mitigate impacts associated with the proposed Plan could be implemented early to aide in alleviating congested traffic conditions. However, where unmitigatable operational impacts are identified, there is also the potential for such impacts to occur during construction. A more detailed analysis will be presented in the FGEIS to identify the specific anticipated significant adverse traffic impacts during construction and the likely measures necessary to mitigate these impacts. ✷

Table 23-3
Summary of Traffic Mitigation Measures

INTERSECTION	MITIGATION MEASURES			
	NON-GAMEDAY WEEKDAY AM PEAK HOUR	NON-GAMEDAY WEEKDAY MIDDAY PEAK HOUR	NON-GAMEDAY WEEKDAY PM PEAK HOUR	NON-GAMEDAY SATURDAY MIDDAY PEAK HOUR
108th Street at Astoria Boulevard	Prohibit eastbound Astoria Boulevard eastbound left-turn movements onto 108th Street at all times. Eastbound left-turn vehicles may use the exclusive left-turn at the Astoria Boulevard and 31st Street intersection located west of 108th Street. **[Measure reflects improvements needed for the non-game PM and weekday pre-game peak periods; otherwise mitigation is not needed.]**	Prohibit eastbound Astoria Boulevard eastbound left-turn movements onto 108th Street at all times. Eastbound left-turn vehicles may use the exclusive left-turn at the Astoria Boulevard and 31st Street intersection located west of 108th Street. **[Measure reflects improvements needed for the non-game PM and weekday pre-game peak periods; otherwise mitigation is not needed.]**	Prohibit eastbound Astoria Boulevard eastbound left-turn movements onto 108th Street at all times. Eastbound left-turn vehicles may use the exclusive left-turn at the Astoria Boulevard and 31st Street intersection located west of 108th Street.	Prohibit eastbound Astoria Boulevard eastbound left-turn movements onto 108th Street at all times. Eastbound left-turn vehicles may use the exclusive left-turn at the Astoria Boulevard and 31st Street intersection located west of 108th Street. **[Measure reflects improvements needed for the non-game PM and weekday pre-game peak periods; otherwise mitigation is not needed.]**
108th Street at Northern Boulevard (RT. 25A)	**Unmitigatable Impact.**	Mitigation not required.	**Unmitigatable Impact.**	**Unmitigatable Impact.**
114th Street at Northern Boulevard (RT. 25A)	**Unmitigatable Impact.**	Mitigation not required.	**Unmitigatable Impact.**	Mitigation not required.
126th Street at Northern Boulevard (RT. 25A)	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
Prince Street at Northern Boulevard (RT. 25A)	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
Main Street at Northern Boulevard (RT. 25A)	Mitigation not required.	Mitigation not required.	Mitigation not required.	**Unmitigatable Impact.**
Union Street at Northern Boulevard (RT. 25A)	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
Parsons Boulevard at Northern Boulevard (RT. 25A)	**Partially Mitigated.** Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 80 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours. Provide "No Parking" regulations along the west side of the southbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 120 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.	**Partially Mitigated.** Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 80 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours. Provide "No Parking" regulations along the west side of the southbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 120 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.	**Partially Mitigated.** Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 80 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours. Provide "No Parking" regulations along the west side of the southbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 120 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.	**Partially Mitigated.** Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 80 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours. Provide "No Parking" regulations along the west side of the southbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 120 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.
114th Street at 34th Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.	Mitigation not required.
126th Street/GCP Ramp at 34th Avenue	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
108th Street at Roosevelt Avenue	Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Move the Q48 bus stop on the far side of the eastbound approach 25 feet further downstream (to the east) to allow a transition back to one moving lane in the eastbound direction, and provide "No Standing Anytime" regulations between the intersection and the bus stop and along the length of the bus stop. Provide "No Standing Anytime" regulations on the far side of the westbound approach for a distance of 50 ft. from the intersection to allow a transition back to one moving lane in the westbound	Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Move the Q48 bus stop on the far side of the eastbound approach 25 feet further downstream (to the east) to allow a transition back to one moving lane in the eastbound direction, and provide "No Standing Anytime" regulations between the intersection and the bus stop and along the length of the bus stop. Provide "No Standing Anytime" regulations on the far side of the westbound approach for a distance of 50 ft. from the intersection to allow a transition back to one moving lane in the westbound Modify signal timing: shift 2 s green time from EB/WB phase to NB/SB phase. [EB/WB green time shifts from 80 s to 78 s; NB/SB green time shifts from 30 s to 32 s.]	Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Move the Q48 bus stop on the far side of the eastbound approach 25 feet further downstream (to the east) to allow a transition back to one moving lane in the eastbound direction, and provide "No Standing Anytime" regulations between the intersection and the bus stop and along the length of the bus stop. Provide "No Standing Anytime" regulations on the far side of the westbound approach for a distance of 50 ft. from the intersection to allow a transition back to one moving lane in the westbound Modify signal timing: shift 1 s green time from EB/WB phase to NB/SB phase. [EB/WB green time shifts from 80 s to 79 s; NB/SB green time shifts from 30 s to 31 s.]	Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Move the Q48 bus stop on the far side of the eastbound approach 25 feet further downstream (to the east) to allow a transition back to one moving lane in the eastbound direction, and provide "No Standing Anytime" regulations between the intersection and the bus stop and along the length of the bus stop. Provide "No Standing Anytime" regulations on the far side of the westbound approach for a distance of 50 ft. from the intersection to allow a transition back to one moving lane in the westbound Modify signal timing: shift 2 s green time from EB/WB phase to NB/SB phase. [EB/WB green time shifts from 80 s to 78 s; NB/SB green time shifts from 30 s to 32 s.]
111th Street at Roosevelt Avenue	Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Move the Q48 bus stop on the far side of the westbound approach and the far side of the eastbound approach 25 feet further downstream to allow a transition back to one moving lane in the each direction, and provide "No Standing Anytime" regulations between the intersection and each bus stop and along the length of each bus	Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Move the Q48 bus stop on the far side of the westbound approach and the far side of the eastbound approach 25 feet further downstream to allow a transition back to one moving lane in the each direction, and provide "No Standing Anytime" regulations between the intersection and each bus stop and along the length of each bus	Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Move the Q48 bus stop on the far side of the westbound approach and the far side of the eastbound approach 25 feet further downstream to allow a transition back to one moving lane in the each direction, and provide "No Standing Anytime" regulations between the intersection and each bus stop and along the length of each bus	Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Move the Q48 bus stop on the far side of the westbound approach and the far side of the eastbound approach 25 feet further downstream to allow a transition back to one moving lane in the each direction, and provide "No Standing Anytime" regulations between the intersection and each bus stop and along the length of each bus
114th Street at Roosevelt Avenue	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
126th Street at Roosevelt Avenue	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
College Point Boulevard at Roosevelt Avenue	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
Prince Street at Roosevelt Avenue	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**

Table 23-3
Summary of Traffic Mitigation Measures

INTERSECTION	MITIGATION MEASURES			
	NON-GAMEDAY WEEKDAY AM PEAK HOUR	NON-GAMEDAY WEEKDAY MIDDAY PEAK HOUR	NON-GAMEDAY WEEKDAY PM PEAK HOUR	NON-GAMEDAY SATURDAY MIDDAY PEAK HOUR
Main Street at Roosevelt Avenue	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
Union Street at Roosevelt Avenue	Mitigation not required.	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
Parsons Boulevard at Roosevelt Avenue	Provide "No Parking" regulations along the south side of the eastbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection. Provide "No Parking" regulations along the north side of the westbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.	Provide "No Parking" regulations along the south side of the eastbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection. Provide "No Parking" regulations along the north side of the westbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.	Provide "No Parking" regulations along the south side of the eastbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection. Provide "No Parking" regulations along the north side of the westbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.	Provide "No Parking" regulations along the south side of the eastbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection. Provide "No Parking" regulations along the north side of the westbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
Main Street at Kissena Boulevard	Mitigation not required.	Mitigation not required.	Mitigation not required.	Mitigation not required.
College Point Boulevard at Sanford Avenue	Provide "No Standing" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 150 ft. from the intersection.	Provide "No Standing" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 150 ft. from the intersection. Prohibit parking from 10A - 7P (Except Sunday) along the west side of the southbound College Point Blvd approach 50 ft. from the intersection to provide a daylighted right turn lane.	Provide "No Standing" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 150 ft. from the intersection. Prohibit parking from 10A - 7P (Except Sunday) along the west side of the southbound College Point Blvd approach 50 ft. from the intersection to provide a daylighted right turn lane.	Provide "No Standing" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 150 ft. from the intersection. Prohibit parking from 10A - 7P (Except Sunday) along the west side of the southbound College Point Blvd approach 50 ft. from the intersection to provide a daylighted right turn lane.
Union Street at Sanford Avenue	Provide "No Parking" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.	Provide "No Parking" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.	Provide "No Parking" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.	Provide "No Parking" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
Parsons Boulevard at Sanford Avenue	**Partially Mitigated.** Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.	Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection. Prohibit parking from 10A - 3P along the north side of the westbound Sanford Avenue approach 50 ft. from the intersection to provide a daylighted right turn lane. **[Measures reflect improvements needed for the non-game Saturday midday peak period and Weekend Midday pre-game peak period; otherwise mitigation is not needed.]**	**Partially Mitigated.** Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.	**Partially Mitigated.** Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection. Prohibit parking from 10A - 3P along the north side of the westbound Sanford Avenue approach 50 ft. from the intersection to provide a daylighted right turn lane.
College Point Boulevard at 32nd Avenue	Replace the existing mechanical signal controller with a computerized signal controller to accommodate multiple timing plans during different peak periods. Modify signal timing: Increase the existing 60 s cycle to a 90 s cycle with the following signal timing: WB = 31 s of green time, NB/SB = 29 s of green time, and SB-only lag = 15 s of green time [each phase has 3 s amber and 2 s all red]. **[Measures reflects improvements needed for the weekday pre-game, weekend pre-game, and weekend post-game peak periods; otherwise mitigation is not needed.]**	Replace the existing mechanical signal controller with a computerized signal controller to accommodate multiple timing plans during different peak periods. Modify signal timing: Increase the existing 60 s cycle to a 90 s cycle with the following signal timing: WB = 31 s of green time, NB/SB = 29 s of green time, and SB-only lag = 15 s of green time [each phase has 3 s amber and 2 s all red]. **[Measures reflects improvements needed for the weekday pre-game, weekend pre-game, and weekend post-game peak periods; otherwise mitigation is not needed.]**	Replace the existing mechanical signal controller with a computerized signal controller to accommodate multiple timing plans during different peak periods. Modify signal timing: Increase the existing 60 s cycle to a 90 s cycle with the following signal timing: WB = 28 s of green time, NB/SB = 36 s of green time, and SB-only lag = 11 s of green time [each phase has 3 s amber and 2 s all red]. **[Measures reflects improvements needed for the weekday pre-game, weekend pre-game, and weekend post-game peak periods; otherwise mitigation is not needed.]**	Replace the existing mechanical signal controller with a computerized signal controller to accommodate multiple timing plans during different peak periods. Modify signal timing: Increase the existing 60 s cycle to a 90 s cycle with the following signal timing: WB = 28 s of green time, NB/SB = 36 s of green time, and SB-only lag = 11 s of green time [each phase has 3 s amber and 2 s all red]. **[Measures reflects improvements needed for the weekday pre-game, weekend pre-game, and weekend post-game peak periods; otherwise mitigation is not needed.]**
Willets Point Boulevard at 126th Street	Mitigation not required. **[Intersection would be demapped as part of the proposed Plan.]**	Mitigation not required. **[Intersection would be demapped as part of the proposed Plan.]**	Mitigation not required. **[Intersection would be demapped as part of the proposed Plan.]**	Mitigation not required. **[Intersection would be demapped as part of the proposed Plan.]**
Boat Basin Road at Worlds Fair Marina	Install a new computer-controlled traffic signal, with a 90-second cycle length and three phases. [EB/WB green time is 10 s; WB-only lag green time is 43 s; NB/SB green time is 22 s; all phases have 3 s of amber and 2 s of all red time.]	Install a new computer-controlled traffic signal, with a 90-second cycle length and three phases. [EB/WB green time is 10 s; WB-only lag green time is 43 s; NB/SB green time is 22 s; all phases have 3 s of amber and 2 s of all red time.]	Install a new computer-controlled traffic signal, with a 90-second cycle length and three phases. [EB/WB green time is 10 s; WB-only lag green time is 41 s; NB/SB green time is 24 s; all phases have 3 s of amber and 2 s of all red time.]	Install a new computer-controlled traffic signal, with a 90-second cycle length and three phases. [EB/WB green time is 10 s; WB-only lag green time is 43 s; NB/SB green time is 22 s; all phases have 3 s of amber and 2 s of all red time.]
Willets Point Boulevard at Northern Boulevard	Mitigation not required. **[Intersection would be demapped as part of the proposed Plan.]**	Mitigation not required. **[Intersection would be demapped as part of the proposed Plan.]**	Mitigation not required. **[Intersection would be demapped as part of the proposed Plan.]**	Mitigation not required. **[Intersection would be demapped as part of the proposed Plan.]**
College Point Boulevard at Northern Boulevard Service Road	Modify signal timing: shift 1 s green time from WB phase to NB/SB phase. [WB green time shifts from 25 s to 24 s; NB/SB green time shifts from 25 s to 26 s.]	Modify signal timing: shift 1 s green time from WB phase to NB/SB phase. [WB green time shifts from 25 s to 24 s; NB/SB green time shifts from 25 s to 26 s.]	Modify signal timing: shift 5 s green time from WB phase to NB/SB phase. [WB green time shifts from 25 s to 20 s; NB/SB green time shifts from 25 s to 30 s.]	Modify signal timing: shift 1 s green time from WB phase to NB/SB phase. [WB green time shifts from 25 s to 24 s; NB/SB green time shifts from 25 s to 26 s.]
Grand Central Parkway Ramp at West Park Loop/Stadium Road	Mitigation not required.	Mitigation not required.	Mitigation not required.	Mitigation not required.
126th Street at New Willets Point Boulevard	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
Citi Field/Lot B Internal Street at Roosevelt Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.	Mitigation not required.

Table 23-4
Summary of Traffic Mitigation Measures

INTERSECTION	MITIGATION MEASURES WEEKDAY PRE-GAME PEAK HOUR	SATURDAY PRE-GAME PEAK HOUR	SATURDAY POST-GAME PEAK HOUR
108th Street at Astoria Boulevard	Prohibit eastbound Astoria Boulevard eastbound left-turn movements onto 108th Street at all times. Eastbound left-turn vehicles may use the exclusive left-turn at the Astoria Boulevard and 31st Street intersection located west of 108th Street.	Prohibit eastbound Astoria Boulevard eastbound left-turn movements onto 108th Street at all times. Eastbound left-turn vehicles may use the exclusive left-turn at the Astoria Boulevard and 31st Street intersection located west of 108th Street. **[Measure reflects improvements needed for the non-game PM and weekday pre-game peak periods; otherwise mitigation is not needed.]**	Prohibit eastbound Astoria Boulevard eastbound left-turn movements onto 108th Street at all times. Eastbound left-turn vehicles may use the exclusive left-turn at the Astoria Boulevard and 31st Street intersection located west of 108th Street. **[Measure reflects improvements needed for the non-game PM and weekday pre-game peak periods; otherwise mitigation is not needed.]**
108th Street at Northern Boulevard (RT. 25A)	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
114th Street at Northern Boulevard (RT. 25A)	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
126th Street at Northern Boulevard (RT. 25A)	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
Prince Street at Northern Boulevard (RT. 25A)	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
Main Street at Northern Boulevard (RT. 25A)	Mitigation not required.	**Partially Mitigated.** Modify signal timing: shift 4 s green time from WB/NB-right only lead phase to EB/WB phase. [WB/NB-right lead green time shifts from 17 s to 13 s; EB/WB green time shifts from 47 s to 51 s; NB green time remains 34 s; Lead Pedestrian Interval (LPI) remains 7 s.]	**Partially Mitigated.** Modify signal timing: shift 4 s green time from WB/NB-right only lead phase to EB/WB phase. [WB/NB-right lead green time shifts from 17 s to 13 s; EB/WB green time shifts from 47 s to 51 s; NB green time remains 34 s; Lead Pedestrian Interval (LPI) remains 7 s.]
Union Street at Northern Boulevard (RT. 25A)	**Unmitigatable Impact.**	Modify signal timing: shift 1 s from EB/WB phase to EB-left/EB-right/WB-left lead phase. [EB-left/EB-right/WB-left green time shifts from 18 s to 19 s; EB/WB green time shifts from 50 s to 49 s; NB/SB green time remains 36 s.]	Modify signal timing: shift 1 s from EB/WB phase to EB-left/EB-right/WB-left lead phase. [EB-left/EB-right/WB-left green time shifts from 18 s to 19 s; EB/WB green time shifts from 50 s to 49 s; NB/SB green time remains 36 s.]
Parsons Boulevard at Northern Boulevard (RT. 25A)	**Partially Mitigated.** Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 80 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours. Provide "No Parking" regulations along the west side of the southbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 120 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.	**Partially Mitigated.** Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 80 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours. Provide "No Parking" regulations along the west side of the southbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 120 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.	**Partially Mitigated.** Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 80 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours. Provide "No Parking" regulations along the west side of the southbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 120 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.
114th Street at 34th Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.
126th Street/GCP Ramp at 34th Avenue	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
108th Street at Roosevelt Avenue	Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Move the Q48 bus stop on the far side of the eastbound approach 25 feet further downstream (to the east) to allow a transition back to one moving lane in the eastbound direction, and provide "No Standing Anytime" regulations between the intersection and the bus stop and along the length of the bus stop. Provide "No Standing Anytime" regulations on the far side of the westbound approach for a distance of 50 ft. from the intersection to allow a transition back to one moving lane in the westbound direction. Modify signal timing: shift 1 s green time from EB/WB phase to NB/SB phase. [EB/WB green time shifts from 80 s to 79 s; NB/SB green time shifts from 30 s to 31 s.]	Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Move the Q48 bus stop on the far side of the eastbound approach 25 feet further downstream (to the east) to allow a transition back to one moving lane in the eastbound direction, and provide "No Standing Anytime" regulations between the intersection and the bus stop and along the length of the bus stop. Provide "No Standing Anytime" regulations on the far side of the westbound approach for a distance of 50 ft. from the intersection to allow a transition back to one moving lane in the westbound direction. Modify signal timing: shift 1 s green time from EB/WB phase to NB/SB phase. [EB/WB green time shifts from 80 s to 79 s; NB/SB green time shifts from 30 s to 31 s.]	Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Move the Q48 bus stop on the far side of the eastbound approach 25 feet further downstream (to the east) to allow a transition back to one moving lane in the eastbound direction, and provide "No Standing Anytime" regulations between the intersection and the bus stop and along the length of the bus stop. Provide "No Standing Anytime" regulations on the far side of the westbound approach for a distance of 50 ft. from the intersection to allow a transition back to one moving lane in the westbound direction. Modify signal timing: shift 1 s green time from EB/WB phase to NB/SB phase. [EB/WB green time shifts from 80 s to 79 s; NB/SB green time shifts from 30 s to 31 s.]
111th Street at Roosevelt Avenue	Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Move the Q48 bus stop on the far side of the westbound approach and the far side of the eastbound approach 25 feet further downstream to allow a transition back to one moving lane in the each direction, and provide "No Standing Anytime" regulations between the intersection and each bus stop and along the length of each bus stop.	Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Move the Q48 bus stop on the far side of the westbound approach and the far side of the eastbound approach 25 feet further downstream to allow a transition back to one moving lane in the each direction, and provide "No Standing Anytime" regulations between the intersection and each bus stop and along the length of each bus stop.	Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach. Move the Q48 bus stop on the far side of the westbound approach and the far side of the eastbound approach 25 feet further downstream to allow a transition back to one moving lane in the each direction, and provide "No Standing Anytime" regulations between the intersection and each bus stop and along the length of each bus stop.
114th Street at Roosevelt Avenue	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
126th Street at Roosevelt Avenue	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
College Point Boulevard at Roosevelt Avenue	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
Prince Street at Roosevelt Avenue	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**

Table 23-4
Summary of Traffic Mitigation Measures

INTERSECTION	MITIGATION MEASURES		
	WEEKDAY PRE-GAME PEAK HOUR	SATURDAY PRE-GAME PEAK HOUR	SATURDAY POST-GAME PEAK HOUR
Main Street at Roosevelt Avenue	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
Union Street at Roosevelt Avenue	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
Parsons Boulevard at Roosevelt Avenue	Provide "No Parking" regulations along the south side of the eastbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection. Provide "No Parking" regulations along the north side of the westbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.	Provide "No Parking" regulations along the south side of the eastbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection. Provide "No Parking" regulations along the north side of the westbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.	Provide "No Parking" regulations along the south side of the eastbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection. Provide "No Parking" regulations along the north side of the westbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
Main Street at Kissena Boulevard	Mitigation not required.	Mitigation not required.	Mitigation not required.
College Point Boulevard at Sanford Avenue	Provide "No Standing" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 150 ft. from the intersection. Prohibit parking from 10A - 7P (Except Sunday) along the west side of the southbound College Point Blvd approach 50 ft. from the intersection to provide a daylighted right turn lane.	Provide "No Standing" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 150 ft. from the intersection. Prohibit parking from 10A - 7P (Except Sunday) along the west side of the southbound College Point Blvd approach 50 ft. from the intersection to provide a daylighted right turn lane.	Provide "No Standing" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 150 ft. from the intersection. Prohibit parking from 10A - 7P (Except Sunday) along the west side of the southbound College Point Blvd approach 50 ft. from the intersection to provide a daylighted right turn lane.
Union Street at Sanford Avenue	Provide "No Parking" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.	Provide "No Parking" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.	Provide "No Parking" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
Parsons Boulevard at Sanford Avenue	**Unmitigatable Impact.** Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.	**Partially Mitigated.** Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection. Prohibit parking from 10A - 3P along the north side of the westbound Sanford Avenue approach 50 ft. from the intersection to provide a daylighted right turn lane.	**Partially Mitigated.** Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
College Point Boulevard at 32nd Avenue	Replace the existing mechanical signal controller with a computerized signal controller to accommodate multiple timing plans during different peak periods. Modify signal timing: Increase the existing 60 s cycle to a 90 s cycle with the following signal timing: WB = 28 s of green time, NB/SB = 36 s of green time, and SB-only lag = 11 s of green time [each phase has 3 s amber and 2 s all red].	Replace the existing mechanical signal with a computerized signal to accommodate different timing plans for each peak period. Modify signal timing: Increase the existing 60 s cycle to a 90 s cycle with the following signal timing: WB = 28 s of green time, NB/SB = 36 s of green time, and SB-only lag = 11 s of green time [each phase has 3 s amber and 2 s all red].	Replace the existing mechanical signal with a computerized signal to accommodate different timing plans for each peak period. Modify signal timing: Increase the existing 60 s cycle to a 90 s cycle with the following signal timing: WB = 28 s of green time, NB/SB = 36 s of green time, and SB-only lag = 11 s of green time [each phase has 3 s amber and 2 s all red].
Willets Point Boulevard at 126th Street	Mitigation not required. **[Intersection would be demapped as part of the proposed Plan.]**	Mitigation not required. **[Intersection would be demapped as part of the proposed Plan.]**	Mitigation not required. **[Intersection would be demapped as part of the proposed Plan.]**
Boat Basin Road at Worlds Fair Marina	Install a new computer-controlled traffic signal, with a 90-second cycle length and three phases. NYPD should optimize traffic signal operations during the weekday pre-game peak period.	Install a new computer-controlled traffic signal, with a 90-second cycle length and three phases. NYPD should optimize traffic signal operations during the weekend pre-game peak period.	Install a new computer-controlled traffic signal, with a 90-second cycle length and three phases. NYPD should optimize traffic signal operations during the weekend post-game peak period.
Willets Point Boulevard at Northern Boulevard	Mitigation not required. **[Intersection would be demapped as part of the proposed Plan.]**	Mitigation not required. **[Intersection would be demapped as part of the proposed Plan.]**	Mitigation not required. **[Intersection would be demapped as part of the proposed Plan.]**
College Point Boulevard at Northern Boulevard Service Road	Modify signal timing: shift 5 s green time from WB phase to NB/SB phase. [WB green time shifts from 25 s to 20 s; NB/SB green time shifts from 25 s to 30 s.]	Modify signal timing: shift 1 s green time from WB phase to NB/SB phase. [WB green time shifts from 25 s to 24 s; NB/SB green time shifts from 25 s to 26 s.]	Modify signal timing: shift 5 s green time from WB phase to NB/SB phase. [WB green time shifts from 25 s to 20 s; NB/SB green time shifts from 25 s to 30 s.]
Grand Central Parkway Ramp at West Park Loop/Stadium Road	Mitigation not required.	Mitigation not required.	Mitigation not required.
126th Street at New Willets Point Boulevard	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
Citi Field/Lot B Internal Street at Roosevelt Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.

TABLE 23-8
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY AM (NON GAME DAY)*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.71	57.4	E	DefL	0.71	57.4	E	DefL	0.71	57.4	E	- Prohibit eastbound Astoria Boulevard eastbound left-turn movements onto 108th Street at all times. Eastbound left-turn vehicles may use the exclusive left-turn at the Astoria Boulevard and 31st Street intersection located west of 108th Street.
		T	0.25	41.7	D	T	0.25	41.7	D	T	0.25	41.7	D	
	SB	LTR	0.28	42.3	D	LTR	0.28	42.3	D	LTR	0.28	42.3	D	
Astoria Boulevard	EB	LTR	0.57	21.1	C	LTR	0.61	21.8	C	TR	0.50	20.0	B	**[Measure reflects improvements needed for the non-game PM and weekday pre-game peak periods; otherwise mitigation is not needed.]**
	WB	L	0.74	20.6	C	L	0.77	26.0	C	L	0.76	25.0	C	
		TR	0.96	23.2	C	TR	0.99	27.8	C	TR	0.99	27.8	C	
Overall Intersection		**-**	**0.91**	**24.2**	**C**	**-**	**0.93**	**27.4**	**C**	**-**	**0.93**	**26.9**	**C**	
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					- **Unmitigatable Impact.**
		-	-	-	-	-	-	-	-					
	SB	LTR	0.99	66.2	E	LTR	0.99	66.2	E					
		-	-	-	-	-	-	-	-					
Northern Boulevard (Rt. 25A)	EB	L	0.19	27.0	C	L	0.19	30.8	C					
		TR	0.54	15.2	B	TR	0.60	16.2	B					
	WB	L	0.58	25.6	C	L	0.64	33.1	C					
		TR	1.03	36.0	D	TR	1.09	59.4	E					
		-	-	-	-	-	-	-	-					
Overall Intersection		**-**	**0.97**	**40.6**	**D**	**-**	**1.03**	**52.8**	**D**					
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.68	56.5	E	LTR	0.72	58.3	E					- **Unmitigatable Impact.**
Northern Boulevard (Rt. 25A)	EB	T	0.82	35.2	D	T	0.94	44.5	D					
		R	0.84	41.7	D	R	0.86	43.9	D					
	WB	DefL	0.52	17.0	B	DefL	0.56	24.7	C					
		T	1.20+	120.0+	F*	T	1.20+	120.0+	F*					
Overall Intersection		**-**	**1.20+**	**105.5**	**F**	**-**	**1.20+**	**120.0+**	**F***					
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.44	44.0	D	L	0.85	56.7	E					- **Unmitigatable Impact.**
		R	0.41	44.4	D	R	0.53	47.5	D					
Northern Boulevard	EB	T	0.22	6.6	A	T	0.24	6.8	A					
	WB	T	0.89	20.7	C	T	0.92	23.0	C					
Grand Central Parkway Ramp	EB	T	0.39	8.0	A	T	0.44	8.5	A					
Van Wyck & Whitestone Expressway Ramp	WB	T	0.88	22.4	C	T	1.08	66.6	E					
Overall Intersection		**-**	**0.79**	**19.5**	**B**	**-**	**1.03**	**34.9**	**C**					

TABLE 23-8
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY AM (NON GAME DAY)*

		No Build				Build				Build with Mitigation				Mitigation Measure
			Control				Control				Control			
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					**- Unmitigatable Impact.**
	SB	LTR	0.99	86.9	F	LTR	0.99	86.9	F					
Northern Boulevard	EB	L	1.16	120.0+	F*	L	1.20+	120.0+	F*					
		T	0.55	8.0	A	T	0.59	8.4	A					
	WB	L	1.19	120.0+	F*	L	1.19	120.0+	F*					
		T	1.11	60.0	E	T	1.13	68.9	E					
Northern Boulevard Service Rd.	EB	TR	0.47	14.6	B	TR	0.47	14.6	B					
	WB	TR	0.59	19.8	B	TR	0.81	26.8	C					
Overall Intersection		**-**	**1.20+**	**60.4**	**E**	**-**	**1.20+**	**65.4**	**E**					
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	1.05	99.4	F	L	1.05	99.4	F					- Mitigation not required.
		R	0.84	45.0	D	R	0.84	45.0	D					
Northern Boulevard	EB	TR	0.70	21.5	C	TR	0.74	22.2	C					
	WB	L	0.16	31.7	C	L	0.16	31.7	C					
		T	0.88	4.8	A	T	0.93	6.7	A					
Overall Intersection		**-**	**0.92**	**25.7**	**C**	**-**	**0.96**	**26.1**	**C**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	LTR	0.22	33.7	C	LTR	0.22	33.7	C					**- Unmitigatable Impact.**
	SB	LTR	1.16	120.0+	F*	LTR	1.18	120.0+	F*					
Northern Boulevard	EB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*					
		T	0.68	25.2	C	T	0.74	26.5	C					
		R	1.20+	120.0+	F*	R	1.20+	120.0+	F*					
	WB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*					
		TR	1.14	111.8	F	TR	1.20	120.0+	F*					
Overall Intersection		**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
Parsons Boulevard at Northern Boulevard (RT. 25A)														**Partially Mitigated.**
Parsons Boulevard	NB	LTR	1.13	120.0+	F*	LTR	1.13	120.0+	F*	LT	0.91	69.6	E	- Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 80 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.
		-	-	-	-	-	-	-	-	R	0.36	38.7	D	
	SB	LTR	1.14	120.0+	F*	LTR	1.17	120.0+	F*	LT	0.72	50.1	D	
		-	-	-	-	-	-	-	-	R	0.61	47.1	D	- Provide "No Parking" regulations along the west side of the southbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 120 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.
Northern Boulevard	EB	L	0.56	48.4	D	L	0.58	50.5	D	L	0.58	50.5	D	
		TR	0.95	36.3	D	TR	1.03	53.0	D	TR	1.03	53.0	D	
	WB	L	0.67	44.4	D	L	0.72	50.6	D	L	0.72	50.6	D	
		TR	1.12	78.2	E	TR	1.18	105.4	F	TR	1.18	105.4	F	
Overall Intersection		**-**	**1.10**	**75.6**	**E**	**-**	**1.13**	**94.1**	**F**	**-**	**1.05**	**79.0**	**E**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	0.50	17.4	B	L	0.50	17.4	B					- Mitigation not required.
		T	0.30	15.0	B	T	0.31	15.2	B					
34th Avenue	EB	TR	0.62	23.3	C	TR	0.63	23.7	C					
Overall Intersection		**-**	**0.55**	**19.5**	**B**	**-**	**0.56**	**19.7**	**B**					

TABLE 23-8
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY AM (NON GAME DAY)*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	LTR	0.34	22.0	C	LTR	0.45	23.6	C					**- Unmitigatable Impact.**
Northern Boulevard Ramp	SB	LTR	0.29	21.6	C	LTR	0.42	23.7	C					
GCP Ramp	SB	LTR	0.65	53.5	D	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
34th Avenue	EB	-	-	-	-	-	-	-	-					
		LTR	0.67	53.1	D	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
Stadium Road	WB	-	-	-	-	-	-	-	-					
		LTR	0.70	65.3	E	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
	Overall Intersection	-	**0.49**	**40.4**	**D**	-	**1.20+**	**120.0+**	**F***					
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	0.80	52.8	D	LTR	0.82	54.2	D	LTR	0.81	53.4	D	- Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	SB	LTR	1.01	85.3	F	LTR	1.01	85.3	F	LTR	0.99	81.5	F	
Roosevelt Avenue	EB	LTR	0.93	30.2	C	LTR	1.04	56.1	E	LTR	0.62	12.7	B	- Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	WB	LTR	1.16	99.6	F	LTR	1.20+	120.0+	F*	LTR	0.74	15.3	B	
	Overall Intersection	-	**1.12**	**69.4**	**E**	-	**1.20**	**95.0**	**F**	-	**0.81**	**31.0**	**C**	- Move the Q48 bus stop on the far side of the eastbound approach 25 feet further downstream (to the east) to allow a transition back to one moving lane in the eastbound direction, and provide "No Standing Anytime" regulations between the intersection and the bus stop and along the length of the bus stop.
111th Street at Roosevelt Avenue														- Provide "No Standing Anytime" regulations on the far side of the westbound approach for a distance of 5(ft. from the intersection to allow a transition back to one moving lane in the westbound direction.
111th Street	NB	LTR	0.84	55.5	E	LTR	0.84	55.5	E	LTR	0.84	55.5	E	- Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
Roosevelt Avenue	EB	LTR	1.19	117.0	F	LTR	1.20+	120.0+	F*	LTR	0.80	18.2	B	
	WB	LTR	1.17	102.9	F	LTR	1.20+	120.0+	F*	LTR	0.83	18.6	B	- Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	Overall Intersection	-	**1.10**	**98.8**	**F**	-	**1.20+**	**120.0+**	**F***	-	**0.83**	**24.8**	**C**	- Move the Q48 bus stop on the far side of the westbound approach and the far side of the eastbound approach 25 feet further downstream to allow a transition back to one moving lane in the each direction, and provide "No Standing Anytime" regulations between the intersection and each bus stop and along the length of each bus stop.
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	1.07	103.3	F	LTR	1.07	103.3	F					**- Unmitigatable Impact.**
	SB	DefL	0.97	103.6	F	DefL	1.16	120.0+	F*					
		TR	0.83	67.8	E	TR	0.83	67.8	E					
Roosevelt Avenue	EB	LTR	1.07	68.1	E	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
	WB	DefL	0.94	42.0	D	DefL	0.94	42.0	D					
		TR	1.17	104.4	F	TR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
	Overall Intersection	-	**1.14**	**83.7**	**F**	-	**1.20+**	**120.0+**	**F***					
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.34	39.9	D	LTR	0.40	41.9	D					**- Unmitigatable Impact.**
	SB	DefL	0.76	54.6	D	-	-	-	-					
		TR	0.77	52.4	D	LTR	1.20+	120.0+	F*					
Roosevelt Avenue	EB	LTR	0.74	16.3	B	DefL	1.20+	120.0+	F*					
		-	-	-	-	TR	0.68	14.6	B					
	WB	LTR	0.73	15.1	B	LTR	0.89	22.3	C					
	Overall Intersection	-	**0.75**	**23.4**	**C**	-	**1.20+**	**65.3**	**E**					

TABLE 23-8
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY AM (NON GAME DAY)*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	0.99	76.7	E	L	1.17	120.0+	F*					**- Unmitigatable Impact.**
		TR	0.87	37.7	D	TR	0.87	37.7	D					
	SB	T	0.81	52.3	D	T	0.81	52.3	D					
		R	0.40	39.7	D	R	0.86	62.5	E					
Roosevelt Avenue	EB	LTR	0.59	28.8	C	LTR	0.64	30.0	C					
	WB	LTR	0.55	44.3	D	LTR	0.57	44.8	D					
	Overall Intersection	**-**	**0.78**	**44.0**	**D**	-	**0.86**	**53.3**	**D**					
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.80	46.0	D	LTR	0.80	46.0	D					**- Unmitigatable Impact.**
Roosevelt Avenue	EB	DefL	0.72	31.1	C	DefL	0.74	33.7	C					
		TR	0.52	18.4	B	TR	0.56	19.5	B					
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
	Overall Intersection	**-**	**1.10**	**100.9**	**F**	-	**1.13**	**111.5**	**F**					
Main Street at Roosevelt Avenue														
Main Street	NB	LT	1.18	114.2	F	LT	1.18	114.2	F					**- Unmitigatable Impact.**
		R	1.00	76.4	E	R	1.00	76.4	E					
	SB	LTR	0.23	20.5	C	LTR	0.23	20.5	C					
Roosevelt Avenue	EB	LTR	1.06	84.4	F	LTR	1.14	112.6	F					
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	-	**1.20+**	**120.0+**	**F***					
Union Street at Roosevelt Avenue														
Union Street	NB	-	-	-	-	-	-	-	-					- Mitigation not required.
	SB	LT	0.72	23.2	C	LT	0.72	23.2	C					
		R	1.20+	120.0+	F*	R	1.20+	120.0+	F*					
Roosevelt Avenue	EB	LT	0.75	27.0	C	LT	0.81	30.3	C					
		R	0.64	24.1	C	R	0.64	24.1	C					
	WB	LTR	0.81	27.8	C	LTR	0.88	32.8	C					
	Overall Intersection	**-**	**1.01**	**41.3**	**D**	-	**1.04**	**42.6**	**D**					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	1.02	72.1	E	LTR	1.02	73.4	E	LTR	1.02	73.4	E	- Provide "No Parking" regulations along the south side of the eastbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LTR	0.87	40.5	D	LTR	0.87	40.6	D	LTR	0.87	40.6	D	
Roosevelt Avenue	EB	LTR	0.76	34.0	C	LTR	0.84	39.2	D	LTR	0.67	29.0	C	- Provide "No Parking" regulations along the north side of the westbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	WB	LTR	1.07	84.8	F	LTR	1.14	110.2	F	LTR	0.94	48.2	D	
	Overall Intersection	**-**	**1.04**	**59.8**	**E**	-	**1.08**	**69.1**	**E**	**-**	**0.98**	**47.8**	**D**	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.47	20.6	C	L	0.48	20.8	C					- Mitigation not required.
		TR	1.08	84.3	F	TR	1.08	84.3	F					
	SB	L	0.37	28.6	C	L	0.37	28.6	C					
		TR	0.13	15.6	B	TR	0.13	15.6	B					
Kissena Boulevard	NB	TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*					
	Overall Intersection	**-**	**1.20**	**120.0+**	**F***	-	**1.20**	**120.0+**	**F***					

TABLE 23-8
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY AM (NON GAME DAY)*

		No Build				Build				Build with Mitigation				Mitigation Measure
			Control				Control				Control			
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.43	15.0	B	L	0.46	15.9	B	L	0.46	15.9	B	- Provide "No Standing" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 150 ft. from the intersection.
		T	0.55	12.0	B	T	0.57	12.2	B	T	0.57	12.2	B	
	SB	TR	0.76	16.3	B	TR	0.79	17.0	B	TR	0.79	17.0	B	
Sanford Avenue	WB	LTR	0.97	57.5	E	LTR	1.02	70.6	E	LTR	0.90	45.4	D	
Overall Intersection		-	**0.83**	**24.9**	**C**	-	**0.86**	**28.7**	**C**	-	**0.82**	**22.4**	**C**	
Union Street at Sanford Avenue														
Union Street	NB	LR	1.20+	120.0+	F*	LR	1.20+	120.0+	F*	LR	1.20+	120.0+	F*	- Provide "No Parking" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LT	0.48	30.5	C	LT	0.48	30.5	C	LT	0.48	30.5	C	
		R	0.69	35.2	D	R	0.69	35.2	D	R	0.69	35.2	D	
Sanford Avenue	EB	TR	0.56	38.5	D	TR	0.56	38.5	D	TR	0.56	38.5	D	
	WB	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	
Overall Intersection		-	**1.20+**	**110.7**	**F**	-	**1.20+**	**117.6**	**F**	-	**1.20+**	**108.1**	**F**	
Parsons Boulevard at Sanford Avenue														**Partially Mitigated.**
Parsons Boulevard	NB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.11	85.9	F	- Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LTR	0.79	20.9	C	LTR	0.84	23.9	C	LTR	0.84	23.9	C	
Sanford Avenue	EB	LTR	1.08	73.4	E	LTR	1.09	76.1	E	LTR	1.09	76.1	E	
	WB	LTR	1.18	107.4	F	LTR	1.20+	119.8	F	LTR	1.20+	119.8	F	
Overall Intersection		-	**1.20+**	**89.4**	**F**	-	**1.20+**	**99.2**	**F**	-	**1.16**	**79.2**	**E**	
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.74	22.7	C	T	0.74	22.5	C	T	0.71	30.2	C	- Replace the existing mechanical signal controller with a computerized signal controller to accommodate multiple timing plans during different peak periods.
		TR	0.83	30.8	C	TR	0.83	30.8	C	TR	0.80	37.2	D	
	SB	L	0.43	24.2	C	L	0.43	24.2	C	L	0.43	33.4	C	- Modify signal timing: Increase the existing 60 s cycle to a 90 s cycle with the following signal timing: WE
		T	0.61	11.1	B	T	0.62	11.3	B	T	0.61	15.2	B	green time is 31 s, NB/SB green time is 29 s, and SB-only lag green time is 15 s; each phase has 3 s
32nd Avenue	WB	LTR	0.83	38.3	D	LTR	0.83	38.3	D	LTR	0.80	43.6	D	amber and 2 s all red.
Overall Intersection		-	**0.77**	**21.8**	**C**	-	**0.77**	**21.7**	**C**	-	**0.74**	**27.6**	**C**	**[Measures reflect improvements needed for the weekday pre-game, weekend pre-game, and weekend post-game peak periods; otherwise mitigation is not needed.]**
UNSIGNALIZED INTERSECTIONS														
Willets Point Boulevard at 126th Street														
126th Street	SB	LT	-	8.2	A									- Mitigation not required.
Willets Point Boulevard	WB	LR	-	14.2	B									**[Intersection would be demapped as part of the proposed Plan.]**
Overall Intersection		-	-	**12.4**	**B**									
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	22.1	C	L	-	120.0+	F*	L	0.18	27.8	C	- Install a new computer-controlled traffic signal, with a 90-second cycle length and three phases. [EB/WB
		R	-	8.6	A	R	-	8.6	A	R	0.09	26.8	C	green time is 10 s; WB-only lag green time is 43 s; NB/SB green time is 22 s; all phases have 3 s of
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.07	36.3	D	amber and 2 s of all red time.]
	WB	LT	-	8.5	A	LT	-	10.4	B	DefL	0.86	24.0	C	
		-	-	-	-	-	-	-	-	T	0.08	6.2	A	
Overall Intersection		-	-	**9.2**	**A**	-	-	**41.2**	**E**	-	**0.68**	**23.2**	**C**	

TABLE 23-8
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY AM (NON GAME DAY)*

INTERSECTION & APPROACH		No Build Mvt.	No Build V/C	No Build Control Delay	No Build LOS	Build Mvt.	Build V/C	Build Control Delay	Build LOS	Build with Mitigation Mvt.	Build with Mitigation V/C	Build with Mitigation Control Delay	Build with Mitigation LOS	Mitigation Measure
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	T	-	10.2	B									- Mitigation not required.
														[Intersection would be demapped as part of the proposed Plan.]
Overall Intersection		-	-	**10.2**	**B**									
College Point Boulevard at Northern Boulevard Service Road (SIGNALIZED IN 2007)														
College Point Boulevard	NB	TR	0.83	22.5	C	TR	0.83	22.7	C	TR	0.80	20.4	C	- Modify signal timing: shift 1 s green time from WB phase to NB/SB phase. [WB green time shifts from 2
	SB	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	s to 24 s; NB/SB green time shifts from 25 s to 26 s.]
Northern Blvd Service Rd	WB	L	0.33	13.4	B	L	0.63	19.0	B	L	0.65	20.6	C	
		R	0.36	14.1	B	R	0.41	14.9	B	R	0.43	15.9	B	
Overall Intersection		-	**0.96**	**120.0+**	**F***	-	**1.11**	**120.0+**	**F***	-	**1.10**	**120.0+**	**F***	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Grand Central Parkway Ramp	EB	L	-	10.7	B	L	-	11.6	B					- Mitigation not required.
		R	-	9.1	A	R	-	9.1	A					
Overall Intersection		-	-	**10.1**	**B**	-	-	**11.2**	**B**					
NEW (BUILD) SIGNALIZED INTERSECTION														
126th Street at New Willets Point Boulevard														
126th Street	NB					LTR	0.82	54.3	D					**- Unmitigatable Impact.**
	SB					DefL	0.96	53.0	D					
						TR	0.68	15.1	B					
New Willets Point Boulevard	EB					LTR	0.12	37.2	D					
	WB					LT	0.64	51.7	D					
						R	0.13	8.0	A					
Overall Intersection						-	**0.93**	**38.7**	**D**					
Citi Field/Lot B Internal Street at Roosevelt Avenue														
Citi Field/Lot B Internal Street	SB					LR	0.10	35.1	D					- Mitigation not required.
Roosevelt Avenue	EB					LT	0.63	13.4	B					
	WB					TR	0.64	13.2	B					
Overall Intersection						-	**0.49**	**13.6**	**B**					

(1) Control delay is measured in seconds per vehicle.

(2) Level of service (LOS) for signalized intersections is based upon average control delay per vehicle (sec/veh) for each lane group as listed in the 2000 Highway Capacity Manual -- TRB.

(3) Level of service (LOS) for unsignalized intersections is based upon control delay per vehicle (sec/veh) for each minor-approach as listed in the 2000 Highway Capacity Manual -- TRB.

(4) Overall intersection V/C ratio is the critical lane groups' V/C ratio, not the weighted average of all the movements.

(5) F* indicates level of service (LOS) F conditions with delays in excess of two minutes (120 seconds) per vehicle for the lane group with an asterisk (*).

TABLE 23-9
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY MIDDAY (NON GAME DAY)*

		No Build				Build				Build with Mitigation				
				Control				Control				Control		Mitigation Measure
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.48	35.1	D	DefL	0.48	35.1	D	DefL	0.48	35.1	D	- Prohibit eastbound Astoria Boulevard eastbound left-turn movements onto 108th Street at all times. Eastbound left-turn vehicles may use the exclusive left-turn at the Astoria Boulevard and 31st Street intersection located west of 108th Street.
		T	0.18	29.2	C	T	0.18	29.2	C	T	0.18	29.2	C	
	SB	LTR	0.23	29.7	C	LTR	0.23	29.7	C	LTR	0.23	29.7	C	
Astoria Boulevard	EB	LTR	0.48	15.2	B	LTR	0.54	16.0	B	TR	0.48	15.2	B	**[Measure reflects improvements needed for the non-game PM and weekday pre-game peak periods; otherwise mitigation is not needed.]**
	WB	L	0.54	10.5	B	L	0.59	12.4	B	L	0.58	12.0	B	
		TR	0.33	6.7	A	TR	0.39	7.0	A	TR	0.39	7.0	A	
Overall Intersection		-	**0.55**	**13.7**	**B**	-	**0.58**	**14.1**	**B**	-	**0.55**	**13.6**	**B**	
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					- Mitigation not required.
	SB	LTR	0.88	45.4	D	LTR	0.88	45.4	D					
Northern Boulevard (Rt. 25A)	EB	L	0.12	19.0	B	L	0.13	24.8	C					
		TR	0.56	15.5	B	TR	0.66	17.1	B					
	WB	L	0.51	23.3	C	L	0.59	33.8	C					
		T	0.84	22.6	C	T	0.95	30.5	C					
		R	0.16	11.2	B	R	0.16	11.2	B					
Overall Intersection		-	**0.95**	**35.7**	**D**	-	**0.99**	**38.2**	**D**					
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.91	79.9	E	LTR	0.92	81.4	F					- Mitigation not required.
Northern Boulevard (Rt. 25A)	EB	T	0.58	17.2	B	T	0.71	20.0	C					
		R	0.56	18.0	B	R	0.58	18.5	B					
	WB	DefL	0.51	9.4	A	DefL	0.60	14.2	B					
		T	0.76	9.9	A	T	0.84	12.2	B					
Overall Intersection		-	**1.20**	**16.9**	**B**	-	**1.20+**	**19.0**	**B**					
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.82	55.0	D	L	1.20+	120.0+	F*					- **Unmitigatable Impact.**
		R	0.48	45.6	D	R	0.88	67.8	E					
Northern Boulevard	EB	T	0.24	6.8	A	T	0.26	6.9	A					
	WB	T	0.49	9.1	A	T	0.52	9.5	A					
Grand Central Parkway Ramp	EB	T	0.43	8.4	A	T	0.48	9.0	A					
Van Wyck & Whitestone Expressway Ramp	WB	T	0.85	20.2	C	T	1.12	81.1	F					
Overall Intersection		-	**0.84**	**18.2**	**B**	-	**1.18**	**68.5**	**E**					

TABLE 23-9
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY MIDDAY (NON GAME DAY)*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					**- Unmitigatable Impact.**
	SB	LTR	0.76	51.8	D	LTR	0.76	51.8	D					
Northern Boulevard	EB	L	1.13	119.2	F	L	1.15	120.0+	F*					
		T	0.61	17.9	B	T	0.68	19.2	B					
	WB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*					
		T	0.92	30.7	C	T	0.95	33.5	C					
Northern Boulevard Service Rd.	EB	TR	0.71	25.3	C	TR	0.71	25.3	C					
		-	-	-	-	-	-	-	-					
	WB	TR	0.58	26.6	C	TR	0.78	33.0	C					
		-	-	-	-	-	-	-	-					
Overall Intersection		-	**1.20+**	**57.1**	**E**	-	**1.20+**	**57.5**	**E**					
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	0.87	53.8	D	L	0.87	53.8	D					- Mitigation not required.
		R	0.82	36.0	D	R	0.82	36.0	D					
Northern Boulevard	EB	TR	0.88	33.7	C	TR	0.95	38.6	D					
	WB	L	0.07	44.8	D	L	0.07	44.8	D					
		T	0.68	12.0	B	T	0.76	13.4	B					
Overall Intersection		-	**0.85**	**30.0**	**C**	-	**0.88**	**31.8**	**C**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	LTR	0.16	32.3	C	LTR	0.16	32.3	C					**- Unmitigatable Impact.**
	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
Northern Boulevard	EB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*					
		T	0.66	29.2	C	T	0.75	31.2	C					
		R	1.18	112.7	F	R	1.18	112.7	F					
	WB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*					
		TR	0.73	30.8	C	TR	0.84	33.9	C					
Overall Intersection		-	**1.20+**	**120.0+**	**F***	-	**1.20+**	**120.0+**	**F***					
Parsons Boulevard at Northern Boulevard (RT. 25A)														**Partially Mitigated.**
Parsons Boulevard	NB	LTR	1.07	107.7	F	LTR	1.07	107.7	F	LT	0.79	53.6	D	- Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 80 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.
		-	-	-	-	-	-	-	-	R	0.24	34.4	C	
	SB	LTR	1.14	120.0+	F*	LTR	1.17	120.0+	F*	LT	0.64	44.6	D	
		-	-	-	-	-	-	-	-	R	0.50	41.2	D	- Provide "No Parking" regulations along the west side of the southbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 120 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.
Northern Boulevard	EB	L	0.53	50.3	D	L	0.56	54.2	D	L	0.56	54.2	D	
		TR	0.99	36.2	D	TR	1.10	73.2	E	TR	1.10	73.2	E	
	WB	L	0.33	27.6	C	L	0.37	35.9	D	L	0.37	35.9	D	
		TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*	
Overall Intersection		-	**1.10**	**93.8**	**F**	-	**1.20**	**120.0+**	**F***	-	**1.08**	**119.6**	**F**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	0.60	21.1	C	L	0.60	21.1	C					- Mitigation not required.
		T	0.26	16.3	B	T	0.29	16.7	B					
34th Avenue	EB	TR	0.50	19.3	B	TR	0.50	19.3	B					
Overall Intersection		-	**0.55**	**19.7**	**B**	-	**0.55**	**19.7**	**B**					

TABLE 23-9
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY MIDDAY (NON GAME DAY)*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	LTR	0.59	26.3	C	LTR	1.03	62.3	E					- **Unmitigatable Impact.**
		-	-	-	-	-	-	-	-					
Northern Boulevard Ramp	SB	LTR	0.65	31.8	C	LTR	1.07	90.9	F					
GCP Ramp	SB	LTR	0.97	90.2	F	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
34th Avenue	EB	-	-	-	-	-	-	-	-					
		LTR	0.68	53.7	D	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
Stadium Road	WB	-	-	-	-	-	-	-	-					
		LTR	0.98	111.0	F	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**0.80**	**53.9**	**D**	**-**	**1.20+**	**120.0+**	**F***					
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.06	102.0	F	LTR	1.12	120.0+	F*	LTR	1.04	91.6	F	- Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	SB	LTR	1.16	120.0+	F*	LTR	1.16	120.0+	F*	LTR	1.07	101.1	F	
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	0.91	24.9	C	- Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	WB	LTR	0.96	35.9	D	LTR	1.17	106.5	F	LTR	0.70	15.4	B	
														- Move the Q48 bus stop on the far side of the eastbound approach 25 feet further downstream (to the east) to allow a transition back to one moving lane in the eastbound direction, and provide "No Standing Anytime" regulations between the intersection and the bus stop and along the length of the bus stop.
	Overall Intersection	**-**	**1.20+**	**113.4**	**F**	**-**	**1.20+**	**120.0+**	**F***	**-**	**0.96**	**44.0**	**D**	- Provide "No Standing Anytime" regulations on the far side of the westbound approach for a distance of 5(ft. from the intersection to allow a transition back to one moving lane in the westbound direction.
														- Modify signal timing: shift 2 s green time from EB/WB phase to NB/SB phase. [EB/WB green time shifts from 80 s to 78 s; NB/SB green time shifts from 30 s to 32 s.]
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	0.77	52.1	D	LTR	0.77	52.1	D	LTR	0.74	50.4	D	- Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.03	49.2	D	
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	0.87	21.9	C	- Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***	**-**	**0.95**	**38.2**	**D**	- Move the Q48 bus stop on the far side of the westbound approach and the far side of the eastbound approach 25 feet further downstream to allow a transition back to one moving lane in the each direction, and provide "No Standing Anytime" regulations between the intersection and each bus stop and along the length of each bus stop.
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	0.78	54.5	D	LTR	0.78	54.5	D					- **Unmitigatable Impact.**
	SB	DefL	0.73	57.0	E	DefL	0.81	64.4	E					
		TR	0.28	37.9	D	TR	0.28	37.9	D					
Roosevelt Avenue	EB	LTR	1.14	95.2	F	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
	WB	-	-	-	-	-	-	-	-					
		LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**1.11**	**101.6**	**F**	**-**	**1.20+**	**120.0+**	**F***					
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.87	71.1	E	LTR	1.08	120.0+	F*					- **Unmitigatable Impact.**
	SB	DefL	1.20+	120.0+	F*	DefL	1.20+	120.0+	F*					
		TR	0.75	50.8	D	TR	1.20+	120.0+	F*					
Roosevelt Avenue	EB	LTR	0.97	37.5	D	DefL	1.17	120.0+	F*					
		-	-	-	-	TR	0.95	32.7	C					
	WB	LTR	0.84	20.1	C	LTR	1.12	82.3	F					
	Overall Intersection	**-**	**1.14**	**72.5**	**E**	**-**	**1.20+**	**120.0+**	**F***					

TABLE 23-9
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY MIDDAY (NON GAME DAY)*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	0.75	31.1	C	L	1.07	82.7	F					**- Unmitigatable Impact.**
		TR	0.99	47.3	D	TR	0.99	47.3	D					
	SB	T	0.99	61.6	E	T	0.99	61.6	E					
		R	0.42	30.9	C	R	1.04	86.5	F					
Roosevelt Avenue	EB	LTR	0.81	28.7	C	LTR	0.93	37.8	D					
	WB	LTR	0.69	38.3	D	LTR	0.75	39.7	D					
	Overall Intersection	**-**	**0.90**	**41.8**	**D**	**-**	**1.04**	**51.1**	**D**					
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					**- Unmitigatable Impact.**
Roosevelt Avenue	EB	DefL	1.20+	120.0+	F*	DefL	1.20+	120.0+	F*					
		TR	0.90	27.4	C	TR	1.00	45.9	D					
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
Main Street at Roosevelt Avenue														
Main Street	NB	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*					**- Unmitigatable Impact.**
		R	0.49	22.6	C	R	0.49	22.6	C					
	SB	LTR	0.07	16.3	B	LTR	0.07	16.3	B					
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
Union Street at Roosevelt Avenue														
Union Street	NB	-	-	-	-	-	-	-	-					**- Unmitigatable Impact.**
	SB	LT	1.00	46.2	D	LT	1.00	46.2	D					
		R	1.20+	120.0+	F*	R	1.20+	120.0+	F*					
Roosevelt Avenue	EB	LT	0.93	35.6	D	LT	1.03	58.5	E					
		R	0.68	21.5	C	R	0.68	21.5	C					
	WB	LTR	0.78	26.1	C	LTR	0.86	30.4	C					
	Overall Intersection	**-**	**1.20+**	**65.8**	**E**	**-**	**1.20+**	**69.8**	**E**					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.74	26.8	C	LTR	0.76	27.7	C	LTR	0.76	27.7	C	- Provide "No Parking" regulations along the south side of the eastbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LTR	0.73	26.0	C	LTR	0.74	26.1	C	LTR	0.74	26.1	C	
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.12	91.8	F	- Provide "No Parking" regulations along the north side of the westbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.15	105.6	F	
	Overall Intersection	**-**	**1.02**	**108.0**	**F**	**-**	**1.08**	**120.0+**	**F***	**-**	**0.96**	**73.5**	**E**	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.38	15.9	B	L	0.38	16.0	B					- Mitigation not required.
		TR	0.93	36.5	D	TR	0.93	36.5	D					
	SB	L	0.14	17.8	B	L	0.14	17.8	B					
		TR	0.09	12.7	B	TR	0.09	12.7	B					
Kissena Boulevard	NB	TR	1.09	85.4	F	TR	1.09	85.4	F					
	Overall Intersection	**-**	**0.98**	**57.5**	**E**	**-**	**1.00**	**57.4**	**E**					

TABLE 23-9
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY MIDDAY (NON GAME DAY)*

		No Build				Build				Build with Mitigation				
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mitigation Measure**
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.66	37.1	D	L	0.66	37.1	D	L	0.66	37.1	D	- Provide "No Standing" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 150 ft. from the intersection.
		T	0.63	13.2	B	T	0.65	13.5	B	T	0.65	13.5	B	
	SB	TR	1.02	43.1	D	TR	1.06	55.3	E	T	0.95	27.3	C	- Prohibit parking from 10A - 7P (Except Sunday) along the west side of the southbound College Point Blvd approach 50 ft. from the intersection to provide a daylighted right turn lane.
		-	-	-	-	-	-	-	-	R	0.14	8.6	A	
Sanford Avenue	WB	LTR	0.77	37.6	D	LTR	0.85	42.5	D	LTR	0.75	35.5	D	
Overall Intersection		-	**0.94**	**31.7**	**C**	-	**0.99**	**38.5**	**D**	-	**0.88**	**23.6**	**C**	
Union Street at Sanford Avenue														
Union Street	NB	LR	0.99	85.3	F	LR	0.99	85.3	F	LR	0.99	85.3	F	- Provide "No Parking" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LT	0.61	27.3	C	LT	0.61	27.3	C	LT	0.61	27.3	C	
		R	1.20+	120.0+	F*	R	1.20+	120.0+	F*	R	1.20+	120.0+	F*	
Sanford Avenue	EB	TR	0.78	45.3	D	TR	0.78	45.3	D	TR	0.78	45.3	D	
	WB	LT	1.18	120.0+	F*	LT	1.20+	120.0+	F*	LT	1.17	120.0+	F*	
Overall Intersection		-	**1.20**	**105.2**	**F**	-	**1.20+**	**111.1**	**F**	-	**1.20**	**105.1**	**F**	
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	0.94	38.3	D	LTR	0.96	42.8	D	LTR	0.82	23.9	C	- Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LTR	0.61	15.9	B	LTR	0.69	18.2	B	LTR	0.69	18.2	B	
Sanford Avenue	EB	LTR	0.67	18.3	B	LTR	0.68	18.3	B	LTR	0.67	18.2	B	- Prohibit parking from 10A - 3P along the north side of the westbound Sanford Avenue approach 50 ft.
	WB	LTR	0.77	21.5	C	LTR	0.82	23.8	C	LT	0.64	16.6	B	from the intersection to provide a daylighted right turn lane.
		-	-	-	-	-	-	-	-	R	0.16	10.7	B	**[Measures reflect improvements needed for the non-game Saturday midday peak period and the weekend pre-game peak period; otherwise mitigation is not needed.]**
Overall Intersection		-	**0.86**	**24.3**	**C**	-	**0.89**	**26.6**	**C**	-	**0.75**	**19.1**	**B**	
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.74	23.2	C	T	0.74	23.1	C	T	0.72	30.7	C	- Replace the existing mechanical signal controller with a computerized signal controller to accommodate multiple timing plans during different peak periods.
		TR	0.87	34.1	C	TR	0.87	34.1	C	TR	0.84	40.0	D	
	SB	L	0.69	34.0	C	L	0.69	34.0	C	L	0.68	43.9	D	- Modify signal timing: Increase the existing 60 s cycle to a 90 s cycle with the following signal timing: WE green time is 31 s, NB/SB green time is 29 s, and SB-only lag green time is 15 s; each phase has 3 s amber and 2 s all red.
		T	0.65	11.6	B	T	0.66	11.9	B	T	0.65	15.9	B	
32nd Avenue	WB	LTR	0.82	37.2	D	LTR	0.82	37.2	D	LTR	0.79	42.8	D	
Overall Intersection		-	**0.85**	**23.8**	**C**	-	**0.85**	**23.8**	**C**	-	**0.83**	**29.9**	**C**	**[Measures reflect improvements needed for the weekday pre-game, weekend pre-game, and weekend post-game peak periods; otherwise mitigation is not needed.]**
UNSIGNALIZED INTERSECTIONS														
Willets Point Boulevard at 126th Street														
126th Street	SB	LT	-	8.6	A									- Mitigation not required.
Willets Point Boulevard	WB	LR	-	17.8	C									**[Intersection would be demapped as part of the proposed Plan.]**
Overall Intersection		-	-	**14.9**	**B**									
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	18.9	C	L	-	120.0+	F*	L	0.71	39.8	D	- Install a new computer-controlled traffic signal, with a 90-second cycle length and three phases. [EB/WB green time is 10 s; WB-only lag green time is 43 s; NB/SB green time is 22 s; all phases have 3 s of amber and 2 s of all red time.]
		R	-	8.4	A	R	-	8.4	A	R	0.02	25.9	C	
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.07	36.3	D	
	WB	LT	-	8.5	A	LT	-	11.4	B	DefL	0.99	44.0	D	
		-	-	-	-	-	-	-	-	T	0.11	6.3	A	
Overall Intersection		-	-	**9.5**	**A**	-	-	**120.0+**	**F***	-	**0.91**	**39.3**	**D**	

TABLE 23-9
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY MIDDAY (NON GAME DAY)*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	T	-	10.4	B									- Mitigation not required. **[Intersection would be demapped as part of the proposed Plan.]**
Overall Intersection		-	-	**10.4**	**B**									
College Point Boulevard at Northern Boulevard Service Road (SIGNALIZED IN 2007)														
College Point Boulevard	NB	TR	0.84	23.6	C	TR	0.85	24.3	C	TR	0.82	21.7	C	- Modify signal timing: shift 1 s green time from WB phase to NB/SB phase. [WB green time shifts from 2
	SB	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	s to 24 s; NB/SB green time shifts from 25 s to 26 s.]
Northern Blvd Service Rd	WB	L	0.32	13.3	B	L	0.58	17.8	B	L	0.61	19.2	B	
		R	0.46	15.8	B	R	0.48	16.1	B	R	0.50	17.3	B	
Overall Intersection		-	**0.90**	**83.8**	**F**	-	**0.97**	**86.9**	**F**	-	**0.96**	**73.2**	**E**	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Grand Central Parkway Ramp	EB	L	-	9.8	A	L	-	10.5	B					- Mitigation not required.
		R	-	8.7	A	R	-	8.7	A					
Overall Intersection		-	-	**9.4**	**A**	-	-	**10.2**	**B**					
NEW (BUILD) SIGNALIZED INTERSECTION														
126th Street at New Willets Point Boulevard														
126th Street	NB					LTR	0.87	56.6	E					- **Unmitigatable Impact.**
	SB					DefL	0.97	59.4	E					
						TR	0.77	19.0	B					
New Willets Point Boulevard	EB					LTR	0.59	51.6	D					
	WB					LT	0.75	61.5	E					
						R	0.44	12.2	B					
Overall Intersection						-	**1.05**	**40.1**	**D**					
Citi Field/Lot B Internal Street at Roosevelt Avenue														
Citi Field/Lot B Internal Street	SB					LR	0.46	42.3	D					- Mitigation not required.
Roosevelt Avenue	EB					LT	0.66	14.0	B					
	WB					TR	0.61	12.6	B					
Overall Intersection						-	**0.60**	**15.2**	**B**					

(1) Control delay is measured in seconds per vehicle.

(2) Level of service (LOS) for signalized intersections is based upon average control delay per vehicle (sec/veh) for each lane group as listed in the 2000 Highway Capacity Manual -- TRB.

(3) Level of service (LOS) for unsignalized intersections is based upon control delay per vehicle (sec/veh) for each minor-approach as listed in the 2000 Highway Capacity Manual -- TRB.

(4) Overall intersection V/C ratio is the critical lane groups' V/C ratio, not the weighted average of all the movements.

(5) F* indicates level of service (LOS) F conditions with delays in excess of two minutes (120 seconds) per vehicle for the lane group with an asterisk (*).

TABLE 23-10
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY PM (NON GAME DAY)*

		No Build				Build				Build with Mitigation				
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mitigation Measure**
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.93	91.8	F	DefL	0.93	91.8	F	DefL	0.93	91.8	F	- Prohibit eastbound Astoria Boulevard eastbound left-turn movements onto 108th Street at all times. Eastbound left-turn vehicles may use the exclusive left-turn at the Astoria Boulevard and 31st Street intersection located west of 108th Street.
		T	0.25	41.8	D	T	0.25	41.8	D	T	0.25	41.8	D	
	SB	LTR	0.57	48.6	D	LTR	0.57	48.6	D	LTR	0.57	48.6	D	
Astoria Boulevard	EB	LTR	0.98	32.5	C	LTR	1.04	49.9	D	TR	0.93	25.3	C	
	WB	L	0.76	44.3	D	L	0.76	44.7	D	L	0.76	44.6	D	
		TR	0.38	6.9	A	TR	0.43	7.3	A	TR	0.43	7.3	A	
Overall Intersection		**-**	**0.96**	**29.1**	**C**	**-**	**1.00**	**38.7**	**D**	**-**	**0.93**	**24.4**	**C**	
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					- **Unmitigatable Impact.**
	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
Northern Boulevard (Rt. 25A)	EB	L	0.22	42.6	D	L	0.22	46.0	D					
		TR	0.96	20.7	C	TR	1.06	47.6	D					
	WB	L	0.69	50.1	D	L	0.69	51.8	D					
		TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
Overall Intersection		**-**	**1.15**	**79.9**	**E**	**-**	**1.20+**	**119.3**	**F**					
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	1.03	87.2	F	LTR	1.04	88.2	F					- **Unmitigatable Impact.**
Northern Boulevard (Rt. 25A)	EB	T	0.97	37.2	D	T	1.10	77.7	E					
		R	0.78	24.8	C	R	0.79	25.5	C					
	WB	DefL	0.89	61.8	E	DefL	0.89	64.9	E					
		T	0.97	21.7	C	T	1.08	55.2	E					
Overall Intersection		**-**	**1.20+**	**32.4**	**C**	**-**	**1.20+**	**61.5**	**E**					
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.62	47.2	D	L	1.20+	120.0+	F*					- **Unmitigatable Impact.**
		R	0.37	43.3	D	R	0.95	78.4	E					
Northern Boulevard	EB	T	0.41	8.2	A	T	0.45	8.6	A					
	WB	T	0.45	8.6	A	T	0.48	8.9	A					
Grand Central Parkway Ramp	EB	T	0.46	8.6	A	T	0.53	9.5	A					
Van Wyck & Whitestone Expressway Ramp	WB	T	0.84	19.8	B	T	1.06	59.7	E					
Overall Intersection		**-**	**0.79**	**15.6**	**B**	**-**	**1.11**	**49.6**	**D**					

TABLE 23-10
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY PM (NON GAME DAY)*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					**- Unmitigatable Impact.**
	SB	LTR	0.70	48.1	D	LTR	0.70	48.1	D					
Northern Boulevard	EB	L	1.06	93.6	F	L	1.08	101.9	F					
		T	0.97	37.0	D	T	1.07	64.8	E					
	WB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*					
		T	1.02	55.9	E	T	1.05	67.5	E					
Northern Boulevard Service Rd.	EB	TR	0.56	19.3	B	TR	0.56	19.3	B					
		-	-	-	-	-	-	-	-					
	WB	TR	0.61	31.2	C	TR	0.83	39.6	D					
		-	-	-	-	-	-	-	-					
Overall Intersection		**-**	**1.20+**	**64.4**	**E**	**-**	**1.20+**	**77.8**	**E**					
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*					- Mitigation not required.
		R	1.08	96.3	F	R	1.08	96.3	F					
Northern Boulevard	EB	TR	0.86	7.6	A	TR	0.94	10.0	A					
	WB	L	0.13	54.3	D	L	0.13	54.3	D					
		T	0.87	20.2	C	T	0.98	31.0	C					
Overall Intersection		**-**	**1.01**	**57.3**	**E**	**-**	**1.08**	**58.4**	**E**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	LTR	0.16	32.3	C	LTR	0.16	32.3	C					**- Unmitigatable Impact.**
	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
Northern Boulevard	EB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*					
		T	0.87	35.5	D	T	0.98	50.2	D					
		R	1.18	112.5	F	R	1.18	112.5	F					
	WB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*					
		TR	0.80	32.3	C	TR	0.90	36.9	D					
Overall Intersection		**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
Parsons Boulevard at Northern Boulevard (RT. 25A)														**Partially Mitigated.**
Parsons Boulevard	NB	LTR	1.05	102.8	F	LTR	1.05	102.8	F	LT	0.69	47.0	D	- Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 80 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.
		-	-	-	-	-	-	-	-	R	0.39	39.3	D	
	SB	LTR	1.17	120.0+	F*	LTR	1.20	120.0+	F*	LT	0.72	48.7	D	
		-	-	-	-	-	-	-	-	R	0.51	43.1	D	- Provide "No Parking" regulations along the west side of the southbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 120 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.
Northern Boulevard	EB	L	0.55	43.5	D	L	0.62	51.6	D	L	0.62	51.6	D	
		TR	0.88	21.4	C	TR	0.98	31.1	C	TR	0.98	31.1	C	
	WB	L	0.50	41.4	D	L	0.50	44.2	D	L	0.50	44.2	D	
		TR	1.08	63.5	E	TR	1.20	115.9	F	TR	1.20	115.9	F	
Overall Intersection		**-**	**1.01**	**56.8**	**E**	**-**	**1.15**	**78.7**	**E**	**-**	**1.01**	**63.4**	**E**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	0.73	21.2	C	L	0.73	21.2	C					- Mitigation not required.
		T	0.31	14.0	B	T	0.33	14.3	B					
34th Avenue	EB	TR	0.88	35.5	D	TR	0.88	35.9	D					
Overall Intersection		**-**	**0.80**	**26.0**	**C**	**-**	**0.80**	**26.1**	**C**					

TABLE 23-10
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY PM (NON GAME DAY)*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	LTR	0.95	51.7	D	LTR	1.16	112.6	F					**- Unmitigatable Impact.**
		-	-	-	-	-	-	-	-					
Northern Boulevard Ramp	SB	LTR	0.65	30.8	C	LTR	0.97	60.4	F					
GCP Ramp	SB	LTR	1.00	97.2	F	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
34th Avenue	EB	-	-	-	-	-	-	-	-					
		LTR	0.31	42.7	D	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
Stadium Road	WB	-	-	-	-	-	-	-	-					
		LTR	0.90	83.1	F	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**0.95**	**61.7**	**E**	**-**	**1.20+**	**120.0+**	**F***					
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	0.96	70.6	E	LTR	0.98	75.6	E	LTR	0.95	67.2	E	- Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	SB	LTR	1.16	120.0+	F*	LTR	1.16	120.0+	F*	LTR	1.11	116.8	F	
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	0.99	39.9	D	- Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	WB	LTR	1.15	97.4	F	LTR	1.20+	120.0+	F*	LTR	0.86	22.0	C	
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.03**	**52.1**	**D**	- Move the Q48 bus stop on the far side of the eastbound approach 25 feet further downstream (to the east) to allow a transition back to one moving lane in the eastbound direction, and provide "No Standing Anytime" regulations between the intersection and the bus stop and along the length of the bus stop.
														- Provide "No Standing Anytime" regulations on the far side of the westbound approach for a distance of 5(ft. from the intersection to allow a transition back to one moving lane in the westbound direction.
														- Modify signal timing: shift 1 s green time from EB/WB phase to NB/SB phase. [EB/WB green time shifts from 80 s to 79 s; NB/SB green time shifts from 30 s to 31 s.]
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	0.83	54.4	D	LTR	0.83	54.4	D	LTR	0.83	54.4	D	- Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	0.93	27.9	C	
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	0.99	36.6	D	- Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	Overall Intersection	**-**	**1.20**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***	**-**	**0.94**	**36.1**	**D**	- Move the Q48 bus stop on the far side of the westbound approach and the far side of the eastbound approach 25 feet further downstream to allow a transition back to one moving lane in the each direction, and provide "No Standing Anytime" regulations between the intersection and each bus stop and along the length of each bus stop.
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	1.15	118.4	F	LTR	1.15	118.4	F					**- Unmitigatable Impact.**
	SB	DefL	0.76	57.7	E	DefL	0.81	62.4	E					
		TR	0.47	41.4	D	TR	0.47	41.4	D					
Roosevelt Avenue	EB	LTR	1.12	83.8	F	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
	WB	-	-	-	-	-	-	-	-					
		LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.39	41.5	D	LTR	0.59	52.9	D					**- Unmitigatable Impact.**
	SB	DefL	1.20+	120.0+	F*	DefL	1.20+	120.0+	F*					
		TR	0.75	50.6	D	TR	1.20+	120.0+	F*					
Roosevelt Avenue	EB	LTR	1.07	66.6	E	DefL	1.20+	120.0+	F*					
		-	-	-	-	TR	0.96	35.1	D					
	WB	LTR	0.91	24.8	C	LTR	1.16	99.3	F					
	Overall Intersection	**-**	**1.13**	**66.2**	**E**	**-**	**1.20+**	**120.0+**	**F***					

TABLE 23-10
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY PM (NON GAME DAY)*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	0.74	37.0	D	L	1.04	81.7	F					**- Unmitigatable Impact.**
		TR	0.98	51.9	D	TR	0.98	51.9	D					
	SB	T	1.07	95.1	F	T	1.07	95.1	F					
		R	0.35	38.5	D	R	0.94	73.3	E					
Roosevelt Avenue	EB	LTR	0.91	43.2	D	LTR	1.04	71.9	E					
	WB	LTR	0.70	71.0	E	LTR	0.74	72.2	E					
	Overall Intersection	**-**	**0.95**	**60.5**	**E**	**-**	**1.09**	**72.3**	**E**					
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					**- Unmitigatable Impact.**
Roosevelt Avenue	EB	DefL	1.20+	120.0+	F*	DefL	1.20+	120.0+	F*					
		TR	1.09	82.7	F	TR	1.20+	120.0+	F*					
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
Main Street at Roosevelt Avenue														
Main Street	NB	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*					**- Unmitigatable Impact.**
		R	0.61	23.8	C	R	0.61	23.8	C					
	SB	LTR	0.15	19.4	B	LTR	0.15	19.4	B					
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
Union Street at Roosevelt Avenue														
Union Street	NB	-	-	-	-	-	-	-	-					**- Unmitigatable Impact.**
	SB	LT	1.06	59.6	E	LT	1.06	59.6	E					
		R	1.20+	120.0+	F*	R	1.20+	120.0+	F*					
Roosevelt Avenue	EB	LT	1.13	97.8	F	LT	1.20+	120.0+	F*					
		R	0.90	43.9	D	R	0.90	43.9	D					
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
	Overall Intersection	**-**	**1.20+**	**111.4**	**F**	**-**	**1.20+**	**120.0+**	**F***					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.94	52.7	D	LTR	0.96	57.0	E	LTR	0.96	57.0	E	- Provide "No Parking" regulations along the south side of the eastbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LTR	0.88	41.9	D	LTR	0.88	42.1	D	LTR	0.88	42.1	D	
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	- Provide "No Parking" regulations along the north side of the westbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	WB	LTR	1.11	99.9	F	LTR	1.20+	120.0+	F*	LTR	1.01	64.2	E	
	Overall Intersection	**-**	**1.14**	**110.9**	**F**	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.10**	**87.8**	**F**	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.46	20.3	C	L	0.47	20.4	C					- Mitigation not required.
		TR	1.17	118.6	F	TR	1.17	118.6	F					
	SB	L	0.25	25.7	C	L	0.25	25.7	C					
		TR	0.11	15.4	B	TR	0.11	15.4	B					
Kissena Boulevard	NB	TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*					
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					

TABLE 23-10
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY PM (NON GAME DAY)*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.90	73.8	E	L	0.90	73.8	E	L	0.90	73.8	E	- Provide "No Standing" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 150 ft. from the intersection.
		T	0.57	12.2	B	T	0.59	12.4	B	T	0.59	12.4	B	
	SB	TR	1.02	41.0	D	TR	1.06	55.3	E	T	0.99	32.6	C	- Prohibit parking from 10A - 7P (Except Sunday) along the west side of the southbound College Point Blvd approach 50 ft. from the intersection to provide a daylighted right turn lane.
		-	-	-	-	-	-	-	-	R	0.07	8.0	A	
Sanford Avenue	WB	LTR	0.84	41.7	D	LTR	0.93	52.7	D	LTR	0.82	39.5	D	
Overall Intersection		-	**1.07**	**32.5**	**C**	-	**1.10**	**41.6**	**D**	-	**1.07**	**28.0**	**C**	
Union Street at Sanford Avenue														
Union Street	NB	LR	0.76	45.7	D	LR	0.76	45.7	D	LR	0.76	45.7	D	- Provide "No Parking" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LT	0.82	45.3	D	LT	0.82	45.3	D	LT	0.82	45.3	D	
		R	1.20+	120.0+	F*	R	1.20+	120.0+	F*	R	1.20+	120.0+	F*	
Sanford Avenue	EB	TR	0.71	40.9	D	TR	0.71	40.9	D	TR	0.71	40.9	D	
	WB	LT	1.09	103.6	F	LT	1.14	120.0+	F*	LT	1.08	99.4	F	
Overall Intersection		-	**1.18**	**108.2**	**F**	-	**1.20+**	**112.2**	**F**	-	**1.18**	**107.3**	**F**	
Parsons Boulevard at Sanford Avenue														**Partially Mitigated.**
Parsons Boulevard	NB	LTR	1.05	65.0	E	LTR	1.07	72.8	E	LTR	0.92	32.9	C	- Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LTR	0.96	37.8	D	LTR	1.13	91.6	F	LTR	1.13	91.6	F	
Sanford Avenue	EB	LTR	0.94	38.5	D	LTR	0.95	39.3	D	LTR	0.95	39.3	D	
	WB	LTR	0.81	23.5	C	LTR	0.86	26.6	C	LTR	0.86	26.6	C	
Overall Intersection		-	**1.00**	**41.6**	**D**	-	**1.04**	**60.0**	**E**	-	**1.04**	**50.3**	**D**	
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.70	21.7	C	T	0.70	21.5	C	T	0.54	22.0	C	- Replace the existing mechanical signal controller with a computerized signal controller to accommodate multiple timing plans during different peak periods.
		TR	0.89	34.8	C	TR	0.89	34.8	C	TR	0.69	26.4	C	
	SB	L	0.60	29.4	C	L	0.60	29.4	C	L	0.64	41.6	D	- Modify signal timing: Increase the existing 60 s cycle to a 90 s cycle with the following signal timing: WE green time is 28 s, NB/SB green time is 36 s, and SB-only lag green time is 11 s; each phase has 3 s amber and 2 s all red.
		T	0.62	11.1	B	T	0.64	11.4	B	T	0.59	13.2	B	
32nd Avenue	WB	LTR	0.63	25.4	C	LTR	0.63	25.4	C	LTR	0.69	38.3	D	
Overall Intersection		-	**0.76**	**21.3**	**C**	-	**0.76**	**21.2**	**C**	-	**0.79**	**23.4**	**C**	**[Measures reflect improvements needed for the weekday pre-game, weekend pre-game, and weekend post-game peak periods; otherwise mitigation is not needed.]**
UNSIGNALIZED INTERSECTIONS														
Willets Point Boulevard at 126th Street														
126th Street	SB	LT	-	8.4	A									- Mitigation not required.
Willets Point Boulevard	WB	LR	-	20.8	C									**[Intersection would be demapped as part of the proposed Plan.]**
Overall Intersection		-	-	**18.6**	**C**									
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	12.8	B	L	-	120.0+	F*	L	0.81	43.4	D	- Install a new computer-controlled traffic signal, with a 90-second cycle length and three phases. [EB/WB green time is 10 s; WB-only lag green time is 41 s; NB/SB green time is 24 s; all phases have 3 s of amber and 2 s of all red time.]
		R	-	8.7	A	R	-	8.7	A	R	0.11	25.5	C	
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.07	36.2	D	
	WB	LT	-	8.0	A	LT	-	10.3	B	DefL	0.89	28.9	C	
		-	-	-	-	-	-	-	-	T	0.08	6.9	A	
Overall Intersection		-	-	**8.5**	**A**	-	-	**120.0+**	**F***	-	**0.87**	**32.2**	**C**	

TABLE 23-10
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY PM (NON GAME DAY)*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	T	-	9.7	A									- Mitigation not required. **[Intersection would be demapped as part of the proposed Plan.]**
Overall Intersection		-	-	**9.7**	**A**									
College Point Boulevard at Northern Boulevard Service Road (SIGNALIZED IN 2007)														
College Point Boulevard	NB	TR	0.86	24.1	C	TR	0.87	25.0	C	TR	0.73	15.1	B	- Modify signal timing: shift 5 s green time from WB phase to NB/SB phase. [WB green time shifts from 2
	SB	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	s to 20 s; NB/SB green time shifts from 25 s to 30 s.]
Northern Blvd Service Rd	WB	L	0.28	12.6	B	L	0.49	15.5	B	L	0.61	22.2	C	
		R	0.42	15.0	B	R	0.45	15.3	B	R	0.56	21.8	C	
Overall Intersection		-	**1.03**	**120.0+**	**F***	-	**1.09**	**120.0+**	**F***	-	**1.05**	**84.9**	**F**	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Grand Central Parkway Ramp	EB	L	-	9.8	A	L	-	10.3	B					- Mitigation not required.
		R	-	8.9	A	R	-	8.9	A					
Overall Intersection		-	-	**9.2**	**A**	-	-	**9.9**	**A**					
NEW (BUILD) SIGNALIZED INTERSECTION														
126th Street at New Willets Point Boulevard														
126th Street	NB					LTR	0.74	45.0	D					**- Unmitigatable Impact.**
	SB					DefL	0.91	51.0	D					
						TR	0.95	48.2	D					
New Willets Point Boulevard	EB					LTR	0.54	34.0	C					
	WB					LT	0.72	45.5	D					
						R	0.52	14.9	B					
Overall Intersection						-	**1.12**	**40.6**	**D**					
Citi Field/Lot B Internal Street at Roosevelt Avenue														
Citi Field/Lot B Internal Street	SB					LR	0.68	43.6	D					- Mitigation not required.
Roosevelt Avenue	EB					LT	0.81	23.7	C					
	WB					TR	0.82	23.4	C					
Overall Intersection						-	**0.78**	**25.6**	**C**					

(1) Control delay is measured in seconds per vehicle.

(2) Level of service (LOS) for signalized intersections is based upon average control delay per vehicle (sec/veh) for each lane group as listed in the 2000 Highway Capacity Manual -- TRB.

(3) Level of service (LOS) for unsignalized intersections is based upon control delay per vehicle (sec/veh) for each minor-approach as listed in the 2000 Highway Capacity Manual -- TRB.

(4) Overall intersection V/C ratio is the critical lane groups' V/C ratio, not the weighted average of all the movements.

(5) F* indicates level of service (LOS) F conditions with delays in excess of two minutes (120 seconds) per vehicle for the lane group with an asterisk (*).

TABLE 23-11
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *SATURDAY MIDDAY (NON GAME DAY)*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.60	38.3	D	DefL	0.60	38.3	D	DefL	0.60	38.3	D	- Prohibit eastbound Astoria Boulevard eastbound left-turn movements onto 108th Street at all times. Eastbound left-turn vehicles may use the exclusive left-turn at the Astoria Boulevard and 31st Street intersection located west of 108th Street.
		T	0.37	31.7	C	T	0.37	31.7	C	T	0.37	31.7	C	
	SB	LTR	0.28	30.4	C	LTR	0.28	30.4	C	LTR	0.28	30.4	C	
Astoria Boulevard	EB	LTR	0.44	14.8	B	LTR	0.51	15.6	B	TR	0.44	14.8	B	**[Measure reflects improvements needed for the non-game PM and weekday pre-game peak periods; otherwise mitigation is not needed.]**
	WB	L	0.58	11.1	B	L	0.65	13.7	B	L	0.64	13.2	B	
		TR	0.29	6.3	A	TR	0.34	6.7	A	TR	0.34	6.7	A	
Overall Intersection		-	**0.56**	**14.7**	**B**	-	**0.60**	**14.9**	**B**	-	**0.56**	**14.5**	**B**	
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					- **Unmitigatable Impact.**
	SB	LTR	1.17	119.5	F	LTR	1.17	119.5	F					
Northern Boulevard (Rt. 25A)	EB	L	0.08	44.3	D	L	0.08	44.3	D					
		TR	1.00	40.8	D	TR	1.19	113.9	F					
	WB	L	0.73	51.8	D	L	0.76	58.7	E					
		T	1.20+	120.0+	F*	T	1.20+	120.0+	F*					
		R	0.27	12.4	B	R	0.27	12.4	B					
Overall Intersection		-	**1.17**	**96.8**	**F**	-	**1.20+**	**120.0+**	**F***					
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	1.01	98.3	F	LTR	1.02	99.3	F					- Mitigation not required.
Northern Boulevard (Rt. 25A)	EB	T	0.63	18.3	B	T	0.79	22.5	C					
		R	0.71	22.0	C	R	0.73	22.7	C					
	WB	DefL	0.89	35.9	D	DefL	0.89	39.0	D					
		T	0.94	18.7	B	T	1.05	43.0	D					
Overall Intersection		-	**1.20+**	**24.9**	**C**	-	**1.20+**	**38.0**	**D**					
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.82	53.9	D	L	1.20+	120.0+	F*					- **Unmitigatable Impact.**
		R	0.47	44.8	D	R	0.99	87.7	F					
Northern Boulevard	EB	T	0.25	6.8	A	T	0.29	7.1	A					
	WB	T	0.42	8.3	A	T	0.46	8.7	A					
Grand Central Parkway Ramp	EB	T	0.40	8.0	A	T	0.49	9.0	A					
Van Wyck & Whitestone Expressway Ramp	WB	T	0.82	18.3	B	T	1.11	80.1	F					
Overall Intersection		-	**0.82**	**17.9**	**B**	-	**1.20+**	**81.7**	**F**					

TABLE 23-11
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *SATURDAY MIDDAY (NON GAME DAY)*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					**- Unmitigatable Impact.**
	SB	LTR	0.68	47.3	D	LTR	0.68	47.3	D					
Northern Boulevard	EB	L	0.78	51.8	D	L	0.83	56.9	E					
		T	0.83	24.4	C	T	0.92	31.3	C					
	WB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*					
		T	1.05	57.0	E	T	1.09	74.1	E					
Northern Boulevard Service Rd.	EB	TR	0.72	25.8	C	TR	0.72	25.8	C					
		-	-	-	-	-	-	-	-					
	WB	TR	0.74	31.2	C	TR	1.01	59.9	E					
		-	-	-	-	-	-	-	-					
Overall Intersection		-	**1.11**	**72.6**	**E**	-	**1.13**	**80.3**	**F**					
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	1.17	120.0+	F*	L	1.17	120.0+	F*					**- Unmitigatable Impact.**
		R	0.87	38.9	D	R	0.87	38.9	D					
Northern Boulevard	EB	TR	1.02	54.3	D	TR	1.12	92.1	F					
	WB	L	0.05	44.3	D	L	0.05	44.3	D					
		T	0.89	26.1	C	T	1.02	45.7	D					
Overall Intersection		-	**0.98**	**56.9**	**E**	-	**1.07**	**68.5**	**E**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	LTR	0.17	32.5	C	LTR	0.17	32.5	C					**- Unmitigatable Impact.**
	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
Northern Boulevard	EB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*					
		T	0.79	32.3	C	T	0.92	37.7	D					
		R	1.20+	120.0+	F*	R	1.20+	120.0+	F*					
	WB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*					
		TR	0.86	34.7	C	TR	0.99	47.6	D					
Overall Intersection		-	**1.20+**	**120.0+**	**F***	-	**1.20+**	**120.0+**	**F***					
Parsons Boulevard at Northern Boulevard (RT. 25A)														**Partially Mitigated.**
Parsons Boulevard	NB	LTR	1.18	120.0+	F*	LTR	1.17	120.0+	F*	LT	0.79	52.2	D	- Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 80 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.
		-	-	-	-	-	-	-	-	R	0.47	41.5	D	
	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LT	0.72	48.8	D	
		-	-	-	-	-	-	-	-	R	0.55	45.4	D	- Provide "No Parking" regulations along the west side of the southbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 120 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.
Northern Boulevard	EB	L	0.61	55.0	D	L	0.66	57.3	E	L	0.66	57.3	E	
		TR	1.11	74.1	E	TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*	
	WB	L	0.56	47.1	D	L	0.56	52.8	D	L	0.56	52.8	D	
		TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*	
Overall Intersection		-	**1.18**	**120.0+**	**F***	-	**1.20+**	**120.0+**	**F***	-	**1.14**	**120.0+**	**F***	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	0.78	26.2	C	L	0.78	26.2	C					- Mitigation not required.
		T	0.35	17.4	B	T	0.37	17.7	B					
34th Avenue	EB	TR	0.66	22.2	C	TR	0.66	22.3	C					
Overall Intersection		-	**0.72**	**23.2**	**C**	-	**0.72**	**23.2**	**C**					

TABLE 23-11
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *SATURDAY MIDDAY (NON GAME DAY)*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	LTR	1.02	69.2	E	LTR	1.06	71.3	E					**- Unmitigatable Impact.**
		-	-	-	-	-	-	-	-					
Northern Boulevard Ramp	SB	LTR	0.81	40.5	D	LTR	1.20+	120.0+	F*					
GCP Ramp	SB	LTR	1.09	120.0+	F*	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
34th Avenue	EB	DefL	0.61	62.9	E	-	-	-	-					
		TR	0.65	55.5	E	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
Stadium Road	WB	-	-	-	-	-	-	-	-					
		LTR	0.95	94.7	F	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**1.02**	**77.9**	**E**	**-**	**1.20+**	**120.0+**	**F***					
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.20	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.18	120.0+	F*	- Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.12	115.6	F	
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.11	77.6	E	- Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	0.81	18.8	B	
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.13**	**74.8**	**E**	- Move the Q48 bus stop on the far side of the eastbound approach 25 feet further downstream (to the east) to allow a transition back to one moving lane in the eastbound direction, and provide "No Standing Anytime" regulations between the intersection and the bus stop and along the length of the bus stop.
														- Provide "No Standing Anytime" regulations on the far side of the westbound approach for a distance of 5(ft. from the intersection to allow a transition back to one moving lane in the westbound direction.
														- Modify signal timing: shift 2 s green time from EB/WB phase to NB/SB phase. [EB/WB green time shifts from 80 s to 78 s; NB/SB green time shifts from 30 s to 32 s.]
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	0.83	54.7	D	LTR	0.83	54.7	D	LTR	0.83	54.7	D	- Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.05	53.2	D	- Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.13**	**86.0**	**F**	- Move the Q48 bus stop on the far side of the westbound approach and the far side of the eastbound approach 25 feet further downstream to allow a transition back to one moving lane in the each direction, and provide "No Standing Anytime" regulations between the intersection and each bus stop and along the length of each bus stop.
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	1.11	117.1	F	LTR	1.11	117.1	F					**- Unmitigatable Impact.**
	SB	DefL	1.09	120.0+	F*	DefL	1.18	120.0+	F*					
		TR	0.90	77.1	E	TR	0.90	77.1	E					
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
	WB	-	-	-	-	-	-	-	-					
		LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.35	40.6	D	LTR	0.50	48.1	D					**- Unmitigatable Impact.**
	SB	DefL	1.20+	120.0+	F*	DefL	1.20+	120.0+	F*					
		TR	0.74	49.8	D	TR	1.20+	120.0+	F*					
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	DefL	1.20+	120.0+	F*					
		-	-	-	-	TR	1.19	114.7	F					
	WB	LTR	1.17	104.0	F	LTR	1.20+	120.0+	F*					
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					

TABLE 23-11
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *SATURDAY MIDDAY (NON GAME DAY)*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	0.58	37.6	D	L	0.96	68.5	E					**- Unmitigatable Impact.**
		TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*					
	SB	T	1.20+	120.0+	F*	T	1.20+	120.0+	F*					
		R	0.55	33.8	C	R	1.20+	120.0+	F*					
Roosevelt Avenue	EB	LTR	0.89	32.4	C	LTR	1.02	60.0	E					
	WB	LTR	0.92	65.0	E	LTR	0.98	73.6	E					
Overall Intersection		**-**	**1.06**	**100.2**	**F**	**-**	**1.13**	**112.8**	**F**					
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					**- Unmitigatable Impact.**
Roosevelt Avenue	EB	DefL	1.20+	120.0+	F*	DefL	1.20+	120.0+	F*					
		TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*					
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
Overall Intersection		**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
Main Street at Roosevelt Avenue														
Main Street	NB	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*					**- Unmitigatable Impact.**
		R	0.71	29.5	C	R	0.71	29.5	C					
	SB	LTR	0.14	18.5	B	LTR	0.14	18.5	B					
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
Overall Intersection		**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
Union Street at Roosevelt Avenue														
Union Street	NB	-	-	-	-	-	-	-	-					**- Unmitigatable Impact.**
	SB	LT	1.16	101.7	F	LT	1.16	101.7	F					
		R	1.20+	120.0+	F*	R	1.20+	120.0+	F*					
Roosevelt Avenue	EB	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*					
		R	1.15	108.5	F	R	1.15	108.5	F					
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
Overall Intersection		**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.93	42.9	D	LTR	0.95	46.0	D	LTR	0.95	46.0	D	- Provide "No Parking" regulations along the south side of the eastbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LTR	0.87	34.2	C	LTR	0.87	34.2	C	LTR	0.87	34.2	C	
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	- Provide "No Parking" regulations along the north side of the westbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.19	120.0+	F*	
Overall Intersection		**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.45	19.5	B	L	0.46	19.5	B					- Mitigation not required.
		TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*					
	SB	L	0.18	16.4	B	L	0.18	16.4	B					
		TR	0.09	14.8	B	TR	0.09	14.8	B					
Kissena Boulevard	NB	TR	1.19	120.0+	F*	TR	1.19	120.0+	F*					
Overall Intersection		**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					

TABLE 23-11
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *SATURDAY MIDDAY (NON GAME DAY)*

		No Build				Build				Build with Mitigation				
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mitigation Measure**
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	1.17	120.0+	F*	L	1.17	120.0+	F*	L	1.17	120.0+	F*	- Provide "No Standing" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 150 ft. from the intersection.
		T	0.75	15.4	B	T	0.78	15.9	B	T	0.78	15.9	B	
	SB	TR	1.06	56.4	E	TR	1.11	73.8	E	T	1.00	37.1	D	- Prohibit parking from 10A - 7P (Except Sunday) along the west side of the southbound College Point Blvd approach 50 ft. from the intersection to provide a daylighted right turn lane.
		-	-	-	-	-	-	-	-	R	0.13	8.5	A	
Sanford Avenue	WB	LTR	0.93	51.7	D	LTR	1.03	74.3	E	LTR	0.91	46.9	D	
Overall Intersection		-	**1.20+**	**42.4**	**D**	-	**1.20+**	**54.2**	**D**	-	**1.20+**	**33.0**	**C**	
Union Street at Sanford Avenue														
Union Street	NB	LR	1.06	111.6	F	LR	1.06	111.6	F	LR	1.06	111.6	F	- Provide "No Parking" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LT	0.81	36.2	D	LT	0.81	36.2	D	LT	0.81	36.2	D	
		R	1.20+	120.0+	F*	R	1.20+	120.0+	F*	R	1.20+	120.0+	F*	
Sanford Avenue	EB	TR	0.79	43.6	D	TR	0.79	43.6	D	TR	0.79	43.6	D	
	WB	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	
Overall Intersection		-	**1.20+**	**120.0+**	**F***	-	**1.20+**	**120.0+**	**F***	-	**1.20+**	**120.0+**	**F***	
Parsons Boulevard at Sanford Avenue														**Partially Mitigated.**
Parsons Boulevard	NB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	- Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LTR	1.00	47.1	D	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	
Sanford Avenue	EB	LTR	0.67	17.8	B	LTR	0.68	17.8	B	LTR	0.67	17.7	B	- Prohibit parking from 10A - 3P along the north side of the westbound Sanford Avenue approach 50 ft.
	WB	LTR	1.08	73.6	E	LTR	1.15	99.3	F	LT	0.93	33.4	C	from the intersection to provide a daylighted right turn lane.
		-	-	-	-	-	-	-	-	R	0.18	10.9	B	
Overall Intersection		-	**1.20+**	**91.7**	**F**	-	**1.20+**	**120.0+**	**F***	-	**1.07**	**79.5**	**E**	
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.62	19.9	B	T	0.62	19.8	B	T	0.48	21.0	C	- Replace the existing mechanical signal controller with a computerized signal controller to accommodate multiple timing plans during different peak periods.
		TR	1.12	90.9	F	TR	1.12	90.9	F	TR	0.87	34.5	C	
	SB	L	0.52	25.0	C	L	0.52	25.0	C	L	0.55	35.2	D	- Modify signal timing: Increase the existing 60 s cycle to a 90 s cycle with the following signal timing: WE
		T	0.58	10.6	B	T	0.60	10.9	B	T	0.55	12.6	B	green time is 28 s, NB/SB green time is 36 s, and SB-only lag green time is 11 s; each phase has 3 s
32nd Avenue	WB	LTR	0.70	28.4	C	LTR	0.70	28.4	C	LTR	0.76	42.8	D	amber and 2 s all red.
														[Measures reflect improvements needed for the weekday pre-game, weekend pre-game, and
Overall Intersection		-	**0.81**	**33.7**	**C**	-	**0.81**	**33.3**	**C**	-	**0.77**	**24.7**	**C**	**weekend post-game peak periods; otherwise mitigation is not needed.]**
UNSIGNALIZED INTERSECTIONS														
Willets Point Boulevard at 126th Street														
126th Street	SB	LT	-	8.7	A									- Mitigation not required.
Willets Point Boulevard	WB	LR	-	23.3	C									**[Intersection would be demapped as part of the proposed Plan.]**
Overall Intersection		-	-	**20.2**	**C**									
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	14.3	B	L	-	120.0+	F*	L	0.64	36.7	D	- Install a new computer-controlled traffic signal, with a 90-second cycle length and three phases. [EB/WB
		R	-	8.5	A	R	-	8.5	A	R	0.05	26.3	C	green time is 10 s; WB-only lag green time is 43 s; NB/SB green time is 22 s; all phases have 3 s of
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.11	36.6	D	amber and 2 s of all red time.]
	WB	LT	-	7.8	A	LT	-	10.7	B	DefL	0.87	23.6	C	
		-	-	-	-	-	-	-	-	T	0.09	6.2	A	
Overall Intersection		-	-	**8.7**	**A**	-	-	**120.0+**	**F***	-	**0.81**	**25.7**	**C**	

TABLE 23-11
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *SATURDAY MIDDAY (NON GAME DAY)*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	T	-	9.8	A									- Mitigation not required. **[Intersection would be demapped as part of the proposed Plan.]**
Overall Intersection		-	-	**9.8**	**A**									
College Point Boulevard at Northern Boulevard Service Road (SIGNALIZED IN 2007)														
College Point Boulevard	NB	TR	1.07	63.4	E	TR	1.08	67.3	E	TR	1.04	52.7	D	- Modify signal timing: shift 1 s green time from WB phase to NB/SB phase. [WB green time shifts from 2
	SB	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	s to 24 s; NB/SB green time shifts from 25 s to 26 s.]
Northern Blvd Service Rd	WB	L	0.38	13.9	B	L	0.69	20.6	C	L	0.72	22.5	C	
		R	0.36	13.9	B	R	0.39	14.3	B	R	0.41	15.3	B	
Overall Intersection		-	**0.98**	**120.0+**	**F***	-	**1.17**	**120.0+**	**F***	-	**1.15**	**120.0+**	**F***	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Grand Central Parkway Ramp	EB	L	-	9.9	A	L	-	10.7	B					- Mitigation not required.
		R	-	8.9	A	R	-	8.9	A					
Overall Intersection		-	-	**9.4**	**A**	-	-	**10.3**	**B**					
NEW (BUILD) SIGNALIZED INTERSECTION														
126th Street at New Willets Point Boulevard														
126th Street	NB					LTR	0.93	60.9	E					- **Unmitigatable Impact.**
	SB					DefL	0.99	67.9	E					
						TR	0.91	32.4	C					
New Willets Point Boulevard	EB					LTR	0.45	41.8	D					
	WB					LT	0.81	63.4	E					
						R	0.36	12.7	B					
Overall Intersection						-	**1.20+**	**46.8**	**D**					
Citi Field/Lot B Internal Street at Roosevelt Avenue														
Citi Field/Lot B Internal Street	SB					LR	0.39	40.5	D					- Mitigation not required.
Roosevelt Avenue	EB					LT	0.75	16.5	B					
	WB					TR	0.72	15.2	B					
Overall Intersection						-	**0.65**	**17.1**	**B**					

(1) Control delay is measured in seconds per vehicle.

(2) Level of service (LOS) for signalized intersections is based upon average control delay per vehicle (sec/veh) for each lane group as listed in the 2000 Highway Capacity Manual -- TRB.

(3) Level of service (LOS) for unsignalized intersections is based upon control delay per vehicle (sec/veh) for each minor-approach as listed in the 2000 Highway Capacity Manual -- TRB.

(4) Overall intersection V/C ratio is the critical lane groups' V/C ratio, not the weighted average of all the movements.

(5) F* indicates level of service (LOS) F conditions with delays in excess of two minutes (120 seconds) per vehicle for the lane group with an asterisk (*).

TABLE 23-12
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY PRE-GAME*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.87	79.1	E	DefL	0.87	79.1	E	DefL	0.87	79.1	E	- Prohibit eastbound Astoria Boulevard eastbound left-turn movements onto 108th Street at all times. Eastbound left-turn vehicles may use the exclusive left-turn at the Astoria Boulevard and 31st Street intersection located west of 108th Street.
		T	0.71	54.6	D	T	0.71	54.6	D	T	0.71	54.6	D	
	SB	LTR	0.51	46.8	D	LTR	0.51	46.8	D	LTR	0.51	46.8	D	
Astoria Boulevard	EB	LTR	1.06	56.5	E	LTR	1.11	76.9	E	TR	1.02	40.5	D	
	WB	L	1.11	115.5	F	L	1.11	115.9	F	L	1.11	115.8	F	
		TR	0.38	6.8	A	TR	0.42	7.2	A	TR	0.42	7.2	A	
Overall Intersection		**-**	**1.20+**	**49.4**	**D**	**-**	**1.20+**	**60.6**	**E**	**-**	**1.20+**	**39.3**	**D**	
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					**- Unmitigatable Impact.**
	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
Northern Boulevard (Rt. 25A)	EB	L	0.24	41.8	D	L	0.24	46.3	D					
		TR	1.03	37.0	D	TR	1.13	74.8	E					
		-	-	-	-	-	-	-	-					
	WB	L	0.87	64.8	E	L	0.87	66.6	E					
		TR	1.20	118.5	F	TR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
Overall Intersection		**-**	**1.16**	**85.7**	**F**	**-**	**1.20+**	**120.0**	**F**					
114th Street at Northern Boulevard (RT. 25A)														**- Unmitigatable Impact.**
114th Street	SB	LTR	0.87	69.3	E	LTR	0.88	70.5	E					
Northern Boulevard (Rt. 25A)	EB	T	1.13	81.4	F	T	1.20+	120.0+	F*					
		R	0.84	28.3	C	R	0.85	28.9	C					
	WB	DefL	0.99	74.5	E	DefL	0.99	76.2	E					
		T	0.95	19.5	B	T	1.03	36.8	D					
Overall Intersection		**-**	**1.20+**	**47.9**	**D**	**-**	**1.20+**	**76.3**	**E**					
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	1.20	120.0+	F*	L	1.20+	120.0+	F*					**- Unmitigatable Impact.**
		R	0.51	46.1	D	R	1.08	120.0+	F*					
Northern Boulevard	EB	T	0.43	11.2	B	T	0.48	11.7	B					
	WB	T	1.09	78.6	E	T	1.09	78.6	E					
Grand Central Parkway Ramp	EB	T	0.56	12.9	B	T	0.71	15.9	B					
Van Wyck & Whitestone Expressway Ramp	WB	T	1.20	120.0+	F*	T	1.20+	120.0+	F*					
Overall Intersection		**-**	**1.20**	**99.1**	**F**	**-**	**1.20+**	**120.0+**	**F***					

TABLE 23-12
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY PRE-GAME*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					**- Unmitigatable Impact.**
	SB	LTR	0.73	49.7	D	LTR	0.73	49.7	D					
Northern Boulevard	EB	L	0.87	56.5	E	L	0.88	58.5	E					
		T	0.94	32.0	C	T	1.01	46.3	D					
	WB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*					
		T	1.03	58.8	E	T	1.03	58.8	E					
Northern Boulevard Service Rd.	EB	TR	0.66	24.2	C	TR	0.66	24.2	C					
		-	-	-	-	-	-	-	-					
	WB	TR	0.55	29.7	C	TR	0.84	40.5	D					
		-	-	-	-	-	-	-	-					
Overall Intersection		-	**1.08**	**58.3**	**E**	-	**1.10**	**63.0**	**E**					
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*					- Mitigation not required.
		R	1.10	104.6	F	R	1.10	104.6	F					
Northern Boulevard	EB	TR	0.84	7.2	A	TR	0.90	8.4	A					
	WB	L	0.17	55.0	D	L	0.17	55.0	D					
		T	0.92	24.3	C	T	1.02	43.6	D					
Overall Intersection		-	**1.10**	**74.5**	**E**	-	**1.17**	**77.0**	**E**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	LTR	0.27	34.9	C	LTR	0.27	34.9	C					**- Unmitigatable Impact.**
	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
Northern Boulevard	EB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*					
		T	0.87	34.3	C	T	0.95	40.5	D					
		R	1.20+	120.0+	F*	R	1.20+	120.0+	F*					
	WB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*					
		TR	0.88	35.3	D	TR	0.97	44.2	D					
Overall Intersection		-	**1.20+**	**120.0+**	**F***	-	**1.20+**	**120.0+**	**F***					
Parsons Boulevard at Northern Boulevard (RT. 25A)														**Partially Mitigated.**
Parsons Boulevard	NB	LTR	1.13	120.0+	F*	LTR	1.13	120.0+	F*	LT	0.77	52.0	D	- Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 80 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.
		-	-	-	-	-	-	-	-	R	0.37	38.9	D	
	SB	LTR	1.09	115.5	F	LTR	1.13	120.0+	F*	LT	0.73	48.4	D	
		-	-	-	-	-	-	-	-	R	0.40	38.5	D	- Provide "No Parking" regulations along the west side of the southbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 120 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.
Northern Boulevard	EB	L	0.47	43.3	D	L	0.50	48.2	D	L	0.50	48.2	D	
		TR	0.90	22.1	C	TR	0.98	30.6	C	TR	0.98	30.6	C	
	WB	L	0.55	44.1	D	L	0.54	45.7	D	L	0.54	45.7	D	
		TR	1.11	74.0	E	TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*	
Overall Intersection		-	**1.02**	**60.1**	**E**	-	**1.08**	**80.3**	**F**	-	**0.98**	**65.9**	**E**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	0.73	21.2	C	L	0.73	21.2	C					- Mitigation not required.
		T	0.36	14.6	B	T	0.37	14.7	B					
34th Avenue	EB	TR	0.77	29.1	C	TR	0.77	29.2	C					
Overall Intersection		-	**0.75**	**23.0**	**C**	-	**0.75**	**23.0**	**C**					

TABLE 23-12
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY PRE-GAME*

		No Build				Build				Build with Mitigation				
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mitigation Measure**
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	LTR	0.61	25.7	C	LTR	0.75	29.1	C					**- Unmitigatable Impact.**
		-	-	-	-	-	-	-	-					
Northern Boulevard Ramp	SB	LTR	0.46	13.6	B	LTR	0.61	16.0	B					
GCP Ramp	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
34th Avenue	EB	-	-	-	-	-	-	-	-					
		LTR	0.00	38.4	D	LTR	0.34	41.6	D					
		-	-	-	-	-	-	-	-					
Stadium Road	WB	-	-	-	-	-	-	-	-					
		LTR	0.37	41.3	D	LTR	1.16	120.0+	F*					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**1.04**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.08	104.6	F	LTR	1.11	114.6	F	LTR	1.05	95.8	F	- Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	SB	LTR	1.18	120.0+	F*	LTR	1.18	120.0+	F*	LTR	1.12	118.5	F	
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	0.96	30.8	C	- Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	WB	LTR	1.18	109.1	F	LTR	1.20+	120.0+	F*	LTR	0.84	20.4	C	
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.00**	**53.8**	**D**	- Move the Q48 bus stop on the far side of the eastbound approach 25 feet further downstream (to the east) to allow a transition back to one moving lane in the eastbound direction, and provide "No Standing Anytime" regulations between the intersection and the bus stop and along the length of the bus stop.
														- Provide "No Standing Anytime" regulations on the far side of the westbound approach for a distance of 5(ft. from the intersection to allow a transition back to one moving lane in the westbound direction.
														- Modify signal timing: shift 1 s green time from EB/WB phase to NB/SB phase. [EB/WB green time shifts from 80 s to 79 s; NB/SB green time shifts from 30 s to 31 s.]
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	1.07	90.5	F	LTR	1.07	90.5	F	LTR	1.07	90.5	F	- Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	0.93	26.0	C	
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.03	49.6	D	- Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.04**	**46.3**	**D**	- Move the Q48 bus stop on the far side of the westbound approach and the far side of the eastbound approach 25 feet further downstream to allow a transition back to one moving lane in the each direction, and provide "No Standing Anytime" regulations between the intersection and each bus stop and along the length of each bus stop.
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	1.17	120.0+	F*	LTR	1.17	120.0+	F*					**- Unmitigatable Impact.**
	SB	DefL	1.12	120.0+	F*	DefL	1.16	120.0+	F*					
		TR	0.84	67.2	E	TR	0.84	67.2	E					
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
	WB	DefL	0.91	39.6	D	DefL	0.91	39.6	D					
		TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.33	37.0	D	LTR	0.62	50.1	D					**- Unmitigatable Impact.**
	SB	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*					
		R	1.12	116.1	F	R	1.20+	120.0+	F*					
Roosevelt Avenue	EB	DefL	1.20+	120.0+	F*	DefL	1.20+	120.0+	F*					
		TR	1.11	78.4	E	TR	1.18	110.4	F					
	WB	LTR	0.99	36.2	D	LTR	1.20+	120.0+	F*					
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					

TABLE 23-12
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY PRE-GAME*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.08	120.0+	F*	L	1.11	120.0+	F*					**- Unmitigatable Impact.**
		TR	0.94	43.8	D	TR	0.94	43.8	D					
	SB	T	1.07	120.0+	F*	T	1.07	120.0+	F*					
		R	0.79	54.4	D	R	1.20+	120.0+	F*					
Roosevelt Avenue	EB	LTR	0.94	47.5	D	LTR	1.15	115.3	F					
	WB	LTR	0.80	64.9	E	LTR	0.85	67.2	E					
	Overall Intersection	-	**1.03**	**72.5**	**E**	-	**1.20+**	**120.0+**	**F***					
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					**- Unmitigatable Impact.**
Roosevelt Avenue	EB	DefL	1.20+	120.0+	F*	DefL	1.20+	120.0+	F*					
		TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*					
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
	Overall Intersection	-	**1.20+**	**120.0+**	**F***	-	**1.20+**	**120.0+**	**F***					
Main Street at Roosevelt Avenue														
Main Street	NB	LT	1.19	117.3	F	LT	1.19	117.3	F					**- Unmitigatable Impact.**
		R	0.60	24.4	C	R	0.60	24.4	C					
	SB	LTR	0.20	20.4	C	LTR	0.20	20.4	C					
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
	Overall Intersection	-	**1.20+**	**120.0+**	**F***	-	**1.20+**	**120.0+**	**F***					
Union Street at Roosevelt Avenue														
Union Street	NB	-	-	-	-	-	-	-	-					**- Unmitigatable Impact.**
	SB	LT	1.00	42.2	D	LT	1.00	42.2	D					
		R	1.06	79.6	E	R	1.06	79.6	E					
Roosevelt Avenue	EB	LT	1.06	72.9	E	LT	1.18	118.6	F					
		R	0.93	48.7	D	R	0.93	48.7	D					
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
	Overall Intersection	-	**1.20+**	**89.7**	**F**	-	**1.20+**	**119.1**	**F**					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	1.08	90.0	F	LTR	1.08	90.7	F	LTR	1.08	90.7	F	- Provide "No Parking" regulations along the south side of the eastbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LTR	1.04	71.0	E	LTR	1.04	71.0	E	LTR	1.04	71.0	E	
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	- Provide "No Parking" regulations along the north side of the westbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.16	118.8	F	
	Overall Intersection	-	**1.20+**	**120.0+**	**F***	-	**1.20+**	**120.0+**	**F***	-	**1.20+**	**120.0+**	**F***	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.53	22.9	C	L	0.53	23.1	C					- Mitigation not required.
		TR	0.98	52.4	D	TR	0.98	52.4	D					
	SB	L	0.36	27.5	C	L	0.36	27.5	C					
		TR	0.07	15.9	B	TR	0.07	15.9	B					
Kissena Boulevard	NB	TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*					
	Overall Intersection	-	**1.18**	**120.0+**	**F***	-	**1.09**	**120.0+**	**F***					

TABLE 23-12
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY PRE-GAME*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.55	27.7	C	L	0.55	27.7	C	L	0.55	27.7	C	- Provide "No Standing" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 150 ft. from the intersection.
		T	0.72	14.6	B	T	0.70	14.2	B	T	0.70	14.2	B	
	SB	TR	1.05	49.8	D	TR	1.08	62.8	E	T	1.00	35.1	D	- Prohibit parking from 10A - 7P (Except Sunday) along the west side of the southbound College Point Blvd approach 50 ft. from the intersection to provide a daylighted right turn lane.
		-	-	-	-	-	-	-	-	R	0.09	8.2	A	
Sanford Avenue	WB	LTR	0.98	61.7	E	LTR	1.06	82.4	F	LTR	0.93	50.4	D	
	Overall Intersection	-	**1.02**	**38.9**	**D**	-	**1.07**	**49.3**	**D**	-	**0.98**	**30.3**	**C**	
Union Street at Sanford Avenue														
Union Street	NB	LR	1.20+	120.0+	F*	LR	1.20+	120.0+	F*	LR	1.20+	120.0+	F*	- Provide "No Parking" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LT	0.91	54.5	D	LT	0.91	54.5	D	LT	0.91	54.5	D	
		R	1.11	101.8	F	R	1.11	101.8	F	R	1.11	101.8	F	
Sanford Avenue	EB	TR	0.67	38.7	D	TR	0.67	38.7	D	TR	0.67	38.7	D	
	WB	LT	1.11	111.3	F	LT	1.17	120.0+	F*	LT	1.10	107.1	F	
	Overall Intersection	-	**1.20+**	**113.3**	**F**	-	**1.20+**	**117.7**	**F**	-	**1.20+**	**112.4**	**F**	
Parsons Boulevard at Sanford Avenue														**Unmitigatable Impact.**
Parsons Boulevard	NB	LTR	1.15	97.6	F	LTR	1.15	99.0	F	LTR	0.98	41.4	D	- Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LTR	1.07	65.6	E	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	
Sanford Avenue	EB	LTR	1.15	99.6	F	LTR	1.15	100.6	F	LTR	1.15	100.6	F	
	WB	LTR	1.00	47.3	D	LTR	1.04	60.5	E	LTR	1.04	60.5	E	
	Overall Intersection	-	**1.15**	**78.0**	**E**	-	**1.20**	**102.1**	**F**	-	**1.20**	**87.3**	**F**	
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.66	20.9	C	T	0.66	20.8	C	T	0.51	21.6	C	- Replace the existing mechanical signal controller with a computerized signal controller to accommodate multiple timing plans during different peak periods.
		TR	0.89	35.2	D	TR	1.20+	120.0+	F*	TR	0.94	43.8	D	
	SB	L	0.66	31.7	C	L	0.66	31.7	C	L	0.71	45.0	D	- Modify signal timing: Increase the existing 60 s cycle to a 90 s cycle with the following signal timing: WE = 28 s of green time, NB/SB = 36 s of green time, and SB-only lag = 11 s of green time [each phase has 3 s amber and 2 s all red].
		T	0.59	10.7	B	T	0.69	12.2	B	T	0.64	13.9	B	
32nd Avenue	WB	LTR	0.70	28.6	C	LTR	0.70	28.6	C	LTR	0.76	42.9	D	
	Overall Intersection	-	**0.80**	**22.1**	**C**	-	**0.94**	**42.3**	**D**	-	**0.88**	**28.3**	**C**	
UNSIGNALIZED INTERSECTIONS														
Willets Point Boulevard at 126th Street														
126th Street	SB	LT	-	9.5	A									- Mitigation not required.
Willets Point Boulevard	WB	LR	-	19.5	C									**[Intersection would be demapped as part of the proposed Plan.]**
	Overall Intersection	-	-	**17.7**	**C**									
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	65.3	F	L	-	114.3	F	L	0.09	25.2	C	- Install a new computer-controlled traffic signal, with a 90-second cycle length and three phases. NYPD should optimize traffic signal operations during the weekday pre-game peak period.
		R	-	8.5	A	R	-	8.5	A	R	0.05	24.8	C	
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.10	36.5	D	
	WB	LT	-	10.2	B	LT	-	11.0	B	DefL	0.93	32.1	C	
		-	-	-	-	-	-	-	-	T	0.17	7.5	A	
	Overall Intersection	-	-	**13.0**	**B**	-	-	**15.8**	**C**	-	**0.68**	**28.2**	**C**	

TABLE 23-12
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *WEEKDAY PRE-GAME*

		No Build				Build				Build with Mitigation				
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mitigation Measure**
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	T	-	9.5	A									- Mitigation not required.
														[Intersection would be demapped as part of the proposed Plan.]
Overall Intersection		-	-	**9.5**	**A**									
College Point Boulevard at Northern Boulevard Service Road (SIGNALIZED IN 2007)														
College Point Boulevard	NB	TR	1.16	98.3	F	TR	1.20+	120.0+	F*	TR	1.10	70.5	E	- Modify signal timing: shift 5 s green time from WB phase to NB/SB phase. [WB green time shifts from 2
	SB	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	s to 20 s; NB/SB green time shifts from 25 s to 30 s.]
Northern Blvd Service Rd	WB	L	0.24	12.3	B	L	0.50	16.0	B	L	0.63	23.1	C	
		R	0.31	13.4	B	R	0.32	13.6	B	R	0.41	18.6	B	
Overall Intersection		-	**1.16**	**120.0+**	**F***	-	**1.20+**	**120.0+**	**F***	-	**1.20+**	**120.0+**	**F***	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Grand Central Parkway Ramp	EB	L	-	25.8	D	L	-	18.7	C					- Mitigation not required.
		R	-	10.1	B	R	-	10.1	B					
Overall Intersection		-	-	**20.0**	**C**	-	-	**15.1**	**C**					
NEW (BUILD) SIGNALIZED INTERSECTION														
126th Street at New Willets Point Boulevard														
126th Street	NB					LTR	1.20+	120.0+	F*					**- Unmitigatable Impact.**
	SB					DefL	1.20+	120.0+	F*					
						TR	1.14	104.9	F					
New Willets Point Boulevard	EB					LTR	0.20	25.2	C					
	WB					LT	1.20+	120.0+	F*					
						R	0.21	10.7	B					
Overall Intersection						-	**1.20+**	**120.0+**	**F***					
Citi Field/Lot B Internal Street at Roosevelt Avenue														
Citi Field/Lot B Internal Street	SB					LR	0.28	38.2	D					- Mitigation not required.
Roosevelt Avenue	EB					LT	0.89	23.8	C					
	WB					TR	0.94	28.6	C					
Overall Intersection						-	**0.76**	**26.9**	**C**					

(1) Control delay is measured in seconds per vehicle.

(2) Level of service (LOS) for signalized intersections is based upon average control delay per vehicle (sec/veh) for each lane group as listed in the 2000 Highway Capacity Manual -- TRB.

(3) Level of service (LOS) for unsignalized intersections is based upon control delay per vehicle (sec/veh) for each minor-approach as listed in the 2000 Highway Capacity Manual -- TRB.

(4) Overall intersection V/C ratio is the critical lane groups' V/C ratio, not the weighted average of all the movements.

(5) F* indicates level of service (LOS) F conditions with delays in excess of two minutes (120 seconds) per vehicle for the lane group with an asterisk (*).

TABLE 23-13
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *SATURDAY PRE-GAME*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.68	41.6	D	DefL	0.68	41.6	D	DefL	0.68	41.6	D	- Prohibit eastbound Astoria Boulevard eastbound left-turn movements onto 108th Street at all times. Eastbound left-turn vehicles may use the exclusive left-turn at the Astoria Boulevard and 31st Street intersection located west of 108th Street.
		T	0.30	30.8	C	T	0.30	30.8	C	T	0.30	30.8	C	
	SB	LTR	0.29	30.6	C	LTR	0.29	30.6	C	LTR	0.29	30.6	C	
Astoria Boulevard	EB	LTR	0.48	15.3	B	LTR	0.54	16.0	B	TR	0.47	15.1	B	**[Measure reflects improvements needed for the non-game PM and weekday pre-game peak periods; otherwise mitigation is not needed.]**
	WB	L	0.58	11.5	B	L	0.62	13.5	B	L	0.61	13.0	B	
		TR	0.26	2.5	A	TR	0.30	2.6	A	TR	0.30	2.6	A	
Overall Intersection		-	**0.60**	**14.2**	**B**	-	**0.64**	**14.2**	**B**	-	**0.60**	**13.8**	**B**	
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					- **Unmitigatable Impact.**
	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
Northern Boulevard (Rt. 25A)	EB	L	0.02	43.5	D	L	0.02	43.5	D					
		TR	1.00	39.5	D	TR	1.15	94.9	F					
		-	-	-	-	-	-	-	-					
	WB	L	0.79	55.1	E	L	0.82	62.3	E					
		T	1.20+	120.0+	F*	T	1.20+	120.0+	F*					
		R	0.22	11.8	B	R	0.22	11.8	B					
Overall Intersection		-	**1.20+**	**110.6**	**F**	-	**1.20+**	**120.0+**	**F***					
114th Street at Northern Boulevard (RT. 25A)														- **Unmitigatable Impact.**
114th Street	SB	LTR	1.11	106.3	F	LTR	1.12	113.0	F					
Northern Boulevard (Rt. 25A)	EB	T	0.69	19.4	B	T	0.81	23.2	C					
		R	0.60	18.8	B	R	0.61	19.1	B					
	WB	DefL	0.87	35.1	D	DefL	0.87	37.7	D					
		T	0.98	23.8	C	T	1.06	49.2	D					
Overall Intersection		-	**1.20+**	**28.1**	**C**	-	**1.20+**	**42.3**	**D**					
126th Street at Northern Boulevard (RT. 25A)														- **Unmitigatable Impact.**
126th Street	NB	L	0.93	72.6	E	L	1.20+	120.0+	F*					
		R	0.68	54.0	D	R	1.20+	120.0+	F*					
Northern Boulevard	EB	T	0.27	9.8	A	T	0.32	10.2	B					
	WB	T	0.75	18.9	B	T	0.75	18.9	B					
Grand Central Parkway Ramp	EB	T	0.87	22.6	C	T	1.08	67.7	E					
Van Wyck & Whitestone Expressway Ramp	WB	T	1.16	120.0+	F*	T	1.20+	120.0+	F*					
Overall Intersection		-	**1.12**	**75.7**	**E**	-	**1.20+**	**120.0+**	**F***					

TABLE 23-13
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *SATURDAY PRE-GAME*

		No Build				Build				Build with Mitigation				Mitigation Measure
			Control				Control				Control			
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					**- Unmitigatable Impact.**
	SB	LTR	0.59	44.4	D	LTR	0.59	44.4	D					
Northern Boulevard	EB	L	0.90	66.7	E	L	0.94	75.1	E					
		T	0.79	22.9	C	T	0.87	26.6	C					
	WB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*					
		T	0.99	39.6	D	T	0.99	39.6	D					
Northern Boulevard Service Rd.	EB	TR	0.77	28.2	C	TR	0.77	28.2	C					
		-	-	-	-	-	-	-	-					
	WB	TR	0.76	32.0	C	TR	1.08	83.0	F					
		-	-	-	-	-	-	-	-					
Overall Intersection		-	**1.07**	**55.2**	**E**	-	**1.12**	**60.6**	**E**					
Main Street at Northern Boulevard (RT. 25A)														**Partially Mitigated.**
Main Street	NB	L	1.02	78.9	E	L	1.02	78.9	E	L	1.02	78.9	E	- Modify signal timing: shift 4 s green time from WB/NB-right only lead phase to EB/WB phase. [WB/NB-right lead green time shifts from 17 s to 13 s; EB/WB green time shifts from 47 s to 51 s; NB green time remains 34 s; Lead Pedestrian Interval (LPI) remains 7 s.]
		R	0.78	32.9	C	R	0.78	32.9	C	R	0.84	39.4	D	
Northern Boulevard	EB	TR	1.02	54.0	D	TR	1.09	82.7	F	TR	1.01	49.3	D	
	WB	L	0.07	43.9	D	L	0.07	43.9	D	L	0.08	45.1	D	
		T	0.95	30.9	C	T	1.06	60.9	E	T	1.06	60.9	E	
Overall Intersection		-	**0.98**	**47.7**	**D**	-	**1.05**	**68.5**	**E**	-	**1.05**	**55.9**	**E**	
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	LTR	0.16	32.4	C	LTR	0.16	32.4	C	LTR	0.16	32.4	C	- Modify signal timing: shift 1 s from EB/WB phase to EB-left/EB-right/WB-left lead phase. [EB-left/EB-right/WB-left green time shifts from 18 s to 19 s; EB/WB green time shifts from 50 s to 49 s; NB/SB green time remains 36 s.]
	SB	LTR	1.12	113.4	F	LTR	1.13	115.6	F	LTR	1.13	115.6	F	
Northern Boulevard	EB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*	L	1.17	120.0+	F*	
		T	0.81	32.7	C	T	0.90	36.7	D	T	0.92	38.5	D	
		R	1.20+	120.0+	F*	R	1.20+	120.0+	F*	R	1.20+	120.0+	F*	
	WB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*	
		TR	0.82	33.2	C	TR	0.93	38.9	D	TR	0.95	41.5	D	
Overall Intersection		-	**1.20+**	**120.0+**	**F***	-	**1.20+**	**120.0+**	**F***	-	**1.20+**	**120.0+**	**F***	
Parsons Boulevard at Northern Boulevard (RT. 25A)														**Partially Mitigated.**
Parsons Boulevard	NB	LTR	1.11	120.0+	F*	LTR	1.11	119.6	F	LT	0.83	56.1	E	- Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 80 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.
		-	-	-	-	-	-	-	-	R	0.35	37.7	D	
	SB	LTR	1.10	120.0+	F*	LTR	1.15	120.0+	F*	LT	0.63	44.4	D	
		-	-	-	-	-	-	-	-	R	0.54	44.3	D	- Provide "No Parking" regulations along the west side of the southbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 120 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.
Northern Boulevard	EB	L	0.69	58.6	E	L	0.74	61.1	E	L	0.74	61.1	E	
		TR	1.11	75.7	E	TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*	
	WB	L	0.44	41.1	D	L	0.45	47.8	D	L	0.45	47.8	D	
		TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*	
Overall Intersection		-	**1.19**	**120.0+**	**F***	-	**1.20+**	**120.0+**	**F***	-	**1.18**	**120.0+**	**F***	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	0.73	24.3	C	L	0.73	24.3	C					- Mitigation not required.
		T	0.39	17.8	B	T	0.40	18.0	B					
34th Avenue	EB	TR	0.64	21.9	C	TR	0.64	21.9	C					
Overall Intersection		-	**0.68**	**22.1**	**C**	-	**0.68**	**22.1**	**C**					

TABLE 23-13
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *SATURDAY PRE-GAME*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	LTR	0.48	23.3	C	LTR	0.65	26.4	C					**- Unmitigatable Impact.**
		-	-	-	-	-	-	-	-					
Northern Boulevard Ramp	SB	LTR	0.33	12.2	B	LTR	0.48	13.7	B					
GCP Ramp	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
34th Avenue	EB	-	-	-	-	-	-	-	-					
		LTR	0.00	36.8	D	LTR	0.35	40.2	D					
		-	-	-	-	-	-	-	-					
Stadium Road	WB	-	-	-	-	-	-	-	-					
		LTR	0.55	45.2	D	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**1.05**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.14	120.0+	F*	LTR	1.18	120.0+	F*	LTR	1.13	120.0+	F*	- Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.17	120.0+	F*	
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.02	45.3	D	- Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	0.98	35.8	D	
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.06**	**66.9**	**E**	- Move the Q48 bus stop on the far side of the eastbound approach 25 feet further downstream (to the east) to allow a transition back to one moving lane in the eastbound direction, and provide "No Standing Anytime" regulations between the intersection and the bus stop and along the length of the bus stop.
														- Provide "No Standing Anytime" regulations on the far side of the westbound approach for a distance of 5(ft. from the intersection to allow a transition back to one moving lane in the westbound direction.
														- Modify signal timing: shift 1 s green time from EB/WB phase to NB/SB phase. [EB/WB green time shifts from 80 s to 79 s; NB/SB green time shifts from 30 s to 31 s.]
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	1.08	107.7	F	LTR	1.08	107.7	F	LTR	1.08	107.7	F	- Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	0.98	34.1	C	
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	0.78	16.3	B	- Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.01**	**36.9**	**D**	- Move the Q48 bus stop on the far side of the westbound approach and the far side of the eastbound approach 25 feet further downstream to allow a transition back to one moving lane in the each direction, and provide "No Standing Anytime" regulations between the intersection and each bus stop and along the length of each bus stop.
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	1.13	120.0+	F*	LTR	1.13	120.0+	F*					**- Unmitigatable Impact.**
	SB	DefL	1.04	107.9	F	DefL	1.10	120.0+	F*					
		TR	0.60	48.9	D	TR	0.60	48.9	D					
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
	WB	-	-	-	-	-	-	-	-					
		LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.33	37.1	D	LTR	0.57	45.8	D					**- Unmitigatable Impact.**
	SB	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*					
		R	1.12	117.2	F	R	1.20+	120.0+	F*					
Roosevelt Avenue	EB	DefL	1.20+	120.0+	F*	DefL	1.20+	120.0+	F*					
		TR	1.03	52.5	D	TR	1.12	82.2	F					
	WB	LTR	1.03	51.0	D	LTR	1.20+	120.0+	F*					
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					

TABLE 23-13
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *SATURDAY PRE-GAME*

		No Build				Build				Build with Mitigation				Mitigation Measure
			Control				Control				Control			
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.14	114.0	F	L	1.20+	120.0+	F*					**- Unmitigatable Impact.**
		TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*					
	SB	T	1.04	82.6	F	T	1.04	82.6	E					
		R	0.77	42.3	D	R	1.20+	120.0+	F*					
Roosevelt Avenue	EB	LTR	0.76	26.0	C	LTR	0.96	44.1	D					
	WB	LTR	1.01	89.8	F	LTR	1.06	105.2	F					
Overall Intersection		**-**	**0.98**	**87.5**	**F**	**-**	**1.20+**	**120.0+**	**F***					
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					**- Unmitigatable Impact.**
Roosevelt Avenue	EB	DefL	1.20+	120.0+	F*	DefL	1.20+	120.0+	F*					
		TR	1.09	73.5	E	TR	1.20	119.7	F					
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
Overall Intersection		**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
Main Street at Roosevelt Avenue														
Main Street	NB	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*					**- Unmitigatable Impact.**
		R	0.62	26.0	C	R	0.62	26.0	C					
	SB	LTR	0.26	20.7	C	LTR	0.26	20.7	C					
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
Overall Intersection		**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
Union Street at Roosevelt Avenue														
Union Street	NB	-	-	-	-	-	-	-	-					**- Unmitigatable Impact.**
	SB	LT	1.07	67.2	E	LT	1.07	67.2	E					
		R	1.20+	120.0+	F*	R	1.20+	120.0+	F*					
Roosevelt Avenue	EB	LT	0.98	49.4	D	LT	1.10	83.4	F					
		R	0.82	31.1	C	R	0.82	31.1	C					
	WB	LTR	1.09	82.1	F	LTR	1.20+	120.0+	F*					
Overall Intersection		**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.94	44.5	D	LTR	0.95	45.9	D	LTR	0.95	45.9	D	- Provide "No Parking" regulations along the south side of the eastbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LTR	0.82	30.0	C	LTR	0.82	30.0	C	LTR	0.82	30.0	C	
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	- Provide "No Parking" regulations along the north side of the westbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	
Overall Intersection		**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.50	20.2	C	L	0.50	20.3	C					- Mitigation not required.
		TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*					
	SB	L	0.17	16.2	B	L	0.17	16.2	B					
		TR	0.07	14.7	B	TR	0.07	14.7	B					
Kissena Boulevard	NB	TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*					
Overall Intersection		**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					

TABLE 23-13
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *SATURDAY PRE-GAME*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.95	85.8	F	L	0.95	85.8	F	L	0.95	85.8	F	- Provide "No Standing" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 150 ft. from the intersection.
		T	0.81	16.8	B	T	0.80	16.5	B	T	0.80	16.5	B	
	SB	TR	1.03	44.3	D	TR	1.06	55.6	E	T	0.94	25.0	C	- Prohibit parking from 10A - 7P (Except Sunday) along the west side of the southbound College Point Blvd approach 50 ft. from the intersection to provide a daylighted right turn lane.
		-	-	-	-	-	-	-	-	R	0.18	8.9	A	
Sanford Avenue	WB	LTR	0.98	60.3	E	LTR	1.07	86.7	F	LTR	0.95	52.2	D	
Overall Intersection		-	**1.09**	**36.8**	**D**	-	**1.12**	**46.8**	**D**	-	**1.01**	**27.4**	**C**	
Union Street at Sanford Avenue														
Union Street	NB	LR	1.10	118.3	F	LR	1.10	118.3	F	LR	1.10	118.3	F	- Provide "No Parking" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LT	0.66	28.9	C	LT	0.66	28.9	C	LT	0.66	28.9	C	
		R	1.14	103.2	F	R	1.14	103.2	F	R	1.14	103.2	F	
Sanford Avenue	EB	TR	0.82	46.4	D	TR	0.82	46.4	D	TR	0.82	46.4	D	
	WB	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	
Overall Intersection		-	**1.20+**	**120.0+**	**F***	-	**1.20+**	**120.0+**	**F***	-	**1.20+**	**120.0+**	**F***	
Parsons Boulevard at Sanford Avenue														**Partially Mitigated.**
Parsons Boulevard	NB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.14	93.5	F	- Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LTR	0.95	35.6	D	LTR	1.08	69.9	E	LTR	1.08	69.9	E	
Sanford Avenue	EB	LTR	0.78	19.7	B	LTR	0.78	19.9	B	LTR	0.77	19.4	B	- Prohibit parking from 10A - 3P along the north side of the westbound Sanford Avenue approach 50 ft.
	WB	LTR	1.12	85.4	F	LTR	1.18	106.3	F	LT	0.94	32.8	C	from the intersection to provide a daylighted right turn lane.
		-	-	-	-	-	-	-	-	R	0.22	11.3	B	
Overall Intersection		-	**1.20+**	**84.0**	**F**	-	**1.20+**	**101.0**	**F**	-	**1.04**	**56.5**	**E**	
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.49	18.1	B	T	0.52	18.4	B	T	0.40	20.0	B	- Replace the existing mechanical signal with a computerized signal to accommodate different timing plans for each peak period.
		TR	1.18	113.8	F	TR	1.20+	120.0+	F*	TR	1.14	102.0	F	
	SB	L	0.48	21.1	C	L	0.49	21.7	C	L	0.52	30.6	C	- Modify signal timing: Increase the existing 60 s cycle to a 90 s cycle with the following signal timing: WE
		T	0.60	10.8	B	T	0.72	12.7	B	T	0.66	14.4	B	= 28 s of green time, NB/SB = 36 s of green time, and SB-only lag = 11 s of green time [each phase has 3
32nd Avenue	WB	LTR	0.68	27.7	C	LTR	0.68	27.7	C	LTR	0.74	41.6	D	s amber and 2 s all red].
Overall Intersection		-	**0.76**	**39.5**	**D**	-	**0.90**	**75.9**	**E**	-	**0.82**	**42.4**	**D**	
UNSIGNALIZED INTERSECTIONS														
Willets Point Boulevard at 126th Street														
126th Street	SB	LT	-	9.4	A									- Mitigation not required.
Willets Point Boulevard	WB	LR	-	27.6	D									**[Intersection would be demapped as part of the proposed Plan.]**
Overall Intersection		-	-	**19.5**	**C**									
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	73.6	F	L	-	120.0+	F*	L	0.15	29.7	C	- Install a new computer-controlled traffic signal, with a 90-second cycle length and three phases. NYPD
		R	-	8.5	A	R	-	8.5	A	R	0.06	28.7	C	should optimize traffic signal operations during the weekend pre-game peak period.
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.16	37.1	D	
	WB	LT	-	12.0	B	LT	-	13.6	B	DefL	0.99	40.9	D	
		-	-	-	-	-	-	-	-	T	0.16	5.5	A	
Overall Intersection		-	-	**15.3**	**C**	-	-	**20.3**	**C**	-	**0.79**	**35.5**	**D**	

TABLE 23-13
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *SATURDAY PRE-GAME*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	T	-	10.1	B									- Mitigation not required. **[Intersection would be demapped as part of the proposed Plan.]**
Overall Intersection		-	-	**10.1**	**B**									
College Point Boulevard at Northern Boulevard Service Road (SIGNALIZED IN 2007)														**- Unmitigatable Impact.**
College Point Boulevard	NB	TR	0.89	26.4	C	TR	1.01	45.0	D	TR	0.97	35.4	D	- Modify signal timing: shift 1 s green time from WB phase to NB/SB phase. [WB green time shifts from 25 s to 24 s; NB/SB green time shifts from 25 s to 26 s.]
	SB	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	
Northern Blvd Service Rd	WB	L	0.37	13.7	B	L	0.80	25.4	C	L	0.83	28.6	C	
		R	0.41	14.8	B	R	0.45	15.4	B	R	0.47	16.5	B	
Overall Intersection		-	**1.00**	**120.0+**	**F***	-	**1.20+**	**120.0+**	**F***	-	**1.20+**	**120.0+**	**F***	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Grand Central Parkway Ramp	EB	L	-	120.0+	F*	L	-	42.6	E					- Mitigation not required.
		R	-	18.9	C	R	-	18.9	C					
Overall Intersection		-	-	**75.0**	**F**	-	-	**30.2**	**D**					
NEW (BUILD) SIGNALIZED INTERSECTION														
126th Street at New Willets Point Boulevard														
126th Street	NB					LTR	1.20+	120.0+	F*					**- Unmitigatable Impact.**
	SB					DefL	1.20+	120.0+	F*					
						TR	1.02	60.8	E					
New Willets Point Boulevard	EB					LTR	0.29	31.2	C					
	WB					LT	1.20+	120.0+	F*					
						R	0.18	11.3	B					
Overall Intersection						-	**1.20+**	**120.0+**	**F***					
Citi Field/Lot B Internal Street at Roosevelt Avenue														
Citi Field/Lot B Internal Street	SB					LR	0.29	38.4	D					- Mitigation not required.
Roosevelt Avenue	EB					LT	0.87	22.4	C					
	WB					TR	0.97	33.8	C					
Overall Intersection						-	**0.79**	**29.4**	**C**					

(1) Control delay is measured in seconds per vehicle.

(2) Level of service (LOS) for signalized intersections is based upon average control delay per vehicle (sec/veh) for each lane group as listed in the 2000 Highway Capacity Manual -- TRB.

(3) Level of service (LOS) for unsignalized intersections is based upon control delay per vehicle (sec/veh) for each minor-approach as listed in the 2000 Highway Capacity Manual -- TRB.

(4) Overall intersection V/C ratio is the critical lane groups' V/C ratio, not the weighted average of all the movements.

(5) F* indicates level of service (LOS) F conditions with delays in excess of two minutes (120 seconds) per vehicle for the lane group with an asterisk (*).

TABLE 23-14
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *SATURDAY POST-GAME*

		No Build				Build				Build with Mitigation				Mitigation Measure
			Control				Control				Control			
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.60	38.3	D	DefL	0.60	38.3	D	DefL	0.60	38.3	D	- Prohibit eastbound Astoria Boulevard eastbound left-turn movements onto 108th Street at all times. Eastbound left-turn vehicles may use the exclusive left-turn at the Astoria Boulevard and 31st Street intersection located west of 108th Street.
		T	0.23	29.8	C	T	0.23	29.8	C	T	0.23	29.8	C	
	SB	LTR	0.29	30.5	C	LTR	0.29	30.5	C	LTR	0.29	30.5	C	
Astoria Boulevard	EB	LTR	0.50	15.5	B	LTR	0.55	16.0	B	TR	0.47	15.1	B	**[Measure reflects improvements needed for the non-game PM and weekday pre-game peak periods; otherwise mitigation is not needed.]**
	WB	L	0.78	19.5	B	L	0.82	26.2	C	L	0.81	24.1	C	
		TR	0.37	2.8	A	TR	0.42	3.0	A	TR	0.42	3.0	A	
Overall Intersection		**-**	**0.60**	**13.3**	**B**	**-**	**0.65**	**13.8**	**B**	**-**	**0.64**	**13.2**	**B**	
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					- **Unmitigatable Impact.**
	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
Northern Boulevard (Rt. 25A)	EB	L	0.05	43.9	D	L	0.05	43.9	D					
		T	0.88	24.5	C	T	1.00	40.5	D					
		R	0.12	11.0	B	R	0.12	11.0	B					
	WB	L	0.68	46.8	D	L	0.75	56.1	E					
		T	1.20+	120.0+	F*	T	1.20+	120.0+	F*					
		R	0.21	11.8	B	R	0.21	11.8	B					
Overall Intersection		**-**	**1.16**	**94.1**	**F**	**-**	**1.20+**	**120.0+**	**F***					
114th Street at Northern Boulevard (RT. 25A)														- **Unmitigatable Impact.**
114th Street	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
Northern Boulevard (Rt. 25A)	EB	T	1.18	120.0+	F*	T	1.20+	120.0+	F*					
		R	0.94	120.0+	F*	R	0.96	120.0+	F*					
	WB	DefL	1.14	120.0+	F*	DefL	1.14	120.0+	F*					
		T	1.20+	120.0+	F*	T	1.20+	120.0+	F*					
Overall Intersection		**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.23	17.3	B	L	0.49	20.5	C					- **Unmitigatable Impact.**
		R	0.58	22.4	C	R	0.85	37.3	D					
Northern Boulevard	EB	T	0.57	31.1	C	T	0.66	33.2	C					
	WB	T	1.20+	120.0+	F*	T	1.20+	120.0+	F*					
Grand Central Parkway Ramp	EB	T	1.19	120.0+	F*	T	1.20+	120.0+	F*					
Van Wyck & Whitestone Expressway Ramp	WB	T	1.16	120.0+	F*	T	1.20+	120.0+	F*					
Overall Intersection		**-**	**0.88**	**120.0+**	**F***	**-**	**1.12**	**120.0+**	**F***					

TABLE 23-14
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *SATURDAY POST-GAME*

		No Build				Build				Build with Mitigation				Mitigation Measure
			Control				Control				Control			
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					- **Unmitigatable Impact.**
	SB	LTR	0.50	42.2	D	LTR	0.50	42.2	D					
Northern Boulevard	EB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*					
		T	0.98	41.4	D	T	1.08	69.8	E					
	WB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*					
		T	0.99	39.1	D	T	0.99	39.1	D					
Northern Boulevard Service Rd.	EB	TR	0.79	29.7	C	TR	0.79	29.7	C					
		-	-	-	-	-	-	-	-					
	WB	TR	0.66	24.3	C	TR	0.96	43.9	D					
		-	-	-	-	-	-	-	-					
Overall Intersection		-	**1.20+**	**66.6**	**E**	-	**1.20+**	**77.2**	**E**					
Main Street at Northern Boulevard (RT. 25A)														**Partially Mitigated.**
Main Street	NB	L	1.07	94.3	F	L	1.07	94.3	F	L	1.07	94.3	F	- Modify signal timing: shift 4 s green time from WB/NB-right only lead phase to EB/WB phase. [WB/NB-right lead green time shifts from 17 s to 13 s; EB/WB green time shifts from 47 s to 51 s; NB green time remains 34 s; Lead Pedestrian Interval (LPI) remains 7 s.]
		R	0.70	29.5	C	R	0.70	29.5	C	R	0.76	34.3	C	
Northern Boulevard	EB	TR	1.10	85.3	F	TR	1.19	120.0+	F*	TR	1.10	82.4	F	
	WB	L	0.04	43.3	D	L	0.04	43.3	D	L	0.04	44.4	D	
		T	0.92	28.4	C	T	1.02	47.0	D	T	1.02	47.0	D	
Overall Intersection		-	**0.97**	**62.9**	**E**	-	**1.04**	**85.5**	**F**	-	**1.04**	**67.6**	**E**	
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	LTR	0.17	32.6	C	LTR	0.17	32.6	C	LTR	0.17	32.6	C	- Modify signal timing: shift 1 s from EB/WB phase to EB-left/EB-right/WB-left lead phase. [EB-left/EB-right/WB-left green time shifts from 18 s to 19 s; EB/WB green time shifts from 50 s to 49 s; NB/SB green time remains 36 s.]
	SB	LTR	1.03	84.0	F	LTR	1.03	84.4	F	LTR	1.03	84.4	F	
Northern Boulevard	EB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*	
		T	0.85	34.2	C	T	0.95	40.8	D	T	0.97	44.2	D	
		R	1.20+	120.0+	F*	R	1.20+	120.0+	F*	R	1.20+	120.0+	F*	
	WB	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*	L	1.20+	120.0+	F*	
		TR	0.75	31.2	C	TR	0.84	33.9	C	TR	0.86	35.2	D	
Overall Intersection		-	**1.20+**	**118.5**	**F**	-	**1.20+**	**117.2**	**F**	-	**1.20+**	**113.4**	**F**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														**Partially Mitigated.**
Parsons Boulevard	NB	LTR	1.05	100.9	F	LTR	1.05	100.1	F	LT	0.71	46.9	D	- Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 80 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.
		-	-	-	-	-	-	-	-	R	0.44	40.5	D	
	SB	LTR	1.16	120.0+	F*	LTR	1.20	120.0+	F*	LT	0.72	49.3	D	
		-	-	-	-	-	-	-	-	R	0.49	42.1	D	- Provide "No Parking" regulations along the west side of the southbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 120 ft. from the intersection to prohibit parking and provide a daylighted right-turn lane for all peak hours.
Northern Boulevard	EB	L	0.47	39.4	D	L	0.59	50.7	D	L	0.59	50.7	D	
		TR	1.10	73.2	E	TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*	
	WB	L	0.43	41.0	D	L	0.45	47.7	D	L	0.45	47.7	D	
		TR	1.04	50.9	D	TR	1.15	94.8	F	TR	1.15	94.8	F	
Overall Intersection		-	**1.02**	**73.1**	**E**	-	**1.13**	**110.8**	**F**	-	**0.98**	**95.3**	**F**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	0.80	27.2	C	L	0.80	27.2	C					- Mitigation not required.
		T	0.23	16.0	B	T	0.25	16.1	B					
34th Avenue	EB	TR	0.73	24.2	C	TR	0.73	24.2	C					
Overall Intersection		-	**0.77**	**24.6**	**C**	-	**0.77**	**24.6**	**C**					

TABLE 23-14
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *SATURDAY POST-GAME*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	LTR	0.72	69.1	E	LTR	0.68	55.8	E					**- Unmitigatable Impact.**
		-	-	-	-	-	-	-	-					
Northern Boulevard Ramp	SB	LTR	0.62	26.3	C	LTR	0.46	23.3	C					
GCP Ramp	SB	LTR	0.99	93.7	F	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
34th Avenue	EB	DefL	0.83	92.5	F	-	-	-	-					
		TR	0.22	47.4	D	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
Stadium Road	WB	-	-	-	-	-	-	-	-					
		LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**0.85**	**75.3**	**E**	**-**	**1.14**	**120.0+**	**F***					
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.19	120.0+	F*	- Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.18	120.0+	F*	
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	0.92	25.8	C	- Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	0.94	29.0	C	
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.01**	**66.3**	**E**	- Move the Q48 bus stop on the far side of the eastbound approach 25 feet further downstream (to the east) to allow a transition back to one moving lane in the eastbound direction, and provide "No Standing Anytime" regulations between the intersection and the bus stop and along the length of the bus stop.
														- Provide "No Standing Anytime" regulations on the far side of the westbound approach for a distance of 5(ft. from the intersection to allow a transition back to one moving lane in the westbound direction.
														- Modify signal timing: shift 1 s green time from EB/WB phase to NB/SB phase. [EB/WB green time shifts from 80 s to 79 s; NB/SB green time shifts from 30 s to 31 s.]
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	0.99	79.9	E	LTR	0.99	79.9	E	LTR	0.96	74.0	E	- Provide "No Standing Anytime" regulations along the south side of the eastbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
Roosevelt Avenue	EB	LTR	1.04	53.7	D	LTR	1.18	106.9	F	LTR	0.70	14.1	B	
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	0.75	15.1	B	- Provide "No Standing Anytime" regulations along the north side of the westbound Roosevelt Avenue approach for a distance of 100 ft. from the stop bar to allow for two moving lanes at the approach.
	Overall Intersection	**-**	**1.19**	**98.8**	**F**	**-**	**1.20+**	**120.0+**	**F***	**-**	**0.80**	**24.0**	**C**	- Move the Q48 bus stop on the far side of the westbound approach and the far side of the eastbound approach 25 feet further downstream to allow a transition back to one moving lane in the each direction, and provide "No Standing Anytime" regulations between the intersection and each bus stop and along the length of each bus stop.
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	1.15	120.0+	F*	LTR	1.15	120.0+	F*					**- Unmitigatable Impact.**
	SB	DefL	1.03	104.3	F	DefL	1.12	120.0+	F*					
		TR	1.01	99.0	F	TR	1.01	99.0	F					
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
	WB	-	-	-	-	-	-	-	-					
		LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.42	53.5	D	LTR	0.57	61.4	E					**- Unmitigatable Impact.**
	SB	DefL	1.20+	120.0+	F*	DefL	1.20+	120.0+	F*					
		TR	0.30	50.9	D	TR	1.20+	120.0+	F*					
Roosevelt Avenue	EB	LTR	1.11	64.9	E	LTR	1.20+	120.0+	F*					
	WB	LTR	0.45	3.3	A	LTR	0.75	6.5	A					
	Overall Intersection	**-**	**1.17**	**74.2**	**E**	**-**	**1.20+**	**120.0+**	**F***					

TABLE 23-14
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *SATURDAY POST-GAME*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	0.49	33.9	C	L	0.74	41.5	D					**- Unmitigatable Impact.**
		TR	1.02	54.4	D	TR	1.02	54.4	D					
	SB	T	0.91	46.6	D	T	0.91	46.6	D					
		R	0.35	29.4	C	R	1.20+	120.0+	F*					
Roosevelt Avenue	EB	LTR	1.08	77.5	E	LTR	1.20+	120.0+	F*					
	WB	LTR	0.78	38.4	D	LTR	0.83	40.2	D					
	Overall Intersection	**-**	**1.05**	**56.5**	**E**	**-**	**1.20+**	**110.6**	**F**					
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					**- Unmitigatable Impact.**
Roosevelt Avenue	EB	DefL	1.10	97.4	F	DefL	1.15	115.8	F					
		TR	1.09	74.9	E	TR	1.20+	120.0+	F*					
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
Main Street at Roosevelt Avenue														
Main Street	NB	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*					**- Unmitigatable Impact.**
		R	0.72	29.8	C	R	0.72	29.8	C					
	SB	LTR	0.11	18.0	B	LTR	0.11	18.0	B					
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
	WB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*					
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
Union Street at Roosevelt Avenue														
Union Street	NB	-	-	-	-	-	-	-	-					**- Unmitigatable Impact.**
	SB	LT	0.98	39.1	D	LT	0.98	39.1	D					
		R	1.20+	120.0+	F*	R	1.20+	120.0+	F*					
Roosevelt Avenue	EB	LT	1.10	87.7	F	LT	1.20+	120.0+	F*					
		R	1.08	83.1	F	R	1.08	83.1	F					
	WB	LTR	1.19	120.0+	F*	LTR	1.20+	120.0+	F*					
	Overall Intersection	**-**	**1.20+**	**120.0+**	**F***	**-**	**1.20+**	**120.0+**	**F***					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.68	24.7	C	LTR	0.70	25.2	C	LTR	0.70	25.2	C	- Provide "No Parking" regulations along the south side of the eastbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LTR	0.72	25.3	C	LTR	0.72	25.3	C	LTR	0.72	25.3	C	
Roosevelt Avenue	EB	LTR	1.20+	120.0+	F*	LTR	1.20+	120.0+	F*	LTR	1.12	93.4	F	- Provide "No Parking" regulations along the north side of the westbound Roosevelt Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	WB	LTR	0.96	46.7	D	LTR	1.04	65.2	E	LTR	0.85	31.1	C	
	Overall Intersection	**-**	**0.97**	**67.5**	**E**	**-**	**1.07**	**105.5**	**F**	**-**	**0.92**	**51.2**	**D**	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.38	18.4	B	L	0.39	18.5	B					- Mitigation not required.
		TR	1.01	53.7	D	TR	1.01	53.7	D					
	SB	L	0.14	15.6	B	L	0.14	15.6	B					
		TR	0.06	14.5	B	TR	0.06	14.5	B					
Kissena Boulevard	NB	TR	1.20+	120.0+	F*	TR	1.20+	120.0+	F*					
	Overall Intersection	**-**	**1.13**	**96.3**	**F**	**-**	**1.20+**	**96.3**	**F**					

TABLE 23-14
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *SATURDAY POST-GAME*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.61	32.5	C	L	0.61	32.5	C	L	0.61	32.5	C	- Provide "No Standing" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 150 ft. from the intersection.
		T	0.59	12.4	B	T	0.60	12.6	B	T	0.60	12.6	B	
	SB	TR	1.10	70.3	E	TR	1.14	85.8	F	T	1.02	41.5	D	- Prohibit parking from 10A - 7P (Except Sunday) along the west side of the southbound College Point Blvd approach 50 ft. from the intersection to provide a daylighted right turn lane.
		-	-	-	-	-	-	-	-	R	0.15	8.7	A	
Sanford Avenue	WB	LTR	0.87	43.4	D	LTR	0.93	51.3	D	LTR	0.82	38.8	D	
	Overall Intersection	-	**1.02**	**46.4**	**D**	-	**1.07**	**55.6**	**E**	-	**0.96**	**30.9**	**C**	
Union Street at Sanford Avenue														
Union Street	NB	LR	1.17	120.0+	F*	LR	1.17	120.0+	F*	LR	1.17	120.0+	F*	- Provide "No Parking" regulations along the north side of the westbound Sanford Avenue approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LT	0.62	27.5	C	LT	0.62	27.5	C	LT	0.62	27.5	C	
		R	1.09	83.0	F	R	1.09	83.0	F	R	1.09	83.0	F	
Sanford Avenue	EB	TR	0.69	38.0	D	TR	0.69	38.0	D	TR	0.69	38.0	D	
	WB	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	
	Overall Intersection	-	**1.20+**	**118.0**	**F**	-	**1.20+**	**120.0+**	**F***	-	**1.20+**	**116.5**	**F**	
Parsons Boulevard at Sanford Avenue														**Partially Mitigated.**
Parsons Boulevard	NB	LTR	1.00	49.6	D	LTR	1.02	56.2	E	LTR	0.87	27.6	C	- Provide "No Parking" regulations along the east side of the northbound Parsons Boulevard approach from 7A - 7P (Except Sunday) for a distance of 50 ft. from the intersection.
	SB	LTR	0.94	35.6	D	LTR	1.10	78.3	E	LTR	1.10	78.3	E	
Sanford Avenue	EB	LTR	0.79	20.4	C	LTR	0.79	20.5	C	LTR	0.79	20.5	C	
	WB	LTR	0.87	25.0	C	LTR	0.91	28.8	C	LTR	0.91	28.8	C	
	Overall Intersection	-	**0.93**	**33.2**	**C**	-	**1.00**	**48.8**	**D**	-	**1.00**	**41.9**	**D**	
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.48	17.9	B	T	0.51	18.2	B	T	0.39	19.8	B	- Replace the existing mechanical signal with a computerized signal to accommodate different timing plans for each peak period.
		TR	1.20	120.0+	F*	TR	1.20+	120.0+	F*	TR	1.13	96.2	F	
	SB	L	0.47	21.0	C	L	0.48	21.5	C	L	0.51	30.3	C	- Modify signal timing: Increase the existing 60 s cycle to a 90 s cycle with the following signal timing: WE = 28 s of green time, NB/SB = 36 s of green time, and SB-only lag = 11 s of green time [each phase has 3 s amber and 2 s all red].
		T	0.48	9.6	A	T	0.57	10.5	B	T	0.52	12.3	B	
32nd Avenue	WB	LTR	0.60	24.0	C	LTR	0.60	24.0	C	LTR	0.65	36.4	D	
	Overall Intersection	-	**0.77**	**45.7**	**D**	-	**0.88**	**80.1**	**F**	-	**0.80**	**42.5**	**D**	
UNSIGNALIZED INTERSECTIONS														
Willets Point Boulevard at 126th Street														
126th Street	SB	LT	-	8.1	A									- Mitigation not required.
Willets Point Boulevard	WB	LR	-	15.0	B									**[Intersection would be demapped as part of the proposed Plan.]**
	Overall Intersection	-	-	**13.8**	**B**									
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	120.0+	F*	L	-	120.0+	F*	L	0.95	39.9	D	- Install a new computer-controlled traffic signal, with a 90-second cycle length and three phases. NYPD should optimize traffic signal operations during the weekend post-game peak period.
		R	-	29.4	D	R	-	29.4	D	R	0.96	42.6	D	
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.42	40.8	D	
	WB	LT	-	7.9	A	LT	-	8.4	A	LT	0.74	28.3	C	
	Overall Intersection	-	-	**120.0+**	**F***	-	-	**120.0+**	**F***	-	**0.97**	**37.2**	**D**	

TABLE 23-14
WILLETS POINT DEVELOPMENT DISTRICT DGEIS
NO BUILD VS BUILD TRAFFIC LEVELS OF SERVICE COMPARISON - *SATURDAY POST-GAME*

		No Build				Build				Build with Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	T	-	10.4	B									- Mitigation not required. **[Intersection would be demapped as part of the proposed Plan.]**
Overall Intersection		-	-	**10.4**	**B**									
College Point Boulevard at Northern Boulevard Service Road (SIGNALIZED IN 2007)														
College Point Boulevard	NB	TR	1.05	59.2	E	TR	1.18	108.6	F	TR	0.99	35.4	D	- Modify signal timing: shift 5 s green time from WB phase to NB/SB phase. [WB green time shifts from 25 s to 20 s; NB/SB green time shifts from 25 s to 30 s.]
	SB	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	LT	1.20+	120.0+	F*	
Northern Blvd Service Rd	WB	L	0.32	13.1	B	L	0.60	17.8	B	L	0.75	27.7	C	
		R	0.37	14.0	B	R	0.40	14.5	B	R	0.50	20.1	C	
Overall Intersection		-	**0.91**	**113.1**	**F**	-	**1.14**	**120.0+**	**F***	-	**1.17**	**98.3**	**F**	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Grand Central Parkway Ramp	EB	L	-	14.5	B	L	-	14.9	B					- Mitigation not required.
		R	-	11.1	B	R	-	11.1	B					
Overall Intersection		-	-	**12.6**	**B**	-	-	**12.9**	**B**					
NEW (BUILD) SIGNALIZED INTERSECTION														
126th Street at New Willets Point Boulevard														
126th Street	NB					LTR	1.18	120.0+	F*					- **Unmitigatable Impact.**
	SB					DefL	1.20+	120.0+	F*					
New Willets Point Boulevard	EB					TR	0.41	17.8	B					
	WB					LTR	0.44	30.4	C					
						LT	1.15	120.0+	F*					
						R	0.18	10.1	B					
Overall Intersection						-	**1.20+**	**101.3**	**F**					
Citi Field/Lot B Internal Street at Roosevelt Avenue														
Citi Field/Lot B Internal Street	SB					LR	0.23	37.2	D					- Mitigation not required.
Roosevelt Avenue	EB					LT	0.87	21.6	C					
	WB					TR	0.41	9.8	A					
Overall Intersection						-	**0.70**	**18.4**	**B**					

(1) Control delay is measured in seconds per vehicle.

(2) Level of service (LOS) for signalized intersections is based upon average control delay per vehicle (sec/veh) for each lane group as listed in the 2000 Highway Capacity Manual -- TRB.

(3) Level of service (LOS) for unsignalized intersections is based upon control delay per vehicle (sec/veh) for each minor-approach as listed in the 2000 Highway Capacity Manual -- TRB.

(4) Overall intersection V/C ratio is the critical lane groups' V/C ratio, not the weighted average of all the movements.

(5) F* indicates level of service (LOS) F conditions with delays in excess of two minutes (120 seconds) per vehicle for the lane group with an asterisk (*).