A. INTRODUCTION

This chapter summarizes the construction plan for the proposed action and assesses the potential for construction-period impacts. The stages of construction and their associated activities and equipment are described first, followed by the types of impacts likely to occur. The assessment also describes methods that may be employed to minimize construction-period impacts.

B. PRINCIPAL CONCLUSIONS

Although there would be localized, temporary disruptions, the proposed action is expected to result in significant adverse construction-related impacts only for traffic conditions during the 2012 peak construction period. Interim parking at three off-site locations would be provided during construction of the proposed Flushing Commons project. With these interim parking areas, there would be no net loss of public parking spaces during construction. The overall traffic volumes associated with the existing parking facility would be re-circulated within the surrounding area, and an overall increase or decrease in volumes within the existing Downtown Flushing network is not expected. However, during peak construction, significant adverse traffic impacts were identified for the Northern Boulevard intersections with Prince Street and with Union Street. Both of these intersections would have unmitigatable impacts under the 2013 Build condition. For the 2012 peak construction condition, the impact at the Union Street intersection could be mitigated with standard traffic engineering measures while those at the Prince Street intersection would remain unmitigated.

With the implementation of applicable controls and measures, no significant adverse impacts on land use and zoning, socioeconomic conditions, community facilities and services, historic resources, hazardous materials, parking, transit, pedestrians, air quality, and noise are expected during the construction period.

C. CONSTRUCTION STAGES

Construction of the proposed Flushing Commons project is expected to last approximately 36 months. Based on current plans, construction would begin in January 2011 and be completed in 2013. Construction of the proposed Flushing Commons project would involve several stages, some of which would overlap: demolition of the existing municipal lot and establishment of interim off-site parking facilities; excavation, foundation, and below-grade construction; building structure construction; and interior construction and finishing. Construction would generally proceed in a “circular” fashion starting from the southeast and then proceeding north, west, and ending in the southwest corner of the site, with the completion of the proposed C and D buildings in the first second quarters of 2013 and the completion of the proposed A, B, and E buildings in the fourth quarter of 2013. Each of these stages is sequentially described in more detail below.

While the start and end dates for construction of the Macedonia Plaza project for the remainder of the rezoning area (remainder of Lot 25) as an affordable housing project are not known, this construction is expected to have a similar but less intensive schedule and sequence and fewer number of workers than described for the project site.

ABATEMENT AND DEMOLITION

Construction of the proposed Flushing Commons project would begin with environmental remediation to address any hazardous materials currently existing on the site and demolition of the existing parking structure. As described in Chapter 10, "Hazardous Materials," although there is no evidence of buried tanks beneath the site, it is still possible that they could be encountered.

A geophysical survey to locate potential buried tanks would be conducted after the municipal lot is closed and before any soil disturbance activities for the proposed Flushing Commons project. For the Flushing Commons project, the New York City Economic Development Corporation will enter into a Memorandum of Understanding (MOU) that stipulates a Restrictive Declaration be placed on the property upon conveyance from NYCEDC to the applicant. The MOU, and subsequent Restrictive Declaration, would require that the geophysical survey be undertaken prior to any soil disturbance.

If tanks are located, they would be removed in accordance with all applicable Federal, State, and City requirements before beginning general excavation activities. Any petroleum-contaminated soil associated with these tanks would be separately removed and properly disposed of in accordance with all requirements.

In addition, all construction activities involving disturbance of existing soil would be performed in accordance with a Construction Health and Safety Plan (HASP) and Remedial Action Plan (RAP) to be approved by the New York City Department of Environmental Protection (NYCDEP). The CHASP would detail both measures to reduce the potential for exposure (e.g., dust control) and measures to identify and manage unexpectedly encountered contamination (e.g., additional petroleum storage tanks or petroleum-contaminated soil). If soil containing petroleum or other contaminated materials is discovered during excavation activities, it would be segregated and disposed of in accordance with all applicable Federal, State, and local regulations and guidelines. Additionally, all material that needs to be removed from the site would be disposed of in accordance with applicable requirements. Both the RAP and CHASP for the Flushing Commons project have been submitted to the NYCDEP for their review.

For the Macedonia Plaza project, provisions related to hazardous materials testing and remediation would be incorporated into the Land Disposition Agreement (LDA) between HPD and the sponsor/developer selected to redevelop the Macedonia site. These provisions would include the preparation of a NYCDEP-approved Site Investigation Work Plan and Health and Safety Plan. If testing results determine that remediation is necessary, all remediation would be completed in accordance with a DEP-approved Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP).

As described in Chapter 10, measures would also be taken to avoid potential adverse impacts during construction activities due to the presence of subsurface soil and groundwater contamination resulting from on- and potentially off-site sources, asbestos-containing materials (ACMs), and lead-based paint. Demolition, excavation, and construction activities could disturb

hazardous materials and increase pathways for human exposure. However, impacts would be avoided by performing construction activities in accordance with the following protocols:

- If dewatering is required for construction, there would be a potential for contact with contaminated groundwater, though levels of contamination appear too low to be a significant health concern. Although previous testing indicates that the groundwater would meet NYCDEP sewer discharge requirements, additional testing would be performed, as conditions may vary around the site, and, if necessary, pretreatment would be conducted before the water is discharged to the City's sewer system, as required by NYCDEP permit/approval requirements.
- Before any demolition activities, a comprehensive asbestos survey of all structures would be conducted that includes the sampling of all suspect materials to confirm the presence or absence of asbestos. Based on the findings of the survey, the identified ACMs would be removed and disposed of in accordance with all Federal, State, and local regulations.
- Any demolition activities with the potential to disturb lead-based paint would be performed in accordance with the applicable Occupational Safety and Health Administration regulation (OSHA 29 CFR 1926.62 - Lead Exposure in Construction).

The first step for construction would be demolition of the existing parking structure and surface lot to clear the site. The demolition stage is expected to last approximately three months.

INTERIM PARKING

To accommodate short-term public parking demand during construction, the proposed Flushing Commons project would include interim parking at three off-site locations (see Figure 18-1). The first site, located west of the project site on a 4-acre parcel on the waterfront at College Point Boulevard, three blocks from Main Street, would accommodate 309 additional interim spaces. The second lot—Fulton/Max—located west of the project site at the site of the existing Flushing Mall (which would be demolished), would accommodate 647 additional interim spaces. The development of the College Point Boulevard and Fulton/Max lots would be the responsibility of Flushing Commons LLC. The third off-site parking lot is the existing Municipal Lot 2, located west of the Flushing Commons project site on the east side of Prince Street between 38th and 39th Avenues. The existing 87 space at Lot 2 would be increased an additional 188 spaces.

In total, 1,144 new interim public spaces would be provided in the off-site parking lots during the construction period (see Table 18-1). With the off-site interim parking areas, there would be no net loss of public parking spaces during construction.

Table 18-1
Interim Public Parking

Parking Site	Additional Parking Spaces
College Point Lot	309
Fulton Max	647
Municipal Lot 2	188
Total	**1,144**

Note: See Figure 18-1 for site locations.

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Off-Site Parking Site

--------- *Rezoning Area Boundary*

Off-Site Parking Sites

Figure 18-1

The expansion of Municipal Lot 2 would take place when Municipal Lot 1 closes and EDC intends to operate the lot this way both during the construction period and after the completion of Flushing Commons.

EXCAVATION, FOUNDATION, AND BELOW-GRADE CONSTRUCTION

The sequencing of building construction would begin in the southeastern portion of the site, which would be excavated for utilities and below-grade uses. As mentioned above, all material that would need to be removed (e.g., excess/unsuitable fill) would be disposed off-site in accordance with applicable Federal, State, and local requirements. In addition, any petroleum-contaminated soil or other contaminated soil encountered during excavation would be properly disposed. Excavation would begin at the southeast corner of the site (at the location of the proposed C and D buildings) and would proceed west for building E. Excavated material would be disposed off-site via trucks. In total, the proposed Flushing Commons project would require the removal of an estimated 300,000 cubic yards of fill. Construction trucks would access the site at 138th Street. During excavation, it is anticipated that localized dewatering would be required using pumps. The water would be discharged into the New York City sewer system. Discharge in the sewer system is governed by NYCDEP regulations. Excavation would finish in the northeastern portion of the site for the A and B buildings.

Building foundation work would begin at the southeast corner of the site for the C and D buildings approximately eight months after the start of excavation. Building foundations for the E building at the southwest corner of the site would begin approximately 14 months after the start of excavation. No blasting is anticipated to occur during construction. It is estimated that excavation and foundation construction for the entire site would last approximately 24 months. Building foundations for the A and B buildings would begin approximately 20 months after start of construction. These buildings, along with the shared podium, would take 20 months to complete.

Construction of the below-grade area, including parking areas, beneath the proposed C, D, and E buildings would follow the foundation work for these two buildings. It is estimated that construction of the below-grade program would last approximately 24 months.

SUPERSTRUCTURE

The construction of the buildings' superstructures is anticipated to last approximately 20 to 24 months and would overlap with the foundation and below-grade construction phase. Starting in the southern portion of the site, both the proposed C, D, and E buildings would contain a retail base. The proposed C building would contain a residential tower, the proposed D building a hotel/office tower, and the proposed E building would contain a single office building. Construction of the exterior enclosure, or "shell," of the building would include construction of the building's framework (installation of beams and columns), floor decks, facade (exterior walls and cladding), and roof construction.

BUILDING FINISHES AND OPEN SPACE

During the exterior and interior finishes phase of building construction, final roofing and finishing details on the exterior walls would be completed. While this construction is taking place, the central open space would be built. This phase is anticipated to take about 18 to 20 months. Thus, between the superstructure and building finishes, these two phases of construction should take about 28 months. The 1.5 acres of open space, including the town square-style

central open space plaza, would be completed at the end of the 36-month total construction schedule.

D. CONSTRUCTION EQUIPMENT AND ACTIVITIES

Typical equipment used for demolition, excavation, and foundation work would include excavators, bulldozers, backhoes, compaction equipment, tractors, jackhammers, and concrete pumping trucks. Other equipment that would be used include hoist complexes, dump trucks and loaders, concrete trucks, and back hoes. Trucks would deliver concrete and other building materials, and remove excavated material as well as demolition and construction debris. The construction equipment likely to be used during erection of the superstructure would include compressors, cranes, derricks, hoists, bending jigs, and welding machines. During facade and roof construction, hoists may continue to be used. Trucks would remain in use for material supply and construction waste removal. Interior and finishing work would employ a large number of construction workers, and a wide variety of fixtures and supplies would have to be delivered to the site.

The majority of construction activities would take place Monday through Friday, although the delivery or installation of certain equipment could occur on weekend days. Hours of construction are regulated by the New York City Department of Buildings (DOB) and apply in all areas of the City. These requirements are reflected in the collective bargaining agreements with major construction trade unions. In accordance with those regulations, almost all work could occur between 7 AM and 6 PM on weekdays, although some workers would arrive and begin to prepare work areas before 7 AM. Occasionally, Saturday or overtime hours would be required to complete time-sensitive tasks. Weekend work requires a permit from the DOB and, in certain instances, approval of a noise mitigation plan from NYCDEP under the City's Noise Code. The New York City Noise Control Code, as amended in December 2005 and effective July 1, 2007, limits construction (absent special circumstances as described below) to weekdays between the hours of 7 AM and 6 PM, and sets noise limits for certain specific pieces of construction equipment. Construction activities occurring after hours (weekdays between 6 PM and 7 AM and on weekends) may be permitted only to accommodate: (1) emergency conditions, (2) public safety, (3) construction projects by or on behalf of City agencies, (4) construction activities with minimal noise impacts, and (5) undue hardship resulting from unique site characteristics, unforeseen conditions, scheduling conflicts and/or financial considerations. In such cases, the numbers of workers and pieces of equipment in operation would be limited to those needed to complete the particular authorized task. Therefore, the level of activity for any weekend work would be less than a normal workday. The typical weekend workday would be on Saturday, beginning with worker arrival and site preparation at 7 AM, and ending with site cleanup at 5 PM.

Movement of certain oversized materials, to comply with the requirements of the New York City Department of Transportation (NYCDOT), would occur at night. Construction would require temporary sidewalk and parking lane closures and vehicular travel lane narrowing on 138th Street, 39th Avenue, and portions of 37th Avenue and Union Street.

E. PROBABLE IMPACTS OF THE PROPOSED ACTION

Construction may at times be disruptive to nearby residential buildings and open spaces during the construction period. The following analysis describes the overall temporary effects of construction on the relevant areas of concern: land use and zoning, socioeconomic conditions,

community facilities and services, historic resources, hazardous materials, traffic and parking, air quality, and noise.

LAND USE AND ZONING

LAND USE

In general, construction would not alter surrounding land uses. During construction, access to all adjacent businesses, residences, and other uses would be maintained according to the regulations established by the DOB. When work takes place within building shells, effects on the surrounding uses would be substantially reduced, compared with excavation and foundation activities. Construction management practices would be developed and implemented to minimize the effects of construction-related changes in access to land uses in the vicinity of the development parcels. Other changes, such as limited sidewalk closures, would also affect people living and working in the surrounding area, but implementation of the construction management practices would minimize the effects of these closures. In sum, there would be no significant adverse impacts on land use due to construction activity.

As described earlier, to accommodate short-term public parking demand during construction, the proposed Flushing Commons project would also include interim parking at three off-site locations. All of the sites currently contain parking facilities, and the proposed project would increase the capacity at each site during construction. All except Municipal Lot 2 are accessory parking facilities. The existing Flushing Mall site—currently developed with a mix of one- and two-story retail buildings with surface and below-grade accessory parking—would be demolished at the Fulton/Max lot to develop additional parking, but the site would be redeveloped upon completion of the proposed project.[1] Therefore, the additional parking would not result in a new or different land use at each location.

ZONING

The off-site interim parking facilities would require special permits from the City Planning Commission (CPC) pursuant to Zoning Resolution (ZR) Section 74-512 (Parking Garages or Public Parking Lots Outside High Density Central Areas). The waterfront parking lot at 37-02 College Point Boulevard (Block 4963, Lot 85) is located in both a C4-2 zoning district and on a Waterfront Block that is subject to the Zoning Resolution's Special Waterfront Area regulations (ZR Section 62). The waterfront lot is also located on Parcel 2 of the Downtown Flushing Waterfront Access Plan. According to the Waterfront Area regulations (ZR Section 62-952), development on Parcel 2 must provide (1) an upland connection from College Point Boulevard to the Flushing River shoreline, (2) a shore public walkway along the shoreline with a minimum width of 20 feet, and (3) maintain an unobstructed visual corridor from College Point Boulevard to the pier head line that would be westward prolongation of 37th Avenue. The special permit for this waterfront lot would also be pursuant to ZR Section 62-835 (Public Parking Facilities on Waterfront Blocks) for an interim public parking lot to be operated along the waterfront, for a maximum term of not more than ten years.

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[1] As described in Chapter 1, "Project Description," with or without the proposed action, the existing Flushing Mall would ultimately be demolished and is therefore its demolition and displacement of existing businesses is considered in the future condition without the proposed action.

The proposed action includes a zoning text amendment to ZR Section 62-952 (Waterfront Access Plan Q-2, Downtown Flushing) to exempt interim parking lots from the access, public walkway, and visual corridor requirements. This text amendment would only apply to the waterfront lot, Parcel 2 of the Downtown Flushing Waterfront Access Plan.

SOCIOECONOMIC CONDITIONS

Construction activities may include limited curb lane and/or sidewalk closures for different stages of construction. However, the sidewalk and lane closures would occur on the side of streets abutting the site where there are no existing businesses. Therefore, no adverse impacts to surrounding businesses are expected to occur as a direct effect of construction activities.

The Flushing Commons project site currently contains Municipal Lot 1, which provides a shared parking resource for a large retail district that also contains office buildings and a transportation hub. Thus, the changes to parking supply during the Flushing Commons project's construction are a sensitive issue for the surrounding retail community.

During the construction period, the proposed action would temporarily displace nearly all of the parking capacity on the site. As discussed above, an interim parking plan would provide 1,144 parking spaces at three off-site parking lots (the College Point lot, the Fulton/Max lot, and Municipal Lot 2). The College Point lot, which is located on the waterfront at College Point Boulevard, three blocks west of the project site and two blocks from Main Street, is currently underutilized and can be expanded to accommodate 309 spaces. The Fulton/Max lot, located west of the Flushing Commons project site at the site of the existing Flushing Mall, would accommodate 647 additional temporary spaces. Additional parking would also be provided by expanding the existing Municipal Lot 2 located west of the Flushing Commons project site on the east side of Prince Street between 38th and 39th Avenues, adding approximately 188 additional spaces. In total, the interim parking plan would provide 1,144 parking spaces during construction of the proposed Flushing Commons project. As a result, there would be little overall change in the number of spaces available during construction. Thus, while it would likely be somewhat less convenient and cause longer walking times to downtown retailers, sufficient parking capacity would remain during the construction period to serve the downtown retail community, and the temporary effects during the construction period would not jeopardize the viability of existing retail stores.

Construction would create major direct benefits resulting from expenditures on labor, materials, and services, as well as substantial indirect benefits created by expenditures by material suppliers, construction workers, and other employees involved in the direct activity. Construction would also contribute to increased tax revenues for the City and State, including those from personal income taxes. Local businesses may also expect increased sales from construction worker spending (i.e., coffee, food, convenience products).

In summary, there would be no significant adverse impacts on socioeconomic conditions from construction.

COMMUNITY FACILITIES AND SERVICES

Construction activities would result in some interruptions to activities in the surrounding area, with limited curb lane and/or sidewalk closures along 38th Street, 39th Avenue, and portions of 37th Avenue and Union Street. However, access to the existing Macedonia AME Church would be maintained throughout construction, and all of the streets affected would remain accessible to emergency vehicles. Coordination with both the New York Police Department and the Fire

Department of New York would be undertaken throughout the construction period to ensure that unimpeded emergency access and adequate emergency response could be achieved. In sum, there would be no significant adverse impacts on community facilities and services from construction.

HISTORIC RESOURCES

PROJECT SITE

Archaeological Resources

Construction activities for the Flushing Commons development would entail subsurface disturbance across the entire Flushing Commons project site, including two areas that have been determined to have potential archaeological sensitivity. Therefore, before construction of the Flushing Commons project, Stage 1B archaeological field testing would be undertaken for these areas of potential sensitivity to conclusively determine whether there are any resources present in these areas that could be disturbed by the proposed Flushing Commons project. The protocol for the Stage 1B testing would be reviewed and approved by New York City Landmarks Preservation Commission (LPC). If resources are identified, an archaeological treatment plan would be developed and implemented in coordination with LPC to mitigate the project's effects on these resources. Any required mitigation would be determined based on the characteristics and significance of the resource, and could include archaeological excavation to record information about the find.

The Macedonia AME Church lot (Lot 46) and a portion of Lot 25 located to the north, south, and west of the church are located outside the Flushing Commons project site but within the rezoning area. Construction of the proposed Flushing Commons development would not require subsurface disturbance within the remainder of Lot 25 or within the existing Macedonia AME Church site, and the proposed rezoning is not expected to result in redevelopment of the existing Macedonia AME Church site. To preserve potentially intact burials, however, the Flushing Commons project would establish a no-impact zone of at least 15 feet around the west and south perimeters of the extant Macedonia AME Church lot before and during construction activities for the Flushing Commons development. On the south side of the church lot, the protective buffer would not need to extend beyond the former 38th Avenue roadbed, which has undergone extensive changes, including widening and utility installations. If Flushing Commons project-related subsurface excavations are necessary in this portion of the former 38th Avenue roadbed, archaeological monitoring may be appropriate. In this scenario, a protocol for monitoring would be developed in coordination with and approved by LPC.

The Macedonia Plaza project by the Macedonia AME Church is anticipated to require excavation to the south, west, and north of the existing church structure. LPC has recommended that the Macedonia Plaza development be redesigned to avoid the archaeological no-impact zone. Since the Macedonia Plaza project—as presently designed—would not observe the recommended archaeological no-impact zones on the north, west, and south sides of the extant church lot, the redevelopment of this area could adversely affect areas of sensitivity for possible human remains. Therefore, the Church would be required to consult with LPC to develop a plan that appropriately addresses: how the area with the potential sensitivity for burials would be appropriately archaeologically tested, and that any proposed subsurface construction work in the vicinity would be redesigned as much as possible in response to the results of the testing; what would occur should any burials be encountered; that the plan would be developed in consultation

with the appropriate descendant community; what would happen to any remains that may be encountered before testing occurs; and that all appropriate measures as approved by LPC would be completed. As the current plans for the Macedonia Plaza project include pilings within the areas of potential sensitivity, but no additional excavation, it is anticipated that only the piling locations would need to be archaeologically tested. Provisions related to the archaeological resources mitigation for the Macedonia Plaza project would be incorporated into the Land Disposition Agreement (LDA) between HPD and a sponsor/developer selected by HPD to develop the Macedonia site.

Architectural Resources

Construction of the proposed Flushing Commons and Macedonia Plaza projects would occur within 90 feet of the Macedonia AME Church building. Therefore, Flushing Commons would avoid potential adverse physical impacts on this historic resource through the implementation of a construction protection plan to be developed in consultation with LPC.

For the Macedonia Plaza project, the church would be required to develop and implement a construction protection plan, reviewed and approved by LPC, to protect the adjacent church building. The CPP would avoid potential significant adverse impacts to architectural resources associated with the proposed Macedonia Plaza project and would be required through provisions in the LDA between HPD and a sponsor/developer selected to redevelop the Macedonia site.

HAZARDOUS MATERIALS

The construction measures to avoid and minimize hazardous materials impacts are described above in "Abatement and Demolition." With these measures in place, there would be no anticipated adverse impacts resulting from the construction of the proposed Flushing Commons project.

TRAFFIC AND PARKING

This section presents the methodology and assumptions used to estimate the vehicular traffic volumes expected to be generated by the construction of the proposed action and an assessment of the probable impacts at key study area intersections during peak construction. The peak period of construction at Flushing Commons is projected to occur during the third and fourth quarters of 2012; the project is expected to be built and occupied in 2013.

PEAK CONSTRUCTION

Peak construction of the Flushing Commons project and Macedonia Plaza project is projected to occur during the third and fourth quarters of 2012. As noted in the Flushing Commons and AME Macedonia Church Preliminary Construction Traffic Schedules prepared by Tishman Construction Corporation of New York (see Appendix C), the average total numbers of construction workers and construction-related truck volumes during this peak construction would be 475 and 120 per day, respectively.

CONSTRUCTION TRIP GENERATION

Using the Tishman projections and transportation planning assumptions from recently approved studies, construction-generated traffic volumes were prepared for the weekday peak construction traffic hours of 6 to 7 AM and 3 to 4 PM, as presented in Table 18-2. Also shown are the corresponding 2013 project-generated AM (8-9) and PM (5-6) peak hour traffic volumes. In

comparison, the 6-7 AM construction-generated traffic would be 61 percent of the 8-9 AM project-generated traffic and the 3-4 PM construction-generated traffic would be 32 percent of the 5-6 PM project-generated traffic.

Table 18-2
Construction Trip Generation

Temporal Distribution					
	Worker-Trips[1]		Truck Trips[1]		
Hour	In	Out	In	Out	
6-7 AM	80%	0%	25%	25%	Construction Worker Auto Share[1] = 70%
3-4 PM	0%	80%	0%	0%	Construction Worker Auto Occ.[2] = 1.20

2012 Peak Construction Trip Projections: Flushing Commons & Macedonia Plaza

	Construction Workers				Construction Truck Trips[3] (in PCEs)		Total Vehicle-Trips		
	Person-Trips[3]		Auto-Trips						
Hour	In	Out	In	Out	In	Out	In	Out	Total
6-7 AM	380	0	222	0	60	60	282	60	342
3-4 PM	0	380	0	222	0	0	0	222	222

Table 18-2 (cont'd)
Construction Trip Generation

2013 Project-Generated Trips (see Chapter 14)

	Total Vehicle Trips (Autos, Taxis, and Trucks)		
Hour	In	Out	Total
8-9 AM	344	217	561
5-6 PM	279	419	697

Notes: 1 truck = 2 passenger car equivalent (PCEs)
Sources: 1. Coney Island Rezoning DEIS, 1/16/09
2. NYCDOT recommendation: "as similar values were used in the Hunter's Point Rezoning, Coney Island Rezoning, and Gateway Estates II EISs"
3. Tishman Construction Corp. of NY; data derived from Flushing Commons and Macedonia Plaza preliminary construction traffic schedules

CONSTRUCTION TRIP ASSIGNMENT

The trip assignments are based on the One-Way Pair Contra-Flow configuration in the study area (i.e., the conversion of Main Street from two-way to one way northbound and the conversion of Union Street from two-way to one way southbound, between Northern Boulevard and Sanford Avenue, respectively, with contra-flow bus lanes traveling southbound on Main Street and northbound on Union Street). The trip assignments account for the re-assignment of displaced Municipal Lot 1 parkers, incorporate construction worker vehicle trips, and overlay construction truck trips.

During construction, vehicle trips pertained to Municipal Lot 1 would be displaced. These trips were re-assigned to three interim parking lots (see Table 18-3) located to the west of the site: Municipal Lot 2, Fulton/Max Lot, and College Point Lot. The College Point Boulevard and Fulton/Max parking lots would provide interim public parking during the time the Flushing Commons project is under construction. Once the Flushing Commons project and the new approximately 1,600-space parking garage are completed, these two lots would no longer be used for public parking. Municipal Lot 2 is an existing facility that would be expanded during

construction when Municipal Lot 1 closes and the New York City Economic Development Corporation (NYCEDC) intends to operate the lot this way both during the construction period and after the completion of Flushing Commons.

Table 18-3
Interim Public Parking Supply

Parking Site	Total # of Parking Spaces	Net Available Parking Spaces
College Point Lot	309	309
Fulton Max Lot	647	647
Municipal Lot 2	275	178
Total	**1,231**	**1,134**

Projected vehicle trips, entering/exiting Municipal Lot 1 from its six driveways, were rerouted to the interim parking lots based on the percentage of available parking spaces that each lot has available. The College Point and Fulton Max Lots would be new parking facilities; therefore, all spaces would be available to displaced Municipal Lot 1 parkers. Municipal Lot 2, which would be expanded from 87 to 275 spaces, is projected to have a parking demand of 97 spaces[2] in 2012. Hence, 178 spaces would be available to accommodate displaced parkers.

Displaced Parkers from Municipal Lot 1

The trip assignments used for the displaced parker vehicle trips were modeled after the trip assignments in the 2013 Build scenario. Like the Build scenario, trips were assumed to enter the study area from the east via Northern Boulevard and Roosevelt Avenue, from the west via Northern Boulevard, and from the south via Main Street. Vehicles are expected to exit the study area at the same locations except Main Street where traffic traveling south would utilize College Point Boulevard instead.

Construction Worker Trips

The trip assignments used for construction worker vehicle trips emulated the construction trip assignments in the Willets Point Final Environmental Impact Statement (FEIS). Willets Point is located adjacent to the Flushing Commons study area to the west with several intersections in common with the Flushing Commons study area intersections. In the Willets Point study, trips were assigned to Astoria Boulevard and Northern Boulevard to/from the northwest, Roosevelt Avenue to/from the west and the east, College Point Boulevard to/from the south and north, and Northern Boulevard from the northeast. The same general trip distribution patterns were utilized for the assignment of the proposed Flushing Commons and Macedonia Plaza projects' construction worker vehicle trips. These patterns, however, were refined to reflect the location of Flushing Commons east of the Flushing River and the local roadways that serve the site. For trips entering the study area from the northwest, Astoria Boulevard and Northern Boulevard trip assignments were combined and applied to Northern Boulevard where it enters the study area. The trips assigned to College Point Boulevard to/from the south were evenly redistributed between College Point Boulevard, Main Street, and Kissena Boulevard.

[2] 2012 parking demand calculated based on an annual growth rate of 1.25 percent.

Construction Truck Trips

All construction truck trips were assigned to New York City designated local and through truck routes and access the site at a dedicated entrance/exit on 138th Street between 37th Avenue and 39th Avenue, opposite the intersection with 38th Avenue.

CONSTRUCTION WORKER PARKING

As stated above, peak construction is expected to yield 475 daily construction workers. At an auto share of 70 percent and a vehicle-occupancy of 1.20, the daily construction parking demand would be approximately 277 spaces. Construction workers driving to the project site would be provided with two parking options: on-site parking with access via 37th Avenue between Union Street and 138th Street; and the Queens Crossing parking garage with access on 38th Avenue between Main Street and 138th Street. On-site parking during construction would accommodate up to 100 vehicles. Although the Queens Crossing development is completed and fully occupied, its 402-space garage's peak utilization, based on a 2009 survey, was just over 20 percent, leaving over 300 available spaces. Therefore, during 2012 peak construction, parking for all construction workers is expected to be accommodated at these two facilities.

2012 NO BUILD AND CONSTRUCTION BUILD TRAFFIC VOLUMES

The 2012 construction No Build peak hour traffic volumes were derived from the existing peak hour traffic volumes using ATR data (at a selected number of locations), background growth, and No Build traffic increments. The ATR data show that existing traffic volumes from the 6-7 AM and 3-4 PM construction peak hours represent 37 and 92 percent of the traffic volumes from the 8-9 AM and 5-6 PM operational peak hours, respectively. These factors were applied to the existing peak hour traffic volumes to yield the construction baseline traffic volumes. Next, the adjusted baseline traffic volumes were grown by 1.25 percent per year to 2012. The total trips generated by No Build projects scheduled for completion in 2013 were then conservatively added, with the assumption that the one-year difference in completion of the No Build projects between 2012 and 2013 would not be significant for the purpose of projecting future background traffic volumes. To generate the 2012 construction Build peak hour traffic volumes, the above was followed by the re-assignment of Municipal Lot 1 traffic to the interim parking facilities and layering the 2012 construction worker and truck trips described above (collectively referred to as the incremental construction traffic volumes).

CONSTRUCTION TRAFFIC ANALYSIS

Following a review of the vehicular trip generation estimates and the total projected AM and PM construction-peak hour traffic volumes during the peak construction phase, NYCDOT identified five intersections to be analyzed for potential construction impacts for the weekday construction 3-4 PM peak hour only. These five intersections are:

- Northern Boulevard at Union Street (signalized);
- Northern Boulevard at Main Street (signalized);
- Northern Boulevard at Prince Street (signalized);
- Main Street at 37th Avenue (signalized), and
- 138th Street at 38th Avenue (unsignalized).

The projected 2012 construction No Build, incremental, and Build PM peak hour traffic volumes at these five intersections are shown in Figure 18-2, Figure 18-3, and 18-4, respectively. A comparison of projected traffic volumes at all study area intersections for the 2012 construction No Build and Build PM peak hour conditions is included in Appendix C Construction. Level of service analysis results are summarized in Table 18-4.

Table 18-4
2012 Construction No Build and Build Weekday PM Peak Hour LOS Results

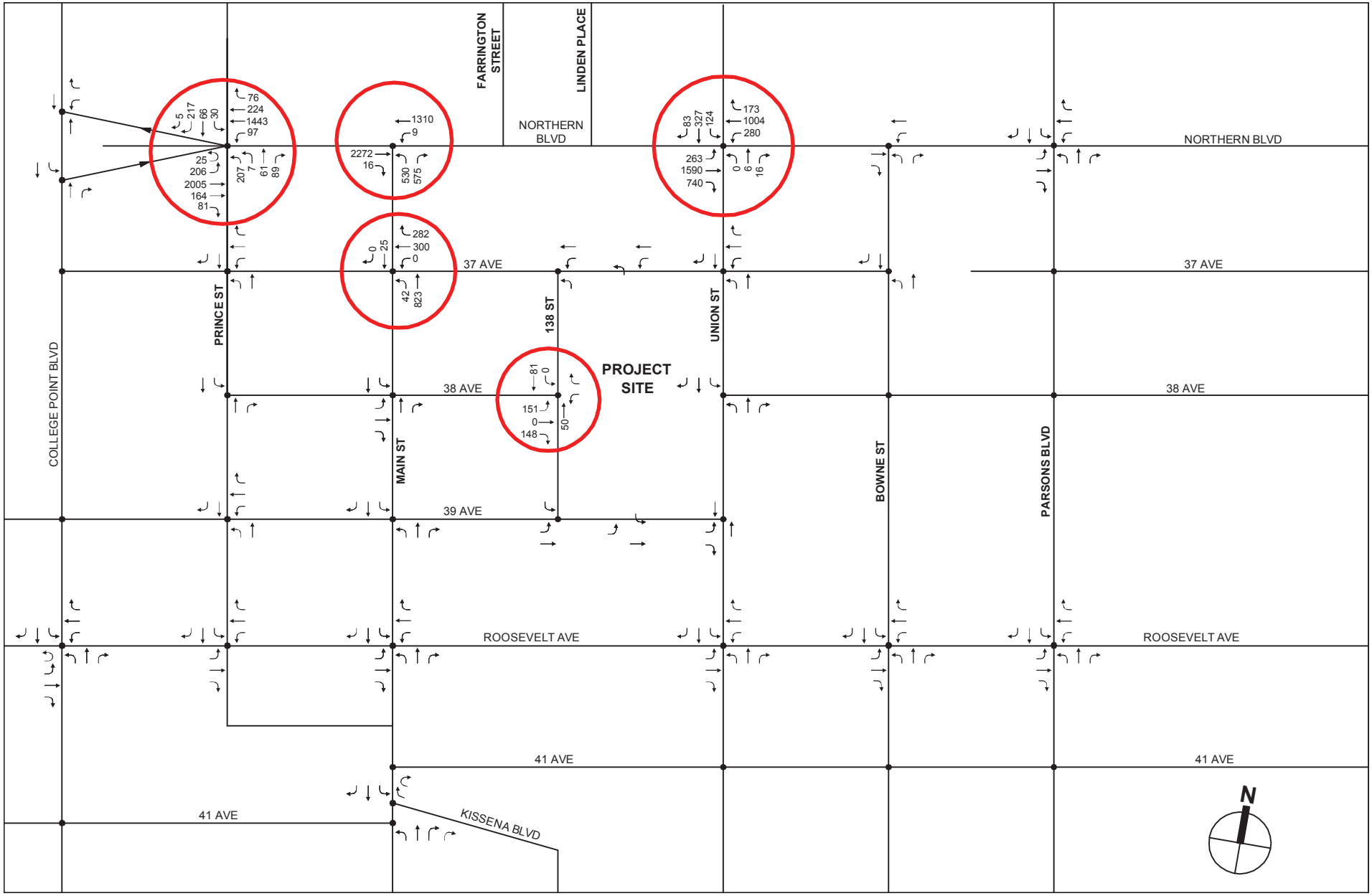
INTERSECTION	LANE GROUP	MOVEMENT	2012 Without Construction V/C RATIO	2012 Without Construction AVG. DELAY (sec/veh)	2012 Without Construction LOS	2012 With Construction V/C RATIO	2012 With Construction AVG. DELAY (sec/veh)	2012 With Construction LOS	IMPACT?
SIGNALIZED INTERSECTIONS									
Northern Blvd / Prince Street	EB Main Rd	L	0.96	79.5	E	1.38	230.0	F	yes
		T	0.85	23.9	C	0.81	22.1	C	
	EB Serv Rd	TR	0.15	12.0	B	0.23	12.8	B	
	WB Main Rd	L	0.84	103.0	F	1.30	239.4	F	yes
		T	0.75	29.0	C	0.71	27.8	C	
	WB Serv Rd	TR	0.26	24.6	C	0.32	25.4	C	
	NB	LTR	1.91	474.5	F	2.54	755.0	F	yes
	SB	LTR	0.63	46.0	D	0.62	45.8	D	
	Overall			62.6	E		107.0	F	
Northern Blvd / Main Street	EB	TR	0.91	29.4	C	0.93	30.5	C	
	WB	L	0.06	37.9	D	0.06	37.9	D	
		T after L	0.10	51.3	D	0.10	51.3	D	
		T	0.70	13.2	B	0.73	13.8	B	
	NB	L	1.34	211.0	F	1.29	191.5	F	
		R	1.56	301.1	F	1.55	295.1	F	
	Overall			78.4	E		74.4	E	
37th Ave / Main Street	WB	TR	1.07	100.0	F	1.03	84.1	F	
	NB	LT	0.45	2.2	A	0.52	2.6	A	
	SB	T	0.03	8.6	A	0.03	8.6	A	
	Overall			41.7	D		33.8	C	
Northern Blvd / Union Street	EB	L	1.16	132.3	F	1.20	149.6	F	yes
		T	0.82	30.4	C	0.89	34.2	C	
		R	1.46	252.7	F	1.26	167.3	F	
	WB	L	1.24	167.5	F	0.66	40.2	D	
		TR	0.69	26.0	C	0.73	26.8	C	
	NB	LTR	0.13	29.8	C	0.13	29.8	C	
	SB	LTR	0.75	44.7	D	0.75	44.7	D	
	Overall			81.9	F		60.0	E	
UNSIGNALIZED INTERSECTION									
38th Ave / 138th Street	EB	L	0.20	10.4	B	0.27	11.2	B	
		R	0.18	9.6	A	0.19	10.0	B	

In accordance with significant impact criteria in the *CEQR Technical Manual*, lane groups or approaches at two of the five analyzed intersections are projected to be significantly impacted during construction, as follows:

- Northern Boulevard and Prince Street (left turn from eastbound main roadway; left turn from westbound main roadway; and the northbound approach); and
- Northern Boulevard and Union Street (eastbound left turn).

Both of these intersections would also be significantly impacted in the 2013 Build condition during the 5-6 PM peak hour. In the 2013 mitigated Build condition, the PM peak hour impacts at the Northern Boulevard/Prince Street intersection would remain unmitigated (see Chapter 20,

10.29.09



NOTE: Volumes were rounded to the nearest integer

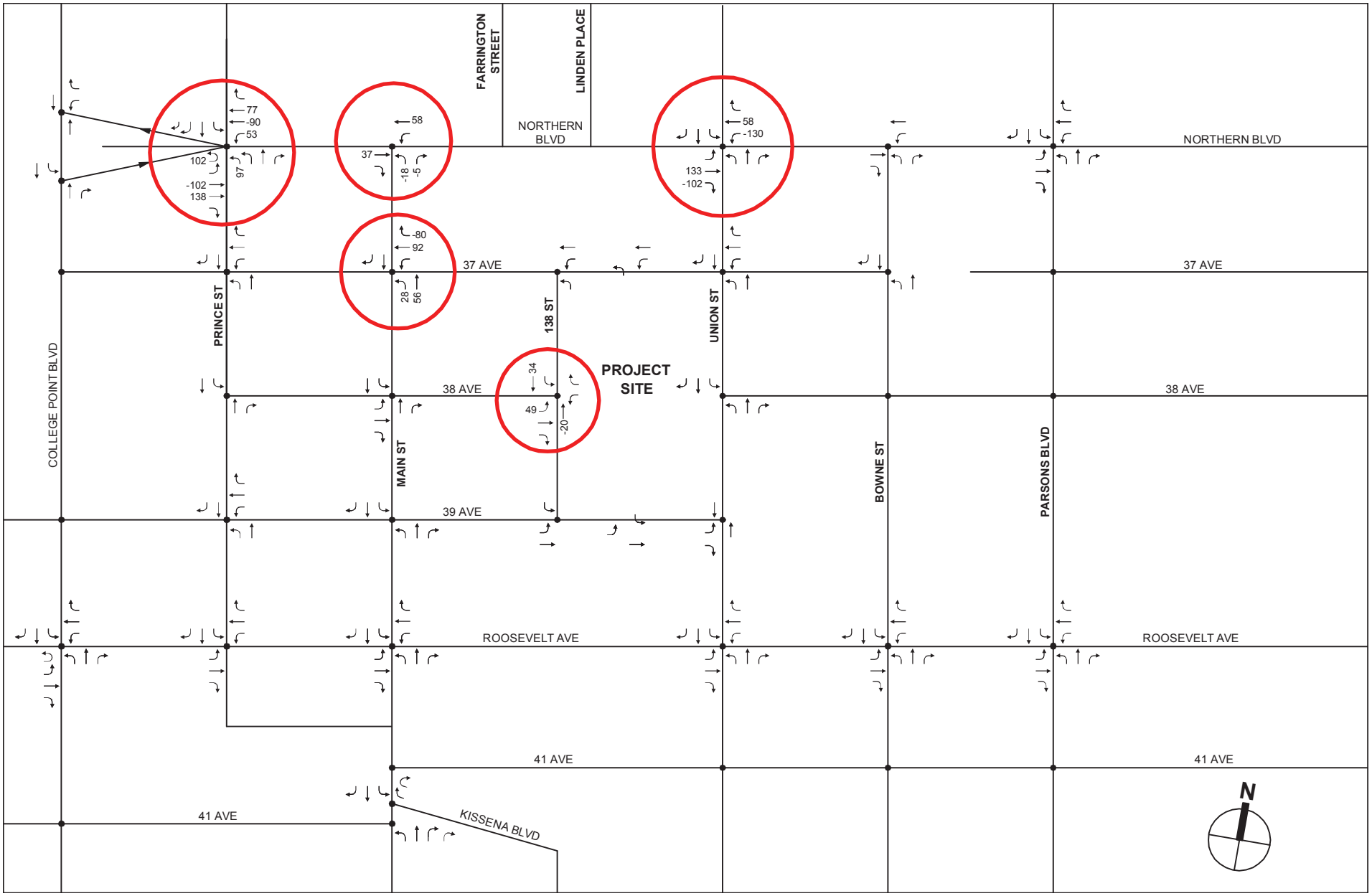
Analyzed Intersection

2012 Traffic Volumes without Construction • PM Peak Hour

Figure 18-2

Flushing Commons

10.29.09



NOTE: Volumes were rounded to the nearest integer

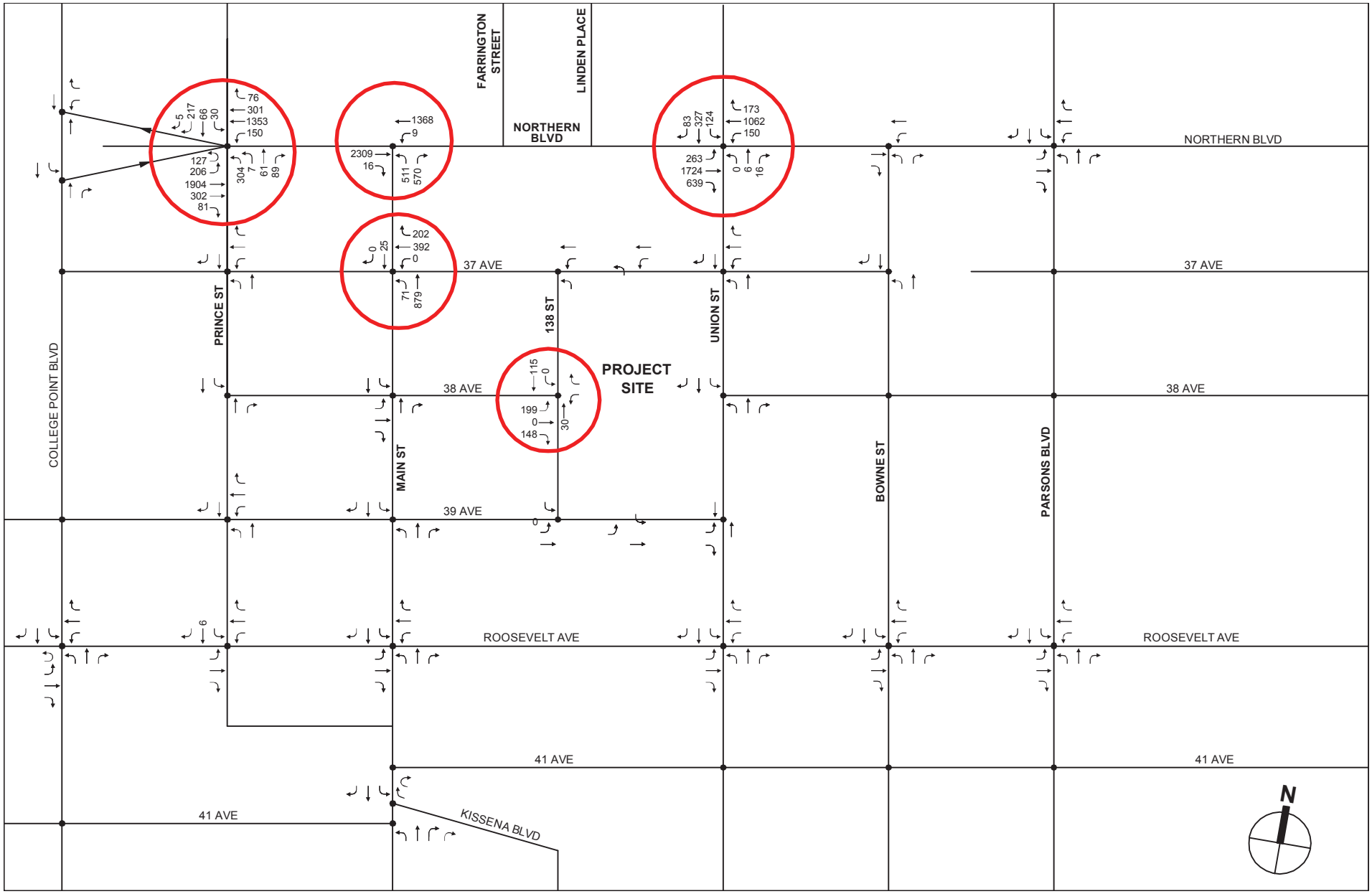
Analyzed Intersection

2012 Incremental Traffic Volumes • PM Peak Hour

Figure 18-3

Flushing Commons

10.29.09



Analyzed Intersection

NOTE: Volumes were rounded to the nearest integer

2012 Traffic Volumes with Construction • PM Peak Hour

Figure 18-4

Flushing Commons

"Mitigation"), a condition that would also prevail for the 2012 construction Build 3-4 PM peak hour. For the Northern Boulevard/Union Street intersection, unlike the 2013 mitigated Build condition, where the 5-6 PM peak hour impact would remain unmitigated, the 2012 construction Build 3-4 PM peak hour impact could be mitigated with reallocating two seconds of green time from the east-west permissive phase to the east-west dual left-turn phase. Table 18-5 provides a summary of the mitigation analysis results.

Table 18-5
2012 Construction No Build, Build, and Mitigated Build Weekday PM Peak Hour LOS Results

INTERSECTION	LANE GROUP	MOVEMENT	2012 Without Construction			2012 With Construction			IMPACT?	2012 With Construction: Mitigated			Impact Mitigated?
			V/C RATIO	AVG. DELAY (sec/veh)	LOS	V/C RATIO	AVG. DELAY (sec/veh)	LOS		V/C RATIO	AVG. DELAY (sec/veh)	LOS	
SIGNALIZED INTERSECTIONS													
Northern Blvd / Prince Street	EB Main Rd	L	0.96	79.5	E	1.38	230.0	F	yes	1.38	230.0	F	no
		T	0.85	23.9	C	0.81	22.1	C		0.81	22.1	C	
	EB Serv Rd	TR	0.15	12.0	B	0.23	12.8	B		0.23	12.8	B	
	WB Main Rd	L	0.84	103.0	F	1.30	239.4	F	yes	1.30	239.4	F	no
		T	0.75	29.0	C	0.71	27.8	C		0.71	27.8	C	
	WB Serv Rd	TR	0.26	24.6	C	0.32	25.4	C		0.32	25.4	C	
	NB	LTR	1.91	474.5	F	2.54	755.0	F	yes	2.54	755.0	F	no
	SB	LTR	0.63	46.0	D	0.62	45.8	D		0.62	45.8	D	
	Overall			62.6	E		107.0	F			107.0	F	
Northern Blvd / Union Street	EB	L	1.16	132.3	F	1.20	149.6	F	yes	1.14	126.9	F	yes
		T	0.82	30.4	C	0.89	34.2	C		0.93	39.3	D	
		R	1.46	252.7	F	1.26	167.3	F		1.32	193.4	F	
	WB	L	1.24	167.5	F	0.66	40.2	D		0.61	36.4	F	
		TR	0.69	26.0	C	0.73	26.8	C		0.76	29.2	C	
	NB	LTR	0.13	29.8	C	0.13	29.8	C		0.13	29.8	C	
	SB	LTR	0.75	44.7	D	0.75	44.7	D		0.75	44.7	D	
	Overall			81.9	F		60.0	E			64.5	F	

In addition to the proposed mitigation measure described above, it is proposed that parking regulations on the north side of 38th Avenue, east of Main Street be modified during construction to "No Standing Anytime" for a distance of approximately 100 feet to accommodate northbound trucks turning right from Main Street onto 38th Avenue.

INTERIM PARKING PLAN

As described above, interim parking at three off-site locations would be provided during construction of the proposed Flushing Commons project. With these interim parking areas, there would be no net loss of public parking spaces during construction. The overall traffic volumes associated with the existing parking facility would be re-circulated within the surrounding area, and no overall increase or decrease in volumes within the existing Downtown Flushing network is expected. Furthermore, as detailed above, construction-related parking demand would be fully accommodated on-site and at the adjacent Queens Crossing parking garage.

To ensure that parkers are fully informed of the interim parking plan, the interim changes to parking areas (regarding their location, access, and availability of spaces) would be clearly communicated through signage posted on and in the immediate vicinity of the site and throughout the Downtown Flushing area. Information regarding parking would also be provided to the surrounding community. It is anticipated that parking guides (i.e., maps, directions, and rates) in multiple

language formats would be available on-line and circulated in the community through the Flushing Business Improvement District or other entities, and directly to downtown businesses.

TRANSIT AND PEDESTRIANS

TRANSIT

As discussed above, with 70 percent of the construction workers predicted to commute via auto, the remaining 30 percent are expected to travel to and from the project site via transit. During the peak quarters of construction in 2012, up to 475 workers could be at the site on a given day. This would result in up to 114 construction-related transit trips during the 6-7 AM and 3-4 PM construction peak hours, respectively. Since the study area is well served by various subway lines and bus routes, only nominally incremental increases in transit demand would be experienced along each of those routes and at each of the transit access locations (fewer than the CEQR threshold of 200 trips each). Furthermore, with these trips also occurring during hours outside of the typical commuter peak periods, incremental construction transit trips are not expected to result in significant adverse impacts to transit services and station facilities.

PEDESTRIANS

For the same reasons discussed above, with respect to transit operations, a detailed pedestrian analysis to address the projected demand from the travel of construction workers to and from the site is also not warranted. Construction activities during peak construction periods in the peak quarters of 2012 would yield up to approximately 380 pedestrian trips during the 6-7 AM and 3-4 PM construction peak hours. Considering that these pedestrian trips would primarily occur outside of peak hours and be distributed among numerous sidewalks and crosswalks in the area, there would not be a potential for significant adverse pedestrian impacts attributable to the projected construction worker pedestrian trips. During construction, where temporary sidewalk closures are required, adequate protection or temporary sidewalks and appropriate signage would be provided in accordance with NYCDOT requirements.

AIR QUALITY

During construction, emissions from on-site construction equipment and on-road construction-related vehicles, and their effect on background traffic, have the potential to impact air quality.

In general, most construction engines are diesel-powered and produce relatively high levels of nitrogen oxides (NO_X) and particulate matter (PM). Construction activities also emit fugitive dust. Although diesel engines emit much lower levels of carbon monoxide (CO) than gasoline engines, the stationary nature of construction emissions and the large quantity of engines could lead to elevated CO concentrations, and impacts on traffic could increase mobile source-related emissions of CO as well. Therefore, the pollutants of concern for the construction period are NO_2, CO, particles with an aerodynamic diameter of less than or equal to 10 micrometers (PM_{10}), and particles with an aerodynamic diameter of less than or equal to 2.5 micrometers ($PM_{2.5}$). Ultra-low-sulfur diesel (ULSD) is now easily available and can be used in almost any diesel engine. Therefore, it is expected that the vast majority of equipment would used ULSD. Sulfur oxides (SO_x) emitted from those construction activities would be negligible and would not result in a significant emissions of sulfur dioxide (SO_2).

Construction activity in general, and large-scale construction in particular, has the potential to adversely affect air quality as a result of diesel emissions. The main component of diesel exhaust

that has been identified as having an adverse effect on human health is fine PM. To ensure that the construction would result in the low diesel particulate matter (DPM) emissions, the following would be implemented:

- **Diesel Equipment Reduction**. The construction of the Flushing Commons project would minimize the use of diesel engines and use electric engines operating on grid power instead, to the extent practicable. Construction contracts would specify the use of electric engines where practicable and ensure the distribution of power connections throughout the area as needed. Equipment that would use grid power instead of diesel engine power would include, but may not be limited to, tower cranes, personnel/material hoists, and small compressors. This would also eliminate some generators that would normally be needed for construction equipment. Forklifts would be either electric powered or use natural gas to the extent practicable.
- **Clean Fuel**. ULSD would be used for diesel engines throughout the site. This would enable the use of tailpipe reduction technologies (see below) and would directly reduce DPM and SO_x emissions.
- **Best Available Tailpipe Reduction Technologies**. Nonroad diesel engines with a power rating of 50 horsepower (hp) or greater and controlled truck fleets (i.e., truck fleets under long-term contract with the project sponsor, such as concrete mixing and pumping trucks) would use the best available tailpipe technology for reducing DPM emissions. Diesel particle filters (DPFs) have been identified as the tailpipe technology currently proven to have the highest reduction capability. The construction contracts would specify that all diesel nonroad engines rated at 50 hp or greater would to the extent possible use DPFs, either original equipment manufacturer (OEM) or retrofit technology that would result in emission reductions of DPM of at least 90 percent (when compared with equivalent uncontrolled diesel engines). Ninety percent reduction has been verified by a study of actual reductions of $PM_{2.5}$ emissions from comparable engines used at a New York City construction site. Controls may include active DPFs, if necessary.
- **Use of Tier 2 or Newer Equipment**. In addition to the tailpipe controls commitments, the construction specifications would mandate the use of Tier 2[3] or later construction equipment for nonroad diesel engines greater than 50 hp. The use of "newer" engines, especially Tier 2, is expected to reduce the likelihood of DPF plugging due to soot loading (i.e., clogging of DPF filters by accumulating particulate matter). The more recent the "Tier," the cleaner the engine for all criteria pollutants, including PM. Additionally, while all engines undergo some deterioration over time, newer as well as better maintained engines emit less PM than their older Tier or unregulated counterparts. Therefore, restricting site access to equipment with lower engine-out PM emission values would enhance this emissions reduction program and implementation of DPF systems as well as reduce maintenance frequency due to soot loading (i.e., less downtime for construction equipment to replace clogged DPF filters). In

[3] The first federal regulations for new nonroad diesel engines were adopted in 1994, and signed by EPA into regulation in a 1998 Final Rulemaking. The 1998 regulation introduces Tier 1 emissions standards for all equipment 50 hp and greater and phases in the increasingly stringent Tier 2 and Tier 3 standards for equipment manufactured in 2000 through 2008. In 2004, The EPA introduced Tier 4 emissions standards with a phased-in period of 2008 to 2015. The Tier 1 through 4 standards regulate the EPA criteria pollutants, including particulate matter (PM), hydrocarbons (HC), oxides of nitrogen (NO_x) and CO. Prior to 1998, emissions from nonroad diesel engines were unregulated. These engines are typically referred to as Tier 0.

addition, to minimize hourly emissions of NO_2 to the maximum extent practicable, non-road diesel-powered vehicles and construction equipment meeting or achieving the equivalent the EPA Tier 3 Non-road Diesel Engine Emission Standard would be used in construction, and construction equipment meeting Tier 4 would be used where conforming equipment is widely available in New York City, and the use of such equipment is practicable.

- **Location of Sources Away from Sensitive Land Uses**. In addition, to reduce the resulting concentration increments at nearby sensitive receptors, large emissions sources and activities, such as concrete trucks and pumps, would be located away from residential buildings, to the extent practicable.
- **Dust Control**. Fugitive dust control plans would be required as part of contract specifications. For example, stabilized truck exit areas would be established for washing the wheels of all trucks that exit the site. Truck routes within the site would be either watered as needed or, in cases where such routes would remain in the same place for an extended duration, the routes would be stabilized, covered with gravel, or temporarily paved to avoid the resuspension of dust. In addition to regular cleaning by the City, area roads would be cleaned as frequently as needed. All appropriate fugitive dust control measures—including watering of exposed areas and dust covers for trucks—would be employed. All necessary measures would be implemented to ensure that the New York City Air Pollution Control Code regulating construction-related dust emissions (Section 1402.2-9.11) is followed. The fugitive emissions reduction program would reduce $PM_{2.5}$ emissions by at least 50 percent for stockpiles and handling of excavated materials.

Additional measures would be taken to reduce pollutant emissions during construction of the proposed Flushing Commons project in accordance with all applicable laws, regulations, and building codes. These include the restriction of on-road vehicle idle time to 3 minutes for all vehicles that are not using the engine to operate a loading, unloading, or processing device (e.g., concrete- mixing trucks).

Overall, the above described program is expected to significantly reduce DPM emissions. These measures have become increasingly standard and are readily incorporated into construction cost estimates as they become the norm. ULSD is readily available from most diesel fuel suppliers at costs comparable to regular diesel fuel. DPF's are easily available at low cost and do not markedly increase operating cost.

Under both New York State and New York City Environmental Quality Review regulations, the determination of the significance of impacts is based on an assessment of the predicted intensity, duration, geographic extent, and the number of people who would be affected by the predicted impacts. Guidelines for assessing potential impacts from NO_X, CO, and $PM_{2.5}$ are discussed in Chapter 16, "Air Quality." While it is possible that the construction activities may exceed certain thresholds used for assessing the potential for significant adverse air quality impacts, any exceedance would be limited in extent, duration, and severity. The site is large and removed from any sensitive receptor. The majority of the construction would not affect the public. Based on the limited duration of these potential exceedances above threshold values, especially because of the distance from residences and schools, these limited potential increments greater than applicable thresholds are not expected to result in significant adverse impacts from construction activities.

NOISE

Impacts on community noise levels during construction of the proposed action can result from noise from construction equipment operation, and from construction vehicles and delivery vehicles

traveling to and from the site. Noise and vibration levels at a given location are dependent on the kind and number of pieces of construction equipment being operated, the acoustical utilization factor of the equipment (i.e., the percentage of time a piece of equipment is operating), the distance from the construction site, and any shielding effects (from structures such as buildings, walls, or barriers). Noise levels caused by construction activities would vary widely, depending on the phase of construction and the location of the construction relative to receptor locations.

A wide variety of measures can be used to minimize construction noise and reduce potential noise impacts. A noise mitigation plan is required as part of the New York City Noise Control Code, and would include:

- source controls;
- path controls; and
- receptor controls.

In terms of source controls (i.e., reducing noise levels at the source or during most sensitive time periods), the following measures for construction would be implemented:

- The contractors would use equipment that meets the sound level standards for equipment (specified in Subchapter 5 of the New York City Noise Control Code) from the start of construction activities and use a wide range of equipment, including construction trucks, that produce lower noise levels than typical construction equipment.
- Where feasible, the project sponsors would use construction procedures and equipment (such as generators, concrete trucks, delivery trucks, and trailers) that are quieter than that required by the New York City Noise Control Code.
- As early in the construction period as practicable, diesel-powered equipment would be replaced with electrical-powered equipment, such as electric scissor lifts and electric articulating forklifts (i.e., early electrification).
- All contractors and subcontractors would be required to properly maintain their equipment and have quality mufflers installed.

In terms of path controls (e.g., placement of equipment and implementation of barriers between equipment and sensitive receptors), the following measures for construction would be implemented to the extent feasible:

- Noisy equipment, such as generators, cranes, trailers, concrete pumps, concrete trucks, and dump trucks, would be located away from and shielded from sensitive receptor locations, such as parks, residences, and institutions. For example, during the early construction phases of work, delivery and dump trucks, as well as many construction equipment operations, would be located and take place below grade to take advantage of shielding benefits. Once building foundations are completed, delivery trucks would operate behind noise barriers.
- Noise barriers would be used in consultation with NYCDEP to provide shielding if noise complaints are received from nearby residences. Truck deliveries would take place behind these barriers once building foundations are completed.

For impact determination purposes, significant adverse noise impacts are based on whether maximum predicted incremental noise levels at sensitive receptor locations off-site would be greater than the impact criteria suggested in the *CEQR Technical Manual* for two consecutive years or more. The impact criteria are explained in detail in Chapter 17, "Noise." While increases exceeding the CEQR impact criteria for one year or less may be noisy and intrusive,

they are not considered to be significant adverse noise impacts. The residential and institutional buildings already contain double-glazed windows and/or alternative ventilation (i.e., air conditioning), which would greatly reduce interior noise levels compared with exterior noise levels and may result in interior noise levels of 45 dBA or less. In addition, no night work is expected, and any exceedences of the CEQR criteria at sensitive locations would occur during day. Therefore, no long-term, significant adverse noise impacts are expected from construction activities.

NYCDOT MODIFIED TWO-WAY PROPOSAL

Subsequent to the publication of the DEIS, NYCDOT, through its ongoing efforts to improve vehicular and pedestrian traffic conditions in downtown Flushing, developed an alternative roadway configuration (Modified Two-Way) for further study. Although still a proposal, NYCDOT believes that the Modified Two-Way roadway scenario, which would essentially retain most of the existing roadway configuration for Main and Union Streets but would impose several turn prohibitions and a street direction reversal with the possibility of incorporating pedestrian space improvements, if implemented, may improve traffic flow and safety in downtown Flushing.

Based on the analysis results presented for the weekday PM peak hour in Table 14-21 for the One-Way Pair with Contra Flow bus lanes and in Table D-4 for the Modified Two-Way proposal, overall operations at the five intersections analyzed for peak construction in 2012 are expected to be more favorable with the Modified Two-Way network configuration. However, the construction impacts identified for the Northern Boulevard and Prince Street intersection would likely remain unmitigated even if the Modified Two-Way proposal is ultimately implemented by NYCDOT.

With regard to air quality and noise during construction, the analyses described above, which were prepared accounting for traffic projections based on the One-Way Pair with Contra Flow bus lanes roadway network, concluded that the proposed action would not result in any significant adverse air quality and noise impacts from construction activities. Since overall traffic operations are expected to be more favorable with the proposed Modified Two-Way roadway network, the proposed action would similarly not result in any significant adverse air quality and noise impacts during construction if the Modified Two-Way proposal is ultimately implemented. ✷