

A. INTRODUCTION

Consistent with the State Environmental Quality Review Act (SEQRA) and City Environmental Quality Review (CEQR) requirements, this chapter of this Draft Generic Environmental Impact Statement (DGEIS) examines alternatives to the proposed Willets Point Development Plan.

SEQRA and CEQR require the examination of a No Action Alternative, in which a proposed project would not be undertaken. The technical chapters of this DGEIS have described the No Action Alternative (referred to as “the future without the proposed Plan”) and have used it as the basis to assess the potential impacts and associated mitigation for the proposed Plan. CEQR also recommends the examination of alternatives that would have no unmitigated significant adverse impacts if unmitigated significant adverse impacts are predicted for a proposed project. In addition to the alternatives required for examination under SEQRA and CEQR, this chapter examines three other alternatives.

The five alternatives examined in this chapter are:

- A No Action Alternative;
- A No Unmitigated Impact Alternative;
- A Flushing Bridge Alternative;
- A Municipal Services Alternative; and
- A Staged Acquisition Alternative.

This analysis first examines the No Action Alternative, which describes the conditions that would exist if the proposed Plan were not implemented. The second alternative is the No Unmitigated Impact Alternative, which examines the level of development that would be necessary to avoid all the potential unmitigated impacts associated with the proposed Plan. Third is the Flushing Bridge Alternative, which assesses the proposed Plan with a new pedestrian bridge connecting the District and Downtown Flushing. The fourth alternative is the Municipal Services Alternative, which evaluates conditions that would be likely to occur if the District was not rezoned but additional municipal services were provided to the District. Finally, the fifth alternative in this analysis is the Staged Acquisition Alternative, in which properties in the District would be acquired and infrastructure developed over time.

This chapter does not specifically address the No Convention Center Scenario, as the effects of this scenario would not be materially different from the effects of the proposed Plan, and any significant adverse impacts would be the same under the proposed Plan and the No Convention Center Scenario.

PRINCIPAL CONCLUSIONS

NO ACTION ALTERNATIVE

The No Action Alternative assumes the continuation of industrial uses within the District without the mixed-use development proposed by the Willets Point Development Plan. However, since this alternative would allow the continued industrial use of the District, it would not allow for development of affordable housing, community facilities, and public open space. It also would not comprehensively remediate contaminated soils and groundwater, nor provide new sanitary and storm sewers; as a result, there would continue to be degraded water quality and potential impacts to aquatic biota through the continued discharge of wastewater, polluted stormwater, and sediments from the District to the Flushing River, Flushing Bay, and groundwater aquifers. Because the No Action Alternative would not develop new retail and entertainment uses, it would not generate the substantial economic and civic benefits resulting from the proposed Plan in the way of new jobs and tax revenues. Moreover, this alternative would not advance a number of the Downtown Flushing Development Framework's fundamental goals, including the creation of a regional destination that would enhance economic growth in Downtown Flushing and Corona, improvement of environmental conditions, and integration of new development in the District with surrounding amenities. The former Empire Millwork Corporation Building would remain under private ownership in the No Action Alternative and could be demolished as-of-right; mitigation measures such as photographic documentation would not be required.

NO UNMITIGATED IMPACT ALTERNATIVE

The No Unmitigated Impact Alternative explores modifications to the proposed Plan that would mitigate project impacts to historic resources, traffic, pedestrians, and noise:

- For historic resources, this alternative would avoid the demolition of the former Empire Millwork Corporation Building that would occur with the proposed Plan. Although this could be achieved through adaptive reuse, exterior elements such as windows and façades would still need to be upgraded to comply with building codes and noise attenuation requirements. Furthermore, the building is located below flood elevation, and its site could not be raised if it would remain. Therefore, flood protection measures such as gates or pumps would be required to comply with flood insurance requirements. Overall, this alternative would reduce the footprint of any new development, which would result in greater density in the remainder of the District, fewer housing units, less open space, or some combination of these possibilities. The preservation of this resource would also significantly constrain the design of the proposed Plan in ways that could make future development of the District more difficult and may undermine the benefits of the proposed Plan. As noted above, the former Empire Millwork Corporation Building could be demolished as-of-right under existing conditions, and mitigation measures such as photographic documentation would not be required.
- For traffic, the proposed Plan and anticipated development on Lots B and D would result in significant adverse traffic impacts that cannot be fully alleviated with practical mitigation measures. Because of existing congestion at a number of intersections, even a minimal increase in traffic would result in unmitigated impacts. Based on a sensitivity analysis of intersections within the study area, it was determined that the addition of five cars during the Saturday midday peak period would trigger an impact that cannot be fully mitigated. Thus,

- almost any new development in the District, including new industrial development that could be constructed as-of-right, would result in unmitigated traffic impacts, and no reasonable alternative could be developed to avoid such impacts.
- For pedestrian conditions, the proposed Plan and anticipated development on Lots B and D would result in significant adverse pedestrian impacts at four study area crosswalks that may not be fully mitigated because the widening of these crosswalks via restriping is limited by, per New York City Department of Transportation (NYCDOT) standards, the widths of the adjoining sidewalks. In order to make full mitigation possible, the incremental pedestrian volumes would have to be reduced by approximately 30 percent, and the parking associated with the Lot B development would have to be located on the north side of Roosevelt Avenue. This would require a substantial reduction in the development program.
 - In terms of noise, to avoid the significant adverse noise impact expected at one location (Receptor 3) during a single analysis period, project-generated traffic increases on roadways adjacent to Receptor 3 would have to decrease. Traffic-generated volumes would need to decrease by approximately 29 percent on Boat Basin Road and 12 percent at World's Fair Marina Park to eliminate the significant impact at Receptor 3. Such reductions would necessitate a substantial reduction in the proposed Plan development program, and no reasonable alternative could be developed to avoid such impacts without substantially compromising the proposed Plan's stated goals. The noise level anticipated at World's Fair Marina Park in the future with the proposed Plan frequently occurs at parks or portions of parks that are adjacent to heavily trafficked roadways.

FLUSHING BRIDGE ALTERNATIVE

The Flushing Bridge Alternative would result in the same development within the District as the proposed Plan, and any impacts and associated mitigation identified for the proposed Plan would also be the same for the Flushing Bridge Alternative. The bridge itself would occupy land outside the District, including mapped wetlands along the Flushing River and within a parking lot at the foot of 37th Avenue. The bridge would need to be designed and engineered to minimize any effects on these wetlands, and subsequent investigation would be required to determine the potential for archaeological sensitivity and whether areas of soil disturbance contain hazardous materials. Like the proposed Plan, the Flushing Bridge Alternative would result in substantial public benefits from redevelopment of the District. The Flushing Bridge Alternative would also improve pedestrian access to the District, would increase access to proposed open space, and would help integrate new development in the District with surrounding amenities.

The Flushing Bridge Alternative would require the same discretionary actions as the proposed Plan. In addition, this alternative would require approvals for the construction of the new pedestrian bridge. These would include acquisition of property, an easement, or a lease for right-of-way on state-owned property; approval by the New York State Department of Transportation (NYSDOT) and potentially Federal Highway Administration (FHWA) for construction of new structures above the Van Wyck Expressway ramps; approval by the New York State Department of Environmental Conservation (DEC) and potentially the U.S. Army Corps of Engineers (USACE) for construction above and adjacent to the Flushing River; and approval by the City of New York for acquisition of property, an easement, or a lease of private property within the view corridor of 37th Avenue east of the Flushing River.

MUNICIPAL SERVICES ALTERNATIVE

The Municipal Services Alternative would allow the continuation of industrial uses within the District but would provide for new public infrastructure (streets and utilities) to serve existing and future businesses. Unlike the proposed Plan, this alternative would not result in the creation of a dynamic, sustainable community that integrates regional attractions and residential, retail, and other uses. It would not provide for new affordable housing units, community facilities, or open space within the District. Also unlike the proposed Plan, the Municipal Services Alternative would not advance a number of the Downtown Flushing Development Framework's fundamental goals, including the creation of a regional destination that would enhance economic growth in Downtown Flushing and Corona, and integration of new development in the District with surrounding amenities.

Under the Municipal Services Alternative, the zoning of the District would not be changed, a URP would not be adopted, and a Special District would not be created. Similarly, the demapping or mapping of streets or acquisition of rights-of-way associated with the proposed Plan would not occur. As the improvements would largely be limited to public property, and existing private properties would remain developed with buildings at their current grade, this alternative presents more serious complications with respect to the feasibility of effectively upgrading the area's infrastructure than would whole-scale redevelopment of the District as would occur under the proposed Plan.

The existing storm sewer system in the area, which drains to outfalls at 126th Street and 127th Street, is insufficiently sized to accommodate the runoff that is currently being generated. To eliminate this deficiency, a new storm sewer system, including new piping and infrastructure, such as manholes and catch basins, would need to be installed. Based on the elevation of the existing streets and outfalls, and the various distances over which stormwater would be required to travel, there is not sufficient elevation in all areas of the District to make an adequately sized and properly functioning storm sewer system. A substantial portion of the streets in the southern portion of the District would have to be raised to a grade sufficient to allow the system to function hydraulically.

Unlike the proposed Plan, the Municipal Services Alternative would not result in the filling of District to flood elevation. The District streets would not be elevated to the 100-year floodplain elevation—to do so would be infeasible given that the grades of existing developed lots would remain at their current elevation. However, streets in a substantial portion of the District would need to be raised between approximately 1 and 3 feet. Such changes would create differences in elevation between the new streets and the existing lots that abut them, which would create a serious complication with respect to successfully engineering an effective drainage plan. Specifically, each lot would have to install pumps to convey stormwater from that lot into the new stormwater system, which would exist at a higher grade than the lot. Any private parcel requiring a pump and hook up to the stormwater system would be required to meet DEP pretreatment requirements. Pretreatment on certain lots may not be feasible due to lack of adequate space to install and operate the necessary equipment. While the provision of new storm sewer lines and new or expanded outfalls would decrease the frequency and severity of flooding in the District (assuming that pumps are installed on privately owned lots), there would still be potential for flooding during storm conditions, since much of the District, including the new streets, would remain below the 100-year floodplain.

Because the District would remain built out with industrial uses, unlike the proposed Plan, an on-site detention tank or other comparable detention feature necessary to avoid expanding the

existing outfalls or constructing a new outfall could not be provided. Therefore, in order to accommodate stormwater runoff generated onsite that is beyond the discharge capacity of the existing outfalls on 126th Street and 127th Street, these outfalls and sections of their piping would need to be reconstructed; alternatively, a new outfall could be provided in combination with rebuilding the existing outfalls, although that option would be the least cost effective. In order for the new storm sewer system to meet the DEC discharge water quality requirements, pretreatment of stormwater would be necessary prior to the point of discharge.

Although any necessary remediation of hazardous materials would be undertaken in areas of utility construction, a comprehensive remediation plan for the District would not be implemented, and some soil and groundwater would continue to be contaminated.

Similar to the proposed Plan, the Municipal Services Alternative would require a new pump station and main to transmit sanitary flow from the District to the existing 96-inch-diameter City sewer in 108th Street (which flows to the Bowery Bay Water Pollution Control Plant [WPCP]). The new pump station would most likely be constructed within the southern area of the District on a lot purchased from private lot owners, or alternatively would be constructed at a location outside the District. The sanitary force main route would be directed across the area occupied by the Citi Field parking lots to connect to the nearest system at 108th Street en route to the Bowery Bay WPCP.

The Municipal Services Alternative would not change the allowable development density of the District; however, it is likely that some new industrial uses could occur within the District once the new infrastructure has been provided. This potential new development would generate vehicle trips (although less than the proposed Plan), and like the proposed Plan, the Municipal Services Alternative could result in significant adverse traffic impacts at a majority of study area locations, given the substantial no-build traffic in the study area even without development from the proposed Plan. The Municipal Services Alternative would not result in the business relocation associated with the proposed Plan and would not result in permanent direct residential or business displacement; however, it may result in some temporary displacement of businesses to provide for an on-site pump station. Due to the extensive sewer reconstruction that would be required, some temporary displacement and access impacts may be relatively long term.

STAGED ACQUISITION ALTERNATIVE

The Staged Acquisition Alternative would result in a development program that is the same as the proposed Plan, but properties would be acquired and developed over time to allow the City additional time to find suitable relocation sites and to spread the cost of property acquisition and infrastructure improvements over time. It is anticipated that the western portion of the District would be developed by 2013, with the eastern portion of the site to be built out by 2017. The development would take place continuously throughout the 2009 to 2017 time period.

At full build-out, this Alternative would develop the District with the same gross floor area and mix of uses as the proposed Plan. In general, the most substantial differences between the Staged Acquisition Alternative and the proposed Plan are the timing of property acquisition and construction phasing. While the necessary remediation, grading, and infrastructure improvements would take place across the District at the beginning stages of construction for the proposed Plan, they would occur more incrementally under this alternative. This could require additional safeguards to ensure that existing hazardous materials contamination on the eastern portion of the District would not migrate to the western portion of the District subsequent to the remediation of the western properties. It could also require a more complex stormwater

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management plan, since new storm systems put in place prior to 2013 would need to ensure adequate retention and discharge of stormwater in the western portion of the District, and after 2013 would need to be integrated with new stormwater systems put in place in the eastern portion of the site to ensure efficient District-wide stormwater management. Roadway access to the eastern portion of the site would need to be maintained for several years while the western portion of the site is being developed, and until such time when the City acquires the eastern properties for development under the build-out.

The siting of uses would be the same under the Staged Acquisition Alternative and proposed Plan. The layout of the District's street grid would also be the same as under the proposed Plan. However, under the Staged Acquisition Alternative, new connections to the Van Wyck Expressway would conform to the existing street network. Before complete acquisition of the eastern portion of the District, east-west streets would be elevated above the floodplain in the western portion of the District, and would be graded to slope down to the existing streets to the east, allowing continued access to and from remaining businesses in the District. After acquisition of the eastern properties, streets in that area would be raised above the floodplain. Streets in the redeveloped western portion of the District that were constructed to slope down to existing eastern streets would be regraded to meet the new elevated streets to the east.

The Staged Acquisition Alternative, like the proposed Plan, would utilize E-designations and Restrictive Declarations to ensure that there would be no significant adverse impacts with respect to hazardous materials, noise attenuation, and air quality (specifically associated with heating, ventilation, and air conditioning [HVAC] systems).

In general, traffic generated in 2013 under the Staged Acquisition Alternative would be approximately 60 to 70 percent of the traffic generated under the full build-out of the Proposed Plan, or the full build-out of the Staged Acquisition Alternative. An examination of eight critical intersections during the Saturday midday non-game and Saturday pre-game peak hours indicates that, in general, the number of significant adverse traffic impacts in 2013 under the Staged Acquisition Alternative would be similar to those identified in the 2017 proposed Plan. Mitigation measures for 2013 would also be similar to those identified for the proposed Plan in 2017.

In 2013, the numbers of transit and pedestrian trips generated as a result of the Staged Acquisition Alternative would be substantially fewer than those projected for the proposed Plan. Nonetheless, the Staged Acquisition Alternative in 2013 is expected to result in significant adverse impacts at the same street-level subway stairway. Although the amount of stairway widening necessary for mitigation would be less in 2013, it is anticipated that the full widening that would take place with the proposed Plan would also take place under this alternative by 2013. Compared with the proposed Plan, the Staged Acquisition Alternative in 2013 would have significant adverse impacts on the same bus routes in the study area. However, under this alternative, the impacts would not be as severe, and fewer additional buses would be needed to mitigate the impacts. Similarly, this alternative in 2013 would yield fewer and less severe significant adverse pedestrian impacts than the proposed Plan in 2017, and mitigation measures would be less.

Like the proposed Plan, in 2013 and 2017 this alternative would not result in any significant adverse air quality impacts from either mobile or stationary sources.

Noise levels in 2017 with the Staged Acquisition Alternative would be the same as for the full build-out of the proposed Plan. However, unlike the proposed Plan, there would be no

significant adverse noise impacts in 2013 with the Staged Acquisition Alternative. As with the proposed Plan, window/wall attenuation measures would be included in buildings built in both 2013 and 2017 to achieve acceptable interior noise levels.

B. NO ACTION ALTERNATIVE

DESCRIPTION

The No Action Alternative has been discussed as the “future without the proposed Plan” in the technical chapters of this DGEIS. It assumes the continuation of industrial uses within the District and would not result in the creation of the mixed-use development proposed by the Willets Point Development Plan. As such, the No Action Alternative would not require acquisition and disposition of property within the District; rezoning of the District and creation of special district regulations; demapping of streets; or approval of a ramp connection to the Van Wyck Expressway. The No Action Alternative would also not result in the remediation of contaminated soils within the District; filling of the District to above flood elevation; or the creation of new streets, sewers, and other public infrastructure within the District.

NO ACTION ALTERNATIVE COMPARED WITH THE PROPOSED PLAN

The following sections compare conditions under the No Action Alternative with conditions with the proposed Plan.

LAND USE, ZONING, AND PUBLIC POLICY

The No Action Alternative would not alter existing land uses or the zoning within the District, and the continuation of industrial uses would be consistent with the areas to its north and east. Although the No Action Alternative, like the proposed Plan, would not result in adverse impacts on land use, zoning, and public policy, it would not provide the benefits that would be achieved through redevelopment of the District. The No Action Alternative would not create the Special Willets Point District and would not result in the creation of a dynamic, sustainable community that integrates regional attractions and residential, retail, and other uses. Because it would permit no other uses aside from industrial, the No Action Alternative would not advance a number of the Downtown Flushing Development Framework’s fundamental goals, including the creation of a regional destination that would enhance economic growth in Downtown Flushing, improvement of environmental conditions, and integration of new development in the District with surrounding amenities. The No Action Alternative would also not provide for new affordable housing units, community facilities, or open space within the District.

SOCIOECONOMIC CONDITIONS

The No Action Alternative would not result in direct or indirect residential or business displacement, would not require property acquisition or the relocation of businesses, and would not generate substantial new residents or employees in Queens. The existing auto-related and other businesses would continue to operate, and the one residential unit would remain.

The No Action Alternative would not contribute to the revitalization of the Willets Point Development District and surrounding area. The proposed Plan for the District includes a mix of residential, retail, hotel, convention center, entertainment, commercial office, community facility, a public school, publicly accessible open space, and parking uses. Under this

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Alternative, these uses would not be developed in the District, jobs would not be created, and the supply of affordable housing would not be increased in the study area.

Therefore, the No Action Alternative would not result in the economic benefits derived from new jobs, consumers, and residents in the District. While the No Action Alternative would not involve the same expenditure of public funds as the proposed Plan, it would not result in the substantial economic benefits that would be realized with implementation of the proposed Plan.

COMMUNITY FACILITIES

As with the proposed Plan, public schools and day care facilities would continue to operate above capacity under this alternative, while there would continue to be sufficient library and health care services. However, unlike the proposed Plan, the No Action Alternative would not generate new demand for public school seats or public day care seats, and would not create a new school. With the proposed Plan, the New York City Economic Development Corporation (NYCEDC) would require, as part of the developer's agreement, consultation with the New York City Administration for Children's Services (ACS) consultation to determine the appropriate way to meet demand for day care services generated by development in the District; this would not be required under the No Action Alternative.

OPEN SPACE

The No Action Alternative would not provide for a minimum of eight acres of new open space within the District, but it would also not generate demand for such resources from new residents or workers. With both the No Action Alternative and the proposed Plan (including anticipated development on Lots B and D), passive open space ratios for the study area would exceed the New York City Department of City Planning (DCP)'s planning goals, indicating that the area would continue to be well served by passive open space. The active open space ratio for the No Action Alternative would also exceed DCP's planning goals, but with the proposed Plan, it would be below DCP's planning goals. Although the active open space ratio would be greater for the No Action Alternative than for the proposed Plan, neither would result in significant adverse impacts on open space resources.

SHADOWS

The No Action Alternative would have none of the incremental increases in shadows associated with the proposed Plan, since this alternative would not result in any new development in the District. As described in Chapter 7, "Shadows," while the proposed Plan would cast some incremental shadow onto Flushing Bay, the Flushing Bay Promenade, and the Flushing River in some seasons, the extent and duration of such incremental shadow would not be large or long enough to cause a significant adverse impact on any of these resources. Therefore, neither the No Action Alternative nor the proposed Plan would have significant adverse shadow impacts.

HISTORIC RESOURCES

Archaeological Resources

While the proposed Plan would result in ground disturbance, the No Action Alternative would not. However, since the New York City Landmarks Preservation Commission (LPC) and the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) have

determined that the District does not have potential for archaeological sensitivity, neither the No Action Alternative nor the proposed Plan would adversely impact archaeological resources.

Architectural Resources

The District contains the former Empire Millwork Corporation Building, which has been determined by OPHRP as a potential architectural resource. Under the proposed Plan, it is anticipated that the former Empire Millwork Corporation Building would be demolished, resulting in a significant adverse impact on this resource. In the No Action Alternative, the former Empire Millwork Corporation Building would remain under private ownership and could be demolished as-of-right, and mitigation measures such as photographic documentation would not be required.

URBAN DESIGN AND VISUAL RESOURCES

Unlike the proposed Plan, the No Action Alternative would not transform the underutilized site into a new retail and entertainment destination that would greatly increase the use of the site and improve the overall appearance of the area. Land within the District would remain underdeveloped and environmentally degraded. The District would remain isolated from the surrounding area, and a new street pattern would not be established. Therefore, overall, the No Action Alternative would not benefit urban design as compared with the proposed Plan.

The No Action Alternative would not result in new construction within the District; whereas the proposed Plan would result in the development of multiple buildings of varying heights. While the proposed Plan would create taller structures, views of nearby visual resources would not be blocked by the new development, nor would the new structures be highly visible from these resources. Therefore, neither the No Action Alternative nor the proposed Plan would adversely impact any visual resources in the surrounding area, including Flushing Bay, the Flushing Bay Promenade, Flushing Meadows-Corona Park, and the 1964 World's Fair structures.

NEIGHBORHOOD CHARACTER

The No Action Alternative would allow for the ongoing industrial use of the District, and therefore, would not alter its current character. It would not result in new vehicle trips, and therefore, traffic operations would be less congested as compared with the proposed Plan. Also, since the No Action Alternative would generate substantially fewer vehicle trips, it would not significantly increase noise levels at World's Fair Marina Park. Therefore, like the proposed Plan, the No Action Alternative would not result in significant adverse impacts on neighborhood character.

While conditions with respect to traffic and noise would not be changed under the No Action Alternative, it would not provide the neighborhood character benefits of the proposed Plan. The No Action Alternative would not result in a new mixed-use residential community with commercial, community facility, retail, and entertainment uses. It would not provide for new affordable housing. It would not create a minimum of eight acres of new open space, and it would not construct pedestrian and streetscape enhancements throughout the District. Furthermore, the No Action Alternative would not provide for new streets and infrastructure within the District, nor would it remediate existing environmental contaminations.

NATURAL RESOURCES

The No Action Alternative would not result in the loss of a small area of successional plant communities that is currently found in the District and serves as habitat for urban tolerant species. However, the No Action Alternative would also not result in the creation of a minimum of eight acres of new open space within the District that could also serve as habitat for these species. Furthermore, the No Action Alternative would not provide for other open space areas that may be developed under the proposed Plan as part of the Leadership in Energy and Environmental Design for Neighborhood Development (LEED-ND) certification efforts, such as green roofs and bioswales, which could provide additional habitat for wildlife.

Like the proposed Plan, the No Action Alternative would not result in new development within DEC or U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) mapped wetlands. However, because the No Action Alternative would not raise the elevation of the site with up to six feet of clean fill, it would allow for the continued human occupation of land below flood elevation.

Under the No Action Alternative, contaminated soils would not be removed or capped, and new sanitary and storm sewers would not be constructed. Therefore, with the No Action Alternative there would continue to be degraded water quality and potential impacts to aquatic biota through the continued discharge of wastewater, polluted stormwater, and sediments from the District to the Flushing River, Flushing Bay, and groundwater aquifers.

HAZARDOUS MATERIALS

Soil and groundwater sampling of the District confirmed that contamination is present. Given the presence of this groundwater contamination and the historic uses within the District, other potential contamination is expected to be widespread on private properties. With the proposed Plan, remediation measures and engineering/institutional controls would be implemented through E-designations and Restrictive Declarations such that contaminated materials would be removed or capped. Under the No Action Alternative, there would be no requirement to perform remediation beyond specific regulatory requirements, and contamination would remain within the soils and groundwater of the District.

WATERFRONT REVITALIZATION PROGRAM (WRP)

The No Action Alternative would not result in new development within the New York City Coastal Zone, and would not fulfill the WRP policy of encouraging commercial and residential redevelopment in appropriate coastal zone areas. Unlike the proposed Plan, this alternative would not include infrastructure improvements that would address the policy issues of improving water quality, minimizing losses due to flooding, minimizing environmental degradation from hazardous materials, and creating new open space within the coastal zone. Since this alternative would not provide for new open space within the District, it also would not address the policy of improving public access in the coastal zone.

INFRASTRUCTURE

Unlike the proposed Plan, the No Action Alternative would not generate new demand for potable water, sanitary sewage disposal, or stormwater discharge. However, the No Action Alternative would also not result in construction of new storm or sanitary sewer systems within

the District, and parcels would not be raised above flood elevation. Consequently, the District would continue to be prone to flooding.

SOLID WASTE AND SANITATION SERVICES

The No Action Alternative would not result in new residences or community facilities within the District; therefore, it would not generate new demand for municipal solid waste collection. Industrial and commercial uses that currently operate within the District would remain, thus continuing demand for private waste collection. However, like the proposed Plan, the No Action Alternative would not overburden the City's solid waste collection and sanitation services.

ENERGY

The No Action Alternative would generate less energy demand than with the proposed Plan. Nevertheless, it is anticipated that energy supplies could meet the demand from the District under both the No Action Alternative and the proposed Plan.

TRAFFIC AND PARKING

Traffic

The No Action Alternative itself would not generate new vehicular traffic, but there would be increased volumes from background growth and other proposed development projects outside of the District. While overall the resultant volumes would be lower than with the proposed Plan and anticipated development on Lots B and D, there would be a number of intersections on a typical weekday with substandard operations, as described below:

- In the weekday AM peak hour, 15 of the 29 signalized intersections analyzed would operate at overall level of service (LOS) E or F with 49 individual traffic movements also operating at LOS E or F.
- In the weekday midday peak hour, 12 of the 29 signalized intersections analyzed would operate at LOS E or F with 39 individual traffic movements also operating at LOS E or F.
- In the weekday PM peak hour, 17 of the 29 signalized intersections analyzed would operate at an overall LOS E or F with 52 individual traffic movements also operating at LOS E or F.
- In the Saturday midday peak hour, 19 of the 29 signaled intersections analyzed would operate at an overall LOS E or F with 60 individual traffic movements also operating at LOS E or F.

Under the No Action Alternative with a Mets game, traffic conditions in the study area would be even worse, as described below.

- In the weekday PM pre-game peak hour, 19 of the 29 signalized intersections analyzed would operate at an overall LOS E or F with 73 individual traffic movements also operating at LOS E or F.
- In the weekend midday pre-game peak hour, 19 of 29 signalized intersections analyzed would operate at an overall LOS E or F with 58 individual traffic movements also operating at LOS E or F. Furthermore, the unsignalized intersection of the westbound Grand Central Parkway ramp at West Park Loop/Stadium Road would operate at LOS F.
- In the weekend PM post-game peak hour, the 19 of 29 signalized intersections analyzed would operate at an overall LOS E or F with 62 individual traffic movements operating at

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LOS E or F. Furthermore, the unsignalized intersection of Boat Basin Road at World's Fair Marina Park would operate at LOS F.

The proposed Plan would result in more locations with substandard operations, but mitigation measures would be implemented such that intersections would operate at their No Action Alternative condition or better, except as follows:

- In the non-game weekday AM peak hour, there would be three partially mitigated intersections, Northern Boulevard at Parsons Boulevard, 34th Avenue at 126th Street, and Sanford Avenue at Parsons Boulevard, and twelve unmitigatable intersections, including Northern Boulevard at 108th, 114th, 126th, Prince, Main, and Union Streets, Roosevelt Avenue at College Point Boulevard and at 114th, 126th, Prince and Main Streets, and 126th Street at the new Willets Point Boulevard.
- In the non-game weekday midday peak hour, two intersections, Northern Boulevard at Union Street and at Parsons Boulevard, would be partially mitigated, while eight additional intersections, 126th Street at Northern Boulevard, 34th Avenue, and new Willets Point Boulevard, and Roosevelt Avenue at College Point Boulevard and at 114th, 126th, Prince, and Main Streets were found to be unmitigatable.
- In the non-game weekday PM peak hour, there would be three partially mitigated intersections, including Parsons Boulevard at Northern Boulevard, Roosevelt Avenue and Sanford Avenue, and fourteen intersections would be unmitigatable, including Northern Boulevard at 108th, 114th, 126th, Prince, Main, and Union Streets; Roosevelt Avenue at College Point Boulevard and at 114th, 126th, Prince, Main, and Union Streets, and 126th Street at 34th Avenue and at new Willets Point Boulevard.
- In the non-game Saturday midday peak hour, there would be three partially mitigated intersections, Parsons Boulevard at Northern Boulevard, Roosevelt Avenue, and Sanford Avenue and thirteen unmitigatable intersections, including Northern Boulevard at 108th, 126th, Prince, Main, and Union Streets, Roosevelt Avenue at College Point Boulevard and at 114th, 126th, Prince, Main, and Union Streets, and 126th Street at 34th Avenue and at the new Willets Point Boulevard.
- In the weeknight pre-game peak hour, there would be two partially mitigated intersections, including Northern Boulevard at Parsons Boulevard and 126th Street at 34th Avenue, and fourteen intersections would be unmitigatable, including Northern Boulevard at 108th, 114th, 126th, Prince, Main, and Union Streets, Roosevelt Avenue at College Point Boulevard and at 114th, 126th, Prince, Main, and Union Streets, Parsons Boulevard at Sanford Avenue, and 126th Street at the new Willets Point Boulevard.
- In the Saturday pre-game peak hour, four intersections, Northern Boulevard at Union Street and at Parsons Boulevard, Sanford Avenue at Parsons Boulevard, and 126th Street at 34th Avenue, would be partially mitigated, while thirteen additional intersections, Northern Boulevard at 108th, 114th, 126th, Prince, and Main Streets, Roosevelt Avenue at College Point Boulevard and at 114th, 126th, Prince, Main, and Union Streets, 126th Street at the new Willets Point Boulevard, and College Point Boulevard at the Northern Boulevard service road were found to be unmitigatable.
- In the Saturday post-game peak hour, three intersections, Parsons Boulevard at Northern Boulevard, Roosevelt Avenue, and Sanford Avenue, would be partially mitigated, while thirteen additional intersections, Northern Boulevard at 108th, 114th, 126th, Prince and Union Streets, Roosevelt Avenue at College Point Boulevard and at 114th, 126th, Prince,

Main, and Union Streets, and 126th Street at 34th Avenue and at the new Willets Point Boulevard, were found to be unmitigatable.

For significant adverse impacts that would be unmitigated or partially mitigated with the proposed Plan, traffic operations would be better under the No Action Alternative. However, in either case, there would continue to be a number of congested locations within the study area with LOS E or F conditions during the peak hours analyzed.

The No Action Alternative would not provide a new ramp connection to the Van Wyck Expressway, but background traffic growth and trips generated by other proposed development projects outside of the District would increase volumes on the highways near the District. As a result, six of the seven analyzed highway segments and four of the 12 analyzed ramps would operate at marginally unacceptable or unacceptable (LOS D, E, or F) conditions on non-game days during one or more of the peak hours of analysis. On game days, six of the seven analyzed highway segments and six of the 12 ramps would operate at marginally unacceptable or unacceptable (LOS D, E, or F) conditions during one or more of the peak hours of analysis. With the proposed Plan, the LOS would further deteriorate during certain time periods, but in either scenario, there would be considerable congestion at multiple locations within the local highway network.

Parking

The No Action Alternative itself would not generate new demand for parking, but it would also not provide for new on- or off-street parking within the District and on Lots B and D. However, parking demand would increase as a result of background growth and other proposed development projects outside of the District, including Citi Field.

On a typical weekday game day, weekday non-game day, and weekend non-game day, it is projected that there would be adequate off-street capacity under the No Action Alternative to meet demand. However, on a typical Saturday game day, off-street demand could exceed 100 percent of capacity, and weekday and weekend on-street demand would also exceed the legal capacity. The proposed Plan would provide for new curbside and surface spaces within the District to fully meet its demand. During certain periods, this new parking would not be fully occupied, and with the proposed Plan, some of the unmet on- and off-street demand projected under the No Action Alternative could be accommodated. Therefore, it is anticipated that the proposed Plan would provide for greater capacity to meet parking demand than the No Action Alternative.

TRANSIT AND PEDESTRIANS

The No Action Alternative itself would not generate new demand for subway service, but there would be additional riders from other proposed development projects outside of the District. Compared with the 2007 existing conditions, the subway line-haul volumes would increase by approximately 8 percent in the Manhattan-bound direction during the AM peak hour and by 9 percent in the Flushing-bound direction during the PM peak hour. As with the proposed Plan, the No. 7 subway line would continue to operate within guideline capacity under the No Action Alternative.

Increased subway trips associated with the proposed Plan would result in significant adverse impacts on the operation of the S2 subway stairway at the Willets Point-Shea Stadium station. Under the No Action Alternative, this stairway would operate at an acceptable LOS during peak periods.

Willets Point Development Plan

With the proposed Plan, new development within the District would result in significant adverse impacts on the Q48 and Q66 bus routes, but the Q19 route would not be impacted. The No Action Alternative itself would not generate new demand for bus service, but there would be increases in ridership from background growth and other proposed development projects outside of the District. Under the No Action Alternative, the Q19 and Q48 routes would have adequate capacity to meet demand, but the Q66 route would not. Thus, both the No Action Alternative and the proposed Plan would necessitate additional service on the Q66 route, but the No Action Alternative would not require the additional service on the Q48 route that would be needed for the proposed Plan. Existing service on the Q19 route would be adequate to meet demand under both the No Action Alternative and the proposed Plan.

The No Action Alternative itself would not generate new pedestrian trips, but there would be additional demand from general background growth and other proposed development projects outside of the District. While there would be changes in the pedestrian network associated with Citi Field, there would be no new pedestrian facilities within the District itself. Under the No Action Alternative, pedestrian elements except for the east crosswalk at Northern Boulevard and 126th Street during the Saturday post-game peak period, would continue to operate at acceptable levels (13 PFM for sidewalks; 20 SFP for corners and crosswalks) during all analysis time periods, and the significant adverse crosswalks impacts predicted for the proposed Plan would not occur.

AIR QUALITY

The No Action Alternative would result in less vehicular traffic than the proposed Plan, meaning that its mobile source emissions would be lower, but it would allow for the continued operation of industrial uses within the District. Unlike the proposed Plan, the No Action Alternative would not require restrictions on the placement of HVAC stacks to avoid potential stationary source air quality impacts. But neither the proposed Plan nor the No Action Alternative would result in significant adverse air quality impacts.

NOISE

The No Action Alternative would result in less vehicular traffic in the study area than the proposed Plan and additional development on Lots B and D; however, ambient noise levels in the area would continue to be high. As with the proposed Plan, noise levels under the No Action Alternative at World's Fair Marina Park (Receptor Site 3) and the intersection of Roosevelt Avenue between College Point Boulevard and Prince Street (Receptor Site 2) would be in the "marginally unacceptable" category, and noise levels at the intersection of Roosevelt Avenue between 114th Street and 111th Street (Receptor Site 1) would be in the "clearly unacceptable" category. While the proposed Plan would result in a significant adverse impact at World's Fair Marina Park, noise levels of this magnitude frequently occur at parks or portions of parks that are adjacent to heavily trafficked roadways.

CONSTRUCTION

Since there would be no development under the No Action Alternative, potential significant adverse traffic impacts associated with construction of the proposed Plan would not occur. However, the substantial economic benefits attributable to construction expenditures and construction jobs under the proposed Plan would not be realized under the No Action Alternative.

PUBLIC HEALTH

The No Action Alternative would not comprehensively remediate hazardous materials within the district and could allow for the continued contamination of soil and groundwater, but since it involves no development, the No Action Alternative would not result in any of the air or noise emissions associated with the construction and operation of the proposed Plan. However, neither the No Action Alternative nor the proposed Plan would adversely impact public health.

C. NO UNMITIGATED IMPACT ALTERNATIVES

The proposed Plan and anticipated development on Lots B and D would result in unmitigated impacts with respect to historic resources, traffic, pedestrians, and noise. Therefore, alternatives were developed to explore modifications to the proposed Plan that would allow for the mitigation of these impacts.

HISTORIC RESOURCES

The proposed Plan would result in the demolition of the former Empire Millwork Corporation Building, which is considered eligible for State and National Registers of Historic Places (S/NR) listing by OPHRP, but measures such as photographic documentation of this resource would be undertaken to partially mitigate this impact. The No Unmitigated Significant Impacts Alternative would avoid demolition of this historic resource. Under this alternative, any new development at the project site would be designed so as to leave these structures in place. This could be achieved through adaptive reuse, but exterior elements such as windows and facades would need to be upgraded to comply with building codes and noise attenuation requirements. Furthermore, the building is located below flood elevation, and its site could not be raised if it would remain. Therefore, flood protection measures such as gates or pumps would be required to comply with flood insurance requirements.

This alternative would involve the same discretionary actions as the proposed Plan. However, preservation of the building would need to be required through the developer's formal request for proposals (RFP) process.

Overall, this alternative would reduce the footprint of any new development, which would result in greater density in the remainder of the District, fewer housing units, less open space, or some combination of these possibilities. The preservation of this resource would also significantly constrain the design of the proposed project in ways that could make future development of the District more difficult and may undermine the benefits of the proposed Plan. As noted under the No Action Alternative, the former Empire Millwork Corporation Building could be demolished as-of-right under existing conditions, and mitigation measures such as photographic documentation would not be required.

TRAFFIC

The proposed Plan and anticipated development on Lots B and D would result in significant adverse traffic impacts at intersections within the study area that cannot be fully alleviated with practical mitigation measures. Because of existing congestion at a number of intersections, even a minimal increase in traffic would result in unmitigated impacts. Based on a sensitivity analysis of intersections within the study area, it was determined that the addition of five vehicles through a lane group at a single intersection during the Saturday midday peak period would trigger an impact that cannot be fully mitigated. Thus, almost any new development in the District,

including new industrial development that could be constructed as-of-right, would result in unmitigated traffic impacts, and no reasonable alternative could be developed to avoid such impacts without substantially compromising the proposed Plan's stated goals.

PEDESTRIANS

The proposed Plan and anticipated development on Lots B and D would result in significant adverse pedestrian impacts at four study area crosswalks that may not be fully mitigated because the restriping of these crosswalks to wider lengths is limited by, per NYCDOT standards, the widths of the adjoining sidewalks. In order to make full mitigation possible, the incremental pedestrian volumes would have to be reduced by approximately 30 percent, with the parking garage associated with the Lot B development located on the north side of Roosevelt Avenue instead of on Lot D. This would require a substantial reduction in the development program. This alternative would involve the same discretionary actions as the proposed Plan. However, the maximum floor areas permitted in the Urban Renewal Plan (URP) would need to be substantially lowered.

NOISE

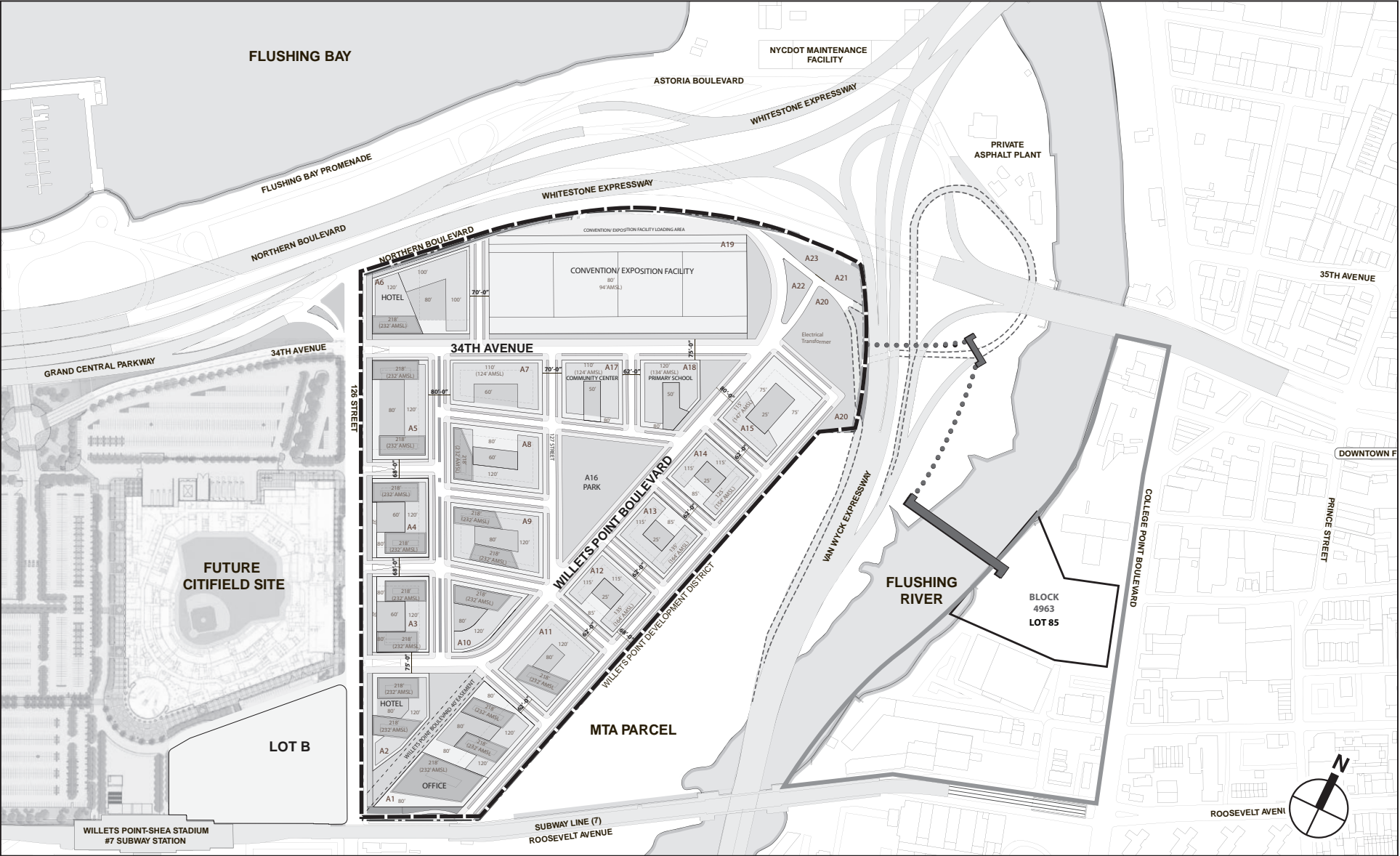
The proposed Plan and anticipated development on Lots B and D would result in a significant adverse noise impact at one location (Receptor 3, Boat Basin Road and World's Fair Marina Park) during the non-game Saturday midday time period. While the predicted noise level would exceed the CEQR threshold for a significant impact, it is not an uncommon level for a park in New York City. The impact would result from increases in traffic on roadways adjacent to Receptor 3. Noise barriers or berms are impractical because of space constraints. Therefore, future levels of traffic along those roadways would have to decrease in order to eliminate the significant adverse impact. Project-generated traffic volumes on Boat Basin Road would have to decrease by approximately 29 percent, and volumes on World's Fair Marina Park would have to decrease by approximately 12 percent to eliminate the significant impact at Receptor 3. Such reductions would necessitate a substantial reduction in the proposed Plan development program, and no reasonable alternative could be developed to avoid such impacts without substantially compromising the proposed Plan's stated goals. This alternative would involve the same discretionary actions as the proposed Plan. However, the maximum floor areas permitted in the URP would need to be substantially lowered.

D. FLUSHING BRIDGE ALTERNATIVE

DESCRIPTION

The Flushing Bridge Alternative would develop the District with the same gross floor area and mix of uses as the proposed Plan, including residential, retail, office, convention center, hotel, community facilities, and parking. The Flushing Bridge Alternative, like the proposed Plan, would also include a minimum of eight acres of open space, a new street grid, a new connection to the Van Wyck Expressway, and new public utilities within the District. Like the proposed Plan, the Flushing Bridge Alternative would include E-designations and Restrictive Declarations to ensure that no significant adverse impacts with respect to hazardous materials, noise attenuation, and air quality (specifically associated with the HVAC systems) would occur.

In addition to proposed development within the District, the Flushing Bridge Alternative would construct a pedestrian bridge linking the District with Flushing. As shown in Figure 24-1, the



- Willets Point Development District
- Pedestrian Walkway
- Block Boundary
- Pedestrian Bridge Crossing
- Lot Boundary

FOR ILLUSTRATIVE PURPOSES
This figure has been updated since the DGEIS

Figure 24-1
Flushing Bridge Alternative

preliminary proposal for the bridge would include new and expanded sidewalks along Northern Boulevard between the District and the Van Wyck Expressway ramps to Northern Boulevard. An elevated structure would then carry pedestrians over the ramps to a new sidewalk along the western shore of the Flushing River. The sidewalk would be located within an area that is mapped as National Wetlands Inventory (NWI) wetlands and is characterized as high marsh and intertidal marsh. At the southern end of this sidewalk, a second bridge would traverse the Flushing River landing within an existing parking lot west of the intersection of 37th Avenue and College Point Boulevard. The heights of the pedestrian overpass and bridge would comply with NYSDOT requirements for clearance above the Van Wyck Expressway ramps and with all applicable requirements for clearance above the Flushing River. The walkways and bridges would be located and engineered to minimize effects on wetlands and would also comply with the Americans with Disabilities Act (ADA). Because of the expense involved in designing and constructing a pedestrian bridge of this complexity, the cost to the City of implementing this alternative would be substantially higher than the proposed Plan.

Like the proposed Plan, implementation of the Flushing Bridge Alternative would require discretionary actions by the City of New York, including adoption of a URP, acquisition and disposition of property, changes in the underlying zoning, creation of a zoning Special District, demapping and mapping of streets, and possible approval of business terms. Furthermore, the proposed connection to the Van Wyck Expressway under both the proposed Plan and the Flushing Bridge Alternative would require federal and state approval of a Freeway Access Modification Report.

In addition to the actions identified above for development within the District and the associated highway ramps, the Flushing Bridge Alternative would require approvals for the construction of the new pedestrian bridge. These would include acquisition of property, an easement, or a lease for right-of-way on state-owned property; approval by NYSDOT and potentially FHWA for construction of new structures above the Van Wyck Expressway ramps; approval by DEC and potentially USACE for construction above and adjacent to the Flushing River; and approval by the City of New York for acquisition of property, an easement, or a lease of private property within the view corridor of 37th Avenue east of the Flushing River.

Since the bridge itself would require discretionary approvals, its implementation would be subject to CEQR and SEQRA. While this alternative is presented qualitatively in this DGEIS, subsequent environmental documentation would be needed if it were to move forward.

FLUSHING BRIDGE ALTERNATIVE COMPARED WITH THE PROPOSED PLAN

As described above, the Flushing Bridge Alternative would result in the same gross floor area of development and the same site plan within the District as the proposed Project. Therefore, the effects of the Flushing Bridge Alternative and the proposed Plan would be the same with respect to socioeconomic conditions, community facilities, infrastructure, solid waste and sanitation services, energy, traffic and parking, air quality, noise, and public health, and any impacts and associated mitigation identified for the proposed Plan would also be the same for the Flushing Bridge Alternative. However, since the Flushing Bridge Alternative would result in the construction of a bridge on land outside the District and would create a structure not analyzed as part of the proposed Plan, effects with respect to the other technical analyses may vary as described below.

LAND USE, ZONING AND PUBLIC POLICY

Land Use

Like the proposed Plan, the Flushing Bridge Alternative would dramatically change land uses in the District. While the proposed Plan and the Flushing Bridge Alternative would result in a significant land use change, the effects of this change would not be adverse. The proposed convention center and commercial uses would enhance Flushing and Corona's roles as regional economic centers, and would attract visitors to the area. The proposed Plan and the Flushing Bridge Alternative would create a pedestrian-oriented regional entertainment and commercial center along 126th Street, which would complement the new retail uses planned along the west side of 126th Street as part of Citi Field, creating a synergy between the new Citi Field and the proposed District. The proposed residential, commercial office, retail, hotel, community facility, open space, and parking uses are common throughout the study area, particularly within the dense commercial center of Downtown Flushing, but this connectivity would be further enhanced under the Flushing Bridge Alternative, since the District would be linked to Flushing by a new pedestrian bridge.

As a result of the rezoning of properties on the eastern side of the Flushing River waterfront, it is expected that some properties would be redeveloped with higher-density residential and commercial uses, and these future uses would be compatible with those contemplated for the District under the proposed Plan and the Flushing Bridge Alternative.

Overall, neither the proposed Plan nor the Flushing Bridge Alternative would result in significant adverse land use impacts.

Zoning and Public Policy

Both the proposed Plan and the Flushing Bridge Alternative would result in a change to the underlying zoning of the District from M3-1 manufacturing (and a small area zoned R3-2 residential) to a C4-4 commercial district. The proposed Plan and the Flushing Bridge Alternative represent a critical step in implementing the Downtown Flushing Development Framework. Both alternatives would advance a number of the Framework's fundamental goals, including the creation of a regional destination that would enhance economic growth in Downtown Flushing, improvement of environmental conditions, and integration of new development in the District with surrounding amenities, including the Flushing Bay Promenade, the new Citi Field, Flushing Meadows-Corona Park, and Downtown Flushing. While the proposed Plan would achieve goals of the Framework, the Flushing Bridge Alternative would further its implementation by providing for a pedestrian connection between Flushing and the District. Overall, neither the proposed Plan nor the Flushing Bridge Alternative would result in significant adverse zoning and public policy impacts.

OPEN SPACE

As with the proposed Plan, the Flushing Bridge Alternative would provide for new open space within the District. The Flushing Bridge Alternative would also provide pedestrian access between the District and Flushing. As compared with the proposed Plan, this bridge could improve access to new open space resources within the District as well as to the proposed esplanade along the eastern bank of the Flushing River. Although neither the Flushing Bridge Alternative nor the proposed Plan would result in significant adverse impacts on open space, the Flushing Bridge Alternative would improve access to new space within and outside the District.

SHADOWS

The proposed Plan and the Flushing Bridge Alternative would result in the same arrangement of buildings within the District, but the Flushing Bridge Alternative would also include an above-grade pedestrian bridge crossing the Flushing River. Since it is anticipated that the new bridge would be slender in massing the new shadows that it would cast would not be expected to be substantial in terms of their extent and duration. They would result in increased coverage over the Flushing River, but the river is not considered a critical habitat for aquatic species. Therefore, like the proposed Plan, the Flushing Bridge Alternative would not be expected to result in significant adverse shadow impacts on the sun-sensitive resources.

HISTORIC RESOURCES

Archaeological Resources

The proposed Plan and the Flushing Bridge Alternative would result in ground disturbance within the District. However, as LPC and OPHRP have determined that the District does not possess archaeological sensitivity, such disturbance would not result in significant adverse impacts on archaeological resources. Implementation of the Flushing Bridge Alternative would include an archaeological assessment to determine archaeological sensitivity in areas that would be disturbed by the bridge's construction. If archaeological resources were identified, appropriate mitigation would be developed through consultation with LPC and OPHRP.

Architectural Resources

The District contains one architectural resource, the former Empire Millwork Corporation Building, which would likely be demolished as part of the proposed Plan and the Flushing Bridge Alternative. The proposed site for the Flushing Bridge itself does not contain any known historic resources. Therefore, implementation of the Flushing Bridge Alternative would not result in impacts on architectural resources that would vary from those identified for the proposed Plan.

URBAN DESIGN AND VISUAL RESOURCES

Like the proposed Plan, the Flushing Bridge Alternative would convert the existing underdeveloped and environmentally degraded Willets Point Development District into a vibrant, mixed-use urban environment. Furthermore, the Flushing Bridge Alternative would provide for a pedestrian bridge between the District and Flushing, which would provide a link between the newly redeveloped District and the established community to its east. Both would also add new publicly accessible open spaces to the District, and the Flushing Bridge Alternative would improve access to this open space for residents of Flushing.

The proposed Plan and the Flushing Bridge Alternative would not adversely impact visual resources in the surrounding area, including Flushing Bay, the Flushing Bay Promenade, Flushing Meadows-Corona Park, and the 1964 World's Fair structures. While both would create structures that are taller than what currently exists on the site, views to these resources would not be blocked by the new development, nor would the new structures be highly visible from these resources. Unlike the proposed Plan, the pedestrian bridge in the Flushing Bridge Alternative would introduce a new structure above the Flushing River, which would provide for new views of the 1964 World's Fair structures and Flushing Meadows-Corona Park. While the bridge itself

Willels Point Development Plan

would be visible from the highway and surrounding areas, like the proposed Plan, it would not impair views of important resources in the area.

Thus, overall, neither the proposed Plan nor the Flushing Bridge Alternative would result in significant adverse impacts on urban design or visual resources.

NEIGHBORHOOD CHARACTER

The proposed Plan and the Flushing Bridge Alternative would dramatically change neighborhood character in the District. The site planning and urban design under the Flushing Bridge Alternative and the proposed Plan would serve to integrate the District with surrounding entertainment and recreational uses to its west and south, but unlike the proposed Plan, the Flushing Bridge Alternative would also integrate the District with residential and commercial uses to its east by providing a pedestrian connection to Flushing. Nevertheless, neither the proposed Plan nor the Flushing Bridge Alternative would have a significant adverse neighborhood character impact on the District or the surrounding areas.

NATURAL RESOURCES

The Flushing Bridge Alternative would result in the mixed-use redevelopment of the District, including the provision of a minimum of eight acres of open space. It would also provide for a bridge spanning the Flushing River to connect the District with Flushing. Depending on the precise location of the bridge and how it is engineered, it could affect NWI-mapped wetlands along the Flushing River. These wetlands are characterized as high marsh and intertidal marsh. If the Flushing Bridge Alternative were to move forward, potential effects of the bridge on mapped wetlands would be assessed as part of the DEC permitting process and any associated environmental review.

Development under either scenario would offer benefits to natural resources, including improved habitat for birds and other wildlife within the new District open spaces. Either the proposed Plan or the Flushing Bridge Alternative would include the development of new sanitary sewer infrastructure that would connect to the City's sewage treatment system, eliminating the District's reliance on septic systems and associated impacts on ground and surface waters. They would also improve water quality in Flushing Bay by eliminating site flooding, improving the quality of the soil substrate of the site, and providing direct drainage to storm sewers; incorporating sustainable design features, where feasible, to reduce the discharge volume and increase the quality of storm water discharges; and preventing stormwater generated within the District from entering the combined sewer system, which would increase the frequency and volume of CSO discharges. In addition, sustainable design elements such as green roofs, graywater recycling, and bioswales would provide additional benefits to natural resources in and around the District.

HAZARDOUS MATERIALS

With the proposed Plan, remediation measures and engineering/institutional controls would be implemented through E-designations and Restrictive Declarations to mitigate the potential effects from exposure to hazardous materials. E-designations and Restrictive Declarations would also be implemented for the Flushing Bridge Alternative. Additional environmental studies would be needed to incorporate small areas of ground disturbance for the bridge's footings and landings, including areas adjacent to the Northern Boulevard ramps to the Van Wyck Expressway, along the western bank of the Flushing River, and within the parking area at the

foot of 37th Avenue. However, based on the historical uses in the adjacent areas, it is not anticipated that these studies would result in findings that would substantially differ from those for the District itself, and, as with the proposed Plan, construction activities in the Flushing Bridge Alternative would be required to comply with a Construction Health and Safety Plan (CHASP). Therefore, the potential impacts from exposure to hazardous materials and the measures to mitigate these effects would be the same for the proposed Plan and the Flushing Bridge Alternative.

WATERFRONT REVITALIZATION PROGRAM

Like the proposed Plan, the Flushing Bridge Alternative would develop land within the New York City Coastal Zone. Implementation of the Flushing Bridge Alternative would result in the construction of a maximum of 8.94 million gross square feet (gsf) of residential, commercial, community, and convention center buildings and a minimum of eight acres of publicly accessible open space in the District. It would be consistent with citywide goals for fostering residential and commercial development, creating public access in the coastal zone, and protecting sensitive natural and historic resources, and it would improve waterfront access by providing a connection between the District and Flushing via the Flushing River as well as to the proposed esplanade along the east bank of the Flushing River. Therefore, like the proposed Plan, the Flushing Bridge Alternative would be consistent with New York City's WRP.

TRANSIT AND PEDESTRIANS

As described above, the improved pedestrian access under the Flushing Bridge Alternative could result in mode shift from transit to walk trips as compared with the proposed Plan, but given the anticipated origins and destinations of future trips, the Flushing Bridge Alternative would not substantially reduce the number of subway and bus riders as compared with the proposed Plan. As such, the peak period impacts on the S2 stairway at the Willets Point-Shea Stadium subway station and on the Q48 and Q66 bus routes predicted for the proposed Plan would also occur under the Flushing Bridge Alternative. It is anticipated that these impacts could be fully mitigated with either development scenario.

Because it would provide for a pedestrian connection between the District and Downtown Flushing, the Flushing Bridge Alternative may divert some walk trips away from the pedestrian analysis locations. Since the analysis locations are located en route to and from the subway station and bus stops, diverted trips would not substantially reduce the total predicted future volumes at these locations as compared with the proposed Plan. Therefore, the Flushing Bridge Alternative would also result in significant adverse crosswalk impacts at the intersections of Roosevelt Avenue and 126th Street and Northern Boulevard and 126th Street, and at the new north crosswalk at the signalized intersection of Roosevelt Avenue and the Lot B driveway. As with the proposed Plan, it is expected that some of these impacts could not be fully mitigated.

CONSTRUCTION

Construction of the pedestrian bridge in the Flushing Bridge Alternative would require less than two years to complete and would not be expected to generate substantial construction-period traffic, air quality emissions, or noise. As with the proposed Plan, construction activities would comply with applicable local, state, and federal regulations. A maintenance and protection of traffic plan would be implemented for activities undertaken near the Van Wyck Expressway, and a CHASP would be implemented to protect workers and the general public from any exposure to

contaminated materials. Construction activities within the District would be the same in scope and duration for the proposed Plan and the Flushing Bridge Alternative, and the measures to minimize these effects would be the same for both.

E. MUNICIPAL SERVICES ALTERNATIVE

DESCRIPTION

During scoping for this DGEIS, current businesses within the District suggested an alternative that would allow for the continued operation of industrial uses within the District, but wherein the City would provide for new public infrastructure to serve it. For purposes of the following analysis, this is referred to as the Municipal Services Alternative.

Under the Municipal Services Alternative, the zoning of the District would not be changed, a URP would not be adopted, and a Special District would not be created. Similarly, the demapping or mapping of streets or acquisition of rights-of-way associated with the proposed Plan would not occur. As the improvements would largely be limited to public property, and existing private properties would remain developed with buildings at their current grade, this alternative presents more serious complications with respect to the feasibility of effectively upgrading the area's infrastructure than would whole-scale redevelopment of the District as would occur under the proposed Plan. Appendix I provides an assessment of the engineering issues and costs associated with the infrastructure reconstruction under this alternative.

Under the Municipal Services Alternative, like the proposed Plan, the City would supply new infrastructure to the District, including new streets and sidewalks, as well as sanitary and storm sewer systems. Materials and soils mobilized or exposed during excavation that are determined to contain hazardous constituents would be disposed of as required, and clean, approved backfill would be provided. The need for engineered or designed support systems for all underground infrastructure, including sanitary, storm, and potable water (if new water lines are needed in specific areas), would be based upon geotechnical information. The District and adjoining streets currently have a complete interconnected grid of water distribution mains that are served by a 72-inch prestressed reinforced concrete pipe (PRCP) water main located on Willets Point Boulevard. Unlike the proposed Plan, which contemplates the construction of a new water distribution system to serve newly configured streets and building lots, under the Municipal Services Alternative, the existing grid system would be maintained; in either case the District would continue to rely on the 72-inch water main for service. Other mains, because their age exceeds the New York City Department of Environmental Protection (DEP) requirements, would presumably be replaced in conjunction with the reconstruction of the sewer infrastructure.

As with the proposed Plan, separate storm and sanitary sewer systems would be installed and maintained. Nearby areas such as Shea Stadium direct their sanitary sewage to the 37th Avenue Pump Station. However, this pump station does not have sufficient capacity to accommodate sewage from the District under either the proposed Plan or the Municipal Services Alternative. Therefore, similar to the proposed Plan, this alternative would require a new pump station and main to transmit sanitary flow from the District to the existing 96-inch-diameter City sewer in 108th Street (which flows to the Bowery Bay Water Pollution Control Plant (WPCP)). The new pump station would most likely be constructed within the southern area of the District on a lot purchased from private lot owners, or alternatively would be constructed at a location outside the District. The sanitary force main route would be directed across the area occupied by the Citi

Field parking lots to connect to the nearest system at 108th Street en route to the Bowery Bay WPCP.

The existing storm sewer system in the area, which drains to outfalls at 126th Street and 127th Street, is insufficiently sized to accommodate the runoff that is currently being generated. To eliminate this deficiency, a new storm sewer system, including new piping and infrastructure, such as manholes and catch basins, would need to be installed. Based on a conceptual layout, which maintains as much existing infrastructure as possible, including portions of the two existing 60-inch diameters outfalls and adjacent storm sewers, a preliminary plan was analyzed that may be feasible for accommodating the District's stormwater. However, based on the elevation of the existing streets and outfalls, and the various distances over which stormwater would be required to travel, there is not sufficient elevation in all areas of the District to make an adequately sized and properly functioning storm sewer system. A substantial portion of the streets in the southern portion of the District would have to be raised to a grade sufficient to allow the system to function hydraulically.

Because the District would remain built out with industrial uses, unlike the proposed Plan, an on-site detention tank or other comparable detention feature necessary to avoid expanding the existing outfalls or constructing a new outfall could not be provided. Therefore, in order to accommodate stormwater runoff generated onsite that is beyond the discharge capacity of the existing outfalls on 126th Street and 127th Street, these outfalls and sections of their piping would need to be reconstructed; alternatively a new outfall could be provided in combination with rebuilding the existing outfalls, although that option would be the least cost effective. In order for the new storm sewer system to meet the DEC discharge water quality requirements, pretreatment of stormwater would be necessary prior to the point of discharge. Potential methods for providing the pretreatment required to adhere to water quality standards would include catch basins specifically designed to improve water quality, oil/water separators, filtration systems, or other sustainable design features. Since the design of a pretreatment facility is dependent on site grades and sewer system elevations, the most likely locations for a site pretreatment facility would be before the point of discharge in a parking lot under the jurisdiction of the New York City Department of Parks and Recreation adjacent to Flushing Bay.

Unlike the proposed Plan, the Municipal Services Alternative would not result in the filling of the District to above flood elevation. The District streets would not be elevated to the 100-year floodplain elevation—to do so would be infeasible given that the grades of existing developed lots would remain at their current elevation. However, as noted, streets in a substantial portion of the District would need to be raised between approximately 1 and 3 feet. Such changes would create differences in elevation between the new streets and the existing lots that abut them, which would create a serious complication with respect to successfully engineering an effective drainage plan. Specifically, each lot would have to install pumps to convey stormwater from that lot into the new stormwater system, which would exist at a higher grade than the lot. Any private parcel requiring a pump and hook up to the stormwater system would be required to meet DEP pretreatment requirements. Pretreatment on certain lots may not be feasible due to lack of adequate space to install and operate the necessary equipment. While the provision of new storm sewer lines and new or expanded outfalls would decrease the frequency and severity of flooding in the District (assuming that pumps are installed on privately owned lots), there would still be potential for flooding during storm conditions, since much of the District, including the new streets, would remain below the 100-year floodplain.

Willets Point Development Plan

The Municipal Services Alternative would also not result in comprehensive environmental remediation across the District because the City would not have access and the ability to remediate privately held property within the District. Any remediation would generally be limited to public streets and areas where new sanitary and storm sewers are installed, and sites where regulatory agencies require cleanup of documented petroleum spills or other contamination.

While the Municipal Services Alternative would permit the continued industrial use of the District, some businesses may be temporarily relocated to allow for construction of streets and utilities. The Municipal Services Alternative would not change the allowable development density of the District; however, it is likely that some industrial redevelopment could occur within the District once the new infrastructure has been provided. Such industrial development would be consistent with the existing M3-1 zoning district.

The Municipal Services Alternative would not include the development of a new ramp connection to the Van Wyck Expressway. A new public school would not be constructed, no affordable housing provided, and new open space would not be created within the District. Because special district regulations would not be enacted, it is unlikely that sustainability or LEED requirements would be applied to private property under the Municipal Services Alternative, but the construction of new infrastructure by the City would comply with Local Law 77 and any other applicable environmental requirements for public projects.

MUNICIPAL SERVICES ALTERNATIVE COMPARED WITH THE PROPOSED PLAN

The following sections compare conditions under the Municipal Services Alternative with conditions with the proposed Plan and anticipated development on Lots B and D.

LAND USE, ZONING AND PUBLIC POLICY

The Municipal Services Alternative would not alter existing land uses or the zoning within the District, and the continuation of industrial uses would be consistent with the areas to its north and east. Although the Municipal Services Alternative, like the proposed Plan, would not result in significant adverse impacts on land use, zoning, and public policy, it would not provide the benefits that would be achieved through redevelopment of the District such as the creation of regional attractions, retail and commercial uses, new affordable housing units, community facilities, or open space. The Municipal Services Alternative would not create the Willets Point Special District and would not result in a dynamic, sustainable community that integrates regional attractions and residential, retail, and other uses. Because it would allow for the ongoing industrial use of the District, the Municipal Services Alternative would not advance a number of the Downtown Flushing Development Framework's fundamental goals, including the creation of a regional destination that would enhance economic growth in Downtown Flushing and integration of new development in the District with surrounding amenities. The Municipal Services Alternative would also not provide for new affordable housing units, community facilities, or open space within the District.

SOCIOECONOMIC CONDITIONS

The Municipal Services Alternative would not result in the business relocation associated with the proposed Plan and would not result in permanent direct residential or business displacement.

(The one exception would be the possible displacement of a business to provide for an on-site pump station, most likely in the southern portion of the District.) As noted above, this Alternative would likely entail the temporary relocation of the one household and some of the existing businesses during construction of the streets and related infrastructure, and would temporarily affect access to most businesses. Temporary relocation would be necessary to provide access to contractors to the work areas, as well as to protect residents and employees from construction-related activities and noise. Due to the extensive sewer reconstruction that would be required, some temporary displacement and access impacts may be relatively long term.

Like the proposed Plan, the Municipal Services Alternative would not result in any significant adverse socioeconomic impacts. However, the Municipal Services Alternative would not produce the economic benefits derived from new jobs and population in the District. Although some employment growth could occur due to expansion of existing businesses or establishment of new industrial businesses within the District, economic activity under the Municipal Services Alternative, including jobs, employee compensation, economic output, and taxes, would be small compared with the proposed Plan. Additionally, the Municipal Services Alternative would not provide any new affordable or market-rate housing.

COMMUNITY FACILITIES

As with the proposed Plan, public schools and day care facilities would continue to operate above capacity under this alternative, while there would continue to be sufficient library and health care services. However, unlike the proposed Plan, the Municipal Services Alternative would not generate new demand for public school seats or public day care seats and would not create a new school to meet that new demand. With the proposed Plan, NYCEDC would require, as part of the developer's agreement, consultation with ACS to determine the appropriate way to meet demand for day care services generated by development in the District. As there would not be new housing, this would not be necessary or required under the Municipal Services Alternative.

OPEN SPACE

Unlike the proposed Plan, the Municipal Services Alternative would not provide for a minimum of eight acres of new open space within the District. As it would not generate new residents or a substantial number of new workers, it would add only modestly, if at all, to the demand for open space resources. With the proposed Plan and anticipated development on Lots B and D, the workers and residents within the open space study areas would be well served by open spaces. For both the proposed Plan and the Municipal Services Alternative, active and passive open space ratios for the study area would generally exceed City planning goals, indicating that the area would continue to be well served by open space.

SHADOWS

The existing zoning of the District restricts building heights to a maximum of 60 feet. Based on the maximum building height, should any new development occur as a result of infrastructure improvements, the Municipal Services Alternative could result in a maximum shadow length of 258 feet as compared with 997.6 feet for the proposed Plan. Although shadows produced by the proposed Plan would be longer, neither scenario would be predicted to result in significant adverse impacts on sun-sensitive features.

HISTORIC RESOURCES

Archaeological Resources

Both the proposed Plan and the Municipal Services Alternative would result in ground disturbance. However, since LPC and OPRHP have determined that the District does not have potential for archaeological sensitivity, neither the proposed Plan nor the Municipal Services Alternative would adversely affect archaeological resources.

Architectural Resources

The District contains one State and National Register eligible historic resource, the former Empire Millwork Corporation Building. It is anticipated that this building would be demolished as part of the proposed Plan, and mitigation would be required to fully or partially avoid this impact. Under the Municipal Services Alternative, the elevation of a number of streets within the District would be raised; however, it would be the responsibility of private property owners to raise their individual sites. If such activities would not be undertaken for the site of the former Empire Millwork Corporation Building, it could remain in its existing location, and the Municipal Services Alternative would not adversely impact this historic resource. However, if the Empire Millwork Corporation Building were demolished by a private property owner, these activities could be undertaken without the benefit of mitigation measures that would be undertaken for the proposed Plan.

URBAN DESIGN AND VISUAL RESOURCES

Unlike the proposed Plan, the Municipal Services Alternative would not transform the District into a dynamic community that integrates regional attractions and residential, retail, and other uses that would greatly increase the use of the District and improve the overall appearance of the surrounding area. The District would remain isolated from the surrounding area, and a new street pattern would not be established. While new streets and sidewalks and stormwater infrastructure would be installed, the District would remain underutilized, and overall appearance of the District would remain degraded. Therefore, overall, the Municipal Services Alternative would not result in all of the urban design benefits that would be achieved by the proposed Plan.

Existing zoning would restrict buildings heights to 60 feet under the Municipal Services Alternative, which would not obstruct views of prominent resources in the area. The proposed Plan, however, would develop multiple buildings of varying heights. While the proposed Plan would create taller structures, views of nearby visual resources would not be blocked by the new development, nor would the new structures be highly visible from these resources. Therefore, neither the Municipal Services Alternative nor the proposed Plan would significantly adversely impact any visual resources in the surrounding area, including Flushing Bay, the Flushing Bay Promenade, Flushing Meadows-Corona Park, and the 1964 World's Fair structures.

NEIGHBORHOOD CHARACTER

Unlike the proposed Plan, the Municipal Services Alternative would allow for the ongoing industrial use of the District, and therefore, would not alter its current character. However, it would improve the District by improving the condition of roads and providing additional infrastructure such as sanitary sewers, as well as enhancing the existing storm sewer system. Since the amount of new development that could occur under the existing zoning would result in far less new traffic, traffic operations would be improved as compared with the proposed Plan.

However, any new development that might occur in the District under this alternative could, like the proposed Plan, result in significant adverse traffic impacts, (although to a much lesser extent) given the substantial no-build traffic in the study area even without development from the proposed Plan. Also, since the Municipal Services Alternative would generate substantially fewer vehicle trips, unlike the proposed Plan it would not significantly increase noise levels at the World's Fair Marina Park. Therefore, overall, the Municipal Services Alternative would not result in significant adverse impacts on neighborhood character.

The Municipal Services Alternative would not provide the neighborhood character benefits of the proposed Plan. It would not result in a new mixed-use residential community with commercial, community facility, retail, and entertainment uses. It would not provide for new affordable housing. It would not create a minimum of eight acres of new open space, and it would not construct pedestrian and streetscape enhancements throughout the District.

NATURAL RESOURCES

Development of the Municipal Services Alternative could result in the loss of successional plant communities, or urban tolerant species which depend on this habitat if vacant land within the district were developed for industrial uses; and, unlike the proposed Plan, no new open space would be developed that could serve as habitat for terrestrial species. Furthermore, the Municipal Services Alternative would not provide for other open space areas that may be developed under the proposed Plan as part of the LEED-ND certification efforts, such as green roofs and bioswales, which would provide additional habitat for wildlife.

Implementation of the Municipal Services Alternative would allow existing uses to continue to occupy land below flood elevation. However, with this Alternative, new infrastructure would be developed and constructed, including a separate storm sewer system, allowing surface waters from the streets, and if pumping systems were installed, from private properties, to drain and be discharged to Flushing Bay through sewer infrastructure. With this improvement, the frequency and severity of existing flooding would decrease. However, there would still be the potential for flooding during storm conditions, since the District would remain below the 100-year floodplain.

Some contaminated soils would be removed and capped, preventing further contamination of groundwater or runoff into surface waters, but the Municipal Services Alternative would not provide for the comprehensive remediation efforts that would be achieved by the proposed Plan. Like the proposed Plan, this alternative would eliminate the District's reliance on septic disposal, which would remove a potential source of pollution to groundwater.

HAZARDOUS MATERIALS

With the proposed Plan, remediation measures and engineering/institutional controls would be required through E designations and subsequent Restrictive Declarations to avoid the potential effects from exposure to hazardous materials. As described above, new infrastructure construction that would occur within the District under the Municipal Services Alternative would also need to comply with local, state, and federal environmental regulations, meaning that residual contamination would be remediated in the areas of utility construction. However, for private properties, remediation would not be required in the absence of reportable spills, and contaminants would remain in the soil or would continue to infiltrate groundwater. Since the Municipal Services Alternative would not comprehensively remediate contamination within the District, it would result in less benefit to human health than would be achieved with the proposed Plan.

WATERFRONT REVITALIZATION PROGRAM

The Municipal Services Alternative would allow for continued industrial use within the District, which lies within the coastal zone. Unlike the proposed Plan, it would not result in new development within the New York City Coastal Zone, and would not fulfill the WRP policies of improving public access in the coastal zone and of encouraging commercial and residential redevelopment in appropriate coastal zone areas. It would not fulfill the goal of encouraging non-industrial development that enlivens the waterfront and attracts the public, whereas the proposed Plan would result in substantially greater numbers of people coming to the area and would enliven this area of land near the waterfront. Also unlike the proposed Plan, this alternative would not create new open space within the coastal zone, which would provide nesting resources for birds, insects, amphibians, and other species. Nor would it address the policy issues of minimizing losses due to flooding or minimizing environmental degradation from hazardous materials to the same degree as the proposed Plan. In addition, as described above, engineering controls and pretreatment infrastructure necessary to protect water quality may not be feasible under this alternative.

INFRASTRUCTURE

New industrial development that could result with the Municipal Services Alternative would generate new demand for potable water, but like the proposed Plan, this demand would not result in a significant adverse impact on the City's water supply system. The District and adjoining streets currently have a complete interconnected grid of water distribution mains that are served by a 72-inch PRCP water main located on Willets Point Boulevard. The projected flow could be supplied by this existing water main. Unlike the proposed Plan, which contemplates the construction of a new water distribution system, under the Municipal Services Alternative, the existing grid system would be maintained; in either case, the District would continue to rely on the 72-inch water main for service.

Under the proposed Plan and the Municipal Services Alternative, the District would be connected to the City's sanitary sewer system, replacing the current reliance on septic tanks. The proposed Plan and Municipal Services Alternative would result in an increase of sanitary flow to the Bowery Bay WPCP, but this WPCP is projected to have adequate capacity to meet the increased demand. Nearby areas such as Shea Stadium direct their sanitary sewage to the 37th Avenue Pump Station. However, this pump station does not have sufficient capacity to accommodate sewage from the District under either the proposed Plan or Municipal Services Alternative. Therefore, similar to the proposed Plan, this alternative would require a new pump station and main to transmit sanitary flow from the District to the existing 96-inch-diameter City sewer in 108th Street (which flows to the Bowery Bay WPCP). The new pump station would be provided on a private lot that would be acquired in the District, or at a location outside of the District.

The proposed Plan and the Municipal Services Alternative would maintain separate stormwater and sanitary sewer systems, in accordance with the City's goals to reduce combined sewer overflow (CSO) events. However, since the District and Lots B and D are currently largely covered with impervious surfaces—including buildings, paved surfaces, and roads, which create surface runoff—the overall volume of runoff within the area would remain unchanged with development of the proposed Plan or the Municipal Services Alternative.

Unlike the proposed Plan, the Municipal Services Alternative would not result in the filling of the District to flood elevation. The elevation of certain streets in the southern portion of the

District would have to be raised approximately 1 to 3 feet in order to permit for a hydraulically adequate and properly functioning storm sewer system. The elevation of those streets would place adjoining developed lots at a lower relative elevation, requiring such lots to install pumps to convey stormwater from the lot into the new stormwater system. Any private parcel requiring a pump and hook up to the stormwater system would be required to meet DEP pretreatment requirements. Pretreatment on certain lots may not be feasible due to lack of adequate space to install and operate the necessary equipment.

Because the District would remain built out with industrial uses, unlike the proposed Plan, an on-site detention tank or other comparable detention feature necessary to avoid expanding the existing outfalls or constructing a new outfall could not be provided. Therefore, in order to accommodate stormwater runoff generated onsite that is beyond the discharge capacity of the existing outfalls on 126th Street and 127th Street, the existing outfalls would be modified and new piping provided, or alternatively a new outfall would be built in conjunction with reconstruction of the outfalls. In order for the new storm sewer system to meet the DEC water quality requirements, pretreatment of stormwater would be necessary prior to the point of discharge. Potential methods for providing the pretreatment required to adhere to water quality standards would include catch basins specifically designed to improve water quality, oil/water separators, filtration systems, or other sustainable design features.

While the provision of new storm sewer lines and new or expanded outfalls would decrease the frequency and severity of flooding in the District, unlike the proposed Plan, there would still be potential for flooding during storm conditions, since much of the District would remain below the 100-year floodplain.

SOLID WASTE AND SANITATION SERVICES

Unlike the proposed Plan, the Municipal Services Alternative would not result in new residential or community facilities within the District; therefore, it would not generate new demand for municipal solid waste collection. Both the proposed Plan and the Municipal Services Alternative would generate demand for private waste collection service, but there would be less commercial solid waste generated under the Municipal Services Alternative than with the proposed Plan.

Unlike the proposed Plan, the Municipal Services Alternative would not result in the displacement of the two waste transfer businesses currently operating in the District—Crown Container, which is authorized to process 375 tpd of mostly construction and demolition debris, and Tully Environmental, which has the capacity to process 900 tpd of putrescible municipal (DSNY) waste. However, as described in Chapter 15, “Solid Waste and Sanitation,” the displacement of the two waste transfer businesses under the proposed Plan would not significantly impact the waste transfer industry within Queens or New York City. The permitted capacity of Crown Container is small, and the waste generated at that facility could be absorbed at other facilities. The North Shore Marine Transfer Station (MTS), when completed, will have the capacity to process the waste currently handled by Tully Environmental. If Tully were displaced from the District before the North Shore MTS became operational, DSNY waste currently processed by Tully would temporarily be transported to facilities in New Jersey in DSNY trucks. Therefore, neither the proposed Plan nor the Municipal Services Alternative would result in significant adverse impacts on solid waste and sanitation services.

ENERGY

The Municipal Services Alternative would facilitate the continued use of the District for industrial purposes, which would generate demand for approximately 13,360 megawatts of electricity. As with the proposed Plan, it is expected that measures would be taken to provide adequate electrical capacity and that the Municipal Services Alternative would not result in significant adverse impacts on the energy supply.

TRAFFIC AND PARKING

Traffic

The Municipal Services Alternative would result in newly-paved streets within the District, but a new ramp connection to the Van Wyck Expressway would not be provided. Municipal improvements within the District may spur as-of-right development of industrial uses that would generate new traffic, although the resultant volumes would be substantially lower than with the proposed Plan. Because a number of intersections operate at substandard levels of service in the No Action condition, potential increases in volumes with Municipal Services Alternative would likely result in significant adverse traffic impacts, although to a much lesser extent because the new traffic would be much less. As with the proposed Plan, impacts at certain locations could be mitigated with standard traffic engineering practices. However, given severe congestion at other locations, even with a modest amount of traffic from new development in the District, increases in traffic resulting from the Municipal Services Alternative would likely result in some of the same unmitigated traffic impacts predicted for the proposed Plan.

Parking

The Municipal Services Alternative is not expected to substantially increase demand for off-street parking; therefore, businesses within the District would continue to accommodate their parking needs as under existing conditions. The Municipal Services Alternative may also increase the supply of on-street parking within the study area, since new streets within the District could provide curbside spaces. These spaces may alleviate some of the excess demand for on-street parking expected under the No Action Alternative. Overall, like the proposed Plan, the Municipal Services Alternative would not result in a significant adverse shortfall of on- or off-street parking.

TRANSIT AND PEDESTRIANS

The Municipal Services Alternative itself would generate little, if any, new demand for subway service, but as with the proposed Plan, there would be additional riders from other proposed development projects outside of the District. As with the proposed Plan, the No. 7 subway line would continue to operate within guideline capacity under the Municipal Services Alternative. Because the Municipal Services Alternative would result in little or no increase in new riders at the Willets Point-Shea Stadium subway station, it would not result in significant adverse impacts on the S2 stairway, as would the proposed Plan.

With the proposed Plan and anticipated development on Lots B and D, new development within the District would result in significant adverse impacts on the Q48 and Q66 bus routes, but the Q19 route would operate within guideline capacity. The Municipal Services Alternative itself would generate little, if any, new demand for bus service, but there would be increases in ridership from background growth and other proposed development projects outside of the

District. Under the Municipal Services Alternative, the Q19 and Q48 routes would have adequate capacity to meet demand, but the Q66 route would not. Therefore, both the Municipal Services Alternative and the proposed Plan would necessitate additional service on the Q66 route, but the Municipal Services Alternative would not require additional service on the Q48 route, which would be needed for the proposed Plan. Existing service on the Q19 route would be adequate to meet demand under both the Municipal Services Alternative and the proposed Plan.

The Municipal Services Alternative would generate few, if any, new pedestrian trips, but as with the proposed Plan there would be additional demand from general background growth and other proposed development projects outside of the District. There would also be changes in the pedestrian network associated with Citi Field, and it is anticipated that new sidewalks would be constructed in tandem with the new streets in the District. Under the Municipal Services Alternative, all pedestrian elements except for the east crosswalk at Northern Boulevard and 126th Street during the Saturday post-game peak period, would continue to operate at acceptable levels (13 PFM for sidewalks; 20 SFP for corners and crosswalks) during all analysis time periods, and the significant adverse crosswalks impacts predicted for the proposed Plan would not occur.

AIR QUALITY

The Municipal Services Alternative would generate fewer new vehicle trips than the proposed Plan and anticipated development on Lots B and D, but neither the Municipal Services Alternative nor the proposed Plan would result in significant adverse impacts from mobile source emissions.

Under the Municipal Services Alternative, industrial uses would remain within the District. It is anticipated that stationary source emissions from these industrial uses would be comparable to existing conditions such that they would not result in exceedances of air quality standards and thresholds, and any new businesses that would be located within the District would need to comply with local, state, and federal air quality standards and regulations. Therefore, like the proposed Plan, the Municipal Services Alternative would not result in significant adverse impacts from stationary source emissions.

NOISE

The Municipal Services Alternative would result in less vehicular traffic in the study area than the proposed Plan; however, ambient noise levels in the area would continue to be high. As with the proposed Plan, noise levels under the No Action Alternative at World's Fair Marina Park (Receptor Site 3) and the intersection of Roosevelt Avenue between College Point Boulevard and Prince Street (Receptor Site 2) would be in the "marginally unacceptable" category, and noise levels at the intersection of Roosevelt Avenue between 114th Street and 111th Street (Receptor Site 1) would be in the "clearly unacceptable" category. While the proposed Plan would result in a significant adverse impact at World's Fair Marina Park and this alternative would not, noise levels of the magnitude expected with the proposed Plan frequently occur at parks or portions of parks that are adjacent to heavily trafficked roadways.

Unlike the proposed Plan, the Municipal Services Alternative would not be subject to E designations or Restrictive Declarations requiring noise attenuation to meet CEQR interior noise requirements.

CONSTRUCTION

Construction of new infrastructure under the Municipal Services Alternative would require excavation activities, utility installation, paving of streets, and related activities. As with the proposed Plan, construction activities for the Municipal Services Alternative undertaken by the City would comply with Local Law 77, the New York City Noise Control Code, and other applicable rules and regulations, but for any private development within the District under the Municipal Services Alternative, Local Law 77 requirements would be optional. Overall, both the proposed Plan and the Municipal Services Alternative have the potential to result in temporary construction-period impacts; however, the duration and extent of construction would be reduced under the Municipal Services Alternative as compared with the proposed Plan.

PUBLIC HEALTH

The Municipal Services Alternative would not result in significant adverse air quality or noise impacts. Although the Municipal Services Alternative is not anticipated to result in significant adverse impacts on public health, it would not comprehensively remediate hazardous materials within the District and would not achieve the public health benefits of the proposed Plan.

F. STAGED ACQUISITION ALTERNATIVE

DESCRIPTION

The Staged Acquisition Alternative would result in a development program that is the same as the proposed Plan, but properties would be acquired and developed over time. Under this alternative, the western portion of the District (roughly west of 127th Street) would be acquired and developed first. This would allow the City additional time to find suitable relocation sites for the District's larger businesses which are concentrated in the eastern portion of the District and which have more specific relocation needs than the District's smaller businesses. It would also spread the cost of property acquisition and infrastructure improvements over time. It is anticipated that the western portion of the District would be developed by 2013, with the eastern portion of the site to be built out by 2017. The development would take place continuously throughout the 2009 to 2017 time period.

Similar to the proposed Plan, at full build-out the Staged Acquisition Alternative would include residential, retail, office, convention center, hotel, and community facility uses, as well as parking, publicly-accessible open space, a new street grid, new connections to the Van Wyck Expressway, and new public utilities within the District. Like the proposed Plan, this alternative would include 20 percent of residential units as affordable housing in both 2013 and 2017. As shown in Table 24-1, the western portion of the site would be developed with approximately 5,770,000 gsf of residential, retail, office, hotel, and school uses, as well as parking and open space. The eastern portion of the site would be developed with additional residential, retail, parking, open space, and school uses, as well as community facilities and a convention center. It is anticipated that a larger school would be constructed in the eastern portion of the District after 2013, which would replace the smaller interim school that would serve the District until 2013. The interim school space would subsequently be redeveloped as additional retail space.

At full build-out, this Alternative would develop the District with the same gross floor area and mix of uses as the proposed Plan, and would have the same controls on floor area ratios set forth in the provisions of the Special District. It is anticipated that Citi Field Lots B and D would be developed by 2017, with the same program as outlined under the proposed Plan.

Table 24-1
Staged Acquisition Alternative—Program

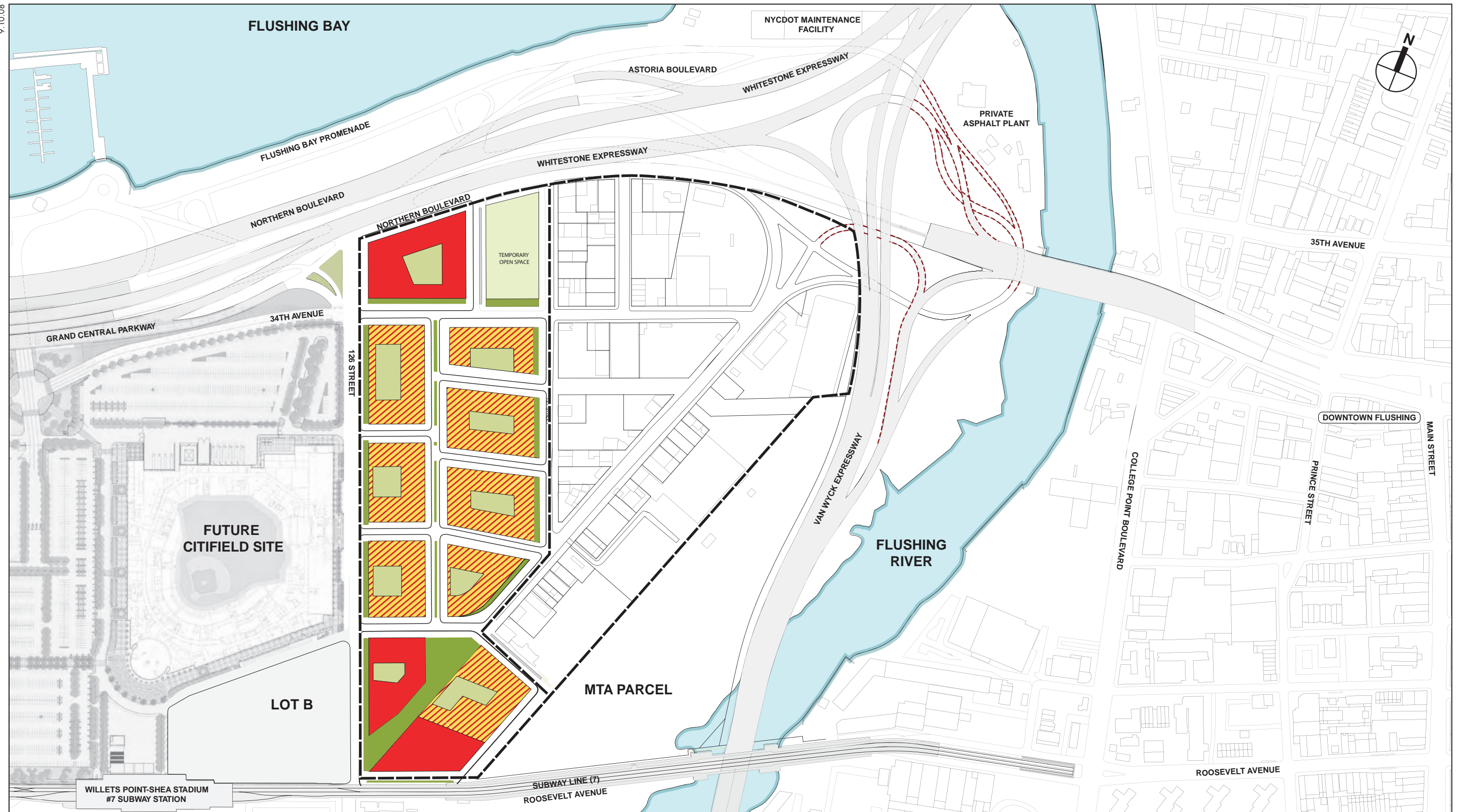
Use	Proposed Plan	Staged Acquisition Alternative	
		2013	2017
Residential	5,500,000 gsf (5,500 units)	3,160,000 gsf (3,160 units)	5,500,000 gsf (5,500 units)
Retail	1,700,000	1,475,000	1,700,000
Office	500,000	500,000	500,000
Convention Center	400,000	—	400,000
Hotel	560,000 (700 rooms)	560,000 (700 rooms)	560,000 (700 rooms)
Community Facility	150,000 gsf	—	150,000 gsf
School (K-8)*	130,000 gsf (Approx. 850 Seats)	75,000 gsf (Approx. 500 Seats)	130,000 gsf (Approx. 850 Seats)
Parking Spaces**	Approx. 6,700	Approx. 4,200	Approx. 6,700
Publicly Accessible Open Space	Minimum 8 Acres	3.6 Acres	Minimum 8 Acres
Notes:			
* The capacity of the proposed school would meet the project-generated shortfall in school seats.			
** The number of proposed parking spaces would be determined based on anticipated project-generated demand. Parking floor area is exempt from the gross floor area calculations, per the Special Willets Point zoning district.			

Like the proposed Plan, the Staged Acquisition Alternative would include new connections to the Van Wyck Expressway in the northeast portion of the District. These connections would be constructed by 2013. Because this alternative would not include the early acquisition of eastern properties in the District, it is anticipated that the configuration of the new ramps would conform to the existing street network. Figures 24-2 and 24-3 show the potential configuration of the new ramps under the Staged Acquisition Alternative. The new connection to the Van Wyck Expressway would require federal (FHWA) and state (NYSDOT) approval of a Freeway Access Modification Report under both the proposed Plan and this alternative.

As shown in Figure 24-2 and Figure 24-3, the siting of uses and the layout of the District's street grid, with the exception of the northeastern portion of the District near the new Van Wyck connection, would be the same under the Staged Acquisition Alternative and proposed Plan. Before complete acquisition of the eastern portion of the District, east-west streets would be elevated above the floodplain in the western portion of the District, and would be graded to slope down to the existing streets to the east, allowing continued access to and from remaining businesses in the District. After acquisition of the eastern properties, streets in that area would be raised above the floodplain. Streets in the redeveloped western portion of the District which were constructed to slope down to existing eastern streets would be re-graded to meet the new elevated streets to the east.

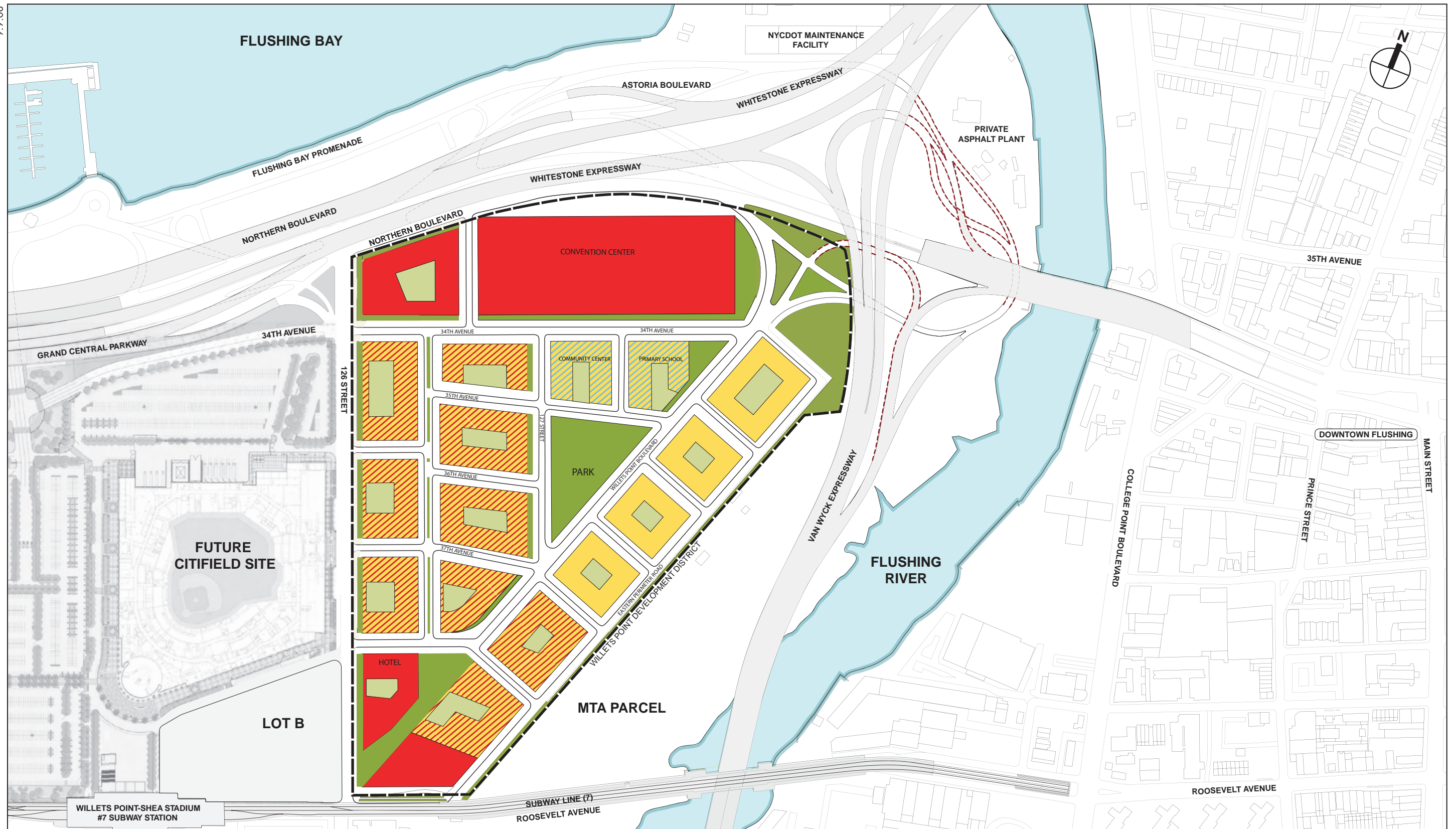
Like the proposed Plan, implementation of the Staged Acquisition Alternative would require discretionary actions by the City of New York, including adoption of a URP, acquisition and disposition of property, changes in the underlying zoning, creation of a zoning Special District, demapping of streets, and possible approval of business terms. As discussed above, the new connection to the Van Wyck Expressway under the proposed Plan or this alternative would require federal and state approval of a Freeway Access Modification Report.

The Staged Acquisition Alternative, like the proposed Plan, would utilize E-designations and Restrictive Declarations to ensure that there would be no significant adverse impacts with respect to hazardous materials, noise attenuation, and air quality (specifically associated with the heating, ventilation, and air conditioning system). E-designations for hazardous materials, noise and air quality would be placed on all privately owned properties in the District until they are acquired by the City, at which point the E-designations would be replaced with Restrictive



FOR ILLUSTRATIVE PURPOSES

This figure has been updated since the DGEIS



- | | |
|---|-------------------|
| Willets Point Development District | Commercial |
| Residential | Rooftop Courtyard |
| Residential with Commercial Below | Open Space |
| Residential with Community Facility Below | |

FOR ILLUSTRATIVE PURPOSES
This figure has been updated since the DGEIS

Declarations. E-designations for eastern properties would remain in place for a longer duration under this alternative as compared with the proposed Plan, since they would be acquired later under the alternative.

Similar to the proposed Plan, the Staged Acquisition Alternative would include emissions and noise-reduction programs during construction, which would ensure that no significant impacts on air quality or long-term noise impacts would occur during construction. The preparation and enforcement of a Health and Safety Plan (HASP) would prevent any significant adverse impacts from hazardous materials.

In general, the most substantial differences between the Staged Acquisition Alternative and the proposed Plan are the timing of property acquisition and construction phasing. While the necessary remediation, grading, and infrastructure improvements would take place across the District at the beginning stages of construction for the proposed Plan, they would occur more incrementally under this alternative. This could require additional safeguards to ensure that existing hazardous materials contamination on the eastern portion of the District would not migrate to the western portion of the District subsequent to the remediation of the western properties. It could also require a more complex stormwater management plan, since new storm systems put in place prior to 2013 would need to ensure adequate retention and discharge of stormwater in the western portion of the District, and after 2013 would need to be integrated with new stormwater systems put in place on the eastern portion of the site to ensure efficient District-wide stormwater management. Roadway access to the eastern portion of the site would need to be maintained for several years while the western portion of the site is being developed, and until such time when the City acquires the eastern properties for development under the build-out. NYCEDC would require through the developer's agreement that an open space area of at least 15-feet in width be provided along the eastern portion of the area to be developed by 2013. This would provide a buffer between buildings being constructed on the western portion of the site and existing uses on the eastern portion of the site.

STAGED ACQUISITION ALTERNATIVE COMPARED WITH THE PROPOSED PLAN

The following sections compare conditions under the Staged Acquisition Alternative to conditions with the proposed Plan.

LAND USE, ZONING, AND PUBLIC POLICY

Conditions in 2017

At full build-out, the effects of the Staged Acquisition Alternative would be very similar to those of the proposed Plan. Like the proposed Plan, this alternative would dramatically change land uses in the District by replacing predominantly low-density auto-related and industrial uses with a new mixed-use neighborhood that includes residential, retail, office, hotel, convention center, community facility and open space uses. In either case, the proposed uses would be compatible with much of the land use study area, although some of the uses would not be compatible with the industrial activities permitted on the adjacent Metropolitan Transportation Authority (MTA) property and more remote industrial uses along the waterfront to the north and east of the District. As with the proposed Plan, this juxtaposition would not constitute a significant adverse impact under the Staged Acquisition Alternative.

As described above, the Staged Acquisition Alternative would include new connections to the Van Wyck Expressway, but the configuration of the new ramps would be different compared with the proposed Plan. Similar to the proposed Plan, under the Staged Acquisition Alternative the southern portion of 127th Street and all of 34th Avenue could remain in their current alignments. Willets Point Boulevard would remain in place in order to allow access to existing utilities beneath it, and would remain open to vehicular traffic except for its southern end, which would serve as a pedestrian boulevard and open space.

Overall, land use changes that would occur with either the proposed Plan or full build-out of this alternative would be beneficial. The convention center and commercial uses would enhance Flushing and Corona's roles as regional economic centers, and would attract visitors to the area. A synergy would be created between the District and Citi Field through a pedestrian-oriented regional entertainment and commercial center along 126th Street.

In terms of zoning and public policy, the Staged Acquisition Alternative would require the same changes to the underlying zoning of the District, would include the creation of a zoning Special District, and would create a URP to define District boundaries and the area to be redeveloped as per the City's redevelopment goals. The proposed C4-4 is consistent with the zoning that exists throughout much of the Downtown Flushing area. Although some of the uses permitted in the proposed C4-4 district would not be compatible with the M3-1 zoning of the adjacent MTA property, it is not uncommon for new higher-density residential and commercial districts to be located next to older heavy manufacturing districts near the waterfront.

Either the proposed Plan or the Staged Acquisition Alternative would represent a critical step in implementing the Downtown Flushing Development Framework and would advance a number of the Framework's fundamental goals, including: the creation of a regional destination that would enhance economic growth in Downtown Flushing; improvement of environmental conditions; and integration of new development in the District with surrounding amenities, including the Flushing Bay Promenade, the new Citi Field, Flushing Meadows-Corona Park, and Downtown Flushing.

Overall, full build-out of the Staged Acquisition Alternative is not expected to result in significant adverse impacts on land use, zoning, and public policy.

Conditions in 2013

By 2013, the western portion of the District would be completed. New construction would include 3.16 million gsf of residential uses, 1,475,000 gsf of retail space, 500,000 gsf of office space, an approximately 700-room hotel and a 75,000-gsf school. There would also be enough parking to meet project-generated demand for this alternative, and approximately 3.6 acres of publicly-accessible open space.

The eastern portion of the District would continue to contain industrial uses, although this would be an interim condition as this alternative contemplates the ongoing acquisition of parcels in the eastern portion of the District. In this area, many of the improvements that would occur under both the proposed Plan and full build-out of this alternative in 2017 would not be in place—there would be no District-wide improvements to drainage and sanitary sewers, streets, or pedestrian amenities, and there would be no remediation of hazardous materials conditions or filling of the area to raise it above the floodplain. Streets would not be elevated above the floodplain in the eastern portion of the District; to allow continued access to and from eastern portion of the District, streets in the western portion would be graded to slope down to the existing streets to the east. In terms of land use compatibility, the residential and other uses in the western part of

the District would not be compatible with the large number of auto and industrial uses that would remain in the western part of the District. In 2013, these businesses would become non-conforming uses under this alternative and would not be permitted to expand operations.

SOCIOECONOMIC CONDITIONS

As with the proposed Plan, development resulting from the Staged Acquisition Alternative would generate substantial economic benefits for New York City and New York State and would not cause any significant adverse impacts related to direct residential displacement, indirect residential displacement, direct business and institutional displacement, indirect business and institutional displacement, or effects on specific industries. Like the proposed Plan, this alternative would include 20 percent of residential units as affordable housing in both 2013 and 2017.

At full build-out in 2017, the effects of this alternative would be largely the same as those identified for the proposed Plan. However, under this alternative the City would be afforded additional time to find suitable relocation sites for the District's larger businesses, which are concentrated in the eastern portion of the District and have more specific relocation needs than the District's smaller businesses. By 2013, approximately 888 employees would be displaced from the western portion of the District, compared with the 1,711 employees that would be displaced under the proposed Plan or full build-out of this alternative in 2017.

COMMUNITY FACILITIES

Like the proposed Plan the Staged Acquisition Alternative would not result in significant adverse impacts on public schools, libraries, or health care facilities. In 2017, the Staged Acquisition Alternative would have the same number of residents as the proposed Plan, would include 20 percent of residential units as affordable housing, and would include the same number of school seats (sufficient to address the project-generated shortfall in seats). Unlike the proposed Plan, under the Staged Acquisition Alternative, an approximately 75,000-gsf (500-seat) school would be constructed by 2013 to address the demand that would result from 3,160 units of housing. By 2017, a larger 130,000-gsf school would replace the interim 75,000-gsf school and the interim school would be redeveloped with retail uses.

Both the proposed Plan and both stages of the Staged Acquisition Alternative could result in a significant adverse impact on day care facilities. The low- to moderate-income housing units anticipated could increase the net shortage of publicly funded child care slots beyond the *CEQR Technical Manual* threshold for an adverse impact. Therefore, should this occur, both the proposed Plan and the Staged Acquisition Alternative would require as part of the developer's agreement, that a future developer consult with the New York City Administration for Children's Services (ACS) to determine the appropriate way to meet demand for day care services generated by development in the District.

OPEN SPACE

Conditions in 2017

Like the proposed Plan, full build-out of the Staged Acquisition Alternative is not expected to result in significant adverse open space impacts. Both would generate the same number of new employees and residents and would create a minimum of eight acres of publicly accessible open space. The area surrounding the District would continue to have adequate active and passive open space resources. Although open space ratios would decline, for the most part the open space ratios

would exceed existing City guidelines. As shown in Table 24-2, within the commercial study area, there would be 0.77 acres of passive open space per 1,000 workers and 0.33 acres per 1,000 workers and residents. Within the residential study area, there would be 3.80 acres of total open space (comprising 1.81 acres of active and 1.99 acres of passive) per 1,000 residents and 0.98 acres of passive open space for the combined residential and worker population. Only the active open space ratio per 1,000 residents and the passive open space ratio per 1,000 workers and residents would be below the recommended ratio; the total open space ratios would be well above City goals. The open space ratios indicate that workers and residents would have adequate open space to meet their needs in the future. The extensive open space resources that lie just beyond the open space study area would also help offset the effects of development in the District.

Conditions in 2013

The Special District regulations require minimum public access area dimensions at various locations within the District, and ensure that public access areas are developed in conjunction with the surrounding development by stipulating the dimensions of public access areas that must be provided along with certain developments (e.g., with developments or enlargements at least 100,000 square feet (sf) in size and on zoning lots of at least 200,000 sf). Pursuant to the minimum public access area dimensions prescribed by the Special District regulations, there would be a minimum of 3.6 acres of publicly accessible open space in the western portion of the District in 2013. As shown in Table 24-2, above, open space ratios with the Staged Acquisition Alternative in 2013 would decline from background conditions in 2013. Within the commercial study area, the ratio of passive open space per 1,000 workers would be 0.70, which would be above the City's guideline of 0.15 acres. The passive open space ratio for the combined worker and residential population would be 0.34 acres per 1,000 people, which is slightly lower than the City's recommended weighted average ratio of 0.36 acres per 1,000 residents and workers.

Table 24-2
Summary of Open Space Ratios
Staged Acquisition Alternative

Ratio	City Guideline	Open Space Ratios			
		Existing Conditions	Future No Build Condition 2013	Staged Acquisition Alternative 2013	Staged Acquisition Alternative 2017
Commercial Study Area					
Passive/Workers	0.15	0.88	0.88	0.70	0.77
Passive/Total Population	0.28* Existing 0.28* 2013 NB 0.36* 2013 Build 0.35* 2017 Build	0.56	0.56	0.34	0.33
Residential Study Area					
Total/Residents	2.5	15.44	7.28	4.67	3.80
Active/Residents	2.0	7.71	3.63	2.25	1.81
Passive/Residents	0.5	7.73	3.65	2.42	1.99
Passive/Total Population	0.26* Existing 0.29* 2013 NB 0.31* 2013 Build 0.32* 2017 Build	2.32	1.48	1.11	0.98
Notes:	* Weighted average combining 0.15 acres per 1,000 non- residents and 0.50 acres per 1,000 residents. Non-residents typically use passive open spaces; therefore, for the commercial study area, only passive open space ratios are calculated. For the residential study area, active, passive, and total park space ratios are calculated.				
Sources:	U.S. Census Bureau, 2000; Central Transportation Planning Package (CTPP) 2000 — Part 2; New York City Department of Parks and Recreation open space database.				

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Within the residential study area, there would be 104.21 acres of total open space (comprising 50.16 acres of active and 54.05 acres of passive). This would result in 4.67 acres of total open space per 1,000 residents, comprised of 2.25 acres of active open space per 1,000 residents and 2.42 acres of passive open space per 1,000 residents. The combined passive open space ratio would be 1.11 acres per 1,000 residents and workers. All of these ratios would be well above the recommended guidelines.

SHADOWS

It is expected that there would be no significant adverse shadow impacts as a result of either the proposed Plan or the Staged Acquisition Alternative. Similar to the proposed Plan, this alternative would be subject to the bulk regulations set forth in the URP and Special District text, and height limits across most of the District would be determined by the distance from LaGuardia Airport. As with the proposed Plan, buildings constructed under this alternative would range in maximum height from approximately 60 feet to 218 feet above ground level. Therefore, shadow conditions with this alternative would be very similar or the same as those with the proposed Plan, and while some incremental shadow would be cast onto Flushing Bay, the Flushing Bay Promenade, and the Flushing River in some seasons, there would not be a significant adverse shadow impact. In 2013, incremental shadows would be similar to those in the full build-out. At full build-out, the eastern section of the development site would be responsible only for small areas of incremental shadow on Flushing River in June and a portion of the incremental shadow falling on the Flushing Bay Promenade in December. Most of the incremental shadow on Flushing River and Flushing Bay Promenade, and all the incremental shadow on Flushing Bay, would come from the western section of the development site, which would be built out by 2013 under the Staged Acquisition Alternative.

HISTORIC RESOURCES

Archaeological Resources

LPC and OPRHP have determined that the District does not have the potential for archaeological sensitivity. Therefore, like the proposed Plan, the Staged Acquisition alternative would not have a significant adverse impact on archaeological resources in either 2013 or 2017.

Architectural Resources

Like the proposed Plan, it is anticipated that the Staged Acquisition Alternative at full build-out in 2017 would entail the demolition of the former Empire Millwork Corporation Building—found by OPRHP to be eligible for listing on S/NR. Demolition of this building under the proposed Plan or the Staged Acquisition Alternative would therefore constitute a significant adverse impact on architectural resources. Measures to mitigate this impact would be developed in consultation with OPRHP. These measures could include recording the building through a Historic American Buildings Survey (HABS)-level photographic documentation and accompanying narrative.

In 2013 under the Staged Acquisition Alternative, development would be limited to the western portion of the District and the former Empire Millwork Corporation Building would not be demolished. Therefore, there would be no effect on this building in 2013 and mitigation measures would not be required at that time. However, in the event that NYSDOT ultimately selects a ramp configuration other than the one assumed for this alternative, demolition of the

Empire Millwork Corporation Building may be required by 2013, and the impact would occur by 2013 as it would under the proposed Plan.

URBAN DESIGN AND VISUAL RESOURCES

Conditions in 2017

Like the proposed Plan, the Staged Acquisition Alternative at full build would dramatically alter and greatly improve the urban design and general appearance of the District. The site is currently underdeveloped with low-scale buildings primarily related to automotive repair, as well as larger industrial buildings. The Staged Acquisition Alternative and the proposed Plan would result in new buildings of various heights, and introduce active uses that would increase the vitality of the District and increase pedestrian traffic to the District and the surrounding area. The appearance of the District would also be improved by providing new streets and streetscape elements. The District and surrounding area would be integrated by creating a new pedestrian-scaled street network and adding new publicly accessible open spaces. Like the proposed Plan, a new street pattern and new block forms would be established in the District, with two main connector streets providing the main access streets into the District and the primary streets through the District. In both the Staged Acquisition Alternative and the proposed Plan the alignment of Willets Point Boulevard may be retained (with the exception of the southern portion), although the Staged Acquisition Alternative could result in a different access ramp connecting to the Van Wyck Expressway (see Figure 24-2). As described above, like the proposed Plan, buildings in this alternative would be subject to the URP, Special District text, and height limits due to the District's proximity to LaGuardia Airport. As with the proposed Plan, buildings constructed under this alternative would range in maximum height from approximately 60 feet to 218 feet above ground level.

In terms of visual resources, neither the proposed Plan nor the Staged Acquisition Alternative would have a significant adverse impact on visual resources. Like the proposed Plan, this alternative would not adversely affect views to or from Flushing Bay, the Flushing Bay Promenade, or views to the 1964 World's Fair structures in Flushing Meadows-Corona Park. While new development in the District would be visible in views south from the promenade, this is not the primary view from this location, and the buildings would be partially obscured by the elevated transportation structures and by the new Citi Field. This alternative also would not interfere with views across Flushing Bay from the promenade.

Conditions in 2013

By 2013, the area west of 127th Street would be redeveloped under this alternative, with the eastern portion of the District subject to ongoing acquisition by the City. Thus, only some of the improvements described above that would have a beneficial impact on the urban design and overall appearance and feel of the District would be in place by 2013. Compared to the proposed Plan (and this alternative at full build-out in 2017) there would be a stark contrast between the redeveloped portion of the District and the area that would remain largely industrial in nature, without adequate infrastructure, pedestrian amenities, or cohesive urban design.

NEIGHBORHOOD CHARACTER

Conditions in 2017

Like the proposed Plan, the Staged Acquisition Alternative would dramatically change neighborhood character in the District. The new, active mix of residential, retail/entertainment, office, open space, hotel and conference center, and community facility uses would represent an improvement to the character of the area. Development would be scaled to enhance pedestrian activity, with prescribed streetwall heights and locations, mandatory pedestrian circulation space, and other design elements to enhance building façades. The Special District would also mandate the provision of street trees, adequate sidewalks, and planted medians, and the development of a minimum of eight acres of publicly accessible open space. As with the proposed Plan, the Staged Acquisition Alternative would include environmental remediation, grading and elevating the District above the floodplain, the installation of new sanitary and storm sewer lines, and the creation of a new connection to the Van Wyck Expressway.

The convention center and commercial uses would enhance Flushing and Corona's roles as regional economic centers, and would attract visitors to the area. The proposed residential, commercial office, retail, hotel, community facility, open space, and parking uses would be consistent with the uses and character in the surrounding area, particularly those within the dense commercial center of Downtown Flushing. Although the proposed residential and community facility uses would not be compatible with industrial uses on the adjacent MTA property, it is not uncommon to find this type of juxtaposition in older manufacturing districts near the waterfront. As with the proposed Plan, traffic, transit, pedestrian and noise conditions would be adversely affected, but not (particularly with the mitigation measures proposed) to the degree that neighborhood character would experience significant adverse impacts.

Conditions in 2013

In 2013, industrial uses would continue in the eastern part of the District, while the western portion would contain active residential, commercial, school, open space and hotel uses.

Conditions with respect to traffic and noise would be better than those with either the proposed Plan or full build-out of this alternative in 2017. However, some of the neighborhood character benefits that would be realized under this alternative in 2017 (or with the proposed Plan) would not exist in 2013, including District-wide infrastructure improvements, pedestrian amenities, streetscape amenities, and improved urban design. The redeveloped portion of the District would contrast sharply with the eastern portion of the District, with residential, office and open space uses along 127th Street facing an automotive-oriented and industrial area.

NATURAL RESOURCES

Neither the Staged Acquisition Alternative nor the proposed Plan would result in significant adverse impacts on terrestrial natural resources, wetlands, aquatic resources, endangered species, threatened species, or species of special concern. Like the proposed Plan, this alternative would offer benefits to natural resources (such as improved habitat) and is expected to include sustainable design elements.

In 2013, eastern portions of the District would not be raised with up to seven feet of fill, and would allow for the continued occupation of land below flood elevation. For these areas, contaminated soils would not be removed or capped, and sanitary and storm sewers would not be constructed. This could result in potential effects on aquatic biota through the continued

discharge of wastewater, polluted stormwater, and sediments from the District to the Flushing River, Flushing Bay, and groundwater aquifers.

HAZARDOUS MATERIALS

Soil and groundwater sampling of the District confirmed that contamination is present. Given the presence of this groundwater contamination and the historic uses within the District, other potential contamination is expected to be widespread on private properties. The Staged Acquisition Alternative, like the proposed Plan, would utilize E-designations and Restrictive Declarations to ensure that there would be no significant adverse impacts with respect to hazardous materials. E-designations would be placed on all privately owned properties in the District until they are acquired by the City, at which point the E-designations would be replaced with Restrictive Declarations. E-designations for eastern properties would remain in place for a longer duration under this alternative as compared with the proposed Plan, since they would be acquired later under the alternative. While it is not anticipated that private properties would be redeveloped on an individual basis, if such redevelopment were to occur, it would be subject to the E-designations, which would ensure that remediation would take place under New York City Department of Environmental Protection (DEP) oversight. With these measures in place, as with the proposed Plan, there would be no significant adverse hazardous materials impacts.

Since remediation activities would occur more incrementally under this alternative, additional safeguards may be required to ensure that existing hazardous materials contamination on the eastern portion of the District would not migrate to the western portion of the District subsequent to the remediation of the western properties.

WATERFRONT REVITALIZATION PROGRAM

Both the proposed Plan and the Staged Acquisition Alternative would be consistent with citywide policies for fostering residential and commercial development, creating public access in the coastal zone, and protecting sensitive natural and historic resources.

INFRASTRUCTURE

Conditions in 2017

Compared to the proposed Plan, the Staged Acquisition Alternative in 2017 would have the same demand for water, and would generate the same amount of sanitary sewage and stormwater runoff.

Conditions in 2013

Water Supply

Like the proposed Plan, under the Staged Acquisition Alternative, the existing 72-inch water main within Willets Point Boulevard would remain in place, and the developer would provide a permanent easement mapped on the City map, in order to provide acceptable access to the existing main. The width and designation of this easement would be determined in consultation with DEP. New local water supply distribution lines would be provided to the blocks in the western portion of the District, and uses in the eastern portion of the District would continue to be served by existing supply lines. Similar to the proposed Plan, the infrastructure would be built as private infrastructure, constructed to meet DEP standards.

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The total water demand for the development in 2013 is estimated to be 2.6 million gallons per day (mgd), which is 2.2 mgd greater than the existing 0.42 mgd water demand (see Table 24-3). The demand for water from the Staged Acquisition Alternative in 2013 would represent 60.5 percent of the water demand of the proposed Plan. This demand would be within the available capacity limits of the existing 72-inch transmission main, and would represent approximately 0.22 percent of the City's total current average daily water demand of 1.2 billion gallons per day (gpd). This would not overburden the City's water supply system, nor would it significantly affect the water supply infrastructure outside the District.

Table 24-3
Projected Water Usage with the Staged Acquisition Alternative

Proposed Use	Flow Rate*			2013 Development (gsf)	2013 Water Consumption (gpd)	2017 Water Consumption (gpd)
	Type	Per Unit	Per sf			
Residential	Domestic	112	0.401	3,160,000	1,264,000	2,200,000
	Air Conditioning		0.17		537,200	935,000
Retail	Domestic		0.17	1,475,000	250,750	320,365
	Air Conditioning		0.17		250,750	320,365
Commercial/ Office	Domestic	25	0.10	500,000	50,000	78,000
	Air Conditioning		0.10		50,000	78,000
Hotel	Domestic	150	0.1875	560,000	105,000	105,200
	Air Conditioning		0.17		95,200	95,200
School	Domestic	30	0.205	75,000	15,000	25,500
	Air Conditioning		0.10		7,500	13,000
Total Development GSF				5,770,000		
Water Consumption Subtotals (gpd)				Domestic	1,684,750	2,822,365
				Air Conditioning	940,650	1,535,065
Total Water Consumption (gpd)					2,625,400	4,357,430
Notes: * Assumes: Residential—112 gpd/person; Retail—0.17 gpd/sf; Office—0.10 gpd/sf and 25 gpd/person, which equates to 1 person per 250 sf; Hotel—150 gpd per room; Medical—Assumes water usage and sewage generation rates for Commercial/Office; School—30 gpd/seat domestic use, 0.10 gpd/sf for air conditioning and approximately 153 sq ft per seat which equates to 15.3 gpd/seat.						
Source: CEQR Technical Manual, Table 3L-2 "Water Usage and Sewage Generation Rates"						

Sanitary Sewage

As discussed in Chapter 14, "Infrastructure," the District currently has no connection to the City's sanitary sewer system, and relies on individual septic systems. In order to implement the Staged Acquisition Alternative, a large portion of the infrastructure required to support the development of the entire district would be needed, including new sewers, pump station and force main.

In 2013, the Staged Acquisition Alternative would result in sanitary flows of approximately 1.68 mgd, as shown in Table 24-4. This represents 5.26 percent of the projected 118 mgd available capacity of the Bowery Bay Treatment facility in 2013. Sanitary sewage from the Staged Acquisition Alternative could not be accepted by the existing 37th Avenue pump station, since it currently operates at its capacity. Similar to the proposed Plan, this alternative would require the construction of a new pump station (most likely within the District), and a force main to connect the District to the combined sewer in 108th Street. This infrastructure would need to be sized sufficiently to accommodate the sanitary flows of the entire District. In addition, the Special District text allows for the development of a water reclamation facility, provided it would primarily serve the District. If proposed by a future developer, a water reclamation facility would

Table 24-4
Estimated Wastewater Generation with
the Staged Acquisition Alternative

Proposed Use	Flow Rate			Development (gsf)	2013 Water Consumption (gpd)	2017 Water Consumption (gpd)
	Type	Per Unit	Per sf			
Residential	Domestic	112	0.401	3,160,000	1,264,000	2,200,000
Retail	Domestic		0.17	1,475,000	250,750	320,365
Commercial/ Office	Domestic	25	0.10	500,000	50,000	78,000
Hotel	Domestic	150	0.1875	560,000	105,000	105,000
School	Domestic	30	0.205	75,000	15,000	25,500
Total				5,770,000	1,684,750	2,822,365
Notes: * The following assumptions were made: Residential—112 gpd/person; Retail—0.17 gpd/sf; Office—0.10 gpd/sf and 25 gpd/person, which equates to 1 person per 250 sf; Hotel—150 gpd per room; Medical—Assumes water usage and sewage generation rates for Commercial/Office; School—30 gpd/seat domestic use, 0.10 gpd/sf for air conditioning and approximately 153 sq ft per seat which equates to 15.3 gpd/seat. Source: CEQR Technical Manual, Table 3L-2 "Water Usage and Sewage Generation Rates"						

require a special permit by the Board of Standards and Appeals (BSA), and would be subject to separate environmental and public review processes. The water reclamation facility would treat the District's sanitary wastewater to applicable water quality and effluent standards, return a portion of the treated water for reuse in the District (for toilets, cleaning, irrigation, air conditioning, etc.), and direct the remaining treated water to the stormwater system and existing outfall at 126th Street. The water reclamation facility would likely require a SPDES permit, and would result in a modest increase in the amount of detention to be provided in the District. If a water reclamation facility were constructed, it would obviate the need for a new pump station. Local sanitary sewer infrastructure would be developed within the new private streets to support new development in the western portion of the District. Similar to the proposed Plan, the sanitary infrastructure would be built to DEP standards, and include easement provisions to allow DEP unimpeded access.

Since the development within the District would provide separate, adequately-sized storm sewers, stormwater runoff would not contribute to flow being directed to the Bowery Bay WPCP. The only discharges to the Bowery Bay WPCP would be from sanitary sewers. The modeling analyses outlined in Chapter 14, "Infrastructure," indicate that the increase in sanitary flows would be a minor component of the wet weather flows that result in CSO events. The modeling results indicate that the frequency of CSO events would not increase with the proposed Plan, and thus the development of a portion of the District by 2013 would also not increase the frequency of CSO events.

Stormwater

As indicated in Chapter 14, "Infrastructure," the current stormwater conveyance system is insufficiently sized, which results in uncontrolled and untreated runoff and street flooding. As with the proposed Plan, the Staged Acquisition Alternative would require construction of a new stormwater conveyance system, including piping, sustainable design features, and an adequately-sized detention tank or equivalent means to accommodate the stormwater that is beyond the discharge capacity of the two storm water outfalls serving the District. It is assumed that stormwater from development of the Staged Acquisition Alternative in 2013 would be directed to the more proximate 126th street outfall. In 2013, the Staged Acquisition Alternative would generate

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approximately 46 percent of the total 337 cubic feet per second (cfs) stormwater flow generated within the District. Since stormwater generated by development of the western portion of the District would be greater than the 60 cfs available capacity of the 126th Street outfall, 1.8 acre-feet of detention would be required to regulate stormwater flows from this area to the existing outfall. However, even with the stormwater management upgrades implemented by 2013 as part of this alternative, flooding may continue in the eastern portion of the District until implementation of the District-wide stormwater management features that would be in place by 2017. With both the proposed Plan and the Staged Acquisition Alternative, the developer would be required to prepare a site stormwater management plan, to be reviewed and approved by DEP, that would specify Best Management Practices and sustainable design features that the project would include. However, with the Staged Acquisition Alternative, the stormwater management plan would be implemented in stages, with implementation in the western portion of the District by 2013 and implementation in the eastern portion by 2017.

SOLID WASTE AND SANITATION SERVICES

No significant adverse impacts on solid waste and sanitation services would result from either the Staged Acquisition Alternative in 2013 or 2017, or from the proposed Plan. The municipal solid waste and sanitation services that serve the District have adequate capacity to meet the projected increases in demand. In addition, local improvements in City services would be undertaken with either the Staged Acquisition Alternative or the proposed Plan to address the needs of the Plan.

The proposed Plan would displace two waste transfer businesses from the District, but this displacement would not have a significant adverse impact on the waste and sanitation services in Queens or in New York City. Under the Staged Acquisition Alternative, the same displacement would occur by 2017. In 2013, it is assumed that Crown Container, which is located in the western portion of the District would be displaced, while Tully Environmental, which is located in the eastern portion of the District, would continue to operate in its current location.

ENERGY

Like the proposed Plan, the Staged Acquisition Alternative would increase demands on electricity and gas. However, relative to the capacity of these systems and the current levels of service within New York City, these increases in demand would be insignificant in both instances. Similar to the proposed Plan, improvements would be made to the local electric and gas distribution grids that would ensure proper service to the District, but under this alternative those improvements would be installed in 2013 to serve development in the western portion of the District and 2017 for the eastern portion of the District.

In any case, new demands for energy are not expected to result in a significant adverse impact on the supplies of electricity and gas in the region or the City as a whole, and with the future improvements to the distribution network, no significant adverse impact would occur locally with respect to electrical or gas utilities.

TRAFFIC AND PARKING

Traffic

Roadway modifications within the District in 2013 with the Staged Acquisition Alternative would be similar to the proposed Plan conditions for 2017 and would include the proposed

access ramp from the northbound Van Wyck Expressway and entrance ramp to the southbound Van Wyck Expressway; two new east-west retail streets located between 34th Avenue and 38th Avenue that extend into the District from their intersections at 126th Street; and a third retail street running north-south from 34th Avenue to 38th Avenue. As with the proposed Plan, the existing Willets Point Boulevard between 34th and 38th Avenues would maintain its current alignment, but between 38th Avenue and its unsignalized intersection with 126th Street, Willets Point Boulevard would be closed to vehicular traffic. As a result, Willets Point Boulevard traffic would access 126th Street via 38th Avenue, which would become the new Willets Point Boulevard under 2017 conditions. A new street along the District's eastern border and the abutting MTA parcel would provide access into the District from Roosevelt Avenue east of 126th Street, similar to 2017 conditions with the proposed Plan. Finally, 127th Street would provide access from eastbound Northern Boulevard along the northern edge of the District. With these roadway conditions for the 2013 Staged Acquisition Alternative, project-generated traffic would enter and exit the District with circulation patterns similar to the proposed Plan in 2017.

2013 Without the Staged Acquisition Alternative

Future traffic conditions in 2013 without the Staged Acquisition Alternative were established to provide a baseline against which the potential impacts of the 2013 development could be compared. Future No Build traffic volumes were developed by applying an annual background traffic growth rate of 1 percent per year and adding traffic from other area development projects expected to be operational by 2013.

The 2013 No Build condition for the Staged Acquisition Alternative would include the expected No-Build developments (approximately 90 sites) and the one-way pairing of Main and Union Streets in Downtown Flushing, similar to the 2017 No Build analysis discussed in the "Future Without the Proposed Plan" section of Chapter 17, "Traffic and Parking." The 1 percent per year background growth rate between the existing year 2006 to the future year 2013 would add about 7.2 percent more traffic to all roadways within the traffic study area. Including traffic expected to be generated by the no build developments, No Build volumes along Northern Boulevard in Downtown Flushing and North Corona would range between about 1,120 vehicles per hour (vph) and 2,860 vph per direction, while volumes along Northern Boulevard adjacent to the District would be approximately 1,110 vph to 2,960 vph per direction. Roosevelt Avenue volumes in Downtown Flushing and North Corona would be about 290 vph 860 vph per direction, and nearer to the District, between 114th Street and College Point Boulevard, Roosevelt Avenue volumes would range between 505 vph and 1,200 vph per direction, with the highest volumes occurring during the game day peak hours. College Point Boulevard volumes approaching Roosevelt Avenue would be about 1,020 vph to 1,620 vph in the northbound direction and 685 vph to 985 vph in the southbound direction. Volumes along 126th Street adjacent to the District would be approximately 170 vph to 675 vph.

2013 With the Staged Acquisition Alternative

The project-generated vehicle trips expected during each of the study peak hours are shown in Table 24-5 for the non-game day and game day peak hours. In general, traffic generated in 2013 under the Staged Acquisition Alternative would be approximately 60 to 70 percent of the traffic generated under the full build-out of the Proposed Plan, or the full build-out of the Staged Acquisition Alternative.

Table 24-5
Staged Acquisition Alternative
Vehicle Trip Generation for 2013

Use	Auto		Taxi		Delivery		Total		
	In	Out	In	Out	In	Out	In	Out	Total
WEEKDAY AM PEAK PERIOD									
Residential	112	451			11	11	123	462	585
Office	456	18			8	8	464	26	490
Destination Retail	398	255			38	38	436	293	729
Movie Theater	19	1			3	3	22	4	26
Hotel	48	69			10	10	58	79	137
School	68	52			1	1	69	53	122
Total	1,101	846	68	68	71	71	1,240	985	2,225
WEEKDAY MIDDAY PEAK HOUR									
Residential	148	142			9	9	157	151	308
Office	145	157			9	9	154	166	320
Destination Retail	1301	1064			55	55	1356	1119	2475
Movie Theater	37	22			3	3	40	25	65
Hotel	101	48			8	8	109	56	165
School	0	0			1	1	1	1	2
Total	1,732	1,433	129	129	85	85	1,946	1,647	3,593
WEEKDAY PM PEAK HOUR									
Residential	430	232			2	2	432	234	666
Office	28	524			2	2	30	526	556
Destination Retail	1137	1282			5	5	1142	1287	2429
Movie Theater	85	72			0	0	85	72	157
Hotel	81	56			0	0	81	56	137
School	8	10			1	1	9	11	20
Total	1,769	2,176	160	160	10	10	1,939	2,346	4,285
WEEKDAY PRE-GAME PEAK HOUR									
Residential	360	154			2	2	362	156	518
Office	7	29			2	2	9	31	40
Destination Retail	1060	1060			5	5	1065	1065	2130
Movie Theater	135	119			0	0	135	119	254
Hotel	71	48			0	0	71	48	119
School	0	0			0	0	0	0	0
Total	1,633	1,410	138	138	9	9	1,780	1,557	3,337
SATURDAY MIDDAY NON-GAME PEAK HOUR									
Residential	418	315			3	3	421	318	739
Office	32	21			1	1	33	22	55
Destination Retail	1553	1492			3	3	1556	1495	3051
Movie Theater	116	71			0	0	116	71	187
Hotel	111	87			3	3	114	90	204
School	0	0			0	0	0	0	0
Total	2,230	1,986	259	259	10	10	2,499	2,255	4,754
SATURDAY PRE-GAME PEAK HOUR									
Residential	321	321			3	3	324	324	648
Office	8	46			1	1	9	47	56
Destination Retail	1135	983			3	3	1138	986	2124
Movie Theater	116	71			0	0	116	71	187
Hotel	111	87			3	3	114	90	204
School	0	0			0	0	0	0	0
Total	1,691	1,508	196	196	10	10	1,897	1,714	3,611
SATURDAY POST-GAME PEAK HOUR									
Residential	330	330			1	1	331	331	662
Office	32	21			0	0	32	21	53
Destination Retail	755	834			1	1	756	835	1591
Movie Theater	114	186			0	0	114	186	300
Hotel	111	87			0	0	111	87	198
School	0	0			0	0	0	0	0
Total	1,342	1,458	184	184	2	2	1,528	1,644	3,172
Note: This table presents inbound and outbound taxi trips for the District rather than by a particular land use. Taxi trips are not assigned to a particular land use because taxi trips are assumed to be shared among all the land uses in the District. Taxi trips are balanced to account for some arriving empty and leaving full, some arriving full and leaving empty, and some arriving and leaving full.									

In 2013 with this alternative, Northern Boulevard volumes can be expected to increase by about 55 to 150 vph per direction during the seven peak hours in Downtown Flushing between Parsons Boulevard and College Point Boulevard. Adjacent to the Willets Point Development District and Citi Field, Northern Boulevard volumes can be expected to increase by approximately 60 to 320 vph per direction during each study peak hour, primarily due to traffic from the southbound Whitestone Expressway off-ramp onto westbound Northern Boulevard. Northern Boulevard volumes in the vicinity of 108th and 114th Street can be expected to increase by about 80 to 185 vph per direction during the seven peak hours.

Roosevelt Avenue volumes can be expected to increase by about 15 to 60 vph per direction during the non-game and game day peak hours in Downtown Flushing between Parsons Boulevard and College Point Boulevard. Adjacent to the District, Roosevelt Avenue volumes can be expected to increase by approximately 30 to 235 vph per direction during the peak hours without a Mets game and by about 60 to 310 vph per direction during the peak hours with a Mets game. Roosevelt Avenue volumes in the vicinity of 108th, 111th, and 114th Streets can be expected to increase by about 35 to 260 vph per direction during the seven peak hours analyzed.

Volumes along 126th Street in the vicinity of 34th Avenue can be expected to increase by approximately 90 to 575 vph per direction during the seven peak hours. In the vicinity of the intersections with Roosevelt Avenue and the new Willets Point Boulevard, 126th Street volumes can be expected to increase by about 35 to 360 vph per direction during all of the peak hours.

College Point Boulevard volumes near Roosevelt Avenue would increase by approximately 30 to 230 vph per direction during the seven peak analysis hours.

To determine the extent of significant adverse traffic impacts which may occur in 2013 under the Staged Acquisition Alternative, eight key intersections were selected for analysis during the Saturday midday non-game peak hour and Saturday pre-game peak hour. These peak hours were selected as they represent the worst-case site and street peak hours of the 2013 development program. The site peak hour, or the hour in which the project-generated traffic volumes are at their highest levels, occurs during the Saturday midday non-game peak hour. The street peak hour, or the hour in which the volumes on the street network are at their highest levels, occurs during the Saturday pre-game peak hour. The eight critical locations for analysis of the 2013 build condition were selected based on their proximity to the site and anticipated increase in project-generated traffic volumes. The critical intersections are as follows:

- 126th Street at Northern Boulevard
- Prince Street at Northern Boulevard
- 126th Street at 34th Avenue
- 114th Street at Roosevelt Avenue
- 126th Street at Roosevelt Avenue
- College Point Boulevard at Roosevelt Avenue
- Boat Basin Road at World's Fair Marina Park
- 126th Street at 38th Avenue (the new Willets Point Boulevard in 2017)

An examination of these critical intersections during the Saturday midday non-game and Saturday pre-game peak hours indicates that, in general, the extent of significant adverse traffic impacts in 2013 under the Staged Acquisition Alternative would be similar to those identified in the 2017 proposed Plan. As compared with the 2017 proposed Plan, some lane groups in 2013 under this

alternative would no longer be impacted, while others would experience slight reductions in delay due to the lesser amount of development in place by 2013. However, regardless of the reduced number of impacts and delays to specific lane groups, the critical intersections identified as significantly impacted under the 2017 proposed Plan would also be impacted in the 2013 Staged Acquisition Alternative condition, with the exception of 126th Street at 38th Avenue, which would not be significantly impacted during the Saturday midday non-game peak hour. It was also determined that mitigation measures for 2013 under this alternative would be similar to those identified in Chapter 23, “Mitigation” for the proposed Plan in 2017. The primary reason for the close similarity in mitigation measures is that by the 2013 No Build year conditions, many of the critical traffic study locations would experience substantial delays, a condition that would be exacerbated by the addition of trips generated by the development in place by 2013 under the Staged Acquisition Alternative. This condition is similar to the addition of trips by the proposed Plan onto the 2017 No Build conditions roadway network.

Based on this analysis of critical intersections during the worst-case site and street peak hours for 2013 under the Staged Acquisition Alternative, it could be expected that, in general, study intersections would require similar mitigation measures as those identified in Chapter 23 for the proposed Plan in 2017. It can also be expected that those intersections which could not be mitigated in the proposed Plan in 2017 would have unmitigated impacts at most of the same locations in 2013 of the Staged Acquisition Alternative, with the exception of College Point Boulevard at Roosevelt Avenue. This intersection was found to be partially mitigated during the Saturday pre-game peak hour. Overall, impacts were found to be less severe in 2013.

Parking

It is anticipated that parking needs for both 2013 and 2017 under this alternative would be met by new off-street and on-street parking capacity within the District.

TRANSIT AND PEDESTRIANS

Conditions in 2017

Like the proposed Plan, the Staged Acquisition Alternative when fully built out would generate the same numbers of transit and pedestrian trips and yield a similar pedestrian environment within the District. Therefore, this alternative is expected to result in the same or similar significant adverse transit and pedestrian impacts as the proposed Plan.

Conditions in 2013

In 2013, the numbers of transit and pedestrian trips generated as a result of the Staged Acquisition Alternative would be substantially fewer than those projected for the proposed Plan because trips associated with the local retail and community facility uses, as well as the convention center, would not have been realized, and those associated with the residential and school components would have only been partially realized. Table 24-6 compares the transit and pedestrian trip generation for the completed components of the Staged Acquisition Alternative and for the proposed Plan.

As with the proposed Plan, the Staged Acquisition Alternative in 2013 is expected to yield significant adverse impacts at the street-level stairway (S2) on the north side of Roosevelt Avenue at the Willets Point-Shea Stadium subway station. In 2013, only 9 inches of increased effective width at this stairway would be needed to mitigate the projected impacts rather than the 4 feet, 3 inches required for the proposed Plan. However, it is anticipated that the full widening would take place by 2013.

Table 24-6
Transit and Pedestrian Trip Generation:
Staged Acquisition Alternative (2013) vs. Proposed Plan

Peak Hour	Mode	Staged Acquisition Alternative			Proposed Plan		
		In	Out	Total	In	Out	Total
Weekday AM	Subway	691	1,072	1,691	1,151	1,790	2,941
	Bus	492	385	877	649	596	1,245
	Walk Only	592	551	1,143	1,429	1,231	2,660
	Total Person Trips	1,775	2,008	3,783	3,229	3,617	6,846
Weekday Midday	Subway	1,054	904	1,958	1,574	1,346	2,920
	Bus	939	781	1,720	1,296	1,119	2,415
	Walk Only	709	686	1,395	2,703	2,634	5,337
	Total Person Trips	2,702	2,371	5,073	5,573	5,099	10,672
Weekday PM	Subway	1,508	1,372	2,880	2,264	2,137	4,401
	Bus	927	1,092	2,019	1,224	1,387	2,611
	Walk Only	515	637	1,152	1,706	2,013	3,719
	Total Person Trips	2,950	3,101	6,051	5,194	5,537	10,731
Weekday Pre-game	Subway	1,355	957	2,312	1,979	1,547	3,526
	Bus	854	777	1,631	1,094	1,004	2,098
	Walk Only	440	337	777	1,371	1,404	2,775
	Total Person Trips	2,649	2,071	4,720	4,444	3,955	8,399
Saturday Midday	Subway	1,330	1,165	2,495	1,949	1,709	3,658
	Bus	1,286	1,207	2,493	1,559	1,446	3,005
	Walk Only	822	682	1,504	2,432	2,047	4,479
	Total Person Trips	3,438	3,054	6,492	5,940	5,202	11,142
Saturday Pre-game	Subway	1,008	898	1,906	1,564	1,367	2,931
	Bus	952	828	1,780	1,202	1,036	2,238
	Walk Only	628	589	1,217	2,174	1,901	4,075
	Total Person Trips	2,588	2,315	4,903	4,940	4,304	9,244
Saturday Post-game	Subway	814	909	1,723	1,307	1,479	2,786
	Bus	670	750	1,420	873	992	1,865
	Walk Only	566	613	1,179	1,895	2,179	4,074
	Total Person Trips	2,050	2,272	4,322	4,075	4,650	8,725

The Staged Acquisition Alternative in 2013 would have virtually the same significant adverse impacts on bus operations in the study area. For example, both the eastbound and westbound Q48 and the eastbound Q66 would be impacted during the AM and PM peak periods. During the AM peak period, the eastbound Q48 would require nine additional or 15 total buses under the Staged Acquisition Alternative in 2013, as compared with 14 additional or 20 total buses required for the proposed Plan, to operate within guideline capacity. The westbound Q48 would require four additional or nine total buses under the Staged Acquisition Alternative in 2013, as compared with eight additional or 13 total buses required for the proposed Plan, to operate within guideline capacity. During the PM peak period, the eastbound Q48 would require 18 additional or 22 total buses under the Staged Acquisition Alternative in 2013, as compared with 27 additional or 31 total buses required for the proposed Plan, to operate within guideline capacity. The westbound Q48 would require 17 additional or 21 total buses under the Staged Acquisition Alternative in 2013, as compared with 24 additional or 28 total buses required for the proposed Plan, to operate within guideline capacity.

During the AM peak period, the eastbound Q66 would require eight additional or 23 total buses under the Staged Acquisition Alternative in 2013, as compared with nine additional or 24 total

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buses required for the proposed Plan, to operate within guideline capacity. During the PM peak period, the Q66 would require two additional or 13 total buses under the Staged Acquisition Alternative in 2013, as compared with three additional or 14 total buses required for the proposed Plan, to operate within guideline capacity.

The eastbound Q19 would operate within guideline capacity under both the Staged Acquisition Alternative in 2013 and the proposed Plan.

Therefore, under the Staged Acquisition Alternative, the impacts would not be as severe and fewer additional buses would be needed to mitigate the projected bus line-haul impacts.

At approximately half of the total projected pedestrian trips on 126th Street and Roosevelt Avenue and the anticipated development on Lots B and D not yet constructed, the Staged Acquisition Alternative in 2013 would yield fewer and less severe significant adverse pedestrian impacts than the proposed Plan. As a result, all of the impacts identified, as summarized below, could be fully mitigated with smaller crosswalk widenings than needed to mitigate impacts at full build-out.

- The north crosswalk at Roosevelt Avenue and 126th Street would experience its worst impact during the Saturday midday non-game peak period with operations declining to LOS D (18.5 SFP). Restriping this crosswalk from 17 to 18.5 feet wide would fully mitigate this impact.
- The east crosswalk at Roosevelt Avenue and 126th Street would experience its worst impact during the Saturday midday non-game peak period with operations declining to LOS D (15.2 SFP). Restriping this crosswalk from 11.5 to 15 feet wide would fully mitigate this impact.
- The west crosswalk at Roosevelt Avenue and 126th Street would experience its worst impact during the Saturday pre-game peak period with operations declining to LOS D (18.3 SFP). Restriping this crosswalk from 16 to 17.5 feet wide would fully mitigate this impact.
- The east crosswalk at Northern Boulevard and 126th Street would experience its worst impact during the Saturday post-game peak period with operations declining to LOS D (15.2 SFP). As with the proposed Plan, since the projected impacts would occur only on Saturday game days and when 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, restriping the existing crosswalk to a wider width would not be required.

AIR QUALITY

At full build-out in 2017 project-generated vehicle trips, parking facilities, and residential and other developments are expected to be the same under the proposed Plan and the Staged Acquisition Alternative. Therefore, air quality conditions in 2017 with the Staged Acquisition Alternative would be the same as for the proposed Plan.

Conditions in 2013 Without The Staged Acquisition Alternative

Without the Staged Acquisition Alternative, air quality conditions in the District would be similar to the existing air quality conditions and the conditions described for the future without the Proposed Plan in Chapter 19, “Air Quality.” Traffic volumes in the area would be higher than under the existing conditions, but not as high as in 2017 without the proposed Plan. Total emissions from vehicles operating in and around the project site in 2013 would be slightly higher than under the existing conditions, but lower than 2017 conditions without the proposed Plan.

Therefore, the concentrations of mobile source pollutants in the District without the Staged Acquisition Alternative are expected to be in the range of concentrations reported for the existing conditions and the future without the proposed Plan in Chapter 19. In the future without the Staged Acquisition Alternative by 2013, HVAC systems, parking facility and industrial source emissions would likely be similar to the corresponding emissions under the existing conditions.

Conditions in 2013 With The Staged Acquisition Alternative

Mobile Sources

As discussed under “Traffic and Parking,” traffic generated in 2013 with the Staged Acquisition Alternative would be approximately 60 to 70 percent of the traffic generated under the full build-out of the proposed Plan or the full build-out of the Staged Acquisition Alternative. No significant adverse air quality impacts were predicted for the proposed Plan, as discussed in Chapter 19. Since fewer project-generated vehicle trips are projected for the Staged Acquisition Alternative in 2013 than for the full build-out of the proposed Plan, no significant adverse air quality impacts would be expected in 2013 under the Staged Acquisition Alternative.

Parking Facilities

A conceptual garage at the proposed convention center was discussed in Chapter 19 as the parking facility having the greatest potential for adverse air quality impacts, and no significant impacts were predicted. Under the Staged Acquisition Alternative, the convention center would be built in 2017. Therefore, parking facilities developed by 2013 would be smaller than the conceptual convention center garage discussed in Chapter 19, and would not result in any adverse significant air quality impacts.

HVAC Systems

Fewer HVAC sources would be in operation in 2013 with the Staged Acquisition Alternative compared with the full build-out of the Proposed Plan. The uses developed by 2013 under the Staged Acquisition Alternative would be subject to the same restrictions on HVAC fuel use and exhaust stack placement presented in Chapter 19. The E-designations placed on the District properties would preclude the potential for significant adverse impacts to air quality under both the proposed Plan and the Staged Acquisition Alternative.

Industrial Sources

Under the Staged Acquisition Alternative, the properties on the western portion of the site would be available for residential and other uses by 2013, while the existing industrial and auto businesses on the eastern portion of the site could continue to operate. Those businesses, which were not included in the analysis described in Chapter 19 for the proposed Plan, were considered for their potential to impact the proposed uses that would be built in 2013 with the Staged Acquisition Alternative.

A screening level approach based on Table 3Q-3 in the *CEQR Technical Manual* was used. To assess the effects of multiple sources emitting the same pollutants, cumulative source impacts were determined. Predicted total worst-case impacts for each pollutant were compared with the

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short-term guideline concentrations (SGCs) and annual guideline concentrations (AGCs) recommended in DEC's *DAR-1 AGC/SGC Tables*.¹

Information regarding five additional air emission permits was obtained from DEP for businesses located within the portion of the project site that would not be redeveloped by 2013. Industrial emission sources assessed in the air quality analysis presented in Chapter 19 are all either farther than 1,000 feet from the area that would be developed by 2013, or emit pollutants that are different from those emitted by the existing uses in the District. Therefore, the industrial emission sources analyzed in Chapter 19 and the existing uses remaining in the District in 2013 would not have a cumulative effect.

Table 24-7 shows the air pollutants emitted by the businesses on the eastern portion of the District, the calculated concentrations at the buildings that would be developed by 2013, and the short-term (1-hour) and annual guideline concentrations for these pollutants. As shown in Table 24-7, the maximum predicted short-term and annual concentrations of pollutants emitted by industrial sources are below DEC short-term and annual guideline concentrations. Therefore, emissions from industrial sources would not have significant adverse air quality impacts on the development that would be introduced by 2013.

Table 24-7
Contaminant Concentrations Resulting From Businesses With DEC Permits

Potential Contaminants	Estimated Short-term Impact (ug/m ³)	SGC ^a (ug/m ³)	Estimated Long-term Impact (ug/m ³)	AGC ^a (ug/m ³)
Particulates	333	380	0.56	45 ^b
Solvents	16,730	N/A	36	N/A
Toluene	138	37,000	0.21	5,000
N-Butyl Acetate	143	95,000	0.22	17,000
Propylene Glycol	72	55,000	0.11	2,000
Methyl Ether Acetate				
Ethylene Glycol Butyl Ether Acetate	26	N/A	0.04	310
Notes: ^a DEC DAR-1 (Air Guide-1) AGC/SGC Tables, September, 2007. AGC-Annual Guideline Concentrations SGC-Short-term Guideline Concentrations ^b Pigment and solids were assumed to be particulates.				

NOISE

Conditions in 2017

With the Staged Acquisition Alternative, the project-generated vehicle trips, parking facilities, and building program in 2017 would be similar to those under the proposed Plan. Therefore, noise levels within and around the District in 2017 under the full build-out of the Staged Acquisition Alternative would be the same as for the full build-out of the proposed Plan in 2017.

Conditions in 2013 Without the Staged Acquisition Alternative

Without the Staged Acquisition Alternative, noise levels around the District are expected to be similar to existing noise levels and the conditions described for the future without the proposed

¹ DEC Division of Air Resources, Bureau of Stationary Sources, September, 2007.

Plan in Chapter 20, “Noise.” Traffic volumes in the area would be slightly higher than under the existing conditions, although not as high as in 2017 without the proposed Plan, as a result of background growth. This may result in noise levels that are slightly higher than under the existing conditions, although less than noise levels in 2017 without the proposed Plan. The increase between existing noise levels and future 2013 noise levels without the Staged Acquisition Alternative are expected to be barely perceptible and insignificant according to CEQR criteria.

Conditions in 2013 With the Staged Acquisition Alternative

Mobile Sources

As discussed under “Traffic and Parking,” traffic generated by the Staged Acquisition Alternative in 2013 would be approximately 60 to 70 percent of the traffic generated by full build-out of the proposed Plan or full build-out of the Staged Acquisition Alternative. The magnitude of the noise increases due to mobile sources would be expected to be less as well. The magnitude of the largest noise level increase in 2017 with the proposed Plan was 3.5 dBA at Site 3 during the Saturday midday time period, as discussed in Chapter 20, “Noise.” With only 70 percent of the project-generated traffic, the increase would be approximately 2.1 dBA, which would be a barely perceptible and insignificant increase based upon CEQR criteria. At other locations, where smaller noise level increases are predicted to occur with the proposed Plan, noise levels would also be lower. At all locations with the Staged Acquisition Alternative the increases in noise levels would be smaller than the increase at Site 3 during the Saturday midday time period. As a result, no significant adverse noise impacts would be expected in 2013 with the Staged Acquisition Alternative.

Mechanical Equipment

No detailed designs of the buildings’ mechanical systems (e.g., heating, ventilation, and air conditioning systems) are available at this time. However, the systems will be designed to satisfy Building Code regulations for isolation of mechanical noise from residences, and the mechanical equipment would be designed so as not to result in a significant impact on nearby residences.

Attenuation Requirements

The minimum required window/wall attenuation to meet CEQR interior noise level criteria for different locations within the District is shown in Table 20-11 in Chapter 20. Since noise levels at full build-out of the Staged Acquisition Alternative in 2017 are expected to be similar to those predicted for the future with the proposed Plan, these values would also be the minimum required window/wall attenuation to meet CEQR interior noise level criteria under the Staged Acquisition Alternative. The buildings proposed to be built in the western portion of the District by 2013 would require 37 dBA of window/wall attenuation for residential uses or 35 dBA for commercial uses. These E-designations are shown in Table G-1 in Appendix G. During the temporary condition between the 2013 and 2017 these buildings would be located adjacent to the existing uses on the eastern portion of the District, which have the potential to generate significant noise. However, these high levels of attenuation would likely be sufficient to ensure acceptable interior noise levels, based upon CEQR criteria.

PUBLIC HEALTH

Like the proposed Plan, the Staged Acquisition Alternative is not expected to result in significant adverse impacts to public health. As described above, like the proposed Plan, the Staged

Acquisition Alternative would include E-designations and subsequent Restrictive Declarations on properties acquired by the City to ensure that there would be no significant adverse impacts with respect to hazardous materials, noise attenuation, and air quality (specifically associated with the heating, ventilation, and air conditioning system). E-designations for eastern properties would remain in place for a longer duration under this alternative as compared with the proposed Plan, since they would be acquired later under the alternative.

In addition, the preparation and enforcement of a HASP is expected to prevent any significant adverse impacts from hazardous materials. The installation of a vapor control system would prevent vapors from volatile organic compounds (VOCs) that may remain in the soil from entering the buildings and harming public health.

Air emissions from construction equipment and trucks would be reduced to minimum levels by the enforcement of Local Law 77 of 2005, which requires all City-sponsored construction to reduce emissions of diesel particulate matter (DPM) from construction emissions and which is applicable for this project. While it is possible that the construction activities may exceed certain thresholds used for assessing the potential for significant adverse air quality impacts, any exceedances would be limited in extent, duration, and severity. The District is large, and much of it is well-removed from any sensitive receptor. The majority of the construction would not affect the public. Residents and workers in some of the buildings completed early in the Plan could be affected for short periods of time by the limited exceedances of guideline values during construction of the later buildings. Based on the limited duration of these potential exceedances above threshold values, and because of the distance from sensitive receptors, these limited potential increments greater than applicable thresholds are not expected to result in significant adverse impacts on future District populations or populations in the surrounding study area.

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. While increases exceeding the CEQR impact criteria for a shorter period of time may be noisy and intrusive, they are not considered to be significant adverse noise impacts. The District is large, and much of it is well-removed from any sensitive receptor. In addition, little night work is expected, and any exceedances of the CEQR criteria at sensitive locations would occur during the day. Therefore, no long-term significant adverse noise impacts are expected from construction activities. *