

East New York Rezoning Proposal

Chapter 21: Alternatives

A. INTRODUCTION

As described in the 2014 *City Environmental Quality Review (CEQR) Technical Manual*, alternatives selected for consideration in an environmental impact statement are generally those that are feasible and have the potential to reduce, eliminate, or avoid adverse impacts of a proposed action while meeting some or all of the goals and objectives of this action. As described in Chapter 1, “Project Description,” the East New York Rezoning proposal consists of a series of land use actions (collectively, the “Proposed Actions”) intended to facilitate the implementation of the objectives of the East New York Community Plan. The affected area comprises approximately 190 blocks of the East New York, Cypress Hills, and Ocean Hill neighborhoods in Brooklyn Community Districts (CDs) 5 and 16.

This chapter considers the following four alternatives to the Proposed Actions:

- A No-Action Alternative, which is mandated by CEQR and the State Environmental Quality Review Act (SEQRA) and is intended to provide the lead and involved agencies with an assessment of the expected environmental impacts of no action on their part (i.e., no zoning changes).
- A No Unmitigated Significant Adverse Impacts Alternative, which considers a development scenario that would not result in any identified significant, unmitigated adverse impacts.
- A Lower Density Alternative, which considers lower density zoning districts that would result in reduced residential development.
- An Alternative proposed by the Coalition for Community Advancement: Progress for East New York/Cypress Hills that would, among other things, retain existing M1 and C8 districts, which do not allow residential development and would result in reduced development potential.

B. PRINCIPAL CONCLUSIONS

No-Action Alternative

The No-Action Alternative examines future conditions within the rezoning area, but assumes the absence of the Proposed Actions (i.e., none of the discretionary approvals proposed as part of the Proposed Actions would be adopted). Under the No-Action Alternative, existing zoning would remain in the area affected by the Proposed Actions. It is anticipated that this area would experience moderate growth under the No-Action Alternative by 2030. Twenty eight of the 81 projected development sites are expected to be redeveloped, or undergo conversion, in the No-Action Alternative, resulting in a net 325,389 sf of market-rate residential floor area (428 dwelling units [DU]), 420,763 sf of commercial uses, and 81,175 sf of industrial uses, as well as a net reduction of 10,862 sf of community facility uses on the projected development sites. The technical chapters of this EIS have described the No-Action Alternative as “the Future Without the Proposed Actions.”

The significant adverse impacts anticipated for the Proposed Actions would not occur under the No-Action Alternative. However, the No-Action Alternative would not meet the goals of the Proposed Actions. The benefits expected to result from the Proposed Actions—including promoting affordable housing development by increasing residential density and establishing Mandatory Inclusionary Housing, encouraging economic development by mapping new commercial districts and increasing density in a highly transit accessible area of the City, creating

pedestrian-friendly streets through active ground floor retail uses, and introducing new community resources—would not be realized under this alternative, and the No-Action Alternative would fall short of the objectives of the Proposed Actions.

No Unmitigated Significant Adverse Impacts Alternative

The No Unmitigated Significant Adverse Impacts Alternative examines a scenario in which the density and other components of the Proposed Actions are changed specifically to avoid the unmitigated significant adverse impacts associated with the Proposed Actions. There is the potential for the Proposed Actions to result in unmitigated significant adverse impacts related to community facilities (child care services), open space, shadows, historic and cultural resources (architectural resources only), transportation (traffic only), noise, and construction.

Under the RWCDs, the Proposed Actions would result in a significant adverse impact on publicly funded child care facilities. Should practical and feasible mitigation measures not be found, the significant adverse child care impact would be unmitigated. To avoid the identified significant adverse child care center impact, the number of affordable DUs that could be developed on the projected development sites would have to be reduced to 2,401, a 32 percent (1,137 DU) reduction in the number of affordable units anticipated under the RWCDs. Such a reduction in the number of affordable housing units developed in the rezoning area would be less supportive of the goals and objectives of the Proposed Actions. Alternately, the provision of 203 child care slots under this alternative would avoid the unmitigated significant adverse child care impact.

The Proposed Actions would result in a significant adverse indirect impact to the total open space resources in the residential study area. To avoid the identified significant adverse residential study area open space impact, the number of residents that could be introduced on the projected development sites would have to be reduced to less than 10,748 (or less than approximately 3,614 residential units). This would represent an approximately 44.3 percent reduction in the number of incremental residential units anticipated under the RWCDs and would, therefore, be less supportive of the Proposed Actions' goal of promoting affordable housing development. Alternately, this alternative would have to provide approximately 4.93 acres of additional open space (including a minimum of 2.29 acres of passive open space and a minimum of 2.52 acres of active open space) to the study area to avoid the unmitigated significant adverse open space impact.

The Proposed Actions would result in a significant shadows impact (and shadow-related historic resource impact) on the NYCL-eligible and S/NR-eligible Holy Trinity Russian Orthodox Church. As discussed in Chapter 20, "Mitigation," it has been determined that there are no feasible or practicable mitigation measures that can be implemented to mitigate this impact, and the Proposed Actions' significant adverse shadows impact on the Holy Trinity Russian Orthodox Church therefore remains unmitigated. Given the location of the sites relative to this resource and the limited number of intervening buildings, to eliminate these incremental shadows on the Holy Trinity Russian Orthodox Church, the maximum building heights of potential development sites A25, A27, and A73 would have to be reduced to 50, 55, and 75 feet, respectively (compared to maximum heights of 105, 105, and 145 feet, respectively, under the Proposed Actions). Such a reduction in height would substantially limit the development potential on these three potential development sites. Furthermore, reducing the height of potential development sites A25, A27, and A73 (located along Pennsylvania Avenue) would be inconsistent with the urban design goals of the Proposed Actions of locating higher bulk along the rezoning area's primary corridors and preserving lower-scale side streets.

The Proposed Actions could result in significant adverse historic resources impacts to one resource that is eligible for S/NR-listing and NYCL-designation. Projected development site 37, which is expected to be developed under RWCDs With-Action conditions, contains the S/NR- and NYCL-eligible Empire State Dairy Building. As the maximum permitted With-Action FAR on site 37 could be constructed without the demolition or enlargement of the Empire State Dairy Building, the structure is not projected to be demolished, either partially or entirely, or substantially altered under the RWCDs. However, the Proposed Actions do not include any measures that would prevent the demolition or alteration of the Empire State Dairy Building. In order to entirely avoid the potential unmitigated adverse direct architectural resources impact, this alternative would require that projected development site 37 be

eliminated from the rezoning proposal by eliminating the site from the rezoning area. However, this site cannot be excluded on its own, as carving it out of the proposed zoning map would result in a highly irregular and impractical zoning map, leaving a pocket of M1-1 zoning adjacent to the proposed residential and special mixed-use districts. Such a modification would be impractical and inconsistent with the Proposed Actions' goal to establish Atlantic Avenue as a vibrant mixed-use corridor.

In addition, the Proposed Actions would result in significant adverse traffic impacts at 47 intersections. Because of existing congestion at a number of these intersections, even small increases in incremental project-generated traffic volumes at some of the congested intersection approach movements would result in significant adverse impacts that could not be fully mitigated during one or more analysis peak hour, and almost any new development in the rezoning area could result in unmitigated traffic impacts. Therefore, no reasonable alternative could be developed to completely avoid such impacts without substantially compromising the Proposed Actions' stated goals.

As presented in Chapter 16, "Noise," the Proposed Actions would result in significant adverse impacts on Richmond Street between Fulton Street and Dinsmore Place during the AM peak hour due largely to traffic level increases from the proposed school at projected development site 66. No reasonable or feasible alternative could be developed to completely avoid such an impact while still maintaining the Proposed Actions' stated goals in terms of siting a school at projected development site 66.

In regards to construction impacts, development under the Proposed Actions—specifically, on projected development sites 7, 13, 35, 38, 39, 49, and 74 and potential development sites A3, A7, A8, A14, A18, A25, A40, A41, A50, A65, A70, A82, A86, A87, A95, and A102—could result in inadvertent construction-related damage to 12 NYCL- and/or S/NR- eligible historic resources, as they are located within 90 feet of one or more of the aforementioned projected and potential development sites. In order to entirely avoid potential unmitigated adverse construction-related impacts to historic resources, this alternative would require that the aforementioned projected and potential development sites be eliminated from the rezoning proposal. However, this would result in a reduction in the amount of affordable housing developed in the rezoning area and, therefore, would satisfy to a lesser degree the goals and objectives of the Proposed Actions. In addition, no reasonable or feasible alternative could be developed to completely avoid the identified unmitigated significant adverse construction noise impacts at locations adjacent to development sites while still maintaining the Proposed Action's stated goals.

Overall, in order to eliminate all unmitigated significant adverse impacts, the Proposed Actions would have to be modified to a point where their principal goals and objectives would not be realized.

Lower Density Alternative

The Lower Density Alternative was developed for the purpose of assessing whether lower density residential development in some portions of the rezoning area would eliminate or reduce the significant, adverse impacts of the Proposed Actions while also meeting the goals and objectives of the Proposed Actions. Under the Lower Density Alternative, the proposal analyzed is the same as the Proposed Actions except for a few locations: some of the proposed M1-4/R8A districts would be replaced with M1-4/R7A and C4-4L districts; two areas that are proposed for C4-4D would be replaced with M1-4/R7A and C4-5D; one area proposed for M1-4/R7D would be mapped with M1-4/R7A; one area proposed for R7D/C2-4 would be mapped with R6B; two areas that are proposed for R7A/C2-4 would be replaced with M1-4/R7A and R6A/C2-4, respectively; one area that is proposed for R7A would be replaced with M1-1/R7A; one area proposed for R6A would be mapped with R6B; and one block proposed for C4-5D would be mapped with R7A. Under the Lower Density Alternative, development would occur on the same 81 projected and 105 potential development sites. However, as the Lower Density Alternative would reduce the maximum permitted residential density on some portions of the rezoning area, as compared to the Proposed Actions, the RWCDs assumptions for 12 of the development sites in those affected areas (projected development sites 1, 66, 67, 75, 76, 77, and 79 and potential development sites A5, A7, A8, A96, and A105) would change. Compared to the Proposed Actions, the Lower Density Alternative would result in 931 fewer residential units on the identified projected development sites, 83,961 sf less of commercial uses, 38,374sf less of community facility uses, and 58 fewer accessory parking spaces; the industrial floor area would remain the same as under the Proposed Actions.

As with the Proposed Actions, the Lower Density Alternative would not result in significant adverse impacts with respect to land use, zoning, and public policy; socioeconomic conditions; urban design and visual resources; hazardous materials; water and sewer infrastructure; solid waste and sanitation services; energy; greenhouse gas emissions and climate change; public health; and neighborhood character. The Lower Density Alternative would result in the same significant adverse shadows, historic resources, transit, pedestrian, and noise impacts as under the Proposed Actions, with slightly reduced impacts related to community facilities, open space, traffic, and construction. The projected mobile source air quality impact that would occur in the future with the Proposed Actions would not occur under the Lower Density Alternative.

As under the Proposed Actions, the identified significant adverse school, transit, and pedestrian impacts could be fully mitigated under the Lower Density Alternative. The same mitigation needed to fully mitigate the identified significant adverse transit and pedestrian impacts under the Proposed Actions would fully mitigate these impacts under the Lower Density Alternative; lesser mitigation would be needed to fully mitigate the significant adverse school impact under this alternative.

Both the Lower Density Alternative and the Proposed Actions would result in potential unmitigated significant adverse impacts in the areas of child care services, open space, shadows, historic resources, traffic, noise, and construction. However, in terms of traffic impacts, there would be two fewer unmitigated intersections under the Lower Density Alternative, compared to the Proposed Actions (13 unmitigated intersections under the Lower Density Alternative, compared to 15 unmitigated intersections with the Proposed Actions).

The Lower Density Alternative would support, to a lesser degree, the Proposed Actions' goals of promoting affordable housing development by increasing residential density and establishing Mandatory Inclusionary Housing, encouraging economic development by mapping new commercial districts and increasing density in a highly transit accessible area of the City, creating pedestrian-friendly streets through active ground floor retail uses, and introducing new community resources. In addition, the mobile source air quality impact that would occur in the future with the Proposed Actions would not occur under the Lower Density Alternative. However, as the Lower Density Alternative would result in fewer residential units, it would be less supportive of the Proposed Action's objectives while continuing to result in significant adverse impacts related to community facilities, open space, transportation, noise, and construction.

Coalition Alternative

This Alternative is based on a proposal issued by the Coalition for Community Advancement: Progress for East New York/Cypress Hills, which is comprised of community organizations including Cypress Hills Local Development Corporation, the Local Development Corporation of East New York, religious and civic groups. The Coalition developed an Alternative Community Plan for the rezoning area, which, among other things, includes a land use proposal to retain M1 and C8 zoning districts and to exclude Arlington Village (projected site 46) from the rezoning area while maintaining a similar amount of density and affordable housing. This land use component of their Alternate Community Plan is analyzed here as the Coalition Alternative. The Coalition's Alternative Plan and comment submission can be found in Appendix I, "Written Comments."

Under the Coalition Alternative, development would be limited to 36 of the 81 identified projected development sites. The other 45 projected development sites would fall out entirely from the RWCDs since the existing zoning would remain in place, which does not permit new residential development. In total, the 36 projected development sites is anticipated to result in an increase of approximately 1,347 DU, including approximately 763 affordable dwelling units, 157,220 sf of commercial uses, 174,286 sf of community facility uses, and a decrease of 124,511 sf of industrial uses. Compared to the Proposed Actions, the Coalition Alternative would result in 5,145 fewer total residential units on the identified projected development sites, including 2,775 fewer affordable dwelling units, 356,169 sf less of commercial uses, 283,583 sf less of community facility uses, and 97,475 sf less of industrial uses.

In order to maintain a similar amount of density and affordable housing, the proposed density in the areas not zoned M1 or C8 and are proposed to be rezoned would need to be significantly increased. Overall, the density in the

remaining portions of the rezoning area would need to be more than quadrupled to meet the same levels of density and affordable housing that are projected over a larger geographical area under the Proposed Actions.

As with the Proposed Actions, the Coalition Alternative would not result in significant adverse impacts with respect to land use, zoning, and public policy; socioeconomic conditions; urban design and visual resources; hazardous materials; water and sewer infrastructure; solid waste and sanitation services; energy; greenhouse gas emissions and climate change; public health; and neighborhood character. However, although the Coalition Alternative would not result in Hazardous Materials impacts, due to the decrease in redevelopment potential, the Department cannot be assured that properties identified to contain hazardous material in the FEIS would be remediated. While the Coalition Alternative would not result in the same significant adverse open space, community facility and air quality (mobile) impacts as compared to the Proposed Actions, it would likely result in similar and/or reduced impacts related to historic resources, traffic, transit, pedestrian, noise impacts and construction.

However, while the Coalition Alternative would likely lessen and in certain cases eliminate the adverse impacts identified, it would not meet the goals and objectives of the Proposed Actions. As described in Chapter 1, “Project Description,” the Proposed Actions are a key component to facilitate the implementation of the East New York Community Plan, which includes promoting significant amounts of affordable housing development by increasing residential density and establishing Mandatory Inclusionary Housing throughout the area, encouraging economic development by mapping new commercial districts and increasing density in a highly transit accessible area of the City, creating pedestrian-friendly streets through active ground floor retail uses, and introducing new community resources. The Coalition Alternative, as described in more detail below, would not be able to facilitate the implementation of the East New York Community Plan and deliver the benefits expected to result from the Proposed Actions.

C. NO-ACTION ALTERNATIVE

The No-Action Alternative assumes that the Proposed Actions are not implemented. This includes no zoning map and text changes, no amendments to the Dinsmore-Chestnut Urban Renewal Plan (URP), no disposition approval, and no approval and site selection from the New York City School Construction Authority (SCA) for the development of a new public school facility. Conditions under this alternative are similar to the “Future without the Proposed Actions” described in the preceding chapters, which are compared in the following sections to conditions under the Proposed Actions.

Under the No-Action Alternative, it is anticipated that new development would occur on 28 of the 81 projected development sites identified under the reasonable worst-case development scenario (RWCDs). In total on the 81 projected development sites, there would be 566,224 sf of market-rate residential floor area (550 DU), 770,599 sf of commercial uses, 125,886 sf of industrial uses, 156,972 sf of community facility uses, and 1,484 accessory parking spaces under the 2030 No-Action Alternative.

The effects of the No-Action Alternative in comparison to those of the Proposed Actions are provided below.

Land Use, Zoning, and Public Policy

In the No-Action Alternative, based on existing zoning and land use trends and general development patterns, it is anticipated that the rezoning area would experience limited overall growth. Under the No-Action Alternative, it is expected that the rezoning area would experience a net decrease in community facility, auto-related, and parking uses, with modest growth in residential, industrial, and other commercial uses. In comparison to the future with the Proposed Actions, under the No-Action Alternative there would be less residential, retail, office, and community facility uses and more auto-related, industrial, hotel, storage, and garage uses in the rezoning area.

Like the Proposed Actions, the No-Action Alternative would not result in any significant adverse impacts to land use, zoning, or public policy. Development within the rezoning area would be consistent with existing uses and is not

expected to significantly affect the mix of existing land uses in the area. However, under the No-Action Alternative, significantly fewer residential units would be constructed, with no new affordable housing developed under this alternative.

Under the No-Action Alternative, no changes to zoning are anticipated. Development could occur throughout the rezoning area under the current mix of residential, commercial, and manufacturing zoning districts. New developments within the existing manufacturing districts are expected to primarily comprise commercial uses (including hotel, storage, and office space) and community facility uses, with some light industrial uses introduced under the No-Action Alternative. Unlike the Proposed Actions, the No-Action Alternative would not expand development opportunities for portions of these existing manufacturing districts by creating MX districts.

New development under the Proposed Actions would occur at the densities and scale that are currently allowed under the existing zoning districts. Thus, the benefits of the Proposed Actions with respect to preservation of the residential core through the zoning of contextual districts would be foregone, as would the proposed Mandatory Inclusionary Housing zoning, which would target development along the rezoning area's major corridors.

The benefits expected to result from the Proposed Actions—including promoting affordable housing development by increasing residential density and establishing Mandatory Inclusionary Housing, encouraging economic development by mapping new commercial districts and increasing density in a highly transit accessible area of the City, creating pedestrian-friendly streets through active ground floor retail uses, and introducing new community resources—would not be realized under this alternative.

Socioeconomic Conditions

Absent the Proposed Actions, it is anticipated that development would only occur on 28 of the 81 projected development sites. No-Action development on these 28 projected development sites would result in a net increase of 325,389 sf of residential floor area (428 market-rate DU), 420,763 sf of commercial uses, and 81,175 sf of industrial uses, as well as a net reduction of 10,862 sf of community facility uses on the projected development sites. The following summarizes the potential socioeconomic effects of the No-Action Alternative as compared to those of the Proposed Actions for the five issues of socioeconomic concern under CEQR.

Direct Residential Displacement

Neither the No-Action Alternative nor the Proposed Actions would result in significant adverse impacts due to direct residential displacement. Both the Proposed Actions and the No-Action Alternative would result in some potential direct residential displacement, but the amount of potential direct residential displacement would not be substantial or significant, and would fall well below the *CEQR Technical Manual* threshold of 500 displaced residents. The No-Action Alternative could result in the direct displacement of approximately 42 dwelling units housing an estimated 126 residents from projected development site 46, while the Proposed Actions would result in the potential direct displacement of an additional 158 residents residing in 53 dwelling units on 19 of the 81 projected development sites. This amount of direct residential displacement would not be large enough to substantially alter the socioeconomic character of the neighborhood under either the Proposed Actions or the No-Action Alternative.

Indirect Residential Displacement

Neither the No-Action Alternative nor the Proposed Actions would be expected to have a significant adverse indirect residential displacement impact. Under the No-Action Alternative, approximately 428 dwelling units would be constructed on 28 of the 81 projected development sites, housing a population that would be well below the *CEQR Technical Manual* threshold of five percent of the existing study area population, indicating that the development would not be large enough to substantially alter the study area's socioeconomic character and demographic composition or real estate market conditions. However, given the trends experienced in the neighborhoods surrounding the study area, and the increased interest in and limited housing stock of the study area, it is likely that rents within the study area would significantly increase under the No-Action Alternative. Demand for housing in the study area is expected to continue to increase given its relative affordability compared to the surrounding areas and

its relatively convenient location and proximity to transit. Current real estate data show a trend towards higher property values and household incomes. Based on upward trends in income and real estate values near the study area and the limited stock of available apartments, it is likely that low-income households in unprotected units (at-risk households) would continue to experience indirect residential displacement pressures under the No-Action Alternative and could potentially decrease. The anticipated socioeconomic benefits of the Proposed Actions, including promoting the development of permanently affordable housing and facilitating mixed-income communities by requiring affordable housing units to be included in any new residential development, would not be realized under the No-Action Alternative. Through providing affordable housing and increasing the supply of housing, it is anticipated that the proposed action would help to relieve displacement pressures. Unlike the Proposed Actions, the No-Action Alternative would not introduce any affordable housing to the proposed rezoning area, and therefore, would not further the City's goal of increasing affordable housing.

Direct Business Displacement

Like the Proposed Actions, the No-Action Alternative would not result in significant adverse impacts due to direct business displacement. Both the Proposed Actions and the No-Action Alternative would result in some direct business and institutional displacement. The No-Action Alternative could result in the direct displacement of approximately eleven businesses and institutions affecting an estimated 239 workers in the retail, other services (automotive repair), health care and social assistance, and professional and educational services sectors on six of the 81 projected development sites. As with the Proposed Actions, which could have the potential to displace significantly more businesses than the No-Action Alternative, the directly displaced businesses do not provide product or services that would no longer be available to local residents or businesses, nor are they the subject of regulations or publicly adopted plans aimed at preserving, enhancing, or otherwise protecting them in their current location. The businesses are not unique to the ½-mile study area, nor do they serve a user base that is dependent on their location within the study area. As with the Proposed Actions, it is expected that the potentially displaced businesses would be able to find comparable space within the study area or elsewhere in the city under the No-Action Alternative.

Indirect Business Displacement

Neither the No-Action Alternative nor the Proposed Actions are expected to result in significant adverse impacts due to indirect business displacement. Similar to the Proposed Actions, the No-Action Alternative would not introduce new economic activities that would substantially alter existing economic patterns in the study area, nor would it alter the land use character of the study area. The ½-mile study area already has well-established commercial, residential, and industrial markets, and neither the Proposed Actions nor the No-Action Alternative would substantially alter commercial real estate trends in the area.

Compared to the Proposed Actions, the No-Action Alternative would result in less commercial and residential development than would otherwise occur with the implementation of the Proposed Actions. There would be comparably fewer new jobs under the No-Action Alternative. The anticipated socioeconomic benefits of the Proposed Actions, including creating new centers of activity that will bring together housing, commercial uses, community services and street level activities, promoting continuous active non-residential ground floor uses and minimizing curb cuts which disrupt the sidewalk, would not be realized under the No-Action Alternative. Key corridors in East New York such as Atlantic, Liberty, and Pitkin Avenues are expected to continue to remain fragmented commercial corridors under this alternative, with a high number of non-commercial ground floor uses.

Adverse Effects on Specific Industries

Neither the Proposed Actions nor the No-Action Alternative would result in significant adverse impacts on specific industries. A significant adverse impact on a specific industry would generally occur only in the case of a regulatory change affecting the city as a whole or in the case of a local action that affects an area in which a substantial portion of that sector is concentrated, relative to the city as a whole. Like the Proposed Actions, the No-Action Alternative would not significantly affect business conditions in any industry or any category of business within or outside of the study area.

Community Facilities and Services

The No-Action Alternative would introduce fewer residents to the study area as compared to the Proposed Actions and, therefore, would result in a smaller increase in demand on area community facilities. Neither the Proposed Actions nor the No-Action Alternative would result in direct impacts to community facilities and services or indirect impacts to high schools, library services, or police, fire, and emergency medical services. Unlike the Proposed Actions, the No-Action Alternative would not result in significant adverse impacts to public schools or child care facilities.

Under the No-Action Alternative, there would be some new residential development on the projected development sites, with approximately 428 new residential dwelling units being added to the rezoning area (increment compared to existing conditions). All of the expected 428 DU would be market-rate units and would generate substantially less demand for community facilities than the net 3,538 affordable and 2,954 market-rate DUs generated by the Proposed Actions under the RWCDs. As with the Proposed Actions, it is expected that with the No-Action Alternative, there would continue to be adequate capacity for both elementary and intermediate level students in Sub-districts 1 and 2 of Community School District (CSD) 23. As under the Proposed Actions, CSD 19, Sub-district 1 elementary schools and CSD 19, Sub-district 2 intermediate schools would operate over capacity under the No-Action Alternative. Unlike the Proposed Actions, CSD 19, Sub-district 2 elementary schools would operate below capacity under the No-Action Alternative, and no significant adverse public school impacts would occur under this alternative. However, unlike the Proposed Actions, a 1,000-seat PS/IS school would not be constructed on projected development site 66 under the No-Action Alternative.

As no affordable housing (i.e., no affordable housing developed pursuant to Inclusionary Housing provisions) would be constructed on the 81 projected development sites in the No-Action Alternative, no additional publicly funded child care-eligible children would be added to the study area. As such, it is anticipated that publicly funded child care centers would operate below capacity in the No-Action Alternative and no significant adverse impacts on child care centers would occur under this alternative, unlike the Proposed Actions.

Open Space

Similar to the Proposed Actions, the No-Action Alternative would not have any direct impacts on any open space resources.

In terms of indirect effects, the open space ratios for the non-residential (¼-mile) study area for the No-Action Alternative—like the Proposed Actions—would exceed the *CEQR Technical Manual* open space ratio guidelines. Therefore, daytime users of passive open space will be well-served by the resources available, and there would be no significant adverse open space impacts in the non-residential study area as a result of either this alternative or the Proposed Actions.

With regard to the open space ratios for the residential (½-mile) study area, the No-Action Alternative would have slightly higher ratios with respect to overall open space, as well as passive and active open space. Under the No-Action Alternative, the total, passive, and active open space ratios for the residential study area would be 0.614, 0.304, and 0.310 per 1,000 residents, respectively (compared to 0.562, 0.279, and 0.284, respectively, under the Proposed Actions). The passive open space ratio for the combined residential and non-residential populations in the ½-mile study area would be 0.264 per 1,000 total users, compared to 0.241 under the Proposed Actions. As under the Proposed Actions, under the No-Action Alternative the total, passive, and active open space ratios would be below the *CEQR Technical Manual* open space guidelines of 2.5 acres of open space per 1,000 residents, including 0.5 acres of passive open space and 2.0 acres of active open space.

The open space ratios for both the non-residential and residential study areas under the No-Action Alternative would, therefore, generally be slightly higher than those under the Proposed Actions. However, as with the Proposed Actions, the open space ratios for the residential study area would be below the *CEQR Technical Manual* open space guidelines for open space adequacy and citywide planning goals.

Shadows

Unlike the Proposed Actions, the No-Action Alternative would not result in any significant adverse shadows impacts. In the No-Action Alternative, incremental shadows identified with the Proposed Actions would not be cast on publicly accessible open spaces and sunlight-sensitive historic resources. As such, the No-Action Alternative would not result in the significant adverse shadows impact on the Holy Trinity Russian Orthodox Church that would occur with the Proposed Actions. Furthermore, similar to the Proposed Actions, no other publicly accessible open spaces or sunlight-sensitive historic resources would be significantly affected by shadows under the No-Action Alternative.

Historic and Cultural Resources

As with the Proposed Actions, the No-Action Alternative would not result in any significant adverse impacts to archaeological resources or any indirect impacts to architectural resources. Unlike the Proposed Actions, the No-Action Alternative would not result in direct or construction-related significant adverse impacts to architectural resources.

The No-Action Alternative assumes that development would occur on 28 of the 81 projected development sites in accordance with existing zoning. Development could also occur on nine of the 105 potential development sites as-of-right pursuant to existing zoning under the No-Action Alternative. The New York City Landmarks Preservation Commission (LPC) reviewed and identified projected and potential development sites that could experience new/additional in-ground disturbance and concluded that none of the lots comprising those sites have any archaeological significance. Therefore, like the Proposed Actions, the No-Action Alternative would not result in any significant adverse impacts to archaeological resources.

It is possible that some or all of the buildings identified as eligible for LPC and/or S/NR designation could become listed under the No-Action Alternative. Privately-owned properties that are New York City Landmarks (NYCL) or S/NR- listed, or are pending designation as landmarks, are protected under the New York City Landmarks Law, which requires LPC review and approval before any alteration or demolition can occur. In addition, the City has procedures for avoiding damage to historic resources from adjacent construction.

Under the No-Action Alternative, it is anticipated that new construction would occur on potential development site A73, which is adjacent to the S/NR- and NYCL-eligible Holy Trinity Russian Orthodox Church. This eligible historic resource would be afforded standard protection under DOB regulations applicable to all buildings located adjacent to construction sites. However, protective measures afforded under DOB TPPN #10/88 would only become applicable if the church is designated a NYCL or listed on the S/NR in the future No-Action condition. If the historic resource is not designated, it would not be afforded special protections under DOB's TPPN #10/88. Additionally, the Holy Trinity Russian Orthodox Church has not been calendared for consideration for landmark status by the LPC, which would afford some measure of protection under the New York City Landmarks Law as detailed above. As an S/NR-eligible resource, the Holy Trinity Russian Orthodox Church is given the same protection afforded to S/NR-listed structures with regard to state or federally sponsored or assisted projects; however, it can be altered by private landowners using private funds without any review. Thus, this unlisted but eligible historic resource, which is not subject to LPC oversight, could experience indirect construction-related damage under the No-Action Alternative as a result of new construction anticipated on the adjacent site (potential development site A73). Unlike the Proposed Actions, no other eligible historic resources would experience significant adverse construction-related impacts under the No-Action Alternative.

In addition, as no development is anticipated on projected development site 37, which includes the S/NR and NYCL-designation eligible Empire State Dairy Building, no unavoidable significant adverse direct impact on this resources would occur under the No-Action Alternative, unlike under the Proposed Actions. Furthermore, unlike the Proposed Action, under the No-Action Alternative the Holy Trinity Russian Orthodox Church would not experience significant adverse shadow impacts due to incremental shadows cast by potential development sites A25, A27, and A73.

Urban Design and Visual Resources

Like the Proposed Actions, the No-Action Alternative would not have significant adverse impacts on urban design, view corridors, and visual resources. Under the No-Action Alternative, urban design in the rezoning area is expected to continue existing trends. While existing vacant and underutilized lots would be redeveloped with new buildings, many of the anticipated No-Action buildings would be shorter than, and further set back from, the street than the older building stock found in the rezoning area. Many of the new developments anticipated along the primary study area's Fulton Street and Pitkin Avenue corridors are not expected to include ground floor retail under the No-Action Alternative, despite the corridors being mapped with commercial overlays, thus continuing the existing trends along these corridors of residential uses replacing ground floor retail. As such, the No-Action Alternative would not have the Proposed Actions' beneficial streetscape effects of facilitating high transparency active ground floor uses that would improve the pedestrian experience. In addition, while the No-Action Alternative developments would be significantly smaller in scale, and less noticeable of a change, than under the Proposed Actions, under the No-Action Alternative, no contextual zoning districts would be mapped along the rezoning area's core residential streets, and the ongoing trend of new residential development that is inconsistent with the streetwall of the area's older building stock would continue.

Hazardous Materials

The No-Action Alternative, like the Proposed Actions, would involve building construction, additions, and conversions. However, construction on new buildings for as-of-right uses under the current zoning may occur without regulatory oversight such that environmental conditions of these sites are not addressed, and residual contamination could be encountered by construction workers or the general public without their knowledge. It is assumed that all construction and required removal or handling of hazardous materials would be conducted in accordance with applicable state and federal requirements, thereby minimizing the potential for exposure.

A greater amount of ground disturbance in areas where soil is potentially contaminated from hazardous materials would occur under the Proposed Actions, as compared with the No-Action Alternative, since some projected development sites would be redeveloped under the Proposed Actions but not under the No-Action Alternative. However, development under the Proposed Actions would be conducted in accordance with the testing and remediation requirements required pursuant to the (E) designations or comparable measure that would be placed on the projected development sites under the Proposed Actions. As such, the No-Action Alternative would involve less soil disturbance, but potentially the controls on its performance would not be as stringent as under the Proposed Actions.

Water and Sewer Infrastructure

Neither the Proposed Actions nor the No-Action Alternative would result in significant adverse impacts on the City's water supply, wastewater treatment, or stormwater conveyance infrastructure. Compared with the Proposed Actions, the No-Action Alternative would generate less demand on the City's water supply and wastewater treatment infrastructure. Similar to the Proposed Actions, the incorporation of selected best management practices (BMPs) would be required as part of the New York City Department of Environmental Protection (DEP) site connection application process for new buildings.

Solid Waste and Sanitation Services

Neither the Proposed Actions nor the No-Action Alternative would adversely affect solid waste and sanitation services or place a significant burden on the City's solid waste management system. While solid waste generated by the projected development sites would increase under both the No-Action Alternative and the Proposed Actions, the No-Action Alternative would generate less demand on New York City's solid waste services and sanitation services.

Energy

Neither the Proposed Actions nor the No-Action Alternative would result in significant adverse impacts with respect to the transmission or generation of energy. Like the Proposed Actions, the No-Action Alternative would generate increased demands on New York City's energy services, but the demand generated under the No-Action Alternative would be considerably less than for the Proposed Actions. However, under both the Proposed Actions and the No-Action Alternative, the annual increase in demand would represent a negligible amount of the City's forecasted annual energy requirements for 2030.

Transportation

As discussed below, unlike the Proposed Actions, the No-Action Alternative would not result in any significant adverse impacts with respect to transportation. Unlike the Proposed Actions, the No-Action Alternative would not result in significant adverse traffic impacts to 41, 25, 39, and 26 intersections in the weekday AM, midday and PM and Saturday midday peak hours, respectively. The Proposed Actions' significant adverse impact to westbound Q8 buses in the PM peak hour would not occur under the No-Action Alternative. Furthermore, the Proposed Actions' significant adverse impacts to two sidewalks, one crosswalk, and one corner area in one or more peak hours would not occur under the No-Action Alternative. Like the Proposed Actions, within the parking study area, on-street parking spaces would remain available during the weekday and overnight peak periods.

In the No-Action Alternative, traffic, parking, transit, and pedestrian demand in the study area would increase as a result of background growth, development that could occur pursuant to existing zoning (i.e., as-of-right-development), and other development projects likely to occur within and in the vicinity of the rezoning area.

Traffic

Independent of the Proposed Actions, traffic levels of services at many locations in the study area would experience congested conditions in the future. Under the No-Action Alternative, a total of 42 intersections (39 signalized and three stop-controlled) will have at least one congested lane group in one or more peak hour; this is compared to a total of 57 intersections (47 signalized and ten stop-controlled) with at least one congested lane group in one or more peak hour under the Proposed Actions. There would be no intersections with significant adverse traffic impacts under the No-Action alternative compared to 41, 25, 39, and 26 impacted intersections during the weekday AM, midday, and PM and Saturday midday peak hours, respectively, under the Proposed Actions.

Transit

SUBWAY

Subway Stations

Under the No-Action Alternative, the eight analyzed subway stations would experience an increase in demand as a result of background growth and future developments anticipated within and in the vicinity of the rezoning area. All analyzed stairs and fare arrays at these stations would operate at an acceptable LOS C or better in both the weekday AM and PM peak hours under this alternative. By comparison, under the Proposed Actions the Euclid Avenue station on the Fulton Street Line and the Crescent Street station on the Jamaica Line would each have one stair operating at LOS D in at least one peak hour, with all other analyzed stairs and fare arrays projected to operate at LOS C or better in both the AM and PM peak hours. Neither the No-Action Alternative nor the Proposed Actions are expected to result in significant adverse subway station impacts.

Subway Line Haul

Under the No-Action Alternative, subway trains serving stations in proximity to the rezoning area would experience increased ridership through their maximum load points as a result of background growth and new development. Under this alternative, northbound L trains are projected to operate above capacity in the AM peak hour.

Southbound L trains would operate at capacity in the PM peak hour. By comparison, under the Proposed Actions, northbound L trains would operate over capacity and southbound J/Z trains would operate at capacity in the AM peak hour, and southbound L trains would operate over capacity in the PM peak hour. Similar to the Proposed Action, the No-Action Alternative would not result in significant adverse line haul impacts.

BUS

Under the No-Action Alternative, demands on the local bus services operating in the vicinity of the rezoning area are expected to increase compared to existing ridership as a result of background growth and new development. The existing level of bus service would not be sufficient to provide adequate supply to meet projected demand under the No-Action Alternative on the eastbound Q8 route in the AM peak hour. Based on a loading guideline of 54 passengers per standard bus, an additional three standard buses per hour would need to be added in the eastbound direction in the AM peak hour to accommodate projected demand under the No-Action Alternative. The Proposed Actions' significant adverse impact to westbound Q8 service in the PM peak hour would not occur under the No-Action Alternative.

Pedestrians

Under the No-Action Alternative, pedestrian volumes along analyzed sidewalks, crosswalks and corner areas are expected to increase compared to existing levels as a result of background growth as well as demand from new development. The Proposed Actions' zoning regulations mandating that new buildings along Fulton Street be set back five feet (thereby providing for wider sidewalks) would not occur under the No-Action Alternative.

SIDEWALKS

Under the No-Action Alternative, all analyzed sidewalks are expected to operate at an acceptable LOS C or better in all peak hours with the exception of one sidewalk, which would operate at a marginal LOS D in the weekday PM peak hour and LOS C in the weekday AM and midday peak hours. This compares to significant adverse impacts to two sidewalks in one or more peak hours under the Proposed Actions, which would not occur under the No-Action Alternative.

CROSSWALKS

Under the No-Action Alternative, all analyzed crosswalks are expected to operate at an uncongested LOS A in all peak hours. This compares to a maximum of three congested locations during one any peak hour, under the Proposed Actions. The Proposed Actions' significant adverse impact to one crosswalk in the weekday midday peak hour would not occur under the No-Action Alternative.

CORNERS

Under the No-Action Alternative all analyzed corner areas are expected to operate at an uncongested LOS A in all peak hours. This compares to a maximum of one congested location in any peak hour, under the Proposed Actions. The Proposed Actions' significant adverse impact to one corner area in the weekday AM peak hour would not occur under the No-Action Alternative.

Parking

Under the No-Action Alternative, it is anticipated that demand for both off-street and on-street parking would increase due to new development and general background growth.

OFF-STREET PARKING

The existing 142-space public parking lot on projected development site 77 that would be displaced by new development under the Proposed Actions would be similarly displaced under the No-Action Alternative. However, the existing 90-space public parking lot on projected development site 79 that would be displaced under the Proposed Actions would remain under this alternative. Demand for public off-street parking would exceed the available supply at the four public parking lots remaining in proximity to the rezoning area in the No-Action

Alternative by approximately 88 spaces in the weekday midday period. This compares to a deficit of approximately 163 spaces in the weekday midday at the three public parking lots remaining under the Proposed Actions. Under both the No-Action Alternative and the Proposed Actions, this excess off-street parking demand would need to be accommodated on-street. The one public parking lot in proximity to the rezoning area that is open during the overnight period would continue to operate with available capacity during this period under both the No-Action Alternative and the Proposed Actions.

ON-STREET PARKING

Changes to curbside regulations would result in a net decrease of 27 on-street parking spaces in proximity to the rezoning area in the weekday midday and overnight periods under both the No-Action Alternative and the Proposed Actions. The demand for on-street parking in the weekday midday and overnight periods would not exceed the available capacity during these periods under either the No-Action Alternative or the Proposed Actions. Significant adverse parking impacts are therefore not anticipated under this alternative or the Proposed Actions.

Air Quality

Mobile Sources

In the No-Action Alternative, emissions from traffic demand in the study area would increase as a result of background growth, development that could occur pursuant to existing zoning (i.e., as-of-right-development), and other development projects likely to occur within and in the vicinity of the rezoning area. As reported in Chapter 14, "Air Quality," under the No-Action Alternative, no exceedances of the national ambient air quality standards for carbon monoxide or particulate matter less than ten micron in diameter. Significant adverse mobile source impacts are therefore not anticipated under this alternative.

Stationary Sources

As outlined in Chapter 14, while some development within the study area would occur under the No-Action Alternative, the Proposed Actions would result in more development and therefore the emissions from heat and hot water systems associated with the Proposed Actions would cumulatively be greater than the emissions from heat and hot water systems in the No-Action Alternative. However, unlike the Proposed Actions, the as-of-right development on 28 of the 81 projected development sites would not have an environmental assessment of air quality exposure as conducted for the Proposed Actions, and thus, such development would not be subject to any air quality (E) designations. Specifically, they would not have the restrictions specified in Chapter 14 for the control of emissions for fossil fuel-fired heating, ventilation, and air conditioning (HVAC) systems, which would be designed to ensure that there would be no significant adverse air quality impacts at nearby receptor locations.

Greenhouse Gas Emissions and Climate Change

With less development than under the Proposed Actions, the No-Action Alternative would have less energy use and would therefore result in fewer carbon dioxide equivalent (CO₂e) emissions per year. Neither the Proposed Actions nor the No-Action Alternative would result in significant greenhouse gas (GHG) emission or climate change impacts.

Noise

In the No-Action Alternative, traffic volumes would increase in the area due to general background growth and trips associated with new development that would be independent of the Proposed Actions. These increases in traffic would in general result in small changes in noise levels but, as outlined in Chapter 16, "Noise," the maximum increase in L_{eq} noise levels would be 2.7 dBA. Changes of this magnitude would be barely perceptible. While the Proposed Actions would result in a significant adverse impact along Richmond Street between Fulton Street and Dinsmore Place, the No-Action Alternative would not result in a substantial increase in traffic along this area. Therefore, the No-Action Alternative would not result in a significant adverse noise impact.

Public Health

Neither the Proposed Actions nor the No-Alternative would result in significant adverse public health impacts. Under the No-Action Alternative, no unmitigated significant adverse impacts would occur in the areas of hazardous materials, air quality, noise, or construction, and thus there would be no significant adverse public health impacts associated with construction or operation of the new development anticipated under the No-Action Alternative.

Neighborhood Character

According to the *CEQR Technical Manual*, a proposed action could have a significant adverse neighborhood character impact if it would have the potential to affect the defining features of the neighborhood, either through the potential for a significant adverse impact in any relevant technical area, or through a combination of moderate effects in those technical areas. The Proposed Actions would not cause significant adverse impacts in the areas of land use, zoning, and public policy; socioeconomic conditions; or urban design and visual resources. The significant adverse open space, historic resources, shadows, traffic, and noise impacts would not affect any defining feature of neighborhood character, nor would a combination of moderately adverse effects affect such a defining feature. New development that could occur under the No-Action Alternative would be moderate, as compared to the Proposed Actions, and the overall neighborhood character of the area would remain substantially the same as it is today under the No-Action Alternative. The East New York study area would continue to be characterized by the presence of multiple neighborhoods, often physically separated by the presence of vehicle-dominated major roadways and major transportation infrastructure. A variety of uses would continue to be found along the neighborhood's major roadways, with shopping corridors in close proximity to residential areas, and the pockets of industrial and auto-related uses intermingled with residential and community facility uses would remain under the No-Action Alternative. Neither the Proposed Actions nor the No-Action Alternative would result in significant adverse impacts to neighborhood character, however, the improvements to neighborhood character that would occur under the Proposed Actions would not occur under this alternative.

Construction

As the amount of new construction under the No-Action Alternative would be less as compared to the Proposed Actions, the No-Action Alternative would not generate as much temporary construction disruption. The No-Action Alternative would result in shorter durations of construction-related noise and traffic than the Proposed Actions, and may also result in less potential construction-related impacts to non-designated historic resources in the area.

Neither the Proposed Actions nor the No-Action Alternative would result in significant adverse construction impacts with respect to land use and neighborhood character, socioeconomic conditions, community facilities, or open space, hazardous materials, or air quality. The No-Action Alternative would involve less soil disturbance, but potentially the controls on its performance would not be as stringent as under the Proposed Actions.

Under both the No-Action Alternative and the Proposed Actions, new construction would occur on potential development site A73, which is adjacent to the S/NR- and NYCL-eligible Holy Trinity Russian Orthodox Church. As the historic resource is not designated, it would not be afforded special protections under DOB's TPPN #10/88. Thus, this unlisted but eligible historic resource which is not subject to LPC oversight could experience indirect construction-related damage in the No-Action Alternative as a result of new construction anticipated on the adjacent site (potential development site A73). However, unlike the Proposed Actions, as less development is anticipated to occur under the No-Action Alternative, the potential construction-related impacts would not occur on the following S/NR and/or NYCL-eligible resources: the Empire State Dairy Building, St. Michael's R.C. Church, Our Lady of Loreto R.C. Church, Grace Baptist Church, the Magistrates Court, the Church of the Blessed Sacrament, 1431 Herkimer Street, Prince Hall Temple, New Lots Town Hall, William H. Maxwell School, the Ninth Tabernacle, and Firehouse Engine 236. As such, while construction-related impacts on historic resources would occur under both scenarios, the impacts would be lesser under the No-Action Alternative.

With the No-Action Alternative, there could be new construction if parcels within the rezoning area are developed independent of the Proposed Actions. It is anticipated that this construction, if it would occur, would be smaller in scale and of a shorter duration than what would be undertaken for the Proposed Actions. Therefore, construction noise impacts would not be expected at locations in close proximity to development sites under the No-Action Alternative.

D. NO UNMITIGATED SIGNIFICANT ADVERSE IMPACTS ALTERNATIVE

Based on the analyses presented in other chapters of this EIS, there is the potential for the Proposed Actions to result in a number of significant adverse impacts for which no practicable mitigation has been identified. Specifically, unmitigated impacts were identified with respect to community facilities (child care services), open space, shadows, historic and cultural resources (architectural resources only), transportation (traffic only), noise, and construction. This alternative considers development that would not result in any significant adverse impacts that could not be fully mitigated. However, to eliminate all unmitigated significant adverse impacts, the Proposed Actions would have to be modified to a point where their principal goals and objectives would not be fully realized.

Community Facilities

Child Care Services

Under the RWCDs, the Proposed Actions would result in a significant adverse impact on publicly funded child care facilities. The RWCDs for the Proposed Actions are expected to introduce approximately 630 children under the age of six eligible for publicly funded child care programs. With the addition of these children, the combined utilization rate of child care facilities within the two-mile child care study area would increase to 103.4 percent, a 10.6 percentage point increase over the No-Action condition. Child care services mitigation measures were explored in coordination with the lead agency, DCP, and the New York City Administration of Children's Services (ACS) between the DEIS and FEIS. While the mitigation measures outlined in Chapter 20, "Mitigation," could offset or would serve to at least partially mitigate the identified impact, in the event that the significant adverse child care impact is not completely eliminated, an unavoidable significant adverse impact would result.

To avoid the identified significant adverse child care center impact, the number of affordable DU that could be developed on the projected development sites would have to be reduced to 2,401, a 32 percent (1,137 DU) reduction in the number of affordable units anticipated under the RWCDs. Reducing the number of affordable housing units developed in the rezoning area would be less supportive of the goals and objectives of the Proposed Actions. Alternately, the provision of 203 child care slots under this alternative would avoid the unmitigated significant adverse child care impact.

Open Space

As presented in Chapter 5, "Open Space," the Proposed Actions are expected to introduce 19,296 residents to the ½-mile residential study area under the RWCDs (compared to No-Action conditions). Given the anticipated decrease in the total, active, and passive open space ratios in the residential study area and the fact that open space ratios in the study area would remain below the City guideline ratios, the Proposed Actions would result in a significant adverse indirect impact to the total open space resources in the residential study area. Partial mitigation measures were explored in coordination with the lead agency and the New York City Department of Parks and Recreation (DPR). Based on these discussions, improvements to study area open space resources would be implemented to add and/or enhance park components that would address the need for increased fitness and recreation opportunities for current and future residents. While the identified significant adverse impact to open space would be partially mitigated with these measures proposed above, it would still constitute an unavoidable significant adverse impact on open space resources. As the significant adverse impact on open space would not be fully mitigated, the Proposed Action would result in an unavoidable significant adverse impact on open space.

To avoid the identified significant adverse residential study area open space impact, the number of residents that could be introduced on the projected development sites would have to be reduced to less than 10,748 (or less than approximately 3,614 residential units). This would represent an approximately 44.3 percent reduction in the number of residential units anticipated under the RWCDs and would, therefore, be less supportive of the Proposed Actions' goal of promoting affordable housing development. Alternately, this alternative would have to provide approximately 4.93 acres of additional open space (including a minimum of 2.29 acres of passive open space and a minimum of 2.52 acres of active open space) to the study area to avoid the unmitigated significant adverse open space impact, which is not feasible, given existing land and fiscal constraints in the open space study area.

Shadows

As discussed in Chapter 6, "Shadows," and Chapter 7, "Historic and Cultural Resources," the Proposed Actions would result in a significant shadows impact (and shadow-related historic resource impact) on the NYCL-eligible and S/NR-eligible Holy Trinity Russian Orthodox Church. The central octagonal pillar of the Holy Trinity Russian Orthodox Church contains 22 stained-glass windows that are considered sunlight-sensitive features. Under RWCDs With-Action conditions, incremental shadows would be cast on a maximum of two of the 22 stained-glass windows for durations of approximately 36 minutes on March 21, 45 minutes of May 6, and 49 total minutes on June 21, and shadows would be cast on a maximum of eight of the stained-glass windows for a duration of two hours and 50 minutes on December 21. As project-generated incremental shadows would only affect a maximum of eight of the 22 stained-glass windows on the church, they would therefore not result in the complete elimination of direct sunlight on all sunlight-sensitive features of the Holy Trinity Russian Orthodox Church. However, as these incremental shadows may have the potential to affect the public's enjoyment of this feature, albeit for a brief duration on one analysis day, this is considered a significant adverse shadows impact. It should be noted that the sites that would cast incremental shadows on this historic resources are potential, rather than a projected, development sites. As described in Chapter 1, "Project Description," potential development sites are considered less likely to be developed than projected development sites. Consequently, the likelihood of this impact occurring is less than if it were to result from development on a projected development site.

A potential mitigation measure for the identified impact on this resource may include the use of artificial lighting to simulate the sunlit conditions. The provision of indirectly mounted lighting could simulate lost sunlight conditions at the affected stained glass windows of this resource. This and other feasible and practicable mitigation measures for this potential significant adverse impact have been explored by the lead agency in consultation with LPC between the DEIS and FEIS. As discussed in Chapter 20, "Mitigation," it has been determined that there are no feasible or practicable mitigation measures that can be implemented to mitigate this impact, and the Proposed Actions' significant adverse shadows impact on the Holy Trinity Russian Orthodox Church therefore remains unmitigated.

Given the location of the sites relative to this resource and the limited number of intervening buildings, to eliminate these incremental shadows on the Holy Trinity Russian Orthodox Church, the maximum building heights of potential development sites A25, A27, and A73 would have to be reduced to 50, 55, and 75 feet, respectively (compared to maximum heights of 105, 105, and 145 feet, respectively, under the Proposed Actions). Such a reduction in height would substantially limit the development potential on these three potential development sites. Furthermore, reducing the height of potential development sites A25, A27, and A73 (located along Pennsylvania Avenue) would be inconsistent with the urban design goals of the Proposed Actions of locating bulk along the rezoning area's primary corridors and preserving lower-scale side streets.

Historic and Cultural Resources

Architectural Resources

As discussed in Chapter 7, "Historic and Cultural Resources," the Proposed Actions could result in significant adverse historic resources impacts to one resource that is eligible for S/NR-listing and NYCL-designation. Projected development site 37, which is expected to be developed under RWCDs With-Action conditions, contains the S/NR- and NYCL-eligible Empire State Dairy Building. As the maximum permitted With-Action FAR on site 37 could be

constructed without the demolition or enlargement of the Empire State Dairy Building, the structure is not projected to be demolished, either partially or entirely, or substantially altered under the RWCDs. However, the Proposed Actions do not include any measures that would prevent the demolition or alteration of the Empire State Dairy Building.

In the event that the structure was designated as a landmark by the LPC, the significant adverse impact would be fully mitigated. However, as the designation process is subject to LPC approval, and not CPC approval, it cannot be assumed or predicted with any certainty. The possibility of potential designation of this resource were explored, in consultation with the LPC, between the DEIS and FEIS. Absent LPC's designation of the Empire State Dairy Building, the implementation of measures such as photographically documenting the eligible structure in accordance with the standards of the Historic American Buildings Surveys (HABS) could partially mitigate the identified significant adverse direct impact to the historic architectural resources. However, a mechanism to require such measures is not available, and this measure would only partially mitigate the identified significant adverse impact. Accordingly, this impact would not be completely eliminated, and, if the Empire State Dairy Building is not designated as a landmark, it would constitute an unavoidable significant adverse impact as a result of the Proposed Actions.

In order to entirely avoid the potential unmitigated adverse direct impact specified above, this alternative would require that projected development site 37 be eliminated from the rezoning proposal by eliminating the site from the rezoning area. However, this site cannot be excluded on its own, as carving them out of the proposed zoning map would result in a highly irregular and impractical zoning map, leaving a pocket of M1-1 zoning adjacent to the residential and special mixed-use districts. Such a modification would be impractical and inconsistent with the Proposed Actions' goal to establish Atlantic Avenue as a vibrant mixed-use corridor.

Transportation

As presented in Chapter 20, "Mitigation," the Proposed Actions would result in significant adverse traffic impacts at 47 study area intersections during one or more analyzed peak hours; specifically, 41 intersections during the weekday AM peak hour, 25 intersections during the weekday midday peak hour, 39 intersections during the weekday PM peak hour, and 26 intersections during the Saturday midday peak hour. Implementation of traffic engineering improvements, such as signal timing changes or modifications to curbside parking regulations would provide mitigation for many of the anticipated traffic impacts. Specifically, the significant adverse impacts would be fully mitigated at all but 18 lane groups at 11 intersections during the weekday AM peak hour, 13 lane groups at four intersections during the weekday midday peak hour, 21 lane groups at 11 intersections during the weekday PM peak hour, and ten lane groups at five intersections during the Saturday midday peak hour.

Because of existing congestion at a number of these intersections, even a minimal increase in traffic would result in unmitigated impacts. Specifically, in the No-Action condition, a total of 42 intersections will have at least one congested lane group in one or more peak hours, and a total of 24, 15, 23, and 14 intersections will have one or more lane groups operating at or over capacity in the weekday AM, midday, and PM and Saturday midday peak hours, respectively. According to the *CEQR Technical Manual*, for a lane group that would operate at LOS F in the No-Action condition, a projected delay of three or more seconds is considered a significant impact. As such, small increases in incremental project-generated traffic volumes at some of the congested intersection approach movements would result in significant adverse impacts that could not be fully mitigated during one or more analysis peak hours, and almost any new development in the rezoning area could result in unmitigated traffic impacts. Therefore, no reasonable alternative could be developed to completely avoid such impacts without substantially compromising the Proposed Actions' stated goals.

Noise

As presented in Chapter 16, "Noise," the Proposed Actions would result in significant adverse impacts on Richmond Street between Fulton Street and Dinsmore Place during the AM and PM peak hours due largely to traffic level increases from the proposed school at projected development site 66. No reasonable or feasible alternative could

be developed to completely avoid such an impact while still maintaining the Proposed Actions' stated goals in terms of siting a school at projected development site 66.

Construction

Historic and Cultural Resources

As described in Chapter 7, "Historic and Cultural Resources," development under the Proposed Actions—specifically, on projected development sites 7, 13, 35, 38, 39, 49, and 74 and potential development sites A3, A7, A8, A14, A18, A25, A40, A41, A50, A65, A70, A82, A86, A87, A95, and A102—could result in inadvertent construction-related damage to 12 NYCL- and/or S/NR-eligible historic resources, as they are located within 90 feet of one or more of the aforementioned projected and potential development sites.

As discussed in Chapter 7, the New York City Building Code provides some measure of protection for all properties against accidental damage from adjacent construction by requiring that all buildings, lots, and service facilities adjacent to foundation and earthwork areas be protected and supported. Additional protective measures apply to NYCL-designated and S/NR-listed historic resources located within 90 linear feet of a proposed construction site. For these structures, DOB's TPPN #10/88 applies. TPPN #10/88 supplements the standard building protections afforded by the Building Code by requiring, among other things, a monitoring program to reduce the likelihood of construction damage to adjacent LPC-designated or S/NR-listed resources (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed. However, for the 12 non-designated resources that are within 90 feet of one or more projected and/or potential development site, construction under the Proposed Actions could potentially result in construction-related impacts to these resources, and the protective measures under TPPN #10/88 would only apply if the resources become designated.

Absent designation, in order to entirely avoid potential unmitigated adverse construction-related impacts to eligible historic resources, this alternative would require that projected development sites 7, 13, 35, 38, 39, 49, and 74 and potential development sites A3, A7, A8, A14, A18, A25, A40, A41, A50, A65, A70, A82, A86, A87, A95, and A102 be eliminated from the rezoning proposal. However, this would result in a substantial reduction in the amount of affordable housing developed in the rezoning area and, therefore, would satisfy to a lesser degree the goals and objectives of the Proposed Actions. In addition, carving these sites out of the proposed zoning map would result in a highly irregular and impractical zoning map.

Noise

As presented in Chapter 19, "Construction," noise level increases due to the Proposed Actions that could exceed the *CEQR Technical Manual* impact criteria would occur at several locations throughout the rezoning area. For projected development site 46 and projected development sites 66 and 67, construction noise was analyzed for a representative two year time period, including both peak and off-peak construction periods. The noise analysis results show that predicted noise levels would exceed the noise impact threshold criteria during two or more years on one or more floors at 31 of the 241 analyzed receptor locations due to construction of projected development sites 66 and 67 and projected development site 46. Affected locations include residential, institutional and open space areas adjacent to the projected development sites.

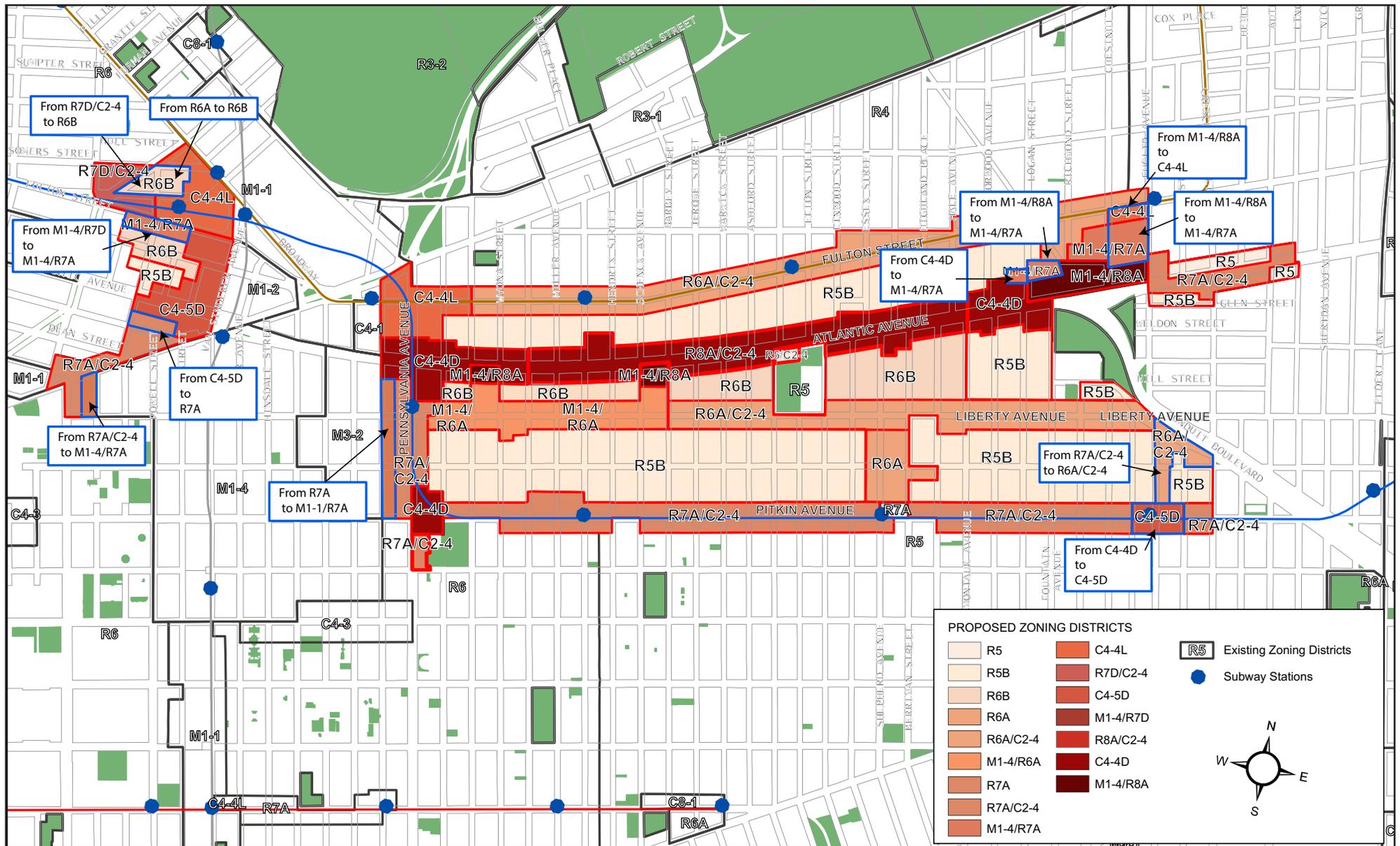
For all smaller individual projected development sites, construction noise was analyzed, including both peak and off-peak construction periods for each year of the conceptual construction schedule. The noise analysis results show that the predicted noise levels could exceed the *CEQR Technical Manual* impact criteria at several receptors throughout the rezoning area. With the No Unmitigated Significant Adverse Impacts Alternative, no receptor in the rezoning area could have line-of-sight to two or more projected development sites. No reasonable or feasible alternative could be developed to completely avoid such impacts at locations adjacent to development sites while still maintaining the Proposed Action's stated goals.

E. LOWER DENSITY ALTERNATIVE

The Lower Density Alternative was developed for the purposes of assessing whether lower density residential development in some portions of the rezoning area would eliminate or reduce the significant, adverse impacts of the Proposed Actions while also meeting the goals and objectives of the Proposed Actions. Under the Lower Density Alternative, the proposal analyzed is the same as the Proposed Actions except for a few locations, as shown in Figure 21-1. As shown in the figure, some of the proposed M1-4/R8A districts would be replaced with M1-4/R7A and C4-4L districts; two areas that are proposed for C4-4D would be replaced with M1-4/R7A and C4-5D; one area proposed for M1-4/R7D would be mapped with M1-4/R7A; one area proposed for R7D/C2-4 would be mapped with R6B; two areas that are proposed for R7A/C2-4 would be replaced with M1-4/R7A and R6A/C2-4, respectively; one area that is proposed for R7A would be replaced with M1-1/R7A; one area proposed for R6A would be mapped with R6B; and one block proposed for C4-5D would be mapped with R7A. Specifically:

- The block bounded by Fulton and Chestnut Streets and Euclid and Atlantic Avenues, which is proposed to be mapped with M1-4/R8A under the Proposed Actions, would instead be mapped with C4-4L along the Fulton Street frontage and M1-4/R7A on the midblock portions under the Lower Density Alternative. The Atlantic Avenue frontage would be mapped with M1-4/R8A, as under the Proposed Actions.
- A portion of one block located on the south side of Dinsmore Place between Logan and Richmond Streets, which is proposed to be mapped with M1-4/R8A under the Proposed Actions, would instead be mapped with M1-4/R7A under the Lower Density Alternative.
- A small midblock area on the west side of Logan Street between Fulton Street and Atlantic Avenue, which is proposed to be mapped as C4-4D under the Proposed Actions, would instead be mapped with M1-4/R7A mixed-use district under the Lower Density Alternative.
- The proposed C4-4D district along Pitkin Avenue between Doscher and Pine Streets would be mapped as C4-5D under the Lower Density Alternative.
- The M1-4/R7D mixed-use district proposed for two partial blocks along Fulton Street between Eastern Parkway Extension and Havens Place would be mapped as M1-4/R7A under the Lower Density Alternative.
- A portion of one block located on the north side of Pacific Street between Van Sinderen Avenue and Sackman Street, which is proposed to be mapped with C4-5D under the Proposed Actions, would instead be mapped as R7A under the Lower Density Alternative.
- The block bounded by East New York, Christopher, and Liberty Avenues and Mother Gaston Boulevard, which is proposed to be mapped with R7A/C2-4 under the Proposed Actions, would instead be mapped with M1-4/R7A along the Christopher Avenue frontage under the Lower Density Alternative. The Mother Gaston Boulevard frontage would be mapped with R7A/C2-4, as under the Proposed Actions.
- The R7D/C2-4 district proposed for the block bounded by Truxton, Sackman, and Somers Streets and Mother Gaston Boulevard would be mapped R6B under the Lower Density Alternative.
- A portion of one block bounded by Broadway and Somers, Truxton, and Sackman Streets, which is proposed to be mapped with R6A under the Proposed Actions, would instead be mapped as R6B under the Lower Density Alternative.
- The portions of the three blocks bounded by Atlantic, Pennsylvania, Pitkin, and Sheffield Avenues that are proposed to be mapped R7A under the Proposed Actions would instead be mapped with M1-1/R7A under the Lower Density Alternative. The R7A/C2-4 district proposed for two partial blocks and one full block along Glenmore Avenue between Euclid Avenue and Crescent Street would be mapped as R6A/C2-4 under the Lower Density Alternative.

The table below summarizes the zoning changes that would occur under this alternative, and provides a comparison of the maximum FAR that would be allowed in the affected portions of the rezoning area under the Lower Density Alternative.



East New York Rezoning Proposal

This figure has been updated for the FEIS.

Figure 21-1
Proposed Zoning - Lower Density Alternative

TABLE 21-1
Comparison of Zoning Changes Under the Lower Density Alternative

Proposed Zoning – With-Action			Proposed Zoning – Lower Density Alternative			RWCDs Projected and Potential Development Sites Affected
District	Maximum FAR	Max. Bldg. Height (ft) ¹	District	Maximum FAR	Max. Bldg. Height (ft) ¹	
M1-4/R8A	R: 6.02 (7.2 with IH); C: 2.0; CF: 6.5; M: 2.0	145	M1-4/R7A	R: 4.0 (4.6 with IH); C: 2.0; CF: 4.0; M: 2.0	105	66 (partial), 67 (partial)
M1-4/R8A	R: 6.02 (7.2 with IH); C: 2.0; CF: 6.5; M: 2.0	145	C4-4L	R: 4.0 (4.6 with IH); C: 4.0; CF: 4.0	105	67 (Fulton Street frontage)
C4-4D	R: 6.02 (7.2 with IH); C: 3.4; CF: 6.5	145	M1-4/R7A	R: 4.0 (4.6 with IH); C: 2.0; CF: 4.0; M: 2.0	105	A96
C4-4D	R: 6.02 (7.2 with IH); C: 3.4; CF: 6.5	145	C4-5D	R: 4.2 (5.6 with IH); C: 4.2; CF: 4.2	125	79, A105 (<u>Pitkin Ave. frontage</u>)
<u>R7A</u>	<u>R: 4.0 (4.6 with IH);</u> <u>C: 0.0; CF: 4.0</u>	<u>105</u>	<u>M1-1/R7A</u>	<u>R: 4.0 (4.6 with IH);</u> <u>C: 2.0; CF: 4.0; M: 2.0</u>	<u>105</u>	<u>18, 19, A17, A24</u>
<u>R7A/C2-4</u>	<u>R: 4.0 (4.6 with IH);</u> <u>C: 2.0; CF: 4.0</u>	<u>105</u>	<u>M1-4/R7A</u>	<u>R: 4.0 (4.6 with IH);</u> <u>C: 2.0; CF: 4.0; M: 2.0</u>	<u>105</u>	<u>A16</u>
<u>R7A/C2-4</u>	<u>R: 4.0 (4.6 with IH);</u> <u>C: 2.0; CF: 4.0</u>	<u>105</u>	<u>R6A/C2-4</u>	<u>R: 2.7 (3.6 with IH); C:</u> <u>2.0; CF: 3.0</u>	<u>85</u>	<u>75, 76, 77, A105 (Euclid Ave. frontage)</u>
<u>R7D/C2-4</u>	<u>R: 4.2 (5.6 with IH); C:</u> <u>2.0; CF: 4.2</u>	<u>125</u>	<u>R6B</u>	<u>R: 2.0 (2.2 with IH); C:</u> <u>0.0; CF: 2.0</u>	<u>55</u>	=
<u>R6A</u>	<u>R: 2.7 (3.6 with IH); C: 0.0;</u> <u>CF: 3.0</u>	<u>85</u>	<u>R6B</u>	<u>R: 2.0 (2.2 with IH); C:</u> <u>0.0; CF: 2.0</u>	<u>55</u>	<u>A5</u>
M1-4/R7D	R: 5.0 (5.6 with IH); C: 2.0; CF: 4.2; M: 2.0	125	M1-4/R7A	R: 4.0 (4.6 with IH); C: 2.0; CF: 4.0; M: 2.0	105	A7, A8
C4-5D	R: 4.2 (5.6 with IH); C: 4.2; CF: 4.2	125	R7A	R: 4.0 (4.6 with IH); C: 0.0; CF: 4.0	105	1

Notes:

R=Residential; C=Commercial; CF=Community Facility; M=Manufacturing

¹ Based on maximum heights for Inclusionary and Senior Housing proposed under *Housing New York: Zoning for Quality and Affordability* (CEQR NO. 15DCP104Y)

Under the Lower Density Alternative, development would occur on the same 81 projected and 105 potential development sites. However, as the Lower Density Alternative would reduce the maximum permitted residential density on some portions of the rezoning area, as compared to the Proposed Actions (see Table 21-1), the RWCDs assumptions for 12 of the development sites in those affected areas (projected development sites 1, 66, 67, 75, 76, 77, and 79 and potential development sites A5, A7, A8, A96, and A105) would change.³ Table 21-2, below, shows the change in program for the seven projected development sites, whereas Table 21-3 shows the effect of those changes on the overall RWCDs analyzed for the Proposed Actions. As shown in Table 21-3, compared to the Proposed Actions, the Lower Density Alternative would result in 931 fewer residential units, 83,961 sf less of commercial uses, 38,374 sf less of community facility uses, and 58 fewer accessory parking spaces; the industrial floor area would remain the same as under the Proposed Actions.

The Lower Density Alternative would result in the same mix of uses as the Proposed Actions, and the same amount of industrial development (refer to Table 21-3). As shown in Table 21-3, the total amount of residential development and the number of affordable housing units would be reduced by approximately 14.3 percent and 13.2 percent under the Lower Density Alternative. As shown in Table 21-3, compared to the Proposed Actions, the Lower Density Alternative would result in about 931 fewer incremental dwelling units compared to the No-Action conditions, which would represent a reduction of approximately 2,785 incremental residents. Under the assumptions of the Lower Density Alternative, there would be 466 fewer affordable housing units as compared to the Proposed Actions. In addition, the Lower Density Alternative would result in 62,565 sf less incremental local retail use and 21,396 sf less incremental office uses compared to the No-Action conditions, which would represent a combined 16.4 percent decrease in the commercial floor area increment. The Lower Density Alternative would also result in an 8.4 percent reduction in community facility floor area increment over No-Action conditions, as compared to the

³ While potential development sites 18 and 19 would be affected by the changes to the proposed zoning districts under the LDA, as indicated in Table 21-1, the change from R7A to M1-4/R7A zoning would not result in any changes to the RWCDs assumed for these two sites.

Proposed Actions. In total, the number of workers introduced in the rezoning area under the Lower Density Alternative would be approximately 429 fewer than under the Proposed Actions.

TABLE 21-2

Comparison of RWCDs for Projected Sites 1, 66, 67, 75, 76, 77, and 79 – With-Action and Lower Density Alternative

Site	Residential (DU)		Retail/Restaurant		Supermarket		Office		Industrial		Comm. Facility	
	With-Action	LDA	With-Action	LDA	With-Action	LDA	With-Action	LDA	With-Action	LDA	With-Action	LDA
Site 1	133	<u>146</u>	31,033	<u>0</u>							31,033	<u>14,700</u>
Site 66	720	<u>312</u>	70,734	<u>53,134</u>					53,134	53,134	186,134	186,134
Site 67	1,054	588	102,085	88,153	30,000	30,000	78,454	57,058			177,935	155,895
Site 75	<u>52</u>	<u>41</u>										
Site 76	<u>55</u>	<u>43</u>										
Site 77	<u>92</u>	<u>72</u>										
Site 79	109	82	15,709	15,709								

TABLE 21-3

Comparison of RWCDs for All Projected Development Sites Under With-Action Conditions and Lower Density Alternative

Land Use	No-Action Condition	With-Action Condition	Lower Density Alternative	No-Action to With-Action Increment	No-Action to Lower Density Alternative Increment	Difference
Residential						
Market-Rate Residential	550 DU	3,504 DU	3,039 DU	2,954 DU	2,489 DU	-465 DU
Affordable Residential	0 DU	3,538 DU	3,072 DU	3,538 DU	3,072 DU	-466 DU
Total Residential DU	550 DU	7,042 DU	6,111 DU	6,492 DU	5,561 DU	-931 DU
Commercial						
Local Retail	249,316 sf	930,752 sf	868,187 sf	681,436	618,871	-62,565
FRESH Supermarket	40,000 sf	60,000 sf	60,000 sf	20,000	20,000	0
Restaurant	13,150 sf	64,550 sf	64,550 sf	51,400	51,400	0
Auto-Related	128,365 sf	0 sf	0 sf	-128,365	-128,365	0
Hotel	167,551 sf	0 sf	0 sf	-167,551	-167,551	0
Office	95,992 sf	228,687 sf	207,291 sf	132,695	111,299	-21,396
Warehouse/Storage	76,225 sf	0 sf	0 sf	-76,225	-76,225	0
Total Commercial SF	770,599 sf	1,283,989 sf	1,200,028 sf	513,390	429,429	-83,961
Other Uses						
Industrial	125,886 sf	98,851 sf	98,851 sf	-27,035	-27,035	0
Community Facility	156,972 sf	614,842 sf	576,468 sf	457,870	419,496	-38,374
Parking						
Parking Spaces	1,484	2,554	2,497	1,070	1,012	-58
Population¹						
Residents	1,646	20,942	18,157	19,296	16,511	-2,785
Workers	<u>2,230</u>	<u>5,975</u>	<u>5,546</u>	<u>3,745</u>	<u>3,316</u>	<u>-429</u>

Notes:

¹ Assumes 2.99 persons per DU for residential units in Brooklyn Community District 5 and 2.75 persons per DU for residential units in Brooklyn Community District 16. Employee rates used are as follows: one employee per 250 sf of office, three employees per 1,000 sf of retail/supermarket/restaurant uses, one employee per 25 DU, one employee per 2.67 hotel rooms (and 400 sf per hotel room), one employee per 1,000 sf of auto-related and industrial uses, one employee per 15,000 sf of warehouse uses, one employee per 11.4 students in school uses, three employees per 1,000 sf of all other community facility uses, and one employee per 50 parking spaces.

In terms of bulk, new development on projected development site 1 and potential development sites A7 and A8 would have maximum heights of 105 under the Lower Density Alternative, as compared to maximum heights of 125 feet under the Proposed Actions. New development on projected development sites 75, 76, and 77 and potential development site A105 (Euclid Avenue frontage), which would have maximum heights of 105 feet under the Proposed Actions, would have maximum heights of 85 feet under the Lower Density Alternative. New development on projected development site 79 and potential development site A105 (Pitkin Avenue frontage) would have maximum heights of 125 feet under the Lower Density Alternative, as compared to maximum heights of 145 feet under the Proposed Actions. New development on potential development site A96 would have a maximum height of 105 feet under the Lower Density Alternative, as compared to a maximum height of 145 under the Proposed Actions. New development on potential development site A5 would have a maximum height of 55 feet under the Lower Density Alternative, as compared to a maximum height of 85 feet under the Proposed Actions. While the maximum heights of the buildings on projected development sites 66 and 67's Atlantic Avenue frontages (145 feet) would be the same under both the Proposed Actions and the Lower Density Alternative, other buildings on these sites would be lower in height than under the Proposed Actions (105 feet maximum height, compared to 145 feet).

A comparison of conditions under this alternative with conditions under the Proposed Actions is presented below. It is noted that for CEQR impact areas that are density-related (e.g., community facilities, open space, traffic, etc.), the effects of this alternative are reduced in magnitude since there are fewer dwelling units, and therefore, fewer residents than under the Proposed Actions. However, since the projected and potential development sites for the Lower Density Alternative are the same as for the Proposed Actions, site-specific impacts (e.g., hazardous materials) would be the same under both scenarios.

Land Use, Zoning, and Public Policy

As under the Proposed Actions, no significant adverse impacts on land use, zoning, or public policy are anticipated under the Lower Density Alternative.

Both the Proposed Actions and the Lower Density Alternative would result in an overall increase in residential, commercial, community facility, and industrial uses, when compared to conditions in the future without the Proposed Actions. As noted above, the Lower Density Alternative would result in the same amount of industrial development as the Proposed Actions. However, this alternative would lead to the production of fewer housing units, including fewer affordable housing units, and less commercial and community facility development, as compared to the Proposed Actions.

The Lower Density Alternative would include similar zoning actions as the Proposed Actions (zoning map amendments and zoning text changes) that would affect the same area. As noted above, under the Lower Density Alternative, some of the proposed M1-4/R8A districts would be replaced with M1-4/R7A and C4-4L districts; two areas that are proposed for C4-4D would be replaced with M1-4/R7A and C4-5D; one area proposed for M1-4/R7D would be mapped with M1-4/R7A; one area proposed for R7D/C2-4 would be mapped with R6B; two areas that are proposed for R7A/C2-4 would be replaced with M1-4/R7A and R6A/C2-4, respectively; one area that is proposed for R7A would be replaced with M1-1/R7A; one area proposed for R6A would be mapped with R6B; and one block proposed for C4-5D would be mapped with R7A, which would reduce the maximum permitted FAR in these areas (refer to Table 21-1). The Lower Density Alternative, like the Proposed Actions, would increase density along selected corridors; as under the Proposed Actions, the highest permitted FAR under the Lower Density Alternative would generally be along Atlantic Avenue, with up to 7.2 FAR permitted for residential uses. The Lower Density Alternative, like the Proposed Actions, would include mapping contextual zoning districts that would protect the existing built context of East New York by requiring new development in the residential core to better match the form of existing buildings. Both the Proposed Actions and the Lower Density Alternative would also map new commercial overlays and new mixed-use (MX) districts to incentivize mixed-use development, permit industrial uses to expand in select areas, facilitate active streetscapes, and encourage new retail development to support the anticipated residential development in the area.

The Lower Density Alternative would support, to a slightly lesser degree, the housing goals of the Proposed Actions. Like the Proposed Actions, this alternative would change zoning designations within the rezoning area in a manner that is intended to promote affordable housing development, encourage economic development, create pedestrian- friendly streets, and introduce new community resources to foster a more equitable East New York. Although this alternative would increase the supply of housing available in East New York and increase the supply of affordable housing, which is consistent with City housing policy, that additional housing would not be as extensive as under the Proposed Actions, nor would this alternative introduce as much affordable housing as under the Proposed Actions. Therefore, as this alternative would lead to the production of fewer housing units compared to the Proposed Actions, the beneficial effects of the Proposed Actions would not be as great under this alternative. The Lower Density Alternative would also map mixed-use districts along portions of several blocks bordering the East New York Industrial Business Zone (IBZ), which under the Proposed Actions had been envisioned to be R7A/C2-4 districts. MX districts, as compared to R7A/C2-4 zoning, would allow for more flexibility to facilitate mixed-use development supporting a wider range of uses and activities, including semi-industrial and light industrial uses, as well as residential, retail, and offices.

Socioeconomic Conditions

The Lower Density Alternative would result in the same general socioeconomic effects as the Proposed Actions. Under this alternative, 931 (14.3 percent) fewer housing units and 466 (13.3 percent) fewer affordable housing units would be added to the proposed rezoning area than under the Proposed Actions. Thus, the Lower Density Alternative would introduce approximately 5,561 housing units, including 3,072 affordable housing units, compared to No- Action conditions. In addition, the Lower Density Alternative would result in 62,565 sf less incremental local retail use and 21,396 sf less incremental office uses compared to the No-Action conditions, which would represent a combined 16.4 percent decrease in the commercial floor area increment. The Lower Density Alternative would also result in 8.4 percent reduction in community facility floor area increment over No-Action conditions, as compared to the Proposed Actions. In total, the number of workers introduced in the rezoning area under the Lower Density Alternative would be approximately 429 fewer than under the Proposed Actions.

The Proposed Actions and Lower Density Alternative would result in the same direct residential and business/institutional displacement. As with the Proposed Actions, the direct displacement of these uses would not constitute a significant adverse impact. The Proposed Actions and Lower Density Alternative would not displace a substantial or significant portion of the study area population, nor would they result in the direct displacement of businesses/institutions that provide products or services essential to the local economy that would no longer be available to local residents and businesses due to the difficulty of relocating, or the subject of regulations or publicly adopted plans to preserve, enhance, or protect them.

The Lower Density Alternative would also map mixed-use districts along portions of several blocks bordering the East New York Industrial Business Zone (IBZ), which under the Proposed Actions had been envisioned to be R7A/C2-4 districts. The west side of Christopher Street between East New York and Liberty Avenues would be mapped with an M1-4/R7A zoning district and the east side of Sheffield Avenue roughly between Atlantic and Pitkin Avenues would be mapped with an M1-1/R7A district. MX districts, as compared to R7A/C2-4 zoning, would allow for more flexibility to facilitate mixed-use development supporting a wider range of uses and activities, including semi-industrial and light industrial uses, as well as residential, retail, and offices. The proposed MX districts are intended to retain and support the growth and expansion of existing commercial and light manufacturing uses, while allowing street-enlivening retail uses and modest residential growth to occur. These two areas are currently zoned for high-performance manufacturing and support a mix of land uses including light industrial, automotive, warehousing/storage, residential, as well as vehicle and open storage uses.

Like the Proposed Actions, the Lower Density Alternative would expand the opportunity for additional housing and promote the development of affordable housing within the proposed rezoning area, although the total number of housing units as compared with the Proposed Actions would be less. Like the Proposed Actions, this alternative would serve to support housing growth and affordable housing in the project area. The additional housing units

would provide added supply to meet the increasing housing demands in New York City, although there would be fewer affordable units than under the Proposed Action (refer to Table 21-3). With fewer residential units, the market may be less likely to meet the long-term demand for new housing in the area. However, the overall effects of this alternative with respect to direct and indirect impacts on residents and businesses would be comparable to the Proposed Action.

Community Facilities and Services

The Lower Density Alternative would introduce fewer residents to the study area as compared to the Proposed Actions and, therefore, would result in a smaller increase in demand on area community facilities. Neither the Proposed Actions nor the Lower Density Alternative would result in direct impacts to community facilities and services or indirect impacts to high schools, library services, or police, fire, and emergency medical services. Both the Proposed Actions and the Lower Density Alternative would result in significant adverse impacts to public schools and child care facilities.

Public Schools

Under the Lower Density Alternative, there would be new residential development on the projected development sites, with approximately 5,561 incremental residential dwelling units being added to the rezoning area over No-Action conditions, including approximately 3,072 incremental affordable units. The Lower Density Alternative residential development would introduce an estimated 1,613 elementary school students, 668 intermediate school students, and 779 high school students. Also under the Lower Density Alternative (as under the Proposed Actions), a 1,000-seat PS/IS school would be developed on projected development site 66. As with the Proposed Actions, it is expected that under the Lower Density Alternative, there would continue to be adequate capacity for both elementary and intermediate level student in Sub-districts 1 and 2 of Community School District (CSD) 23 and for intermediate level students in Sub-district 1 of CSD 19 in the 2030 analysis year (refer to Table 21-4, below).

TABLE 21-4
2030 Lower Density Alternative With-Action School Enrollment, Capacity, and Utilization

Study Area	Students Introduced by the Lower Density Alternative	Total Lower Density Alternative With-Action Enrollment	Capacity	Available Seats under the LDA	Utilization (%) under the LDA	Change in Utilization (%) from No-Action Condition to the LDA	Change in Utilization under the Proposed Actions
<i>Elementary Schools</i>							
CSD 19, Sub-district 1	630	4,327	3,576	-751	121.0	- 6.7	+ 0.3
CSD 19, Sub-district 2	828	8,292	7,592	-700	109.2	+ 10.9	+ 11.2
CSD 23, Sub-district 1	53	4,632	4,852	220	95.5	+ 1.1	+ 1.0
CSD 23, Sub-district 2	102	1,551	1,807	256	85.8	+ 5.6	+ 5.6
<i>Intermediate Schools</i>							
CSD 19, Sub-district 1	261	1,041	1,330	289	78.3	+ 1.2	+ 9.0
CSD 19, Sub-district 2	343	3,516	3,076	-440	114.3	+ 11.2	+ 11.4
CSD 23, Sub-district 1	22	1,886	3,047	1,161	61.9	+ 0.7	+ 0.7
CSD 23, Sub-district 2	42	1,222	1,556	334	78.5	+ 2.7	+ 2.7
<i>High Schools</i>							
Brooklyn	779	94,823	87,123	-7,700	108.8	+ 0.9	+ 1.0

Note: This table is new to the FEIS.

As under the Proposed Actions, CSD 19, Sub-district 2 elementary and intermediate schools would experience significant adverse impacts under the Lower Density Alternative, operating over capacity with utilization increases from the No-Action condition of more than five percent (the *CEQR Technical Manual* impact threshold). However, as indicated in Table 21-4, the significant adverse impacts under the Lower Density Alternative would be slightly less than under the Proposed Actions, with an increase in the CSD 19, Sub-district 2 elementary and intermediate school utilization rates of 10.9 percent and 11.2 percent, respectively (compared to 11.2 percent and 11.4 percent increases, respectively, under the Proposed Actions), and therefore, would require lesser mitigation (see “Mitigation Measures Required for the Lower Density Alternative” section, below).

In addition, similar to the Proposed Actions, while the Lower Density Alternative would not result in significant adverse elementary school impacts in CSD 19, Sub-district 1 in the 2030 Build Year, as 682 elementary school seats would be constructed on projected development site 66 under both alternatives, both the Proposed Actions and the Lower Density Alternative could result in significant adverse temporary elementary school impacts in the sub-district prior to the school’s anticipated 2020(Q3) completion, as summarized in Table 21-5, below.

TABLE 21-5
CSD 19, Sub-District 1 Temporary Elementary and Intermediate School Impact Analysis—Lower Density Alternative vs. Proposed Actions

Temporary School Impact Analysis Scenario	Enrollment	Capacity	Available Seats	Utilization (%)	Change in Utilization (%) from 2020 (Q2) No-Action Condition
<i>Elementary Schools</i>					
2020 (Q2) No-Action Condition	3,678	2,894	-803	127.7	
2020 (Q2) Proposed Actions With-Action Condition	4,168		-1,274	144.0	+16.3
2020 (Q2) Lower Density Alternative With-Action Condition	4,033		-1,139	139.4	+12.3
<i>Intermediate Schools</i>					
2020 (Q2) No-Action Condition	788	1,012	232	77.1	
2020 (Q2) Proposed Actions With-Action Condition	991		21	97.9	+20.8
2020 (Q2) Lower Density Alternative With-Action Condition	935		77	92.4	+14.5

Note: *This table is new to the FEIS.*

Child Care Services

As noted above, the number of affordable housing units would be reduced by about 13.3 percent under the Lower Density Alternative, as compared to the Proposed Actions. It is anticipated that the Lower Density Alternative affordable residential units would introduce 547 children under age six eligible for publicly funded child care. As under the Proposed Actions, the Lower Density Alternative would result in a significant adverse impact to child care facilities. As presented in Table 21-6, study area child care centers would operate at a utilization rate of 102 percent under the Lower Density Alternative (compared to 103.4 percent with the Proposed Actions), which represents a 9.2 percent increase over No-Action conditions (compared to an increase of 10.6 percent with the Proposed Actions). As the Lower Density Alternative would result in slightly lesser impacts than under the Proposed Actions, lesser mitigation would be needed to mitigate the impact than under the Proposed Actions (see “Mitigation Measures Required for the Lower Density Alternative” section, below).

As the Lower Density Alternative would introduce fewer incremental residents to the rezoning area, as compared to the Proposed Actions, the Lower Density Alternative would similarly not result in significant adverse indirect impacts on high schools, libraries, or police, fire, and emergency medical services.

**TABLE 21-6
Comparison of Budget Capacity, Enrollment, Available Slots, and Percent Utilized for the 2030 Future No-Action, Proposed Actions, and Lower Density Alternative Conditions**

	Budget Capacity	Enrollment	Available Slots	Utilization (%)
2030 No-Action Condition	5,942	5,515	427	92.8
Proposed Actions Increment	0	630	-630	+10.6
2030 Proposed Actions With-Action Condition	5,942	6,145	-203	103.4
Lower Density Alternative Increment	0	547	-547	+9.2
2030 Lower Density Alternative With-Action Condition	5,942	6,062	-120	102.0

Sources: CEQR Technical Manual, Table 6-1b.

Note: This table is new to the FEIS.

Open Space

Similar to the Proposed Actions, the Lower Density Alternative would not have any direct impacts on any open space resources. Both the Proposed Actions and the Lower Density Alternative would result in significant adverse indirect impacts on open space resources in the ½-mile residential study area.

As the Lower Density Alternative would introduce fewer residents and workers than the Proposed Actions, in terms of indirect effects, the open space ratios for both the non-residential and residential study areas under the Lower Density Alternative would, therefore, generally be slightly higher than those under the Proposed Actions. As presented in Table 21-7, the open space ratios for the non-residential (¼-mile) study area for the Lower Density Alternative—like the Proposed Actions—would exceed the CEQR Technical Manual open space ratio guidelines at 0.15 acres per 1,000 non-residents in both scenarios. Therefore, daytime users of passive open space will be well-served by the resources available, and there would be no significant adverse open space impacts in the non-residential study area as a result of either this alternative or the Proposed Actions.

**TABLE 21-7
Open Space Ratios Summary—No-Action, Lower Density Alternative, and Proposed Actions Conditions**

Ratio	CEQR Technical Manual Open Space Guideline	Open Space Ratios per 1,000				Percent Change over No-Action Condition (%)	
		Existing	No-Action	Proposed Actions With-Action	Lower Density Alternative With-Action	Proposed Actions	Lower Density Alternative
Non-Residential (¼-Mile) Study Area							
Passive – Workers	0.15	0.534	0.461	0.392	0.399	-14.97	-13.45
Residential (½-Mile) Study Area							
Total – Residents	2.5	0.688	0.614	0.562	0.569	-8.47	-7.33
Passive – Residents	0.5	0.341	0.304	0.279	0.282	-8.22	-7.24
Active - Residents	2.0	0.347	0.310	0.284	0.287	-8.39	-7.42

Note: This table is new to the FEIS.

With regard to the open space ratios for the residential (½-mile) study area, as presented in Table 21-7, the Lower Density Alternative would have slightly higher total, passive, and active open space ratios (0.569, 0.282, and 0.287, respectively, under the Lower Density Alternative, compared to 0.562, 0.279, and 0.284, respectively, under the Proposed Actions). As under the Proposed Actions, the change in the residential study area open space ratios from No-Action conditions to the future under the Lower Density Alternative would exceed five percent and would

therefore exacerbate an existing deficiency in open space for residents in the study area. While the Lower Density Alternative would reduce the magnitude of the impact, as compared to the Proposed Actions, it would nevertheless result in significant adverse impacts to open space in the residential study area. The same mitigation measures proposed for the Proposed Actions would partially mitigate the open space impact that would result under the Lower Density Alternative, as outlined in greater detail below.

Shadows

As with the Proposed Actions, the Lower Density Alternative would not result in any significant adverse shadows impacts to open spaces. Both the Proposed Actions and the Lower Density Alternative would result in significant adverse impacts to the NYCL-eligible and S/NR-eligible Holy Trinity Russian Orthodox Church.

As noted previously, in terms of bulk, new development on projected development sites 1, 66, 67, 75, 76, 77, and 79 and potential development sites A5, A7, A8, A96, and A105 would have lower maximum heights under the Lower Density Alternative than under the Proposed Actions. Compared to the Proposed Actions, the maximum shadows cast by these development sites would be somewhat shorter than under the Proposed Actions. As all other projected and potential development sites in the remainder of the rezoning area would remain the same under this alternative, the shadow effects of the projected and potential developments in the rest of the rezoning area would be essentially the same as with the Proposed Actions. As summarized in Table 21-8, under the Lower Density Alternative, lesser incremental shadows would be cast on the North Conduit Boulevard Greenstreet on the March 21/September 21 analysis day and, unlike the Proposed Actions, no incremental shadows would be cast on the Glenmore Avenue Presbyterian Church; no other changes in incremental shadow increments, as compared to the Proposed Actions, would occur under the Lower Density Alternative. Therefore, as with the Proposed Actions, the Lower Density Alternative would not result in any significant adverse impacts on any open space resources. However, both the Proposed Actions and the Lower Density Alternative would result in significant adverse shadows being cast on eight of the Holy Trinity Russian Orthodox Church's 22 stained-glass windows for durations of approximately 36 minutes on March 21, 45 minutes on May 6, 49 total minutes on June 21, and two hours and 50 minutes on December 21. As discussed in Chapter 20, "Mitigation," it has been determined that there are no feasible or practicable mitigation measures that can be implemented to mitigate this impact, and, as under the Proposed Actions, the Lower Density Alternative's significant adverse shadows impact on the Holy Trinity Russian Orthodox Church would remain unmitigated.

Historic and Cultural Resources

As under the Proposed Actions, the Lower Density Alternative would not result in any significant adverse impacts to archaeological resources or indirect impacts to architectural resources. Both the Proposed Actions and the Lower Density Alternative would result in direct or construction-related significant adverse impacts to architectural resources.

While this alternative would result in a decrease in development bulk on 12 of the RWCDs development sites (projected development sites 1, 66, 67, 75, 76, 77, and 79 and potential development sites A5, A7, A8, A96, and A105), development would occur on the same 81 projected and 105 potential development sites as under the Proposed Actions. As noted above, the LPC reviewed and identified projected and potential development sites that could experience new/additional in-ground disturbance and concluded that none of the lots comprising those sites have any archaeological significance. Therefore, like the Proposed Actions, the Lower Density Alternative would not result in any significant adverse impacts to archaeological resources.

**TABLE 21-8
Duration of Shadows on Sunlight Sensitive Resources (Increment Compared to No-Action) under Lower Density Alternative**

Resource	Analysis Day	March 21/Sept. 21		May 6/August 6		June 21		December 21	
		Proposed Actions	Lower-Density Alternative	Proposed Actions	Lower-Density Alternative	Proposed Actions	Lower-Density Alternative	Proposed Actions	Lower-Density Alternative
Sperandeo Brothers Playground	Shadow enter-exit time	7:36 – 11:54 AM	No change	6:27 – 9:52 AM 4:35 – 5:18 PM	No change	5:57 – 9:59 AM 4:44 – 6:01 PM	No change	8:51 AM – 2:53 PM	No change
	Incremental shadow duration	4 hours 18 minutes		3 hours 25 minutes 43 minutes		4 hours 2 minutes 1 hour 17 minutes		6 hours 2 minutes	
Callahan-Kelly Playground	Shadow enter-exit time	8:45 AM – 4:29 PM	No change	4:51 – 5:18 PM	No change	4:44 – 6:01 PM	No change	8:51 AM – 2:53 PM	No change
	Incremental shadow duration	7 hours 44 minutes		27 minutes		1 hour 17 minutes		6 hours 2 minutes	
Howard Playground & Pool	Shadow enter-exit time	--	No change	--	No change	5:57 – 6:19 AM	No change	-	No change
	Incremental shadow duration	--		--		22 minutes		-	
City Line Park	Shadow enter-exit time	1:05 – 4:29 PM	No change	1:23 – 5:18 PM	No change	1:42 – 6:01 PM	No change	12:57 – 2:53 PM	No change
	Incremental shadow duration	3 hours 24 minutes		3 hours 55 minutes		4 hours 19 minutes		1 hour 56 minutes	
George Walker Jr. Park	Shadow enter-exit time	--	No change	--	No change	-	No change	8:51 – 9:03 AM 9:23 – 9:37 AM	No change
	Incremental shadow duration	--		--		-		12 minutes 14 minutes	
Grace Playground	Shadow enter-exit time	--	No change	4:49 – 5:18 PM	No change	4:44 – 6:01 PM	No change	-	No change
	Incremental shadow duration	--		29 minutes		1 hour 17 minutes		-	
Crystal St. Block Association	Shadow enter-exit time	9:23 AM – 4:29 PM	No change	--	No change	-	No change	9:10 AM – 2:53 PM	No change
	Incremental shadow duration	7 hours 6 minutes		--		-		5 hours 43 minutes	
PS/IS 155 Schoolyard	Shadow enter-exit time	--	No change	--	No change	5:57 – 6:21 AM	No change	-	No change
	Incremental shadow duration	--		--		24 minutes		-	
Shield of Faith	Shadow enter-exit time	1:58 – 4:29 PM	No change	3:58 – 5:18 PM	No change	4:26 – 6:01 PM	No change	8:51 – 11:08 AM	No change
	Incremental shadow duration	2 hours 31 minutes		1 hour 20 minutes		1 hour 35 minutes		2 hours 17 minutes	
East End Community Garden	Shadow enter-exit time	--	No change	--	No change	-	No change	8:51 – 8:55 AM	No change
	Incremental shadow duration	--		--		-		4 minutes	
Herbal Garden	Shadow enter-exit time	--	No change	--	No change	-	No change	9:37 – 10:23 AM	No change
	Incremental shadow duration	--		--		-		46 minutes	
Mw United Orient Grand Lodge	Shadow enter-exit time	7:36 – 8:48 AM	No change	--	No change	-	No change	8:51 – 10:05 AM	No change
	Incremental shadow duration	1 hour 12 minutes		--		-		1 hour 14 minutes	
Floral Vineyard	Shadow enter-exit time	7:36 – 9:58 AM	No change	--	No change	-	No change	8:51 – 10:07 AM	No change
	Incremental shadow duration	2 hours 22 minutes		--		-		1 hour 16 minutes	
Cleveland St. Vegetable Garden	Shadow enter-exit time	--	No change	--	No change	-	No change	9:27 – 11:20 AM	No change
	Incremental shadow duration	--		--		-		1 hour 53 minutes	
Manley's Place	Shadow enter-exit time	7:36 – 8:09 AM	No change	--	No change	-	No change	-	No change
	Incremental shadow duration	33 minutes		-		-			

TABLE 21-8 (Continued)

Duration of Shadows on Sunlight Sensitive Resources (Increment Compared to No-Action) under Lower Density Alternative

Resource	Analysis Day	March 21/Sept. 21		May 6/August 6		June 21		December 21	
		Proposed Actions	Lower-Density Alternative	Proposed Actions	Lower-Density Alternative	Proposed Actions	Lower-Density Alternative	Proposed Actions	Lower-Density Alternative
Fulton St. and E. Parkway Greenstreet	Shadow enter-exit time	--	No change	--	No change	5:57 – 6:15 AM	No change	-	No change
	Incremental shadow duration	--		--		18 minutes		-	
E. New York Av. Greenstreet	Shadow enter-exit time	--	No change	--	No change	-	No change	8:51 – 9:39 AM	No change
	Incremental shadow duration	--		--		-		48 minutes	
N. Conduit Blvd. Greenstreet	Shadow enter-exit time	1:51 – 4:29 PM	2:46 – 4:29 PM	--	No change	-	No change	8:51 AM – 2:53 PM	No change
	Incremental shadow duration	2 hours 38 minutes	1 hour 43 minutes	--		-		6 hours 2 minutes	
E. Parkway Greenstreet	Shadow enter-exit time	7:36 – 11:27 AM 3:12 – 4:29 PM	No change	6:27 – 9:45 AM 2:46 – 5:18 PM	No change	5:57 – 9:00 AM 2:45 – 6:01 PM	No change	8:51 AM – 1:43 PM	No change
	Incremental shadow duration	3 hours 51 minutes 1 hour 17 minutes		3 hours 18 minutes 2 hours 32 minutes		3 hours 3 minutes 3 hours 16 minutes		5 hours 52 minutes	
Jamaica Av. Greenstreet	Shadow enter-exit time	--	No change	--	No change	-	No change	8:51 – 9:03 AM	No change
	Incremental shadow duration	--		--		-		12 minutes	
St. Michael's Roman Catholic Church	Shadow enter-exit time	--	No change	--	No change	5:16 – 6:01 PM	No change	1:30 – 2:53 PM	No change
	Incremental shadow duration	--		--		45 minutes		1 hour 23 minutes	
Our Lady of Loreto Church Complex	Shadow enter-exit time	--	No change	--	No change	5:57 – 6:34 AM	No change	-	No change
	Incremental shadow duration	-		--		37 minutes		-	
Holy Trinity Russian Orthodox	Shadow enter-exit time	3:53 – 4:29 PM	No change	4:33 – 5:18 PM	No change	5:06 – 5:11 PM 5:17 – 6:01 PM	No change	8:53 – 9:44 AM 10:41 AM – 12:40 PM	No change
	Incremental shadow duration	36 minutes		45 minutes		5 minutes 44 minutes		51 minutes 1 hour 59 minutes	
Glenmore Av. Presbyterian Church	Shadow enter-exit time	--	No change	6:27 – 6:39 AM	-	5:57 – 6:22 AM	-	8:57 – 9:33 AM	-
	Incremental shadow duration	-		12 minutes		25 minutes		36 minutes	
Church of the Blessed Sacrament	Shadow enter-exit time	-	No change	-	No change	-	No change	9:08 – 9:51 AM 10:38 – 12:47 AM	10:48 AM – 12:47 PM
	Incremental shadow duration	-		-		-		43 minutes 2 hours 9 minutes	1 hour 59 minutes
Ninth Tabernacle	Shadow enter-exit time	-	No change	-	No change	-	No change	12:49 – 2:53 PM	No change
	Incremental shadow duration	-		-		-		2 hours 4 minutes	

Notes:

All times are Eastern Standard Time; Daylight Savings Time was not accounted for per CEQR Technical Manual guidelines.

Table indicates the entry and exit times and total duration of incremental shadow for each sunlight-sensitive resource. All reported entry and exit times for historic resources are for the affected sunlight-sensitive facades only, except Holy Trinity Russian Orthodox Church, where duration represents time that new shadows would fall on sunlight-sensitive stained glass windows, rather than the church façade as a whole.

This table is new to the FEIS.

As noted in Chapter 7, “Historic and Cultural Resources,” with the exception of projected development site 37, no significant adverse direct impacts would result from development under the Proposed Actions. As the Lower Density Alternative would not change the RWCDs development anticipated on that site, the conclusion would remain unchanged and both the Proposed Actions and the Lower Density Alternative could result in significant adverse historic resources impacts to the S/NR-listing and NYCL-designation eligible Empire State Dairy Building. While the identified significant adverse direct impact to this eligible architectural resource could be partially mitigated, as it would not be completely eliminated, it would constitute an unavoidable significant adverse impact on this eligible historic resource under both the Proposed Actions and the Lower Density Alternative.

As development under this alternative would occur on the same 81 projected development sites and 105 potential development sites, similar to the Proposed Actions, there are 23 projected/potential development sites where construction under the Lower Density Alternative could potentially result in construction-related impacts to 12 non-designated historic resources located in close proximity. The eligible historic resources would be afforded standard protection under DOB regulations applicable to all buildings located adjacent to construction sites; however, as the resources are not S/NR-listed or NYCL-designated, they are not afforded the added special protections under DOB’s TPPN #10/88.

There are 14 historic resources located in close proximity to projected/potential development sites. Although the developments resulting from the Proposed Actions and the Lower Density Alternative could alter the setting or visual context of several of these historic resources, none of the changes would be considered significant adverse impacts. The developments resulting from either the Proposed Actions or the Lower Density Alternative would not alter the setting or visual context of any historic resources in the area, nor would they eliminate or screen publicly accessible views of any resources.

As development on potential development sites A25, A27, and A73 would be the same under the Proposed Actions and Lower Density Alternative, both alternatives would result in significant adverse shadow impacts on the Holy Trinity Russian Orthodox Church. The incremental shadows would be cast on a maximum of eight of the church’s 22 stained glass windows (sunlight-sensitive features) at any one time. As these incremental shadows may have the potential to affect the public’s enjoyment of this feature, albeit for a brief duration of approximately 36 minutes on March 21, 45 minutes on May 6, 49 total minutes on June 21, and two hours and 50 minutes on December 21, this is being considered a significant adverse impact. As discussed in Chapter 20, “Mitigation,” it has determined that there are no feasible or practicable mitigation measures that can be implemented to mitigate this impact, and the Proposed Actions’ significant adverse shadows impact on the Holy Trinity Russian Orthodox Church therefore remains unmitigated; as such the Lower Density Alternative could similarly result in an unmitigated significant adverse shadows impact on this sunlight-sensitive historic resource.

Urban Design and Visual Resources

Like the Proposed Actions, the Lower Density Alternative would not have significant adverse impacts on urban design, view corridors, and visual resources. Both the Lower Density Alternative and the Proposed Actions would result in development at a greater density than currently permitted as-of-right in the rezoning area and would represent a notable change in the urban design character of the primary study area. As noted above, the only differences between the Proposed Actions and the Lower Density Alternative would be on projected development sites 1, 66, 67, 75, 76, 77, and 79 and potential development sites A5, A7, A8, A96, and A105. New development on projected development site 1 and potential development sites A7 and A8 would have maximum heights of 105 under the Lower Density Alternative, as compared to maximum heights of 125 feet under the Proposed Actions. New development on projected development sites 75, 76, and 77 and potential development site A105 (Euclid Avenue frontage), which would have maximum heights of 105 feet under the Proposed Actions, would have maximum heights of 85 feet under the Lower Density Alternative. New development on projected development site 79 and potential development site A105 (Pitkin Avenue frontage) would have maximum heights of 125 feet under the Lower Density Alternative, as compared to maximum heights of 145 feet under the Proposed Actions. New development on potential development site A96 would have a maximum height of 105 feet under the Lower Density Alternative, as compared to a maximum height of 145 under the Proposed Actions. New development on

potential development site A5 would have a maximum height of 55 feet under the Lower Density Alternative, as compared to a maximum height of 85 feet under the Proposed Actions. While the maximum heights of the buildings on projected development sites 66 and 67's Atlantic Avenue frontages (145 feet) would be the same under both the Proposed Actions and the Lower Density Alternative, other buildings on these sites would be lower in height than under the Proposed Actions (105 feet maximum height, compared to 145 feet). As under the Proposed Actions, these new developments under the Lower Density Alternative would be taller than existing buildings in the rezoning area. The maximum permitted FARs for portions of projected development sites 66 and 67 and potential development site A96 would be 4.6 (compared to 7.2 under the Proposed Actions), the maximum permitted FAR for projected development site 79 and potential development site A105 would be 5.6 (compared to 7.2 under the Proposed Actions), the maximum permitted FAR for projected development sites 75, 76, and 77 would be 3.6 (compared to 4.6 under the Proposed Actions), the maximum permitted FAR for potential development site A5 would be 2.2 (compared to 3.6 under the Proposed Actions), and the maximum permitted FAR for projected development site 1 and potential development sites A7 and A8 would be 4.6 (compared to 5.6 under the Proposed Actions). While development under the Lower Density Alternative would be slightly smaller on the 12 aforementioned sites, compared to conditions under the Proposed Actions, the visual appearance, and thus the pedestrian experience of the primary study area would change considerably under the Lower Density Alternative, compared to the No-Action condition. As under the Proposed Actions, this change would not constitute a significant adverse urban design impact in that it would not alter the arrangement, appearance, or functionality of the primary study area such that the alteration would negatively affect a pedestrian's experience of the area. Under both scenarios, higher density buildings would be focused along major corridors (primarily Atlantic Avenue), with buildings on secondary corridors serving as a transition from this primary rezoning area corridors. New development under the Lower Density Alternative, like the Proposed Actions, would replace vacant lots and underbuilt buildings along these corridors that currently detract from consistent pedestrian experiences. Under both the Lower Density Alternative and the Proposed Actions, existing views of some visual resources located within, or visible from, the primary study area would be modified, but no primary views would be blocked. The modification of the resources' visual context would not be considered a significant adverse impact under either the Proposed Actions or the Lower Density Alternative.

Hazardous Materials

The effects of the Lower Density Alternative with respect to hazardous materials is expected to be similar to those of the Proposed Actions. While this alternative would result in a decrease in development bulk on 12 of the RWCDs development sites (projected development sites 1, 66, 67, 75, 76, 77, and 79 and potential development sites A5, A7, A8, A96 and A105), the potential for site-specific hazardous materials impacts still remains for all projected and potential development sites identified in the RWCDs. As with the Proposed Actions, all of the projected and potential development sites would receive an (E) designation or comparable measure under the Lower Density Alternative. The placement of (E) designations or comparable measure would ensure that no significant adverse impacts related to hazardous materials would occur as a result of the Proposed Actions or the Lower Density Alternative.

Water and Sewer Infrastructure

Under this alternative, demands on water and sewer infrastructure would be somewhat less than under the Proposed Actions. However, neither this alternative nor the Proposed Actions would cause significant adverse impacts to water and sewer infrastructure.

As presented in Table 21-9, the incremental additional water usage as a result of the Lower Density Alternative is expected to total 1,851,801 gpd (compared to 2,172,112 gpd with the Proposed Actions). As with the Proposed Actions, this incremental demand would represent approximately 0.2 percent of the City's average daily water supply of one billion gpd, and changes of this magnitude would not be large enough to have a significant adverse impact on the City's water system.

**TABLE 21-9
Lower Density Alternative Water Consumption**

Land Use	Water Consumption & Wastewater Generation Rates ¹	Area/Units	Domestic Water/Wastewater Generation (gpd)	Air Conditioning (gpd)
Residential	Domestic: 100 gpf/person ²	6,111 DU	18,157	0
Commercial/Office	Domestic: 0.10 gpd/sf A/C: 0.17 gpd/sf	207,291 sf	20,729	55,969
Retail ³	Domestic: 0.24 gpd/sf A/C: 0.17 gpd/sf	992,687 sf	238,245	168,757
Schools (1,000-seat PS/IS & 205-seat Pre-K)	Domestic: 10 gpd/seat A/C: 0.17 gpd/sf	163,000 sf (approx. 1,205 seats)	12,050	27,710
Other Community Facility ⁴	Domestic: 0.10 gpd/sf A/C: 0.17 gpd/sf	413,468 sf	41,347	70,290
Industrial/Warehouse/Auto-Related/Garage	Domestic: 10,000 gpd/acre ⁵ A/C: 0.17 gpd/sf	98,851 sf	22,693	16,805
Total Water Demand			2,469,564	
Lower Density Alternative Incremental Water Demand (compared to the No-Action Condition)			+1,851,801	
Total Wastewater Generation			2,150,764	
Lower Density Alternative Incremental Wastewater Generation (compared to the No-Action Condition)			+1,712,089	

Notes:

¹ Consumption rates obtained from the 2014 *CEQR Technical Manual* Table 13-2, "Water Usage and Sewage Generation Rates for Use in Impact Assessment," unless otherwise noted.

² Assumes 2.99 residents per DU for all residential development within CD 5 and 2.75 residents per DU for all residential development within CD 16.

³ Use group comprises retail, supermarket, and restaurant.

⁴ Assumes same rate as commercial/office. Includes house of worship, medical office, and community center uses.

⁵ Based on 2005 *Greenpoint-Williamsburg Rezoning FEIS*. Calculated based on total building floor area, assuming no additional water demand from open storage.

This table is new to the FEIS.

Based on rates in the *CEQR Technical Manual*, the Lower Density Alternative has the potential to result in an incremental sanitary sewage discharge of approximately 1,712,089 gpd over the No-Action condition (compared to approximately 2,011,594 gpd for the Proposed Actions). The decreased sanitary flows under this alternative would only affect subcatchment area 26W-003 (within which projected development site 1 is located) and subcatchment area 26W-005 (within which projected development sites 66, 67, 75, 76, 77, and 79 are located); sanitary flows generated by projected development sites located within subcatchment area 26W-004 would be the same under both scenarios. As with the Proposed Actions, with this incremental increase in sanitary flows, the 26th Ward WPCP would continue to have ample reserve capacity, and no significant adverse impacts to wastewater treatment would occur as a result of the Lower Density Alternative.

The same development sites would be developed under the Lower Density Alternative, with no significant changes in the sites' surface areas, as compared to the Proposed Actions. As such, for storm events with up to 2.5 inches of rainfall, the total runoff volumes to the 26W-003, 26W-004, and 26W-005 combined sewer systems would range up to 0.3 million gallons, 0.27 million gallons, and 2.11 million gallons, respectively. As slightly lower sanitary flows would be generated in subcatchment areas 26W-003 and 26W-005, the combined sewer volumes in these subcatchment areas would similarly be slightly lesser than under the Proposed Actions. As the projected developments within subcatchment area 26W-004 would be the same under both the Proposed Actions and the Lower Density Alternative, the combined flows handled by the sewer system would be the same under both scenarios. Because of the available assimilative capacity of the 26th Ward WPCP, the projected increased flows to the combined sewer system would not have a significant adverse impact on water quality. As under the Proposed Actions, and in consideration of the required best management practices (BMP) measures that would be implemented on each projected development site by their respective developer in accordance with the City's site

connection requirements, the Lower Density Alternative would not result in significant adverse impacts to local water supply or wastewater and stormwater conveyance and treatment infrastructure.

Solid Waste and Sanitation Services

Solid waste generation would increase under both the Proposed Actions and the Lower Density Alternative, with a slightly lower incremental increase under the Lower Density Alternative. However, neither this alternative, nor the Proposed Actions, would cause significant adverse impacts to the City's solid waste and sanitation services. As the Lower Density Alternative would result in the incremental development of 931 fewer residential units and approximately 38,374 sf less community facility floor area than under the Proposed Actions, as presented in Table 21-10, this alternative would result in slightly lower volumes of solid waste that would be handled by DSNY (132.9 tons per week, or an increment of 120.3 tons per week over No-Action conditions) than the Proposed Actions (153.6 tons per week, or an increment of 139.9 tons per week over No-Action conditions). Based on the typical DSNY collection truck capacity of approximately 12.5 tons, the Lower Density Alternative's incremental residential and community facility uses would be expected to generate solid waste equivalent to approximately ten truckloads per week, as compared to 11 truckloads under the Proposed Actions. As under the Proposed Actions, this increase is not expected to overburden the DSNY's solid waste handling services.

TABLE 21-10

Weekly Solid Waste Generation—No-Action, Lower Density Alternative, and Proposed Actions Conditions

	No-Action Condition	Proposed Actions		Lower Density Alternative	
		Proposed Actions	Increment over No-Action Condition	LDA	Increment over No-Action Condition
Total Solid Waste Generation (tons/week)	89.7	328.8	239.1	301.2	211.5
Solid Waste Handled by DSNY (tons/week)	13.6	153.6	139.9	133.9	120.3
Solid Waste Handled by Private Carters (tons/week)	76.0	175.2	99.1	167.2	91.2

Notes: *This table is new to the FEIS.*

As the Lower Density Alternative would result in the incremental development of approximately 83,961 sf less commercial floor area than under the Proposed Actions, as presented in Table 21-10, this alternative would also result in slightly lower volumes of solid waste that would be handled by private carters (167.2 tons per week, or an increment of 91.2 tons per week over No-Action condition) than the Proposed Actions (175.2 tons per week, or an increment of 99.1 tons per week over No-Action conditions). Based on the typical commercial carter capacity of between 12 and 15 tons of waste material per truck, the Lower Density Alternative would require between six and eight additional collection trucks per week over the No-Action condition, compared to the seven to nine additional trucks required under the Proposed Actions. The net increment in commercial solid waste handled by private carters under both scenarios would not overburden the City's waste management system.

Energy

While neither the Proposed Actions nor the Lower Density Alternative would result in significant adverse energy impacts, the Lower Density Alternative would result in a slightly lower incremental increase in energy usage compared to the No-Action condition.

As presented in Table 21-11, future uses on the 81 projected development sites under the Lower Density Alternative would use approximately 1.24 trillion British thermal units (BTU) annually, which would represent an approximately 892 million BTU increase over the No-Action condition, per year. In comparison, under the Proposed Actions the 81 project development sites would result in an incremental annual increase of approximately 1.04 BTU over the No-Action condition.

**TABLE 21-11
Annual Energy Consumption for the Projected Development Sites—Lower Density Alternative**

Use	Floor Area (sf)	Average Annual Energy Use Rate (MBTU/sf) ¹	Lower Density Alternative Annual Energy Use (MBTU)	LDA Incremental Annual Energy Use (MBTU) over No-Action Conditions	Proposed Actions' Incremental Annual Energy Use (MBTU) over No-Action Conditions
Commercial ²	1,200,028	216.3	259,566,056	+92,885,492	+111,046,257
Industrial	98,851	554.3	54,793,109	-14,985,501	-14,985,501
Institutional	576,468	250.7	144,520,528	+105,167,648	+114,788,009
Large Residential (>4 Family)	6,149,635	126.7	779,158,755	+712,065,910	+830,229,117
Small Residential (1-4 Family)	0	94.0	0	-3,448,108	-3,448,108
Total			1,238,038,448	+891,685,347	+1,037,629,680

Notes:

¹ From Table 15-1 of the *CEQR Technical Manual*.

² Includes retail, supermarket, restaurant, office, hotel, auto-related, and storage/garage uses.

This table is new to the FEIS.

The incremental increase in annual energy consumption under the Proposed Actions would represent approximately 0.6 percent of the City’s forecasted annual energy requirement of 177 trillion BTU, with a slightly lower percentage (0.5 percent) under the Lower Density Alternative. Increases of this magnitude would result in a significant adverse impact on energy systems.

Transportation

As a result of the reduction in the size of projected development sites 1, 66, 67, 75, 76, 77 and 79 under the Lower Density Alternative, there would be fewer action-generated vehicle, transit, and pedestrian trips and less demand for on-street and off-street public parking compared to the Proposed Actions. Based on the trip generation assumptions detailed in Chapter 13, “Transportation,” the Lower Density Alternative would generate approximately 1,000, 1,330, 1,420 and 1,354 fewer incremental person trips in the weekday AM, midday, and PM and Saturday midday peak hours, respectively. (see Table 21-12). Depending on the peak hour, this represents an approximately 9.9 percent to 11.7 percent decrease in action-generated person trips compared to the Proposed Actions. As under the Proposed Actions, it is anticipated that the Lower Density Alternative would result in significant adverse traffic, bus, and pedestrian impacts. Neither the Proposed Actions nor the Lower Density Alternative would result in significant adverse subway or parking impacts.

Traffic

As presented in Table 21-13, compared to the Proposed Actions, the Lower Density Alternative would generate approximately 214, 125, 261 and 157 fewer incremental vehicle trips during the weekday AM, midday and PM and Saturday midday peak hours, respectively. Depending on the peak hour, this represents a decrease of approximately 13.5 percent to 15.4 percent as compared to the incremental vehicle trips that would be generated under the Proposed Actions. Study area intersections with significant adverse traffic impacts were therefore evaluated to determine if the impacts would also occur under the Lower Density Alternative, and if the impacts could be mitigated. Overall, the Lower Density Alternative would result in significant adverse traffic impacts at a total of 47 study area intersections during one or more analyzed peak hours, the same as under the Proposed Actions. Table 21-14 presents a comparison of the numbers of lane groups and intersections that would have significant adverse impacts as well as unmitigated impacts in each peak hour under the Proposed Actions and the Lower Density Alternative. As shown in Table 21-14, under the Lower Density Alternative, 54 lane groups at 39 intersections would be impacted (compared to 59 lane groups at 41 intersections under the Proposed Actions) in the weekday AM peak hour, 36 lane groups at 24 intersections (compared to 40 lane groups at 25 intersections under the Proposed Actions) in the midday, 66 lane groups at 39 intersections (compared to 67 lane groups at 39 intersections under the Proposed Actions) in the PM and 36 lane groups at 25 intersections (compared to 38 lane groups at 26 intersections under the Proposed Actions) in the Saturday midday.

TABLE 21-12
Comparison of Incremental Peak Hour Person Trips by Mode—
Proposed Actions vs. Lower Density Alternative

Scenario	Auto	Taxi	Subway/ Railroad	Bus	School Bus	Walk/ Other	Total
Weekday AM							
Proposed Actions	1,370	0	3,313	1,002	482	2,415	8,582
Lower Density Alternative	1,158	-4	2,858	875	482	2,213	7,582
Net Difference	-212	-4	-455	-127	0	-202	-1,000
Weekday Midday							
Proposed Actions	1,315	109	2,263	1,272	0	8,543	13,502
Lower Density Alternative	1,162	93	1,987	1,156	0	7,774	12,172
Difference	-153	-16	-276	-116	0	-769	-1,330
Weekday PM							
Proposed Actions	1,873	61	3,996	1,451	0	4,801	12,182
Lower Density Alternative	1,604	49	3,476	1,286	0	4,347	10,762
Difference	-269	-12	-520	-165	0	-454	-1,420
Saturday Midday							
Proposed Actions	1,700	88	3,500	1,356	0	5,672	12,316
Lower Density Alternative	1,474	77	3,049	1,211	0	5,151	10,962
Difference	-226	-11	-451	-145	0	-521	-1,354

Note: This table has been revised for the FEIS.

TABLE 21-13
Comparison of Incremental Peak Hour Vehicle Trips by Mode—
Proposed Actions vs. Lower Density Alternative

Scenario	Auto	Taxi	School Bus	Truck	Total
Weekday AM					
Proposed Actions	1,387	4	34	56	1,481
Lower Density Alternative	1,191	-2	34	44	1,267
Net Difference	-196	-6	0	-12	-214
Weekday Midday					
Proposed Actions	742	106	0	80	928
Lower Density Alternative	647	88	0	68	803
Difference	-95	-18	0	-12	-125
Weekday PM					
Proposed Actions	1,607	76	0	8	1,691
Lower Density Alternative	1,372	56	0	2	1,430
Difference	-235	-20	0	-6	-261
Saturday Midday					
Proposed Actions	932	92	0	6	1,030
Lower Density Alternative	789	78	0	6	873
Difference	-143	-14	0	0	-157

Note: This table is new to the FEIS.

TABLE 21-14
Comparison of the Numbers of Lane Groups/Intersections
with Significant Adverse Impacts—
Proposed Actions vs. Lower Density Alternative

Peak Hour	Development Scenario	Lane Groups/ Intersections with Significant Impacts
AM	Proposed Actions	59/41
	Lower Density Alternative	54/39
Midday	Proposed Actions	40/25
	Lower Density Alternative	36/24
PM	Proposed Actions	67/39
	Lower Density Alternative	66/39
Saturday Midday	Proposed Actions	38/26
	Lower Density Alternative	36/25

Note: This table is new for the FEIS.

Transit

SUBWAY

Subway Stations

As shown in Table 21-12, the Lower Density Alternative would generate 455 and 520 fewer incremental subway trips during the weekday AM and PM Peak hours, respectively, than would the Proposed Actions. As under the Proposed Actions, incremental subway trips generated under the Lower Density Alternative would not result in significant adverse impacts to any area subway stations.

Subway Line Haul

Under the Proposed Actions, no analyzed subway line would be significantly adversely impacted in either the weekday AM or PM peak hour under CEQR Technical Manual impact criteria. As the Lower Density Alternative would generate fewer new subway trips than the Proposed Actions, this alternative is also not expected to result in significant adverse subway line haul impacts in either period.

BUS

As presented in Table 21-12, weekday AM and PM peak hour incremental bus trips would total 875 and 1,156 under the Lower Density Alternative, compared to 1,002 and 1,451 trips under the Proposed Actions. Although there would be 127 and 165 fewer bus trips during the weekday AM and PM peak hours, respectively, under the Lower Density Alternative, this alternative, like the Proposed Actions, would result in a significant adverse bus impact to westbound Q8 service in the PM peak hour. There would be a shortfall of 16 spaces on the westbound Q8 service in the PM under the Lower Density Alternative compared with a shortfall of 17 spaces under the Proposed Actions. As under the Proposed Actions, the significant adverse impact to Q8 service could be mitigated by increasing the number of westbound buses from nine to ten in the weekday PM peak hour. The general policy of the MTA is to provide additional bus service where demand warrants, taking into account fiscal and operational constraints.

Pedestrians

The Lower Density Alternative is expected to generate 5,996, 10,980 and 9,185 incremental pedestrian trips (including walk/other trips and trips to/from area transit services and public parking facilities) in the weekday AM, midday and PM peak hours, respectively. This represents a decrease of 9.6 percent to 11.6 percent compared to the 6,780, 12,141 and 10,324 incremental pedestrian trips that would be generated under the Proposed Actions during these same periods, respectively. As shown in Tables 21-15 through 21-17, with this reduction in incremental

pedestrian trips the Proposed Actions' significant adverse impacts to the north sidewalk on Atlantic Avenue between Logan and Chestnut Streets and the west crosswalk on Atlantic Avenue at Euclid Street (both in the weekday midday peak hour) would not occur under the Lower Density Alternative. The significant adverse impacts to the east sidewalk on Van Siclen Avenue between Pitkin and Glenmore Avenues in the weekday PM peak hour and the northeast corner area at Liberty Avenue and Berriman Street in the AM peak hour would, however, also occur under the Lower Density Alternative.

Vehicular and Pedestrian Safety Evaluation

A review of NYCDOT crash data for the 3-year reporting period between January 1, 2011, and December 31, 2013 identified seven intersections in proximity to the rezoning area as high crash accident locations. NYCDOT's planned improvements to intersections along Atlantic Avenue are expected to include measures to improve pedestrian safety, such as the installation of high visibility crosswalks, new school crossing pavement markings, new sidewalk extensions, and the implementation of new turn prohibitions. Under both the Proposed Actions and the Lower Density Alternative, additional improvements to increase pedestrian/bicyclist safety at high crash locations could include the installation of pedestrian countdown signals, advance stop bars, and improved street lighting. As a PS/IS school would potentially be developed under both the Proposed Actions and the Lower Density Alternative, both would likely include further measures to enhance safety at intersections in proximity to the proposed school site, such as the installation of additional school crossing pavement markings and signage.

Parking

Under the Lower Density Alternative it is assumed that 2,333 accessory parking spaces would be developed on projected development sites compared to the 2,416 spaces conservatively assumed for the Proposed Actions. (Both of these numbers assume that accessory parking would be waived for every development site where the number of required spaces would fall below the minimum number specified under zoning.) Therefore, there would be a total of 83 fewer accessory parking spaces provided under the Lower Density Alternative compared to the Proposed Actions.

As shown in Table 21-18, the Lower Density Alternative is expected to generate a demand for approximately 1,238 parking spaces in the weekday 1-2 PM midday period and 2,050 spaces during the overnight period. By comparison, the Proposed Actions are expected to generate a demand for 1,360 and 2,442 parking spaces during these same periods, respectively. After accounting for the number of required accessory spaces provided on a site-by-site basis under the Lower Density Alternative, it is estimated that incremental parking demand from new development associated with the Lower Density Alternative would total approximately 175 spaces at off-street public parking facilities and on-street in the weekday midday period, and 393 spaces during the overnight period. By comparison, the Proposed Actions would generate an incremental parking demand of 245 spaces and 713 spaces during these same periods, respectively.

The net incremental parking demand from projected development within the ¼-mile sub-area around sites 46, 66 and 67 would total approximately 127 and 163 during these same periods, respectively, under the Lower Density Alternative compared to 192 and 456 spaces, respectively under the Proposed Actions. As the Proposed Actions would not result in any significant adverse parking impacts, and as the Lower Density Alternative would generate less parking demand on-street and at off-street public parking facilities, this alternative is also not expected to result in any significant adverse parking impacts.

TABLE 21-15
Sidewalk Conditions under the Lower Density Alternative

Location	Side	No-Action			With-Action			Lower Density Alternative		
		Effective Width (ft)	Average Space (ft ² /ped)	LOS	Effective Width (ft)	Average Space (ft ² /ped)	LOS	Effective Width (ft)	Average Space (ft ² /ped)	LOS
Weekday Midday Peak Hour										
(S50) Atlantic Av Logan St to Chestnut St	North	3.0	205.2	B	3.0	37.3	D*	3.0	45.0	C
Weekday PM Peak Hour										
(S69) Van Siclen Av Pitkin Av to Glenmore Av	East	3.5	38.8	D	3.5	34.5	D*	3.5	34.5	D*

Notes:

* denotes a significant adverse impact based on CEQR Technical Manual criteria.
 This table is new for the FEIS.

TABLE 21-16
Crosswalk Conditions under the Lower Density Alternative

Intersection	Crosswalk	No-Action			With-Action			Lower Density Alternative		
		Width (ft)	Average Space (ft ² /ped)	LOS	Width (ft)	Average Space (ft ² /ped)	LOS	Width (ft)	Average Space (ft ² /ped)	LOS
Weekday Midday Peak Hour										
(X42) Atlantic Av @ Euclid Av	West	12	82.6	A	12	21.5	D*	12	27.0	C

Notes:

* denotes a significant adverse impact based on CEQR Technical Manual criteria.
 This table is new for the FEIS.

TABLE 21-17
Corner Area Conditions under the Lower Density Alternative

Intersection	Corner	No-Action		With-Action		Lower Density	
		Average Space (ft ² /ped)	LOS	Average Space (ft ² /ped)	LOS	Average Space (ft ² /ped)	LOS
Weekday AM Peak Hour							
(C47) Liberty Av @ Berriman St	NE	67.5	A	22.9	D*	22.9	D*

Notes:

* denotes a significant adverse impact based on CEQR Technical Manual criteria.
 This table is new for the FEIS.

TABLE 21-18
Lower Density Alternative Net Incremental Weekday Hourly Parking Accumulation by Land Use

	Local Retail	Office	Residential ¹		Hotel ²	Light Industrial	Restaurant ³	Auto Repair	Warehouse ⁴	FRESH Supermarket ⁵	Pre-K & PS/IS School (staff) ⁶	Community Facility			Total Demand
			Market Rate	Affordable								Community Center ⁷	House of Worship ⁷	Medical Office ⁸	
12-1 AM	0	0	1,507	685	-174	0	0	0	0	0	0	0	0	0	2,018
1-2	0	0	1,529	695	-174	0	0	0	0	0	0	0	0	0	2,050
2-3	0	0	1,529	695	-174	0	0	0	0	0	0	0	0	0	2,050
3-4	0	0	1,529	695	-174	0	0	0	0	0	0	0	0	0	2,050
4-5	0	0	1,529	695	-174	0	0	0	0	0	0	0	0	0	2,050
5-6	0	0	1,486	675	-174	0	0	0	0	0	0	0	0	0	1,987
6-7	0	0	1,305	563	-173	0	0	0	0	0	0	0	0	0	1,695
7-8	5	14	1,040	389	-167	1	0	-1	-2	0	0	6	0	0	1,285
8-9	5	153	607	128	-157	10	10	-11	-8	0	37	10	2	90	886
9-10	23	255	576	127	-145	17	23	-33	-14	0	37	6	1	188	1,061
10-11	48	259	557	135	-131	19	38	-35	-15	0	37	5	1	228	1,146
11-12	67	248	560	143	-122	17	72	-27	-13	0	37	4	3	180	1,169
12-1 PM	72	247	550	141	-112	18	131	-14	-12	0	37	6	3	151	1,218
1-2	72	246	552	143	-147	18	175	-14	-12	1	37	8	3	156	1,238
2-3	76	276	595	178	-140	19	83	-17	-14	1	37	11	4	135	1,244
3-4	72	274	745	278	-147	20	52	-17	-14	1	32	13	5	156	1,470
4-5	57	186	947	399	-145	15	23	-5	-11	2	31	10	6	117	1,632
5-6	49	30	1,207	559	-161	3	48	-5	-4	3	0	3	6	101	1,839
6-7	24	4	1,364	647	-165	0	124	-1	-1	2	0	1	6	0	2,005
7-8	16	0	1,438	682	-167	0	176	0	0	0	0	2	3	0	2,150
8-9	7	0	1,501	705	-173	0	104	0	0	1	0	0	1	0	2,146
9-10	0	0	1,515	708	-175	0	33	0	0	0	0	0	0	0	2,081
10-11	0	0	1,487	683	-174	0	0	0	0	0	0	0	0	0	1,996
11-12	0	0	1,485	675	-174	0	0	0	0	0	0	0	0	0	1,986

Notes:

Parking accumulation patterns based on data from 2009 *Broadway Triangle FEIS* unless otherwise noted.

¹ Reflects auto ownership rates of 0.22 autos/household for affordable units and 0.58 for market rate units based on 2008-2012 ACS-PUMS data.

² Hotel parking accumulation pattern modified from *Broadway Triangle FEIS* data to reflect the hotel temporal distribution cited in the *CEQR Technical Manual*.

³ Restaurant parking accumulation pattern based on data from 2005 *Brooklyn Bridge Park EIS*.

⁴ Warehouse parking accumulation pattern based on data from 2009 *North Tribeca Rezoning FEIS*.

⁵ FRESH supermarket parking accumulation pattern based on data from *The Food Retail Expansion to Support Health (FRESH) Food Store Program* (2009).

⁶ Pre-K and PS/IS school staff parking accumulation pattern based on data from the 2011 *Brownsville Ascend Charter School Assessment*.

⁷ Community center and house of worship parking accumulation patterns based on data from the 2007 *Jamaica Plan Rezoning FGEIS*.

⁸ Medical office parking accumulation pattern based on data provided by NYCDOT.

This table is new to the FEIS.

Air Quality

Mobile Sources

Chapter 14, “Air Quality,” presents the maximum predicted carbon monoxide (CO) and particulate matter (PM₁₀ and PM_{2.5}) concentrations related to traffic generated by the Proposed Actions, and concludes that the Proposed Actions would not result in significant adverse air quality impacts, with the exception of the intersection of Atlantic Avenue and Logan Street, which is predicted to exceed the annual *de minimis* criterion of 0.1 µg/m³. Under the Lower Density Alternative, fewer generated vehicle trips are projected to occur, compared to those projected under the Proposed Actions. Therefore, the intersection of Atlantic Avenue and Logan Street was analyzed under the Lesser Density Alternative.

As shown in Table 21-19, the results of this modeling analysis (which were performed in accordance with methodologies described in Chapter 14, “Air Quality”) indicate that annual incremental concentrations of PM_{2.5} would not exceed the *de minimis* criteria for PM_{2.5}. No other significant adverse air quality impacts would be expected to occur due to traffic generated under Lower Density Alternative since, as discussed in Chapter 14, “Air Quality”, the predicted levels under the Proposed Actions, with the exception of annual PM_{2.5} increments at the intersection of Atlantic Avenue and Logan Street, are not predicted to exceed significant impact criteria. Therefore, there would be no significant adverse air quality mobile source impacts under the Lower Density Alternative.

TABLE 21-19
Maximum Predicted Annual Average PM_{2.5} Concentrations under the Lower Density Alternative

Receptor Site	Location	Annual Concentration Increment (µg/m ³)	
		Proposed Action	Lower Density Alternative
2	Atlantic Avenue & Logan Street	0.157	0.097

Notes:

PM_{2.5} *de minimis* criteria—annual (neighborhood scale), 0.1 µg/m³

This table is new to the FEIS.

Stationary Sources

Under the Lower Density Alternative, the maximum building heights of projected development sites 75, 76, and 77 would be reduced from 105 feet under the Proposed Actions to 85 feet under the Lower Density Alternative, and new development on potential development site A5 would have a maximum height of 55 feet under the Lower Density Alternative, as compared to a maximum height of 85 under the Proposed Actions. The maximum building heights of projected development site 1 and potential development sites A7 and A8 would be reduced from 125 feet under the Proposed Actions to 105 feet under the Lower Density Alternative. New development on projected development site 79 and potential development site A105 would have maximum heights of 125 feet under the Lower Density Alternative, as compared to maximum heights of 145 feet under the Proposed Actions, and new development on potential development site A96 would have a maximum height of 105 feet under the Lower Density Alternative, as compared to a maximum height of 145 under the Proposed Actions. While the maximum heights of the buildings on projected development sites 66 and 67’s Atlantic Avenue frontages (145 feet) would be the same under both the Proposed Actions and the Lower Density Alternative, other buildings on these sites would be lower in height than under the Proposed Actions (105 feet maximum height, compared to 145 feet).

For most of the affected projected and potential development sites, air quality impacts from heating and hot water systems would be anticipated to be similar or lesser than under the Proposed Actions (i.e., projected development sites 66, 67, and 79, and potential development sites A5, A7, A8, and A105). At projected development site 1, a stack set back and a restriction to utilize low NOx burners (less than 30 ppm NOx) would be required, in addition to the natural gas fuel restriction under the Proposed Actions. For projected development sites 75 and 76, a natural gas restriction and a stack height requirement would be required compared with a natural gas restriction under the Proposed Actions. For projected development site 77, a natural gas restriction would be required compared with

no restriction under the Proposed Actions. For potential development site A96, natural gas restriction, a stack set back and a requirement to utilize low NO_x burners (less than 30 ppm NO_x) would be required compared with a natural gas restriction and stack height requirement under the Proposed Actions. With these requirements in place, there would be no significant adverse air quality impacts under the Lower Density Alternative.

Greenhouse Gas Emissions and Climate Change

With less development than under the Proposed Actions, the Lower Density Alternative would have less energy use and would therefore result in fewer CO₂e emissions per year. Neither the Proposed Actions nor the Lower Density Alternative would result in significant GHG emission or climate change impacts.

Noise

With the Lower Density Alternative, fewer generated vehicle trips are projected to occur, compared to those projected under the Proposed Actions. However, traffic volumes would be similar at most mobile source noise analysis locations, including on Richmond Street between Fulton Street and Dinsmore Place, where a significant adverse noise impact is predicted with the Proposed Actions (see Chapter 16, “Noise”). The total traffic volumes with the Lower Density Alternative are predicted to result in approximately 188 vehicles on Richmond Street during the AM peak period, compared with 190 vehicles on Richmond Street under the Proposed Actions. Based on these projections, predicted noise levels under the Lower Density Alternative are not expected to change as compared to the Proposed Actions. Therefore, the significant adverse mobile source noise impact predicted on Richmond Street between Fulton Street and Dinsmore Place with the Proposed Actions would also be expected to occur under the Lower Density Alternative.

Public Health

As under the Proposed Actions, the Lower Density Alternative would not result in significant adverse public health impacts. Neither the Proposed Actions nor the Lower Density Alternative would result in unmitigated significant adverse impacts related to air quality, water quality, or hazardous materials. While during some periods of construction, both the Lower Density Alternative and the Proposed Actions could potentially result in significant adverse impacts related to noise, as defined by *CEQR Technical Manual* thresholds, the predicted overall changes in noise levels would not be large enough to significantly affect public health. In addition, as noted above, both the Proposed Actions and the Lower Density Alternative could potentially result in significant adverse noise impacts on Richmond Street between Fulton Street and Dinsmore Place. However, the predicted noise levels are significantly lower than the *CEQR Technical Manual* public health impact threshold of 85 dBA. Therefore, like the Proposed Actions, the Lower Density Alternative would not result in significant adverse public health impacts.

Neighborhood Character

As with the Proposed Actions, the Lower Density Alternative would not result in significant adverse impacts on neighborhood character. Because the Lower Density Alternative would result in similar impacts in the technical areas of open space, shadows, historic and cultural resources, transportation, and noise, it would result in similar effects on the neighborhood character as the Proposed Actions. The Lower Density Alternative would result in a slightly smaller increase in the residential population, as compared to the Proposed Actions, but would still facilitate the development of a mix of residential, commercial, community facility, and light-industrial uses that would be consistent with the mixed-use character of the neighborhoods. As under the Proposed Actions, new residential development anticipated on vacant and underutilized land along the rezoning area’s side streets under the Lower Density Alternative would be required to complement the existing built residential character under the proposed contextual zoning districts through strict height and street wall regulations. In addition, under both scenarios the affordable housing units would help to ensure that a considerable portion of the new households would have

incomes that would more closely reflect existing incomes in the study area and help ensure that the neighborhoods continue to serve diverse housing needs.

While the Lower Density Alternative would result in significant adverse open space impacts, as under the Proposed Actions, as the residential study area is currently underserved by open space and would remain so in both the No-Action and With-Action conditions, open space is not a critical defining feature of the area, and any resultant impacts to open space would not have a significant adverse impact on neighborhood character. In addition, although the Lower Density Alternative would result in a significant adverse shadow impact on the Holy Trinity Russian Orthodox Church, as under the Proposed Actions, it would not affect the church's exterior façade nor its essential functions and visual status in the community. Nor would the identified significant adverse direct impacts on the S/NR- and NYCL-eligible Empire State Dairy Building alter the overall character of the neighborhood. While both the Lower Density Alternative and the Proposed Actions would result in increased traffic activity and significant adverse traffic impacts, the resulting conditions would be similar to those seen in the urban neighborhoods defining the study area and would not result in density of activity or service conditions that would be out of character with the surrounding neighborhoods. Development facilitated by the Lower Density Alternative is expected to result in increased noise levels in the rezoning area and surrounding neighborhoods, and, as under the Proposed Actions, would also be expected to result in significant adverse noise impacts on Richmond Street between Fulton Street and Dinsmore Place. Increased noise levels under both scenarios would not be out of context with the neighborhood, as many roadways in the area are currently characterized by elevated noise levels. Thus, as with the Proposed Actions, the changes in transportation due to the Lower Density Alternative would not result in significant adverse impacts on neighborhood character.

Construction

Under the Lower Density Alternative, construction activities would occur on the same 81 projected development sites as under the Proposed Actions; development on 74 of these 81 sites would be expected to follow the same reasonable worst-case construction schedule as that assumed for the Proposed Actions. As the total development on projected development sites 1, 66, 67, 75, 76, 77, and 79 would be slightly lesser under this alternative, as compared to the Proposed Actions, construction on these sites would be expected to generate fewer construction worker and truck trips; construction of projected development sites 66 and 77 would take modestly less time to construct than under the Proposed Actions. The anticipated construction schedule for the 81 projected development sites under the Lower Density Alternative is presented in Figure 21-2, and the incremental construction worker and truck estimates for each quarter under this alternative are presented in Table 21-20. Due to the relatively lesser construction anticipated on the seven aforementioned projected development sites, construction under the Lower Density Alternative is expected to generate fewer construction workers and trucks. As presented in Table 21-20, the number of construction workers and trucks would peak in the first quarter of 2018 (as under the Proposed Actions) with an estimated 713 workers and 100 trucks per day; this compares to a 2018(Q1) peak of 1,048 workers and 147 trucks under the Proposed Actions. Unlike the Proposed Actions, the 2018(Q1) peak construction period would not involve construction on projected development site 66.

Preliminary Assessment

As construction under the Lower Density Alternative would occur on the same 81 projected development sites under the Lower Density Alternative as under the Proposed Actions, the same construction-related impacts to non-designated historic resources in the area would occur under either the Proposed Actions or the Lower Density Alternative. As under the Proposed Actions, construction associated with the Lower Density Alternative is not expected to result in significant adverse construction impacts with respect to land use and neighborhood character, socioeconomic conditions, community facilities, open space, or hazardous materials, or air quality. Both the Lower Density Alternative and the Proposed Actions would result in significant adverse construction impacts in the areas of historic and cultural resources and noise.

TABLE 21-20

Estimated Total Number of Construction Workers and Construction Trucks On-Site Per Day under the Lower Density Alternative (81 Projected Development Sites)

Year	2016				2017				2018				2019				2020			
Quarter	1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th
Construction Workers	86	108	291	397	540	626	671	662	713	681	514	482	518	495	531	519	496	471	379	363
Construction Trucks	15	16	41	52	75	72	87	88	100	85	65	59	89	68	69	73	79	62	42	40
Year	2021				2022				2023				2024				2025			
Quarter	1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th
Construction Workers	524	628	543	419	307	265	152	139	179	259	252	183	219	249	208	181	209	188	73	64
Construction Trucks	87	79	76	67	66	41	32	31	50	54	54	44	67	57	41	36	49	33	15	18
Year	2026				2027				2028				2029				2030			
Quarter	1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th
Construction Workers	135	166	125	120	168	172	141	88	142	139	89	82	189	210	196	211	187	155	146	85
Construction Trucks	43	28	25	27	47	29	28	24	43	24	20	22	45	29	27	30	27	20	19	12
	Project Total																			
Construction Workers	713				295															
Construction Trucks	100				47															

Note: This table is new to the FEIS.

TRANSPORTATION

In terms of construction-related traffic, as presented in Table 21-21, below, 2018(Q1) peak hour incremental construction vehicle trips under the Lower Density Alternative are expected to be less than anticipated for the Proposed Actions. While construction trips during the 2023(Q1) cumulative analysis year would be the same as under the Proposed Actions, operational trips during this period would be slightly lower, as a result of the lesser development density projected under the Lower Density Alternative. Consequently, there would be less likelihood of significant adverse traffic impacts during both the 2018(Q1) peak construction period and the 2023(Q3) cumulative analysis period than anticipated due to construction under the Proposed Actions and less than the full build-out of the Proposed Actions in 2030.

TABLE 21-21

Comparison of 2018(Q1) Peak Incremental Construction Vehicle Trips under the Lower Density Alternative and Proposed Actions

Peak Hour	Incremental Vehicle Trips in Passenger Car Equivalents (PCEs)		
	Lower Density Alternative Construction Trips	2018(Q1) Construction Trips	Net Difference
6-7 AM	269	396	-127
7:30-8:30 AM ¹	61	89	-28
3-4 PM	178	263	-85
5-6 PM	0	0	0

Note:

¹ Construction trips during this period based on the average for the 7-8 AM and 8-9 AM periods.

This table is new to the FEIS.

Any significant adverse traffic impacts during peak construction activity in 2018(Q1) would be most likely to occur at intersections in the immediate proximity of projected development 67 which is one of the largest proposed developments and would generate the majority of construction traffic during this period. It is expected that the mitigation measures identified for 2030 operational traffic impacts for the Lower Density Alternative would also be effective at mitigating any potential impacts from construction traffic during both the 2018(Q1) period for peak construction activity and the 2023(Q3) construction and operational cumulative analysis period.

Similarly, as construction under the Lower Density Alternative is expected to generate fewer construction-related worker trips during the 2018(Q1) peak period, and operational trips during the 2023(Q3) cumulative analysis period are expected to be less than during these same analysis periods for the Proposed Actions. In both 2018(Q1) and 2023(Q3), transit conditions during the 6-7 AM and 3-4 PM construction peak hours are expected to be generally better than during the analyzed operational peak hours with full build-out of the Lower Density Alternative in 2030. As the Lower Density Alternative is not expected to result in any significant subway station impacts, no subway station impacts are expected during construction. The Lower Density Alternative's significant adverse bus line haul impact would also be less likely to occur during construction than with full build-out of the alternative in 2030 as incremental demand would be lower during construction and would not occur during the peak hours of commuter demand. It is expected that the mitigation measures identified for 2030 operational transit impact, which are outlined below, would also be effective at mitigating any potential impact from construction transit trips during both the 2018(Q1) and the 2023(Q3) construction periods.

In regards to pedestrian conditions during the construction analysis periods, similar to the Proposed Actions, no single sidewalk, corner, or crosswalk is expected to experience 200 or more peak-hour trips (the threshold below which significant adverse pedestrian impacts are considered unlikely to occur based on CEQR Technical Manual guidelines) during the 2018(Q1) analysis periods. In 2023(Q3), pedestrian conditions during the 6-7 AM and 3-4 PM construction peak hours are expected to be generally better than during the analyzed operational peak hours with full build-out of the Lower Density Alternative in 2030. The Lower Density Alternative's significant adverse sidewalk, corner area, and crosswalk impacts would therefore be less likely to occur during this construction period than with full build-out of the Lower Density Alternative in 2030. It is expected that mitigation measures identified for 2030 operational pedestrian impacts in (presented in greater detail below) would also be effective at mitigating any potential impacts from construction pedestrian trips during the 2023(Q3) construction period.

Lastly, based on the extent of available on-street parking spaces within ¼-mile of the rezoning area, there would be sufficient on-street parking capacity to accommodate all of the projected construction worker parking demand during the 2018(Q1) peak construction period. There would also be sufficient on-street parking capacity to accommodate the cumulative construction and operational parking demand during the 2023(Q3) period. Therefore, significant adverse parking impacts during construction are not anticipated.

HISTORIC AND CULTURAL RESOURCES

As noted above, the Lower Density Alternative would result in construction on the same 81 projected development sites as under the Proposed Actions. As such, similar to the Proposed Actions, construction under the Lower Density Alternative would not result in any significant adverse impacts to archaeological resources. Construction period impacts on any designated historic resources would be minimized, and the historic structures would be protected, by ensuring that adjacent development projected as a result of the Proposed Actions adheres to all applicable construction guidelines and follows the requirements laid out in TPPN #10/88. This would apply to construction activities on one projected development site: site 17, which is located within 90 feet of the S/NR-listed 75th Police Precinct Station House. In addition, there are 12 eligible historic resources located within 90 feet of one or more projected or potential development sites (projected development sites 7, 13, 35, 38, 39, 49, and 74 and potential development sites A3, A7, A8, A14, A18, A25, A40, A41, A50, A65, A70, A82, A86, A87, A95, and A102): the Empire State Dairy Building, St. Michael's R.C. Church, Our Lady of Loreto R.C. Church, Grace Baptist Church, the Magistrates Court, the Church of the Blessed Sacrament, 1431 Herkimer Street, Prince Hall Temple, New Lots Town Hall, William H. Maxwell School, the Ninth Tabernacle, and Firehouse Engine 236.⁴ Development under the Proposed Actions could potentially result in construction-related impacts to these non-designated resources, as these resources are not afforded the added special protections under the New York City Department of Buildings' (DOB's) TPPN #10/88. Additional protective measures afforded under DOB's TPPN #10/88 would only become applicable if the eligible resources are designated in the future prior to the initiation of construction. If the eligible

⁴ While potential development site A73 is adjacent to the S/NR- and NYCL-eligible Holy Trinity Russian Orthodox Church, the site is anticipated to be redeveloped in the future without the Proposed Actions, and therefore, any redevelopment of this site under With-Action conditions would not result in significant adverse construction-related impacts as a consequence of the Proposed Actions.

resources listed above are not designated, however, they would not be subject to TPN #10/88, and may therefore be adversely impacted by the adjacent and nearby developments resulting from the Proposed Actions.

Detailed Assessment

AIR QUALITY

While the Lower Density Alternative is somewhat smaller in the overall density and size of the proposed buildings, it is essentially the same construction process and phasing as the Proposed Actions. Since some of the proposed buildings are smaller over a similar construction schedule, there would be a modest reduction in the amount of materials and construction workers associated with building the Lesser Density Alternative. These reductions would not materially affect the construction-related air quality analysis assumptions and conclusions. Therefore, similar to the Proposed Actions, the Lesser Density Alternative would not result in any significant adverse impacts with respect to air quality.

NOISE

While the Lower Density Alternative is somewhat smaller in the overall density and size of the proposed buildings, it is essentially the same construction process and phasing as the Proposed Actions. Since some of the proposed buildings are smaller over a similar construction schedule, there would be a modest reduction in the amount of materials and construction workers associated with building the Lesser Density Alternative. It is anticipated that predicted noise levels due to peak construction-related activities for the Lesser Density Alternative would be similar to the Proposed Actions and therefore construction noise impacts would be expected at similar locations.

Mitigation Measures Required for the Lower Density Alternative

As discussed in the preceding sections, the Lower Density Alternative would be expected to result in significant adverse impacts in the areas of community facilities (elementary and intermediate schools and child care centers), open space (indirect residential), shadows, historic and cultural resources, transportation (traffic, transit, and pedestrians), noise, and construction (historic resource, traffic, and noise). The significant adverse air quality impact that would occur under the Proposed Actions would not occur under the Lower Density Alternative. In most cases, the mitigation measures identified for the Proposed Actions would be applicable to the Lower Density Alternative, although they would require some expansion, as detailed below. Table 21-22 summarizes the impacts expected with the Lower Density Alternative and the associated mitigation measures, which are described in greater detail below.

Community Facilities

PUBLIC SCHOOLS

Under the Lower Density Alternative, significant adverse impacts to CSD 19, Sub-district 2 elementary and intermediate schools would occur, as under the Proposed Actions. To avoid the significant adverse elementary school impact, the number of incremental dwelling units that could be developed in the sub-district would have to be reduced to 1,308, generating 379 elementary school students, as compared to No- Action conditions. This would represent a decrease of 1,547 DU (54.2 percent) in CSD 19, Sub-district 2. To avoid the identified significant adverse intermediate school impacts in Sub-district 2 of CSD 19, the number of incremental dwelling units that could be developed in the sub-district would have to be reduced to 1,279, generating 153 intermediate school students, as compared to No-Action conditions. This would represent a decrease of 1,576 DU (55.2 percent) in CSD 19, Sub-district 2. Alternately, based on the RWCDs for the Lower Density Alternative, an additional 435 elementary school seats and 176 intermediate school seats would be needed in order to reduce the incremental increase in utilization rates to less than the CEQR Technical Manual impact threshold of five percent. This compares to 454 PS and 183 IS seats required to mitigate the impact under the Proposed Actions.

The following measures would mitigate the significant adverse impacts: a) restructuring or reprogramming existing school space under the DOE's control in order to make available more capacity in existing school buildings located

within CSD 19, Sub-district 2; b) relocating administrative functions to another site, thereby freeing up space for classrooms; and/or c) creating additional capacity in the area by constructing a new school(s), building additional capacity at existing schools, or leasing additional school space constructed as part of projected development within CSD 19, Sub-district 2. To mitigate the identified elementary and intermediate school impacts resulting from the Proposed Actions, enrollment in CSD 19, Sub-district 2 will be monitored. If a need for additional capacity is identified, DOE will evaluate the appropriate timing and mix of measures, identified above, to address increased school enrollment. In coordination with the New York City School Construction Authority (SCA), if additional school construction is warranted, and if funding is available, it will be identified in the Five-Year Capital Plan that covers the period in which the capacity need would occur (refer to the DOE's letter to the City Planning Commission Chairman dated February 5, 2016, provided in Appendix C, "Agency Correspondence").

CHILD CARE CENTERS

To avoid the identified significant adverse child care center impact expected to occur under the Lower Density Alternative, the number of affordable DU that could be developed on the projected development sites would have to be reduced to 2,401, a 21.8 percent (671 DU) reduction in the number of affordable units anticipated under the Lower Density Alternative RWCDs. The 2,401 affordable DU would generate 427 children under age six eligible for publicly funded child care and study area child care facilities would operate at capacity with no child care slot shortfall. Alternately, the provision of an additional 120 child care slots would mitigate the significant adverse child care center impact anticipated under the Lower Density Alternative (compared to 203 additional child care slots needed to mitigate the impact under the Proposed Actions). With 120 additional child care slots, study area child care facilities would operate at capacity, with no child care slot shortfall.

Since the publication of the DEIS, possible mitigation measures to address this projected shortfall were further explored in consultation with the New York City Administration for Children's Services (ACS).

Several factors could limit the number of children in need of publicly funded child care slots in ACS-contracted child care facilities. The projected increase in demand for child care slots could be offset by private day care facilities and day care centers outside of the study area, which are not included in this analysis – some parents may choose day care providers that are closer to their workplace rather than their home. Additionally, the City's new universal Pre-Kindergarten program has greatly expanded the number of free Pre-K seats available for 4-5 year olds, which seats are not accounted for in this analysis. Families might choose to enroll their children in Pre-K rather than in day care, reducing the demand for child care seats.

In addition, the increased demand for child care slots could be met through expanded capacity. Enhanced Commercial districts are being established along major corridors in East New York, and the Department of Housing Preservation and Development is expected to subsidize the development of a significant number of new mixed-use buildings in these districts. These districts require non-residential ground floor uses in any new development, thus expanding the amount of available commercial and community facility space in the neighborhood. These spaces could be occupied by retail or community facility uses such as day cares. HPD will work with SBS and other agencies to understand local needs for day care and other community facilities and make appropriate referrals to developers receiving City subsidy. To support local capacity to meet the need for additional day care slots while providing economic opportunity for area residents, the Department of Small Business Services will sponsor programs in East New York tailored to the needs of day care operators to help them establish and grow their businesses.

Finally, ACS will monitor the demand and need for additional publicly funded day care services in the area and identify the appropriate measures to meet demand for additional slots.

While the above measures could offset or would serve to at least partially mitigate the identified impact under both the Lower Density Alternative and the Proposed Actions, in the event that the significant adverse impact on publicly funded child care facilities is not completely eliminated, an unavoidable significant adverse impact would result.

TABLE 21-22
Summary of the Lower Density Alternative's Impacts and Possible Mitigation Measures

Impact	Mitigation Measure
<p>Community Facilities – Schools</p> <ul style="list-style-type: none"> CSD 19, Sub-district 2 elementary schools would operate at 109.2 percent utilization (a 10.9 percentage point increase over the No-Action condition). CSD 19, Sub-district 2 intermediate schools would operate at 114.3 percent utilization (an 11.2 percentage point increase over the No-Action condition). 	<p>Based on the RWCDs for the Lower Density Alternative, an additional 435 elementary school seats and 176 intermediate school seats would be needed in order to reduce the incremental increase in utilization rates to less than the <i>CEQR Technical Manual</i> impact threshold of five percent.</p>
<p>Community Facilities – Child Care Centers</p> <p>Study area child care facilities would operate at 102.0 percent utilization, a 9.2 percentage point increase over the No-Action condition</p>	<p>The provision of an additional 120 child care slots would mitigate the significant adverse child care center impact anticipated under the Lower Density Alternative.</p>
<p>Open Space – ½-Mile Residential Study Area</p> <ul style="list-style-type: none"> The residential study area total open space ratio would decrease by 7.33 percent to 0.569. The residential study area passive open space ratio would decrease by 7.24 percent to 0.282. The residential study area active open space ratio would decrease by 7.42 percent to 0.287. 	<p>To avoid a significant adverse open space impact, the Lower Density Alternative would have to provide approximately 3.3 acres of additional open space (including a minimum of 1.49 acres of passive open space and a minimum of 1.7 acres of active open space) to the ½-mile residential study area.</p>
<p>Shadows</p> <p>Incremental shadows on sunlight-sensitive features of the NYCL-eligible and S/NR-eligible Holy Trinity Russian Orthodox Church would occur on all four representative analysis days, with durations ranging from 36 minutes to one hour and 59 minutes.</p>	<p>As with the Proposed Actions, no mitigation measures are feasible and practicable.</p>
<p>Historic and Cultural Resources</p> <p>Projected development site 37, which is expected to be developed under the Lower Density Alternative, contains the S/NR- and NYCL-eligible Empire State Dairy Building. As the maximum permitted With-Action FAR on site 37 could be constructed without the demolition or enlargement of the Empire State Dairy Building, the structure is not projected to be demolished, either partially or entirely, or substantially altered under the RWCDs. However, the Proposed Actions do not include any measures that would prevent the demolition or alteration of the Empire State Dairy Building.</p>	<p>As with the Proposed Actions, no mitigation measures are feasible and practicable.</p>
<p>Transportation – Traffic</p> <p>Traffic impacts would occur at 47 intersections (41 signalized and 6 unsignalized) in one or more peak hours, including:</p> <ul style="list-style-type: none"> Impacts to 54 lane groups at 39 intersections in the weekday AM peak hour, Impacts to 36 lane groups at 24 intersections in the weekday midday peak hour, Impacts to 66 lane groups at 39 intersections in the weekday PM peak hour, and Impacts to 36 lane groups at 25 intersections in the Saturday midday peak hour. 	<p>Most of the significant traffic impacts under the Lower Density Alternative could be mitigated through the implementation of traffic engineering improvements similar to those recommended for the Proposed Actions, including:</p> <ul style="list-style-type: none"> Installation of a new traffic signal, Modification of traffic signal phasing and/or timing, Elimination of on-street parking within 100 feet of intersections to add a limited travel lane, known as “daylighting,” Channelization and lane designation changes to make more efficient use of available street widths, Conversion of a street segment from two-way to one-way operation, and Street widening to provide an additional travel lane at an intersection approach.
<p>Transportation – Transit</p> <p>Westbound Q8 bus service would experience a capacity shortfall of 16 seats through the peak load point in the weekday PM peak hour under the Lower Density Alternative.</p>	<p>The addition of one westbound Q8 bus in the weekday PM peak hour would fully mitigate the bus transit impact under the Lower Density Alternative.</p>
<p>Transportation – Pedestrians</p> <p>A total of two pedestrian elements would be significantly adversely impacted under the Lower Density Alternative, including one corner area in the weekday AM peak hour and one sidewalk in the PM peak hour.</p>	<p>The significant adverse impacts to both pedestrian elements impacted under the Lower Density Alternative could be fully mitigated with corner/sidewalk extensions and the removal of a street tree.</p>

TABLE 21-22 (continued)
Summary of the Lower Density Alternative’s Impacts and Possible Mitigation Measures

<p>Noise A significant adverse noise impact is predicted under the Lower Density Alternative at Richmond Street between Fulton Street and Dinsmore Place.</p>	<p>As with the Proposed Actions, the conversion of Dinsmore Place from two-way to one-way eastbound operation between Logan and Chestnut Streets would partially mitigate the noise impact.</p>
<p>Construction – Historic and Cultural Resources Development under the Lower Density Alternative — specifically, on projected development sites 7, 13, 35, 38, 39, 49, and 74 and potential development sites A3, A7, A8, A14, A18, A25, A40, A41, A50, A65, A70, A82, A86, A87, A95, and A102—could result in inadvertent construction-related damage to 12 NYCL- and/or S/NR-eligible historic resources, as they are located within 90 feet of one or more of the aforementioned projected and potential development sites. These 12 eligible resources include Prince Hall Temple (S/NR- and NYCL-eligible), the Magistrates Court (S/NR- and NYCL-eligible), the Empire State Dairy Building (S/NR- and NYCL-eligible), St. Michael’s Roman Catholic Church (S/NR- and NYCL-eligible), Firehouse Engine 236 (S/NR-eligible), Our Lady of Loreto Roman Catholic Church (S/NR- and NYCL-eligible), 1431 Herkimer Street (S/NR- and NYCL-eligible), Grace Baptist Church (S/NR- and NYCL-eligible), New Lots Town Hall (S/NR-eligible), William H. Maxwell School (S/NR-eligible), the Ninth Tabernacle (S/NR-eligible), and the Church of the Blessed Sacrament (S/NR- and NYCL-eligible).</p>	<p>As with the Proposed Actions, no mitigation measures are feasible and practicable.</p>
<p>Construction – Noise Development under the Lower Density Alternative could result in predicted noise levels from construction activities would exceed the noise impact threshold criteria during two or more years on one or more floors at various locations on projected development sites 66 and 67 and projected development site 46, as well as due to cumulative effects from smaller individual projected development sites.</p>	<p>As with the Proposed Actions, no mitigation measures are feasible and practicable.</p>

Note: *This table is new to the FEIS.*

Open Space

To avoid the identified significant adverse residential study area open space impact expected to occur under the Lower Density Alternative, the number of residents that could be introduced on the projected development sites would have to be reduced to less than 10,748 (or less than approximately 3,614 residential units). This would represent an approximately 35 percent reduction in the number of residential units anticipated under the Lower Density Alternative RWCDs. Alternately, in order to avoid a significant adverse open space impact, the Lower Density Alternative would have to provide approximately 3.3 acres of additional open space (including a minimum of 1.49 acres of passive open space and a minimum of 1.7 acres of active open space) to the study area. This compares to a total of 4.93 acres of open space (including a minimum of 2.29 acres of passive open space and 2.52 acres of active open space) need to mitigate the significant adverse open space impact anticipated under the Proposed Actions.

As presented in Chapter 20, "Mitigation," potential mitigation measures were explored in coordination with the lead agency, DCP, and the New York City Department of Parks and Recreation (DPR) between the DEIS and FEIS. Based on these discussions, the following mitigation measures have been identified. Improvements to study area open space resources would be implemented to add and/or enhance park components that would address the need for increased fitness and recreation opportunities for current and future residents. The scope of improvements to study area open space resources would be contingent upon available funds and based on the deficiencies or needs specific to the open space resource. New open space would also be provided by making the schoolyards of two area schools (P.S. 677 and P.S. 345) accessible to the public after school hours through the City's Schoolyards to Playgrounds program and creating a publicly accessible playground at the new school to be built as part of the Proposed Actions. These measures, which would substantially increase the usability of and enhance open space resources for the additional population introduced by the Proposed Actions, would partially mitigate the significant adverse open space impact. The same mitigation measures proposed for the Proposed Actions would partially mitigate the open space impact that would result under the Lower Density Alternative.

Shadows

As presented above, the Lower Density Alternative would result in a significant shadows impact (and shadow-related historic resource impact) on the NYCL-eligible and S/NR- eligible Holy Trinity Russian Orthodox Church. It should be noted that the sites that would cast incremental shadows on this historic resources are potential, rather than a projected, development sites. As described in Chapter 1, "Project Description," potential development sites are considered less likely to be developed than projected development sites. Consequently, the likelihood of this impact occurring is less than if it were to result from development on a projected development site.

As discussed in Chapter 20, "Mitigation," it has been determined that there are no feasible or practicable mitigation measures that can be implemented to mitigate this impact, and the Proposed Actions' significant adverse shadows impact on the Holy Trinity Russian Orthodox Church therefore remains unmitigated. As such, similar to the Proposed Actions, the Lower Density Alternative's significant adverse shadows impact on the Holy Trinity Russian Orthodox Church would remain unmitigated.

Historic and Cultural Resource

As outlined above, the Lower Density Alternative, similar to the Proposed Actions, could result in significant adverse historic resources impacts to one resource that is eligible for S/NR-listing and NYCL-designation. Projected development site 37, which is expected to be developed under RWCDs With-Action conditions, contains the S/NR- and NYCL-eligible Empire State Dairy Building. As the maximum permitted Lower Density Alternative FAR on site 37 could be constructed without the demolition or enlargement of the Empire State Dairy Building, the structure is not projected to be demolished, either partially or entirely, or substantially altered under the RWCDs. However, the Proposed Actions do not include any measures that would prevent the demolition or alteration of the Empire State Dairy Building.

In the event that the structure was designated as a landmark by the LPC, the significant adverse impact would be fully mitigated. However, as the designation process is subject to LPC approval, and not CPC approval, it cannot be

assumed or predicted with any certainty. The possibility of potential designation of this resource was explored, in consultation with the LPC, between the DEIS and FEIS. Specifically, LPC has been in contact with the property owner(s) of the S/NR- and NYCL-eligible Empire State Dairy Building with the intent of potentially designating the property as a NYCL. However, as this process is ongoing, designation of the building by LPC is not certain at this time. Absent LPC's designation of the Empire State Dairy Building, the implementation of measures such as photographically documenting the eligible structure in accordance with the standards of the HABS could partially mitigate the identified significant adverse direct impact to this historic architectural resource. However, a mechanism to require such measures is not available and would only partially mitigate the identified significant adverse impact. Accordingly, this impact would not be completely eliminated, and, if the Empire State Dairy Building is not designated as a landmark, an unavoidable significant adverse impact on this historic resource would occur under the Lower Density Alternative, as under the Proposed Actions.

Transportation

For both the Proposed Actions and the Lower Density Alternative, the identified bus transit and pedestrian impacts could be fully mitigated. Due to the existing congested conditions at many study area intersections, it is anticipated that a number of the significant adverse traffic impacts under the Lower Density Alternative could not be fully mitigated through standard traffic improvement measures, as would be the case under the Proposed Actions. However, as discussed in greater detail below, fewer study area lane groups would have unmitigated significant impacts under the Lower Density Alternative than under the Proposed Actions.

TRAFFIC

Table 21-23 summarizes the recommended mitigation measures for each intersection with significant adverse traffic impacts during the weekday AM, midday and PM and Saturday midday peak hours under the Lower Density Alternative. At most impacted intersections, recommended mitigation measures would be similar to or reduced in magnitude when compared to the measures recommended for the Proposed Actions (see Table 20-5 in Chapter 20, "Mitigation"). Additional mitigation measures are, however, proposed for one intersection—Pitkin Avenue/Pennsylvania Avenue—where an impact that was unmitigable under the Proposed Actions would be mitigatable under the Lower Density Alternative.

Tables 21-24 through 21-27 show Action-with-Mitigation v/c ratios, delays, and levels of service (LOS) at impacted intersections under the Lower Density Alternative and compares them to No-Action and With-Action conditions under the Proposed Actions for the weekday AM, midday and PM and Saturday midday peak hours, respectively. Lane groups that would have unmitigated significant adverse impacts are summarized in Table 21-28, while Table 21-29 compares the numbers of lane groups and intersections with mitigated and unmitigated impacts under the Lower Density Alternative with the numbers under the Proposed Actions. As shown in Table 21-29, the Lower Density Alternative would result in fewer unmitigated significant adverse impacts than the Proposed Actions. Specifically, under the Lower Density Alternative, unmitigated significant impacts would remain at a total of 17 lane groups at ten intersections during the weekday AM peak hour compared to 18 lane groups at 11 intersections with the Proposed Actions, ten lane groups at three intersections (compared to 13 lane groups at four intersections with the Proposed Actions) during the weekday midday peak hour, 20 lane groups at ten intersections (compared to 21 lane groups at 11 intersections with the Proposed Actions) during the weekday PM peak hour, and nine lane groups at four intersections (compared to ten lane groups at five intersections with the Proposed Actions) during the Saturday midday peak hour. The following lane groups, which would be unmitigated under the Proposed Actions, would either be fully mitigated or would not be impacted under the Lower Density Alternative:

- The westbound Atlantic Avenue shared through-right lane group at Rockaway Avenue in the weekday AM peak hour;
- The eastbound Atlantic Avenue shared through-right lane group at Rockaway Avenue in the weekday midday peak hour;
- The eastbound Bushwick Avenue right-turn lane group at Jamaica Avenue/Pennsylvania Avenue/Jackie Robinson Parkway in the weekday midday peak hour;

TABLE 21-23
Proposed Traffic Mitigation Measures under the Lower Density Alternative

Intersection	Signal Phase	No-Action Signal Timing (Seconds) (1)				Proposed Signal Timing (Seconds) (1)				Recommended Mitigation
		AM	MD	PM	SAT MD	AM	MD	PM	SAT MD	
Arlington Avenue & Jamaica Avenue	EB/WB NB/SB	-	-	-	-	-	-	-	-	Unmitigatable
Atlantic Avenue & Rockaway Avenue	EB-L/WB-L EB/WB NB NB/SB	15 56 13 36	12 33 11 34	15 56 13 36	15 56 13 36	15 58 13 34	12 33 11 34	15 57 13 35	15 56 13 36	- Install "No Standing Anytime" regulation along east curb of NB and west curb of SB approach for 100 feet. - Restripe NB and SB approaches from one 22-foot-wide shared left-through-right lane to one 11-foot-wide left-turn only lane and one 11-foot-wide shared through-right lane. - Transfer 2s of green time from NB/SB to EB/WB in AM and 1s in PM.
Atlantic Avenue & Eastern Parkway	EB/WB PED NB/SB PED	61 7 45 7	38 7 38 7	61 7 45 7	38 7 38 7	61 7 45 7	39 7 37 7	61 7 45 7	39 7 37 7	- Install "No Standing Anytime" regulation along west curb of SB approach for 100 feet to allow for three effective moving lanes. - Transfer 1s of green time from NB/SB to EB/WB in midday and Saturday midday.
Atlantic Avenue & Georgia Avenue	EB/WB NB/SB	81 39	81 39	81 39	55 35	79 41	80 40	79 41	55 35	- Transfer 2s of green time from EB/WB to NB/SB in AM and PM; 1s in midday.
Atlantic Avenue & Pennsylvania Avenue	EB/WB EB NB-L/SB-L NB/SB	52 15 15 38	46 12 13 49	41 15 15 49	31 12 12 35	52 15 15 38	46 12 15 49	41 15 15 49	31 12 12 35	Unmitigatable
Atlantic Avenue & Miller Avenue	WB EB/WB SB	- 81 39	- 81 39	- 81 39	- 59 31	12 68 40	14 67 39	11 67 42	12 47 31	- Introduce new WB leading signal phase. - Transfer 1s of green time from EB/WB to SB in AM and 2s in PM.
Atlantic Avenue & Schenck Avenue	EB/WB PED NB	79 7 34	79 7 34	79 7 34	54 7 29	79 7 34	77 7 36	79 7 34	51 7 32	- Install "No Standing 7AM-10AM and 4PM-7PM Mon-Fri" regulation along west curb of NB approach for 100 feet to allow for two effective moving lanes. - Transfer 2s of green time from EB/WB to NB in midday; 3s in Saturday midday.
Atlantic Avenue & Warwick Street	EB/WB WB PED SB	64 15 7 34	68 13 7 32	68 13 7 32	42 13 7 28	62 17 7 34	65 16 7 32	68 14 7 31	42 13 7 28	- Install "No Standing 7AM-10AM, 4PM-7PM Mon-Fri" regulation along west curb of SB approach for 100 feet to allow for two effective moving lanes. - Transfer 2s of green time from EB/WB to WB in AM and 3s in midday. - Transfer 1s of green time from SB to WB in PM.
Atlantic Avenue & Elton Street	EB EB/WB Ped	- 81 39	- 81 39	- 81 39	- 55 35	13 68 39	13 68 39	13 68 39	11 44 35	- Introduce new EB leading signal phase.
Atlantic Avenue & Highland Place	EB EB/WB PED SB	- 79 7 34	- 74 7 39	- 79 7 34	- 53 7 30	13 66 7 34	13 61 7 39	13 67 7 33	11 45 7 27	- Introduce new EB leading signal phase. - Stripe NB receiving-end and SB approach from an unstriped 2-way 30-foot-wide road with parking along SB approach to one 10-foot-wide SB left-turn only lane, one 10-foot-wide SB left-right turn lane with parking, and one 10-foot-wide NB receiving lane. - Install "No Standing Anytime" regulation along west curb of SB approach for 150 feet.
Atlantic Avenue & Logan Street	EB/WB NB/SB	66 54	67 53	66 54	41 49	66 54	64 56	62 58	42 48	- Narrow west sidewalk along Logan Street by three feet (from 18 feet to 15 feet) for approximately 160 feet from the intersection with Atlantic Avenue. - Restripe SB approach and NB receiving-end from one 15-foot-wide shared SB left-through-right lane and one 15-foot-wide NB receiving lane to one 11-foot-wide SB shared through-right lane, one 11-foot-wide SB left-turn only lane, and one 11-foot-wide NB receiving lane for approximately 150 feet. - Set back SB approach stop bar 45 feet from crosswalk. - Install "No Standing Anytime" regulation along west curb of SB approach and east curb of NB receiving-end for approximately 160 feet. - Install "No Standing 4PM-7PM Mon-Fri" regulation along south curb of EB approach for 250 feet. - Transfer 3s of green time from EB/WB to NB/SB in midday and 4s in PM. - Transfer 1s of green time from NB/SB to EB/WB in Saturday midday.
Atlantic Avenue & Euclid Avenue	EB/WB PED NB/SB	79 7 34	79 7 34	79 7 36	47 7 34	79 7 34	78 7 35	76 7 37	47 7 36	- Install "No Parking 4PM-7PM Mon-Fri" regulation along east curb of SB approach for 250 feet. - Transfer 1s of green time from EB/WB to NB/SB in midday; 3s in PM.
Atlantic Avenue & Crescent Street	WB EB/WB NB/SB	13 68 39	13 58 49	13 68 39	13 46 31	13 68 39	15 58 49	16 64 40	13 46 31	- Transfer 3s of green time from EB/WB to WB in PM. - Transfer 1s of green time from EB/WB to NB/SB in PM.
Atlantic Avenue & Rockaway Boulevard	WB EB/WB NB/SB	14 62 44	11 38 41	12 67 41	11 38 41	14 62 44	11 39 40	13 66 41	11 39 40	- Install "No Standing 4PM-7PM Mon-Fri" regulation along south curb of EB approach for 250 feet. - Transfer 1s of green time from NB/SB to EB/WB in midday and Saturday midday. - Transfer 1s of green time from EB/WB to WB in PM.

TABLE 21-23 (continued)
Proposed Traffic Mitigation Measures under the Lower Density Alternative

Intersection	Signal Phase	No-Action Signal Timing (Seconds) (1)				Proposed Signal Timing (Seconds) (1)				Recommended Mitigation
		AM	MD	PM	SAT MD	AM	MD	PM	SAT MD	
Broadway & Rockway Avenue/Cooper Street	EB/WB NB/SB	72 48	54 36	72 48	54 36	72 48	54 36	72 48	55 35	- Install "No Standing 7AM-10AM, 4PM-7PM Mon-Fri" regulation along north curb of WB approach for 100 feet to allow for two effective moving lanes. - Transfer 1s of green time from NB/SB to EB/WB in Saturday midday.
Broadway & Eastern Parkway/Hull Street	EB/WB NB/SB NB-Hull Street	39 63 18	30 45 15	39 63 18	30 45 15	39 63 18	32 43 15	39 63 18	32 43 15	- Transfer 2s of green time from NB/SB to EB/WB in Midday and Saturday midday.
Bushwick Avenue & Eastern Parkway	EB/WB WB-L/NB-R EB/SB-R	75 34 11	57 22 11	75 34 11	57 22 11	75 34 11	57 22 11	74 35 11	57 22 11	- Restripe WB approach from one 10-foot-wide left-turn only lane and 11-foot-wide shared left-through-right lane to one 10-foot-wide left-turn only lane and one 12-foot-wide shared left-through-right lane. - Transfer 1s of green time from EB/WB to WB-L/NB-R in PM.
Dinsmore Place & Logan Street	WB PED NB/SB	- - -	- - -	- - -	- - -	- 35 55	- 35 55	- 35 55	- 35 55	- Install new traffic signal and crosswalks with timing plan shown as a pedestrian safety improvement. - Convert Dinsmore Place between Logan Street and Chestnut Street from a two-way (EB/WB) street with parking along north curb (WB-approaches) to a one-way EB street with parking along south curb. - Install "No Standing Anytime" regulations on north curb of entire length of Dinsmore Place between Logan Street and Chestnut Street. - Install "No Parking 7AM-4PM School Days, Department of Education" regulation on south curb of Dinsmore Place between Richmond Street and Chestnut Street.
Fulton Street & Van Sinderen Avenue	EB/WB NB/SB SB-only (Bus Lane)	60 40 20	40 30 20	60 40 20	40 30 20	60 40 20	40 30 20	59 41 20	40 30 20	- Transfer 1s of green time from EB/WB to NB/SB in PM.
Fulton Street & Pennsylvania Avenue	EB NB/SB SB	50 52 18	42 60 18	50 52 18	27 50 13	47 55 18	40 62 18	50 52 13	27 50 13	- Transfer 3s of green time from EB to NB/SB in AM and 2s in midday.
Fulton Street & Miller Avenue	EB SB	54 36	54 36	54 36	54 36	53 37	54 36	54 36	54 36	- Transfer 1s of green time from EB to SB in AM.
Fulton Street & Elton Street	EB NB	- -	- -	- -	- -	- -	- -	- -	- -	- Install "No Standing 7AM-7PM Except Sunday" regulation along east curb of NB approach for 150 feet to allow for two effective moving lanes.
Fulton Street & Highland Place	EB NB/SB	36 24	36 24	36 24	36 24	36 24	36 24	37 24	37 23	- Transfer 1s of green time from NB/SB to EB in Saturday midday.
Fulton Street & Logan Street	EB/WB NB/SB	33 27	33 27	33 27	33 27	35 25	33 27	36 24	33 27	- Install "No Standing Anytime" regulation on west curb of SB receiving side for 150 feet. - Install "No Standing 7AM-7PM Except Sunday" regulation on north curb of WB approach for 100 feet. - Restripe SB receiving-end and NB approach from one 15-foot-wide SB receiving lane and one 15-foot-wide NB shared left-through-right lane to one 10-foot-wide SB receiving lane, one 10-foot-wide NB left-turn only lane with 100 feet of storage, and one 10-foot-wide NB shared through-right lane. - Transfer 2s of green time from NB/SB to EB/WB in AM; 3s in PM.
Fulton Street & Chestnut Street	EB/WB NB	- -	- -	- -	- -	29 31	35 25	32 28	35 25	- Install new traffic signal and crosswalks with timing plan shown.
Fulton Street & Euclid Avenue	EB/WB SB	36 24	36 24	36 24	36 24	35 25	36 24	35 25	36 24	- Transfer 1s of green time from EB/WB to SB in AM and PM.
Glenmore Avenue & Pennsylvania Avenue	EB/WB NB/SB	39 81	39 81	39 81	30 60	39 81	39 81	39 81	30 60	- Install "No Standing 7AM-10AM Mon-Fri" regulation on south curb of WB approach for 60 feet to allow for two effective moving lanes.
Glenmore Avenue & Miller Avenue	WB SB	- -	- -	- -	- -	- -	- -	- -	- -	Unmitigatable
Bushwick/Jamaica Aves & Pennsylvania Avenue/Jackie Robinson Parkway	EB-Bushwick/NB EB-Jamaica WB NB/SB	34 30 17 39	36 28 21 35	36 31 17 36	28 22 15 25	34 30 17 39	36 28 21 35	36 31 17 36	28 22 15 25	Unmitigatable
Jamaica Avenue & Highland Place/Force Tube Avenue	EB/WB NB/SB	30 30	30 30	30 30	30 30	30 30	31 29	27 33	31 29	- Install "No Standing 7AM-10AM, 4PM-7PM Mon-Fri" regulation on south curb of EB approach for 100 feet. - Transfer 1s of green time from NB/SB to EB/WB in midday and Saturday midday. - Transfer 3s of green time from EB/WB to NB/SB in PM.
Jamaica Avenue & Euclid Avenue/Cypress Hill Street	EB/WB SB/WB-R	37 23	37 23	37 23	37 23	37 23	37 23	37 23	37 23	- Install "No Standing Anytime" regulation on south curb of EB approach for length of block.

TABLE 21-23 (continued)
Proposed Traffic Mitigation Measures under the Lower Density Alternative

Intersection	Signal Phase	No-Action Signal Timing (Seconds) (1)				Proposed Signal Timing (Seconds) (1)				Recommended Mitigation
		AM	MD	PM	SAT MD	AM	MD	PM	SAT MD	
Liberty Avenue & Pennsylvania Avenue	EB/WB	39	39	39	30	39	41	41	33	- Install "No Standing 7AM-7PM Mon-Fri" regulation along north curb of WB approach for 100 feet. - Transfer 2s of green time from NB/SB to EB/WB in midday and PM; 3s in Saturday midday.
	NB-L/SB-L	11	11	11	11	11	11	11	11	
	NB/SB	70	70	70	49	70	68	68	46	
Liberty Avenue & Miller Avenue	EB/WB	78	78	78	59	76	78	78	58	- Install "No Standing 7AM-10AM, 4PM-7PM Mon-Fri" regulation along east curb of SB approach for 150 feet to allow for two effective moving lanes. - Transfer 2s of green time from EB/WB to SB in AM; 1s in Saturday midday.
	SB	42	42	42	31	44	42	42	32	
Liberty Avenue & Schenck Avenue	EB/WB	84	84	84	84	83	84	84	84	- Install "No Standing 7AM-10AM Mon-Fri" regulation along north curb of WB approach for 100 feet. - Transfer 1s of green time from EB/WB to NB in AM.
	NB	36	36	36	36	37	36	36	36	
Liberty Avenue & Warwick Street	EB/WB	78	78	78	59	75	78	76	58	- Install "No Standing 7AM-10AM Mon-Fri" regulation along north curb of WB approach for 100 feet. - Transfer 3s of green time from EB/WB to SB in AM; 2s in PM; and 1s in Saturday midday.
	SB	42	42	42	31	45	42	44	32	
Liberty Avenue & Shepherd Avenue	EB/WB	79	79	79	59	79	79	76	59	- Transfer 3s of green time from EB/WB to SB in PM.
	SB	41	41	41	31	41	41	44	31	
Liberty Avenue & Montauk Avenue	EB/WB	78	78	78	59	78	78	77	59	- Install "No Standing 7AM-7PM Except Sunday" regulation along west curb of SB approach for 100 feet. - Transfer 1s of green time from EB/WB to NB/SB in PM.
	NB/SB	42	42	42	31	43	42	43	31	
Liberty Avenue & Milford Street	EB/WB	77	77	77	58	78	77	77	58	- Install "No Standing 4-7PM Mon-Fri" regulation along north curb of WB approach for 100 feet. - Transfer 1s of green time from SB to EB/WB in AM.
	SB	43	43	43	32	42	43	43	32	
Liberty Avenue & Logan Street	EB/WB	84	84	84	54	84	84	82	54	- Install "No Standing 7-10AM, 4-7PM Mon-Fri" regulation along south curb of EB approach for 200 feet. - Install "No Standing Anytime" regulation along west curb of SB approach for 250 feet. - Set back SB approach and EB approach stop bars 40 feet from crosswalks. - Restripe SB approach and NB receiving-end from one 11-foot-wide SB left-right turn lane with parking and one 11-foot-wide NB receiving lane to one 10-foot-wide SB right-turn only lane with 210 feet of storage, one 10-foot-wide SB left-turn only lane, and one 10-foot-wide NB receiving lane. - Transfer 2s of green time from EB/WB to NB/SB in PM.
	NB/SB	36	36	36	36	36	36	38	36	
Liberty Avenue & South Conduit Boulevard	EB/WB	57	42	42	36	59	44	46	38	- Transfer 2s of green time from SB to EB/WB in AM, midday and Saturday midday; and 4s in PM.
	SB	63	78	78	54	61	76	74	52	
Liberty Avenue & North Conduit Boulevard	EB/WB	42	42	42	36	42	44	45	38	- Transfer 2s of green time from NB to EB/WB in midday and Saturday midday; 3s in PM.
	NB	78	78	78	54	78	76	75	52	
Pitkin Avenue & Mother Gaston Boulevard	EB/WB	66	66	66	66	67	66	66	66	- Transfer 1s of green time from NB/SB to EB/WB in AM.
	NB/SB	54	54	54	54	53	54	54	54	
Pitkin Avenue & Pennsylvania Avenue	EB/WB	39	39	39	30	41	43	42	34	- Install "No Standing Anytime" regulation along west curb of SB approach for 150 feet. - Install "No Standing Anytime" regulation along west curb of SB receiving-end for 150 feet. - Install "No Standing Anytime" regulation along south curb of EB approach for 35 feet. - Restripe SB approach from two 11-foot-wide shared left-through-right-lanes with parking to one 10-foot-wide left-turn only lane with 50 feet of storage, one 10-foot-wide through lane and one 11-foot-wide shared through-right lane. - Restripe SB receiving-end and NB approach from two 11-foot-wide receiving lanes with parking and two 11-foot-wide NB approach shared left-through-right lanes with parking to two (one 11-foot-wide and 10-foot-wide) SB receiving lanes, one 10-foot-wide NB left-turn only lane with 50 feet of storage, one 11-foot-wide through lane and one 11-foot-wide shared through-right lane with parking. - Set back EB approach stop bar 35 feet from crosswalk. - Transfer 2s of green time from NB/SB to EB/WB in AM, 4s in midday and Saturday midday, and 3s in PM.
	NB/SB	81	81	81	60	79	77	78	56	
Pitkin Avenue & Elton Street	EB/WB	-	-	-	-	-	-	-	-	- Install "No Standing Anytime" regulation for 100 feet along east and west curbs of NB approach to allow for two effective moving lanes.
	NB	-	-	-	-	-	-	-	-	
Pitkin Avenue & South Conduit Boulevard	EB/WB	50	50	50	33	51	50	50	34	- Transfer 1s of green time from SB to EB/WB in AM and Saturday midday.
	SB	70	70	70	57	69	70	70	56	
Sutter Avenue & Pennsylvania Avenue	EB/WB	39	39	39	30	40	39	39	30	- Transfer 1s of green time from NB/SB to EB/WB in AM.
	NB/SB	81	81	81	60	80	81	81	60	
Sutter Avenue & Fountain Avenue	EB/WB	73	55	73	73	72	55	71	72	- Transfer 1s of green time from EB/WB to NB/SB in AM; and 2s in PM
	NB/SB	47	35	47	47	48	35	49	48	

Notes :

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

This table is new for the FEIS.

TABLE 21-24
Lower Density Alternative Action-With-Mitigation Conditions at Impacted Lane Groups
Weekday AM Peak Hour

	Weekday AM Peak Hour					Weekday AM Peak Hour					Weekday AM Peak Hour				
	No-Action					LDA With-Action					LDA Action-With Mitigation				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Signalized Intersection															
Atlantic Avenue & Rockaway Avenue	WB	TR	1.08	81.6	F	WB	TR	1.13	100.3	F	WB	TR	1.09	81.8	F
Atlantic Avenue & Eastern Parkway	WB-Main	T	1.03	64.2	E	WB-Main	T	1.09	86.1	F	WB-Main	T	1.09	86.1	F
Atlantic Avenue & Georgia Avenue	NB	LTR	1.14	130.6	F	NB	LTR	1.19	150.4	F	NB	LTR	1.12	122.2	F
Atlantic Avenue & Pennsylvania Avenue	WB	TR	1.02	62.7	E	WB	TR	1.13	104.2	F	WB	TR	1.13	104.2	F
	NB	TR	1.37	217.9	F	NB	TR	1.44	248.6	F	NB	TR	1.44	248.6	F
	SB	L	0.94	147.1	F	SB	L	1.05	211.0	F	SB	L	1.05	211.0	F
	SB	TR	1.15	123.0	F	SB	TR	1.16	129.8	F	SB	TR	1.16	129.8	F
Atlantic Avenue & Miller Avenue	SB	LTR	1.22	161.0	F	SB	LTR	1.32	202.1	F	SB	LTR	1.21	154.1	F
Atlantic Avenue & Schenck Avenue											NB	L	0.90	73.0	E
											NB	TR	1.38	241.6	F
	NB	LTR	1.51	286.6	F	NB	LTR	1.72	380.5	F	NB	LTR	---	158.2	F
Atlantic Avenue & Warwick Street	WB	L	0.81	58.4	E	WB	L	0.86	67.5	E	WB	L	0.81	60.0	E
											SB	L	1.35	222.9	F
											SB	TR	0.16	37.1	D
	SB	LTR	1.39	237.2	F	SB	LTR	1.45	265.7	F	SB	LTR	---	205.9	F
Atlantic Avenue & Elton Street	EB	L	0.56	30.5	C	EB	L	0.75	55.4	E	EB	L	0.44	22.7	C
Atlantic Avenue & Highland Place											EB	L	0.45	24.8	C
											SB	L	0.74	54.3	D
											SB	R	0.74	59.5	E
	SB	LR	1.02	93.8	F	SB	LR	1.05	103.0	F	SB	LR	---	56.3	E
Atlantic Avenue & Logan Street											SB	L	1.24	181.3	F
											SB	TR	0.49	29.0	C
											SB	LTR	---	107.1	F
	SB	LTR	0.91	61.8	E	SB	LTR	1.73	377.1	F	SB	LTR	---	107.1	F
Broadway & Rockaway Avenue											WB	LT	0.85	32.8	C
											WB	R	0.08	12.5	B
	WB	LTR	0.85	34.1	C	WB	LTR	0.98	52.6	D	WB	LTR	---	31.7	C
Broadway & Eastern Parkway	EB	TR	0.91	70.7	E	EB	TR	0.97	82.6	F	EB	TR	0.97	82.6	F
	WB	LT	1.13	126.1	F	WB	LT	1.52	291.5	F	WB	LT	1.52	291.5	F
Bushwick Avenue & Eastern Parkway	WB	TR	1.09	80.3	F	WB	TR	1.11	90.0	F	WB	TR	1.08	75.8	E
Fulton Street & Pennsylvania Avenue	NB	TR	1.11	99.2	F	NB	TR	1.18	127.6	F	NB	TR	1.11	96.8	F
Fulton Street & Miller Avenue	SB	LT	0.92	51.1	D	SB	LT	0.96	58.5	E	SB	LT	0.93	51.6	D
Fulton Street & Logan Street	WB	LTR	0.80	26.5	C	WB	LTR	1.08	81.8	F	WB	LTR	1.06	69.1	E
											NB	L	0.52	23.4	C
											NB	TR	0.95	47.5	D
	NB	LTR	0.96	46.6	D	NB	LTR	1.14	100.5	F	NB	LTR	---	42.3	D
Fulton Street & Euclid Avenue	SB	LTR	0.93	46.3	D	SB	LTR	1.00	61.4	E	SB	LTR	0.95	47.9	D
Glenmore Avenue & Pennsylvania Avenue											WB	L	0.69	48.5	D
											WB	R	1.09	126.9	F
	WB	LR	1.14	133.8	F	WB	LR	1.32	205.6	F	WB	LR	---	87.6	F
Bushwick /Jamaica Avenue & Penn. /Jackie Robinson Pkwy	EB-Jamaica	TR	1.11	112.4	F	EB-Jamaica	TR	1.14	121.6	F	EB-Jamaica	TR	1.14	121.6	F
	WB	L	1.11	152.8	F	WB	L	1.31	226.5	F	WB	L	1.31	226.5	F
	WB	T	1.11	150.9	F	WB	T	1.29	216.3	F	WB	T	1.29	216.3	F
	NB	L	1.16	142.9	F	NB	L	1.22	166.5	F	NB	L	1.22	166.5	F
Jamaica Avenue & Highland Pl/Force Tube Ave.	EB	LTR	1.12	98.2	F	EB	LTR	1.20	128.2	F	EB	LTR	0.93	40.6	D
Jamaica Avenue & Euclid Av/Cypress Hill Street	EB	LTR	1.18	111.9	F	EB	LTR	1.45	225.5	F	EB	LTR	1.12	85.2	F
Liberty Avenue & Pennsylvania Avenue	WB	LTR	0.91	70.5	E	WB	LTR	1.04	101.0	F	WB	LTR	0.86	59.6	E
Liberty Avenue & Miller Avenue											SB	L	0.23	30.9	C
											SB	TR	0.98	76.0	E
	SB	LTR	0.93	66.7	E	SB	LTR	1.17	138.6	F	SB	LTR	---	68.9	E
Liberty Avenue & Schenck Avenue	WB	TR	0.89	29.9	C	WB	TR	1.01	52.8	D	WB	TR	0.84	24.3	C
	NB	LTR	0.68	49.1	D	NB	LTR	0.77	54.9	D	NB	LTR	0.75	52.2	D
Liberty Avenue & Warwick Street	WB	LT	0.85	29.1	C	WB	LT	1.01	56.7	E	WB	LT	0.87	31.3	C
Liberty Avenue & Montauk Avenue	SB	LTR	1.38	227.7	F	SB	LTR	1.47	269.1	F	SB	LTR	1.36	216.5	F
	SB	LR	0.45	37.8	D	SB	LR	0.67	47.9	D	SB	LR	0.53	39.7	D

This table is new for the FEIS.

TABLE 21-24 (continued)
Lower Density Alternative Action-With-Mitigation Conditions at Impacted Lane Groups
Weekday AM Peak Hour

	Weekday AM Peak Hour No-Action					Weekday AM Peak Hour LDA With-Action					Weekday AM Peak Hour LDA Action-With Mitigation					
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	
Liberty Avenue & Milford Street	WB	LT	0.82	27.5	C	WB	LT	0.97	48.7	D	WB	LT	0.96	44.5	D	
Liberty Avenue & Logan Street	SB	LR	0.52	45.4	D	SB	LR	1.01	106.4	F	SB	L	0.31	42.3	D	
											SB	R	0.59	46.4	D	
											SB	LR	---	45.8	D	
Liberty Avenue & South Conduit Boulevard	WB	L	1.09	111.3	F	WB	L	1.15	134.2	F	WB	L	1.08	108.3	F	
Pitkin Avenue & Mother Gaston Boulevard	EB	LTR	0.89	46.0	D	EB	LTR	0.94	55.3	E	EB	LTR	0.92	50.8	D	
	WB	LTR	0.95	55.7	E	WB	LTR	1.07	87.2	F	WB	LTR	1.05	79.6	E	
Pitkin Avenue & Pennsylvania Avenue	EB	TR	1.63	339.6	F	EB	TR	1.73	385.7	F	EB	TR	1.60	324.8	F	
	WB	LTR	1.35	216.1	F	WB	LTR	2.25	618.7	F	WB	LTR	2.03	517.5	F	
											SB	L	0.72	38.6	D	
											SB	TR	0.65	16.6	B	
	SB	LTR	1.05	63.7	E	SB	LTR	1.15	99.7	F	SB	LTR	---	18.7	B	
Pitkin Avenue & South Conduit Boulevard	WB	L	0.91	76.2	E	WB	L	0.94	82.2	F	WB	L	0.90	72.1	E	
Sutter Avenue & Pennsylvania Avenue	WB	LTR	1.14	133.8	F	WB	LTR	1.16	139.4	F	WB	LTR	1.12	123.7	F	
Sutter Avenue & Fountain Avenue	NB	L	0.53	40.3	D	NB	L	0.61	45.9	D	NB	L	0.58	43.3	D	
Unsignalized Intersection																
Dinsmore Place & Logan Street (Two-Way Stop Controlled)	WB	LR	0.19	22.7	C	WB	LR	4.91	2101.0	F	---	---	---	---	---	*
Fulton Street & Elton Street (Two-Way Stop Controlled)	NB	TR	1.10	135.6	F	NB	TR	1.47	282.0	F	NB	T	1.21	185.3	F	
											NB	R	0.18	16.8	C	
											NB	TR	---	145.6	F **	
Fulton Street & Chestnut Street (Two-Way Stop Controlled)	NB	LTR	1.04	104.1	F	NB	LTR	1.92	457.9	F	NB	LTR	0.94	39.1	D	
Glenmore Avenue & Miller Avenue (All-Way Stop Controlled)	WB	LT	---	52.59	F	WB	LT	---	86.78	F	WB	LT	---	86.78	F **	
Pitkin Avenue & Elton Street (Two-Way Stop Controlled)	NB	LTR	0.32	25.0	C	NB	LTR	0.40	30.5	D	NB	L	0.06	23.6	C	
											NB	TR	0.35	28.9	D	
											NB	LTR	---	28.2	D **	

EB-eastbound, WB-westbound, NB-northbound, SB-southbound
L-left turn, T-through, R-right turn, DefL-defacto left turn
Shading denotes lane groups with unmitigated impacts.
* Lane group would not be impacted in the future condition with the conversion of Dinsmore Place and installation of a new traffic signal.
** Impact could be mitigated by a new traffic signal; however, signalization is not proposed as future conditions would not satisfy required warrants.

This table is new for the FEIS.

TABLE 21-25
Lower Density Alternative Action-With-Mitigation Conditions at Impacted Lane Groups
Weekday Midday Peak Hour

	Weekday Midday Peak Hour					Weekday Midday Peak Hour					Weekday Midday Peak Hour					
	No-Action					LDA With-Action					LDA Action-With Mitigation					
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	
Signalized Intersection																
Atlantic Avenue & Rockaway Avenue	WB	TR	1.04	67.2	E	WB	TR	1.07	78.2	E	WB	TR	1.07	79.5	E	
Atlantic Avenue & Eastern Parkway	WB-Main	T	1.11	89.8	F	WB-Main	T	1.15	106.5	F	WB-Main	T	1.11	90.6	F	
Atlantic Avenue & Georgia Avenue	NB	LTR	1.06	105.3	F	NB	T	1.10	117.3	F	NB	LTR	1.07	105.8	F	
Atlantic Avenue & Pennsylvania Avenue	EB	L	1.01	113.6	F	EB	L	1.23	188.7	F	EB	L	1.23	188.7	F	
	EB	LTR	1.02	62.9	E	EB	LTR	1.24	149.5	F	EB	TR	1.24	149.5	F	
	WB	TR	0.92	49.2	D	WB	TR	0.99	61.0	E	WB	TR	0.99	61.0	E	
	NB	TR	1.33	197.0	F	NB	TR	1.44	245.3	F	NB	TR	1.44	245.3	F	
	SB	L	1.23	187.5	F	SB	L	1.52	287.9	F	SB	L	1.52	287.9	F	
	SB	TR	0.82	41.5	D	SB	TR	0.98	63.2	E	SB	TR	0.98	63.2	E	
Atlantic Avenue & Schenck Avenue	NB	LTR	1.10	122.6	F	NB	LTR	1.18	152.7	F	NB	LTR	1.10	120.7	F	
Atlantic Avenue & Warwick Street	WB	L	0.80	57.5	D	WB	L	0.87	70.9	E	WB	L	0.79	58.6	E	
Atlantic Avenue & Highland Place	EB	L	0.73	46.8	D	EB	L	0.89	74.6	E	EB	L	0.60	29.2	C	
Atlantic Avenue & Logan Street	NB	TR	0.58	31.1	C	NB	TR	0.86	47.2	D	NB	TR	0.81	40.3	D	
											SB	L	1.13	139.0	F	
											SB	TR	0.54	29.3	C	
											SB	LTR	---	81.4	F	
Atlantic Avenue & Euclid Avenue	NB	LR	0.41	42.1	D	NB	LR	0.58	48.9	D	NB	LR	0.56	47.0	D	
Atlantic Avenue & Rockaway Boulevard	EB	TR	1.10	85.1	F	EB	TR	1.12	95.4	F	EB	TR	1.09	82.6	F	
Broadway & Eastern Parkway	EB	TR	0.91	62.4	E	EB	TR	0.98	77.4	E	EB	TR	0.91	58.9	E	
	WB	LT	0.69	38.4	D	WB	LT	0.83	49.0	D	WB	LT	0.74	39.6	D	
Fulton Street & Pennsylvania Avenue	NB	TR	1.01	58.7	E	NB	TR	1.05	71.9	E	NB	TR	1.01	59.3	E	
Fulton Street & Logan Street	WB	LTR	0.56	16.2	B	WB	LTR	0.95	50.5	D	WB	LTR	0.88	33.9	C	
Bushwick/Jamaica Avenue & Penn./Jackie Robinson Pkwy	WB	L	1.13	153.2	F	WB	L	1.18	169.8	F	WB	L	1.18	169.8	F	
	WB	T	1.14	154.3	F	WB	T	1.18	170.5	F	WB	T	1.18	170.5	F	
	NB	L	1.08	117.2	F	NB	L	1.12	131.2	F	NB	L	1.12	131.2	F	
Jamaica Avenue & Highland Pl/Force Tube Ave.	EB	LTR	1.12	101.4	F	EB	LTR	1.14	106.2	F	EB	LTR	1.08	84.3	F	
Jamaica Avenue & Euclid Av/Cypress Hill Street	EB	LTR	1.00	51.2	D	EB	LTR	1.10	83.2	F	EB	LTR	0.85	24.3	C	
Liberty Avenue & Pennsylvania Avenue	EB	LTR	0.75	55.8	E	EB	LTR	0.84	65.8	E	EB	LTR	0.77	55.6	E	
	WB	LTR	0.96	82.5	F	WB	LTR	1.21	161.4	F	WB	LTR	0.93	69.3	E	
Liberty Avenue & Montauk Avenue	SB	LR	0.25	32.9	C	SB	LR	0.58	45.4	D	SB	LR	0.46	38.5	D	
Liberty Avenue & Logan Street											SB	L	0.26	39.6	D	
											SB	R	0.48	42.0	D	
											SB	LR	---	41.6	D	
Liberty Avenue & South Conduit Boulevard	WB	L	1.21	173.8	F	WB	L	1.31	214.7	F	WB	L	1.17	158.9	F	
Liberty Avenue & North Conduit Boulevard	WB	TR	1.04	94.4	F	WB	TR	1.11	116.3	F	WB	TR	1.05	95.3	F	
Pitkin Avenue & Pennsylvania Avenue	EB	LTR	1.13	132.1	F	EB	LTR	1.20	158.7	F	EB	LTR	1.04	97.7	F	
	WB	LTR	0.78	54.1	D	WB	LTR	0.99	89.2	F	WB	LTR	0.84	56.4	E	
											SB	L	0.76	42.9	D	
											SB	TR	0.60	16.7	B	
	SB	LTR	1.05	62.8	E	SB	LTR	1.09	78.2	E	SB	LTR	---	19.9	B	
Unsignalized Intersection																
Dinsmore Place & Logan Street (Two-Way Stop Controlled)	WB	LR	0.15	19.5	C	WB	LR	0.47	85.4	F	(Signalized)	---	---	---	---	*
Fulton Street & Chestnut Street (Two-Way Stop Controlled)	NB	LTR	0.56	27.9	D	NB	LTR	1.27	192.8	F	(Signalized)	NB	LTR	0.79	31.7	C
EB-eastbound, WB-westbound, NB-northbound, SB-southbound L-left turn, T-through, R-right turn, DefL-defacto left turn Shading denotes lane groups with unmitigated impacts. * Lane group would not be impacted in the future condition with the conversion of Dinsmore Place and installation of a new traffic signal.																

This table is new for the FEIS.

TABLE 21-26
Lower Density Alternative Action-With-Mitigation Conditions at Impacted Lane Groups
Weekday PM Peak Hour

	Weekday PM Peak Hour					Weekday PM Peak Hour					Weekday PM Peak Hour				
	No-Action					LDA With-Action					LDA Action-With Mitigation				
	Approach	Lane	V/C	Delay	LOS	Approach	Lane	V/C	Delay	LOS	Approach	Lane	V/C	Delay	LOS
Signalized Intersection															
Atlantic Avenue & Rockaway Avenue	EB	TR	0.94	43.3	D	EB	TR	0.98	50.3	D	EB	TR	0.96	46.0	D
Atlantic Avenue & Eastern Parkway	NB	R	1.09	111.9	F	NB	R	1.18	144.2	F	NB	R	1.18	144.2	F
Atlantic Avenue & Georgia Avenue	NB	LTR	1.12	124.5	F	NB	LTR	1.17	142.5	F	NB	LTR	1.11	116.1	F
Atlantic Avenue & Pennsylvania Avenue	EB	L	1.26	194.5	F	EB	L	1.35	231.9	F	EB	L	1.35	231.9	F
	EB	LT	1.24	148.3	F	EB	LT	1.32	182.7	F	EB	LT	1.32	182.7	F
	WB	TR	1.12	108.1	F	WB	TR	1.22	150.0	F	WB	TR	1.22	150.0	F
	NB	TR	0.97	61.1	E	NB	TR	1.10	98.6	F	NB	TR	1.10	98.6	F
	SB	L	0.94	84.5	F	SB	L	1.26	173.5	F	SB	L	1.26	173.5	F
Atlantic Avenue & Miller Avenue	WB	Defl	1.76	412.7	F	WB	Defl	2.98	957.5	F	WB	Defl	1.29	205.5	F
	SB	LTR	1.34	212.3	F	SB	LTR	1.43	250.4	F	SB	LTR	1.32	197.8	F
Atlantic Avenue & Schenck Avenue											NB	L	0.79	59.5	E
											NB	TR	1.29	203.1	F
											NB	LTR	---	135.4	F
Atlantic Avenue & Warwick Street	EB	TR	0.94	36.1	D	EB	TR	1.03	56.5	E	EB	TR	1.03	56.5	E
	WB	L	0.99	105.7	F	WB	L	1.02	114.7	F	WB	L	0.96	98.9	F
											SB	L	1.48	278.6	F
											SB	TR	0.19	39.8	D
											SB	LTR	---	254.0	F
Atlantic Avenue & Elton Street	EB	L	0.66	36.5	D	EB	L	0.90	77.0	E	EB	L	0.58	26.4	C
Atlantic Avenue & Highland Place	EB	T	0.76	17.4	B	EB	T	1.05	55.1	E	EB	T	0.82	19.4	B
	EB	L	0.76	53.0	D	EB	L	0.88	80.4	F	EB	L	0.51	25.7	C
	EB	T	0.93	29.3	C	EB	T	1.02	48.8	D	EB	T	0.99	40.7	D
											SB	L	1.01	95.7	F
											SB	LR	1.02	109.8	F
Atlantic Avenue & Logan Street											SB	LR	---	101.3	F
											SB	L	1.28	193.5	F
											SB	TR	0.46	25.1	C
Atlantic Avenue & Euclid Avenue	SB	LTR	0.99	79.5	E	SB	LTR	1.93	464.5	F	SB	LTR	---	112.1	F
	NB	LR	0.44	42.8	D	NB	LR	0.63	50.9	D	NB	LR	0.56	45.2	D
	SB	L	0.83	61.7	E	SB	L	0.96	83.1	F	SB	L	0.78	53.4	D
Atlantic Avenue & Crescent Street	SB	R	0.40	42.0	D	SB	R	0.60	50.7	D	SB	R	0.54	45.1	D
	WB	Defl	0.90	45.0	D	WB	Defl	0.97	92.3	F	WB	Defl	0.89	44.9	D
Atlantic Avenue & Rockaway Boulevard	SB	LTR	1.15	146.5	F	SB	LTR	1.17	156.3	F	SB	LTR	1.12	136.3	F
	WB	L	1.14	137.9	F	WB	L	1.18	154.3	F	WB	L	1.13	135.7	F
Broadway & Rockaway Avenue											WB	LT	0.66	22.2	C
											WB	R	0.28	14.9	B
											WB	LTR	---	20.5	C
Broadway & Eastern Parkway	WB	LTR	0.92	40.7	D	WB	LTR	0.96	47.8	D	WB	LTR	---	20.5	C
	EB	L	0.36	40.5	D	EB	L	0.44	45.5	D	EB	L	0.44	45.5	D
	EB	TR	1.12	128.1	F	EB	TR	1.32	203.8	F	EB	TR	1.32	203.8	F
Bushwick Avenue & Eastern Parkway	WB	LT	0.98	87.4	F	WB	LT	1.46	270.7	F	WB	LT	1.46	270.7	F
	WB	L	1.14	120.4	F	WB	L	1.15	126.9	F	WB	L	1.13	119.2	F
Fulton Street & Van Sinderen Avenue	SB	LTR	0.62	42.4	D	SB	LTR	0.77	49.1	D	SB	LTR	0.74	46.8	D
Fulton Street & Pennsylvania Avenue	NB	TR	1.08	87.9	F	NB	TR	1.17	120.7	F	NB	TR	1.17	120.7	F
	SB	L	0.97	92.6	F	SB	L	1.18	159.9	F	SB	L	1.18	159.9	F
Fulton Street & Miller Avenue	EB	TR	0.94	40.1	D	EB	TR	1.11	88.5	F	EB	TR	1.11	88.5	F
Fulton Street & Logan Street	WB	LTR	0.69	20.5	C	WB	LTR	1.28	163.5	F	WB	LTR	1.12	91.6	F

This table is new for the FEIS.

TABLE 21-26 (continued)
Lower Density Alternative Action-With-Mitigation Conditions at Impacted Lane Groups
Weekday PM Peak Hour

	Weekday PM Peak Hour					Weekday PM Peak Hour					Weekday PM Peak Hour					
	No-Action					LDA With-Action					LDA Action-With Mitigation					
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	
Fulton Street & Euclid Avenue	SB	LTR	0.81	31.8	C	SB	LTR	0.97	53.2	D	SB	LTR	0.92	42.2	D	
Bushwick /Jamaica Avenue & Penn. /Jackie Robinson Pkwy	EB-Bushwick	R	1.08	103.6	F	EB-Bushwick	R	1.14	126.1	F	EB-Bushwick	R	1.14	126.1	F	
	WB	L	1.21	187.5	F	WB	L	1.31	225.9	F	WB	L	1.31	225.9	F	
	WB	T	1.23	194.1	F	WB	T	1.30	222.3	F	WB	T	1.30	222.3	F	
	NB	L	0.89	69.1	E	NB	L	0.95	79.6	E	NB	L	0.95	79.6	E	
Jamaica Avenue & Highland Pl/Force Tube Ave.	EB	LTR	0.94	44.8	D	EB	LTR	0.99	55.9	E	EB	LTR	0.93	43.1	D	
	SB	TR	1.13	99.6	F	SB	TR	1.25	145.9	F	SB	TR	1.11	90.2	F	
Jamaica Avenue & Euclid Av/Cypress Hill Street	EB	LTR	1.20	118.8	F	EB	LTR	1.39	200.6	F	EB	LTR	1.07	68.9	E	
Liberty Avenue & Pennsylvania Avenue	EB	LTR	0.97	82.3	F	EB	LTR	1.04	99.1	F	EB	LTR	0.96	77.9	E	
	WB	LTR	1.04	104.5	F	WB	LTR	1.33	213.3	F	WB	LTR	1.01	88.1	F	
Liberty Avenue & Miller Avenue											SB	L	0.18	31.3	C	
	SB	LTR	1.04	94.4	F	SB	LTR	1.17	139.6	F	SB	TR	1.08	108.2	F	
											SB	LTR	---	97.2	F	
Liberty Avenue & Warwick Street	SB	LTR	1.25	173.3	F	SB	LTR	1.33	204.3	F	SB	LTR	1.26	173.2	F	
Liberty Avenue & Shepherd Avenue	SB	LTR	0.49	38.6	D	SB	LTR	0.73	49.5	D	SB	LTR	0.67	43.2	D	
Liberty Avenue & Montauk Avenue	SB	LR	0.37	35.8	D	SB	LR	0.80	62.8	E	SB	LR	0.61	43.4	D	
Liberty Avenue & Milford Street	WB	LT	0.70	23.2	C	WB	LT	1.12	100.6	F	WB	LT	0.92	43.3	D	
Liberty Avenue & Logan Street	EB	LT	0.54	13.3	B	EB	LT	1.01	57.2	E	EB	LT	0.75	20.7	C	
	NB	LTR	0.82	58.0	E	NB	LTR	0.89	66.8	E	NB	LTR	0.84	58.0	E	
											SB	L	0.50	48.2	D	
											SB	R	0.49	40.8	D	
	SB	LR	0.57	48.9	D	SB	LR	1.22	176.9	F	SB	LR	---	42.9	D	
Liberty Avenue & South Conduit Boulevard	WB	L	0.75	54.5	D	WB	L	0.80	59.6	E	WB	L	0.70	46.5	D	
Liberty Avenue & North Conduit Boulevard	WB	T	1.12	125.7	F	WB	T	1.24	173.7	F	WB	T	1.13	123.9	F	
	WB	TR	1.36	220.0	F	WB	TR	1.44	255.1	F	WB	TR	1.34	207.2	F	
Pitkin Avenue & Pennsylvania Avenue	EB	LTR	1.40	242.2	F	EB	LTR	1.47	272.4	F	EB	LTR	1.30	195.5	F	
	WB	LTR	1.09	115.3	F	WB	LTR	1.46	264.6	F	WB	LTR	1.28	184.7	F	
											NB	L	0.48	21.8	C	
											NB	TR	0.70	18.5	B	
	NB	LTR	1.03	55.7	E	NB	LTR	1.12	87.1	F	NB	LTR	---	18.7	B	
											SB	L	0.73	42.5	D	
											SB	TR	0.67	17.6	B	
	SB	LTR	1.09	75.5	E	SB	LTR	1.18	112.9	F	SB	LTR	---	19.8	B	
Sutter Avenue & Fountain Avenue	NB	L	0.85	67.7	E	NB	L	0.93	85.3	F	NB	L	0.85	67.3	E	
Unsignalized Intersection																
Dinsmore Place & Logan Street (Two-Way Stop Controlled)	WB	LR	0.27	23.3	C	WB	LR	1.95	596.6	F	---	---	---	---	---	*
Fulton Street & Elton Street (Two-Way Stop Controlled)											NB	T	0.07	8.4	A	
											NB	R	0.9	110.9	F	
	NB	TR	0.99	112.8	F	NB	TR	1.19	180.4	F	NB	TR	0.22	18.1	C	**
Fulton Street & Chestnut Street (Two-Way Stop Controlled)											NB	LTR	0.89	36.6	D	
											(Signalized)					
Pitkin Avenue & Elton Street (Two-Way Stop Controlled)											NB	L	0.14	26.2	D	
											NB	TR	0.50	36.4	E	
	NB	LTR	0.45	29.9	D	NB	LTR	0.63	46.3	E	NB	LTR	---	34.4	D	**

EB-eastbound, WB-westbound, NB-northbound, SB-southbound

L-left turn, T-through, R-right turn, DefL-defacto left turn

Shading denotes lane groups with unmitigated impacts.

* Lane group would not be impacted in the future condition with the conversion of Dinsmore Place and installation of a new traffic signal.

** Impact could be mitigated by a new traffic signal; however, signalization is not proposed as future conditions would not satisfy required warrants.

This table is new for the FEIS.

TABLE 21-27
Lower Density Alternative Action-With-Mitigation Conditions at Impacted Lane Groups
Saturday Midday Peak Hour

	Saturday Midday Peak Hour					Saturday Midday Peak Hour					Saturday Midday Peak Hour				
	No-Action					LDA With-Action					LDA Action-With Mitigation				
	Approach	Lane	V/C	Delay	LOS	Approach	Lane	V/C	Delay	LOS	Approach	Lane	V/C	Delay	LOS
Signalized Intersection															
Atlantic Avenue & Eastern Parkway	WB-Main	T	1.22	137.3	F	WB-Main	T	1.26	152.3	F	WB-Main	T	1.22	135.5	F
Atlantic Avenue & Pennsylvania Avenue	EB	L	0.87	63.0	E	EB	TR	0.93	73.7	E	EB	TR	0.93	73.7	E
	WB	TR	1.07	79.6	E	WB	TR	1.17	117.2	F	WB	TR	1.17	117.2	F
	NB	TR	1.22	139.9	F	NB	TR	1.31	178.6	F	NB	TR	1.31	178.6	F
	SB	L	1.11	116.8	F	SB	LTR	1.22	159.5	F	SB	L	1.22	159.5	F
Atlantic Avenue & Schenck Avenue	NB	LTR	1.07	96.1	F	NB	TR	1.20	145.5	F	NB	LTR	1.06	91.8	F
Atlantic Avenue & Highland Place	EB	L	1.39	250.5	F	EB	L	1.56	322.6	F	EB	L	0.67	31.9	C
	SB	LR	0.90	51.4	D	SB	LR	0.96	63.2	E	SB	LR	---	47.7	D
Atlantic Avenue & Logan Street	WB	TR	0.99	45.7	D	WB	TR	1.02	53.7	D	WB	TR	1.00	45.7	D
	SB	L	1.08	103.5	F	SB	L	1.08	103.5	F	SB	L	1.08	103.5	F
	SB	LTR	0.84	37.0	D	SB	LTR	1.35	197.3	F	SB	LTR	---	63.4	E
Atlantic Avenue & Rockaway Boulevard	EB	TR	1.00	56.5	E	EB	TR	1.02	62.0	E	EB	TR	0.99	53.4	D
Broadway & Rockaway Avenue	WB	LTR	0.91	36.7	D	WB	LTR	0.96	45.1	D	WB	LTR	0.94	40.5	D
Broadway & Eastern Parkway	EB	TR	0.95	68.4	E	EB	TR	1.05	91.5	F	EB	TR	0.97	68.5	E
	WB	LT	0.59	35.0	C	WB	LT	0.78	47.1	D	WB	LT	0.66	36.2	D
Fulton Street & Highland Place	EB	TR	0.96	37.6	D	EB	TR	1.00	47.8	D	EB	TR	0.97	39.2	D
Fulton Street & Logan Street	WB	LTR	0.65	18.9	B	WB	LTR	1.01	63.5	E	WB	LTR	0.91	39.1	D
Bushwick /Jamaica Avenue & Penn. /Jackie Robinson Pkwy	WB	L	1.09	133.2	F	WB	L	1.16	157.1	F	WB	L	1.16	157.1	F
	WB	T	1.13	146.6	F	WB	T	1.20	170.0	F	WB	T	1.20	170.0	F
	NB	L	0.94	66.7	E	NB	L	0.98	76.1	E	NB	L	0.98	76.1	E
Jamaica Avenue & Highland Pl/Force Tube Ave.	EB	LTR	1.14	101.6	F	EB	LTR	1.18	116.6	F	EB	LTR	1.12	92.6	F
Jamaica Avenue & Euclid Av/Cypress Hill Street	EB	LTR	1.10	81.6	F	EB	LTR	1.25	139.9	F	EB	LTR	0.96	39.3	D
Liberty Avenue & Pennsylvania Avenue	WB	LT	0.94	66.7	E	WB	LTR	1.11	113.6	F	WB	LTR	0.98	70.4	E
Liberty Avenue & Miller Avenue	SB	LTR	0.73	38.9	D	SB	LTR	0.83	46.0	D	SB	LTR	0.80	42.2	D
Liberty Avenue & Warwick Street	SB	LTR	0.97	69.8	E	SB	LTR	1.01	80.4	F	SB	LTR	0.98	69.9	E
Liberty Avenue & Montauk Avenue	SB	LR	0.44	31.0	C	SB	LR	0.89	69.6	E	SB	LR	0.70	43.2	D
Liberty Avenue & South Conduit Boulevard	WB	L	1.19	152.7	F	WB	L	1.29	190.6	F	WB	L	1.13	128.0	F
	WB	T	0.87	48.9	D	WB	T	0.93	59.3	E	WB	T	0.88	48.1	D
Liberty Avenue & North Conduit Boulevard	WB	TR	1.30	182.2	F	WB	TR	1.36	206.0	F	WB	TR	1.27	168.8	F
Pitkin Avenue & Pennsylvania Avenue	EB	LTR	0.80	47.2	D	EB	LTR	0.85	53.2	D	EB	LTR	0.70	35.8	D
	WB	LTR	1.15	126.4	F	WB	LTR	1.39	225.2	F	WB	LTR	1.13	116.4	F
	NB	LTR	1.00	42.5	D	NB	LTR	1.03	52.7	D	NB	L	0.63	29.0	C
Pitkin Avenue & South Conduit Boulevard	NB	TR	0.92	29.9	C	NB	TR	0.92	29.9	C	NB	TR	0.92	29.9	C
	WB	L	1.20	163.4	F	WB	L	1.26	187.9	F	NB	LTR	---	29.8	C
WB	L	1.15	144.1	F	WB	L	1.15	144.1	F	WB	L	1.15	144.1	F	
Unsignalized Intersection															
Arlington Avenue & Jamaica Avenue (Two-Way Stop Controlled)	NB	LR	0.65	25.6	D	NB	LR	0.74	31.8	D	NB	LR	0.74	31.8	D *
Dinsmore Place & Logan Street (Two-Way Stop Controlled)	WB	LR	0.16	22.8	C	WB	LR	0.62	112.9	F	---	---	---	---	**
Fulton Street & Elton Street (Two-Way Stop Controlled)	NB	T	0.44	33.4	D	NB	T	0.44	33.4	D	NB	T	0.44	33.4	D
	NB	R	0.19	14.7	B	NB	R	0.19	14.7	B	NB	R	0.19	14.7	B
	NB	TR	---	24.7	C *	NB	TR	---	24.7	C *	NB	TR	---	24.7	C *
Fulton Street & Chestnut Street (Two-Way Stop Controlled)	NB	LTR	0.58	35.9	E	NB	LTR	1.43	270.3	F	NB	LTR	0.58	21.4	C
EB-eastbound, WB-westbound, NB-northbound, SB-southbound L-left turn, T-through, R-right turn, DefL-defacto left turn Shading denotes lane groups with unmitigated impacts. * Impact could be mitigated by a new traffic signal; however, signalization is not proposed as future conditions would not satisfy required warrants. ** Lane group would not be impacted in the future condition with the conversion of Dinsmore Place and installation of a new traffic signal.															

This table is new for the FEIS.

TABLE 21-28
Lane Groups with Unmitigated Significant Adverse Traffic Impacts—Lower Density Alternative vs. Proposed Actions

Intersection	Weekday AM		Weekday Midday		Weekday PM		Saturday Midday	
	Proposed Actions	Lower Density Alternative	Proposed Actions	Lower Density Alternative	Proposed Actions	Lower Density Alternative	Proposed Actions	Lower Density Alternative
Signalized Intersections								
<u>Atlantic Ave & Rockaway Ave</u>	<u>WB-TR</u>	---	<u>EB-TR, WB-TR</u>	<u>WB-TR</u>	---	---	---	---
Atlantic Ave & Eastern Pkwy	WB-T (main)	<u>WB-T (main)</u>	---	---	<u>NB-R</u>	<u>NB-R</u>	---	--
Atlantic Ave & Pennsylvania Ave	WB-TR, NB-TR, SB-L, <u>SB-TR</u>	WB-TR, NB-TR, SB-L, <u>SB-TR</u>	<u>EB-L, EB-TR, WB-TR, NB-TR, SB-L, SB-TR</u>	<u>EB-L, EB-TR, WB-TR, NB-TR, SB-L, SB-TR</u>	<u>EB-L, EB-LT, WB-TR, NB-TR, SB-L</u>	<u>EB-L, EB-LT, WB-TR, NB-TR, SB-L</u>	EB-TR, WB-TR, NB-TR, SB-L	EB-TR, WB-TR, NB-TR, SB-L
<u>Atlantic Ave & Warwick St</u>	---	---	---	---	<u>EB-TR</u>	<u>EB-LTR</u>	---	---
Atlantic Ave & Logan St	SB-LTR	SB-LTR	---	---	SB-LTR	<u>SB-LTR</u>	SB-LTR	<u>SB-LTR</u>
Broadway & Eastern Pkwy	EB-TR, WB-LT	EB-TR, WB-LT	---	---	EB-L, EB-TR, WB-LT	EB-L, EB-TR, WB-LT	---	---
Fulton St & Pennsylvania Ave	---	---	---	---	NB-TR, SB-L	NB-TR, SB-L	---	---
Fulton St & Miller Ave	---	---	---	---	EB-TR	EB-TR	---	---
Fulton St & Logan St	WB-LTR	<u>WB-LTR</u>	---	---	WB-LTR	<u>WB-LTR</u>	---	---
Bushwick/Jamaica Ave & Pennsylvania Ave/Jackie Robinson Pkwy	EB-Jamaica-TR, WB-L, WB-T, NB-L	EB-Jamaica-TR, WB-L, WB-T, NB-L	EB-Bushwick- R, WB-L, WB- T, NB-L	WB-L, WB-T, NB-L	EB-Bushwick-R, WB-L, WB- T, NB-L	EB- Bushwick-R, WB-L, WB- T, NB-L	WB-L, WB- T, NB-L	WB-L, WB-T, NB-L
Pitkin Ave & Mother Gaston Blvd	WB-LTR	WB-LTR	---	---	---	---	---	---
Pitkin Ave & Pennsylvania Ave	WB-LTR	WB-LTR	<u>WB-LTR</u>	---	<u>WB-LTR</u>	<u>WB-LTR</u>	<u>WB-LTR</u>	---
Unsignalized Intersections								
Arlington Ave & Jamaica Ave	---	---	---	---	---	---	NB-LR	NB-LR
Fulton St & Elton St	NB-TR	NB-TR	---	---	---	---	---	---
<u>Glenmore Ave & Miller Ave</u>	<u>WB-LT</u>	<u>WB-LT</u>	---	---	---	---	---	---
Pitkin Ave & Elton St	---	---	---	---	NB-LTR	---	---	---

Notes:

NB – northbound, SB – southbound, EB – eastbound, WB – westbound
 L – left-turn, T – through, R – right-turn, Defl – defacto left-turn

TABLE 21-29

Comparison of the Number of Lane Groups and Intersections with Mitigated and Unmitigated Significant Adverse Impacts—Proposed Actions vs. Lower Density Alternative

Peak Hour	Development Scenario	Lane Groups/ Intersections with Significant Impacts	Lane Groups/ Intersections with Mitigated Impacts	Lane Groups/ Intersections with Unmitigated Impacts
AM	Proposed Actions	59/41	41/30	18/11
	Lower Density Alternative	54/39	37/29	17/10
Midday	Proposed Actions	40/25	27/21	13/4
	Lower Density Alternative	36/24	26/21	10/3
PM	Proposed Actions	67/39	46/28	21/11
	Lower Density Alternative	66/39	46/29	20/10
Saturday Midday	Proposed Actions	38/26	28/21	10/5
	Lower Density Alternative	36/25	27/21	9/4

Note: This table is new for the FEIS.

- The westbound Pitkin Avenue shared left-through-right lane group at Pennsylvania Avenue in the weekday midday and Saturday midday peak hours; and
- The northbound Elton Street shared left-through-right lane group at Pitkin Avenue in the weekday PM peak hour.

As all impacts at the Pitkin Avenue/Elton Street intersection would be able to be mitigated under the Lower Density Alternative as shown in Table 21-28, the number of intersections with unmitigated impacts would total 15 under the Lower Density Alternative compared to 16 under the Proposed Actions.

Proposed Schedule for Traffic Mitigation Measures

The mitigation measures summarized in Table 21-23 would be implemented to mitigate the significant adverse traffic impacts resulting from full build-out of the Lower Density Alternative in 2030. As the development of the Lower Density Alternative would be expected to occur over an approximately 15-year period, it is possible that some of the significant adverse traffic impacts could occur prior to full build-out in 2030. Based on the anticipated construction schedule shown in Figure 21-2, incremental vehicle trips associated with traffic generated by projected development sites could potentially result in significant adverse traffic impacts beginning in the 2nd quarter of 2018 with the completion of the first phase of projected development site 67. This level of development would result in a net increase of approximately 169,840 gsf of space (approximately 18 percent of the total residential, commercial and community facility development projected for this site) and would likely generate more than the CEQR Technical Manual analysis threshold of 50 peak hour vehicle trip ends in one or more peak periods. At this earlier point in time, implementation of some or all of the mitigation measures developed for full build-out of the Lower Density Alternative in 2030 would be considered at impacted intersections in proximity to projected development site 67, including the conversion of Dinsmore Place from two-way to one-way eastbound operation between Logan and Chestnut Streets, and additional measures at three intersections along the Logan Street corridor at Atlantic and Liberty Avenues and Fulton Street, as well as the intersections of Fulton Street with Chestnut Street and with Euclid Avenue.

TRANSIT

Bus

Both the Lower Density Alternative and the Proposed Actions would result in a significant adverse bus impact to westbound Q8 service in the PM peak hour. There would be a shortfall of 16 spaces on the westbound Q8 service in the PM under the Lower Density Alternative compared with a shortfall of 17 spaces under the Proposed Actions. As under the Proposed Actions, the significant adverse impact to Q8 service under the Lower Density Alternative could

be mitigated by increasing the number of westbound buses from nine to ten in the weekday PM peak hour. The general policy of the MTA is to provide additional bus service where demand warrants, taking into account fiscal and operational constraints.

PEDESTRIANS

Both the Lower Density Alternative and the Proposed Actions would result in significant adverse impacts to the east sidewalk on Van Siclen Avenue between Pitkin and Glenmore Avenues in the PM peak hour, and to the northeast corner at Liberty Avenue and Berriman Street in the AM peak hour. Measures recommended to mitigate these impacts under the Proposed Actions include removing a tree pit at the most constrained point on the east sidewalk on Van Siclen Avenue between Pitkin and Glenmore avenues, and widening one of the sidewalks adjoining the northeast corner at Liberty Avenue and Berriman Street by 0.5 feet. (It is anticipated that the sidewalk widening would occur in conjunction with the development of adjacent projected development site 46 without the need to alter the existing curb lines.) These measures would fully mitigate the significant impacts at both locations under the Proposed Actions, and as shown in Tables 12-30 and 12-31, would also fully mitigate the impacts under the Lower Density Alternative. No unmitigated significant adverse pedestrian impacts would remain under the Lower Density Alternative with implementation of the recommended mitigation measures.

**TABLE 12-30
Action-With-Mitigation Sidewalk Conditions – Lower Density Alternative**

Location	Side	No-Action			With-Action			Action-With-Mitigation			
		Effective Width (ft)	Average Space (ft ² /ped)	LOS	Effective Width (ft)	Average Space (ft ² /ped)	LOS	Effective Width (ft)	Average Space (ft ² /ped)	LOS	Mitigation Measures
Weekday PM Peak Hour											
(S69) Van Siclen Av Pitkin Av to Glenmore Av	East	3.5	38.8	D	3.5	34.5	D*	4.2	42.5	C	Mitigated by removing a tree pit at an existing constraint point.

Notes:
* denotes a significant adverse impact based on CEQR Technical Manual criteria.
This table is new for the FEIS.

**TABLE 12-31
Action-With-Mitigation Corner Conditions – Lower Density Alternative**

Intersection	Corner	No-Action		With-Action		Action-With-Mitigation			
		Average Space (ft ² /ped)	LOS	Average Space (ft ² /ped)	LOS	Average Space (ft ² /ped)	LOS	Mitigation Measures	
Weekday AM Peak Hour									
(C47) Liberty Av @ Berriman St	NE	67.5	A	22.9	D*	27.3	C	Widen one adjacent sidewalk by 0.5 feet (from 7.5' to 8')	

Notes:
* denotes a significant adverse impact based on CEQR Technical Manual criteria.
This table is new for the FEIS.

Effects of Traffic Mitigation on Pedestrian Conditions

Proposed traffic mitigation measures under the Lower Density Alternative (discussed previously) would potentially affect pedestrian conditions at a total of 39 analyzed crosswalks and 29 analyzed corner areas at 11 intersections in one or more peak hours. This is compared to 37 analyzed crosswalks and 28 analyzed corner areas at 10 intersections in one or more peak hours under the Proposed Actions. Table 12-32 and Table 12-33 show conditions at these pedestrian elements with the proposed traffic mitigation measures.

TABLE 12-32
Action-With-Traffic-Mitigation Crosswalk Conditions – Lower Density Alternative

Intersection	Crosswalk		No-Action Condition						LDA With-Action-Condition						LDA Action-With-Mitigation						Proposed Traffic Mitigation
			Average Pedestrian Space (ft ² /ped)			Level of Service			Average Pedestrian Space (ft ² /ped)			Level of Service			Average Pedestrian Space (ft ² /ped)			Level of Service			
			AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	
Fulton Street and Pennsylvania Avenue	X1	North	554.0	487.9	319.5	A	A	A	340.2	250.7	236.4	A	A	A	311.3	232.2	236.4	A	A	A	- Transfer 3s and 2s of green time from EB to NB/SB in AM and midday peak hours, respectively.
	X2	East	724.0	557.4	419.7	A	A	A	356.4	211.7	163.3	A	A	A	385.7	222.6	163.3	A	A	A	
	X3	South	261.6	223.0	238.5	A	A	A	125.1	107.7	153.1	A	A	A	113.6	98.5	153.1	A	A	A	
	X4	West	960.4	732.3	500.0	A	A	A	516.6	382.3	329.5	A	A	A	551.3	396.9	329.5	A	A	A	
Fulton Street and Norwood Avenue	X5	East	419.6	221.6	205.9	A	A	A	199.8	166.2	173.4	A	A	A	199.8	166.2	173.4	A	A	A	- Traffic diversion from conversion of Dinsmore Place to eastbound operation.
	X6	South	140.5	125.7	75.7	A	A	A	86.8	89.0	62.6	A	A	A	85.5	88.7	62.2	A	A	A	
	X7	West	452.0	413.1	205.0	A	A	A	431.3	396.2	200.4	A	A	A	431.3	396.2	200.4	A	A	A	
Fulton Street and Logan Street	X8	North	177.6	202.2	106.4	A	A	A	119.8	132.7	91.4	A	A	A	130.5	133.1	103.9	A	A	A	- Transfer 2s and 3s of green time from NB/SB to EB/WB in AM and PM peak hours, respectively. - Traffic diversion from conversion of Dinsmore Place to eastbound operation.
	X9	East	416.5	449.0	479.0	A	A	A	184.0	269.1	276.9	A	A	A	163.6	268.2	231.2	A	A	A	
	X10	South	218.3	196.9	139.2	A	A	A	78.6	106.6	87.1	A	A	A	80.7	104.2	96.1	A	A	A	
Fulton Street and Richmond Street	X11	West	333.9	169.3	198.1	A	A	A	130.3	113.5	148.5	A	A	A	115.8	115.5	125.0	A	A	A	- Traffic diversion from conversion of Dinsmore Place to eastbound operation.
	X12	North	455.7	505.4	275.5	A	A	A	385.9	297.5	223.6	A	A	A	385.9	297.5	223.6	A	A	A	
	X13	East	641.6	395.3	424.3	A	A	A	346.7	292.5	327.6	A	A	A	346.7	293.6	327.6	A	A	A	
Fulton Street and Euclid Avenue	X14	South	527.0	478.3	390.2	A	A	A	386.8	247.2	273.5	A	A	A	392.7	249.8	276.9	A	A	A	- Transfer 1s of green time from EB/WB to SB in AM and PM peak hours. - Traffic diversion from conversion of Dinsmore Place to eastbound operation.
	X15	West	833.6	484.4	466.6	A	A	A	439.5	290.9	294.9	A	A	A	434.7	290.5	285.6	A	A	A	
	X16	North	260.9	249.8	181.8	A	A	A	200.3	141.1	131.6	A	A	A	193.0	141.1	126.8	A	A	A	
Atlantic Avenue and Schenck Avenue	X17	East	359.8	379.5	332.1	A	A	A	322.0	279.8	277.8	A	A	A	343.8	279.8	296.3	A	A	A	- Transfer 2s of green time from EB/WB to NB in midday peak hour.
	X18	South	428.9	246.6	213.7	A	A	A	76.5	103.2	126.1	A	A	A	72.8	102.7	119.8	A	A	A	
	X19	West	717.2	333.3	365.4	A	A	A	386.4	176.8	190.2	A	A	A	415.0	176.8	203.1	A	A	A	
Atlantic Avenue and Highland Place	X30	East	227.7	912.5	763.0	A	A	A	201.7	267.6	297.8	A	A	A	201.7	293.7	297.8	A	A	A	- Introduce new EB leading signal phase (13s in the AM, MD, PM peak hours)
	X31	South	969.2	1541	875.7	A	A	A	418.3	435.4	543.3	A	A	A	418.3	423.6	543.3	A	A	A	
Atlantic Avenue and Logan Street	X32	North	483.0	345.2	413.7	A	A	A	198.7	160.4	233.4	A	A	A	161.1	127.3	189.0	A	A	A	- Transfer 3s and 4s of green time from EB/WB to NB/SB in midday and PM peak hours, respectively. - Narrow west sidewalk on Logan Street at NW corner by 3 feet. - Traffic diversion from conversion of Dinsmore Place to eastbound operation.
	X33	East	515.5	435.1	373.9	A	A	A	152.0	80.3	74.5	A	A	A	152.0	80.3	74.5	A	A	A	
	X34	West	155.6	263.9	221.9	A	A	A	105.0	79.3	71.3	A	A	A	105.0	79.3	71.3	A	A	A	
	X35	North	579.7	240.4	317.2	A	A	A	114.3	75.6	110.3	A	A	A	122.0	74.1	105.8	A	A	A	
Atlantic Avenue and Euclid Avenue	X36	East	244.9	105.0	157.2	A	A	A	101.8	33.2	51.9	A	C	B	102.4	37.6	60.9	A	C	A	- Transfer 1s and 3s of green time from EB/WB to NB/SB in midday and PM peak hours, respectively. - Traffic diversion from conversion of Dinsmore Place to eastbound operation.
	X37	South	753.7	294.1	487.9	A	A	A	234.7	88.1	147.4	A	A	A	234.7	83.3	136.7	A	A	A	
	X38	West	361.7	188.8	203.2	A	A	A	107.3	59.5	85.6	A	B	A	108.1	66.2	98.0	A	A	A	
	X39	North	1190.9	470.5	763.2	A	A	A	516.6	118.8	187.3	A	A	A	516.6	117.1	179.5	A	A	A	
Liberty Avenue and Shepherd Avenue	X40	East	328.5	397.3	322.5	A	A	A	175.5	104.2	112.1	A	A	A	173.4	111.2	137.8	A	A	A	- Transfer 3s of green time from EB/WB to SB in PM peak hour.
	X41	South	2919.7	758.9	1150.4	A	A	A	1051.9	282.9	467.4	A	A	A	1051.9	279.0	448.5	A	A	A	
	X42	West	319.4	95.07	123.5	A	A	A	89.2	27.0	36.4	A	C	C	89.2	28.8	44.4	A	C	B	
Liberty Avenue and Montauk Avenue	X50	North	384.8	891.1	442.9	A	A	A	324.7	307.6	275.1	A	A	A	324.7	307.6	263.3	A	A	A	- Transfer 1s of green time from EB/WB to NB/SB in PM peak hour.
	X51	East	186.9	976.2	278.6	A	A	A	97.9	277.3	173.8	A	A	A	97.9	277.3	191.7	A	A	A	
	X52	South	165.4	842.5	659.3	A	A	A	151.7	291.1	331.1	A	A	A	151.7	291.1	316.4	A	A	A	
Liberty Avenue and Montauk Avenue	X57	North	577.5	936.9	718.5	A	A	A	390.5	202.6	229.3	A	A	A	390.5	202.6	225.8	A	A	A	- Transfer 1s of green time from EB/WB to NB/SB in PM peak hour.
	X58	East	481.8	477.8	503.4	A	A	A	322.9	109.6	130.9	A	A	A	322.9	109.6	136.3	A	A	A	
	X59	South	433.8	991.7	749.9	A	A	A	302.7	195.6	233.5	A	A	A	302.7	195.6	230.0	A	A	A	
	X60	West	514.1	444.1	481.8	A	A	A	222.9	79.3	101.7	A	A	A	222.9	79.3	105.9	A	A	A	

This table is new for the FEIS.

TABLE 12-33
Action-With-Traffic-Mitigation Corner Conditions – Lower Density Alternative

Intersection	Corner		No-Action Condition						LDA With-Action-Condition						LDA Action-With-Mitigation						Proposed Traffic Mitigation
			Average Pedestrian Space (ft ² /ped)			Level of Service			Average Pedestrian Space (ft ² /ped)			Level of Service			Average Pedestrian Space (ft ² /ped)			Level of Service			
			AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	
Fulton Street and Pennsylvania Avenue	C1	NE	2015.5	1954.3	1479.7	A	A	A	1162.5	860.2	902.1	A	A	A	1162.2	860.2	902.1	A	A	A	- Transfer 3s and 2s of green time from EB to NB/SB in AM and midday peak hours, respectively.
	C2	SE	1325.9	1346.6	1270.1	A	A	A	627.0	523.8	638.4	A	A	A	626.0	523.5	638.4	A	A	A	
	C3	SW	1313.8	1290.4	1091.9	A	A	A	620.9	563.5	606.0	A	A	A	620.5	563.2	606.0	A	A	A	
	C4	NW	2815.3	2133.5	1541.2	A	A	A	1663.6	1203.9	1121.1	A	A	A	1663.6	1203.9	1121.1	A	A	A	
Fulton Street and Logan Street	C7	NE	454.1	471.7	304.6	A	A	A	282.6	322.4	250.9	A	A	A	282.6	322.4	251.5	A	A	A	- Transfer 2s and 3s of green time from NB/SB to EB/WB in AM and PM peak hours, respectively.
	C8	SE	464.8	438.8	322.6	A	A	A	205.0	277.7	235.0	A	A	A	205.3	277.7	235.6	A	A	A	
	C9	SW	724.7	572.4	475.5	A	A	A	247.6	304.5	260.1	A	A	A	247.8	304.5	260.2	A	A	A	
	C10	NW	669.2	610.8	471.4	A	A	A	420.2	433.1	400.1	A	A	A	420.3	433.1	400.3	A	A	A	
Fulton Street and Euclid Avenue	C15	NE	440.6	549.2	380.7	A	A	A	380.1	358.8	305.6	A	A	A	380.0	358.8	305.5	A	A	A	- Transfer 1s of green time from EB/WB to SB in AM and PM peak hours.
	C16	SE	1151.8	926.0	813.1	A	A	A	362.3	465.0	546.8	A	A	A	362.1	465.0	546.6	A	A	A	
	C17	SW	571.9	300.3	287.4	A	A	A	125.7	136.4	164.5	A	A	A	125.3	136.4	164.5	A	A	A	
	C18	NW	673.4	540.3	425.6	A	A	A	487.8	301.8	288.9	A	A	A	487.6	301.8	288.8	A	A	A	
Atlantic Avenue and Schenck Avenue	C28	SE	1094.8	2523.3	1676.0	A	A	A	663.2	693.8	888.5	A	A	A	663.2	693.9	888.5	A	A	A	- Transfer 2s of green time from EB/WB to NB in midday peak hour.
Atlantic Avenue and Highland Place	C29	NE	1680.8	1381.4	1545.5	A	A	A	707.8	489.0	692.1	A	A	A	705.7	486.9	690.1	A	A	A	- Introduce new EB leading signal phase (13s in the AM, MD, PM peak hours)
	C30	NW	974.1	1018.8	1046.6	A	A	A	658.1	511.5	611.9	A	A	A	655.7	509.4	610.1	A	A	A	
Atlantic Avenue and Logan Street	C31	NE	362.3	175.8	254.7	A	A	A	120.1	48.5	80.4	A	B	A	120.1	48.9	80.9	A	B	A	- Transfer 3s and 4s of green time from EB/WB to NB/SB in midday and PM peak hours, respectively. - Narrow west sidewalk on Logan Street at NW corner by 3 feet.
	C32	SE	746.1	291.9	455.3	A	A	A	279.1	88.6	147.7	A	A	A	279.1	89.0	148.2	A	A	A	
	C33	SW	1165.2	550.2	702.3	A	A	A	364.2	171.1	263.2	A	A	A	364.2	171.3	263.6	A	A	A	
	C34	NW	941.7	443.9	539.0	A	A	A	253.3	144.4	211.4	A	A	A	253.3	113.5	167.7	A	A	A	
Atlantic Avenue and Euclid Avenue	C35	NE	1468.4	873.9	1153.5	A	A	A	705.4	222.4	322.6	A	A	A	705.4	222.3	322.7	A	A	A	- Transfer 1s and 3s of green time from EB/WB to NB/SB in midday and PM peak hours, respectively.
	C36	SE	1679.5	1099.2	1298.3	A	A	A	886.5	389.7	542.8	A	A	A	886.5	389.8	543.2	A	A	A	
	C37	SW	3191.9	893.6	1257.8	A	A	A	981.8	275.6	419.6	A	A	A	981.8	275.9	420.5	A	A	A	
	C38	NW	1559.8	520.8	776.8	A	A	A	541.9	135.9	208.6	A	A	A	541.9	136.1	209.1	A	A	A	
Liberty Avenue and Shepherd Avenue	C45	NE	286.7	899.9	407.1	A	A	A	195.4	331.5	266.1	A	A	A	195.4	331.5	266.2	A	A	A	- Transfer 3s of green time from EB/WB to SB in PM peak hour.
	C46	SE	369.3	1638.7	911.6	A	A	A	263.0	531.3	490.2	A	A	A	263.0	531.3	490.6	A	A	A	
Liberty Avenue and Montauk Avenue	C51	NE	747.2	974.0	885.6	A	A	A	514.4	228.9	274.0	A	A	A	514.4	228.9	274.0	A	A	A	- Transfer 1s of green time from EB/WB to NB/SB in the PM peak hour.
	C52	SE	315.4	552.2	476.7	A	A	A	220.6	112.7	138.4	A	A	A	220.6	112.7	138.4	A	A	A	
	C53	SW	591.3	891.8	867.4	A	A	A	370.4	180.2	233.0	A	A	A	370.4	180.2	233.1	A	A	A	
	C54	NW	323.7	436.2	358.3	A	A	A	183.6	84.0	100.7	A	A	A	183.6	84.0	100.7	A	A	A	

This table is new for the FEIS.

As shown in Tables 12-32 and 12-33, all of the affected crosswalks and corner areas would continue to operate at LOS C or better in all peak hours, and there would be no new significant adverse impacts to any of these crosswalks or corner areas in any analyzed peak hour as a result of the proposed traffic mitigation under the Lower Density Alternative.

Proposed Schedule for Pedestrian Mitigation Measures

The pedestrian mitigation measures described above would be implemented to mitigate the significant adverse impacts resulting from full build-out of the Lower Density Alternative in 2030. Like the Proposed Actions, the development of the Lower Density Alternative would be expected to occur over an approximately 15-year period, and it is possible that one or both of this alternative's significant adverse sidewalk and corner area impacts could occur prior to full build-out in 2030.

Based on the anticipated construction schedule shown above in Figure 21-2, incremental pedestrian trips generated by projected development could potentially result in significant adverse pedestrian impacts beginning in the 4th quarter of 2023 with the completion of the initial phases of site 46. By comparison, significant adverse pedestrian impacts under the Proposed Actions would likely occur, and require mitigation, at an earlier time—i.e., with the completion of the first two phases of site 67 in the 3rd quarter of 2018. In total, the development of site 46 would result in a net increase of 467 dwelling units, 68,000 of retail space, 20,000 gsf of supermarket space, and 21,981 gsf of community facility (community center), and would potentially generate more than the CEQR Technical Manual analysis threshold of 200 peak hour pedestrian trips in one or more peak hours at the northeast corner of Liberty Avenue and Berriman Street that has been identified as significantly adversely impacted. (As noted previously, it is anticipated that the sidewalk widening proposed as mitigation at this location would occur in conjunction with the development site 46.)

Air Quality

As presented above, the air quality impact predicted at the intersection of Atlantic Avenue and Logan Street under the Proposed Actions was found to be fully mitigated with the implementation of traffic mitigation measures (see Chapter 20, "Mitigation"). Furthermore, with the reduced vehicle trips predicted under the Lower Density Alternative, no significant adverse mobile source air quality impacts are predicted. Therefore, it is anticipated that the traffic mitigation measures proposed under the Lower Density Alternative would further reduce predicted pollutant concentrations and would therefore not result in any significant mobile source air quality impacts.

Noise

As presented above, the predicted noise levels under the Lower Density Alternative are expected to result in a significant adverse noise impact due to traffic volumes on Richmond Street between Fulton Street and Dinsmore Place.

With the Lower Density Alternative with Traffic Mitigation, traffic volumes would be similar at most mobile source noise analysis locations, including on Richmond Street between Fulton Street and Dinsmore Place. The total traffic volumes with the Lower Density Alternative with Traffic Mitigation are predicted to result in approximately 114 vehicles on Richmond Street during the AM peak period, compared with 159 vehicles on Richmond Street under the Lower Density Alternative.

Under the Proposed Actions, mitigation measures were evaluated, including the conversion of Dinsmore Place from two-way to one-way eastbound operation between Logan and Chestnut Streets. These measures were determined to partially mitigate the predicted noise impact on Richmond Street between Fulton Street and Dinsmore Place. Predicted noise levels under the Lower Density Alternative with Traffic Mitigation are not expected to change as compared to the Proposed Actions with Traffic Mitigation. Therefore, the significant adverse mobile source noise impact predicted on Richmond Street between Fulton Street and Dinsmore Place with the Proposed Actions with Traffic Mitigation would also be expected to occur under the Lower Density Alternative with Traffic Mitigation.

Construction

Both the Lower Density Alternative and the Proposed Actions are expected to result in significant adverse construction impacts in the areas of historic and cultural resources and noise, which could not feasibly or practicably be mitigated.

As presented above, development under the Lower Density Alternative—specifically, on projected development sites 7, 13, 35, 38, 39, 49, and 74 and potential development sites A3, A7, A8, A14, A18, A25, A40, A41, A50, A65, A70, A82, A86, A87, A95, and A102—could result in inadvertent construction-related damage to 12 NYCL- and/or S/NR-eligible historic resources, as they are located within 90 feet of one or more of the aforementioned projected and potential development sites. If these eligible resources are designated in the future prior to the initiation of construction, the protective measures of DOB TPPN #10/88 would apply and indirect significant adverse impact from construction would be avoided. Should they remain undesignated, however, the additional protective measures of TPPN #10/88 would not apply, and the potential for significant adverse construction-related impacts would not be mitigated.

The noise analysis conducted for the Proposed Actions show that predicted noise levels from construction activities would exceed the noise impact threshold criteria during two or more years on one or more floors at 31 of the 241 receptor locations on projected development sites 66 and 67 and projected development site 46. For all smaller individual projected development sites, construction noise was analyzed, including both peak and off-peak construction periods for each year of the conceptual construction schedule. The noise analysis results show that the predicted noise levels could exceed the CEQR Technical Manual impact criteria at various locations throughout the rezoning area. There are no practical or feasible mitigation measures that would fully mitigate the significant adverse construction noise impacts at these locations.

F. COALITION ALTERNATIVE

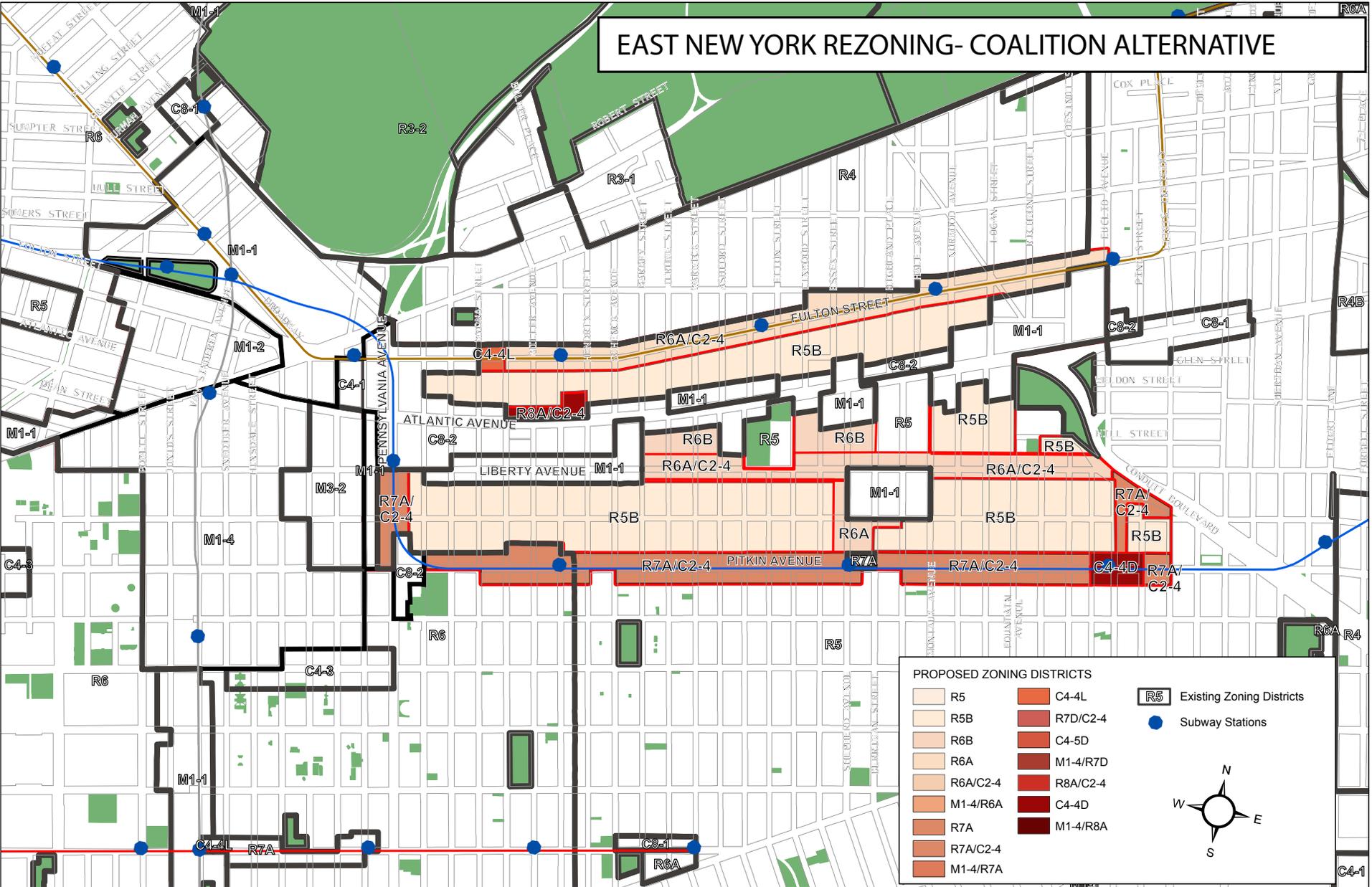
This Alternative was proposed by the Coalition for Community Advancement: Progress for East New York/Cypress Hills, which is comprised of community organizations including Cypress Hills Local Development Corporation, the Local Development Corporation of East New York, religious and civic groups. This group developed an Alternative Community Plan which calls for, among other things, the creation of greater quantities of affordable housing serving lower-income households, additional protections for low-income tenants and homeowners, job creation, and investments in new community facilities through a special district.

The Alternative Plan includes a land use component. That land use component forms the basis for this Alternative. The Coalition's Alternative Plan and comment submission can be found in Appendix I, "Written Comments." Figure 21-3 illustrates the Coalition Alternative.

Specifically, the land use component is comprised of the following goals and objectives:

- Retention of existing M1 and C8 zoning districts in order to preserve and expand existing industrial businesses;
- Exclusion of Arlington Village (projected site 46) from the rezoning area in order to ensure significant amounts of affordable housing and, potentially, community facilities are development on this important and large site;
- Creation of a special district that would require additional discretionary actions for individual future developments in order to make sure adequate community facilities are available;
- Maintenance of a similar amount of density and with a greater portion of affordable housing.

Under this Alternative, development would be limited to 36 of the 81 identified projected development sites. The other 45 projected development sites would fall out entirely from the RWCDs for the Coalition Alternative since the existing C8 and M1 zoning districts would remain in place, which do not permit new residential developments.



Source: NYC Department of City Planning

East New York Rezoning Proposal
 This figure is new to the FEIS.

Figure 21-3
Proposed Zoning - Coalition Alternative

However, since the Coalition Alternative's goal in retaining the M1 and C8 districts is to preserve and expand industrial businesses, a discussion is included of the No-Action scenario's projections for the 45 sites.

In total, the 36 projected development sites are anticipated to result in the same densities as under the Proposed Actions, which includes an increase of approximately 1,347 DU, including approximately 763 affordable dwelling units, 157,220 sf of commercial uses, 174,286 sf of community facility uses, and a decrease of 124,511 sf of industrial uses. On the 45 projected development sites that would remain either M1 or C8, it is anticipated that 4 would be redeveloped under the No-Action condition with semi-industrial uses including 45,524 sf of warehouse and storage space. As described in Chapter 1, "Project Description" and Chapter 2 "Land Use, Zoning and Public Policy," based on standard criteria and current and historical development patterns and trends it is likely that the other 40 sites would not change absent the Proposed Actions.

Overall, compared to the Proposed Actions, the Coalition Alternative would result in 5,145 fewer total residential units on the identified projected development sites, including 2,775 fewer affordable dwelling units, 356,169 sf less of commercial uses, 283,583 sf less of community facility uses, and 97,475 sf less industrial uses.

While the Coalition Alternative would preserve the M1 and C8 districts, it would limit the amount of housing, especially affordable housing that could be developed throughout the area and along key corridors where recent development trends, described in more detail below, of drive-thru oriented uses are expected to continue; new manufacturing and industrial uses are not anticipated to be developed under the existing zoning.

With the limited number of development sites under the Coalition Alternative, it would be infeasible to achieve the number of affordable housing units projected under the Proposed Actions. Densities on the remaining 36 development sites would need to increase approximately four-fold in order to maintain the number of projected housing units, which in some cases would require floor area ratios above 12 FAR to get the same number of dwelling units. The Proposed Actions have proposed medium-density districts along major corridors where the street width and transit access support a higher density of residential, commercial, and community facility uses, with lower-density contextual residential districts on mid-blocks and side streets. Density and bulk greater than what is proposed by the Proposed Actions would not meet the Proposed Actions' goals of protecting the existing low-density context of the mid-blocks and side streets.

With the Proposed Actions, it is estimated that half of all units created will be affordable, through a combination of Mandatory Inclusionary Housing requirements and targeted HPD subsidies. While the Coalition's plan calls for a greater percentage of units built to be affordable, no regulatory or subsidy programs currently exist which could require or incentivize more than half of units to be developed as affordable.

The Coalition Alternative recommends that the City create a Special District to require an authorization for any new development to ensure that adequate community facilities such as school seats and day care slots are available to meet increased demand generated by new development. However, a special district requiring an authorization or certification of adequate community facilities would likely add considerable time and cost to development, delay the production of housing, especially affordable housing, and would not guarantee that funding is available for these facilities.

As with the Proposed Actions, the Coalition Alternative would not result in significant adverse impacts with respect to land use, zoning, and public policy; socioeconomic conditions; urban design and visual resources; hazardous materials; water and sewer infrastructure; solid waste and sanitation services; energy; greenhouse gas emissions and climate change; public health; and neighborhood character. While the Coalition Alternative would not result in the same significant adverse open space, community facility and air quality (mobile) impacts as compared to the Proposed Actions, it would likely result in similar and/or reduced impacts related to historic resources, traffic, transit, pedestrian, noise impacts and construction.

A comparison of conditions under this alternative with conditions under the Proposed Actions is presented below. It is noted that for CEQR impact areas that are density-related (e.g., community facilities, open space, traffic, etc.), the effects of this alternative are reduced in magnitude since there are fewer dwelling units, and therefore, fewer

residents than under the Proposed Actions. Moreover, since there are less development sites for the Coalition Alternative site-specific analysis areas (e.g., construction) potential impacts would be different and potentially less under the Coalition Alternative. For some categories where both the Proposed Actions and the Coalition Alternative would not result in significant adverse impacts (e.g., socioeconomics, urban design and visual resources, etc.), the Coalition Alternative would not offer the same benefits or improvements to the community as the Proposed Actions. For instance, while the Proposed Actions would facilitate active streetscapes with new ground floor retail and community facility uses, thus improving the pedestrian experience and overall urban design and neighborhood character on all major corridors, the Coalition Alternative would exclude all of Ocean Hill and nearly all of Pennsylvania and Atlantic Avenues from the rezoning proposal and these urban design and use requirements. Additionally, while the Proposed Actions would promote substantial amounts of new affordable housing through the area and relieve pressures in the housing market that are anticipated regardless of the Proposed Actions, the Coalition Alternative would not promote nearly the same amount of affordable housing and would not be able to relieve the housing market pressure to the same degree. Overall, compared to the Proposed Actions, the Coalition Alternative would have less of a positive effect and on a much smaller area, as described in more detail below.

Land Use, Zoning, and Public Policy

As under the Proposed Actions, no significant adverse impacts on land use, zoning, or public policy would be anticipated under the Coalition Alternative.

Both the Proposed Actions and the Coalition Alternative would result in an overall increase in residential, commercial, community facility, when compared to conditions in the future without the Proposed Actions. As noted above, the Coalition Alternative would result in less industrial square footage as the Proposed Actions. Additionally, this alternative would lead to the production of fewer housing units, including fewer affordable housing units, and less commercial and community facility development, as compared to the Proposed Actions.

The Coalition Alternative would include similar zoning actions as the Proposed Actions (zoning map amendments and zoning text changes) that would affect a smaller geographical area. However, under the Coalition Alternative, nearly all of the higher density proposed districts along wide, transit rich corridors like Pennsylvania and Atlantic Avenue and Broadway would not be mapped along with the proposed Enhanced Commercial District along Atlantic Avenue and large portions of where the proposed Mandatory Inclusionary Housing would be applicable. Instead, the existing lower density zoning of M1 and C8 districts would remain. The proposed districts that would not be mapped include proposed M1-4/R8A, M1-4/R7D, M1-4/R7A, and M1-4/R6A districts, C4-4L districts, a C4-4D, C4-5D, R8A/C2-4, R7D/C2-4, R7A/C2-4, R6A/C2-4, R6A, R6B, R5B, and R5 districts. These changes would reduce the overall development potential in these areas, as compared to the Proposed Actions, and would preclude new residential development. The Coalition Alternative, like the Proposed Actions, would increase density along selected corridors; the highest permitted FAR under the Coalition Alternative would generally be along Pitkin or Pennsylvania Avenues, with up to 4.6 FAR permitted for residential uses. The Coalition Alternative, like the Proposed Actions, would include mapping contextual zoning districts that would protect the existing built context of East New York by requiring new development in the residential core to better match the form of existing buildings. However, while both the Proposed Actions and the Coalition Alternative would also map new commercial overlays, the Coalition Alternative would not incentivize mixed-use development or facilitate active streetscapes or encourage new retail development to support the anticipated residential development and existing residents in the area. Additionally, the Coalition Alternative would not bring the many existing legal non-conforming residential uses in East New York and Ocean Hill into conformance, which limits these property owners full usage of their property.

This alternative would not permit residential uses on the City-owned site at Dinsmore Chestnut (Projected Site 66), which is currently zoned M1-1. The projected development on this site would include a new school to meet existing and potential future need, as well as open space. However, the development of a school on this site would require a discretionary special permit from the Board of Standards and Appeals to permit this use in an M1-1 district. This Alternative would also not allow new residential uses on Projected Site 67, formerly the Chloe Foods facility located within an M1-1 district, a major development site with the potential to be developed with significant affordable housing, commercial, and community facility uses. A change of use on this site would require a future discretionary

action. By not including the Arlington Village site in the rezoning area, this Alternative would allow a moderate amount of new housing to be developed on this site, with no requirement that affordable housing be included.

This alternative would not permit new residential uses in Ocean Hill, near the major transit hub of Broadway Junction, or along much of Atlantic Avenue, a wide corridor which under the Proposed Actions presents a significant opportunity for new affordable housing development and new commercial and community facility uses. Retaining these existing zoning districts would continue to prohibit any new housing development or modest expansion of the existing homes in these areas, or allow owners of those homes to more easily seek financing or insurance for their homes. The proposed land use actions are complemented by other City investments along Atlantic Avenue, including a major reconstruction of the road to enhance pedestrian safety, and a new school to meet the existing and future need for school seats. In the absence of anticipated residential and commercial growth along Atlantic Avenue, these investments may not be justified. The street improvement project, part of Vision Zero, is intended to support a higher level of pedestrian activity as more residential development and new commercial uses are developed on this corridor. Commercial uses on Atlantic Avenue today are auto-oriented whereas in the future many commercial uses would be anticipated to be locally-oriented establishments that attract neighborhood residents. The Coalition Alternative would continue to allow auto-oriented commercial uses on Atlantic Avenue. New development on this corridor in recent years has included fast food and self-storage, a trend that would be expected to continue under the existing zoning districts.

While this Alternative would likely lessen the adverse impacts identified as a result of the Proposed Actions by reducing the amount of projected residential, commercial, and community facility development, it would not meet the objectives of this project of providing affordable housing, revitalizing corridors with new commercial uses, or creating economic opportunities through mixed-use development on key corridors.

The Coalition Alternative would not support the housing goals of the Proposed Actions and would not allow the type of land use and economic diversity that Proposed Actions seeks to foster. Although this alternative would increase the supply of housing available in East New York and increase the supply of affordable housing, which is consistent with City housing policy, that additional housing would not be as extensive as under the Proposed Actions, nor would this alternative introduce as much affordable housing as under the Proposed Actions. Compared to the Proposed Actions, the Coalition Alternative would result in 5,145 fewer total residential units on the identified projected development sites, including 2,775 fewer affordable dwelling units. Therefore, the benefits expected to result from the Proposed Actions would not be realized under this alternative and the Coalition Alternative falls short of the objectives of the Proposed Actions.

Community Facilities and Services

The Coalition Alternative would introduce fewer residents to the study area as compared to the Proposed Actions and, therefore, would result in a smaller increase in demand on area community facilities. Neither the Proposed Actions nor the Coalition Alternative would result in direct impacts to community facilities and services or indirect impacts to high schools, library services, or police, fire, and emergency medical services. While the Proposed Actions would result in significant adverse impacts to public schools and child care facilities, the Coalition Alternative would have no significant adverse impact on public schools or child care facilities, however it would result in a significant adverse temporary elementary school impacts in CSD 19 sub-district 1 prior to the construction of a new school.

Public Schools

Under the Coalition Alternative, there would be new residential development on 36 projected development sites, with approximately 1,347 incremental residential dwelling units being added to the rezoning area over No-Action conditions, including approximately 763 incremental affordable units. The Coalition Alternative residential development would introduce an estimated 390 elementary school students, 162 intermediate school students, and 189 high school students. Also under the Coalition Alternative (as under the Proposed Actions), a 1,000-seat PS/IS school would be developed on projected development site 66, subject to a discretionary Special Permit from the

Board of Standards and Appeals to allow this use in an M1-1 district. Under the Coalition Alternative, no new development would be anticipated in Community School District (CSD) 23, which includes Ocean Hill, therefore capacity in this district was not examined. As with the Proposed Actions, it is expected that under the Coalition Alternative, there would continue to be adequate capacity for intermediate level students in Sub-district 1 of CSD 19 in the 2030 analysis year (refer to Table 21-34, below).

**TABLE 21-34
2030 Coalition Alternative With-Action School Enrollment, Capacity, and Utilization**

Study Area	Students Introduced by the Coalition Alternative	Total Coalition Alternative With-Action Enrollment	Capacity	Available Seats under the Coalition Alt.	Utilization (%) under the Coalition Alt.	Change in Utilization (%) from No-Action Condition to the Coalition Alt.	Change in Utilization under the Proposed Actions
Elementary Schools							
CSD 19, Sub-district 1	111	3,808	3,576	-232	106.5	-21.2	+ 0.3
CSD 19, Sub-district 2	279	7,743	7,592	-151	102.1	+3.8	+ 11.2
Intermediate Schools							
CSD 19, Sub-district 1	46	826	1,330	504	62.1	-15.0	+ 9.0
CSD 19, Sub-district 2	116	3,289	3,076	-213	106.9	+3.7	+ 11.4
High Schools							
Brooklyn	189	94,232	87,123	-7,109	108.1	+ 02	+ 1.0

Note: This table is new to the FEIS.

The Coalition Alternative would introduce significantly fewer elementary and intermediate school students to both Sub-district 1 and 2 of CSD 19. Additionally, the new elementary and intermediate school seats created by a new school would increase capacity and cause the change in utilization between the No-Action Condition and Coalition Alternative to decrease in CSD 19 Sub-district 1. Therefore, while elementary schools in both Sub-district 1 and 2, and intermediate schools in Sub-district 2 would continue to experience utilization beyond their capacity, the incremental change in utilization under the Coalition Alternative would not represent a significant adverse impact on public schools. In addition, similar to the Proposed Actions, while the Coalition Alternative would not result in significant adverse elementary school impacts in CSD 19, Sub-district 1 in the 2030 Build Year, as 682 elementary school seats would be constructed on projected development site 66 under both alternatives, both the Proposed Actions and the Coalition Alternative could result in significant adverse temporary elementary school impacts in the sub-district prior to the school’s anticipated 2020(Q3) completion.

Child Care Services

As described above, to avoid the identified significant adverse residential study area child care impact, the number of affordable dwelling units that could be introduced on the projected development sites would have to be reduced to less than 2,401. The Coalition Alternative would reduce the number of projected affordable dwelling units to 763, which would not create a significant adverse impact on child care.

As the Coalition Alternative would introduce fewer incremental residents to the rezoning area, as compared to the Proposed Actions, the Coalition Alternative would similarly not result in significant adverse indirect impacts on high schools, libraries, or police, fire, and emergency medical services.

Open Space

As presented in Chapter 5, “Open Space,” the Proposed Actions are expected to introduce 19,296 residents to the ½-mile residential study area under the RWCDs (compared to No-Action conditions). Given the anticipated decrease

in the total, active, and passive open space ratios in the residential study area and the fact that open space ratios in the study area would remain below the City guideline ratios, the Proposed Actions would result in a significant adverse indirect impact to the total open space resources in the residential study area. Partial mitigation measures were explored in coordination with the lead agency and the New York City Department of Parks and Recreation (DPR). Based on these discussions, in order to address the significant adverse impact on open space in the residential study area, improvements to study area open space resources will be implemented, as described in Chapter 20, "Mitigation." The scope of improvements to study area open space resources would be contingent upon available funds and the deficiencies or needs specific to the open space resource. Although the identified open space mitigation measures would substantially increase the usability of and enhance open space resources for the additional population introduced by the Proposed Actions, the measures would constitute partial mitigation of the significant adverse open space impact.

Similar to the Proposed Actions, the Coalition Alternative would not have any direct impacts on any open space resources. While the Proposed Actions would result in significant adverse indirect impacts on open space resources, the Coalition Alternative would not result in significant adverse indirect impacts on open space resources in the ½-mile residential study area.

As described above, to avoid the identified significant adverse residential study area open space impact, the number of residents on the projected development sites would have to be reduced to less than 10,748 (or less than approximately 3,614 residential units). The Coalition Alternative would reduce the number of projected residential units to 1,347 (or 3,946 residents), which would not constitute a significant adverse indirect open space impact.

However, this significant reduction in the number of total residential units anticipated under the Coalition Alternative would not meet the objectives of the Proposed Actions. The benefits expected to result from the Proposed Actions—including creating pedestrian-friendly streets through active ground floor retail uses, and introducing new community resources that include several improvements to open space resources— would not be realized under this alternative, and the Coalition Alternative would fall short of the objectives of the Proposed Actions.

Shadows

As with the Proposed Actions, the Coalition Alternative would not result in any significant adverse shadows impacts to open spaces. As described in more detail below, while the Proposed Actions would result in significant adverse impacts to the NYCL-eligible and S/NR-eligible Holy Trinity Russian Orthodox Church, the Coalition Alternative would reduce, but not eliminate, the identified impact.

As noted previously, given the location of the sites relative to this resource and the limited number of intervening buildings, to eliminate these incremental shadows on the Holy Trinity Russian Orthodox Church, the maximum building heights of potential development sites A25, A27, and A73 would have to be reduced to 50, 55, and 75 feet, respectively (compared to maximum heights of 105, 105, and 145 feet, respectively, under the Proposed Actions). Such a reduction in height would substantially limit the development potential on these three potential development sites. Furthermore, reducing the height of potential development sites A25, A27, and A73 (located along Pennsylvania Avenue) would be inconsistent with the urban design and housing goals of the Proposed Actions of locating bulk and density along the rezoning area's primary corridors and preserving lower-scale side streets.

Under the Coalition Alternative, potential site A73 would not be considered a development site, and, therefore, shadows attributed to new development on site A73 under the Proposed Actions would not occur under this alternative. This would reduce the duration and extent of the shadows on the historic resource, but would not eliminate the shadows altogether as sites A24 and A25 would continue to shade the resource. Under the Coalition Alternative, incremental shadows would still be cast on two of the 22 stained-glass windows for durations of approximately 36 minutes on March 21, 45 minutes of May 6, and 49 total minutes on June 21. No incremental shadows would be cast on the stained-glass on December 21. While the Coalition Alternative would reduce the

duration and extent of the shadows on the historic resource it would not eliminate the shadows altogether and would, therefore, have the potential to affect the public's enjoyment of this feature.

Historic and Cultural Resources

As under the Proposed Actions, the Coalition Alternative would not result in any significant adverse impacts to archaeological resources or indirect impacts to architectural resources. Both the Proposed Actions and the Coalition Alternative would result in direct or construction-related significant adverse impacts to architectural resources.

Under the Coalition Alternative, construction activities would occur on only 36 of the 81 projected development sites identified under the Proposed Actions. As noted above, the LPC reviewed and identified projected and potential development sites that could experience new/additional in-ground disturbance and concluded that none of the lots comprising those sites have any archaeological significance. Therefore, like the Proposed Actions, the Coalition Alternative would not result in any significant adverse impacts to archaeological resources.

As noted in Chapter 7, "Historic and Cultural Resources," with the exception of projected development site 37, no significant adverse direct impacts would result from development under the Proposed Actions. Under the Coalition Alternative, no development would be anticipated on that site, which is currently located in an M1-1 district, therefore, the Coalition Alternative would not result in significant adverse historic resources impacts to the S/NR-listing and NYCL-designation eligible Empire State Dairy Building.

Development under this alternative would occur on only 36 of the 81 projected development sites identified under the Proposed Actions. There are two projected and six potential development sites where construction under the Coalition Alternative could potentially result in construction-related impacts to six non-designated historic resources located in close proximity, including St. Michael's R.C. Church, Firehouse Engine 236, New Lots Town Hall, Empire State Dairy Building, Church of the Blessed Sacrament, and Ninth Tabernacle. The eligible historic resources would be afforded standard protection under DOB regulations applicable to all buildings located adjacent to construction sites; however, as the resources are not S/NR-listed or NYCL-designated, they are not afforded the added special protections under DOB's TPPN #10/88.

Under this alternative, fewer historic resources would be located in close proximity to projected/potential development sites. As with development resulting from the Proposed Actions, development resulting from the Coalition Alternative could alter the setting or visual context of several of these historic resources, but would not result in significant adverse impacts. Development resulting from the Proposed Actions and the Coalition Alternative would neither alter the setting or visual context of any historic resources in the area, nor eliminate or screen publicly accessible views of any resources.

As described above, development on potential development sites A25 and A27, would be the same under the Proposed Actions and Coalition Alternative. Under the Coalition Alternative, potential development site A73 would not be considered a development site, and shadows attributed to the development of this site under the Proposed Actions would not occur under this alternative. This would reduce the duration and extent of the shadows on the historic resource, but would not eliminate the shadows altogether as sites A24 and A25 would continue to shade the resource. Under the Coalition Alternative, incremental shadows would still be cast on two of the 22 stained-glass windows for durations of approximately 36 minutes on March 21, 45 minutes of May 6, and 49 total minutes on June 21. No incremental shadows would be cast on the stained-glass on December 21. While the Coalition Alternative would reduce the duration and extent of the shadows on the historic resource it would not eliminate the shadows altogether and would, therefore, have the potential to affect the public's enjoyment of this feature.

Transportation

Under the Coalition Alternative, only 36 of the 81 projected development sites under the Proposed Actions would be redeveloped. Of the 45 projected development sites that would not be redeveloped under this alternative, most are located along the Atlantic Avenue corridor and to a lesser extent along the Liberty Avenue and Fulton Street corridors, resulting in fewer vehicle, transit, and pedestrian trips being generated along these corridors. Based on this significant reduction, it is anticipated that the Coalition Alternative would result in fewer significant adverse traffic, bus transit, and pedestrian impacts, especially along Atlantic Avenue Corridor. Neither the Proposed Actions nor the Coalition Alternative would result in significant adverse subway or parking impacts.

Traffic

Under the Coalition Alternative, the proposed development program would generate fewer incremental vehicle trips during the weekday and Saturday midday peak hours. It is likely that many intersections that would experience significant adverse impacts under the proposed action would not experience impacts under this alternative.

Transit

BUS

Under the Coalition Alternative, the significant adverse bus impact to westbound Q8 service in the PM peak hour would likely not occur, based on the current bus route and the reduction in the number and location of projected sites along the Atlantic Avenue and Liberty Avenue corridors.

Pedestrians

The Coalition Alternative is expected to generate fewer incremental pedestrian trips (including walk/other trips and trips to/from area transit services and public parking facilities) in the weekday and Saturday midday peak hours. With the reduction in incremental pedestrian trips the Proposed Actions' significant adverse impacts to the north sidewalk on Atlantic Avenue between Logan and Chestnut Streets, the west crosswalk on Atlantic Avenue at Euclid Street (both in the weekday midday peak hour), the east sidewalk on Van Siclen Avenue between Pitkin and Glenmore Avenues in the weekday PM peak hour and the northeast corner area at Liberty Avenue and Berriman Street in the AM peak hour would likely not occur.

Air Quality

Chapter 14, "Air Quality," presents the maximum predicted carbon monoxide (CO) and particulate matter (PM₁₀ and PM_{2.5}) concentrations related to traffic generated by the Proposed Actions, and concludes that the Proposed Actions would not result in significant adverse air quality impacts, with the exception of the intersection of Atlantic Avenue and Logan Street, which is predicted to exceed the annual *de minimis* criterion of 0.1 µg/m³. Under the Coalition Alternative, fewer generated vehicle trips are projected to occur, compared to those projected under the Proposed Actions.

There would also be less development and fewer vehicle trips than projected under the Lower Density Alternative. As the Lower Density Alternative would not result in significant adverse mobile source air quality impacts, neither would the Coalition Alternative.

Stationary Sources

For the projected and potential development sites under the Coalition Alternative, air quality impacts from heating and hot water systems would be anticipated to be similar to or lesser than under the Proposed Actions because the 36 development sites and their associated RWCDs would not be altered as compared to the Proposed Actions. The

same height and bulk would be assumed on these 36 development sites. Therefore, the potential air quality impacts from heating and hot water systems would likely be similar to or lesser than under the Proposed Actions.

As noted above, the existing manufacturing districts that would be rezoned under the Proposed Actions would remain in place are high performing M1 districts that typically are used as buffers between residential areas and heavier manufacturing districts. New manufacturing development is not anticipated under the Coalition Alternative and, therefore, no stationary source air toxics impacts are anticipated.

Noise

With the Coalition Alternative, fewer new vehicle trips are projected to occur, compared to those projected under the Proposed Actions. However, traffic volumes would be similar at some mobile source noise analysis locations, including on Richmond Street between Fulton Street and Dinsmore Place, where a significant adverse noise impact is predicted with the Proposed Actions (see Chapter 16, "Noise"), due in part to the school bus trips associated with the proposed school. As the proposed school would remain on Site 66 under the Coalition Alternative, the significant adverse mobile source noise impact predicted on Richmond Street between Fulton Street and Dinsmore Place with the Proposed Actions would also be expected to occur under the Coalition Alternative.

Neighborhood Character

As with the Proposed Actions, the Coalition Alternative would not result in significant adverse impacts on neighborhood character. Because the Coalition Alternative would result in similar, reduced, or eliminated impacts in the technical areas of open space, shadows, historic and cultural resources, transportation, and noise, it would result in similar and/or reduced effects on the neighborhood character as compared to the Proposed Actions. However, while the Coalition Alternative would not result in adverse significant impacts to neighborhood character it would not bring the major benefits to the community that the Proposed Actions include.

The Coalition Alternative is not expected to result in the same degree of beneficial effects to neighborhood character as would be expected under the Proposed Actions. While the Proposed Actions would promote substantial amounts of new affordable housing through the area and relieve pressures in the housing market that are anticipated regardless of the Proposed Actions, the Coalition Alternative would not promote nearly the same amount of affordable housing and would not be able to relieve the housing market pressure to the same degree. The Coalition Alternative would facilitate some development of a mix of residential, commercial, community facility uses that would be consistent with the character of the neighborhoods.

Unlike under the Proposed Actions where new residential development is anticipated on vacant and underutilized land along the rezoning area's major corridors, under the Coalition Alternative the existing zoning would continue to allow current auto-related development trends along critical corridors, such as Atlantic Avenue, where new development has been comprised mainly of fast food and other auto-oriented uses that setback from the street. The Proposed Actions would not only require new development to activate the ground floors with non-residential uses, provide a consistent streetwall and complement the existing built residential character of the neighborhood side streets but would also include major reinvestments in transportation infrastructure. The Coalition Alternative would maintain the existing zoning, which does not permit new residential development on most of Atlantic Avenue, and other key corridors and areas, such as drive-thru commercial uses and self-storage facilities that do not aid pedestrian activity and do not support a growing mixed-use, more sustainable neighborhood.

While the Coalition Alternative would likely lessen and in certain cases eliminate the adverse impacts in technical analysis categories related to neighborhood character, it would not meet the goals of the Proposed Actions that seek to reinforce, enhance and mend the existing fabric of the community.

Construction

Under the Coalition Alternative, construction activities would occur on only 36 of the 81 projected development sites identified under the Proposed Actions; development on these 36 sites would be expected to follow the same reasonable worst-case construction schedule as that assumed for the Proposed Actions. As the total development would be significantly less under this alternative, as compared to the Proposed Actions, construction in the rezoning area at any given time is expected to generate fewer construction worker and truck trips; there would be no construction on some of the largest projected development sites 46, 66 (portion), and 67.

Both the Coalition Alternative and the Proposed Actions are expected to result in significant adverse construction impacts in the areas of historic and cultural resources. The overall reduction in construction activities under the Coalition Alternative, could reduce construction noise to below the threshold and therefore potentially eliminate the impact and noise.

Historic and Cultural Resources

As presented above, development under the Coalition Alternative—specifically, on projected development sites 49 and 74 and potential development sites A40, A41, A50, and A95—could result in inadvertent construction-related damage to nine NYCL- and/or S/NR-eligible historic resources, as they are located within 90 feet of one or more of the aforementioned projected and potential development sites.

Noise

The noise analysis conducted for the Proposed Actions show that predicted noise levels from construction activities would exceed the noise impact threshold criteria during two or more years on one or more floors at 31 of the 241 receptor locations on projected development sites 66 and 67 and projected development site 46. For all smaller individual projected development sites, construction noise was analyzed, including both peak and off-peak construction periods for each year of the conceptual construction schedule. The noise analysis results show that the predicted noise levels could exceed the *CEQR Technical Manual* impact criteria at various locations throughout the rezoning area. The overall reduction in construction activities at the above locations under the Coalition Alternative could reduce construction noise to below the threshold and therefore potentially eliminate the impact on noise.

Mitigation Measures Required for the Coalition Alternative

As with the Proposed Actions, the Coalition Alternative would not result in significant adverse impacts with respect to land use, zoning, and public policy; socioeconomic conditions; urban design and visual resources; hazardous materials; water and sewer infrastructure; solid waste and sanitation services; energy; greenhouse gas emissions and climate change; public health; and neighborhood character. However, although the Coalition Alternative would not result in Hazardous Materials impacts, due to the decrease in redevelopment potential, the Department cannot be assured that properties identified to contain hazardous material in the FEIS would be remediated.

As discussed in the preceding sections, the Coalition Alternative would be expected to result in similar and/or reduced impacts related to historic resources, traffic, transit, pedestrian, noise impacts and construction. Where the impacts identified as a result of the Proposed Actions are similar and/or slightly reduced under the Coalition Alternative (historic resources, traffic, transit, pedestrian, noise impacts and construction), the mitigation measures identified for the Proposed Actions (see Chapter 20, "Mitigation") would continue to be applicable to the Coalition Alternative. Mitigation measures associated with the Proposed Actions' impacts related to open space, community facilities and air quality (mobile) would no longer be necessary as under the Coalition Alternative the residential density would be significantly less as to eliminate the impacts in these analysis areas.