Chapter 19 : Alternatives

I. INTRODUCTION

This chapter presents and evaluates alternatives to the Proposed Actions. As described in the *City Environmental Quality Review (CEQR) Technical Manual*, alternatives selected for consideration in an Environmental Impact Statement (EIS) are generally those which are feasible and have the potential to reduce or eliminate the impacts of a proposed project, while considering the objectives and capabilities of the project sponsor. In addition to the assessment of impacts, the alternatives in this chapter are assessed to determine the extent to which they would address the purpose and need, and related goals of the Proposed Actions described in Chapter 1, "Project Description," including to redevelop the vacant and unutilized former Peninsula Hospital Site with a mixed-use development intended to address the need to provide more housing for the observed and projected increase in population, more affordable housing for those who are currently rent-burdened, and more housing for the elderly.

As described in Chapter 1, "Project Description," the Applicant is seeking a set of Proposed Actions in the form of discretionary approvals to include zoning map and text amendments, a large-scale general development (LSGD) special permit, a City Map Amendment to re-establish a portion of Beach 52nd Street south of Rockaway Beach Boulevard to reconnect with Rockaway Freeway, and public funding and/or financing from various City and New York State agencies and/or programs related to affordable housing development on the Project Site. The Project Site is situated in Queens Community District 14 (CD 14). The Proposed Actions would facilitate the Proposed Project to consist of an approximately 2,371,000 gross square feet (gsf) development on the Project Site, comprised of 11 buildings with approximately 2,200 income-restricted dwelling units (DUs), of which 1,927 DUs would be income-restricted up to 80% of the Area Median Income (AMI) to include approximately 201 DUs set aside for Affordable Independent Residences for Seniors (AIRS) senior housing, with the remaining 273 DUs restricted to income levels not exceeding 130% of AMI. In addition to the residential DUs, the Proposed Project would include approximately 72,000 gsf of retail space, including a fitness center and a supermarket, approximately 77,000 gsf of community facility space, approximately 24,000 square feet (sf) of publicly-accessible open space, and approximately 973 accessory parking spaces.

This chapter considers three alternatives to the Proposed Project:

- A No-Action Alternative, which is referenced throughout the EIS as the No-Action condition and is mandated by CEQR and the State Environmental Quality Review Act (SEQRA) to provide the lead and involved agencies with an assessment of the environmental conditions that would exist in the future if the Proposed Project were not implemented;
- A No Unmitigated Impacts Alternative, which considers a development scenario that would not result in significant adverse impacts that remain unmitigated; and,
- A Lesser Density Alternative, which reduces the number of DUs of the Proposed Project to determine if there is a practicable and viable alternative to the Proposed Project that would have the potential to reduce significant adverse impacts while addressing the goals of the Proposed Actions.

II. PRINCIPAL CONCLUSIONS

The Proposed Actions are intended to address the need to provide more housing for the observed and projected increase in population, more affordable housing for those who are currently rent-burdened, and more housing for the elderly. The Proposed Project would also provide retail uses, including a supermarket and fitness center, that is intended to help address the need for such supportive uses and provide local employment opportunities. Furthermore, the Proposed Project would provide community facility uses programmed for medical office space intended to overcome in part the lack of nearby medical facilities. As summarized below, neither the Lesser Density Alternative nor the No Unmitigated Significant Impacts Alternative would meet the project goals to redevelop vacant and underutilized land to provide affordable and senior housing, along with supportive uses, to the same extent as would the Proposed Project.

No-Action Alternative

The significant adverse impacts related to elementary and middle schools, child care, open space, transportation, noise, and construction-period traffic and noise would not occur under the No-Action Alternative. The No-Action Alternative assumes that the Project Site would be developed by the Applicant as-of-right, in conformance to existing zoning regulations, and include 12 buildings, comprised of approximately 482,523 gsf of residential space, providing 568 market-rate DUs; 21,659 gsf of local retail space, 800 gsf of community facility space, and 557 accessory parking spaces[1] Of the 557 parking spaces, 457 would be provided on surface parking lots and the additional 100 would be provided in an underground parking garage located in the center of the northern portion of the Project Site. The No-Action Alternative would result in approximately 544,982 gsf of development on the Project Site. This alternative would not provide affordable or senior housing or medical office space on the Project Site, nor would it provide recreational opportunities for the community. Consequently, the No-Action Alternative would not meet the goals of the Proposed Project.

The No-Action Alternative would not promote policies of the Waterfront Revitalization Program (WRP) as it would not include flood mitigation measures to protect residents and businesses from flooding hazards in the Coastal Zone Boundary (CZB). Since the No-Action Alternative would only provide market-rate housing for households with incomes higher than those of the surrounding area, it would have the potential to increase areawide rents and result in indirect residential displacement. As with the Proposed Project, the No-Action Alternative would generate demand on public schools and publicly-accessible open space resources, and transportation elements, including traffic, pedestrian and transit elements.

No Unmitigated Significant Impacts Alternative

The Proposed Project has the potential to result in significant adverse impacts for which no practicable mitigation has been identified, including unmitigated impacts to community facilities and transportation. Potential mitigation measures to address significant adverse impacts on community facilities, open space, transportation, noise, and construction are discussed in Chapter 20, “Mitigation.” In the absence of the application of mitigation measures, the impacts would remain unmitigated. No reasonable alternative could be developed to eliminate the Proposed Project’s unmitigated significant adverse impacts while meeting the project goals to redevelop vacant and underutilized land to provide affordable and senior housing to the same extent as would the Proposed Project and without substantially compromising the Proposed Project’s stated purpose and need.

Lesser Density Alternative

The Lesser Density Alternative would reduce the number of DUs such that the building envelopes conform to the proposed rezoning sought under the Proposed Actions. The Lesser Density Alternative would result

[1] Comprised of 483 accessory parking spaces for residential use (pursuant to ZR §25-251), 72 accessory parking spaces for retail use (pursuant to ZR §36-21), and two accessory spaces for community facility use (pursuant to ZR §36-21).

in an approximately 1,999,775 gsf development on the Project Site, comprised of 11 buildings with approximately 1,800 DUs, of which 1,577 DUs would be income-restricted up to 80% of AMI with approximately 201 DUs set aside for AIRS senior housing, with the remaining 223 DUs restricted to income levels not exceeding 130% of AMI. In addition to the residential use, the Lesser Density Alternative would include approximately 68,179 gsf of retail space, including a fitness center and a supermarket, approximately 75,443 gsf of community facility space, and approximately 800 accessory parking spaces. The Lesser Density Alternative would not provide publicly-accessible open space on the Project Site. The reduced number of affordable housing units under this alternative would compromise the Proposed Project's stated purpose and need.

As with the Proposed Project, the Lesser Density Alternative would not result in significant adverse impacts on land use, zoning, and public policies; shadows; historic and cultural resources; urban design and visual resources; hazardous materials; water and sewer infrastructure; or greenhouse gas emissions. However, the Lesser Density Alternative would not be sufficient to eliminate identified significant adverse impacts on community facilities, open space, and transportation (traffic, pedestrian, or transit) with the Proposed Project. While the Lesser Density Alternative would involve less construction overall, all of the excavation and foundation work would be the same as or similar to the construction with the Proposed Project. Given that the duration of construction would be shorter, the duration of potential construction impacts would be reduced.

III. NO-ACTION ALTERNATIVE

The significant adverse impacts related to elementary and middle schools, child care, open space, transportation, noise, and construction-period traffic and noise would not occur under the No-Action Alternative that would be implemented as-of-right in conformance to existing zoning requirements. The No-Action Alternative would result in development on the Project Site allowed under the existing zoning designations. As-of-right development on the Project Site would yield 12 buildings, including approximately 482,523 gsf of residential space (equivalent to approximately 568 DUs), approximately 21,659 gsf of local retail space, approximately 800 gsf of community facility space, and approximately 557 accessory parking spaces. The No-Action Alternative would result in approximately 544,982 gsf of development on the Project Site, and would not meet the project goals to redevelop vacant and underutilized land to provide affordable and senior housing to the same extent as would the Proposed Project.

Land Use, Zoning and Public Policy

Under the No-Action Alternative, the Project Site would remain under the existing zoning designations and an as-of-right residential development and supporting retail space would be feasible on the Project Site. As-of-right development on the Project Site would yield 12 buildings consisting of residential space (equivalent to approximately 568 DUs), approximately 21,659 gsf of local retail space, approximately 800 gsf of community facility space, and approximately 557 accessory parking spaces. The No-Action Alternative would result in approximately 544,982 gsf of development on the Project Site. This as-of-right development would provide significantly fewer residential DUs, commercial uses, and community facility uses. In addition, no senior or affordable housing would be provided on the Project Site.

In the study area, current land use trends and general development patterns would continue. Development would continue in the Arverne and Edgemere Urban Renewal Areas (URAs), the Ocean Bay Retail project, the Downtown Far Rockaway project, the Beach Green Dunes North development project, and the 34-11 Beach Channel Drive project through the 2034 analysis year. These projects would result in significant residential and commercial development, including approximately 5,222 DUs and more than 517,592 sf of commercial uses such as office space, local and destination retail, and a supermarket. A range of

community facility uses would be developed in the study area totaling 167,258 sf, including a community center, day care and school facilities, a house of worship, and a medical facility.

No changes to zoning or public policy would occur on the Project Site or in the study area with the No-Action Alternative. Unlike the Proposed Project, the No-Action Alternative would not further the goals of *Housing New York* or the Citywide planning goals of *OneNYC* including the goals to create and preserve affordable housing. In addition, the No-Action Alternative would not address coastal floodplain hazards and may not conform to WRP policies due to its lack of flood mitigation measures in the CZB. None of the flood-prevention measures included with the Proposed Project would occur with the No-Action Alternative.

Socioeconomic Conditions

With the No-Action Alternative, some residential development and limited retail space would be feasible on the Project Site in conformance with existing zoning designations. Unlike the Proposed Project, under the No-Action Alternative the Project Site would not be redeveloped with senior and affordable housing. Instead, approximately 568 market-rate DUs would be introduced for households with incomes higher than those of the surrounding area. Consequently, unlike the Proposed Project, the No-Action Alternative would have the potential to introduce a trend or accelerate a trend of changing socioeconomic conditions that may potentially displace a vulnerable population to the extent that the socioeconomic character of the neighborhood would change.

Community Facilities

Public Schools

The 568 DUs introduced by the No-Action Alternative would generate approximately 176 elementary school students, approximately 80 intermediate school students in CSD 27, Sub-district 1 and approximately 74 high school students in Queens. Elementary schools in CSD 27, Sub-district 1 would operate at overcapacity under the No-Action Alternative; the sub-district would operate with a 127.36% utilization rate and a deficit of 1,547 seats. Intermediate schools in CSD 27, Sub-district 1 would operate within capacity; the sub-district would operate with a 94.65% utilization rate and a surplus of 155 seats. High schools in Queens would continue to be at overcapacity; the borough would operate with a 117.75% utilization rate and a deficit of 12,613 seats. The No-Action Alternative would avoid the Proposed Project's significant adverse impact on elementary and intermediate public schools.

Publicly-Funded Child Care Centers

No affordable DUs would be introduced to the study area under the No-Action Alternative, and therefore the demand on publicly-funded child care centers would not increase with the No-Action Alternative. The study area would have a utilization rate of 121.35% and a shortage of 111 slots. The No-Action Alternative would avoid the Proposed Project's significant adverse impact on publicly-funded child care centers.

Open Space

Unlike the Proposed Project, the No-Action Alternative would not include new publicly-accessible open space on the Project Site. The open space ratio (OSR) under the No-Action Alternative would be 3.66 acres of open space per 1,000 residents, an increase from the OSR of 2.52 acres of open space per 1,000 residents in the existing condition. The active OSR under the No-Action Alternative would be 0.84 acres of active open space per 1,000 residents, and the passive OSR under the No-Action Alternative would be 2.83 acres of passive open space per 1,000 residents. The active OSR in the No-Action Alternative would be less than the CEQR benchmark of 2.00 acres of active open space per 1,000 residents, and the passive OSR would be greater than the CEQR benchmark of 0.50 acres of passive open space per 1,000 residents. The No-Action Alternative would avoid the Proposed Project's significant adverse impact on active open space resources.

Shadows

The No-Action Alternative would not cast project-generated incremental shadows on sunlight-sensitive resources.

Historic and Cultural Resources

The New York City (NYC) Landmarks Preservation Commission (LPC) has determined that neither the Project Site nor the surrounding area within 400 feet of the Project Site possess archaeological or architectural significance. Therefore, as with the Proposed Project, no architectural or archaeological resources would be affected under the No-Action Alternative.

Urban Design and Visual Resources

The No-Action Alternative would result in approximately 504,982 gsf within 12 buildings. Four-story buildings, 40 feet in height, would be created on the North Parcels, while a single one-story 20-foot high building would be created on the South Parcel. Surface parking lots and a parking garage with cellar and ground floor levels would be located in center of the northern portion of the Project Site. Buildings and surface parking areas would alternate along the street frontage of Beach 53rd Street and Rockaway Beach Drive. Buildings would provide a more continuous frontage along Beach Channel Drive and Beach 50th Street. Each building would have separate building entrances from the street, and the Project Site would have five vehicular entrances for parking. These buildings would be lower in height than surrounding buildings. Unlike the Proposed Project, the site design under the No-Action Alternative would not break up the superblock of the North Parcels nor would publicly-accessible open space be provided. Consequently, pedestrians would not be encouraged to enter the Project Site.

Hazardous Materials

Subsoil investigations indicate the presence of hazardous materials on the Project Site. Based on the findings of the Phase II ESA investigations, remediation and handling measures would be implemented in conformance to applicable City, State and Federal regulations. Unlike with the Proposed Project, no (E) designations, requiring a Remedial Action Plan or Construction Health and Safety Plan, will be mapped on the Project Site.

Water and Sewer Infrastructure

The existing water mains on Beach Chanel Drive and/or Rockaway Beach Boulevard would have sufficient capacity to handle the estimated increase in water demand from the No-Action Alternative. Implementation of Best Management Practices may be required as part of the site connection approval process and the planned sewer infrastructure improvement project (QED-1007), which would reduce the overall volume of stormwater runoff and the peak stormwater runoff rate.

Solid Waste and Sanitation

The No-Action Alternative would generate an estimated total of 14.22 tons of solid waste per week and would not place a significant burden on the City's solid waste management system.

Transportation

Traffic

Under the No-Action Alternative, 21 of the 37 signalized and three of the 12 unsignalized intersections would operate at worse that mid-LOS D. Specifically, 27, 21, 32, and 15 lane groups would operate at worse than mid-LOS D during the Weekday AM, MD, PM, and Saturday MD peak hours, respectively.

Transit

Under the No-Action Alternative, the subway station elements, subway line-haul, and bus line-haul would experience an increase in demand as a result of background growth, future planned developments, and the as-of-right development permitted pursuant to existing zoning. The Q22 bus in the westbound direction during the Weekday AM peak hour would operate above capacity.

Pedestrian

Under the No-Action Alternative, pedestrian sidewalk, crosswalk, and corner volumes would increase compared to existing volumes as a result of background growth, planned development projects, and trips generated by the as-of-right development.

Sidewalks

With the No-Action Alternative, a majority of sidewalk locations included in the transportation analysis would operate at LOS C or better for both non-platoon and platoon conditions during the four peak hours with the exception of the following locations:

- Non-Platoon Conditions
  - The east sidewalk on the north leg of Beach 53rd Street and Rockaway Beach Boulevard would operate at LOS D during the Weekday AM peak hour.
  - The north sidewalk on the east leg of Beach 53rd Street and Rockaway Beach Boulevard would operate at LOS D during the Weekday MD peak hour.
- Platoon Conditions
  - The south sidewalk on the west leg of Beach 53rd Street and Beach Channel Drive would operate at LOS D during the Saturday MD peak hour.
  - The east sidewalk on the north leg of Beach 53rd Street and Rockaway Beach Boulevard would operate at LOS E during the Weekday AM peak hour and at LOS D during the Weekday MD, Weekday PM, and Saturday MD peak hours.
  - The north sidewalk on the east leg of Beach 53rd Street and Rockaway Beach Boulevard would operate at LOS D during the Weekday MD and Saturday MD peak hours.

Crosswalks

With the No-Action Alternative, all crosswalk elements included in the transportation analysis would operate at LOS C or better. Therefore, there would be no adverse crosswalk effects with the No-Action Alternative.

Corners and Medians

With the No-Action Alternative, all corner elements included in the transportation analysis would operate at LOS C or better.

Parking Supply and Utilization

All parking generated by the as-of-right development would be accommodated within the 557 spaces provided on-site, and on-street parking utilization would be 70%, 61%, 62%, and 59% occupied due to existing demands, background growth, and planned development projects. The levels of on-street parking are lower than those projected for the Proposed Project.

Air Quality

The No-Action Alternative would result in fewer vehicle trips and less mobile source pollution than the Proposed Project. Stationary sources of emissions would be lower than with the Proposed Project. The restrictions on the type of fuel for heating, as well as on the use of low NOx burners for certain boilers, and

the heights and placement of boiler exhaust stacks that would be put in place through the mapping of an (E) Designation for air quality on the Project Site in the future with the Proposed Project would not occur under the No-Action Alternative.

Greenhouse Gas Emissions

As with the Proposed Project, the No-Action Alternative would result in greenhouse gas emissions due to building and on-road energy use. Unlike the Proposed Project, the No-Action Alternative would not include measures for reducing greenhouse gas emissions and would not promote WRP policies regarding adaptation to climate changes, particularly flood risk due to sea level rise and major storm events.

Noise

Under the No-Action Alternative, traffic volumes would increase due to background growth, future planned developments, and the as-of-right development permitted pursuant to existing zoning. Heating, ventilation, and air conditioning systems would be designed to meet all applicable noise regulations and to avoid producing levels that would result in any significant increase in ambient noise levels. Window/wall attenuation, to ensure that L_{10} interior noise levels would be 45 dBA or less (50 dBA for commercial uses), that would be put in place through the mapping of an (E) Designation for noise on the Project Site in the future with the Proposed Project would not occur under the No-Action Alternative.

Public Health

The No-Action Alternative would be developed as-of-right on conformance to existing zoning designations. Public health concerns due to the No-Action Alternative are not anticipated.

Neighborhood Character

The No-Action Alternative would be developed as-of-right on conformance to existing zoning designations. A significant change to one of the determining elements of neighborhood character would result in a significant impact on neighborhood character is not anticipated with the No-Action Alternative. Urban design and open space improvements under the Proposed Project would not be included in the No-Action Alternative.

Construction

While the No-Action Alternative would involve less construction overall, all of the excavation and foundation work would be the same as or similar to the construction with the Proposed Project.

IV. NO UNMITIGATED SIGNIFICANT IMPACTS ALTERNATIVE

As documented in this EIS, the Proposed Project has the potential to result in significant adverse impacts for which no practicable mitigation has been identified, including unmitigated impacts to community facilities and transportation. Potential mitigation measures to address significant adverse impacts on community facilities, open space, transportation, noise, and construction are discussed in Chapter 20, “Mitigation.” In the absence of the application of mitigation measures, the impacts would remain unmitigated. This alternative demonstrates those measures that would have to be taken to eliminate all of the Proposed Project's unmitigated significant adverse impacts. Given the results of this assessment, no reasonable alternative could be developed to avoid the potential unmitigated significant adverse impacts while meeting the project goals to redevelop vacant and underutilized land to provide affordable and senior housing to the same extent as would the Proposed Project.

Community Facilities and Services

Public Schools

Public Elementary Schools

To avoid a significant adverse impact on public elementary schools, the Proposed Project would need to introduce no more than approximately 910 incremental non-senior DUs, which would generate approximately 282 public elementary school students. Projected future conditions identify overcapacity public elementary schools in CSD 27, Sub-district 1. The reduced number of DUs under the No Unmitigated Significant Impacts Alternative would reflect a less than 5% change in utilization compared with the No-Action condition, and therefore avoid a significant adverse impact on public elementary schools, in conformance to *CEQR Technical Manual* guidelines.

The decrease in incremental non-senior residential units from 1,431 DUs introduced under the Proposed Project to 910 DUs under the No Unmitigated Significant Impacts Alternative would represent an approximately 36% decrease in incremental non-senior DUs and an approximately 24% decrease in total number of residential units from 2,200 DUs with the Proposed Project to 1,679 DUs under the No Unmitigated Significant Impacts Alternative. This reduction would significantly compromise the goals of the Proposed Project. Therefore, should mitigation measures not apply, no reasonable alternative could be developed to avoid the unmitigated significant adverse impact on public elementary schools without significantly compromising the goals of the Proposed Project.

Public Intermediate Schools

To avoid a significant adverse impact on public intermediate schools, the Proposed Project would need to introduce no more than approximately 1,030 incremental non-senior DUs that would generate approximately 144 public intermediate school students. Projected future conditions identify public intermediate schools below capacity in CSD 27, Sub-district 1. The reduced number of DUs in the No Unmitigated Significant Impacts Alternative would reflect a less than 5% change in utilization as compared with the No-Action condition and therefore avoid a significant adverse impact on public elementary schools, in conformance to *CEQR Technical Manual* guidelines.

The decrease in incremental non-senior units from 1,431 DUs introduced by the Proposed Project to 1,030 DUs in the No Unmitigated Significant Impacts Alternative would represent an approximately 28% decrease in incremental non-senior DUs and an approximately 18% decrease in total residential units from 2,200 DUs with the Proposed Project to 1,799 DUs with the No Unmitigated Significant Impacts Alternative. This reduction would significantly compromise the goals of the Proposed Project. Therefore, should mitigation measures not apply, no reasonable alternative could be developed to avoid unmitigated significant adverse impact on public intermediate schools without significantly compromising the goals of the Proposed Project.

Publicly-Funded Child Care Centers

To avoid a significant adverse impact on publicly-funded child care centers, the Proposed Project would need to introduce approximately 179 incremental non-senior DUs affordable at up to 80% of AMI, which would generate approximately 25 children. Future enrollment resulting from No-Action development sites near the Project Site completed by the 2034 analysis year reflects overcapacity of publicly-funded child care centers within 1.5 miles of the Project Site at approximately 123.72% utilization. The reduced number of affordable DUs would reflect a less than 5% change in utilization as compared with the No-Action condition and therefore avoid significant adverse impacts on publicly-funded child care centers.

The reduction in DUs under the No Unmitigated Significant Impacts Alternative represents an approximately 90% decrease in non-senior, affordable residential units, from 1,726 incremental non-senior with the Proposed Project to no more than approximately 179 incremental non-senior affordable DUs under the No

Unmitigated Impact Alternative. This reduction would significantly compromise the goals of the Proposed Project. Therefore, no reasonable alternative could be developed to avoid unmitigated significant adverse impacts on publicly-funded child care centers without significantly compromising the goals of the Proposed Project.

Open Space

In a scenario in which the 0.55 acres of open space is still provided on the Project Site, as with the Proposed Project, the maximum residential population increment for which an active open space impact would be avoided would be 3,737 residents. If the number of senior DUs would remain the same at 201 DUs, then the number of non-senior DUs with the Proposed Project would need to be reduced by 755 DUs, from 1,999 non-senior DUs with the Proposed Actions to a maximum of 1,244 non-senior DUs. This reduction would represent an approximately 38% decrease in the number of non-senior DUs and a 34% decrease in total DUs on the Project Site. The active open space ratio (OSR) for the residential study area would decrease by 4.98% from the No-Action condition, from an OSR of 0.84 acres of active open space per 1,000 residents in the No-Action condition to an OSR of 0.80 acres of active open space per 1,000 residents, and therefore avoid a significant adverse impact on active open space in conformance to *CEQR Technical Manual* guidelines. Since the Proposed Project would not result in any significant impacts to either residential or non-residential passive open space resources, the No Unmitigated Significant Impacts Alternative would not include any changes to commercial or community facility uses.

Alternatively, if the Proposed Project development program remained the same as in the With-Action condition, a significant adverse impact on active open space resources could be avoided if the Proposed Project provided 1.67 acres of active open space resources in the residential study area. This can only be achieved with a significant reduction in residential units.

The above reductions would significantly compromise the goals of the Proposed Project. Therefore, no reasonable alternative could be developed to avoid unmitigated significant adverse open space impacts without significantly compromising the goals of the Proposed Project.

Transportation

Traffic

Unmitigated significant adverse traffic impacts that would result from the Proposed Project include significant adverse traffic impacts at 13 signalized intersections and two unsignalized intersections within the study area which cannot be fully mitigated with standard traffic capacity improvement measures. Due to constrained operating conditions at these intersections, in order to avoid these identified impacts, the Proposed Project would have to be reduced such that it would generate less than 2% of the number of projected vehicle trips. This could be achieved by reducing the Proposed Project to approximately 2% of its development scope. A No Unmitigated Significant Impacts Alternative would result in substantial reductions of residential units, retail space, including a fitness center and supermarket, community facility and publicly-accessible open space. This reduction would significantly compromise the goals of the Proposed Project. Therefore, no reasonable alternative could be developed to avoid unmitigated significant adverse traffic impacts without significantly compromising the goals of the Proposed Project.

Pedestrian

Unmitigated significant adverse pedestrian impacts that would result from the Proposed Project include significant adverse pedestrian impacts at four sidewalks, one corner, and one crosswalk within the study area which cannot be fully mitigated with standard pedestrian improvement measures. To avoid these identified impacts and due to constrained operating conditions at these pedestrian elements, the Proposed Project would have to be reduced such that it would generate approximately 16% to 19% of the number of pedestrian trips. This could be achieved by reducing the Proposed Project to 16% of its development scope.

A No Unmitigated Significant Impacts Alternative would result in substantial reductions of residential units, retail space, including a fitness center and supermarket, community facility and publicly-accessible open space. This reduction would significantly compromise the goals of the Proposed Project. Therefore, no reasonable alternative could be developed to avoid unmitigated significant adverse pedestrian impacts without significantly compromising the goals of the Proposed Project.

Noise

As described in Chapter 15, "Noise," significant adverse noise impacts are anticipated on sensitive receptors on Beach 53rd Street during the peak AM and Saturday periods due to increased traffic on nearby streets that would result from the Proposed Project. No reasonable or feasible alternative could be developed to completely avoid such an impact while still maintaining the Proposed Project's stated goals.

Construction

Traffic

Unmitigated significant adverse traffic impacts during the approximately three-month peak construction period would occur at two intersections within the study area which cannot be fully mitigated with standard traffic capacity improvement measures. No practical or feasible alternative was identified to completely avoid these impacts, but such effects of the Proposed Project would be temporary and limited to the peak construction period. As discussed above under "Transportation," no reasonable alternative could be developed to avoid such temporary construction-period traffic impacts without substantially compromising the stated goals of the Proposed Project.

Noise

As described in Chapter 18, "Construction," significant adverse construction-period noise impacts would occur at sensitive receptors fronting or adjacent to the Project Site. Construction activities would follow the requirements of the NYC Noise Control Code (also known as Chapter 24 of the Administrative Code of the City of New York, or Local Law 113) for construction noise control measures. Specific noise control measures would be incorporated in noise mitigation plan(s) required under the NYC Noise Control Code. These measures could include a variety of source and path controls. However, the implementation of these measures would not eliminate the identified significant adverse construction noise impacts predicted to occur during hours when the loudest pieces of construction equipment are in use. In order to completely avoid significant adverse construction noise impacts, project-generated construction would have to be restricted in such a manner so as to not occur on the same block as, or within one to two blocks from, existing sensitive receptors, which would require elimination of the proposed rezoning area in the vicinity of these sensitive receptors. This would severely limit achievable development density and the Proposed Actions' goals and objectives.

V. LESSER DENSITY ALTERNATIVE

The purpose of the Lesser Density Alternative is to determine if there is an alternative to the Proposed Project that would have the potential to reduce significant adverse impacts while maintaining project goals. As detailed below in **Table 19-1**, this alternative would reduce the number of DUs such that building heights would conform with as-of-right height and the building envelopes would conform to the proposed rezoning sought under the Proposed Actions, as described in Chapter 1, "Project Description." The Lesser Density Alternative would reduce the number of DUs from 2,200 in the Proposed Project to 1,800 DUs in this scenario, of which 1,577 DUs would be income-restricted up to 80% of the AMI, including approximately 164 DUs set aside for AIRS senior housing. The remaining 223 DUs would be restricted to income levels not exceeding 130% of AMI. In addition to the residential use, the Lesser Density Alternative would include

approximately 68,179 gsf of retail space, including an approximately 12,182 gsf fitness center; approximately 75,443 gsf of community facility space, and approximately 341,418 gsf of parking facility space that would generate 800 parking spaces. The Lesser Density Alternative would not provide publicly-accessible open space on the Project Site. Project goals to redevelop vacant and underutilized land to provide affordable and senior housing would not be achieved to the same extent as with the Proposed Project.

Table 19-1: Lesser Density Alternative

Development Program	Lesser Density Alternative (gsf)
Residential gsf	1,510,735
Total DUs	*1,800*
Income-Restricted DUs above 80% AMI to not exceed 130% AMI	*223*
Income-Restricted DUs up to 80% AMI	*1,577*
Commercial gsf	68,179
Local Retail gsf	*38,091*
Destination Retail gsf	*12,182*
Supermarket gsf	*17,906*
Community Facility gsf	75,443
Parking gsf	341,418
Parking spaces	*800*
Total gsf	**1,995,775**

Land Use, Zoning and Public Policy

The Lesser Density Alternative would reduce the number of DUs such that building heights would conform with as-of-right height and the building envelopes would conform to the proposed rezoning sought under the Proposed Actions. As with the Proposed Project current land use trends and general development patterns in the study area would continue. Development would continue in the Arverne and Edgemere URAs, the Ocean Bay Retail project, the Downtown Far Rockaway project, the Beach Green Dunes North development project, and the 34-11 Beach Channel Drive project through the 2034 analysis year. These projects would result in significant residential and commercial development, including approximately 5,222 DUs and more than 517,592 sf of commercial uses such as office space, local and destination retail, and a supermarket. A range of community facility uses would be developed in the study area totaling 167,258 sf, including a community center, day care and school facilities, a house of worship, and a medical facility. Neither the Lesser Density Alternative nor the Proposed Project would result in significant adverse impacts to land use, zoning or public policy.

Socioeconomic Conditions

Neither the Lesser Density Alternative nor the Proposed Project would result in significant adverse impacts due to direct residential and business displacement, indirect residential and business displacement, or result in adverse effects on specific industries. As with the Proposed Project, the Lesser Density Alternative would generate new, but fewer, affordable residential units.

Community Facilities and Services

Public Schools

The Lesser Density Alternative would introduce 1,800 DUs, of which 164 senior DUs would be set aside for AIRS senior housing and not generate school-aged children or the need for publicly-funded child care.

Between the No-Action condition and Lesser Density Alternative, the incremental 1,068 non-senior DUs introduced to CSD 27, Sub-district 1 would generate approximately 331 elementary school students and 150 intermediate school students to exceed thresholds that trigger the need for public elementary and intermediate school analyses.

Based on a detailed analysis of public elementary schools CSD 27, Sub-district 1 would operate at overcapacity for public elementary schools with a shortfall of 1,999 seats in the Lesser Density Alternative. The share of the shortage attributable to the Proposed Project would be 5.86%, due to an increase in the collective utilization rate of 129.50% in the No-Action condition to a collective utilization rate of 135.36% in the Lesser Density Alternative. Since the collective utilization rate for public elementary schools in the Lesser Density Alternative would be greater than 100% and the collective utilization rate would be equal to or greater than 5% from the No-Action condition, the alternative would result in a significant adverse impact on elementary schools.

Based on a detailed analysis of public intermediate schools, CSD 27, Sub-district 1 would operate at overcapacity for public intermediate schools with a shortfall of 50 seats in the Lesser Density Alternative. The share of the shortage attributable to the Proposed Project would be 5.17%, due to an increase in the collective utilization rate of 96.56% in the No-Action condition to a collective utilization rate of 101.73% in the Lesser Density Alternative. Since the collective utilization rate for public intermediate schools in the Lesser Density Alternative would be greater than 100% and the collective utilization rate would be equal to or greater than 5% from the No-Action condition, the Proposed Project would result in a significant adverse impact on intermediate schools.

The Lesser Density Alternative would reduce the significant adverse impact by approximately 65% for public elementary schools and by approximately 88% for intermediate schools as compared with the Proposed Project. Therefore, this alternative would reduce the significant adverse impacts of public schools, though it would not eliminate the impact.

Publicly-Funded Child Care Centers

With the Lesser Density Alternative, the Proposed Project would introduce 1,577 DUs of the total 1,800 DUs which would be affordable to households with incomes up to 80% of AMI, with approximately 164 DUs set aside for AIRS senior housing. The 164 senior DUs would be excluded from analysis under the assumption that they would not generate children. The incremental 1,413 non-senior, affordable DUs would exceed thresholds that trigger the need to analyze potential significant adverse impacts on publicly-funded child care and Head Start facilities. The Lesser Density Alternative would generate approximately 198 children.

Based on a detailed analysis, child care/Head Start centers in the study area would be at overcapacity with a shortfall of 309 slots in the Lesser Density Alternative. The size of the shortage attributable to the Proposed Project would be 38%, due to an increase in the collective utilization rate of 121.35% in the No-Action condition to a collective utilization rate of 159.39% in the Lesser Density Alternative. Since the collective utilization rate for child care/Head Start centers would be greater than 100% and the collective utilization rate would increase more than 5% from the No-Action condition, the Proposed Project would result in a significant adverse impact on publicly-funded child care and Head Start centers.

The Lesser Density Alternative would reduce the significant adverse impact by approximately 20% for publicly-funded child care and Head Start facilities as compared with the Proposed Project which would generate approximately 242 income-eligible children. Therefore, the Lesser Density Alternative would reduce the significant adverse impacts of publicly-funded child care, though it would not eliminate the impact.

Open Space

Unlike the Proposed Project, the Lesser Density Alternative would not provide publicly-accessible open space resources on the Project Site. The residential OSR would decrease by 12.96% to 3.19 compared to an OSR of 3.66 in the No-Action condition. Like the Proposed Project, the Lesser Density Alternative would result in a significant adverse indirect impact on active open space resources in the residential study. With the Lesser Density Alternative, the active OSR would decrease by 9.28% from the No-Action condition to an active OSR of 0.76, which would be lower than the CEQR benchmark OSR of 2.00 for active open space resources. Since the active OSR with the Proposed Project would be 0.73, compared to 0.76 with the Lesser Density Alternative, the Lesser Density Alternative would result in a lesser impact on active open space than would the Proposed Project. The passive OSR for the residential study area would decrease by 14.05% from the No-Action condition to 2.43, but it would remain above the CEQR benchmark OSR of 0.50 for passive residential open space. The passive OSR for the non-residential study area would decrease by 12.25% from the No-Action condition to 23.04, which would be substantially higher than the CEQR benchmark OSR of 0.15 for passive non-residential open space. Consequently, the Lesser Density Alternative would not eliminate the significant adverse impact on active open space, but the impact would occur to a lesser extent than with the Proposed Project.

Shadows

Neither the Lesser Density Alternative nor the Proposed Project would result in significant adverse impacts on sunlight-sensitive resources.

Historic and Cultural Resources

Neither the Lesser Density Alternative nor the Proposed Project would result in significant adverse impacts on historic and cultural resources. LPC has determined that neither the Project Site nor the surrounding area within 400 feet of the Project Site possess archaeological or architectural significance. Therefore, as with the Proposed Project, no architectural or archaeological resources would be affected.

Urban Design and Visual Resources

Neither the Lesser Density Alternative nor the Proposed Project would result in significant adverse impacts on urban design and visual resources. The Lesser Density Alternative would reduce the number of DUs such that building heights would conform with as-of-right height and the building envelopes would conform to the proposed rezoning sought under the Proposed Actions. While retail and community facility uses would be introduced to enliven the streetscape, the Lesser Density Alternative would not provide publicly-accessible open space on the Project Site.

Hazardous Materials

Neither the Lesser Density Alternative nor the Proposed Project would result in significant adverse impacts related to hazardous materials. Sub soil investigations indicate the presence of hazardous materials on the Project Site. Based on the findings of the Phase II ESA investigations, remediation and handling measures would be implemented in conformance to applicable City, State and Federal regulations. As with the Proposed Project, (E) designations requiring a Remedial Action Plan and Construction Health and Safety Plan will be mapped on the Project Site.

Water and Sewer Infrastructure

Neither the Lesser Density Alternative nor the Proposed Project would result in significant adverse impacts on water and sewer infrastructure. As with the Proposed Project, existing water mains on Beach Chanel Drive and/or Rockaway Beach Boulevard would have sufficient capacity to handle the estimated increase in water demand from the Lesser Density Alternative. Implementation of Best Management Practices may be required as part of the site connection approval process and the planned sewer infrastructure improvement project (QED-1007), which would reduce the overall volume of stormwater runoff and the peak stormwater runoff rate.

Solid Waste and Sanitation

Neither the Lesser Density Alternative nor the Proposed Project would result in significant adverse impacts on solid waste and sanitation. As with the Proposed Project, the Lesser Density Alternative would not place a significant burden on the City's solid waste management system.

Transportation

The Lesser Density Alternative would generate fewer trips than the Proposed Project. As shown in **Table 19-2: Proposed Project vs. Lesser Density Alternative Trip Generation Comparison**, the Lesser Density Alternative would result in 12 to 15% fewer vehicle trips, 17 to 23% fewer subway trips, 11 to 20% fewer bus trips, and 11 to 17% fewer overall pedestrian trips, depending on the peak hour. However, despite the reduction in trips generated by the Lesser Density Alternative compared to the Proposed Project, the reduction would not be sufficient to eliminate traffic, pedestrian, or transit impacts in the area immediately surrounding or extending beyond the Project Site.

Table 19-2: Proposed Project vs. Lesser Density Alternative Trip Generation Comparison

Lesser Density Alternative Trip Generation

Peak Hour	Vehicle (Auto + Taxi + Truck)	Subway	Bus	Bike/Walk Only	Ferry	Total Pedestrian
Weekday AM	754	392	295	420	52	1,159
Weekday MD	658	284	259	733	22	1,298
Weekday PM	805	450	325	612	55	1,442
Saturday MD	700	365	238	532	50	1,185

Proposed Project Trip Generation

Peak Hour	Vehicle (Auto + Taxi + Truck)	Subway	Bus	Bike/Walk Only	Ferry	Total Pedestrian
Weekday AM	879	501	356	455	67	1,379
Weekday MD	747	342	292	794	36	1,464
Weekday PM	950	570	390	676	72	1,708
Saturday MD	827	473	296	601	66	1,436

Proposed Project vs. Lesser Density Alternative (Increment)

Peak Hour	Vehicle (Auto + Taxi + Truck)	Subway	Bus	Bike/Walk Only	Ferry	Total Pedestrian
Weekday AM	-125	-109	-61	-35	-15	-220
Weekday MD	-89	-58	-33	-61	-14	-166
Weekday PM	-145	-120	-65	-64	-17	-266
Saturday MD	-127	-108	-58	-69	-16	-251

Proposed Project vs. Lesser Density Alternative (Percentage)

Peak Hour	Vehicle (Auto + Taxi + Truck)	Subway	Bus	Bike/Walk Only	Ferry	Total Pedestrian
Weekday AM	-14%	-22%	-17%	-8%	-22%	-16%
Weekday MD	-12%	-17%	-11%	-8%	-39%	-11%
Weekday PM	-15%	-21%	-17%	-9%	-24%	-16%
Saturday MD	-15%	-23%	-20%	-11%	-24%	-17%

Air Quality

Neither the Lesser Density Alternative nor the Proposed Project would result in significant adverse impacts on air quality. The Lesser Density Alternative would result in fewer vehicle trips and less mobile source pollution than the Proposed Project. Stationary sources of emissions would be lower than with the Proposed Project. As with the Proposed Project, restrictions on the type of fuel for heating, and the heights and placement of boiler exhaust stacks, would be put in place through the mapping of an (E) Designation for air quality for the Lesser Density Alternative.

Greenhouse Gas Emissions

Neither the Lesser Density Alternative nor the Proposed Project would result in significant adverse impacts related to greenhouse gas conditions and climate change. As with the Proposed Project, the Lesser Density Alternative would result in greenhouse gas emissions due to building and on-road energy use.

Noise

Under the Lesser Density Alternative, traffic volumes would increase due to background growth, future planned developments, and the as-of-right development permitted pursuant to existing zoning. As with the Proposed Project, significant adverse noise impacts due to traffic conditions on Beach 53rd Street would occur, but to a lesser extent. Window/wall attenuation, to ensure that L_{10} interior noise levels would be 45 dBA or less (50 dBA for commercial uses), would be put in place through the mapping of an (E) Designation for noise on the Project Site.

Construction

While the Lesser Density Alternative would involve less construction overall, all of the excavation and foundation work would be the same as or similar to the construction with the Proposed Project. While the period of construction traffic impacts would be reduced, the Lesser Density Alternative would still result in significant and unavoidable traffic impacts. These impacts would exist over a shorter period. As there would be a shorter period of construction for the shorter buildings, the Lesser Density Alternative would have construction-period significant adverse noise impacts over a shorter period.

Public Health

Neither the Lesser Density Alternative nor the Proposed Project would result in significant adverse impacts on Public Health. The No-Action Alternative would be developed as-of-right on conformance to existing zoning designations. Public health concerns due to the No-Action Alternative are not anticipated.

Neighborhood Character

Neither the Lesser Density Alternative nor the Proposed Project would result in significant adverse impacts on neighborhood character. As with the Proposed Project, a significant change to one of the determining elements of neighborhood character would not occur with the Lesser Density Alternative.