Chapter 20 : Mitigation

I. INTRODUCTION

In accordance with the *City Environmental Quality Review (CEQR) Technical Manual*, where significant adverse impacts are identified, mitigation measures to reduce or eliminate the impacts to the extent practicable are to be identified and evaluated. The preceding chapters of this Environmental Impact Statement (EIS) discuss the potential for significant adverse environmental impacts that would result from the Proposed Project. Based on the assessments provided in those chapters, significant adverse impacts were identified in the following technical areas: Community Facilities and Services, Open Space, and Transportation (traffic, transit, and pedestrian), Air Quality, and Construction (traffic and noise). Measures to minimize or eliminate these anticipated impacts are discussed below.

In addition, and as noted below, measures to further mitigate adverse impacts have been refined and evaluated between the Draft EIS (DEIS) and Final EIS (FEIS). Therefore, the FEIS may include more complete information and commitments on all practicable mitigation measures to be implemented with the Proposed Project.

II. PRINCIPAL CONCLUSIONS

Community Facilities and Services

The Proposed Project would result in significant adverse impacts on public elementary and intermediate schools as well as publicly-funded child care centers. Mitigation measures as described below were explored by the Applicant in consultation with the NYC Department of City Planning (DCP), NYC Department of Education (DOE), the NYC School Construction Authority (SCA), and NYC Administration for Children's Services (ACS).

To fully mitigate the significant adverse impact on public schools, 162 public elementary school seats and 57 public intermediate school seats would need to be provided in CSD 27, Sub-district 1. Alternatively, the Proposed Project would need to be reduced by 521 DUs, or 36% to reduce the number of public school children generated by the Proposed Project to below the significant impact threshold. Measures to mitigate the significant adverse impacts on public schools were explored in coordination with DOE/SCA to determine the feasibility of potential mitigation measures as detailed below.

Upon consideration of all practicable and feasible mitigation measures, it was determined that the Applicant, or its successor(s) to fee title in the Project Site, would be required to either provide funding to the DOE and SCA or perform work in accordance with SCA specifications and procurement processes, or in accordance with DOE/SCA approval, provide off-site land and/or fit-out annex space (up to core and shell) to accommodate an increase of the school capacity by up to 162 public elementary and 57 public intermediate school seats at school(s) in the school study area where such capacity increase is warranted.

Under the terms of the Restrictive Declaration the Applicant may conduct an additional analysis, in accordance with *CEQR Technical Manual* guidelines, to determine whether, based on the data available at the time of the additional analysis, the extent of the impacts and/or timing of when the impacts on public schools are projected to occur varies from that which had been identified the FEIS. Where the additional analysis demonstrates, to the reasonable satisfaction of the SCA and DOE, in consultation with DCP, as lead agency, that the extent of the impacts and/or timing of when the impacts are projected to occur varies from that set forth in the FEIS, the public school mitigation measure shall be adjusted accordingly to reflect

the modification of minimum number of public school seats necessary to reduce the increase in collective utilization of public schools in the study area to no greater than a 5 percent increase over the No-Action condition or a reduction of overall capacity to less than 100 percent.

The Applicant shall commence implementation of the mitigation measure selected by SCA and DOE, in consultation with DCP, prior to obtaining any excavation/foundation permits from NYC Department of Buildings (DOB) that would be associated with their phase 3 development program. Based on the Applicant's planned development phasing for the Proposed Project, the public-school impacts would occur at the completion of the Applicant's development phase 3 (i.e., upon development of 910 DUs for elementary and 1,030 DUs for intermediate schools). If funding is selected, such funds must be provided prior to the Applicant's acceptance of a Temporary Certificate of Occupancy (TCO) for more than 910 dwelling units.

In conclusion, with the provision of mitigation as described above, the Proposed Project's significant adverse impact on public schools would be fully mitigated.

Open Space

The Proposed Project would result in a significant adverse impact due to increased demand on active open space resources located within the residential study area. Practicable and feasible measures to mitigate these projected impacts were identified in consultation with DCP and the New York City Department of Parks and Recreation ("NYC Parks").

To fully mitigate the significant adverse impact on active open space resources an additional 1.67 acres of active open space would need to be provided within the residential study area. According to the *CEQR Technical Manual*, the following on-site or off-site measures could potentially be applied to mitigate an active open space impact: a) create, on-site, new public active open space; b) create new public active open space elsewhere in the study area; c) improve existing active open spaces in the study area to increase their utility, safety, and capacity; d) provide maintenance equipment, to enable increased park usage within an existing open space resource; and/or, e) contribute capital improvements to an outdated/deteriorated open space to increase its usefulness.

Consultation with DCP and NYC Parks to identify practicable and feasible mitigation measures took place between the issuance of the DEIS and the FEIS. Based on that consultation, it was determined that the most practicable and feasible mitigation measure to address the active open space impacts of the Proposed Project would be for the Applicant, under direction and with approval from NYC Parks, to provide for active recreation improvements to 1.67 acres of Rockaway Community Park, consistent with the 2014 Rockaway Parks Conceptual Plan. These active recreation improvements could consist of, but are not limited to, tennis courts, basketball courts, handball courts, and/or ballfields. Alternatively, in the event that the Applicant is able to create new publicly accessible active open space within the open space study area to serve the proposed population and offset the proposed project's impact on existing active open space, such new open space would, with the approval of NYC Parks, in consultation with DCP, also constitute partial mitigation.

The Applicant shall commence implementation of the mitigation measure selected by NYC Parks, in consultation with DCP, prior to obtaining any excavation/foundation permits from DOB that would be associated with their phase 3 development program. Based on the Applicant's planned development phasing for the Proposed Project, the active open space impacts would occur at the completion of the Applicant's development phase 3 (i.e., upon development of 1,244 DUs). If funding is selected, such funds must be provided prior to the Applicant's acceptance of a Temporary Certificate of Occupancy (TCO) for more than 1,244 dwelling units.

In conclusion, with the provision of the mitigation measures as described above, the Proposed Project's significant adverse impact on active open space resources would be partially mitigated.

Transportation

The transportation analyses found that several elements in the study area would experience significant adverse traffic, transit, and pedestrian impacts resulting from the Proposed Actions. The discussion below outlines potential mitigation measures that would fully or partially mitigate the identified significant adverse impacts.

Traffic

The Proposed Project would result in significant adverse traffic impacts at 22 signalized intersections and five unsignalized intersections during one or more analyzed peak hours; specifically, 33 lane groups at 21 signalized intersections and three lane groups at three unsignalized intersections during the Weekday AM peak hour, 21 lane groups at 16 signalized intersections and five lane groups at five unsignalized intersections during the Weekday Midday (MD) peak hour, 30 lane groups at 18 signalized intersections and five lane groups at three unsignalized intersections during the Weekday PM peak hour, and 18 lane groups at 12 signalized intersections and two lane groups at two unsignalized intersections during the Saturday MD peak hour. Mitigation measures such as signal timing changes, modifications to curbside parking regulations, lane geometry changes, and signalization of unsignalized intersections would mitigate or partially mitigate several of the significant adverse traffic impacts.

Table 20-1: Summary of Impacted and Unmitigated Intersections and Lane Groups – Signalized Intersections shows that significant adverse impacts at signalized intersections would be fully mitigated at all but 20 lane groups at ten intersections during the Weekday AM peak hour, 14 lane groups at nine intersections during the Weekday MD peak hour, 22 lane groups at 12 intersections during the Weekday PM peak hour, and 11 lane groups at seven intersections during the Saturday MD peak hour. In total, significant adverse impacts to one or more lane groups would remain unmitigated in one or more peak hours at 14 signalized intersections.

Table 20-1: Summary of Impacted and Unmitigated Intersections and Lane Groups – Signalized Intersections

#	Intersection	Weekday AM Peak Hour	Weekday MD Peak Hour	Weekday PM Peak Hour	Saturday MD Peak Hour
1	Beach Channel Drive & Beach 116th Street	X	X	X	X
3	Rockaway Beach Boulevard & Beach 116th Street	X	X	X	
4	Beach Channel Drive & Rockaway Freeway	X	X	X	X
5	Beach Channel Drive & Beach 108th Street	X			
7	Rockaway Beach Boulevard & Beach 108th Street	X			
8	Beach Channel Drive & Beach 92nd Street/Beach 94th Street	X	X	X	X
13	Beach Channel Drive & Beach 73rd Street	X	X	X	
15	Beach Channel Drive & Beach 62nd Street	X	X	X	X
16	Rockaway Beach Boulevard & Beach 62nd Street	X	X	X	X
19	Arverne Boulevard & Beach 59th Street	X		X	
20	Rockaway Freeway & Beach 59th Street	X	X	X	X
21	Rockaway Beach Boulevard & Beach 59th Street	X	X	X	X
23	Arverne Boulevard & Beach 54th Street	X	X	X	X
24	Rockaway Freeway & Beach 54th Street			X	
25	Edgemere Avenue & Beach 54th Street	X	X	X	X
42	Rockaway Freeway & Seagirt Boulevard	X	X		
44	Rockaway Freeway & Cornaga Avenue	X			
46	Beach Channel Drive & Mott Avenue	X	X	X	X
47	Beach Channel Drive & Dix Avenue	X	X	X	
48	Beach Channel Drive & Birdsall Avenue	X		X	
49	Beach Channel Drive & Nameoke Avenue	X	X	X	X
50	Beach Channel Drive & Hassock Street	X	X	X	X
	Total Number of Impacted Intersections:	**21**	**16**	**18**	**12**
	Total Number of Impacted Lane Groups:	**33**	**21**	**30**	**18**
	Total Number of Unmitigated Intersections:	**10**	**9**	**12**	**7**
	Total Number of Unmitigated Lane Groups:	**20**	**14**	**22**	**11**

X - denotes intersection significantly impacted in the peak hour
Shading denotes unmitigated impact in peak hour.

Table 20-2: Summary of Impacted and Unmitigated Intersections and Lane Groups – Unsignalized Intersections shows that significant adverse impacts at unsignalized intersections would be fully mitigated at all but one lane group at one intersection during the Weekday AM peak hour, two lane groups at two intersections during the Weekday MD peak hour, and one lane group at one intersection during the Weekday PM peak hour. All of the significant adverse traffic impacts at unsignalized intersections would be mitigated during the Saturday MD peak hour. In total, significant adverse impacts to one or more lane groups would remain unmitigated in one or more peak hours at two unsignalized intersections.

Table 20-2: Summary of Impacted and Unmitigated Intersections and Lane Groups – Unsignalized Intersections

#	Intersection	Weekday AM Peak Hour	Weekday MD Peak Hour	Weekday PM Peak Hour	Saturday MD Peak Hour
26	Beach Channel Drive & Beach 53rd Street	X	X	X	X
27	Rockaway Beach Boulevard & Beach 53rd Street	X	X	X	X
28	Rockaway Beach Boulevard & Beach 52nd Street		X		
30	Beach Channel Drive & Beach 50th Street		X		
P8	Parking Garage 8 driveway, via Peninsula Way	X	X	X	
	Total Number of Impacted Intersections:	**3**	**5**	**3**	**2**
	Total Number of Impacted Lane Groups:	**3**	**5**	**5**	**2**
	Total Number of Unmitigated Intersections:	**1**	**2**	**1**	**0**
	Total Number of Unmitigated Lane Groups:	**1**	**2**	**1**	**0**

X - denotes intersection significantly impacted in the peak hour
Shading denotes unmitigated impact in peak hour.

Transit

The Proposed Actions would result in a capacity shortfall on the westbound Q22 bus route in the Weekday AM and Weekday PM peak hours and on the southbound Q52-SBS in the Weekday PM peak hour. These significant bus line-haul impacts could be fully mitigated by the addition of four standard buses during the Weekday AM peak hour and one standard bus in the Weekday PM peak hour for the westbound Q22 bus route, and by the addition of one articulated bus in the Weekday PM peak hour for the southbound Q52-SBS bus route. The general policy of New York City Transit (NYCT) is to provide additional bus service where demand warrants, taking into account financial and operational constraints.

Pedestrians

The Proposed Actions would result in significant adverse pedestrian impacts at a total of four sidewalks, two signalized crosswalks, and one corner during one or more peak hours, as shown in **Table 20-3** and **Table 20-4**.

Sidewalks

The Proposed Actions would result in significant adverse impacts at four of the analyzed sidewalks. As shown in **Table 20-3: Summary of Impacted and Unmitigated Sidewalks (Platoon Conditions)**, significant adverse impacts would be fully mitigated at one sidewalk, while three sidewalks would remain unmitigated. The north sidewalk on the west leg of Beach 56th Street and Arverne Boulevard would be fully mitigated by paving with concrete one section of unpaved sidewalk. The north sidewalk on the east leg of Beach 54th Street and Arverne Boulevard, the south sidewalk on the west leg of Beach 53rd Street and Beach Channel Drive, and the west sidewalk on the north leg of Beach 44th Street and Rockaway Freeway would remain unmitigated as no practicable or feasible mitigation was identified for these significant sidewalk impacts.

Table 20-3: Summary of Impacted and Unmitigated Sidewalks (Platoon Conditions)

	Weekday AM Peak Hour	Weekday MD Peak Hour	Weekday PM Peak Hour	Saturday MD Peak Hour
Beach 59th St and Arverne Blvd (E leg, N sidewalk)				
Beach 59th St and Rockaway Fwy (W leg, N sidewalk)				
Beach 54th St and Beach Channel Dr (W leg, N sidewalk)				
Beach 54th St and Arverne Blvd (E leg, N sidewalk)		X	X	X
Beach 54th St and Arverne Blvd (W leg, N sidewalk)				
Beach 53rd St and Beach Channel Dr (E leg, S sidewalk)				
Beach 53rd St and Beach Channel Dr (W leg, S sidewalk)	X	X	X	X
Beach 53rd St and Rockaway Beach Blvd (N leg, E sidewalk)				
Beach 53rd St and Rockaway Beach Blvd (E leg, N sidewalk)				
Beach 50th St and Rockaway Beach Blvd (E leg, S sidewalk)				
Beach 47th St and Rockaway Beach Blvd (E leg, S sidewalk)				
Beach 44th St and Rockaway Fwy (N leg, W sidewalk)			X	
Beach 44th St and Rockaway Fwy (W leg, N sidewalk)				
Beach 56th St and Arverne Blvd (W leg, N sidewalk)	X			
Beach 57th St and Arverne Blvd (E leg, N sidewalk)				
Beach 52nd St and Beach Channel Dr (E leg, S sidewalk)				
Total Number of Impacted Sidewalks	**2**	**2**	**3**	**2**
Total Number of Unmitigated Sidewalks	**1**	**2**	**3**	**2**

X - denotes sidewalks significantly impacted in peak hour during Platoon Conditions.
Shading denotes unmitigated impact in peak hour.

Crosswalks

The Proposed Actions would result in significant adverse impacts at Beach 54th Street and Beach Channel Drive and at Beach 54th Street and Arverne Boulevard, as shown in **Table 20-4: Summary of Impacted and Unmitigated Signalized Crosswalks**. The south crosswalk at Beach 54th Street and Beach Channel Drive Crosswalk would be fully mitigated by widening the crosswalk by six feet. The north crosswalk at Beach 54th Street and Arverne Boulevard would remain unmitigated as no practicable or feasible mitigation was identified for this significant sidewalk impact.

Table 20-4: Summary of Impacted and Unmitigated Signalized Crosswalks

	Weekday AM Peak Hour	Weekday MD Peak Hour	Weekday PM Peak Hour	Saturday MD Peak Hour
Beach 54th St and Beach Channel Dr (S leg)		X	X	X
Beach 54th St and Arverne Blvd (N leg)			X	X
Total Number of Impacted Signalized Crosswalks	**0**	**1**	**2**	**2**
Total Number of Unmitigated Signalized Crosswalks	**0**	**0**	**1**	**1**

X - denotes crosswalks significantly impacted in peak hour.
Shading denotes unmitigated impact in peak hour.

Corners

The Proposed Actions and traffic mitigation measures would result in significant adverse impacts at the northeast corner of Beach 54th Street and Arverne Boulevard. No practicable or feasible mitigation was identified for the significant adverse corner impact; therefore, this significant adverse impact would remain unmitigated during one or more peak hours.

Air Quality

The maximum predicted $PM_{2.5}$ concentrations at the Rockaway Beach Boulevard/Beach 54th Street/ Beach 53rd Street would exceed the New York City Department of Environmental Protection (NYCDEP) annual de minimis value and result in a significant adverse air quality impact. However, with signalization of the Rockaway Beach Boulevard/Beach 53rd Street intersection as a mitigation measure, no significant adverse impact on mobile air quality would occur.

Construction

Construction of the Proposed Project would result in the potential for significant adverse construction-related impacts related to traffic, pedestrian, and noise during peak construction periods. The discussion below outlines potential mitigation measures that would fully or partially mitigate the identified significant adverse impacts.

Traffic

The analysis as conducted found that peak construction activities during the third quarter in 2027 (Q3 2027) would result in significant adverse construction-related traffic impacts at ten signalized intersections and two unsignalized intersections during one or more analyzed peak hours; specifically, ten lane groups at ten signalized intersections and two lane groups at two unsignalized intersections during the Weekday PM peak hour and seven lane groups at seven signalized intersections and two lane groups at two unsignalized intersections during the Saturday PM peak hour. Peak construction activities during Q3 2027 would not result in significant adverse construction-related traffic impacts at study locations in the Weekday AM or Saturday AM peak hours. Mitigation measures such as signal timing changes, lane geometry changes, and signalization of unsignalized intersections would mitigate several of the significant adverse traffic impacts.

Table 20-5: Summary of Impacted and Unmitigated Intersections and Lane Groups – Signalized Intersections shows that significant adverse construction-related impacts would be fully mitigated at all but two lane groups at two intersections during the Weekday PM peak hour. In total, significant adverse impacts for one or more approach movements would remain unmitigated during the Weekday PM peak hour at two intersections.

Table 20-5: Summary of Impacted and Unmitigated Intersections and Lane Groups – Signalized Intersections

#	Intersection	Weekday AM Peak Hour	Weekday PM Peak Hour	Saturday AM Peak Hour	Saturday PM Peak Hour
1	Beach Channel Drive & Beach 116th Street		X		
15	Beach Channel Drive & Beach 62nd Street		X		X
16	Rockaway Beach Boulevard & Beach 62nd Street		X		
19	Arverne Boulevard & Beach 59th Street		X		
21	Rockaway Beach Boulevard & Beach 59th Street		X		X
23	Arverne Boulevard & Beach 54th Street		X		X
25	Edgemere Avenue & Beach 54th Street		X		X
46	Beach Channel Drive & Mott Avenue		X		X
47	Beach Channel Drive & Dix Avenue		X		X
50	Beach Channel Drive & Hassock Street		X		X
	Total Number of Impacted Intersections:	**0**	**10**	**0**	**7**
	Total Number of Impacted Lane Groups:	**0**	**10**	**0**	**7**
	Total Number of Unmitigated Intersections:	**0**	**2**	**0**	**0**
	Total Number of Unmitigated Lane Groups:	**0**	**2**	**0**	**0**

X - denotes intersection significantly impacted in the peak hour
Shading denotes unmitigated impact in peak hour.

Table 20-6: Summary of Impacted and Unmitigated Intersections and Lane Groups – Unsignalized Intersections shows that significant adverse construction-related impacts at unsignalized intersections

would be fully mitigated at all lane groups at all intersections during the Weekday PM and Saturday PM peak hours. In total, no unmitigated significant adverse construction-related impacts would remain at unsignalized intersections in any peak hour.

Table 20-6: Summary of Impacted and Unmitigated Intersections and Lane Groups – Unsignalized Intersections

#	Intersection	Weekday AM Peak Hour	Weekday PM Peak Hour	Saturday AM Peak Hour	Saturday PM Peak Hour
26	Beach Channel Drive & Beach 53rd Street		X		X
27	Rockaway Beach Boulevard & Beach 53rd Street		X		X
	Total Number of Impacted Intersections:	**0**	**2**	**0**	**2**
	Total Number of Impacted Lane Groups:	**0**	**2**	**0**	**2**
	Total Number of Unmitigated Intersections:	**0**	**0**	**0**	**0**
	Total Number of Unmitigated Lane Groups:	**0**	**0**	**0**	**0**

X - denotes intersection significantly impacted in the peak hour
Shading denotes unmitigated impact in peak hour.

Noise

Increases in noise levels due to construction activities would occur during the daytime and, occasionally, in the early evening. The magnitude and duration of construction noise levels would result in a significant adverse construction-period noise impact to existing buildings on Beach 53rd Street between Beach Channel Drive and Rockaway Beach Boulevard, Seventh Day Adventist Church on Rockaway Beach Boulevard, and the Peninsula Nursing Home. The Applicant has committed to implement select source and path controls to reduce or eliminate potential significant adverse construction-period noise impacts. However, these controls would not be sufficient in of themselves to fully address potential construction noise impacts at these sensitive receptors; therefore, the following additional path controls would be implemented as mitigation to the extent feasible and practicable: portable noise barriers, panels, curtains, enclosures, and acoustical tents.

With these measures in place, the analysis concluded that no significant adverse impacts to noise would occur for the buildings on Beach 53rd Street or the Seventh Day Adventist Church. Noise levels at the Peninsula Nursing Home, however, would be reduced but not fully mitigated due to the building's location directly adjacent to the construction sites. Although the analysis found that the additional control measures would reduce the noise impacts to below the significant adverse threshold for some of the sensitive receptors, the actual implementation may not be feasible or practicable in all instances that they would necessary to control the noise levels at these receptors. Additional measures, as feasible, to avoid potential significant adverse noise impacts were explored between the Draft and Final EIS in consultation with DCP. No additional feasible and practicable mitigation measures were identified, and the remaining significant adverse construction-period noise impacts would remain unmitigated.

III. COMMUNITY FACILITIES AND SERVICES

As described in Chapter 4, "Community Facilities and Services," the Proposed Project would result in indirect significant adverse impacts on public elementary and intermediate schools as well as publicly-funded child care centers.

Public Schools

The Proposed Project is located within Sub-district 1 of Community School District (CSD) 27 in Queens and would result in the incremental development of 1,632 DUs on the Project Site compared to the No-Action condition. Of these units, 201 DUs are intended to be set aside for AIRS senior housing, which would not generate school-age children. Therefore, the assessment of the impacts of the Proposed Project on public

schools is based on the incremental increase of 1,431 non-senior DUs that would occur with the Proposed Project. Based on borough and CSD-specific student generation rates defined by the SCA, the Proposed Project would result in approximately 444 public elementary school students and 200 public intermediate students. The analysis of public elementary school conditions relies on conservative assumptions regarding both background growth in the student population and the development of new residential units in future conditions. Should this level of background growth in the sub-district and residential development in the study area not occur, the impact on elementary school seats in Sub-district 1 of CSD 27 could be substantially reduced.

Public Elementary Schools

Public elementary schools in CSD 27, Sub-district 1 would remain above capacity with a shortfall of 1,991 seats in the With-Action condition. Approximately 7.85% of this shortfall would be attributable to the Proposed Project due to an increase in the collective utilization rate of 127.36% in the No-Action condition to a collective utilization rate of 135.21% in the With-Action condition. In conformance to guidance in the *CEQR Technical Manual,* this would represent a significant adverse impact on public elementary schools.

To fully mitigate the significant adverse impact on public elementary schools, 162 public elementary school seats would need to be provided in CSD 27, Sub-district 1. Alternatively, the Proposed Project would need to be reduced by 521 DUs, or 36%, which would result in a reduction of the number of public elementary school children from 444 students under the Proposed Project to 282 students.

Public Intermediate Schools

Public intermediate schools in CSD 27, Sub-district 1 would remain above capacity with a shortfall of 46 seats in the With-Action condition. Approximately 6.93% of this shortfall would be attributable to the Proposed Project due to an increase in the collective utilization rate of 94.65% in the No-Action condition to a collective utilization rate of 101.58% in the With-Action condition. In conformance to guidance in the *CEQR Technical Manual,* this would represent a significant adverse impact on public intermediate schools.

To fully mitigate the significant adverse impacts on public intermediate schools, 57 public intermediate school seats would need to be provided in CSD 27, Sub-district 1. Alternatively, the Proposed Project would need to be reduced by 401 DUs, or 28%, which would result in a reduction of the number of public intermediate school children generated by the Proposed Project from 200 students under the Proposed Project to 143 students.

Measures to mitigate the significant adverse impacts on public schools (elementary and intermediate) were explored by the Applicant in consultation with DOE/SCA to determine the feasibility of potential mitigation measures as discussed below. DOE/SCA will continue to monitor trends in demand for school seats in the area. DOE/SCA responses to identified demand could take place in stages and include administrative actions and/or enlargement of existing schools, followed by the later construction or lease of new school facilities at an appropriate time.

To eliminate or alleviate the identified significant adverse impacts, mitigation measures were explored by the Applicant in consultation with the SCA and DOE. Upon consideration of all practicable and feasible mitigation measures, it was determined that the Applicant, or its successor(s) to fee title in the Project Site, would be required to either provide funding to the DOE/SCA or perform work in accordance with SCA specifications and procurement processes, or in accordance with DOE/SCA approval, provide off-site land and/or fit-out annex space (up to core and shell) to accommodate an increase of the school capacity by up to 162 public elementary and 57 public intermediate school seats at school(s) in the school study area where such capacity increase is warranted (as determined by DOE/SCA).

It should be noted that the analysis of public school conditions relies on conservative assumptions regarding both background growth in the student population and the development of new residential units in future

conditions. Should this level of background growth in the Sub-district and residential development in the study area not occur, the impact on school seats in Sub-district 1 of CSD 27 could be reduced. Therefore, the Restrictive Declaration would allow the Applicant the opportunity to reassess the specific number of seats needed to address the impact.

Under the terms of the Restrictive Declaration the Applicant may conduct an additional analysis, in accordance with *CEQR Technical Manual* guidelines, to determine whether, based on the data available at the time of the additional analysis, the extent of the impacts and/or timing of when the impacts on public schools are projected to occur varies from that which had been identified the FEIS. Where the additional analysis demonstrates, to the reasonable satisfaction of the SCA and DOE, in consultation with DCP, as lead agency, that the extent of the impacts and/or timing of when the impacts are projected to occur varies from that set forth in the FEIS, the public school mitigation measure shall be adjusted accordingly to reflect the modification of minimum number of public school seats necessary to reduce the increase in collective utilization of public schools in the study area to no greater than a 5% increase over the No-Action condition or a reduction of overall capacity to less than 100%.

The Applicant shall commence implementation of the mitigation measure selected by SCA and DOE, in consultation with DCP, prior to obtaining any excavation/foundation permits from NYC Department of Buildings that would be associated with their phase 3 development program. Based on the Applicant's planned development phasing for the Proposed Project, the public-school impacts would occur at the completion of the Applicant's development phase 3 (i.e., upon development of 910 DUs for elementary and 1,030 DUs for intermediate schools). If funding is selected, such funds must be provided prior to the Applicant's acceptance of a Temporary Certificate of Occupancy (TCO) for more than 910 dwelling units.

Absent the implementation of the above described mitigation measure, the Proposed Project would have an unmitigated significant adverse impact on public schools. With the implementation of the mitigation measure described above, the Proposed Project's impacts on public elementary and intermediate schools would be fully mitigated.

Publicly-Funded Child Care Centers

The Proposed Project would generate an increment of 1,927 DUs intended to be affordable for households with incomes up to 80% of the AMI compared to the No-Action condition which would not introduce any affordable units. Of the 1,927 DUs, 201 DUs are intended to be set aside for AIRS senior housing, which would not generate children eligible for publicly-funded child care and Head Start centers. Therefore, the analysis of publicly funded group child care and Head Start Centers was based on the incremental increase of 1,726 non-senior, affordable DUs. Based on the borough-specific multipliers for estimating the number of children eligible for publicly-funded child care and Head Start centers defined by the ACS, the Proposed Project is anticipated to generate the need for approximately 242 child care slots.

Publicly-funded child care and Head Start centers in the study area would remain above capacity with a shortfall of 353 seats in the With-Action condition. Approximately 46.5% of this shortfall would be attributable to the Proposed Project due to an increase in the collective utilization rate of 121.35% in the No-Action condition to a collective utilization rate of 167.82% in the With-Action condition. In conformance to guidance in the *CEQR Technical Manual,* this would represent a significant adverse impact to publicly-funded child care centers.

To fully mitigate the significant adverse impact on publicly-funded child-care centers, 217 publicly-funded child care slots would need to be provided in the study area. Alternatively, the Proposed Project would need to be reduced by 1,547 DUs, or 90%, which would reduce the number of children eligible for publicly-funded child care generated by the Proposed Project from 242 children under the Proposed Project to 25 children.

Potential mitigation measures for significant adverse impacts to child care centers are being explored and will be developed in consultation with ACS, DOE, and SCA. The projected increase in demand for child

care slots in the With-Action Condition could be offset by private day care facilities and day care centers outside of the child care study area; some parents may choose day care providers that are closer to their workplace rather than their home. While the analysis is limited to ACS-contracted child care facilities in accordance with *CEQR Technical Manual* guidelines, DOE also contracts with childcare providers to provide additional publicly-funded early education opportunities that are available to all residents, regardless of family income. Since 2014, the City has made significant investments to provide free, full-day, high-quality early childhood education through Pre-K for All and 3-K for All, as part of a broader effort to create a continuum of high-quality early care and education programs for New York City children from birth to five years old. Furthermore, all programs previously managed by ACS will shift to management by DOE, enabling consistent high-quality standards under a single agency by the second half of 2019. 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 these measures could offset or would serve to at least partially mitigate the identified impact, 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.

IV. OPEN SPACE

As described in Chapter 5, "Open Space," the Proposed Project would result in a significant adverse impact on active open space resources located within the residential study area. In the With-Action condition, the Proposed Project would increase the demand on nearby open space resources by introducing 5,819 residents and 365 workers on the Project Site, which would result in an incremental increase of 4,251 residents and 277 workers in the relevant study areas compared to the future No-Action condition. Consequently, the active open space ratio (OSR) in the residential study area would decrease from 0.84 in the No-Action condition to 0.73 in the With-Action condition, a decrease of 13.31%, and would result in an indirect significant adverse impact on active open space resources. While open space resources outside of the open space study areas were considered qualitatively, the 13.31% reduction in active OSR within the residential study area would represent a significant adverse impact on active open space resources.

To fully mitigate the significant adverse impact on active open space resources an additional 1.67 acres of active open space would need to be provided within the residential study area. Provision of 1.67 acres of active open space would represent an increase from 17.28 acres of active open space to 18.95 acres of active open space in the residential study area.

According to the *CEQR Technical Manual*, the following on-site or off-site measures could potentially be applied to mitigate an active open space impact:

- Create, on-site, new public active open space to serve the proposed population and offset the proposed project's impact on existing active open space in the study area.
- Create new public active open space elsewhere in the study area to serve the needs of the added population.
- Improve existing active open spaces in the study area to increase their utility, safety, and capacity. The creation or enhancement of active open space facilities may be achieved by the addition of field lighting to allow for extended hours of play, the rehabilitation of an existing field with synthetic turf treatment to allow for expanded use, or the addition of playground equipment to an underutilized passive area within a park.
- Provide maintenance equipment, such as a power washer or off-road vehicle, to enable increased park usage within an existing park or recreation center.
- Contribute capital improvements to an outdated/deteriorated open space to increase its usefulness and mitigate a significant impact.

Consultation with DCP and NYC Parks to identify practicable and feasible mitigation measures took place between the issuance of the DEIS and the FEIS. Based on that consultation, it was determined that the most practicable and feasible mitigation measure to address the active open space impacts of the Proposed Project would be for the Applicant, under direction and with approval from NYC Parks, to provide for active recreation improvements to 1.67 acres of Rockaway Community Park, consistent with the 2014 Rockaway Parks Conceptual Plan. These active recreation improvements could consist of, but are not limited to, tennis courts, basketball courts, handball courts, and/or ballfields. Alternatively, in the event that the Applicant is able to create new publicly accessible active open space within the open space study area to serve the proposed population and offset the proposed project's impact on existing active open space, such new open space would, with the approval of NYC Parks, in consultation with DCP, also constitute partial mitigation.

The Applicant shall commence implementation of the mitigation measure selected by NYC Parks, in consultation with DCP, prior to obtaining any excavation/foundation permits from DOB that would be associated with their phase 3 development program. Based on the Applicant's planned development phasing for the Proposed Project, the active open space impacts would occur at the completion of the Applicant's development phase 3 (i.e., upon development of 1,244 DUs). If funding is selected, such funds must be provided prior to the Applicant's acceptance of a Temporary Certificate of Occupancy (TCO) for more than 1,244 dwelling units.

A Restrictive Declaration will be recorded by the Applicant in connection with the proposed land use-related actions required to authorize the Proposed Project. The Restrictive Declaration will provide for the mitigation measures identified above that would be implemented by the Applicant to address the significant adverse impacts with respect to open space.

The above referenced mitigation measures to be implemented by the Applicant would not constitute provision of 1.67 acres of new active open space and therefore would not be considered full mitigation. In conclusion, the Proposed Project's significant adverse impact on active open space resources would be partially mitigated.

V. TRANSPORTATION

As described in Chapter 12, “Transportation,” several elements in the study area would experience significant adverse traffic, transit, and pedestrian impacts resulting from the Proposed Actions under the reasonable worst-case development scenario. The discussion below outlines potential mitigation measures that would fully or partially mitigate the identified significant adverse impacts.

Traffic

As described in Chapter 12, “Transportation,” the Proposed Actions would result in significant adverse traffic impacts at 22 signalized intersections and five unsignalized intersections during one or more analyzed peak hours, with 21, 16, 18, and 12 impacted signalized intersections and three, five, three, and two impacted unsignalized intersections during the Weekday AM, Weekday MD, Weekday PM, and Saturday MD peak hours, respectively.

As described below, some of these impacts could be mitigated through the implementation of mitigation measures, including:

- Modification of traffic signal timing and/or phasing;
- Elimination of on-street parking to add travel lanes;
- Restriping lane markings to make more efficient use of available street widths;
- Installation of new traffic signals.

Table 20-7: Traffic Mitigation summarizes the mitigation measures for each of the intersections with significant adverse traffic impacts during the Weekday AM, Weekday MD, Weekday PM, and Saturday MD peak hours.

As detailed in the “Operational Analysis Methodology” section of Chapter 12, the operation of an intersection is defined in terms of control delay per vehicle and the corresponding level of service (LOS) and volume-to-capacity (v/c) ratio. The criteria used for defining significant adverse traffic impacts are based on a sliding scale for various LOS and delay measures. A significant adverse impact is considered to be fully mitigated when the projected delay for an intersection lane group or movement under the With-Action condition is brought back to within an acceptable range of its No-Action condition level or to marginally acceptable mid-LOS D (45.0 seconds for signalized intersections and 30.0 seconds for unsignalized intersections). In some cases, viable mitigation measures for a particular movement could result in additional delay or LOS deterioration for other movements. Such increases in delay and deterioration in LOS do not constitute a significant adverse impact as long as the mid-LOS D threshold is not exceeded, or the increase in delay does not exceed the limits of the sliding scale mentioned above.

Fully Mitigated Significant Adverse Traffic Impacts

The following sections summarize the study intersections that would be fully mitigated based on the mitigation measures.

Signal Timing Reallocation

The significant adverse traffic impacts at the following study intersections would be fully mitigated through the reallocation of green time. The specific signal timing changes for these intersections are outlined in **Table 20-7.**

- Rockaway Beach Boulevard and Beach 116th Street (Intersection 3)
- Beach Channel Drive and Beach 108th Street (Intersection 5)
- Rockaway Beach Boulevard and Beach 108th Street (Intersection 7)
- Beach Channel Drive and Beach 92nd Street/Beach 94th Street (Intersection 8)
- Rockaway Freeway and Cornaga Avenue (Intersection 44)
- Beach Channel Drive and Birdsall Avenue (Intersection 48)

Geometric Modifications, Elimination of On-Street Parking, and Signal Timing Reallocation

The significant adverse traffic impacts at the following study intersections would be fully mitigated by geometric modifications and the elimination of on-street parking. The specific changes for each study intersection are outlined in **Table 20-7.**

- Beach Channel Drive and Beach 73rd Street (Intersection 13)
    - Restripe the eastbound approach to provide one left-turn/through lane and one through lane and eliminate on-street parking to provide one additional eastbound receiving lane.
    - Restripe the westbound approach and eliminate on-street parking to provide one left-turn/through lane, and one through/right-turn lane, and eliminate on-street parking to provide one additional westbound receiving lane.
    - Approximately 16 parking spaces would be removed as a result of the mitigation.
- Arverne Boulevard and Beach 59th Street (Intersection 19)
    - Restripe the westbound approach to provide one left-turn turn bay, one through lane, and one parking lane.
    - Restripe the eastbound approach to provide a center median to align the eastbound and westbound approaches.
    - Re-allocate one second of green time from the southbound phase to the eastbound/westbound phase during the Weekday Pm peak hour.

Installation of New Traffic Signals

The significant adverse traffic impacts at the following unsignalized study intersections would be fully mitigated by installing traffic signals. The signal timings for each study intersection are outlined in **Table 20-7.**

- Beach Channel Drive and Beach 53rd Street (Intersection 26)
    - Signalization of this intersection would be required to provide gaps in eastbound and westbound traffic for vehicles traveling northbound on Beach 53rd Street (minor street).
    - For analysis purposes, signal timing was developed for the traffic signal based on the timings at adjacent intersections, required pedestrian crossing times, and the need to accommodate future peak period traffic volumes.

  - New crosswalks and associated pedestrian ramps would be installed across Beach Channel Drive in conjunction with installation of a signal.

- Rockaway Beach Boulevard and Beach 53rd Street (Intersection 27)
  - Signalization of this intersection would be required to provide gaps for vehicles traveling southbound on Beach 53rd Street due to the high pedestrian volumes expected on the north crosswalk.
  - Restripe eastbound approach to provide one left-turn lane and one through lane. Restripe westbound approach to align the eastbound and westbound approaches and eliminate on-street parking on the north curb of the westbound receiving lane.
  - For analysis purposes, signal timing was developed for the proposed traffic signal based on the timings at adjacent intersections, required pedestrian crossing times, and the need to accommodate future peak period traffic volumes.
  - Approximately 10 parking spaces would be removed as a result of the mitigation.
- Rockaway Beach Boulevard and Beach 52nd Street (Intersection 28)
  - Signalization of this intersection would be required to provide gaps in eastbound and westbound traffic for pedestrians crossing Rockaway Beach Boulevard on the east and west crosswalks.
  - Restripe eastbound approach to provide a wider left-turn/through/right-turn lane and narrower parking lane.
  - New west and south crosswalks and associated pedestrian ramps would be installed in conjunction with this signal installation.
  - For analysis purposes, signal timing was developed for the proposed traffic signal based on the timings at adjacent intersections, required pedestrian crossing times, and the need to accommodate future peak period traffic volumes.

Partially Mitigated Significant Adverse Traffic Impacts

The following sections summarize the study intersections that would be partially mitigated based on the mitigation measures.

Signal Timing Reallocation

The significant adverse traffic impacts at the following study intersections would be partially mitigated through the reallocation of green time. The specific signal timing changes for each study intersection are outlined in **Table 20-7.**

- Beach Channel Drive and Rockaway Freeway (Intersection 4)
  - Reallocating green time would fully mitigate the significant adverse traffic impact at this intersection for the eastbound approach during the Weekday AM peak hour, however, the significant adverse impact for the westbound approach would remain unmitigated.
  - Reallocating green time would fully mitigate the significant adverse traffic impact at this intersection for the westbound approach during the Weekday PM peak hour, however, the significant adverse impact for the eastbound approach would remain unmitigated.
  - Reallocating green time would fully mitigate the significant adverse traffic impacts at this intersection for the eastbound approach during the Weekday MD and Saturday MD peak hours.

- Rockaway Beach Boulevard and Beach 62nd Street (Intersection 16)
    - Reallocating green time would fully mitigate the significant adverse traffic impact at this intersection for the westbound approach during the Weekday AM peak hour.
    - The significant adverse traffic impact for the westbound approach would be unmitigable during the Weekday MD, Weekday PM, and Saturday MD peak hours.
- Rockaway Freeway and Beach 59th Street (Intersection 20)
    - Reallocating green time would fully mitigate the significant adverse traffic impact at this intersection for the westbound left-turn lane group during the Weekday MD and Saturday MD peak hours; however, this would remain unmitigated during the Weekday AM and Weekday PM peak hours.
    - The significant adverse traffic impact for the southbound approach would be unmitigable during the Weekday AM peak hour.
- Rockaway Freeway and Seagirt Boulevard (Intersection 42)
    - The significant adverse traffic impact for the eastbound through-right lane group during the Weekday AM peak hour would be unmitigable.
    - Changing the offset would fully mitigate the significant adverse traffic impact at this intersection for the eastbound through-right lane group during the Weekday MD peak hour.
- Beach Channel Drive and Nameoke Avenue (Intersection 49)
    - The significant adverse traffic impacts for the northbound and southbound through-right lane groups during the Weekday AM peak hour would be unmitigable.
    - Reallocating green time would fully mitigate the significant adverse traffic impacts at this intersection for the northbound through-right lane group and southbound approach during the Weekday MD, Weekday PM, and Saturday MD peak hours.
- Beach Channel Drive and Hassock Street (Intersection 50)
    - Reallocating green time would fully mitigate the significant adverse traffic impacts at this intersection for the northbound approach and southbound through lane group during the Weekday AM peak hour.
    - The significant adverse traffic impact for the southbound through lane group during the Weekday MD, Weekday PM, and Saturday MD peak hours would be unmitigable.

Geometric Modifications and Elimination of On-Street Parking

The significant adverse traffic impacts at the following study intersection would be partially mitigated by geometric modifications and/or elimination of on-street parking. The specific changes are outlined in **Table 20-7.**

- Arverne Boulevard and Beach 54th Street (Intersection 23)
    - Eliminating on-street parking on the north curb of the westbound approach between Beach 54th Street and Beach 53rd Street would improve traffic operations at this intersection for the westbound approach.
        - The significant adverse traffic impact for the westbound approach would be mitigated during the Weekday AM and Saturday MD peak hours.
        - The significant adverse traffic impact for the westbound approach would be unmitigable during the Weekday MD and Weekday PM peak hours.

- The significant adverse traffic impact for the eastbound approach would be unmitigable during the Weekday PM peak hour.

Unmitigable Significant Adverse Traffic Impacts

Due to congested conditions on multiple approaches, constrained right-of-way, and/or minimum required pedestrian crossing times, practical measures to mitigate the significant adverse traffic impacts at the following study locations were deemed not feasible by the Applicant. Therefore, significant adverse impacts would remain unmitigated at the following intersections.

- Beach Channel Drive and Beach 116th Street (Intersection 1)
- Beach Channel Drive/Arverne Boulevard and Beach 62nd Street (Intersection 15)
- Rockaway Beach Boulevard and Beach 59th Street (Intersection 21)
- Rockaway Freeway and Beach 54th Street (Intersection 24)
- Edgemere Avenue and Beach 54th Street (Intersection 25)
- Beach Channel Drive and Beach 50th Street (Intersection 30)
- Beach Channel Drive and Mott Avenue (Intersection 46)
- Beach Channel Drive and Dix Avenue (Intersection 47)
- Parking Garage 8 driveway, via Peninsula Way

Table 20-8 through **Table 20-11** summarize the v/c ratios, delays, and LOS for impacted lane groups at each signalized intersection with implementation of these mitigation measures and compare them to No-Action and With-Action conditions for the Weekday AM, Weekday MD, Weekday PM, and Saturday MD peak hours. **Table 20-8** through **Table 20-11** also show that significant adverse impacts would be fully mitigated at all but 20 lane groups at ten intersections during the Weekday AM peak hour, 14 lane groups at nine intersections during the Weekday MD peak hour, 22 lane groups at 12 intersections during the Weekday PM peak hour, and 11 lane groups at seven intersections during the Saturday MD peak hour. In total, significant adverse impacts to one or more lane groups would remain unmitigated in one or more peak hours at 14 signalized intersections. Therefore, these impacts would constitute unavoidable significant adverse traffic impacts as a result of the Proposed Actions (see Chapter 21, "Unavoidable Adverse Impacts").

Table 20-12 through **Table 20-15** show the v/c ratios, delays, and LOS for impacted lane groups at each unsignalized intersection with implementation of these mitigation measures and compare them to No-Action and With-Action conditions for the Weekday AM, Weekday MD, Weekday PM, and Saturday MD peak hours. **Table 20-12** through **Table 20-15** also show that significant adverse impacts would be fully mitigated at all but one lane group at one intersection during the Weekday AM peak hour, two lane groups at two intersections during the Weekday MD peak hour, and one lane group at one intersection during the Weekday PM peak hour. All of the significant adverse traffic impacts at unsignalized intersections would be mitigated during the Saturday MD peak hour. In total, significant adverse impacts to one or more lane groups would remain unmitigated in one or more peak hours at two unsignalized intersections. Therefore, these impacts would constitute unavoidable significant adverse traffic impacts as a result of the Proposed Actions (see Chapter 21, "Unavoidable Adverse Impacts").

Effects of Pedestrian Mitigation on Traffic Conditions

Proposed pedestrian mitigation measures (discussed later in this chapter) would not affect traffic conditions at any analyzed intersection in any peak hour.

Table 20-7: Traffic Mitigation

Intersection | **Weekday AM Peak Hour**

3 — Rockaway Beach Boulevard & Beach 116th Street

Mitigation Description	Reallocate 1 second from NB / SB phase to EB / WB phase.							
	No-Action/With-Action				**Mitigated**			
		G	**A**	**R**		**G**	**A**	**R**
Signal Timing Mitigation	**EB / WB**	28.0	3.0	2.0	**EB / WB**	29.0	3.0	2.0
	NB / SB	22.0	3.0	2.0	**NB / SB**	21.0	3.0	2.0
	Cycle Length		**60**	**sec**	**Cycle Length**		**60**	**sec**

4 — Beach Channel Drive & Rockaway Freeway

Mitigation Description	Partially mitigated. Reallocate 4 seconds from NB phase to EB / WB phase.							
	No-Action/With-Action				**Mitigated**			
		G	**A**	**R**		**G**	**A**	**R**
Signal Timing Mitigation	**EB / WB**	55.0	3.0	2.0	**EB / WB**	59.0	3.0	2.0
	NB	55.0	3.0	2.0	**NB**	51.0	3.0	2.0
	Cycle Length		**120**	**sec**	**Cycle Length**		**120**	**sec**

5 — Beach Channel Drive & Beach 108th Street

Mitigation Description	Reallocate 3 seconds from NB phase to EB / WB phase.							
	No-Action/With-Action				**Mitigated**			
		G	**A**	**R**		**G**	**A**	**R**
Signal Timing Mitigation	**EB / WB**	40.0	3.0	2.0	**EB / WB**	43.0	3.0	2.0
	NB	40.0	3.0	2.0	**NB**	37.0	3.0	2.0
	Cycle Length		**90**	**sec**	**Cycle Length**		**90**	**sec**

7 — Rockaway Beach Boulevard & Beach 108th Street

Mitigation Description	Reallocate 4 seconds from NB / SB phase to EB / WB phase.							
	No-Action/With-Action				**Mitigated**			
		G	**A**	**R**		**G**	**A**	**R**
Signal Timing Mitigation	**EB / WB**	40.0	3.0	2.0	**EB / WB**	44.0	3.0	2.0
	NB / SB	40.0	3.0	2.0	**NB / SB**	36.0	3.0	2.0
	Cycle Length		**90**	**sec**	**Cycle Length**		**90**	**sec**

8 — Beach Channel Drive & Beach 92nd Street/Beach 94th Street

Mitigation Description	Relocate 1 second from EB / WB phase to NEB (Cross Bay Bridge & Beach 94th St) / WB phase.							
	No-Action/With-Action				**Mitigated**			
		G	**A**	**R**		**G**	**A**	**R**
Signal Timing Mitigation	**EB / WB**	34.0	3.0	2.0	**EB / WB**	33.0	3.0	2.0
	NB / SB	23.0	3.0	2.0	**NB / SB**	23.0	3.0	2.0
	dge/94th Street) / WB	18.0	3.0	2.0	**EB (94th Street) / WB**	19.0	3.0	2.0
	Cycle Length		**90**	**sec**	**Cycle Length**		**90**	**sec**

13 — Beach Channel Drive & Beach 73rd Street

Mitigation Description	Restripe EB approach as one 11' shared left-through lane and one 11' through lane. Restripe EB receiving lane as two 11' receiving lanes. Install "No Standing Anytime" parking regulation along south curb of EB receiving lanes (for approximately 125'). Restripe WB approach as one 11' shared left-through lane and one 11' shared through-right lane. Restripe WB receiving lane as two 11' receiving lanes. Install "No Standing Anytime" parking regulations along north curb of WB approach (for approximately 170') and north curb of WB receiving lanes between Beach 73rd and Beach 74th streets and for approximately 120' between Beach 74th and Beach 75th streets. Install "No Standing Anytime" parking regulations along the south curb of EB receiving lanes (for approximately 125').							
	No-Action/With-Action				**Mitigated**			
		G	**A**	**R**		**G**	**A**	**R**
Signal Timing Mitigation	**EB / WB**	49.0	3.0	2.0	**EB / WB**	49.0	3.0	2.0
	NB / SB	31.0	3.0	2.0	**NB / SB**	31.0	3.0	2.0
	Cycle Length		**90**	**sec**	**Cycle Length**		**90**	**sec**

16 — Rockaway Beach Boulevard & Beach 62nd Street

Mitigation Description	Reallocate 4 seconds from EB phase to EB / WB phase.							
	No-Action/With-Action				**Mitigated**			
		G	**A**	**R**		**G**	**A**	**R**
Signal Timing Mitigation	**EB / WB**	29.0	3.0	2.0	**EB / WB**	33.0	3.0	2.0
	EB	25.0	3.0	2.0	**EB**	21.0	3.0	2.0
	NB	21.0	3.0	2.0	**NB**	21.0	3.0	2.0
	Cycle Length		**90**	**sec**	**Cycle Length**		**90**	**sec**

19 — Arverne Boulevard & Beach 59th Street

Mitigation Description	Restripe WB approach as one 11' left-turn bay (75'), one 11' through lane, and one 8' parking lane. Stripe an 8' median on eastbound approach for approximately 150' with a 50' taper to align eastbound and westbound approaches.							
	No-Action/With-Action				**Mitigated**			
		G	**A**	**R**		**G**	**A**	**R**
Signal Timing Mitigation	**EB / WB**	31.0	3.0	2.0	**EB / WB**	31.0	3.0	2.0
	SB	19.0	3.0	2.0	**SB**	19.0	3.0	2.0
	Cycle Length		**60**	**sec**	**Cycle Length**		**60**	**sec**

Table 20-7 (con't): Traffic Mitigation

Intersection | **Weekday AM Peak Hour**

23 — Arverne Boulevard & Beach 54th Street

Mitigation Description	Install "No Standing Anytime" parking regulation along north curb of WB approach between Beach 54th Street and Beach 53rd Street.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	37.0	3.0	2.0	EB / WB	37.0	3.0	2.0
	NB	10.0	3.0	2.0	NB	10.0	3.0	2.0
	NB / SB	28.0	3.0	2.0	NB / SB	28.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

26 — Beach Channel Drive & Beach 53rd Street

Mitigation Description	Signalize intersection.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
	Unsignalized					G	A	R
					EB / WB	49.0	3.0	2.0
					NB	31.0	3.0	2.0
					Cycle Length		90	sec

27 — Rockaway Beach Boulevard & Beach 53rd Street

Mitigation Description	Signalize intersection. Restripe EB approach as one 11' left-turn lane and one 11' through lane. Restripe WB approach to align EB and WB approaches. Eliminate on-street parking along north curb of WB receiving lanes.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
	Unsignalized					G	A	R
					EB / WB	47.0	3.0	2.0
					SB	33.0	3.0	2.0
					Cycle Length		90	sec

28 — Rockaway Beach Boulevard & Beach 52nd Street

Mitigation Description	Signalize intersection. Restripe EB approach to provide one 12' left-turn/through/right-turn lane and one 8' parking lane.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
	Unsignalized					G	A	R
					EB / WB	47.0	3.0	2.0
					NB / SB	33.0	3.0	2.0
					Cycle Length		90	sec

44 — Rockaway Freeway & Cornaga Avenue

Mitigation Description	Reallocate 1 second from NB / SB phase to EB / WB phase.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	NB / SB	29.0	3.0	2.0	NB / SB	28.0	3.0	2.0
	NB	10.0	3.0	2.0	NB	10.0	3.0	2.0
	EB / WB	34.0	3.0	4.0	EB / WB	35.0	3.0	4.0
	Cycle Length		90	sec	Cycle Length		90	sec

48 — Beach Channel Drive & Birdsall Avenue

Mitigation Description	Reallocate 1 second from EB / WB phase to NB / SB phase.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	NB / SB	49.0	3.0	2.0	NB / SB	50.0	3.0	2.0
	EB / WB	31.0	3.0	2.0	EB / WB	30.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

50 — Beach Channel Drive & Hassock Street

Mitigation Description	Reallocate 1 second from EB / WB phase to NB / SB phase.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	34.0	3.0	2.0	EB / WB	33.0	3.0	2.0
	NB / SB	46.0	3.0	2.0	NB / SB	47.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

Table 20-7 (con't): Traffic Mitigation

Intersection		Weekday MD Peak Hour							
3	**Rockaway Beach Boulevard & Beach 116th Street**	**Mitigation Description**	Reallocate 1 second from NB / SB phase to EB / WB phase.						
		Signal Timing Mitigation	**No-Action/With-Action**				**Mitigated**			
				G	**A**	**R**		**G**	**A**	**R**
			EB / WB	28.0	3.0	2.0	**EB / WB**	29.0	3.0	2.0
			NB / SB	22.0	3.0	2.0	**NB / SB**	21.0	3.0	2.0
			Cycle Length		**60**	**sec**	**Cycle Length**		**60**	**sec**
4	**Beach Channel Drive & Rockaway Freeway**	**Mitigation Description**	Reallocate 2 seconds from NB phase to EB / WB phase.						
		Signal Timing Mitigation	**No-Action/With-Action**				**Mitigated**			
				G	**A**	**R**		**G**	**A**	**R**
			EB / WB	55.0	3.0	2.0	**EB / WB**	57.0	3.0	2.0
			NB	55.0	3.0	2.0	**NB**	53.0	3.0	2.0
			Cycle Length		**120**	**sec**	**Cycle Length**		**120**	**sec**
8	**Beach Channel Drive & Beach 92nd Street/Beach 94th Street**	**Mitigation Description**	Relocate 1 second from EB / WB phase to NEB (Cross Bay Bridge & Beach 94th St) / WB phase.						
		Signal Timing Mitigation	**No-Action/With-Action**				**Mitigated**			
				G	**A**	**R**		**G**	**A**	**R**
			EB / WB	34.0	3.0	2.0	**EB / WB**	33.0	3.0	2.0
			NB / SB	23.0	3.0	2.0	**NB / SB**	23.0	3.0	2.0
			dge/94th Street) / WB	18.0	3.0	2.0	**EB (94th Street) / WB**	19.0	3.0	2.0
			Cycle Length		**90**	**sec**	**Cycle Length**		**90**	**sec**
13	**Beach Channel Drive & Beach 73rd Street**	**Mitigation Description**	Restripe EB approach as one 11' shared left-through lane and one 11' through lane. Restripe EB receiving lane as two 11' receiving lanes. Install "No Standing Anytime" parking regulation along south curb of EB receiving lanes (for approximately 125'). Restripe WB approach as one 11' shared left-through lane and one 11' shared through-right lane. Restripe WB receiving lane as two 11' receiving lanes. Install "No Standing Anytime" parking regulations along north curb of WB approach (for approximately 170') and north curb of WB receiving lanes between Beach 73rd and Beach 74th streets and for approximately 120' between Beach 74th and Beach 75th streets. Install "No Standing Anytime" parking regulations along the south curb of EB receiving lanes (for approximately 125').						
		Signal Timing Mitigation	**No-Action/With-Action**				**Mitigated**			
				G	**A**	**R**		**G**	**A**	**R**
			EB / WB	49.0	3.0	2.0	**EB / WB**	49.0	3.0	2.0
			NB / SB	31.0	3.0	2.0	**NB / SB**	31.0	3.0	2.0
			Cycle Length		**90**	**sec**	**Cycle Length**		**90**	**sec**
19	**Arverne Boulevard & Beach 59th Street**	**Mitigation Description**	Not impacted. Mitigation measure needed to address Weekday AM and Weekday PM impacts. Restripe WB approach as one 11' left-turn bay (75'), one 11' through lane, and one 8' parking lane. Stripe an 8' median on eastbound approach for approximately 150' with a 50' taper to align eastbound and westbound approaches.						
		Signal Timing Mitigation	**No-Action/With-Action**				**Mitigated**			
				G	**A**	**R**		**G**	**A**	**R**
			EB / WB	31.0	3.0	2.0	**EB / WB**	31.0	3.0	2.0
			SB	19.0	3.0	2.0	**SB**	19.0	3.0	2.0
			Cycle Length		**60**	**sec**	**Cycle Length**		**60**	**sec**
20	**Rockaway Freeway & Beach 59th Street**	**Mitigation Description**	Reallocate 2 seconds from SB phase to WB phase.						
		Signal Timing Mitigation	**No-Action/With-Action**				**Mitigated**			
				G	**A**	**R**		**G**	**A**	**R**
			WBT	34.0	3.0	2.0	**WBT**	34.0	3.0	2.0
			LPI	7.0	0.0	0.0	**LPI**	7.0	0.0	0.0
			SB	24.0	3.0	2.0	**SB**	22.0	3.0	2.0
			WB	10.0	3.0	2.0	**WB**	12.0	3.0	2.0
			Cycle Length		**90**	**sec**	**Cycle Length**		**90**	**sec**
21	**Rockaway Beach Boulevard & Beach 59th Street**	**Mitigation Description**	Unmitigable. Reallocate 2 seconds from NB / SB phase to SB phase to mitigate intersection 20.						
		Signal Timing Mitigation	**No-Action/With-Action**				**Mitigated**			
				G	**A**	**R**		**G**	**A**	**R**
			EB / WB	34.0	3.0	2.0	**EB / WB**	34.0	3.0	2.0
			LPI	7.0	0.0	0.0	**LPI**	7.0	0.0	0.0
			NB / SB	24.0	3.0	2.0	**NB / SB**	22.0	3.0	2.0
			SB	10.0	3.0	2.0	**SB**	12.0	3.0	2.0
			Cycle Length		**90**	**sec**	**Cycle Length**		**90**	**sec**

Table 20-7 (con't): Traffic Mitigation

Intersection | **Weekday MD Peak Hour**

23 — Arverne Boulevard & Beach 54th Street

Mitigation Description	Unmitigable. Install "No Standing Anytime" parking regulation along north curb of WB approach between Beach 54th Street and Beach 53rd Street to mitigate the Weekday AM and Saturday MD peak hours.

Signal Timing Mitigation	No-Action/With-Action	G	A	R	Mitigated	G	A	R
	EB / WB	37.0	3.0	2.0	EB / WB	37.0	3.0	2.0
	NB	10.0	3.0	2.0	NB	10.0	3.0	2.0
	NB / SB	28.0	3.0	2.0	NB / SB	28.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

26 — Beach Channel Drive & Beach 53rd Street

Mitigation Description	Signalize intersection.

Signal Timing Mitigation	No-Action/With-Action	Mitigated	G	A	R
	Unsignalized	EB / WB	49.0	3.0	2.0
		NB	31.0	3.0	2.0
		Cycle Length		90	sec

27 — Rockaway Beach Boulevard & Beach 53rd Street

Mitigation Description	Signalize intersection. Restripe EB approach as one 11' left-turn lane and one 11' through lane. Restripe WB approach to align EB and WB approaches. Eliminate on-street parking along north curb of WB receiving lanes.

Signal Timing Mitigation	No-Action/With-Action	Mitigated	G	A	R
	Unsignalized	EB / WB	47.0	3.0	2.0
		SB	33.0	3.0	2.0
		Cycle Length		90	sec

28 — Rockaway Beach Boulevard & Beach 52nd Street

Mitigation Description	Signalize intersection. Restripe EB approach to provide one 12' left-turn/through/right-turn lane and one 8' parking lane.

Signal Timing Mitigation	No-Action/With-Action	Mitigated	G	A	R
	Unsignalized	EB / WB	47.0	3.0	2.0
		NB / SB	33.0	3.0	2.0
		Cycle Length		90	sec

42 — Rockaway Freeway & Seagirt Boulevard

Mitigation Description	Change offset from 0 seconds to 6 seconds.

Signal Timing Mitigation	No-Action/With-Action	G	A	R	Mitigated	G	A	R
	EB / EBL	20.0	3.0	2.0	EB / EBL	20.0	3.0	2.0
	EB / WB	22.0	3.0	2.0	EB / WB	22.0	3.0	2.0
	NB / SB	33.0	3.0	2.0	NB / SB	33.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec
	Offset		0	sec	Offset		6	sec

49 — Beach Channel Drive & Nameoke Avenue

Mitigation Description	Reallocate 3 seconds from EB phase to NB / SB phase.

Signal Timing Mitigation	No-Action/With-Action	G	A	R	Mitigated	G	A	R
	NB / SB	52.0	3.0	2.0	NB / SB	55.0	3.0	2.0
	EB	28.0	3.0	2.0	EB	25.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

Table 20-7 (con't): Traffic Mitigation

Intersection		Weekday PM Peak Hour							
3	**Rockaway Beach Boulevard & Beach 116th Street**	**Mitigation Description**	Reallocate 1 second from NB / SB phase to EB / WB phase.						
		Signal Timing Mitigation	**No-Action/With-Action**				**Mitigated**			
				G	**A**	**R**		**G**	**A**	**R**
			EB / WB	28.0	3.0	2.0	**EB / WB**	29.0	3.0	2.0
			NB / SB	22.0	3.0	2.0	**NB / SB**	21.0	3.0	2.0
			Cycle Length		**60**	**sec**	**Cycle Length**		**60**	**sec**
4	**Beach Channel Drive & Rockaway Freeway**	**Mitigation Description**	Partially mitigated. Reallocate 4 seconds from NB phase to EB / WB phase.						
		Signal Timing Mitigation	**No-Action/With-Action**				**Mitigated**			
				G	**A**	**R**		**G**	**A**	**R**
			EB / WB	55.0	3.0	2.0	**EB / WB**	59.0	3.0	2.0
			NB	55.0	3.0	2.0	**NB**	51.0	3.0	2.0
			Cycle Length		**120**	**sec**	**Cycle Length**		**120**	**sec**
8	**Beach Channel Drive & Beach 92nd Street/Beach 94th Street**	**Mitigation Description**	Relocate 2 seconds from EB / WB phase to NEB (Cross Bay Bridge & Beach 94th St) / WB phase.						
		Signal Timing Mitigation	**No-Action/With-Action**				**Mitigated**			
				G	**A**	**R**		**G**	**A**	**R**
			EB / WB	34.0	3.0	2.0	**EB / WB**	32.0	3.0	2.0
			NB / SB	23.0	3.0	2.0	**NB / SB**	23.0	3.0	2.0
			dge/94th Street) / WB	18.0	3.0	2.0	**EB (94th Street) / WB**	20.0	3.0	2.0
			Cycle Length		**90**	**sec**	**Cycle Length**		**90**	**sec**
13	**Beach Channel Drive & Beach 73rd Street**	**Mitigation Description**	Restripe EB approach as one 11' shared left-through lane and one 11' through lane. Restripe EB receiving lane as two 11' receiving lanes. Install "No Standing Anytime" parking regulation along south curb of EB receiving lanes (for approximately 125'). Restripe WB approach as one 11' shared left-through lane and one 11' shared through-right lane. Restripe WB receiving lane as two 11' receiving lanes. Install "No Standing Anytime" parking regulations along north curb of WB approach (for approximately 170') and north curb of WB receiving lanes between Beach 73rd and Beach 74th streets and for approximately 120' between Beach 74th and Beach 75th streets. Install "No Standing Anytime" parking regulations along the south curb of EB receiving lanes (for approximately 125').						
		Signal Timing Mitigation	**No-Action/With-Action**				**Mitigated**			
				G	**A**	**R**		**G**	**A**	**R**
			EB / WB	49.0	3.0	2.0	**EB / WB**	49.0	3.0	2.0
			NB / SB	31.0	3.0	2.0	**NB / SB**	31.0	3.0	2.0
			Cycle Length		**90**	**sec**	**Cycle Length**		**90**	**sec**
19	**Arverne Boulevard & Beach 59th Street**	**Mitigation Description**	Restripe WB approach as one 11' left-turn bay (75'), one 11' through lane, and one 8' parking lane. Stripe an 8' median on eastbound approach for approximately 150' with a 50' taper to align eastbound and westbound approaches. Reallocate 1 second of green time from SB phase to EB / WB phase.						
		Signal Timing Mitigation	**No-Action/With-Action**				**Mitigated**			
				G	**A**	**R**		**G**	**A**	**R**
			EB / WB	31.0	3.0	2.0	**EB / WB**	32.0	3.0	2.0
			SB	19.0	3.0	2.0	**SB**	18.0	3.0	2.0
			Cycle Length		**60**	**sec**	**Cycle Length**		**60**	**sec**
23	**Arverne Boulevard & Beach 54th Street**	**Mitigation Description**	Unmitigable. Install "No Standing Anytime" parking regulation along north curb of WB approach between Beach 54th Street and Beach 53rd Street to mitigate the Weekday AM and Saturday MD peak hours.						
		Signal Timing Mitigation	**No-Action/With-Action**				**Mitigated**			
				G	**A**	**R**		**G**	**A**	**R**
			EB / WB	37.0	3.0	2.0	**EB / WB**	37.0	3.0	2.0
			NB	10.0	3.0	2.0	**NB**	10.0	3.0	2.0
			NB / SB	28.0	3.0	2.0	**NB / SB**	28.0	3.0	2.0
			Cycle Length		**90**	**sec**	**Cycle Length**		**90**	**sec**

Table 20-7 (con't): Traffic Mitigation

	Intersection		Weekday PM Peak Hour				
26	**Beach Channel Drive & Beach 53rd Street**	**Mitigation Description**	Signalize intersection.				
		Signal Timing Mitigation	**No-Action/With-Action**	**Mitigated**			
			Unsignalized		**G**	**A**	**R**
				EB / WB	53.0	3.0	2.0
				NB	27.0	3.0	2.0
				Cycle Length		**90**	**sec**
27	**Rockaway Beach Boulevard & Beach 53rd Street**	**Mitigation Description**	Signalize intersection. Restripe EB approach as one 11' left-turn lane and one 11' through lane. Restripe WB approach to align EB and WB approaches. Eliminate on-street parking along north curb of WB receiving lanes.				
		Signal Timing Mitigation	**No-Action/With-Action**	**Mitigated**			
			Unsignalized		**G**	**A**	**R**
				EB / WB	48.0	3.0	2.0
				SB	32.0	3.0	2.0
				Cycle Length		**90**	**sec**
28	**Rockaway Beach Boulevard & Beach 52nd Street**	**Mitigation Description**	Signalize intersection. Restripe EB approach to provide one 12' left-turn/through/right-turn lane and one 8' parking lane.				
		Signal Timing Mitigation	**No-Action/With-Action**	**Mitigated**			
			Unsignalized		**G**	**A**	**R**
				EB / WB	48.0	3.0	2.0
				NB / SB	32.0	3.0	2.0
				Cycle Length		**90**	**sec**
48	**Beach Channel Drive & Birdsall Avenue**	**Mitigation Description**	Reallocate 3 seconds from EB / WB phase to NB / SB phase.				
		Signal Timing Mitigation	**No-Action/With-Action**		**Mitigated**		
				G	**A**	**R**	
			NB / SB	50.0	3.0	2.0	**NB / SB** 53.0 3.0 2.0
			EB / WB	30.0	3.0	2.0	**EB / WB** 27.0 3.0 2.0
			Cycle Length		**90**	**sec**	**Cycle Length** **90** **sec**
49	**Beach Channel Drive & Nameoke Avenue**	**Mitigation Description**	Reallocate 4 seconds from EB phase to NB / SB phase.				
		Signal Timing Mitigation	**No-Action/With-Action**		**Mitigated**		
				G	**A**	**R**	
			NB / SB	49.0	3.0	2.0	**NB / SB** 53.0 3.0 2.0
			EB	31.0	3.0	2.0	**EB** 27.0 3.0 2.0
			Cycle Length		**90**	**sec**	**Cycle Length** **90** **sec**

Table 20-7 (con't): Traffic Mitigation

Intersection | **Saturday MD Peak Hour**

4 — Beach Channel Drive & Rockaway Freeway

Mitigation Description	Reallocate 4 seconds from NB phase to EB / WB phase.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	55.0	3.0	2.0	EB / WB	59.0	3.0	2.0
	NB	55.0	3.0	2.0	NB	51.0	3.0	2.0
	Cycle Length		120	sec	Cycle Length		120	sec

8 — Beach Channel Drive & Beach 92nd Street/Beach 94th Street

Mitigation Description	Relocate 2 seconds from EB / WB phase to NEB (Cross Bay Bridge & Beach 94th St) / WB phase.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	34.0	3.0	2.0	EB / WB	32.0	3.0	2.0
	NB / SB	23.0	3.0	2.0	NB / SB	23.0	3.0	2.0
	dge/94th Street) / WB	18.0	3.0	2.0	EB (94th Street) / WB	20.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

13 — Beach Channel Drive & Beach 73rd Street

Mitigation Description	Restripe EB approach as one 11' shared left-through lane and one 11' through lane. Restripe EB receiving lane as two 11' receiving lanes. Install "No Standing Anytime" parking regulation along south curb of EB receiving lanes (for approximately 125'). Restripe WB approach as one 11' shared left-through lane and one 11' shared through-right lane. Restripe WB receiving lane as two 11' receiving lanes. Install "No Standing Anytime" parking regulations along north curb of WB approach (for approximately 170') and north curb of WB receiving lanes between Beach 73rd and Beach 74th streets and for approximately 120' between Beach 74th and Beach 75th streets. Install "No Standing Anytime" parking regulations along the south curb of EB receiving lanes (for approximately 125').							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	49.0	3.0	2.0	EB / WB	49.0	3.0	2.0
	NB / SB	31.0	3.0	2.0	NB / SB	31.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

19 — Arverne Boulevard & Beach 59th Street

Mitigation Description	Not impacted. Mitigation measure needed to address Weekday AM and Weekday PM impacts. Restripe WB approach as one 11' left-turn bay (75'), one 11' through lane, and one 8' parking lane. Stripe an 8' median on eastbound approach for approximately 150' with a 50' taper to align eastbound and westbound approaches.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	31.0	3.0	2.0	EB / WB	31.0	3.0	2.0
	SB	19.0	3.0	2.0	SB	19.0	3.0	2.0
	Cycle Length		60	sec	Cycle Length		60	sec

20 — Rockaway Freeway & Beach 59th Street

Mitigation Description	Reallocate 1 second from SB phase to WB phase.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	WBT	34.0	3.0	2.0	WBT	34.0	3.0	2.0
	LPI	7.0	0.0	0.0	LPI	7.0	0.0	0.0
	SB	24.0	3.0	2.0	SB	23.0	3.0	2.0
	WB	10.0	3.0	2.0	WB	11.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

21 — Rockaway Beach Boulevard & Beach 59th Street

Mitigation Description	Unmitigable. Reallocate 1 second from NB / SB phase to SB phase to mitgate intersection 20.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	34.0	3.0	2.0	EB / WB	34.0	3.0	2.0
	LPI	7.0	0.0	0.0	LPI	7.0	0.0	0.0
	NB / SB	24.0	3.0	2.0	NB / SB	23.0	3.0	2.0
	SB	10.0	3.0	2.0	SB	11.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

Table 20-7 (con't): Traffic Mitigation

Intersection — **Saturday MD Peak Hour**

23 — Arverne Boulevard & Beach 54th Street

Mitigation Description	Install "No Standing Anytime" parking regulation along north curb of WB approach between Beach 54th Street and Beach 53rd Street.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	37.0	3.0	2.0	EB / WB	37.0	3.0	2.0
	NB	10.0	3.0	2.0	NB	10.0	3.0	2.0
	NB / SB	28.0	3.0	2.0	NB / SB	28.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

26 — Beach Channel Drive & Beach 53rd Street

Mitigation Description	Signalize intersection.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
	Unsignalized					G	A	R
					EB / WB	49.0	3.0	2.0
					NB	31.0	3.0	2.0
					Cycle Length		90	sec

27 — Rockaway Beach Boulevard & Beach 53rd Street

Mitigation Description	Signalize intersection. Restripe EB approach as one 11' left-turn lane and one 11' through lane. Restripe WB approach to align EB and WB approaches. Eliminate on-street parking along north curb of WB receiving lanes.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
	Unsignalized					G	A	R
					EB / WB	47.0	3.0	2.0
					SB	33.0	3.0	2.0
					Cycle Length		90	sec

28 — Rockaway Beach Boulevard & Beach 52nd Street

Mitigation Description	Signalize intersection. Restripe EB approach to provide one 12' left-turn/through/right-turn lane and one 8' parking lane.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
	Unsignalized					G	A	R
					EB / WB	47.0	3.0	2.0
					NB / SB	33.0	3.0	2.0
					Cycle Length		90	sec

49 — Beach Channel Drive & Nameoke Avenue

Mitigation Description	Reallocate 3 seconds from EB phase to NB / SB phase.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	NB / SB	50.0	3.0	2.0	NB / SB	53.0	3.0	2.0
	EB	30.0	3.0	2.0	EB	27.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

Table 20-8: 2034 Weekday AM Peak Hour No-Action vs. With-Action vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	2034 No-Action					2034 With-Action					2034 Mitigation				
		Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
1	**Beach Channel Drive and Beach 116th Street**															
	Eastbound	LTR	0.68	31.3	C		LTR	0.73	33.1	C		LTR	0.73	33.1	C	
	Westbound	LTR	1.44	230.9	F		LTR	1.63	313.2	F	+	LTR	1.63	313.2	F	U
	Northbound	LTR	0.30	45.9	D		LTR	0.40	48.1	D		LTR	0.40	48.1	D	
	Southbound	LTR	0.09	45.6	D		LTR	0.09	45.6	D		LTR	0.09	45.6	D	
		Intersection		154.8	F		Intersection		206.7	F		Intersection		206.7	F	
2	**Newport Avenue and Beach 116th Street**															
	Eastbound	LTR	0.81	41.6	D		LTR	0.84	44.4	D		LTR	0.84	44.4	D	
	Northbound	LT	0.35	47.1	D		LT	0.43	49.2	D		LT	0.43	49.2	D	
		R	0.34	33.9	C		R	0.34	33.9	C		R	0.34	33.9	C	
	Southbound	LTR	0.28	18.4	B		LTR	0.31	18.9	B		LTR	0.31	18.9	B	
		Intersection		35.9	D		Intersection		38.0	D		Intersection		38.0	D	
3	**Rockaway Beach Boulevard and Beach 116th Street**															
	Eastbound	LTR	0.67	17.5	B		LTR	0.72	19.3	B		LTR	0.69	17.6	B	
	Westbound	LTR	0.92	36.9	D		LTR	0.99	51.5	D	+	LTR	0.96	42.5	D	
	Northbound	L	0.05	12.5	B		L	0.05	12.5	B		L	0.05	13.2	B	
		TR	0.13	13.3	B		TR	0.13	13.3	B		TR	0.14	14.1	B	
	Southbound	L	0.34	16.6	B		L	0.36	16.9	B		L	0.38	18.1	B	
		TR	0.16	13.6	B		TR	0.16	13.6	B		TR	0.17	14.4	B	
		Intersection		25.2	C		Intersection		32.1	C		Intersection		27.9	C	
4	**Beach Channel Drive and Rockaway Freeway**															
	Eastbound	LTR	1.10	90.5	F		LTR	1.24	148.7	F	+	LTR	1.11	92.8	F	
	Westbound	LTR	1.03	68.7	E		LTR	1.18	123.9	F	+	LTR	1.06	73.1	E	U
	Northbound	LT	0.60	27.7	C		LT	0.66	29.6	C		LT	0.71	34.3	C	
		R	0.01	17.8	B		R	0.01	17.8	B		R	0.01	20.0	C	
		Intersection		70.5	E		Intersection		117.1	F		Intersection		74.2	E	
5	**Beach Channel Drive and Beach 108th Street**															
	Eastbound	TR	0.80	26.7	C		TR	0.84	28.9	C		TR	0.78	24.0	C	
	Westbound	LT	1.16	111.0	F		LT	1.29	166.1	F	+	LT	1.16	109.8	F	
	Northbound	L	0.50	20.1	C		L	0.55	21.2	C		L	0.59	24.2	C	
		R	0.21	16.3	B		R	0.21	16.3	B		R	0.23	18.3	B	
		Intersection		55.7	E		Intersection		77.8	E		Intersection		55.5	E	
6	**Rockaway Freeway and Beach 108th Street**															
	Eastbound	LTR	0.15	15.1	B		LTR	0.17	15.3	B		LTR	0.17	15.3	B	
	Westbound	LTR	0.33	16.9	B		LTR	0.36	17.4	B		LTR	0.36	17.4	B	
	Northbound	L	0.51	21.8	C		L	0.57	23.4	C		L	0.57	23.4	C	
		TR	0.33	16.9	B		TR	0.34	17.1	B		TR	0.34	17.1	B	
	Southbound	LTR	0.35	18.1	B		LTR	0.37	18.4	B		LTR	0.37	18.4	B	
		Intersection		17.7	B		Intersection		18.2	B		Intersection		18.2	B	
7	**Rockaway Beach Boulevard and Beach 108th Street**															
	Eastbound	L	0.95	81.6	F		L	1.31	212.4	F	+	L	0.96	82.7	F	
		TR	0.79	30.9	C		TR	0.86	36.5	D		TR	0.78	27.2	C	
	Westbound	L	0.09	15.2	B		L	0.10	15.6	B		L	0.08	12.9	B	
		TR	0.94	48.1	D		TR	1.07	82.4	F	+	TR	0.97	51.3	D	
	Northbound	L	0.40	20.2	C		L	0.42	20.7	C		L	0.48	25.4	C	
		TR	0.41	18.7	B		TR	0.41	18.7	B		TR	0.46	22.1	C	
	Southbound	L	0.27	18.2	B		L	0.31	18.9	B		L	0.36	23.0	C	
		TR	0.43	19.2	B		TR	0.43	19.2	B		TR	0.47	22.7	C	
		Intersection		34.9	C		Intersection		56.4	E		Intersection		36.7	D	
8 [3]	**Beach Channel Drive and Beach 92nd Street/Beach 94th Street**															
	Eastbound	T	0.36	8.7	A		T	0.39	9.1	A		T	0.40	9.7	A	
	Northeastbound (Cross Bay Bridge Exit Ramp)	R	0.79	55.8	E		R	0.83	60.6	E	+	R	0.79	54.4	D	
	Northeastbound (Beach 94th St)	R	0.13	31.1	C		R	0.13	31.1	C		R	0.12	30.2	C	
	Westbound	TR	0.67	5.2	A		TR	0.76	7.9	A		TR	0.76	7.9	A	
	Northbound	R	0.08	40.6	D		R	0.08	40.6	D		R	0.08	40.6	D	
	Southbound	R	0.01	39.0	D		R	0.01	39.0	D		R	0.01	39.0	D	
		Intersection		14.1	B		Intersection		15.9	B		Intersection		15.2	B	
9	**Rockaway Freeway and Cross Bay Parkway**															
	Eastbound	TR	0.27	20.4	C		TR	0.31	21.0	C		TR	0.31	21.0	C	
	Westbound	L	0.01	35.7	D		L	0.01	35.7	D		L	0.01	35.7	D	
		T	0.21	11.0	B		T	0.26	11.5	B		T	0.26	11.5	B	
	Southbound (Cross Bay Bridge Off-Ramp)	LTR	0.20	21.2	C		LTR	0.22	21.4	C		LTR	0.22	21.4	C	
	Southbound (Beach Channel Drive Off-Ramp)	LTR	0.08	20.1	C		LTR	0.08	20.1	C		LTR	0.08	20.1	C	
		Intersection		17.7	B		Intersection		17.9	B		Intersection		17.9	B	
10	**Rockaway Beach Boulevard and Cross Bay Parkway**															
	Eastbound	TR	0.40	10.9	B		TR	0.46	11.8	B		TR	0.46	11.8	B	
	Westbound	LT	0.38	10.1	B		LT	0.47	11.2	B		LT	0.47	11.2	B	
	Southbound (Cross Bay Bridge Off-Ramp)	LT	0.18	15.2	B		LT	0.19	15.3	B		LT	0.19	15.3	B	
	Southbound (Beach Channel Drive Off-Ramp)	TR	0.21	16.2	B		TR	0.21	16.2	B		TR	0.21	16.2	B	
		Intersection		12.1	B		Intersection		12.7	B		Intersection		12.7	B	
11 [1]	**Rockaway Freeway and Beach 94th Street**															
	Eastbound	L	0.13	37.7	D		L	0.13	37.7	D		L	0.13	37.7	D	
		T	0.17	10.7	B		T	0.21	11.0	B		T	0.21	11.0	B	
	Westbound	TR	0.43	22.8	C		TR	0.54	24.9	C		TR	0.54	24.9	C	
	Northbound (Cross Bay Bridge On-Ramp)	LTR	0.37	23.0	C		LTR	0.40	23.4	C		LTR	0.40	23.4	C	
		Intersection		20.9	C		Intersection		21.7	C		Intersection		21.7	C	
12	**Rockaway Beach Boulevard and Beach 94th Street**															
	Eastbound	LT	0.40	10.3	B		LT	0.46	11.3	B		LT	0.46	11.3	B	
	Westbound	TR	0.81	21.4	C		TR	0.97	40.5	D		TR	0.97	40.5	D	
	Northbound (Cross Bay Bridge On-Ramp)	LT	0.35	17.6	B		LT	0.35	17.6	B		LT	0.35	17.6	B	
	Northbound (Beach Channel Drive On-Ramp)	TR	0.08	14.7	B		TR	0.08	14.7	B		TR	0.08	14.7	B	
		Intersection		17.3	B		Intersection		28.1	C		Intersection		28.1	C	
13 [1]	**Beach Channel Drive and Beach 73rd Street**															
	Eastbound											LT	0.34	12.0	B	
		L	0.00	9.3	A		L	0.00	9.3	A						
		T	0.45	13.8	B		T	0.55	15.4	B						
	Westbound											LTR	0.76	20.0	C	
		L	0.35	14.5	B		L	0.44	17.7	B						
		TR	0.95	40.8	D		TR	1.18	113.3	F	+					
	Northbound	LT	0.44	25.5	C		LT	0.44	25.5	C		LT	0.43	25.5	C	
	Southbound	LTR	0.04	19.7	B		LTR	0.04	19.7	B		LTR	0.04	19.7	B	
		Intersection		28.2	C		Intersection		65.2	E		Intersection		18.1	B	
14	**Rockaway Beach Boulevard and Beach 73rd Street**															
	Eastbound	LT	0.37	9.7	A		LT	0.42	10.3	B		LT	0.42	10.3	B	
		R	0.10	7.5	A		R	0.10	7.5	A		R	0.10	7.5	A	
	Westbound	L	0.10	7.7	A		L	0.11	7.8	A		L	0.11	7.8	A	
		T	0.57	12.7	B		T	0.69	15.5	B		T	0.69	15.5	B	
		R	0.24	8.7	B		R	0.24	8.7	B		R	0.24	8.7	B	
	Northbound	LT	0.10	24.6	C		LT	0.10	24.6	C		LT	0.10	24.6	C	
		LT	0.02	23.8	C		R	0.02	23.8	C		R	0.02	23.8	C	
	Southbound	L	0.40	30.0	C		L	0.40	30.0	C		L	0.40	30.0	C	
		TR	0.44	31.2	C		TR	0.44	31.2	C		TR	0.44	31.2	C	
		Intersection		14.5	B		Intersection		15.5	B		Intersection		15.5	B	
15	**Beach Channel Drive/Arverne Boulevard and Beach 62nd Street**															
	Eastbound	LT	1.18	127.1	F		LT	1.39	215.2	F	+	LT	1.39	215.2	F	U
	Westbound (Beach Channel Drive)	T	1.37	208.2	F		T	1.59	305.2	F	+	T	1.59	305.2	F	U
	Westbound (Arverne Boulevard)	LR	1.52	289.2	F		LR	1.95	477.7	F	+	LR	1.95	477.7	F	U
	Northbound	LTR	0.68	41.3	D		LTR	0.68	41.3	D		LTR	0.68	41.3	D	
	Southbound	L	0.80	61.8	E		L	0.80	61.8	E		L	0.80	61.8	E	
		R	0.02	27.5	C		R	0.02	27.5	C		R	0.02	27.5	C	
		Intersection		165.4	F		Intersection		258.2	F		Intersection		258.2	F	
16	**Rockaway Beach Boulevard and Beach 62nd Street**															
	Eastbound	L	0.25	26.7	C		L	0.25	26.7	C		L	0.30	30.6	C	
		TR	0.45	9.0	A		TR	0.51	9.9	A		TR	0.51	9.9	A	
	Westbound	LTR	0.84	37.4	D		LTR	1.06	78.0	E	+	LTR	0.91	39.8	D	
	Northbound	LTR	0.31	31.2	C		LTR	0.44	34.0	C		LTR	0.44	34.0	C	
		Intersection		27.2	C		Intersection		50.5	D		Intersection		29.6	C	

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. ~~ = v/c or delay exceeds the maximum limit reportable in the analysis software. "+" denotes significant adverse impact. "U" denotes unmitated significant adverse impact. "U*" denotes new lane group due to mitigation that operates above mid-LOS D.

1. Stop-controlled approach at signalized intersection.
2. Future intersection created as part of the Proposed Project.
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Table 20-8 (continued): 2034 Weekday AM Peak Hour No-Action vs. With-Action vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	2034 No-Action				2034 With-Action					2034 Mitigation				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
18	**Beach Channel Drive and Beach 59th Street**														
	Eastbound	LT	0.46	14.2	B	LT	0.54	15.5	B		LT	0.54	15.5	B	
		R	0.02	9.5	A	R	0.02	9.5	A		R	0.02	9.5	A	
	Westbound	LTR	0.68	19.2	B	LTR	0.78	23.0	C		LTR	0.78	23.0	C	
	Southbound	LTR	0.02	19.6	B	LTR	0.02	19.6	B		LTR	0.02	19.6	B	
		Intersection		17.1	B	Intersection		19.8	B		Intersection		19.8	B	
19	**Arverne Boulevard and Beach 59th Street**														
	Eastbound	T	0.49	11.2	B	T	0.55	12.1	B		T	0.63	13.9	B	
		R	0.19	8.5	A	R	0.21	8.7	A		R	0.21	8.7	A	
	Westbound	LT	0.89	31.7	C	LT	1.36	190.6	F	+					
											L	0.58	18.1	B	
											T	0.66	14.9	B	
	Southbound	LTR	0.15	15.3	B	LTR	0.15	15.4	B		LTR	0.15	15.4	B	
		Intersection		20.3	C	Intersection		98.4	F		Intersection		14.5	B	
20	**Rockaway Freeway and Beach 59th Street**														
	Westbound	L	0.95	86.7	F	L	1.11	133.5	F	+	L	1.11	133.5	F	U
		T	0.11	9.2	A	T	0.11	9.2	A		T	0.11	9.2	A	
	Southbound	LTR	0.76	45.4	D	LTR	0.86	54.9	D	+	LTR	0.86	54.9	D	U
		Intersection		52.4	D	Intersection		74.9	E		Intersection		74.9	E	
21	**Rockaway Beach Boulevard and Beach 59th Street**														
	Eastbound	TR	1.02	69.4	E	TR	1.17	120.6	F	+	TR	1.17	120.6	F	U
	Westbound	LT	1.11	100.6	F	LT	1.36	200.5	F	+	LT	1.36	200.5	F	U
	Northbound	LR	0.74	58.9	E	LR	0.87	84.3	F	+	LR	0.87	84.3	F	U
	Southbound	LTR	0.81	34.5	C	LTR	0.98	60.0	E	+	LTR	0.98	60.0	E	U
		Intersection		71.5	E	Intersection		131.5	F		Intersection		131.5	F	
22	**Beach Channel Drive and Beach 54th Street**														
	Eastbound	T	0.46	14.2	B	T	0.55	15.9	B		T	0.55	15.9	B	
		R	0.01	9.5	A	R	0.02	9.5	A		R	0.02	9.5	A	
	Westbound	LT	0.75	22.8	C	LT	0.88	32.4	C		LT	0.88	32.4	C	
	Northbound	LR	0.19	22.1	C	LR	0.24	23.3	C		LR	0.24	23.3	C	
	Southbound	LTR	0.32	23.4	C	LTR	0.38	24.8	C		LTR	0.38	24.8	C	
		Intersection		19.8	B	Intersection		25.0	C		Intersection		25.0	C	
23	**Arverne Boulevard and Beach 54th Street**														
	Eastbound	LTR	0.71	28.5	C	LTR	0.81	34.0	C		LTR	0.81	34.0	C	
	Westbound	LTR	0.70	29.5	C	LTR	1.23	148.5	F	+	LTR	0.90	43.5	D	
	Northbound	LTR	0.34	15.9	B	LTR	0.49	18.3	B		LTR	0.49	18.3	B	
	Southbound	LTR	0.16	23.2	C	LTR	0.16	23.3	C		LTR	0.16	23.3	C	
		Intersection		25.8	C	Intersection		72.4	E		Intersection		33.3	C	
24	**Rockaway Freeway and Beach 54th Street**														
	Eastbound	LTR	0.07	16.2	B	LTR	0.07	16.2	B		LTR	0.07	16.2	B	
	Westbound	L	0.21	38.8	D	L	0.44	44.3	D		L	0.44	44.3	D	
		TR	0.30	10.4	B	TR	0.33	10.7	B		TR	0.33	10.7	B	
	Northbound	LTR	0.44	27.0	C	LTR	0.62	31.0	C		LTR	0.62	31.0	C	
	Southbound	LTR	0.43	26.9	C	LTR	0.50	28.2	C		LTR	0.50	28.2	C	
		Intersection		21.2	C	Intersection		24.4	C		Intersection		24.4	C	
25	**Edgemere Avenue and Beach 54th Street**														
	Eastbound	LTR	1.85	420.1	F	LTR	3.54	1182.0	F	+	LTR	3.54	1182.0	F	U
	Westbound	LTR	0.90	39.8	D	LTR	0.90	39.8	D		LTR	0.90	39.8	D	
	Northbound	LTR	0.00	21.4	C	LTR	0.00	21.4	C		LTR	0.00	21.4	C	
	Southbound	LTR	0.34	15.8	B	LTR	0.45	17.5	B		LTR	0.45	17.5	B	
		Intersection		194.0	F	Intersection		529.8	F		Intersection		529.8	F	
26	**Beach Channel Drive and Beach 53rd Street**														
	Eastbound	Unsignalized				Unsignalized					TR	0.79	24.7	C	
	Westbound										LT	0.84	29.5	C	
	Northbound										LR	0.52	28.3	C	
											Intersection		27.3	C	
27	**Rockaway Beach Boulevard and Beach 53rd Street**														
	Eastbound	Unsignalized				Unsignalized					L	0.27	14.5	B	
											T	0.60	18.4	B	
	Westbound										TR	0.54	17.0	B	
	Southbound										LR	0.51	25.9	C	
											Intersection		19.3	B	
28	**Rockaway Beach Boulevard and Beach 52nd Street**														
	Eastbound	Unsignalized				Unsignalized					LTR	0.68	21.3	C	
	Westbound										LTR	0.54	17.3	B	
	Northbound										LTR	0.03	18.4	B	
	Southbound										LTR	0.14	19.6	B	
											Intersection		19.5	B	
29	**Beach Channel Drive and Beach 51st Street**														
	Eastbound	L	0.18	11.7	B	L	0.19	11.9	B		L	0.19	11.9	B	
		TR	0.69	20.5	C	TR	0.80	26.1	C		TR	0.80	26.1	C	
	Westbound	LT	0.62	17.6	B	LT	0.65	18.4	B		LT	0.65	18.4	B	
		R	0.07	9.9	B	R	0.07	9.9	B		R	0.07	9.9	B	
	Northbound	LTR	0.01	19.5	B	LTR	0.02	19.5	B		LTR	0.02	19.5	B	
		Intersection		18.2	B	Intersection		21.3	C		Intersection		21.3	C	
39	**Rockaway Freeway and Beach 44th Street**														
	Eastbound	L	0.06	36.4	D	L	0.06	36.4	D		L	0.06	36.4	D	
		TR	0.37	19.7	B	TR	0.37	19.7	B		TR	0.37	19.7	B	
	Westbound	L	0.02	10.4	B	L	0.02	10.4	B		L	0.02	10.4	B	
		TR	0.34	19.3	B	TR	0.37	19.8	B		TR	0.37	19.8	B	
	Northbound	LTR	0.03	21.7	C	LTR	0.09	22.2	C		LTR	0.09	22.2	C	
	Southbound	LTR	0.12	22.9	C	LTR	0.33	26.5	C		LTR	0.33	26.5	C	
		Intersection		19.9	B	Intersection		20.9	C		Intersection		20.9	C	
40[1,3]	**Beach Channel Drive/Seagirt Boulevard and Beach 35th Street**														
	Eastbound	LTR	0.61	19.3	B	LTR	1.01dl	24.0	C		LTR	1.01dl	24.0	C	
		LTR	0.61	19.3	B	LTR	1.01dl	24.0	C		LTR	1.01dl	24.0	C	
	Westbound	LT	0.65	16.4	B	LT	0.75	23.5	C		LT	0.75	23.5	C	
	Southbound	LT	0.16	22.0	C	LT	0.16	22.0	C		LT	0.16	22.0	C	
		R	0.59	10.3	B	R	0.66	12.0	B		R	0.66	12.0	B	
	Northbound	LTR	0.13	17.3	B	LTR	0.13	17.2	B		LTR	0.13	17.2	B	
		TR	0.13	17.3	B	TR	0.13	17.2	B		TR	0.13	17.2	B	
		Intersection		20.1	C	Intersection		22.5	C		Intersection		22.5	C	
41[3]	**Rockaway Freeway and Beach 35th Street**														
	Eastbound	L	0.07	35.2	D	L	0.07	35.2	D		L	0.07	35.2	D	
		TR	0.54	22.1	C	TR	0.58	22.9	C		TR	0.58	22.9	C	
	Westbound	L	0.01	40.5	D	L	0.01	41.0	D		L	0.01	41.0	D	
		TR	0.61	10.2	B	TR	0.64	10.4	B		TR	0.64	10.4	B	
	Southbound	LTR	0.27	8.9	A	LTR	0.27	8.9	A		LTR	0.27	8.9	A	
	Northbound	LTR	0.16	26.7	C	LTR	0.16	26.7	C		LTR	0.16	26.7	C	
		Intersection		16.0	B	Intersection		16.4	B		Intersection		16.4	B	
42[3]	**Rockaway Freeway and Seagirt Boulevard**														
	Eastbound	L	0.19	38.8	D	L	0.28	41.3	D		L	0.28	41.3	D	
		TR	0.23	42.3	D	TR	0.25	75.9	E	+	TR	0.25	75.9	E	U
	Westbound	LTR	0.62	34.1	C	LTR	0.66	35.2	D		LTR	0.66	35.2	D	
	Southbound	TR	0.55	26.7	C	TR	0.66	29.9	C		TR	0.66	29.9	C	
	Northbound	TR	0.63	12.2	B	TR	0.67	13.1	B		TR	0.67	13.1	B	
		Intersection		28.1	C	Intersection		34.5	C		Intersection		34.5	C	

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Table 20-8 (continued): 2034 Weekday AM Peak Hour No-Action vs. With-Action vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	2034 No-Action				2034 With-Action					2034 Mitigation				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
43	**Rockaway Freeway and Beach 25th Street**														
	Eastbound	LTR	0.59	30.9	C	LTR	0.59	30.9	C		LTR	0.59	30.9	C	
	Westbound	LTR	0.62	33.5	C	LTR	0.70	38.3	D		LTR	0.70	38.3	D	
	Northbound	L	0.20	37.6	D	L	0.20	37.6	D		L	0.20	37.6	D	
		TR	0.57	24.3	C	TR	0.65	26.6	C		TR	0.65	26.6	C	
	Southbound	L	0.17	37.2	D	L	0.17	37.2	D		L	0.17	37.2	D	
		TR	0.63	25.4	C	TR	0.68	26.9	C		TR	0.68	26.9	C	
		Intersection		28.1	C	Intersection		29.8	C		Intersection		29.8	C	
44	**Rockaway Freeway and Cornaga Avenue**														
	Eastbound	LTR	0.35	21.3	C	LTR	0.35	21.3	C		LTR	0.34	20.5	C	
	Westbound	LTR	0.98	67.8	E	LTR	1.00	72.2	E	+	LTR	0.96	62.3	E	
	Northbound	TR	0.72	34.3	C	TR	0.81	40.0	D		TR	0.84	43.4	D	
	Southbound	L	0.08	36.7	D	L	0.08	36.7	D		L	0.08	36.7	D	
		TR	0.32	14.9	B	TR	0.36	15.4	B		TR	0.36	16.1	B	
		Intersection		37.8	D	Intersection		40.4	D		Intersection		38.8	D	
45	**Beach Channel Drive and Cornaga Avenue**														
	Eastbound	LTR	0.36	21.8	C	LTR	0.36	21.8	C		LTR	0.36	21.8	C	
	Westbound	LTR	0.42	23.2	C	LTR	0.42	23.2	C		LTR	0.42	23.2	C	
	Northbound	L	0.07	12.8	B	L	0.08	13.0	B		L	0.08	13.0	B	
		TR	0.64	20.5	C	TR	0.70	22.4	C		TR	0.70	22.4	C	
	Southbound	L	0.17	14.4	B	L	0.21	15.7	B		L	0.21	15.7	B	
		TR	0.66	21.3	C	TR	0.70	22.4	C		TR	0.70	22.4	C	
		Intersection		21.1	C	Intersection		22.2	C		Intersection		22.2	C	
46	**Beach Channel Drive and Mott Avenue**														
	Eastbound	LTR	1.02	78.7	E	LTR	1.07	94.3	F	+	LTR	1.07	94.3	F	U
	Westbound	LT	0.59	29.9	C	LT	0.69	35.1	D		LT	0.69	35.1	D	
		R	0.19	11.2	C	R	0.19	11.2	C		R	0.19	11.2	C	
	Northbound	L	0.20	26.3	C	L	0.21	26.8	C		L	0.21	26.8	C	
		TR	1.33	188.4	F	TR	1.52	272.4	F	+	TR	1.52	272.4	F	U
	Southbound	L	1.14	125.7	F	L	1.14	125.7	F		L	1.14	125.7	F	
		TR	0.95	40.6	D	TR	1.00	49.8	D	+	TR	1.00	49.8	D	U
		Intersection		93.9	F	Intersection		127.1	F		Intersection		127.1	F	
47	**Beach Channel Drive and Dix Avenue**														
	Eastbound	LTR	0.59	31.5	C	LTR	0.59	31.5	C		LTR	0.59	31.5	C	
	Westbound	LTR	0.65	35.0	C	LTR	0.65	35.0	C		LTR	0.65	35.0	C	
	Northbound	LTR	1.21	127.1	F	LTR	1.34	184.5	F	+	LTR	1.34	184.5	F	U
	Southbound	LTR	0.55	14.8	B	LTR	0.58	15.2	B		LTR	0.58	15.2	B	
		Intersection		64.3	E	Intersection		90.9	F		Intersection		90.9	F	
48	**Beach Channel Drive and Birdsall Avenue**														
	Eastbound	LR	0.02	19.6	B	LR	0.02	19.6	B		LR	0.02	20.2	C	
	Westbound	LTR	0.40	24.8	C	LTR	0.40	24.8	C		LTR	0.41	25.8	C	
	Northbound	LT	0.90	31.6	C	LT	1.00	50.3	D	+	LT	0.98	44.6	D	
	Southbound	T	0.79	22.5	C	T	0.83	24.6	C		T	0.81	22.9	C	
		R	0.02	9.5	A	R	0.02	9.5	A		R	0.02	9.1	A	
		Intersection		26.8	C	Intersection		36.6	D		Intersection		33.4	C	
49	**Beach Channel Drive and Nameoke Avenue**														
	Eastbound	LTR	0.77	38.5	D	LTR	0.77	38.5	D		LTR	0.77	38.5	D	
	Northbound	L	0.20	15.0	B	L	0.25	18.2	B		L	0.25	18.2	B	
		TR	1.30	165.7	F	TR	1.43	220.9	F	+	TR	1.43	220.9	F	U
	Southbound	L	0.68	52.0	D	L	0.68	52.0	D		L	0.68	52.0	D	
		TR	1.17	109.6	F	TR	1.22	129.8	F	+	TR	1.22	129.8	F	U
		Intersection		121.1	F	Intersection		155.2	F		Intersection		155.2	F	
50	**Beach Channel Drive and Hassock Avenue**														
	Eastbound	LR	0.17	19.3	B	LR	0.17	19.3	B		LR	0.17	20.1	C	
	Westbound	L	0.22	20.0	C	L	0.22	20.0	C		L	0.23	20.8	C	
		TR	0.16	19.2	B	TR	0.16	19.2	B		TR	0.16	20.0	B	
	Northbound	LT	0.88	29.1	C	LT	1.00	49.2	D	+	LT	0.96	38.6	D	
	Southbound	T	0.97	45.9	D	T	1.02	57.3	E	+	T	0.99	50.7	D	
		R	0.08	11.5	B	R	0.08	11.5	B		R	0.08	11.0	B	
		Intersection		33.8	C	Intersection		48.1	D		Intersection		40.4	D	

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. ~~ = v/c or delay exceeds the maximum limit reportable in the analysis software. "+" denotes significant adverse impact. "U" denotes unmitated significant adverse impact. "U*" denotes new lane group due to mitigation that operates above mid-LOS D.
1. Stop-controlled approach at signalized intersection.
2. Future intersection created as part of the Proposed Project.
3. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.

Table 20-9: 2034 Weekday MD Peak Hour No-Action vs. With-Action vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	2034 No-Action					2034 With-Action					2034 Mitigation				
		Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
1	**Beach Channel Drive and Beach 116th Street**															
	Eastbound	LTR	0.56	28.4	C		LTR	0.62	29.9	C		LTR	0.62	29.9	C	
	Westbound	LTR	1.00	54.6	D		LTR	1.11	89.1	F	+	LTR	1.11	89.1	F	U
	Northbound	LTR	0.27	44.9	D		LTR	0.29	45.4	D		LTR	0.29	45.4	D	
	Southbound	LTR	0.24	48.2	D		LTR	0.24	48.2	D		LTR	0.24	48.2	D	
		Intersection		44.7	D		Intersection		64.5	E		Intersection		64.5	E	
2	**Newport Avenue and Beach 116th Street**															
	Eastbound	LTR	0.59	31.1	C		LTR	0.62	32.0	C		LTR	0.62	32.0	C	
	Northbound	LT	0.48	51.2	D		LT	0.51	52.3	D		LT	0.51	52.3	D	
		R	0.42	35.7	D		R	0.42	35.7	D		R	0.42	35.7	D	
	Southbound	LTR	0.40	20.2	C		LTR	0.43	20.9	C		LTR	0.43	20.9	C	
		Intersection		30.8	C		Intersection		31.4	C		Intersection		31.4	C	
3	**Rockaway Beach Boulevard and Beach 116th Street**															
	Eastbound	LTR	0.66	17.6	B		LTR	0.71	19.2	B		LTR	0.68	17.4	B	
	Westbound	LTR	0.91	35.1	D		LTR	0.97	45.6	D	+	LTR	0.93	37.8	D	
	Northbound	L	0.18	14.0	B		L	0.18	14.0	B		L	0.19	14.9	B	
		TR	0.24	14.3	B		TR	0.24	14.3	B		TR	0.25	15.1	B	
	Southbound	L	0.34	16.7	B		L	0.36	17.2	B		L	0.38	18.5	B	
		TR	0.33	15.4	B		TR	0.33	15.4	B		TR	0.34	16.4	B	
		Intersection		23.5	C		Intersection		28.2	C		Intersection		24.9	C	
4	**Beach Channel Drive and Rockaway Freeway**															
	Eastbound	LTR	0.86	38.3	D		LTR	0.96	51.7	D	+	LTR	0.92	42.5	D	
	Westbound	LTR	0.73	30.6	C		LTR	0.81	34.2	C		LTR	0.77	30.8	C	
	Northbound	LT	0.30	21.4	C		LT	0.34	22.0	C		LT	0.35	23.4	C	
		R	0.00	17.6	B		R	0.00	17.6	B		R	0.00	18.7	B	
		Intersection		33.1	C		Intersection		40.8	D		Intersection		35.3	D	
5	**Beach Channel Drive and Beach 108th Street**															
	Eastbound	TR	0.51	19.5	B		TR	0.56	20.3	C		TR	0.56	20.3	C	
	Westbound	LT	0.73	25.2	C		LT	0.79	27.7	C		LT	0.79	27.7	C	
	Northbound	L	0.23	16.2	B		L	0.25	16.4	B		L	0.25	16.4	B	
		R	0.14	15.4	B		R	0.14	15.4	B		R	0.14	15.4	B	
		Intersection		21.5	C		Intersection		22.9	C		Intersection		22.9	C	
6	**Rockaway Freeway and Beach 108th Street**															
	Eastbound	LTR	0.20	15.6	B		LTR	0.22	15.8	B		LTR	0.22	15.8	B	
	Westbound	LTR	0.14	15.0	B		LTR	0.16	15.2	B		LTR	0.16	15.2	B	
	Northbound	L	0.18	15.9	B		L	0.20	16.1	B		L	0.20	16.1	B	
		TR	0.18	15.4	B		TR	0.19	15.4	B		TR	0.19	15.4	B	
	Southbound	LTR	0.26	16.8	B		LTR	0.29	17.2	B		LTR	0.29	17.2	B	
		Intersection		15.7	B		Intersection		15.9	B		Intersection		15.9	B	
7	**Rockaway Beach Boulevard and Beach 108th Street**															
	Eastbound	L	0.26	17.6	B		L	0.28	18.2	B		L	0.28	18.2	B	
		TR	0.64	24.1	C		TR	0.70	26.2	C		TR	0.70	26.2	C	
	Westbound	L	0.07	14.8	B		L	0.08	15.0	B		L	0.08	15.0	B	
		TR	0.51	20.9	C		TR	0.56	22.1	C		TR	0.56	22.1	C	
	Northbound	L	0.34	18.6	B		L	0.37	19.3	B		L	0.37	19.3	B	
		TR	0.22	16.0	B		TR	0.22	16.0	B		TR	0.22	16.0	B	
	Southbound	L	0.25	17.1	B		L	0.29	17.8	B		L	0.29	17.8	B	
		TR	0.33	17.7	B		TR	0.33	17.7	B		TR	0.33	17.7	B	
		Intersection		20.1	C		Intersection		21.2	C		Intersection		21.2	C	
8 [3]	**Beach Channel Drive and Beach 92nd Street/Beach 94th Street**															
	Eastbound	T	0.55	13.4	B		T	0.59	14.2	B		T	0.60	15.0	B	
	Northeastbound (Cross Bay Bridge Exit Ramp)	R	0.87	65.3	E		R	0.94	76.0	E	+	R	0.89	65.5	E	
	Northeastbound (Beach 94th St)	R	0.19	32.1	C		R	0.19	32.1	C		R	0.18	31.1	C	
	Westbound	TR	0.55	4.1	A		TR	0.60	4.7	A		TR	0.60	4.7	A	
	Northbound	R	0.17	41.9	D		R	0.17	41.9	D		R	0.17	41.9	D	
	Southbound	R	0.01	37.5	D		R	0.01	37.5	D		R	0.01	37.5	D	
		Intersection		18.4	B		Intersection		20.6	C		Intersection		19.2	B	
9	**Rockaway Freeway and Cross Bay Parkway**															
	Eastbound	TR	0.31	20.9	C		TR	0.35	21.6	C		TR	0.35	21.6	C	
	Westbound	L	0.05	36.2	D		L	0.05	36.2	D		L	0.05	36.2	D	
		T	0.17	10.6	B		T	0.20	10.9	B		T	0.20	10.9	B	
	Southbound (Cross Bay Bridge Off-Ramp)	LTR	0.37	23.0	C		LTR	0.38	23.2	C		LTR	0.38	23.2	C	
	Southbound (Beach Channel Drive Off-Ramp)	LTR	0.08	20.1	C		LTR	0.08	20.1	C		LTR	0.08	20.1	C	
		Intersection		20.1	C		Intersection		20.3	C		Intersection		20.3	C	
10	**Rockaway Beach Boulevard and Cross Bay Parkway**															
	Eastbound	TR	0.50	12.2	B		TR	0.56	13.3	B		TR	0.56	13.3	B	
	Westbound	LT	0.44	10.7	B		LT	0.48	11.3	B		LT	0.48	11.3	B	
	Southbound (Cross Bay Bridge Off-Ramp)	LT	0.33	16.5	B		LT	0.36	16.7	B		LT	0.36	16.7	B	
	Southbound (Beach Channel Drive Off-Ramp)	TR	0.27	16.8	B		TR	0.27	16.8	B		TR	0.27	16.8	B	
		Intersection		13.4	B		Intersection		13.9	B		Intersection		13.9	B	
11 [1]	**Rockaway Freeway and Beach 94th Street**															
	Eastbound	L	0.11	37.7	D		L	0.11	37.7	D		L	0.11	37.7	D	
		T	0.21	11.1	B		T	0.25	11.5	B		T	0.25	11.5	B	
	Westbound	TR	0.37	21.9	C		TR	0.43	22.8	C		TR	0.43	22.8	C	
	Northbound (Cross Bay Bridge On-Ramp)	LTR	0.26	21.7	C		LTR	0.27	21.9	C		LTR	0.27	21.9	C	
		Intersection		19.1	B		Intersection		19.4	B		Intersection		19.4	B	
12	**Rockaway Beach Boulevard and Beach 94th Street**															
	Eastbound	LT	0.47	11.0	B		LT	0.53	11.9	B		LT	0.53	11.9	B	
	Westbound	TR	0.62	14.2	B		TR	0.69	16.1	B		TR	0.69	16.1	B	
	Northbound (Cross Bay Bridge On-Ramp)	LT	0.28	16.6	B		LT	0.28	16.6	B		LT	0.28	16.6	B	
	Northbound (Beach Channel Drive On-Ramp)	TR	0.20	16.0	B		TR	0.20	16.0	B		TR	0.20	16.0	B	
		Intersection		13.5	B		Intersection		14.5	B		Intersection		14.5	B	
13 [1]	**Beach Channel Drive and Beach 73rd Street**															
	Eastbound											LT	0.40	12.7	B	
		L	0.00	9.4	A		L	0.01	9.4	A						
		T	0.52	14.9	B		T	0.62	16.9	B						
	Westbound											LTR	0.69	18.0	B	
		L	0.35	14.9	B		L	0.46	19.5	B						
		TR	0.91	35.1	D		TR	1.06	70.8	E	+					
	Northbound	LT	0.25	22.3	C		LT	0.25	22.3	C		LT	0.25	22.3	C	
	Southbound	LTR	0.03	19.6	B		LTR	0.03	19.6	B		LTR	0.03	19.6	B	
		Intersection		24.9	C		Intersection		42.7	D		Intersection		16.3	B	
14	**Rockaway Beach Boulevard and Beach 73rd Street**															
	Eastbound	LT	0.33	9.4	A		LT	0.39	9.9	A		LT	0.39	9.9	A	
		R	0.11	7.6	A		R	0.11	7.6	A		R	0.11	7.6	A	
	Westbound	L	0.10	7.6	A		L	0.11	7.7	A		L	0.11	7.7	A	
		T	0.34	9.4	A		T	0.39	10.0	A		T	0.39	10.0	A	
		R	0.15	7.9	A		R	0.15	7.9	A		R	0.15	7.9	A	
	Northbound	LT	0.09	24.4	C		LT	0.09	24.4	C		LT	0.09	24.4	C	
		LT	0.04	23.9	C		R	0.04	23.9	C		R	0.04	23.9	C	
	Southbound	L	0.38	29.5	C		L	0.38	29.5	C		L	0.38	29.5	C	
		TR	0.34	28.6	C		TR	0.34	28.6	C		TR	0.34	28.6	C	
		Intersection		13.4	B		Intersection		13.4	B		Intersection		13.4	B	
15	**Beach Channel Drive/Arverne Boulevard and Beach 62nd Street**															
	Eastbound	LT	1.28	167.2	F		LT	1.49	255.9	F	+	LT	1.49	255.9	F	U
	Westbound (Beach Channel Drive)	T	0.74	31.3	C		T	0.84	37.5	D		T	0.84	37.5	D	
	Westbound (Arverne Boulevard)	LR	1.11	116.5	F		LR	1.31	191.6	F	+	LR	1.31	191.6	F	U
	Northbound	LTR	0.31	30.7	C		LTR	0.31	30.7	C		LTR	0.31	30.7	C	
	Southbound	L	0.41	35.8	D		L	0.41	35.8	D		L	0.41	35.8	D	
		R	0.04	27.8	C		R	0.04	27.8	C		R	0.04	27.8	C	
		Intersection		105.6	F		Intersection		159.5	F		Intersection		159.5	F	
16	**Rockaway Beach Boulevard and Beach 62nd Street**															
	Eastbound	L	0.09	24.4	C		L	0.09	24.4	C		L	0.09	24.4	C	
		TR	0.56	10.5	B		TR	0.63	12.0	B		TR	0.63	12.0	B	
	Westbound	LTR	0.99	61.2	E		LTR	1.23	149.1	F	+	LTR	1.23	149.1	F	U
	Northbound	LTR	0.42	33.8	C		LTR	0.53	37.0	D		LTR	0.53	37.0	D	
		Intersection		37.6	D		Intersection		81.2	F		Intersection		81.2	F	

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. ~~ = v/c or delay exceeds the maximum limit reportable in the analysis software. "+" denotes significant adverse impact. "U" denotes unmitated significant adverse impact. "U*" denotes new lane group due to mitigation that operates above mid-LOS D.

1. Stop-controlled approach at signalized intersection.
2. Future intersection created as part of the Proposed Project.
3. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.

Table 20-9 (continued): 2034 Weekday MD Peak Hour No-Action vs. With-Action vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	2034 No-Action				2034 With-Action					2034 Mitigation				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
18	**Beach Channel Drive and Beach 59th Street**														
	Eastbound	LT	0.41	13.4	B	LT	0.47	14.4	B		LT	0.47	14.4	B	
		R	0.03	9.6	A	R	0.03	9.6	A		R	0.03	9.6	A	
	Westbound	LTR	0.60	17.0	B	LTR	0.67	19.0	B		LTR	0.67	19.0	B	
	Southbound	LTR	0.02	19.5	B	LTR	0.02	19.5	B		LTR	0.02	19.5	B	
		Intersection		15.5	B	Intersection		16.9	B		Intersection		16.9	B	
19	**Arverne Boulevard and Beach 59th Street**														
	Eastbound	T	0.46	10.7	B	T	0.52	11.6	B		T	0.60	13.2	B	
		R	0.12	7.9	A	R	0.12	8.0	A		R	0.12	8.0	A	
	Westbound	LT	0.66	15.4	B	LT	0.87	27.6	C						
											L	0.28	10.4	B	
											T	0.67	15.6	B	
	Southbound	LTR	0.14	15.2	B	LTR	0.14	15.3	B		LTR	0.14	15.3	B	
		Intersection		13.0	B	Intersection		19.1	B		Intersection		13.8	B	
20	**Rockaway Freeway and Beach 59th Street**														
	Westbound	L	0.59	50.9	D	L	0.78	65.9	E	+	L	0.65	50.6	D	
		T	0.10	10.0	B	T	0.10	10.0	B		T	0.09	9.1	A	
	Southbound	LTR	0.45	30.9	C	LTR	0.50	32.1	C		LTR	0.55	35.2	D	
		Intersection		31.3	C	Intersection		38.2	D		Intersection		34.5	C	
21	**Rockaway Beach Boulevard and Beach 59th Street**														
	Eastbound	TR	1.21	138.8	F	TR	1.41	222.0	F	+	TR	1.41	222.0	F	U
	Westbound	LT	1.14	115.2	F	LT	1.23	151.0	F	+	LT	1.23	151.0	F	U
	Northbound	LR	0.33	30.3	C	LR	0.32	29.9	C		LR	0.36	32.8	C	
	Southbound	LTR	0.40	19.7	B	LTR	0.44	20.2	C		LTR	0.46	20.5	C	
		Intersection		108.2	F	Intersection		158.9	F		Intersection		159.1	F	
22	**Beach Channel Drive and Beach 54th Street**														
	Eastbound	T	0.48	14.4	B	T	0.57	16.0	B		T	0.57	16.0	B	
		R	0.01	9.4	A	R	0.01	9.5	A		R	0.01	9.5	A	
	Westbound	LT	0.63	18.4	B	LT	0.73	21.9	C		LT	0.73	21.9	C	
	Northbound	LR	0.33	25.2	C	LR	0.38	27.1	C		LR	0.38	27.1	C	
	Southbound	LTR	0.34	23.8	C	LTR	0.39	25.1	C		LTR	0.39	25.1	C	
		Intersection		18.1	B	Intersection		20.2	C		Intersection		20.2	C	
23	**Arverne Boulevard and Beach 54th Street**														
	Eastbound	LTR	0.81	34.7	C	LTR	0.92	45.3	D	+	LTR	0.92	45.3	D	U
	Westbound	LTR	0.51	23.4	C	LTR	0.79	35.7	D		LTR	0.59	24.9	C	
	Northbound	LTR	0.58	20.7	C	LTR	0.76	27.1	C		LTR	0.76	27.1	C	
	Southbound	LTR	0.22	24.1	C	LTR	0.23	24.2	C		LTR	0.23	24.2	C	
		Intersection		27.2	C	Intersection		35.7	D		Intersection		33.2	C	
24	**Rockaway Freeway and Beach 54th Street**														
	Eastbound	LTR	0.05	16.1	B	LTR	0.05	16.1	B		LTR	0.05	16.1	B	
	Westbound	L	0.03	36.0	D	L	0.26	39.8	D		L	0.26	39.8	D	
		TR	0.21	9.5	A	TR	0.24	9.9	A		TR	0.24	9.9	A	
	Northbound	LTR	0.62	31.0	C	LTR	0.81	39.1	D		LTR	0.81	39.1	D	
	Southbound	LTR	0.68	33.3	C	LTR	0.74	36.5	D		LTR	0.74	36.5	D	
		Intersection		26.8	C	Intersection		31.5	C		Intersection		31.5	C	
25	**Edgemere Avenue and Beach 54th Street**														
	Eastbound	LTR	2.55	732.7	F	LTR	4.45	1589.0	F	+	LTR	4.45	1589.0	F	U
	Westbound	LTR	1.05	73.9	E	LTR	1.05	73.9	E		LTR	1.05	73.9	E	
	Northbound	LTR	0.00	21.4	C	LTR	0.00	21.4	C		LTR	0.00	21.4	C	
	Southbound	LTR	1.27	169.8	F	LTR	1.61	316.0	F	+	LTR	1.61	316.0	F	U
		Intersection		356.6	F	Intersection		762.8	F		Intersection		762.8	F	
26	**Beach Channel Drive and Beach 53rd Street**														
	Eastbound	Unsignalized				Unsignalized					TR	0.84	28.1	C	
	Westbound										LT	0.81	27.7	C	
	Northbound										LR	0.37	24.6	C	
											Intersection		27.5	C	
27	**Rockaway Beach Boulevard and Beach 53rd Street**														
	Eastbound	Unsignalized				Unsignalized					L	0.33	15.1	B	
											T	0.51	16.4	B	
	Westbound										TR	0.34	13.6	B	
	Southbound										LR	0.24	21.0	C	
											Intersection		16.0	B	
28	**Rockaway Beach Boulevard and Beach 52nd Street**														
	Eastbound	Unsignalized				Unsignalized					LTR	0.54	16.9	B	
	Westbound										LTR	0.33	13.6	B	
	Northbound										LTR	0.01	18.2	B	
	Southbound										LTR	0.19	20.3	C	
											Intersection		16.3	B	
29	**Beach Channel Drive and Beach 51st Street**														
	Eastbound	L	0.19	11.7	B	L	0.21	12.1	B		L	0.21	12.1	B	
		TR	0.65	18.9	B	TR	0.71	20.9	C		TR	0.71	20.9	C	
	Westbound	LT	0.60	16.9	B	LT	0.64	18.2	B		LT	0.64	18.2	B	
		R	0.04	9.7	B	R	0.04	9.7	B		R	0.04	9.7	B	
	Northbound	LTR	0.03	19.7	B	LTR	0.04	19.7	B		LTR	0.04	19.7	B	
		Intersection		17.3	B	Intersection		18.9	B		Intersection		18.9	B	
39	**Rockaway Freeway and Beach 44th Street**														
	Eastbound	L	0.04	36.1	D	L	0.04	36.1	D		L	0.04	36.1	D	
		TR	0.16	17.1	B	TR	0.16	17.1	B		TR	0.16	17.1	B	
	Westbound	L	0.01	8.1	A	L	0.01	8.1	A		L	0.01	8.1	A	
		TR	0.23	18.0	B	TR	0.27	18.4	B		TR	0.27	18.4	B	
	Northbound	LTR	0.03	21.7	C	LTR	0.08	22.2	C		LTR	0.08	22.2	C	
	Southbound	LTR	0.11	22.8	C	LTR	0.29	25.5	C		LTR	0.29	25.5	C	
		Intersection		18.5	B	Intersection		19.9	B		Intersection		19.9	B	
40[1,3]	**Beach Channel Drive/Seagirt Boulevard and Beach 35th Street**														
	Eastbound	LTR	0.57	18.1	B	LTR	0.66	22.3	C		LTR	0.66	20.9	C	
		LTR	0.57	18.1	B	LTR	0.66	22.3	C		LTR	0.66	20.9	C	
	Westbound	LT	0.50	15.1	B	LT	0.58	19.1	B		LT	0.58	29.7	C	
	Southbound	LT	0.20	22.4	C	LT	0.20	22.4	C		LT	0.20	22.4	C	
		R	0.64	11.6	B	R	0.72	14.7	B		R	0.72	14.7	B	
	Northbound	LTR	0.22	11.7	B	LTR	0.22	11.6	B		LTR	0.22	11.6	B	
		TR	0.22	11.7	B	TR	0.22	11.6	B		TR	0.22	11.6	B	
		Intersection		19.4	B	Intersection		21.8	C		Intersection		21.0	C	
41[3]	**Rockaway Freeway and Beach 35th Street**														
	Eastbound	L	0.05	34.9	C	L	0.05	34.9	C		L	0.05	34.9	C	
		TR	0.38	19.0	B	TR	0.41	19.5	B		TR	0.41	19.6	B	
	Westbound	L	0.00	0.0	-	L	0.00	0.0	-		L	0.00	0.0	-	
		TR	0.47	6.9	A	TR	0.50	7.0	A		TR	0.50	9.2	A	
	Southbound	LTR	0.36	10.1	B	LTR	0.36	10.1	B		LTR	0.36	10.1	B	
	Northbound	LTR	0.32	29.1	C	LTR	0.32	29.1	C		LTR	0.32	29.1	C	
		Intersection		14.5	B	Intersection		14.6	B		Intersection		15.5	B	
42[3]	**Rockaway Freeway and Seagirt Boulevard**														
	Eastbound	L	0.16	38.3	D	L	0.23	39.4	D		L	0.23	44.9	D	
		TR	0.28	62.1	E	TR	0.31	83.8	F	+	TR	0.31	51.1	D	
	Westbound	LTR	0.51	32.1	C	LTR	0.54	32.6	C		LTR	0.54	32.6	C	
	Southbound	TR	0.56	27.0	C	TR	0.67	31.0	C		TR	0.67	31.0	C	
	Northbound	TR	0.54	13.5	B	TR	0.58	13.7	B		TR	0.58	12.4	B	
		Intersection		32.4	C	Intersection		37.9	D		Intersection		31.6	C	

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. ~~ = v/c or delay exceeds the maximum limit reportable in the analysis software. "+" denotes significant adverse impact. "U" denotes unmitated significant adverse impact. "U*" denotes new lane group due to mitigation that operates above mid-LOS D.

1. Stop-controlled approach at signalized intersection.
2. Future intersection created as part of the Proposed Project.
3. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.

Table 20-9 (continued): 2034 Weekday MD Peak Hour No-Action vs. With-Action vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	2034 No-Action				2034 With-Action					2034 Mitigation				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
43	**Rockaway Freeway and Beach 25th Street**														
	Eastbound	LTR	0.24	24.1	C	LTR	0.24	24.1	C		LTR	0.24	24.1	C	
	Westbound	LTR	0.33	25.6	C	LTR	0.36	26.2	C		LTR	0.36	26.2	C	
	Northbound	L	0.17	37.1	D	L	0.17	37.1	D		L	0.17	37.1	D	
		TR	0.58	24.5	C	TR	0.65	26.7	C		TR	0.65	26.7	C	
	Southbound	L	0.13	36.6	D	L	0.13	36.6	D		L	0.13	36.6	D	
		TR	0.45	21.6	C	TR	0.50	22.5	C		TR	0.50	22.5	C	
		Intersection		24.4	C	Intersection		25.5	C		Intersection		25.5	C	
44	**Rockaway Freeway and Cornaga Avenue**														
	Eastbound	LTR	0.18	19.3	B	LTR	0.18	19.3	B		LTR	0.18	19.3	B	
	Westbound	LTR	0.71	32.8	C	LTR	0.72	33.6	C		LTR	0.72	33.6	C	
	Northbound	TR	0.59	29.8	C	TR	0.65	31.7	C		TR	0.65	31.7	C	
	Southbound	L	0.12	37.4	D	L	0.12	37.4	D		L	0.12	37.4	D	
		TR	0.27	14.3	B	TR	0.31	14.8	B		TR	0.31	14.8	B	
		Intersection		26.2	C	Intersection		27.0	C		Intersection		27.0	C	
45	**Beach Channel Drive and Cornaga Avenue**														
	Eastbound	LTR	0.19	19.4	B	LTR	0.19	19.4	B		LTR	0.19	19.4	B	
	Westbound	LTR	0.32	21.4	C	LTR	0.32	21.4	C		LTR	0.32	21.4	C	
	Northbound	L	0.04	12.4	B	L	0.05	12.5	B		L	0.05	12.5	B	
		TR	0.57	18.9	B	TR	0.60	19.6	B		TR	0.60	19.6	B	
	Southbound	L	0.14	14.1	B	L	0.15	14.5	B		L	0.15	14.5	B	
		TR	0.58	19.0	B	TR	0.61	19.8	B		TR	0.61	19.8	B	
		Intersection		19.2	B	Intersection		19.7	B		Intersection		19.7	B	
46	**Beach Channel Drive and Mott Avenue**														
	Eastbound	LTR	0.74	37.0	D	LTR	0.78	39.9	D		LTR	0.78	39.9	D	
	Westbound	LT	0.68	34.7	C	LT	0.74	38.5	D		LT	0.74	38.5	D	
		R	0.16	11.3	C	R	0.16	11.3	C		R	0.16	11.3	C	
	Northbound	L	0.28	29.0	C	L	0.34	32.3	C		L	0.34	32.3	C	
		TR	1.24	149.3	F	TR	1.34	193.6	F	+	TR	1.34	193.6	F	U
	Southbound	L	1.16	134.1	F	L	1.16	134.1	F		L	1.16	134.1	F	
		TR	0.85	27.3	C	TR	0.90	31.2	C		TR	0.90	31.2	C	
		Intersection		75.0	E	Intersection		90.4	F		Intersection		90.4	F	
47	**Beach Channel Drive and Dix Avenue**														
	Eastbound	LTR	0.53	30.1	C	LTR	0.53	30.1	C		LTR	0.53	30.1	C	
	Westbound	LTR	0.81	47.8	D	LTR	0.81	47.8	D		LTR	0.81	47.8	D	
	Northbound	LTR	1.13	96.8	F	LTR	1.19	122.1	F	+	LTR	1.19	122.1	F	U
	Southbound	LTR	0.64	16.5	B	LTR	0.67	17.2	B		LTR	0.67	17.2	B	
		Intersection		50.6	D	Intersection		60.5	E		Intersection		60.5	E	
48	**Beach Channel Drive and Birdsall Avenue**														
	Eastbound	LR	0.05	20.6	C	LR	0.05	20.6	C		LR	0.05	20.6	C	
	Westbound	LTR	0.22	22.7	C	LTR	0.22	22.7	C		LTR	0.22	22.7	C	
	Northbound	LT	0.84	25.3	C	LT	0.89	29.3	C		LT	0.89	29.3	C	
	Southbound	T	0.87	26.9	C	T	0.91	31.2	C		T	0.91	31.2	C	
		R	0.01	9.0	A	R	0.01	9.0	A		R	0.01	9.0	A	
		Intersection		25.8	C	Intersection		29.7	C		Intersection		29.7	C	
49	**Beach Channel Drive and Nameoke Avenue**														
	Eastbound	LTR	0.53	30.8	C	LTR	0.53	30.8	C		LTR	0.60	35.6	D	
	Northbound	L	0.19	14.1	B	L	0.19	14.1	B		L	0.19	12.7	B	
		TR	1.24	136.7	F	TR	1.30	164.5	F	+	TR	1.23	132.4	F	
	Southbound	L	1.31	222.8	F	L	1.36	243.6	F	+	L	1.22	185.1	F	
		TR	1.28	155.9	F	TR	1.34	181.7	F	+	TR	1.27	148.5	F	
		Intersection		138.8	F	Intersection		163.0	F		Intersection		132.7	F	
50	**Beach Channel Drive and Hassock Avenue**														
	Eastbound	LR	0.13	21.0	C	LR	0.13	21.0	C		LR	0.13	21.0	C	
	Westbound	L	0.34	23.9	C	L	0.34	23.9	C		L	0.34	23.9	C	
		TR	0.08	20.3	C	TR	0.08	20.3	C		TR	0.08	20.3	C	
	Northbound	LT	0.71	17.6	B	LT	0.79	20.4	C		LT	0.79	20.4	C	
	Southbound	T	1.03	58.8	E	T	1.08	75.5	E	+	T	1.08	75.5	E	U
		R	0.05	9.7	A	R	0.05	9.7	A		R	0.05	9.7	A	
		Intersection		35.4	D	Intersection		43.8	D		Intersection		43.8	D	

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. ~~ = v/c or delay exceeds the maximum limit reportable in the analysis software. "+" denotes significant adverse impact. "U" denotes unmitated significant adverse impact. "U*" denotes new lane group due to mitigation that operates above mid-LOS D.
1. Stop-controlled approach at signalized intersection.
2. Future intersection created as part of the Proposed Project.
3. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.

Table 20-10: 2034 Weekday PM Peak Hour No-Action vs. With-Action vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	2034 No-Action				2034 With-Action					2034 Mitigation				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
1	**Beach Channel Drive and Beach 116th Street**														
	Eastbound	LTR	0.94	48.0	D	LTR	1.07	82.4	F	+	LTR	1.07	82.4	F	U
	Westbound	DefL	1.07	116.2	F	DefL	1.15	143.0	F	+	DefL	1.15	143.0	F	U
		TR	1.41	219.2	F	TR	1.51	261.9	F	+	TR	1.51	261.9	F	U
	Northbound	LTR	0.25	44.5	D	LTR	0.28	45.1	D		LTR	0.28	45.1	D	
	Southbound	LTR	0.26	48.5	D	LTR	0.26	48.5	D		LTR	0.26	48.5	D	
		Intersection		126.7	F	Intersection		159.8	F		Intersection		159.8	F	
2	**Newport Avenue and Beach 116th Street**														
	Eastbound	LTR	0.61	32.0	C	LTR	0.64	32.9	C		LTR	0.64	32.9	C	
	Northbound	LT	0.43	49.6	D	LT	0.47	50.8	D		LT	0.47	50.8	D	
		R	0.41	35.2	D	R	0.41	35.2	D		R	0.41	35.2	D	
	Southbound	LTR	0.39	20.0	C	LTR	0.44	21.0	C		LTR	0.44	21.0	C	
		Intersection		30.5	C	Intersection		31.2	C		Intersection		31.2	C	
3	**Rockaway Beach Boulevard and Beach 116th Street**														
	Eastbound	LTR	0.66	17.2	B	LTR	0.70	18.4	B		LTR	0.67	16.7	B	
	Westbound	LTR	1.00	54.1	D	LTR	1.07	71.8	E	+	LTR	1.03	59.0	E	
	Northbound	L	0.21	14.5	B	L	0.21	14.5	B		L	0.22	15.4	B	
		TR	0.28	14.9	B	TR	0.28	14.9	B		TR	0.29	15.9	B	
	Southbound	L	0.39	17.8	B	L	0.46	19.4	B		L	0.49	21.1	C	
		TR	0.43	17.1	B	TR	0.43	17.1	B		TR	0.45	18.3	B	
		Intersection		30.8	C	Intersection		38.1	D		Intersection		33.2	C	
4	**Beach Channel Drive and Rockaway Freeway**														
	Eastbound	LTR	1.28	166.5	F	LTR	1.46	245.6	F	+	LTR	1.32	178.8	F	U
	Westbound	LTR	0.93	46.2	D	LTR	1.09	87.7	F	+	LTR	0.95	46.5	D	
	Northbound	LT	0.35	22.2	C	LT	0.39	22.9	C		LT	0.42	25.9	C	
		R	0.01	17.7	B	R	0.01	17.7	B		R	0.01	19.9	B	
		Intersection		106.9	F	Intersection		165.1	F		Intersection		114.9	F	
5	**Beach Channel Drive and Beach 108th Street**														
	Eastbound	TR	0.80	26.6	C	TR	0.89	32.4	C		TR	0.89	32.4	C	
	Westbound	LT	0.82	29.1	C	LT	0.91	37.4	D		LT	0.91	37.4	D	
	Northbound	L	0.17	15.5	B	L	0.19	15.7	B		L	0.19	15.7	B	
		R	0.16	15.5	B	R	0.16	15.5	B		R	0.16	15.5	B	
		Intersection		26.4	C	Intersection		32.6	C		Intersection		32.6	C	
6	**Rockaway Freeway and Beach 108th Street**														
	Eastbound	LTR	0.31	16.7	B	LTR	0.34	17.1	B		LTR	0.34	17.1	B	
	Westbound	LTR	0.17	15.3	B	LTR	0.20	15.6	B		LTR	0.20	15.6	B	
	Northbound	L	0.29	17.4	B	L	0.33	18.1	B		L	0.33	18.1	B	
		TR	0.18	15.4	B	TR	0.19	15.5	B		TR	0.19	15.5	B	
	Southbound	LTR	0.31	17.3	B	LTR	0.38	18.6	B		LTR	0.38	18.6	B	
		Intersection		16.4	B	Intersection		16.9	B		Intersection		16.9	B	
7	**Rockaway Beach Boulevard and Beach 108th Street**														
	Eastbound	L	0.42	21.5	C	L	0.48	23.7	C		L	0.48	23.7	C	
		TR	0.84	33.7	C	TR	0.91	41.6	D		TR	0.91	41.6	D	
	Westbound	L	0.09	15.3	B	L	0.10	15.9	B		L	0.10	15.9	B	
		TR	0.64	24.1	C	TR	0.71	26.6	C		TR	0.71	26.6	C	
	Northbound	L	0.31	18.2	B	L	0.34	18.8	B		L	0.34	18.8	B	
		TR	0.20	15.8	B	TR	0.20	15.8	B		TR	0.20	15.8	B	
	Southbound	L	0.46	21.0	C	L	0.57	23.9	C		L	0.57	23.9	C	
		TR	0.36	17.9	B	TR	0.36	17.9	B		TR	0.36	17.9	B	
		Intersection		24.6	C	Intersection		28.3	C		Intersection		28.3	C	
8 [3]	**Beach Channel Drive and Beach 92nd Street/Beach 94th Street**														
	Eastbound	T	0.66	16.0	B	T	0.72	18.4	B		T	0.75	20.7	C	
	Northeastbound (Cross Bay Bridge Exit Ramp)	R	1.10	116.1	F	R	1.23	163.6	F	+	R	1.11	117.1	F	
	Northeastbound (Beach 94th St)	R	0.22	32.6	C	R	0.22	32.6	C		R	0.20	30.5	C	
	Westbound	TR	0.62	5.2	A	TR	0.67	6.3	A		TR	0.67	6.3	A	
	Northbound	R	0.21	42.5	D	R	0.21	42.5	D		R	0.21	42.5	D	
	Southbound	R	0.13	39.7	D	R	0.13	39.7	D		R	0.13	39.7	D	
		Intersection		29.3	C	Intersection		39.2	D		Intersection		32.0	C	
9	**Rockaway Freeway and Cross Bay Parkway**														
	Eastbound	TR	0.37	21.8	C	TR	0.43	22.8	C		TR	0.43	22.8	C	
	Westbound	L	0.05	36.2	D	L	0.05	36.2	D		L	0.05	36.2	D	
		T	0.18	10.7	B	T	0.21	11.0	B		T	0.21	11.0	B	
	Southbound (Cross Bay Bridge Off-Ramp)	LTR	0.45	24.2	C	LTR	0.50	24.9	C		LTR	0.50	24.9	C	
	Southbound (Beach Channel Drive Off-Ramp)	LTR	0.14	20.8	C	LTR	0.14	20.8	C		LTR	0.14	20.8	C	
		Intersection		21.3	C	Intersection		21.9	C		Intersection		21.9	C	
10	**Rockaway Beach Boulevard and Cross Bay Parkway**														
	Eastbound	TR	0.67	15.8	B	TR	0.78	20.4	C		TR	0.78	20.4	C	
	Westbound	LT	0.40	10.2	B	LT	0.45	10.9	B		LT	0.45	10.9	B	
	Southbound (Cross Bay Bridge Off-Ramp)	LT	0.43	17.5	B	LT	0.48	18.0	B		LT	0.48	18.0	B	
	Southbound (Beach Channel Drive Off-Ramp)	TR	0.31	17.3	B	TR	0.31	17.3	B		TR	0.31	17.3	B	
		Intersection		15.2	B	Intersection		17.1	B		Intersection		17.1	B	
11 [1]	**Rockaway Freeway and Beach 94th Street**														
	Eastbound	L	0.05	36.2	D	L	0.05	36.2	D		L	0.05	36.2	D	
		T	0.32	12.1	B	T	0.38	12.8	B		T	0.38	12.8	B	
	Westbound	TR	0.28	20.5	C	TR	0.34	21.3	C		TR	0.34	21.3	C	
	Northbound (Cross Bay Bridge On-Ramp)	LTR	0.35	22.8	C	LTR	0.37	23.0	C		LTR	0.37	23.0	C	
		Intersection		18.7	B	Intersection		18.9	B		Intersection		18.9	B	
12	**Rockaway Beach Boulevard and Beach 94th Street**														
	Eastbound	LT	0.73	16.6	B	LT	0.89	26.4	C		LT	0.89	26.4	C	
	Westbound	TR	0.59	13.4	B	TR	0.67	15.4	B		TR	0.67	15.4	B	
	Northbound (Cross Bay Bridge On-Ramp)	LT	0.31	17.0	B	LT	0.31	17.0	B		LT	0.31	17.0	B	
	Northbound (Beach Channel Drive On-Ramp)	TR	0.17	15.6	B	TR	0.17	15.6	B		TR	0.17	15.6	B	
		Intersection		15.5	B	Intersection		21.1	C		Intersection		21.1	C	
13 [1]	**Beach Channel Drive and Beach 73rd Street**														
	Eastbound										LT	0.53	14.2	B	
		L	0.00	9.3	A	L	0.00	9.3	A						
		T	0.69	18.4	B	T	0.86	25.8	C						
	Westbound										LTR	0.75	20.0	C	
		L	0.59	29.5	C	L	1.11	154.9	F	+					
		TR	0.91	35.3	D	TR	1.07	74.6	E	+					
	Northbound	LT	0.33	23.5	C	LT	0.33	23.5	C		LT	0.33	23.5	C	
	Southbound	LTR	0.04	19.7	B	LTR	0.04	19.7	B		LTR	0.04	19.7	B	
		Intersection		26.2	C	Intersection		50.6	D		Intersection		17.6	B	
14	**Rockaway Beach Boulevard and Beach 73rd Street**														
	Eastbound	LT	0.63	13.8	B	LT	0.74	16.8	B		LT	0.74	16.8	B	
		R	0.13	7.7	A	R	0.13	7.7	A		R	0.13	7.7	A	
	Westbound	L	0.23	9.6	A	L	0.31	12.0	B		L	0.31	12.0	B	
		T	0.47	11.1	B	T	0.54	12.0	B		T	0.54	12.0	B	
		R	0.19	8.3	B	R	0.19	8.3	B		R	0.19	8.3	B	
	Northbound	LT	0.12	24.9	C	LT	0.12	24.9	C		LT	0.12	24.9	C	
		LT	0.04	23.9	C	R	0.04	23.9	C		R	0.04	23.9	C	
	Southbound	L	0.71	40.7	D	L	0.71	40.7	D		L	0.71	40.7	D	
		TR	0.41	29.9	C	TR	0.41	29.9	C		TR	0.41	29.9	C	
		Intersection		17.1	B	Intersection		18.2	B		Intersection		18.2	B	
15	**Beach Channel Drive/Arverne Boulevard and Beach 62nd Street**														
	Eastbound	LT	1.76	377.0	F	LT	2.10	527.1	F	+	LT	2.10	527.1	F	U
	Westbound (Beach Channel Drive)	T	0.79	33.1	C	T	0.87	40.0	D		T	0.87	40.0	D	
	Westbound (Arverne Boulevard)	L	0.99	78.2	E	L	1.19	143.4	F	+	L	1.19	143.4	F	U
		R	0.02	27.4	C	R	0.02	27.4	C		R	0.02	27.4	C	
	Northbound	LTR	0.55	34.8	C	LTR	0.55	34.8	C		LTR	0.55	34.8	C	
	Southbound	L	0.66	48.4	D	L	0.66	48.4	D		L	0.66	48.4	D	
		R	0.02	27.5	C	R	0.02	27.5	C		R	0.02	27.5	C	
		Intersection		199.9	F	Intersection		280.4	F		Intersection		280.4	F	
16	**Rockaway Beach Boulevard and Beach 62nd Street**														
	Eastbound	L	0.49	31.3	C	L	0.49	31.3	C		L	0.49	31.3	C	
		TR	0.79	17.5	B	TR	0.93	29.0	C		TR	0.93	29.0	C	
	Westbound	LTR	1.66	333.6	F	LTR	2.13	544.9	F	+	LTR	2.13	544.9	F	U
	Northbound	LTR	0.37	32.2	C	LTR	0.46	34.5	C		LTR	0.46	34.5	C	
		Intersection		168.8	F	Intersection		268.8	F		Intersection		268.8	F	

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. ~~ = v/c or delay exceeds the maximum limit reportable in the analysis software. "+" denotes significant adverse impact. "U" denotes unmitated significant adverse impact. "U*" denotes new lane group due to mitigation that operates above mid-LOS D.

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Table 20-10 (continued): 2034 Weekday PM Peak Hour No-Action vs. With-Action vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	2034 No-Action				2034 With-Action					2034 Mitigation				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
18	**Beach Channel Drive and Beach 59th Street**														
	Eastbound	LT	0.53	15.2	B	LT	0.62	17.2	B		LT	0.62	17.2	B	
		R	0.05	9.7	A	R	0.05	9.7	A		R	0.05	9.7	A	
	Westbound	LTR	0.77	23.1	C	LTR	0.88	32.1	C		LTR	0.88	32.1	C	
	Southbound	LTR	0.02	19.5	B	LTR	0.02	19.5	B		LTR	0.02	19.5	B	
		Intersection		19.3	B	Intersection		24.6	C		Intersection		24.6	C	
19	**Arverne Boulevard and Beach 59th Street**														
	Eastbound	T	0.64	13.5	B	T	0.75	16.3	B		T	0.83	19.8	B	
		R	0.18	8.4	A	R	0.19	8.6	A		R	0.18	8.0	A	
	Westbound	LT	0.93	39.4	D	LT	1.38	199.0	F	+					
											L	0.71	33.7	C	
											T	0.67	15.3	B	
	Southbound	LTR	0.13	15.1	B	LTR	0.13	15.2	B		LTR	0.14	16.0	B	
		Intersection		22.7	C	Intersection		85.6	F		Intersection		18.5	B	
20	**Rockaway Freeway and Beach 59th Street**														
	Westbound	L	1.00	107.5	F	L	1.20	172.3	F	+	L	1.20	172.3	F	U
		T	0.14	10.4	B	T	0.14	10.4	B		T	0.14	10.4	B	
	Southbound	LTR	0.66	37.9	D	LTR	0.73	41.7	D		LTR	0.73	41.7	D	
		Intersection		52.4	D	Intersection		78.3	E		Intersection		78.3	E	
21	**Rockaway Beach Boulevard and Beach 59th Street**														
	Eastbound	TR	1.47	248.9	F	TR	1.74	367.9	F	+	TR	1.74	367.9	F	U
	Westbound	LT	1.55	285.8	F	LT	2.08	522.0	F	+	LT	2.08	522.0	F	U
	Northbound	LR	0.40	32.2	C	LR	0.45	34.2	C		LR	0.45	34.2	C	
	Southbound	LTR	0.47	20.5	C	LTR	0.56	22.4	C		LTR	0.56	22.4	C	
		Intersection		214.0	F	Intersection		345.1	F		Intersection		345.1	F	
22	**Beach Channel Drive and Beach 54th Street**														
	Eastbound	T	0.53	15.2	B	T	0.63	17.4	B		T	0.63	17.4	B	
		R	0.03	9.6	A	R	0.04	9.7	A		R	0.04	9.7	A	
	Westbound	LT	0.70	20.6	C	LT	0.79	25.1	C		LT	0.79	25.1	C	
	Northbound	LR	0.26	23.4	C	LR	0.31	24.9	C		LR	0.31	24.9	C	
	Southbound	LTR	0.29	23.1	C	LTR	0.35	24.5	C		LTR	0.35	24.5	C	
		Intersection		18.7	B	Intersection		21.5	C		Intersection		21.5	C	
23	**Arverne Boulevard and Beach 54th Street**														
	Eastbound	LTR	1.11	96.6	F	LTR	1.28	165.3	F	+	LTR	1.28	165.3	F	U
	Westbound	LTR	0.73	32.5	C	LTR	1.24	157.7	F	+	LTR	0.94	54.0	D	U
	Northbound	LTR	0.52	18.8	B	LTR	0.76	26.2	C		LTR	0.76	26.2	C	
	Southbound	LTR	0.19	23.6	C	LTR	0.19	23.8	C		LTR	0.19	23.8	C	
		Intersection		60.2	E	Intersection		117.6	F		Intersection		94.5	F	
24	**Rockaway Freeway and Beach 54th Street**														
	Eastbound	LTR	0.10	16.6	B	LTR	0.10	16.6	B		LTR	0.10	16.6	B	
	Westbound	L	0.23	39.2	D	L	0.44	44.3	D		L	0.44	44.3	D	
		TR	0.31	10.6	B	TR	0.35	10.9	B		TR	0.35	10.9	B	
	Northbound	LTR	0.66	32.0	C	LTR	0.94	53.5	D	+	LTR	0.94	53.5	D	U
	Southbound	LTR	0.61	30.8	C	LTR	0.72	35.9	D		LTR	0.72	35.9	D	
		Intersection		25.2	C	Intersection		36.3	D		Intersection		36.3	D	
25 [4]	**Edgemere Avenue and Beach 54th Street**														
	Eastbound	LTR	8.79	3549.0	F	LTR	~~	~~	~~	+	LTR	~~	~~	~~	U
	Westbound	LTR	1.26	153.0	F	LTR	1.26	153.0	F		LTR	1.26	153.0	F	
	Northbound	LTR	0.00	21.4	C	LTR	0.00	21.4	C		LTR	0.00	21.4	C	
	Southbound	LTR	1.26	165.5	F	LTR	1.59	305.2	F	+	LTR	1.59	305.2	F	U
		Intersection		1555.0	F	Intersection		~~	~~		Intersection		~~	~~	
26	**Beach Channel Drive and Beach 53rd Street**														
	Eastbound	Unsignalized				Unsignalized					TR	0.86	27.2	C	
	Westbound										LT	0.94	40.6	D	
	Northbound										LR	0.52	31.7	C	
											Intersection		33.2	C	
27	**Rockaway Beach Boulevard and Beach 53rd Street**														
	Eastbound	Unsignalized				Unsignalized					L	0.78	34.6	C	
											T	0.86	29.1	C	
	Westbound										TR	0.49	15.5	B	
	Southbound										LR	0.41	24.7	C	
											Intersection		26.1	C	
28	**Rockaway Beach Boulevard and Beach 52nd Street**														
	Eastbound	Unsignalized				Unsignalized					LTR	0.95	43.9	D	
	Westbound										LTR	0.47	15.3	B	
	Northbound										LTR	0.01	18.8	B	
	Southbound										LTR	0.18	20.7	C	
											Intersection		33.2	C	
29	**Beach Channel Drive and Beach 51st Street**														
	Eastbound	L	0.08	10.3	B	L	0.09	10.5	B		L	0.09	10.5	B	
		TR	0.74	22.1	C	TR	0.80	25.5	C		TR	0.80	25.5	C	
	Westbound	LT	0.57	16.2	B	LT	0.64	17.9	B		LT	0.64	17.9	B	
		R	0.05	9.7	B	R	0.05	9.7	B		R	0.05	9.7	B	
	Northbound	LTR	0.02	19.6	B	LTR	0.03	19.6	B		LTR	0.03	19.6	B	
		Intersection		18.8	B	Intersection		21.2	C		Intersection		21.2	C	
39	**Rockaway Freeway and Beach 44th Street**														
	Eastbound	L	0.04	36.1	D	L	0.04	36.1	D		L	0.04	36.1	D	
		TR	0.37	19.8	B	TR	0.37	19.8	B		TR	0.37	19.8	B	
	Westbound	L	0.03	10.7	B	L	0.03	10.7	B		L	0.03	10.7	B	
		TR	0.36	19.6	B	TR	0.41	20.3	C		TR	0.41	20.3	C	
	Northbound	LTR	0.04	21.8	C	LTR	0.10	22.3	C		LTR	0.10	22.3	C	
	Southbound	LTR	0.17	23.7	C	LTR	0.36	27.2	C		LTR	0.36	27.2	C	
		Intersection		20.0	C	Intersection		21.2	C		Intersection		21.2	C	
40 [1,3]	**Beach Channel Drive/Seagirt Boulevard and Beach 35th Street**														
	Eastbound	LTR	0.88dl	22.7	C	LTR	1.01dl	32.1	C		LTR	1.01dl	32.1	C	
		LTR	0.88dl	22.7	C	LTR	1.01dl	32.1	C		LTR	1.01dl	32.1	C	
	Westbound	LT	0.63	20.7	C	LT	0.75	30.2	C		LT	0.75	30.2	C	
	Southbound	LT	0.17	22.1	C	LT	0.17	22.1	C		LT	0.17	22.1	C	
		R	0.70	12.5	B	R	0.80	17.3	B		R	0.80	17.3	B	
	Northbound	LTR	0.19	12.9	B	LTR	0.19	12.9	B		LTR	0.19	12.9	B	
		TR	0.19	12.9	B	TR	0.19	12.9	B		TR	0.19	12.9	B	
		Intersection		22.0	C	Intersection		27.4	C		Intersection		27.4	C	
41 [3]	**Rockaway Freeway and Beach 35th Street**														
	Eastbound	L	0.06	34.9	C	L	0.06	34.9	C		L	0.06	34.9	C	
		TR	0.69	26.3	C	TR	0.72	27.8	C		TR	0.72	27.8	C	
	Westbound	L	0.00	0.0	-	L	0.00	0.0	-		L	0.00	0.0	-	
		TR	0.58	9.1	A	TR	0.63	10.6	B		TR	0.63	10.6	B	
	Southbound	LTR	0.25	8.2	A	LTR	0.25	8.2	A		LTR	0.25	8.2	A	
	Northbound	LTR	0.26	28.0	C	LTR	0.26	28.0	C		LTR	0.26	28.0	C	
		Intersection		18.6	B	Intersection		19.7	B		Intersection		19.7	B	
42 [3]	**Rockaway Freeway and Seagirt Boulevard**														
	Eastbound	L	0.21	38.3	D	L	0.28	40.6	D		L	0.28	40.6	D	
		TR	0.24	84.8	F	TR	0.26	85.5	F		TR	0.26	85.5	F	
	Westbound	LTR	0.71	37.1	D	LTR	0.75	39.3	D		LTR	0.75	39.3	D	
	Southbound	TR	0.65	29.8	C	TR	0.81	39.2	D		TR	0.81	39.2	D	
	Northbound	TR	0.94	34.5	C	TR	0.98	42.4	D		TR	0.98	42.4	D	
		Intersection		41.4	D	Intersection		46.6	D		Intersection		46.6	D	

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Table 20-10 (continued): 2034 Weekday PM Peak Hour No-Action vs. With-Action vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	2034 No-Action				2034 With-Action					2034 Mitigation				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
43	**Rockaway Freeway and Beach 25th Street**														
	Eastbound	LTR	0.34	25.5	C	LTR	0.34	25.5	C		LTR	0.34	25.5	C	
	Westbound	LTR	0.36	26.2	C	LTR	0.40	26.9	C		LTR	0.40	26.9	C	
	Northbound	L	0.18	37.3	D	L	0.18	37.3	D		L	0.18	37.3	D	
		TR	0.54	23.8	C	TR	0.61	25.5	C		TR	0.61	25.5	C	
	Southbound	L	0.11	36.2	D	L	0.11	36.2	D		L	0.11	36.2	D	
		TR	0.44	21.4	C	TR	0.52	22.7	C		TR	0.52	22.7	C	
		Intersection		24.3	C	Intersection		25.3	C		Intersection		25.3	C	
44	**Rockaway Freeway and Cornaga Avenue**														
	Eastbound	LTR	0.22	19.0	B	LTR	0.22	19.0	B		LTR	0.22	19.0	B	
	Westbound	LTR	0.86	44.4	D	LTR	0.87	45.8	D		LTR	0.87	45.8	D	
	Northbound	TR	0.64	32.6	C	TR	0.71	35.0	D		TR	0.71	35.0	D	
	Southbound	L	0.13	37.6	D	L	0.13	37.6	D		L	0.13	37.6	D	
		TR	0.32	15.4	B	TR	0.39	16.4	B		TR	0.39	16.4	B	
		Intersection		30.5	C	Intersection		31.2	C		Intersection		31.2	C	
45	**Beach Channel Drive and Cornaga Avenue**														
	Eastbound	LTR	0.22	19.8	B	LTR	0.22	19.8	B		LTR	0.22	19.8	B	
	Westbound	LTR	0.45	23.6	C	LTR	0.45	23.6	C		LTR	0.45	23.6	C	
	Northbound	L	0.06	12.6	B	L	0.07	12.9	B		L	0.07	12.9	B	
		TR	0.61	19.7	B	TR	0.64	20.6	C		TR	0.64	20.6	C	
	Southbound	L	0.10	13.2	B	L	0.11	13.5	B		L	0.11	13.5	B	
		TR	0.61	19.6	B	TR	0.66	21.1	C		TR	0.66	21.1	C	
		Intersection		20.1	C	Intersection		21.0	C		Intersection		21.0	C	
46	**Beach Channel Drive and Mott Avenue**														
	Eastbound	LTR	0.89	53.6	D	LTR	0.91	58.7	E	+	LTR	0.91	58.7	E	U
	Westbound	LT	0.72	34.6	C	LT	0.76	37.9	D		LT	0.76	37.9	D	
		R	0.22	11.5	C	R	0.22	11.5	C		R	0.22	11.5	C	
	Northbound	L	0.25	28.5	C	L	0.30	30.9	C		L	0.30	30.9	C	
		TR	1.41	223.3	F	TR	1.52	273.7	F	+	TR	1.52	273.7	F	U
	Southbound	L	1.42	235.7	F	L	1.42	235.7	F		L	1.42	235.7	F	
		TR	1.09	76.9	E	TR	1.18	114.1	F	+	TR	1.18	114.1	F	U
		Intersection		126.3	F	Intersection		154.5	F		Intersection		154.5	F	
47	**Beach Channel Drive and Dix Avenue**														
	Eastbound	LTR	0.23	22.8	C	LTR	0.23	22.8	C		LTR	0.23	22.8	C	
	Westbound	LTR	0.75	39.4	D	LTR	0.75	39.4	D		LTR	0.75	39.4	D	
	Northbound	LTR	1.10	83.3	F	LTR	1.16	109.0	F	+	LTR	1.16	109.0	F	U
	Southbound	LTR	0.74	19.0	B	LTR	0.80	21.3	C		LTR	0.80	21.3	C	
		Intersection		44.6	D	Intersection		54.8	D		Intersection		54.8	D	
48	**Beach Channel Drive and Birdsall Avenue**														
	Eastbound	LR	0.05	20.6	C	LR	0.05	20.6	C		LR	0.06	22.7	C	
	Westbound	LTR	0.35	24.7	C	LTR	0.35	24.6	C		LTR	0.39	27.7	C	
	Northbound	LT	0.80	22.7	C	LT	0.85	26.0	C		LT	0.80	20.9	C	
	Southbound	T	0.98	43.0	D	T	1.07	67.3	E	+	T	1.01	47.0	D	
		R	0.01	9.0	A	R	0.01	9.0	A		R	0.01	7.7	A	
		Intersection		33.2	C	Intersection		47.3	D		Intersection		35.0	D	
49	**Beach Channel Drive and Nameoke Avenue**														
	Eastbound	LTR	0.36	24.4	C	LTR	0.36	24.4	C		LTR	0.41	28.6	C	
	Northbound	L	0.17	15.0	B	L	0.17	15.0	B		L	0.17	13.2	B	
		TR	1.16	106.9	F	TR	1.22	131.6	F	+	TR	1.13	91.8	F	
	Southbound	L	0.95	95.1	F	L	1.25	202.5	F	+	L	0.81	55.6	E	
		TR	1.47	239.9	F	TR	1.59	294.3	F	+	TR	1.47	239.2	F	
		Intersection		164.9	F	Intersection		208.0	F		Intersection		159.0	F	
50	**Beach Channel Drive and Hassock Avenue**														
	Eastbound	LR	0.13	18.8	B	LR	0.13	18.8	B		LR	0.13	18.8	B	
	Westbound	L	0.30	21.3	C	L	0.30	21.3	C		L	0.30	21.3	C	
		TR	0.17	19.4	B	TR	0.17	19.4	B		TR	0.17	19.4	B	
	Northbound	LT	0.88	30.0	C	LT	0.93	35.5	D		LT	0.93	35.5	D	
	Southbound	T	1.22	132.6	F	T	1.33	179.8	F	+	T	1.33	179.8	F	U
		R	0.19	12.6	B	R	0.19	12.6	B		R	0.19	12.6	B	
		Intersection		74.8	E	Intersection		100.3	F		Intersection		100.3	F	

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. ~~ = v/c or delay exceeds the maximum limit reportable in the analysis software. "+" denotes significant adverse impact. "U" denotes unmitated significant adverse impact. "U*" denotes new lane group due to mitigation that operates above mid-LOS D.

1. Stop-controlled approach at signalized intersection.
2. Future intersection created as part of the Proposed Project.
3. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.
4. The With-Action Weekday PM peak hour delay cannot be reported for the EB-LTR approach due to limitations in the analysis software, however it can be assumed to be greater than the 3549.0 seconds of delay calculated in the No-Action Weekday PM peak hour.

Table 20-11: 2034 Saturday MD Peak Hour No-Action vs. With-Action vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	2034 No-Action					2034 With-Action					2034 Mitigation				
		Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
1	**Beach Channel Drive and Beach 116th Street**															
	Eastbound	LTR	0.57	28.6	C		LTR	0.66	30.9	C		LTR	0.66	30.9	C	
	Westbound	LTR	0.89	33.8	C		LTR	1.02	60.2	E	+	LTR	1.02	60.2	E	U
	Northbound	LTR	0.22	43.9	D		LTR	0.26	44.6	D		LTR	0.26	44.6	D	
	Southbound	LTR	0.24	48.1	D		LTR	0.24	48.1	D		LTR	0.24	48.1	D	
		Intersection		32.7	C		Intersection		47.5	D		Intersection		47.5	D	
2	**Newport Avenue and Beach 116th Street**															
	Eastbound	LTR	0.56	30.3	C		LTR	0.58	30.9	C		LTR	0.58	30.9	C	
	Northbound	LT	0.49	51.5	D		LT	0.54	53.3	D		LT	0.54	53.3	D	
		R	0.44	35.9	D		R	0.44	35.9	D		R	0.44	35.9	D	
	Southbound	LTR	0.36	19.6	B		LTR	0.41	20.4	C		LTR	0.41	20.4	C	
		Intersection		30.9	C		Intersection		31.6	C		Intersection		31.6	C	
3	**Rockaway Beach Boulevard and Beach 116th Street**															
	Eastbound	LTR	0.64	16.6	B		LTR	0.67	17.5	B		LTR	0.67	17.5	B	
	Westbound	LTR	0.72	20.2	C		LTR	0.77	23.0	C		LTR	0.77	23.0	C	
	Northbound	L	0.17	13.9	B		L	0.17	13.9	B		L	0.17	13.9	B	
		TR	0.26	14.4	B		TR	0.26	14.4	B		TR	0.26	14.4	B	
	Southbound	L	0.31	16.1	B		L	0.36	16.9	B		L	0.36	16.9	B	
		TR	0.33	15.3	B		TR	0.33	15.3	B		TR	0.33	15.3	B	
		Intersection		17.2	B		Intersection		18.5	B		Intersection		18.5	B	
4	**Beach Channel Drive and Rockaway Freeway**															
	Eastbound	LTR	0.91	43.2	D		LTR	1.05	73.9	E	+	LTR	0.95	46.5	D	
	Westbound	LTR	0.66	28.3	C		LTR	0.77	32.3	C		LTR	0.69	26.7	C	
	Northbound	LT	0.28	21.0	C		LT	0.32	21.7	C		LT	0.35	24.6	C	
		R	0.01	17.7	B		R	0.01	17.7	B		R	0.01	19.9	B	
		Intersection		35.0	C		Intersection		52.1	D		Intersection		36.5	D	
5	**Beach Channel Drive and Beach 108th Street**															
	Eastbound	TR	0.53	19.6	B		TR	0.59	20.8	C		TR	0.59	20.8	C	
	Westbound	LT	0.47	18.9	B		LT	0.52	19.6	B		LT	0.52	19.6	B	
	Northbound	L	0.19	15.7	B		L	0.22	16.1	B		L	0.22	16.1	B	
		R	0.08	14.7	B		R	0.08	14.7	B		R	0.08	14.7	B	
		Intersection		18.8	B		Intersection		19.6	B		Intersection		19.6	B	
6	**Rockaway Freeway and Beach 108th Street**															
	Eastbound	LTR	0.25	16.0	B		LTR	0.28	16.3	B		LTR	0.28	16.3	B	
	Westbound	LTR	0.11	14.8	B		LTR	0.14	15.0	B		LTR	0.14	15.0	B	
	Northbound	L	0.25	16.7	B		L	0.28	17.1	B		L	0.28	17.1	B	
		TR	0.16	15.2	B		TR	0.17	15.3	B		TR	0.17	15.3	B	
	Southbound	LTR	0.17	15.6	B		LTR	0.22	16.2	B		LTR	0.22	16.2	B	
		Intersection		15.7	B		Intersection		16.0	B		Intersection		16.0	B	
7	**Rockaway Beach Boulevard and Beach 108th Street**															
	Eastbound	L	0.21	16.6	B		L	0.24	17.2	B		L	0.24	17.2	B	
		TR	0.60	22.7	C		TR	0.66	24.4	C		TR	0.66	24.4	C	
	Westbound	L	0.07	14.8	B		L	0.08	15.0	B		L	0.08	15.0	B	
		TR	0.48	20.2	C		TR	0.57	22.1	C		TR	0.57	22.1	C	
	Northbound	L	0.24	16.8	B		L	0.27	17.3	B		L	0.27	17.3	B	
		TR	0.22	16.1	B		TR	0.22	16.1	B		TR	0.22	16.1	B	
	Southbound	L	0.31	18.1	B		L	0.38	19.4	B		L	0.38	19.4	B	
		LTR	0.28	16.9	B		LTR	0.28	16.9	B		LTR	0.28	16.9	B	
		Intersection		19.3	B		Intersection		20.5	C		Intersection		20.5	C	
8 [3]	**Beach Channel Drive and Beach 92nd Street/Beach 94th Street**															
	Eastbound	T	0.48	12.1	B		T	0.53	13.0	B		T	0.55	14.5	B	
	Northeastbound (Cross Bay Bridge Exit Ramp)	R	0.91	71.2	E		R	1.01	92.6	F	+	R	0.91	66.6	E	
	Northeastbound (Beach 94th St)	R	0.17	31.7	C		R	0.17	31.7	C		R	0.15	29.7	C	
	Westbound	TR	0.52	3.7	A		TR	0.58	4.6	A		TR	0.58	4.6	A	
	Northbound	R	0.21	42.2	D		R	0.21	42.2	D		R	0.21	42.2	D	
	Southbound	R	0.10	39.3	D		R	0.10	39.3	D		R	0.10	39.3	D	
		Intersection		19.9	B		Intersection		24.0	C		Intersection		20.0	B	
9	**Rockaway Freeway and Cross Bay Parkway**															
	Eastbound	TR	0.31	20.9	C		TR	0.36	21.7	C		TR	0.36	21.7	C	
	Westbound	L	0.13	37.6	D		L	0.13	37.6	D		L	0.13	37.6	D	
		T	0.16	10.5	B		T	0.19	10.9	B		T	0.19	10.9	B	
	Southbound (Cross Bay Bridge Off-Ramp)	LTR	0.47	24.4	C		LTR	0.50	25.0	C		LTR	0.50	25.0	C	
	Southbound (Beach Channel Drive Off-Ramp)	LTR	0.10	20.3	C		LTR	0.10	20.3	C		LTR	0.10	20.3	C	
		Intersection		21.6	C		Intersection		21.9	C		Intersection		21.9	C	
10	**Rockaway Beach Boulevard and Cross Bay Parkway**															
	Eastbound	TR	0.50	12.1	B		TR	0.58	13.7	B		TR	0.58	13.7	B	
	Westbound	LT	0.35	9.6	A		LT	0.41	10.3	B		LT	0.41	10.3	B	
	Southbound (Cross Bay Bridge Off-Ramp)	LT	0.34	16.7	B		LT	0.38	17.1	B		LT	0.38	17.1	B	
	Southbound (Beach Channel Drive Off-Ramp)	TR	0.30	17.1	B		TR	0.30	17.1	B		TR	0.30	17.1	B	
		Intersection		13.3	B		Intersection		14.1	B		Intersection		14.1	B	
11 [1]	**Rockaway Freeway and Beach 94th Street**															
	Eastbound	L	0.14	37.6	D		L	0.14	37.6	D		L	0.14	37.6	D	
		T	0.22	11.1	B		T	0.27	11.6	B		T	0.27	11.6	B	
	Westbound	TR	0.34	21.3	C		TR	0.41	22.5	C		TR	0.41	22.5	C	
	Northbound (Cross Bay Bridge On-Ramp)	LTR	0.40	23.4	C		LTR	0.42	23.7	C		LTR	0.42	23.7	C	
		Intersection		20.1	C		Intersection		20.4	C		Intersection		20.4	C	
12	**Rockaway Beach Boulevard and Beach 94th Street**															
	Eastbound	LT	0.45	10.8	B		LT	0.53	12.0	B		LT	0.53	12.0	B	
	Westbound	TR	0.60	13.9	B		TR	0.71	16.8	B		TR	0.71	16.8	B	
	Northbound (Cross Bay Bridge On-Ramp)	LT	0.34	17.4	B		LT	0.34	17.4	B		LT	0.34	17.4	B	
	Northbound (Beach Channel Drive On-Ramp)	TR	0.28	17.2	B		TR	0.28	17.2	B		TR	0.28	17.2	B	
		Intersection		13.6	B		Intersection		15.1	B		Intersection		15.1	B	
13 [1]	**Beach Channel Drive and Beach 73rd Street**															
	Eastbound											LT	0.37	12.3	B	
		L	0.00	9.4	A		L	0.00	9.4	A						
		T	0.46	13.8	B		T	0.58	15.8	B						
	Westbound											LTR	0.53	14.6	B	
		L	0.28	13.3	B		L	0.39	16.8	B						
		TR	0.65	18.4	B		TR	0.82	25.8	C						
	Northbound	LT	0.25	22.2	C		LT	0.25	22.2	C		LT	0.25	22.2	C	
	Southbound	LTR	0.02	19.6	B		LTR	0.02	19.6	B		LTR	0.02	19.6	B	
		Intersection		16.5	B		Intersection		20.7	C		Intersection		14.3	B	
14	**Rockaway Beach Boulevard and Beach 73rd Street**															
	Eastbound	LT	0.42	10.4	B		LT	0.50	11.5	B		LT	0.50	11.5	B	
		R	0.09	7.4	A		R	0.09	7.4	A		R	0.09	7.4	A	
	Westbound	L	0.16	8.3	A		L	0.19	8.8	A		L	0.19	8.8	A	
		T	0.38	9.9	A		T	0.46	10.8	B		T	0.46	10.8	B	
		R	0.17	8.0	A		R	0.17	8.0	B		R	0.17	8.0	B	
	Northbound	LT	0.12	24.9	C		LT	0.12	24.9	C		LT	0.12	24.9	C	
		LT	0.07	24.3	C		R	0.07	24.3	C		R	0.07	24.3	C	
	Southbound	L	0.36	29.1	C		L	0.36	29.1	C		L	0.36	29.1	C	
		TR	0.35	28.5	C		TR	0.35	28.5	C		TR	0.35	28.5	C	
		Intersection		13.6	B		Intersection		13.9	B		Intersection		13.9	B	
15	**Beach Channel Drive/Arverne Boulevard and Beach 62nd Street**															
	Eastbound	LT	1.13	104.1	F		LT	1.37	205.3	F	+	LT	1.37	205.3	F	U
	Westbound (Beach Channel Drive)	T	0.57	24.9	C		T	0.66	27.5	C		T	0.66	27.5	C	
	Westbound (Arverne Boulevard)	LR	0.95	69.5	E		LR	1.19	144.4	F	+	LR	1.19	144.4	F	U
	Northbound	LTR	0.32	30.7	C		LTR	0.32	30.7	C		LTR	0.32	30.7	C	
	Southbound	L	0.40	34.8	C		L	0.40	34.8	C		L	0.40	34.8	C	
		R	0.00	27.3	C		R	0.00	27.3	C		R	0.00	27.3	C	
		Intersection		66.6	E		Intersection		122.5	F		Intersection		122.5	F	
16	**Rockaway Beach Boulevard and Beach 62nd Street**															
	Eastbound	L	0.08	24.3	C		L	0.08	24.3	C		L	0.08	24.3	C	
		TR	0.55	10.3	B		TR	0.64	12.0	B		TR	0.64	12.0	B	
	Westbound	LTR	0.82	36.8	D		LTR	1.15	116.0	F	+	LTR	1.15	116.0	F	U
	Northbound	LTR	0.27	30.2	C		LTR	0.35	31.6	C		LTR	0.35	31.6	C	
		Intersection		24.9	C		Intersection		64.2	E		Intersection		64.2	E	

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. ~~ = v/c or delay exceeds the maximum limit reportable in the analysis software. "+" denotes significant adverse impact. "U" denotes unmitated significant adverse impact. "U*" denotes new lane group due to mitigation that operates above mid-LOS D.

1. Stop-controlled approach at signalized intersection.
2. Future intersection created as part of the Proposed Project.
3. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.

Table 20-11 (continued): 2034 Saturday MD Peak Hour No-Action vs. With-Action vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	2034 No-Action				2034 With-Action					2034 Mitigation				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
18	**Beach Channel Drive and Beach 59th Street**														
	Eastbound	LT	0.38	12.9	B	LT	0.45	13.8	B		LT	0.45	13.8	B	
		R	0.07	9.9	A	R	0.07	9.9	A		R	0.07	9.9	A	
	Westbound	LTR	0.36	12.6	B	LTR	0.42	13.4	B		LTR	0.42	13.4	B	
	Southbound	LTR	0.02	19.6	B	LTR	0.02	19.6	B		LTR	0.02	19.6	B	
		Intersection		12.7	B	Intersection		13.6	B		Intersection		13.6	B	
19	**Arverne Boulevard and Beach 59th Street**														
	Eastbound	T	0.43	10.3	B	T	0.52	11.4	B		T	0.59	12.8	B	
		R	0.14	8.1	A	R	0.15	8.2	A		R	0.15	8.2	A	
	Westbound	LT	0.55	12.6	B	LT	0.87	27.4	C						
											L	0.37	12.3	B	
											T	0.54	12.3	B	
	Southbound	LTR	0.15	15.4	B	LTR	0.16	15.5	B		LTR	0.16	15.5	B	
		Intersection		11.4	B	Intersection		18.5	B		Intersection		12.4	B	
20	**Rockaway Freeway and Beach 59th Street**														
	Westbound	L	0.57	50.1	D	L	0.75	63.0	E	+	L	0.68	54.8	D	
		T	0.11	10.2	B	T	0.11	10.2	B		T	0.11	9.7	A	
	Southbound	LTR	0.50	32.1	C	LTR	0.57	34.3	C		LTR	0.60	36.1	D	
		Intersection		30.5	C	Intersection		36.6	D		Intersection		35.0	C	
21	**Rockaway Beach Boulevard and Beach 59th Street**														
	Eastbound	TR	1.06	81.6	F	TR	1.25	154.7	F	+	TR	1.25	154.7	F	U
	Westbound	LT	0.97	61.1	E	LT	1.23	150.6	F	+	LT	1.23	150.6	F	U
	Northbound	LR	0.35	30.2	C	LR	0.38	31.4	C		LR	0.40	33.0	C	
	Southbound	LTR	0.36	18.5	B	LTR	0.46	20.3	C		LTR	0.46	20.4	C	
		Intersection		60.9	E	Intersection		122.2	F		Intersection		122.3	F	
22	**Beach Channel Drive and Beach 54th Street**														
	Eastbound	T	0.41	13.2	B	T	0.49	14.5	B		T	0.49	14.5	B	
		R	0.03	9.6	A	R	0.04	9.8	A		R	0.04	9.8	A	
	Westbound	LT	0.60	17.3	B	LT	0.71	20.6	C		LT	0.71	20.6	C	
	Northbound	LR	0.18	21.8	C	LR	0.21	22.7	C		LR	0.21	22.7	C	
	Southbound	LTR	0.25	22.3	C	LTR	0.28	23.1	C		LTR	0.28	23.1	C	
		Intersection		16.5	B	Intersection		18.4	B		Intersection		18.4	B	
23	**Arverne Boulevard and Beach 54th Street**														
	Eastbound	LTR	0.73	29.0	C	LTR	0.84	35.9	D		LTR	0.84	35.9	D	
	Westbound	LTR	0.58	25.5	C	LTR	1.02	76.7	E	+	LTR	0.77	32.8	C	
	Northbound	LTR	0.41	17.0	B	LTR	0.60	20.9	C		LTR	0.60	20.9	C	
	Southbound	LTR	0.15	23.1	C	LTR	0.16	23.2	C		LTR	0.16	23.2	C	
		Intersection		24.7	C	Intersection		42.5	D		Intersection		30.2	C	
24	**Rockaway Freeway and Beach 54th Street**														
	Eastbound	LTR	0.09	16.4	B	LTR	0.09	16.4	B		LTR	0.09	16.4	B	
	Westbound	L	0.05	36.2	D	L	0.25	39.6	D		L	0.25	39.6	D	
		TR	0.23	9.7	A	TR	0.26	10.0	A		TR	0.26	10.0	A	
	Northbound	LTR	0.50	28.2	C	LTR	0.73	35.2	D		LTR	0.73	35.2	D	
	Southbound	LTR	0.52	28.7	C	LTR	0.61	31.4	C		LTR	0.61	31.4	C	
		Intersection		22.7	C	Intersection		27.2	C		Intersection		27.2	C	
25	**Edgemere Avenue and Beach 54th Street**														
	Eastbound	LTR	2.21	581.5	F	LTR	3.49	1158.0	F	+	LTR	3.49	1158.0	F	U
	Westbound	LTR	0.81	31.8	C	LTR	0.81	31.8	C		LTR	0.81	31.8	C	
	Northbound	LTR	0.00	21.4	C	LTR	0.00	21.4	C		LTR	0.00	21.4	C	
	Southbound	LTR	1.02	84.4	F	LTR	1.32	194.2	F	+	LTR	1.32	194.2	F	U
		Intersection		281.9	F	Intersection		586.0	F		Intersection		586.0	F	
26	**Beach Channel Drive and Beach 53rd Street**														
	Eastbound	Unsignalized				Unsignalized					TR	0.70	20.4	C	
	Westbound										LT	0.73	22.5	C	
	Northbound										LR	0.40	24.9	C	
											Intersection		21.9	C	
27	**Rockaway Beach Boulevard and Beach 53rd Street**														
	Eastbound	Unsignalized				Unsignalized					L	0.52	20.1	C	
											T	0.54	17.0	B	
	Westbound										TR	0.44	15.1	B	
	Southbound										LR	0.41	23.7	C	
											Intersection		18.1	B	
28	**Rockaway Beach Boulevard and Beach 52nd Street**														
	Eastbound	Unsignalized				Unsignalized					LTR	0.59	17.8	B	
	Westbound										LTR	0.41	14.7	B	
	Northbound										LTR	0.03	18.4	B	
	Southbound										LTR	0.15	19.7	B	
											Intersection		16.9	B	
29	**Beach Channel Drive and Beach 51st Street**														
	Eastbound	L	0.07	10.0	B	L	0.07	10.1	B		L	0.07	10.1	B	
		TR	0.55	16.1	B	TR	0.63	18.2	B		TR	0.63	18.2	B	
	Westbound	LT	0.47	14.3	B	LT	0.53	15.3	B		LT	0.53	15.3	B	
		R	0.02	9.5	B	R	0.02	9.5	B		R	0.02	9.5	B	
	Northbound	LTR	0.03	19.6	B	LTR	0.03	19.6	B		LTR	0.03	19.6	B	
		Intersection		15.0	B	Intersection		16.5	B		Intersection		16.5	B	
39	**Rockaway Freeway and Beach 44th Street**														
	Eastbound	L	0.07	36.6	D	L	0.07	36.6	D		L	0.07	36.6	D	
		TR	0.23	17.9	B	TR	0.23	17.9	B		TR	0.23	17.9	B	
	Westbound	L	0.02	8.6	A	L	0.02	8.6	A		L	0.02	8.6	A	
		TR	0.28	18.5	B	TR	0.31	18.9	B		TR	0.31	18.9	B	
	Northbound	LTR	0.02	21.6	C	LTR	0.06	22.0	C		LTR	0.06	22.0	C	
	Southbound	LTR	0.11	22.6	C	LTR	0.26	24.9	C		LTR	0.26	24.9	C	
		Intersection		18.9	B	Intersection		20.0	C		Intersection		20.0	C	
40[1,3]	**Beach Channel Drive/Seagirt Boulevard and Beach 35th Street**														
	Eastbound	LTR	0.50	16.1	B	LTR	0.59	18.7	B		LTR	0.59	18.7	B	
		LTR	0.50	16.1	B	LTR	0.59	18.7	B		LTR	0.59	18.7	B	
	Westbound	LT	0.46	12.7	B	LT	0.54	17.8	B		LT	0.54	17.8	B	
	Southbound	LT	0.18	22.3	C	LT	0.18	22.3	C		LT	0.18	22.3	C	
		R	0.62	10.6	B	R	0.70	12.5	B		R	0.70	12.5	B	
	Northbound	LTR	0.12	11.6	B	LTR	0.12	11.5	B		LTR	0.12	11.5	B	
		TR	0.12	11.6	B	TR	0.12	11.5	B		TR	0.12	11.5	B	
		Intersection		18.3	B	Intersection		19.7	B		Intersection		19.7	B	
41[3]	**Rockaway Freeway and Beach 35th Street**														
	Eastbound	L	0.02	34.2	C	L	0.02	34.2	C		L	0.02	34.2	C	
		TR	0.40	19.2	B	TR	0.43	19.7	B		TR	0.43	19.7	B	
	Westbound	L	0.00	49.0	D	L	0.00	49.0	D		L	0.00	49.0	D	
		TR	0.49	8.6	A	TR	0.52	8.7	A		TR	0.52	8.7	A	
	Southbound	LTR	0.31	10.3	B	LTR	0.31	10.3	B		LTR	0.31	10.3	B	
	Northbound	LTR	0.20	27.1	C	LTR	0.20	27.1	C		LTR	0.20	27.1	C	
		Intersection		14.3	B	Intersection		14.5	B		Intersection		14.5	B	
42[3]	**Rockaway Freeway and Seagirt Boulevard**														
	Eastbound	L	0.20	41.0	D	L	0.28	43.4	D		L	0.28	43.4	D	
		TR	0.17	24.9	C	TR	0.19	32.1	C		TR	0.19	32.1	C	
	Westbound	LTR	0.56	32.9	C	LTR	0.59	33.4	C		LTR	0.59	33.4	C	
	Southbound	TR	0.46	24.7	C	TR	0.57	27.5	C		TR	0.57	27.5	C	
	Northbound	TR	0.50	12.1	B	TR	0.54	12.2	B		TR	0.54	12.2	B	
		Intersection		25.4	C	Intersection		27.5	C		Intersection		27.5	C	

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. ~~ = v/c or delay exceeds the maximum limit reportable in the analysis software. "+" denotes significant adverse impact. "U" denotes unmitated significant adverse impact. "U*" denotes new lane group due to mitigation that operates above mid-LOS D.

1. Stop-controlled approach at signalized intersection.
2. Future intersection created as part of the Proposed Project.
3. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.

Table 20-11 (continued): 2034 Saturday MD Peak Hour No-Action vs. With-Action vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	2034 No-Action				2034 With-Action					2034 Mitigation				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
43	**Rockaway Freeway and Beach 25th Street**														
	Eastbound	LTR	0.19	23.4	C	LTR	0.19	23.4	C		LTR	0.19	23.4	C	
	Westbound	LTR	0.27	24.7	C	LTR	0.30	25.1	C		LTR	0.30	25.1	C	
	Northbound	L	0.10	36.0	D	L	0.10	36.0	D		L	0.10	36.0	D	
		TR	0.42	21.3	C	TR	0.50	22.7	C		TR	0.50	22.7	C	
	Southbound	L	0.16	36.9	D	L	0.16	36.9	D		L	0.16	36.9	D	
		TR	0.34	19.9	B	TR	0.40	20.7	C		TR	0.40	20.7	C	
		Intersection		22.5	C	Intersection		23.2	C		Intersection		23.2	C	
44	**Rockaway Freeway and Cornaga Avenue**														
	Eastbound	LTR	0.15	18.9	B	LTR	0.15	18.9	B		LTR	0.15	18.9	B	
	Westbound	LTR	0.53	25.8	C	LTR	0.54	26.0	C		LTR	0.54	26.0	C	
	Northbound	TR	0.46	26.9	C	TR	0.53	28.4	C		TR	0.53	28.4	C	
	Southbound	L	0.14	37.6	D	L	0.14	37.6	D		L	0.14	37.6	D	
		TR	0.24	14.0	B	TR	0.29	14.6	B		TR	0.29	14.6	B	
		Intersection		22.7	C	Intersection		23.2	C		Intersection		23.2	C	
45	**Beach Channel Drive and Cornaga Avenue**														
	Eastbound	LTR	0.18	19.4	B	LTR	0.18	19.4	B		LTR	0.18	19.4	B	
	Westbound	LTR	0.25	20.3	C	LTR	0.25	20.3	C		LTR	0.25	20.3	C	
	Northbound	L	0.02	12.1	B	L	0.03	12.1	B		L	0.03	12.1	B	
		TR	0.51	17.6	B	TR	0.55	18.3	B		TR	0.55	18.3	B	
	Southbound	L	0.07	12.7	B	L	0.08	12.8	B		L	0.08	12.8	B	
		TR	0.53	18.1	B	TR	0.57	18.9	B		TR	0.57	18.9	B	
		Intersection		18.1	B	Intersection		18.7	B		Intersection		18.7	B	
46	**Beach Channel Drive and Mott Avenue**														
	Eastbound	LTR	0.74	36.5	D	LTR	0.76	38.3	D		LTR	0.76	38.3	D	
	Westbound	LT	0.63	30.4	C	LT	0.66	32.2	C		LT	0.66	32.2	C	
		R	0.18	10.9	C	R	0.18	10.9	C		R	0.18	10.9	C	
	Northbound	L	0.20	26.3	C	L	0.25	28.5	C		L	0.25	28.5	C	
		TR	1.25	156.0	F	TR	1.38	211.7	F	+	TR	1.38	211.7	F	U
	Southbound	L	1.35	207.8	F	L	1.35	207.8	F		L	1.35	207.8	F	
		TR	0.86	28.6	C	TR	0.92	34.6	C		TR	0.92	34.6	C	
		Intersection		88.4	F	Intersection		107.1	F		Intersection		107.1	F	
47	**Beach Channel Drive and Dix Avenue**														
	Eastbound	LTR	0.10	20.6	C	LTR	0.10	20.6	C		LTR	0.10	20.6	C	
	Westbound	LTR	0.60	31.3	C	LTR	0.60	31.3	C		LTR	0.60	31.3	C	
	Northbound	LTR	0.52	14.4	B	LTR	0.56	15.1	B		LTR	0.56	15.1	B	
	Southbound	LTR	0.67	17.0	B	LTR	0.71	18.0	B		LTR	0.71	18.0	B	
		Intersection		17.6	B	Intersection		18.3	B		Intersection		18.3	B	
48	**Beach Channel Drive and Birdsall Avenue**														
	Eastbound	LR	0.03	19.7	B	LR	0.03	19.7	B		LR	0.03	19.7	B	
	Westbound	LTR	0.42	25.4	C	LTR	0.42	25.4	C		LTR	0.42	25.4	C	
	Northbound	LT	0.80	23.2	C	LT	0.86	27.4	C		LT	0.86	27.4	C	
	Southbound	T	0.90	30.7	C	T	0.96	39.7	D		T	0.96	39.7	D	
		R	0.00	9.4	A	R	0.00	9.4	A		R	0.00	9.4	A	
		Intersection		27.0	C	Intersection		33.1	C		Intersection		33.1	C	
49	**Beach Channel Drive and Nameoke Avenue**														
	Eastbound	LTR	0.35	24.9	C	LTR	0.35	24.9	C		LTR	0.39	28.0	C	
	Northbound	L	0.06	10.7	B	L	0.06	10.7	B		L	0.06	9.4	A	
		TR	1.12	91.3	F	TR	1.20	122.6	F	+	TR	1.13	93.3	F	
	Southbound	L	0.66	43.2	D	L	0.81	74.0	E	+	L	0.67	43.7	D	
		TR	1.24	139.9	F	TR	1.32	172.8	F	+	TR	1.25	139.1	F	
		Intersection		107.4	F	Intersection		137.8	F		Intersection		108.6	F	
50	**Beach Channel Drive and Hassock Avenue**														
	Eastbound	LR	0.18	19.5	B	LR	0.18	19.5	B		LR	0.18	19.5	B	
	Westbound	L	0.23	20.1	C	L	0.23	20.1	C		L	0.23	20.1	C	
		TR	0.13	18.8	B	TR	0.13	18.8	B		TR	0.13	18.8	B	
	Northbound	LT	0.92	33.4	C	LT	1.04	59.8	E	+	LT	1.04	59.8	E	U
	Southbound	T	1.10	83.6	F	T	1.17	113.1	F	+	T	1.17	113.1	F	U
		R	0.13	12.0	B	R	0.13	12.0	B		R	0.13	12.0	B	
		Intersection		51.6	D	Intersection		75.9	E		Intersection		75.9	E	

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. ~~ = v/c or delay exceeds the maximum limit reportable in the analysis software. "+" denotes significant adverse impact. "U" denotes unmitated significant adverse impact. "U*" denotes new lane group due to mitigation that operates above mid-LOS D.
1. Stop-controlled approach at signalized intersection.
2. Future intersection created as part of the Proposed Project.
3. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.

Table 20-12: 2034 Weekday AM Peak Hour No-Action vs. With-Action vs. Mitigated Conditions Level of Service Analysis – Unsignalized Intersections

#	Intersection & Approach	2034 No-Action				2034 With-Action					2034 Mitigation				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
11 [1]	**Rockaway Freeway and Beach 94th Street**														
	Northbound	T	0.05	9.2	A	T	0.05	9.2	A		T	0.05	9.2	A	
13 [1]	**Beach Channel Drive and Beach 73rd Street**														
	Eastbound	R	0.14	9.1	A	R	0.14	9.1	A		R	0.14	9.1	A	
	Northbound	R	0.12	12.0	B	R	0.13	13.2	B		R	0.13	13.2	B	
17	**Beach Front Road and Beach 62nd Street**														
	Eastbound	LT	0.25	11.1	B	LT	0.30	11.8	B		LT	0.30	11.8	B	
	Westbound	TR	0.20	10.3	B	TR	0.21	10.5	B		TR	0.21	10.5	B	
	Southbound	LTR	0.00	7.2	A	LTR	0.00	7.2	A		LTR	0.00	7.2	A	
26	**Beach Channel Drive and Beach 53rd Street**														
	Westbound	LT	0.04	9.9	A	LT	0.13	17.9	C		Signalized				
	Northbound	LR	0.33	29.3	D	LR	3.73	1381.0	F	+					
27	**Rockaway Beach Boulevard and Beach 53rd Street**														
	Eastbound	LT	0.04	9.4	A	LT	0.21	18.6	C		Signalized				
	Southbound	LR	0.20	15.5	C	LR	2.16	612.2	F	+					
28	**Rockaway Beach Boulevard and Beach 52nd Street**														
	Eastbound	LTR	0.01	8.5	A	LTR	0.11	11.1	B		Signalized				
	Westbound	LTR	0.00	8.1	A	LTR	0.01	8.6	A						
	Northbound	LR	0.01	16.0	C	LR	0.21	86.0	F	5					
	Southbound	LTR	0.01	14.4	B	LTR	0.91	157.4	F	5					
30	**Beach Channel Drive and Beach 50th Street**														
	Westbound	LT	0.02	8.9	A	LT	0.18	10.6	B		LT	0.18	10.6	B	
	Northbound	LR	0.09	16.0	C	LR	0.46	28.5	D		LR	0.46	28.5	D	
31	**Rockaway Beach Boulevard and Beach 50th Street**														
	Eastbound	LT	0.01	8.3	A	LT	0.09	9.0	A		LT	0.09	9.0	A	
	Southbound	LR	0.05	12.3	B	LR	0.23	20.5	C		LR	0.23	20.5	C	
32 [2]	**Beach Channel Drive and Beach 52nd Street**														
	Westbound					LT	0.01	9.9	A		LT	0.01	9.9	A	
	Northbound					LR	0.20	30.8	D	5	LR	0.20	30.8	D	5
33 [2]	**Peninsula Way and Beach 53rd Street**														
	Westbound					LR	0.23	15.8	C		LR	0.23	15.8	C	
	Southbound					LT	0.04	9.0	A		LT	0.04	9.0	A	
34 [2]	**Peninsula Way and Beach 52nd Street**														
	Eastbound					LTR	0.00	8.8	A		LTR	0.00	8.8	A	
	Westbound					LTR	0.07	9.0	A		LTR	0.07	9.0	A	
	Northbound					LTR	0.33	29.6	D		LTR	0.33	29.6	D	
	Southbound					LTR	0.49	90.9	F	5	LTR	0.49	90.9	F	5
35 [2]	**Peninsula Way and Beach 50th Street**														
	Eastbound					LR	0.21	13.7	B		LR	0.21	13.7	B	
	Northbound					LT	0.09	8.4	A		LT	0.09	8.4	A	
36	**Beach Channel Drive and Beach 47th Street**														
	Eastbound	LT	0.01	9.1	A	LT	0.01	9.6	A		LT	0.01	9.6	A	
	Northbound	LTR	0.06	16.8	C	LTR	0.09	22.1	C		LTR	0.09	22.1	C	
37	**Arverne Boulevard/Rockaway Beach Boulevard and Beach 47th Street**														
	Eastbound	LTR	0.00	7.9	A	LTR	0.00	8.1	A		LTR	0.00	8.1	A	
	Westbound	LTR	0.03	8.9	A	LTR	0.03	10.1	B		LTR	0.03	10.1	B	
	Northbound	LTR	0.05	15.1	C	LTR	0.22	25.2	D		LTR	0.22	25.2	D	
38	**Rockaway Beach Boulevard and Beach 44th Street**														
	Westbound	LT	0.01	8.5	A	LT	0.01	8.7	A		LT	0.01	8.7	A	
	Northbound	LR	0.08	16.7	C	LR	0.23	23.7	C		LR	0.23	23.7	C	
	Southbound	LTR	0.13	17.1	C	LTR	0.14	18.4	C		LTR	0.14	18.4	C	
40 [1,3]	**Beach Channel Drive and Seagirt Boulevard**														
	Westbound	R	0.03	11.9	B	R	0.03	12.7	B		R	0.03	12.7	B	
51 [2]	**Rockaway Freeway and Beach 52nd Street**														
	Southbound					R	0.12	11.1	B		R	0.12	11.1	B	
P1a [4]	**Parking Lot 1 driveway, via Beach Channel Drive**														
	Westbound					LT	0.01	12.0	B		LT	0.01	12.0	B	
	Northbound					LR	0.04	21.9	C		LR	0.04	21.9	C	
P1b [4]	**Parking Lot 1 driveway, via Beach 53rd Street**														
	Westbound					LR	0.03	14.4	B		LR	0.03	14.4	B	
	Southbound					LT	0.00	9.1	A		LT	0.00	9.1	A	
P2 [4]	**Parking Garage 2 driveway, via Beach 53rd Street**														
	Westbound					LR	0.20	14.5	B		LR	0.20	14.5	B	
	Southbound					LT	0.01	8.8	A		LT	0.01	8.8	A	
P3 [4]	**Parking Garage 3 driveway, via Beach 53rd Street**														
	Westbound					LR	0.34	17.3	C		LR	0.34	17.3	C	
	Southbound					LT	0.01	9.0	A		LT	0.01	9.0	A	
P4 [4]	**Parking Garage 4 driveway, via Rockaway Beach Boulevard**														
	Eastbound					LT	0.01	9.4	A		LT	0.01	9.4	A	
	Southbound					LR	0.24	18.8	C		LR	0.24	18.8	C	
P5 [4]	**Parking Garage 5 driveway, via Peninsula Way**														
	Eastbound					LT	0.01	7.9	A		LT	0.01	7.9	A	
	Southbound					LR	0.17	11.2	B		LR	0.17	11.2	B	
P6 [4]	**Parking Lot 6 driveway, via Beach Channel Drive**														
	Westbound					LT	0.01	10.1	B		LT	0.01	10.1	B	
	Northbound					LR	0.03	23.2	C		LR	0.03	23.2	C	
P7 [4]	**Parking Garage 7 driveway, via Beach 52nd Street**														
	Westbound					LR	0.02	8.5	A		LR	0.02	8.5	A	
	Southbound					LT	0.00	7.2	A		LT	0.00	7.2	A	
P8 [4]	**Parking Garage 8 driveway, via Peninsula Way**														
	Westbound					LT	0.28	12.3	B		LT	0.28	12.3	B	
	Northbound					LR	0.80	71.8	F	+	LR	0.80	71.8	F	U

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. ~~ = v/c or delay exceeds the maximum limit reportable in the analysis software. "+" denotes significant adverse impact. "U" denotes unmitated significant adverse impact.

1. Stop-controlled approach at signalized intersection.
2. Future intersection created as part of the Proposed Project.
3. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.
4. Future driveway to parking garage/parking lot created due to project development.
5. Minor approach has fewer than 90 PCEs.

Table 20-13: 2034 Weekday MD Peak Hour No-Action vs. With-Action vs. Mitigated Conditions Level of Service Analysis – Unsignalized Intersections

#	Intersection & Approach	2034 No-Action				2034 With-Action					2034 Mitigation				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
11 [1]	**Rockaway Freeway and Beach 94th Street**														
	Northbound	T	0.06	9.3	A	T	0.06	9.3	A		T	0.06	9.3	A	
13 [1]	**Beach Channel Drive and Beach 73rd Street**														
	Eastbound	R	0.10	8.8	A	R	0.10	8.8	A		R	0.10	8.8	A	
	Northbound	R	0.17	12.9	B	R	0.20	14.4	B		R	0.11	9.6	A	
17	**Beach Front Road and Beach 62nd Street**														
	Eastbound	LT	0.32	11.8	B	LT	0.37	12.4	B		LT	0.37	12.4	B	
	Westbound	TR	0.11	10.3	B	TR	0.12	10.5	B		TR	0.12	10.5	B	
	Southbound	LTR	0.00	7.3	A	LTR	0.00	7.3	A		LTR	0.00	7.3	A	
26	**Beach Channel Drive and Beach 53rd Street**														
	Westbound	LT	0.07	11.3	B	LT	0.26	25.4	D		Signalized				
	Northbound	LR	0.53	45.8	E	LR	4.38	1740.0	F	+					
27	**Rockaway Beach Boulevard and Beach 53rd Street**														
	Eastbound	LT	0.06	10.3	B	LT	0.33	21.3	C		Signalized				
	Southbound	LR	0.21	21.6	C	LR	1.65	449.5	F	+					
28	**Rockaway Beach Boulevard and Beach 52nd Street**														
	Eastbound	LTR	0.01	9.3	A	LTR	0.13	13.0	B		Signalized				
	Westbound	LTR	0.00	8.4	A	LTR	0.00	8.9	A						
	Northbound	LR	0.00	22.9	C	LR	~~	~~	~~	5					
	Southbound	LTR	0.01	26.7	D	LTR	1.53	406.5	F	+					
30	**Beach Channel Drive and Beach 50th Street**														
	Westbound	LT	0.03	9.5	A	LT	0.19	12.0	B		LT	0.19	12.0	B	
	Northbound	LR	0.07	15.3	C	LR	0.48	31.4	D	+	LR	0.48	31.4	D	U
31	**Rockaway Beach Boulevard and Beach 50th Street**														
	Eastbound	LT	0.01	8.2	A	LT	0.07	9.0	A		LT	0.07	9.0	A	
	Southbound	LR	0.06	13.3	B	LR	0.27	21.7	C		LR	0.27	21.7	C	
32 [2]	**Beach Channel Drive and Beach 52nd Street**														
	Westbound					LT	0.02	11.1	B		LT	0.02	11.1	B	
	Northbound					LR	0.25	36.4	E	5	LR	0.25	36.4	E	5
33 [2]	**Peninsula Way and Beach 53rd Street**														
	Westbound					LR	0.12	13.2	B		LR	0.12	13.2	B	
	Southbound					LT	0.03	8.7	A		LT	0.03	8.7	A	
34 [2]	**Peninsula Way and Beach 52nd Street**														
	Eastbound					LTR	0.01	10.1	B		LTR	0.01	10.1	B	
	Westbound					LTR	0.13	11.1	B		LTR	0.13	11.1	B	
	Northbound					LTR	1.34	365.6	F	5	LTR	1.34	365.6	F	5
	Southbound					LTR	5.57	3080.0	F	5	LTR	5.57	3080.0	F	5
35 [2]	**Peninsula Way and Beach 50th Street**														
	Eastbound					LR	0.24	14.1	B		LR	0.24	14.1	B	
	Northbound					LT	0.07	8.6	A		LT	0.07	8.6	A	
36	**Beach Channel Drive and Beach 47th Street**														
	Eastbound	LT	0.01	9.0	A	LT	0.01	9.4	A		LT	0.01	9.4	A	
	Northbound	LTR	0.04	18.1	C	LTR	0.05	22.7	C		LTR	0.05	22.7	C	
37	**Arverne Boulevard/Rockaway Beach Boulevard and Beach 47th Street**														
	Eastbound	LTR	0.00	7.9	A	LTR	0.00	8.3	A		LTR	0.00	8.3	A	
	Westbound	LTR	0.02	10.4	B	LTR	0.04	12.7	B		LTR	0.04	12.7	B	
	Northbound	LTR	0.07	22.6	C	LTR	0.41	58.7	F	5	LTR	0.41	58.7	F	5
38	**Rockaway Beach Boulevard and Beach 44th Street**														
	Westbound	LT	0.00	8.1	A	LT	0.00	8.3	A		LT	0.00	8.3	A	
	Northbound	LR	0.08	22.0	C	LR	0.27	34.3	D	5	LR	0.27	34.3	D	5
	Southbound	LTR	0.10	16.5	C	LTR	0.11	17.9	C		LTR	0.11	17.9	C	
40 [1,3]	**Beach Channel Drive and Seagirt Boulevard**														
	Westbound	R	0.09	12.3	B	R	0.10	12.9	B		R	0.10	12.9	B	
51 [2]	**Rockaway Freeway and Beach 52nd Street**														
	Southbound					R	0.09	9.7	A		R	0.09	9.7	A	
P1a [4]	**Parking Lot 1 driveway, via Beach Channel Drive**														
	Westbound					LT	0.02	14.4	B		LT	0.02	14.4	B	
	Northbound					LR	0.07	29.2	D		LR	0.07	29.2	D	
P1b [4]	**Parking Lot 1 driveway, via Beach 53rd Street**														
	Westbound					LR	0.03	14.0	B		LR	0.03	14.0	B	
	Southbound					LT	0.00	8.9	A		LT	0.00	8.9	A	
P2 [4]	**Parking Garage 2 driveway, via Beach 53rd Street**														
	Westbound					LR	0.06	13.0	B		LR	0.06	13.0	B	
	Southbound					LT	0.01	8.8	A		LT	0.01	8.8	A	
P3 [4]	**Parking Garage 3 driveway, via Beach 53rd Street**														
	Westbound					LR	0.09	12.8	B		LR	0.09	12.8	B	
	Southbound					LT	0.02	8.7	A		LT	0.02	8.7	A	
P4 [4]	**Parking Garage 4 driveway, via Rockaway Beach Boulevard**														
	Eastbound					LT	0.03	10.8	B		LT	0.03	10.8	B	
	Southbound					LR	0.10	20.3	C		LR	0.10	20.3	C	
P5 [4]	**Parking Garage 5 driveway, via Peninsula Way**														
	Eastbound					LT	0.02	8.4	A		LT	0.02	8.4	A	
	Southbound					LR	0.06	11.7	B		LR	0.06	11.7	B	
P6 [4]	**Parking Lot 6 driveway, via Beach Channel Drive**														
	Westbound					LT	0.02	12.0	B		LT	0.02	12.0	B	
	Northbound					LR	0.13	33.8	D	5	LR	0.13	33.8	D	5
P7 [4]	**Parking Garage 7 driveway, via Beach 52nd Street**														
	Westbound					LR	0.00	8.5	A		LR	0.00	8.5	A	
	Southbound					LT	0.00	7.2	A		LT	0.00	7.2	A	
P8 [4]	**Parking Garage 8 driveway, via Peninsula Way**														
	Westbound					LT	0.27	14.4	B		LT	0.27	14.4	B	
	Northbound					LR	1.38	259.4	F	+	LR	1.38	259.4	F	U

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. ~~ = v/c or delay exceeds the maximum limit reportable in the analysis software. "+" denotes significant adverse impact. "U" denotes unmitated significant adverse impact.

1. Stop-controlled approach at signalized intersection.
2. Future intersection created as part of the Proposed Project.
3. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.
4. Future driveway to parking garage/parking lot created due to project development.
5. Minor approach has fewer than 90 PCEs.

Table 20-14: 2034 Weekday PM Peak Hour No-Action vs. With-Action vs. Mitigated Conditions Level of Service Analysis – Unsignalized Intersections

#	Intersection & Approach	2034 No-Action				2034 With-Action					2034 Mitigation				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
11 [1]	**Rockaway Freeway and Beach 94th Street**														
	Northbound	T	0.07	9.3	A	T	0.07	9.3	A		T	0.07	9.3	A	
13 [1]	**Beach Channel Drive and Beach 73rd Street**														
	Eastbound	R	0.26	9.7	A	R	0.26	9.7	A		R	0.26	9.7	A	
	Northbound	R	0.21	16.5	C	R	0.29	22.6	C		R	0.10	9.7	A	
17	**Beach Front Road and Beach 62nd Street**														
	Eastbound	LT	0.39	12.7	B	LT	0.44	13.5	B		LT	0.44	13.5	B	
	Westbound	TR	0.14	10.4	B	TR	0.14	10.6	B		TR	0.14	10.6	B	
	Southbound	LTR	0.01	7.3	A	LTR	0.01	7.3	A		LTR	0.01	7.3	A	
26	**Beach Channel Drive and Beach 53rd Street**														
	Westbound	LT	0.05	9.4	A	LT	0.57	58.7	F	+	Signalized				
	Northbound	LR	0.42	29.3	D	LR	19.33	9057.0	F	+					
27 [6]	**Rockaway Beach Boulevard and Beach 53rd Street**														
	Eastbound	LT	0.11	10.4	B	LT	1.08	127.6	F	+	Signalized				
	Southbound	LR	0.39	32.9	D	LR	~~	~~	~~	+					
28 [7]	**Rockaway Beach Boulevard and Beach 52nd Street**														
	Eastbound	LTR	0.02	9.0	A	LTR	0.17	13.3	B		Signalized				
	Westbound	LTR	0.00	9.0	A	LTR	0.01	9.9	A						
	Northbound	LR	0.01	21.7	C	LR	~~	~~	~~	5					
	Southbound	LTR	0.02	21.1	C	LTR	3.10	1223.0	F	5					
30	**Beach Channel Drive and Beach 50th Street**														
	Westbound	LT	0.04	10.0	A	LT	0.24	13.1	B		LT	0.24	13.1	B	
	Northbound	LR	0.07	17.9	C	LR	0.52	39.6	E	5	LR	0.52	39.6	E	5
31	**Rockaway Beach Boulevard and Beach 50th Street**														
	Eastbound	LT	0.01	8.2	A	LT	0.05	8.9	A		LT	0.05	8.9	A	
	Southbound	LR	0.06	14.1	B	LR	0.35	27.4	D		LR	0.35	27.4	D	
32 [2]	**Beach Channel Drive and Beach 52nd Street**														
	Westbound					LT	0.02	11.9	B		LT	0.02	11.9	B	
	Northbound					LR	0.33	53.5	F	5	LR	0.33	53.5	F	5
33 [2]	**Peninsula Way and Beach 53rd Street**														
	Westbound					LR	0.19	19.0	C		LR	0.19	19.0	C	
	Southbound					LT	0.05	10.0	B		LT	0.05	10.0	B	
34 [2]	**Peninsula Way and Beach 52nd Street**														
	Eastbound					LTR	0.01	9.7	A		LTR	0.01	9.7	A	
	Westbound					LTR	0.10	10.4	B		LTR	0.10	10.4	B	
	Northbound					LTR	1.02	187.0	F	5	LTR	1.02	187.0	F	5
	Southbound					LTR	3.07	1450.0	F	5	LTR	3.07	1450.0	F	5
35 [2]	**Peninsula Way and Beach 50th Street**														
	Eastbound					LR	0.19	13.0	B		LR	0.19	13.0	B	
	Northbound					LT	0.06	8.4	A		LT	0.06	8.4	A	
36	**Beach Channel Drive and Beach 47th Street**														
	Eastbound	LT	0.00	8.9	A	LT	0.00	9.5	A		LT	0.00	9.5	A	
	Northbound	LTR	0.12	23.9	C	LTR	0.18	33.5	D	5	LTR	0.18	33.5	D	5
37	**Arverne Boulevard/Rockaway Beach Boulevard and Beach 47th Street**														
	Eastbound	LTR	0.01	8.1	A	LTR	0.01	8.4	A		LTR	0.01	8.4	A	
	Westbound	LTR	0.02	10.6	B	LTR	0.03	13.0	B		LTR	0.03	13.0	B	
	Northbound	LTR	0.12	27.5	D	LTR	0.57	75.9	F	5	LTR	0.57	75.9	F	5
38	**Rockaway Beach Boulevard and Beach 44th Street**														
	Westbound	LT	0.01	9.1	A	LT	0.02	9.3	A		LT	0.02	9.3	A	
	Northbound	LR	0.16	29.8	D	LR	0.49	60.2	F	5	LR	0.49	60.2	F	5
	Southbound	LTR	0.19	23.5	C	LTR	0.21	26.0	D		LTR	0.21	26.0	D	
40 [1,3]	**Beach Channel Drive and Seagirt Boulevard**														
	Westbound	R	0.15	13.8	B	R	0.16	14.6	B		R	0.16	14.6	B	
51 [2]	**Rockaway Freeway and Beach 52nd Street**														
	Southbound					R	0.10	10.6	B		R	0.10	10.6	B	
P1a [4]	**Parking Lot 1 driveway, via Beach Channel Drive**														
	Westbound					LT	0.04	17.7	C		LT	0.04	17.7	C	
	Northbound					LR	0.18	43.6	E	5	LR	0.18	43.6	E	5
P1b [4]	**Parking Lot 1 driveway, via Beach 53rd Street**														
	Westbound					LR	0.07	17.7	C		LR	0.07	17.7	C	
	Southbound					LT	0.00	9.6	A		LT	0.00	9.6	A	
P2 [4]	**Parking Garage 2 driveway, via Beach 53rd Street**														
	Westbound					LR	0.11	16.6	C		LR	0.11	16.6	C	
	Southbound					LT	0.05	9.7	A		LT	0.05	9.7	A	
P3 [4]	**Parking Garage 3 driveway, via Beach 53rd Street**														
	Westbound					LR	0.23	23.0	C		LR	0.23	23.0	C	
	Southbound					LT	0.09	11.0	B		LT	0.09	11.0	B	
P4 [4]	**Parking Garage 4 driveway, via Rockaway Beach Boulevard**														
	Eastbound					LT	0.08	10.9	B		LT	0.08	10.9	B	
	Southbound					LR	0.15	25.5	D		LR	0.15	25.5	D	
P5 [4]	**Parking Garage 5 driveway, via Peninsula Way**														
	Eastbound					LT	0.07	8.4	A		LT	0.07	8.4	A	
	Southbound					LR	0.08	12.0	B		LR	0.08	12.0	B	
P6 [4]	**Parking Lot 6 driveway, via Beach Channel Drive**														
	Westbound					LT	0.02	12.6	B		LT	0.02	12.6	B	
	Northbound					LR	0.22	46.6	E	5	LR	0.22	46.6	E	5
P7 [4]	**Parking Garage 7 driveway, via Beach 52nd Street**														
	Westbound					LR	0.01	8.5	A		LR	0.01	8.5	A	
	Southbound					LT	0.01	7.2	A		LT	0.01	7.2	A	
P8 [4]	**Parking Garage 8 driveway, via Peninsula Way**														
	Westbound					LT	0.20	12.5	B		LT	0.20	12.5	B	
	Northbound					LR	0.91	88.4	F	+	LR	0.91	88.4	F	U

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. ~~ = v/c or delay exceeds the maximum limit reportable in the analysis software. "+" denotes significant adverse impact. "U" denotes unmitated significant adverse impact.

1. Stop-controlled approach at signalized intersection.
2. Future intersection created as part of the Proposed Project.
3. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.
4. Future driveway to parking garage/parking lot created due to project development.
5. Minor approach has fewer than 90 PCEs.
6. The With-Action Weekday PM peak hour delay cannot be reported for the SB-LR approach due to limitations in the analysis software, however it can be assumed to be greater than the 1209.0 seconds of delay calculated in the With-Action Saturday MD peak hour.
7. The With-Action Weekday PM peak hour delays cannot be reported for the NB-LR approach due to limitations in the analysis software, however they can be assumed to be greater than the 239.8 seconds of delay calculated in the With-Action Saturday MD peak hour.

Table 20-15: 2034 Saturday MD Peak Hour No-Action vs. With-Action vs. Mitigated Conditions Level of Service Analysis – Unsignalized Intersections

#	Intersection & Approach	2034 No-Action				2034 With-Action					2034 Mitigation				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
11 [1]	**Rockaway Freeway and Beach 94th Street**														
	Northbound	T	0.07	9.3	A	T	0.07	9.3	A		T	0.07	9.3	A	
13 [1]	**Beach Channel Drive and Beach 73rd Street**														
	Eastbound	R	0.15	9.1	A	R	0.15	9.0	A		R	0.15	9.0	A	
	Northbound	R	0.12	12.2	B	R	0.14	13.8	B		R	0.14	13.8	B	
17	**Beach Front Road and Beach 62nd Street**														
	Eastbound	LT	0.27	11.6	B	LT	0.32	12.2	B		LT	0.32	12.2	B	
	Westbound	TR	0.13	10.1	B	TR	0.14	10.3	B		TR	0.14	10.3	B	
	Southbound	LTR	0.00	7.5	A	LTR	0.00	7.5	A		LTR	0.00	7.5	A	
26	**Beach Channel Drive and Beach 53rd Street**														
	Westbound	LT	0.04	8.4	A	LT	0.28	23.5	C		Signalized				
	Northbound	LR	0.25	17.2	C	LR	4.16	1609.0	F	+					
27	**Rockaway Beach Boulevard and Beach 53rd Street**														
	Eastbound	LT	0.06	10.0	A	LT	0.50	27.0	D		Signalized				
	Southbound	LR	0.25	20.3	C	LR	3.37	1209.0	F	+					
28	**Rockaway Beach Boulevard and Beach 52nd Street**														
	Eastbound	LTR	0.01	9.0	A	LTR	0.11	11.7	B		Signalized				
	Westbound	LTR	0.00	8.6	A	LTR	0.01	9.2	A						
	Northbound	LR	0.02	18.1	C	LR	0.39	239.8	F	5					
	Southbound	LTR	0.01	20.7	C	LTR	1.13	247.1	F	5					
30	**Beach Channel Drive and Beach 50th Street**														
	Westbound	LT	0.03	9.3	A	LT	0.15	11.1	B		LT	0.15	11.1	B	
	Northbound	LR	0.07	16.1	C	LR	0.40	26.8	D		LR	0.40	26.8	D	
31	**Rockaway Beach Boulevard and Beach 50th Street**														
	Eastbound	LT	0.01	8.2	A	LT	0.05	8.8	A		LT	0.05	8.8	A	
	Southbound	LR	0.05	13.1	B	LR	0.26	21.6	C		LR	0.26	21.6	C	
32 [2]	**Beach Channel Drive and Beach 52nd Street**														
	Westbound					LT	0.02	10.9	B		LT	0.02	10.9	B	
	Northbound					LR	0.13	20.7	C		LR	0.13	20.7	C	
33 [2]	**Peninsula Way and Beach 53rd Street**														
	Westbound					LR	0.17	16.3	C		LR	0.17	16.3	C	
	Southbound					LT	0.03	9.3	A		LT	0.03	9.3	A	
34 [2]	**Peninsula Way and Beach 52nd Street**														
	Eastbound					LTR	0.00	9.4	A		LTR	0.00	9.4	A	
	Westbound					LTR	0.08	9.7	A		LTR	0.08	9.7	A	
	Northbound					LTR	0.62	81.9	F	5	LTR	0.62	81.9	F	
	Southbound					LTR	0.95	294.0	F	5	LTR	0.95	294.0	F	5
35 [2]	**Peninsula Way and Beach 50th Street**														
	Eastbound					LR	0.14	11.4	B		LR	0.14	11.4	B	
	Northbound					LT	0.04	8.0	A		LT	0.04	8.0	A	
36	**Beach Channel Drive and Beach 47th Street**														
	Eastbound	LT	0.00	8.6	A	LT	0.00	8.9	A		LT	0.00	8.9	A	
	Northbound	LTR	0.13	18.2	C	LTR	0.17	23.3	C		LTR	0.17	23.3	C	
37	**Arverne Boulevard/Rockaway Beach Boulevard and Beach 47th Street**														
	Eastbound	LTR	0.01	8.0	A	LTR	0.01	8.2	A		LTR	0.01	8.2	A	
	Westbound	LTR	0.03	9.8	A	LTR	0.04	12.3	B		LTR	0.04	12.3	B	
	Northbound	LTR	0.13	20.6	C	LTR	0.53	61.3	F	5	LTR	0.53	61.3	F	5
38	**Rockaway Beach Boulevard and Beach 44th Street**														
	Westbound	LT	0.01	8.0	A	LT	0.01	8.2	A		LT	0.01	8.2	A	
	Northbound	LR	0.08	19.5	C	LR	0.25	28.1	D	5	LR	0.25	28.1	D	5
	Southbound	LTR	0.08	15.6	C	LTR	0.08	16.5	C		LTR	0.08	16.5	C	
40 [1,3]	**Beach Channel Drive and Seagirt Boulevard**														
	Westbound	R	0.12	12.0	B	R	0.13	12.8	B		R	0.13	12.8	B	
51 [2]	**Rockaway Freeway and Beach 52nd Street**														
	Southbound					R	0.08	10.0	A		R	0.08	10.0	A	
P1a [4]	**Parking Lot 1 driveway, via Beach Channel Drive**														
	Westbound					LT	0.04	15.6	C		LT	0.04	15.6	C	
	Northbound					LR	0.16	34.2	D	5	LR	0.16	34.2	D	5
P1b [4]	**Parking Lot 1 driveway, via Beach 53rd Street**														
	Westbound					LR	0.07	15.6	C		LR	0.07	15.6	C	
	Southbound					LT	0.00	9.2	A		LT	0.00	9.2	A	
P2 [4]	**Parking Garage 2 driveway, via Beach 53rd Street**														
	Westbound					LR	0.13	14.8	B		LR	0.13	14.8	B	
	Southbound					LT	0.02	9.1	A		LT	0.02	9.1	A	
P3 [4]	**Parking Garage 3 driveway, via Beach 53rd Street**														
	Westbound					LR	0.24	19.0	C		LR	0.24	19.0	C	
	Southbound					LT	0.04	9.8	A		LT	0.04	9.8	A	
P4 [4]	**Parking Garage 4 driveway, via Rockaway Beach Boulevard**														
	Eastbound					LT	0.04	10.1	B		LT	0.04	10.1	B	
	Southbound					LR	0.16	19.7	C		LR	0.16	19.7	C	
P5 [4]	**Parking Garage 5 driveway, via Peninsula Way**														
	Eastbound					LT	0.04	8.2	A		LT	0.04	8.2	A	
	Southbound					LR	0.10	11.4	B		LR	0.10	11.4	B	
P6 [4]	**Parking Lot 6 driveway, via Beach Channel Drive**														
	Westbound					LT	0.03	11.7	B		LT	0.03	11.7	B	
	Northbound					LR	0.17	33.7	D	5	LR	0.17	33.7	D	5
P7 [4]	**Parking Garage 7 driveway, via Beach 52nd Street**														
	Westbound					LR	0.01	8.5	A		LR	0.01	8.5	A	
	Southbound					LT	0.01	7.2	A		LT	0.01	7.2	A	
P8 [4]	**Parking Garage 8 driveway, via Peninsula Way**														
	Westbound					LT	0.11	10.0	A		LT	0.11	10.0	A	
	Northbound					LR	0.45	23.9	C		LR	0.45	23.9	C	

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. ~~ = v/c or delay exceeds the maximum limit reportable in the analysis software. "+" denotes significant adverse impact. "U" denotes unmitated significant adverse impact.

1. Stop-controlled approach at signalized intersection.
2. Future intersection created as part of the Proposed Project.
3. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.
4. Future driveway to parking garage/parking lot created due to project development.
5. Minor approach has fewer than 90 PCEs.

Transit

Effects of the Proposed Actions on Transit Conditions

As discussed in Chapter 12, "Transportation," the Proposed Actions would result in a capacity shortfall on the westbound Q22 and southbound Q52-SBS bus routes in one or more peak hours under the With-Action condition. The A train and subway elements that were studied under the With-Action condition would not be significantly adversely impacted as a result of the Proposed Actions.

As shown in **Table 20-16: Summary of Significant Adverse Transit Impacts – Bus Line-Haul**, the westbound Q22 and southbound Q52-SBS bus routes would be significantly adversely impacted during the Weekday AM and Weekday PM peak hours and Weekday PM peak hour, respectively.

Table 20-16: Summary of Significant Adverse Transit Impacts – Bus Line-Haul

Route	Peak Direction	Maximum Load Point	Peak Hour Buses (1)	Peak Hour Passengers (2)	Average Passengers Per Bus	Total Capacity Per Bus (3)	Available Capacity Per Bus (3)	Impact (4)
Weekday AM								
Q22	EB	Beach Channel Dr and Beach 35th St	8	353	44	54	10	No
Q22	WB	Rockaway Beach Blvd and Beach 91st St	8	607	76	54	-22	Yes
Q52-SBS	NB	Woodhaven Blvd and Atlantic Ave	5	327	65	85	20	No
Q52-SBS	SB	Woodhaven Blvd and Jamaica Ave	4	199	50	85	35	No
Weekday PM								
Q22	EB	Seagirt Blvd and Crest Rd	6	302	50	54	4	No
Q22	WB	Beach Channel Dr and Beach 36th St	7	382	55	54	-1	Yes
Q52-SBS	NB	Woodhaven Blvd and Myrtle Ave	4	221	55	85	30	No
Q52-SBS	SB	Woodhaven Blvd and Metropolitan Ave	4	410	102	85	-17	Yes

Notes:
(1) NYCT provided updated peak hour bus numbers for the future condition.
(2) Based on most currently available data from NYCT. Bus volumes generated by the Proposed Project were distributed based on trip assignment assumptions described in the TDF Memorandum.
(3) Available capacity based on a maximum of 54 passengers per bus (40-foot standard bus) for Q22 buses and 85 passengers per bus (60-foot articulated bus) for Q52-SBS buses.
(4) Determination of significant impacts based on NYCT guidelines in accordance with the *2014 CEQR Technical Manual.*

A significant adverse bus impact is considered mitigated if measures implemented would return the anticipated conditions to an acceptable level. Standard mitigation for significant adverse bus line-haul impacts can include providing additional buses to impacted routes.

Discussed below are mitigation measures to address the Proposed Actions' significant adverse bus line-haul impacts.

Bus Line-Haul

The Proposed Actions would result in significant adverse impacts on the westbound Q22 and southbound Q52-SBS bus routes during the Weekday AM and Weekday PM peak hours and Weekday PM peak hour, respectively.

Table 20-17: With-Action with Mitigation – Bus Line-Haul summarizes the mitigation measures to address these impacts. As shown in

Table 20-17, the capacity shortfalls identified on the westbound Q22 bus route would be mitigated by adding four standard buses during the Weekday AM peak hour and one standard bus during the Weekday PM peak hour. The capacity shortfall identified on the southbound Q52-SBS bus route would be mitigated by adding one articulated bus during the Weekday PM peak hour. The general policy of NYCT is to provide additional bus service where demand warrants, taking into account financial and operational constraints. In

the absence of the application of mitigation measures, this impact would remain unmitigated and would constitute an unavoidable significant adverse impact.

Table 20-17: With-Action with Mitigation – Bus Line-Haul

Route	Peak Direction	Maximum Load Point	Peak Hour Buses (1)	Peak Hour Passengers (2)	Average Passengers Per Bus	Total Capacity Per Bus (3)	Available Capacity Per Bus (3)	Impact (4)	Proposed Mitigation
Weekday AM									
Q22	EB	Beach Channel Dr and Beach 35th St	8	353	44	54	10	No	-
Q22	WB	Rockaway Beach Blvd and Beach 91st St	12	607	51	54	3	No	Add four buses to Q22 in Weekday AM peak hour
Q52-SBS	NB	Woodhaven Blvd and Atlantic Ave	5	327	65	85	20	No	-
Q52-SBS	SB	Woodhaven Blvd and Jamaica Ave	4	199	50	85	35	No	-
Weekday PM									
Q22	EB	Seagirt Blvd and Crest Rd	6	302	50	54	4	No	-
Q22	WB	Beach Channel Dr and Beach 36th St	8	382	48	54	6	No	Add one bus to Q22 in Weekday PM peak hour
Q52-SBS	NB	Woodhaven Blvd and Myrtle Ave	4	221	55	85	30	No	-
Q52-SBS	SB	Woodhaven Blvd and Metropolitan Ave	5	410	82	85	3	No	Add one bus to Q52-SBS in Weekday PM peak hour

Notes:
(1) NYCT provided updated peak hour bus numbers for the future condition.
(2) Based on most currently available data from NYCT. Bus volumes generated by the Proposed Project were distributed based on trip assignment assumptions described in the TDF Memorandum.
(3) Available capacity based on a maximum of 54 passengers per bus (40-foot standard bus) for Q22 buses and 85 passengers per bus (60-foot articulated bus) for Q52-SBS buses.
(4) Determination of significant impacts based on NYCT guidelines in accordance with the *2014 CEQR Technical Manual*.

Pedestrians

Effects of the Proposed Actions on Pedestrian Conditions

As discussed in Chapter 12, "Transportation," the Proposed Actions would result in significant adverse impacts at a total of four sidewalks, two signalized crosswalks, and one corner in one or more peak hours under the With-Action condition, as shown in **Table 20-18: Summary of Significant Adverse Pedestrian Impacts – Sidewalks, Table** 20-19: Summary of Significant Adverse Pedestrian Impacts – Signalized Crosswalks, and **Table 20-20: Summary of Significant Adverse Pedestrian Impacts – Corners and Medians.** There would be no significant adverse impacts at the unsignalized crosswalks or proposed pedestrian elements that were studied under the With-Action condition; therefore, these proposed pedestrian elements were not included in **Table 20-18** through **Table 20-23.**

Table 20-18: Summary of Significant Adverse Pedestrian Impacts – Sidewalks

Location	Total Width (ft) [1]	Obstruc-tion Width (ft)	Effective Width (ft)	Available Circulation Space (ft^2/p)				Non-Platoon Conditions LOS								Platoon Conditions LOS							
				Weekday			Sat	Weekday				Sat				Weekday				Sat			
				AM	MD	PM	MD	AM		MD		PM		MD		AM		MD		PM		MD	
Beach 59th St and Arverne Blvd (E leg, N sidewalk)	5.8	3.0	2.8	49	60	44	48	B		B		B		B		C		C		C		C	
Beach 59th St and Rockaway Fwy (W leg, N sidewalk)	8.0	3.0	5.0	66	94	69	85	A		A		A		A		C		B		C		C	
Beach 54th St and Beach Channel Dr (W leg, N sidewalk)	7.0	3.0	4.0	73	103	89	61	A		A		A		A		C		B		C		C	
Beach 54th St and Arverne Blvd (E leg, N sidewalk)	8.0	3.0	5.0	42	37	39	25	B		C		C		C		C		D	+	D	+	D	+
Beach 54th St and Arverne Blvd (W leg, N sidewalk)	10.0	3.0	7.0	63	68	55	51	A		A		B		B		C		C		C		C	
Beach 53rd St and Beach Channel Dr (E leg, S sidewalk)	18.3 [2]	3.0	15.3	260	197	216	148	A		A		A		A		B		B		B		B	
Beach 53rd St and Beach Channel Dr (W leg, S sidewalk)	10.0	3.0	7.0	35	33	40	24	C		C		C		D	+	D	+	D	+	D	+	D	+
Beach 53rd St and Rockaway Beach Blvd (N leg, E sidewalk)	6.5 [2]	3.5	3.0	40	59	49	59	B		B		B		B		C		C		C		C	
Beach 53rd St and Rockaway Beach Blvd (E leg, N sidewalk)	9.0 [2]	3.5	5.5	40	39	56	60	B		C		B		B		C		D		C		C	
Beach 50th St and Rockaway Beach Blvd (E leg, S sidewalk)	7.0	3.0	4.0	65	48	49	42	A		B		B		B		C		C		C		C	
Beach 47th St and Rockaway Beach Blvd (E leg, S sidewalk)	7.8	3.0	4.8	68	77	47	83	A		A		B		A		C		C		C		C	
Beach 44th St and Rockaway Fwy (N leg, W sidewalk)	5.5	3.0	2.5	61	41	25	51	A		B		C		B		C		C		D	+	C	
Beach 44th St and Rockaway Fwy (W leg, N sidewalk)	14.3	3.0	11.3	183	131	72	188	A		A		A		A		B		B		C		B	
Beach 56th St and Arverne Blvd (W leg, N sidewalk)	10.0	3.0	7.0	38	104	85	76	C		A		A		A		D	+	B		C		C	
Beach 57th St and Arverne Blvd (E leg, N sidewalk)	10.0	3.0	7.0	92	144	130	139	A		A		A		A		B		B		B		B	
Beach 52nd St and Beach Channel Dr (E leg, S sidewalk)	10.5	5.5	5.0	136	84	107	71	A		A		A		A		B		C		B		C	

Notes:
"+" denotes signinficant adverse impact.
(1) The total width was measured at the narrowest point along the sidewalk.
(2) Measured from the Proposed Project site plan.

Table 20-19: Summary of Significant Adverse Pedestrian Impacts – Signalized Crosswalks

Location	Length (ft)	Width (ft)	Available Circulation Space (ft^2/p)				Crosswalk Circulation LOS							
			Weekday			Sat	Weekday						Sat	
			AM	MD	PM	MD	AM		MD		PM		MD	
Beach 54th St and Beach Channel Dr (S leg)	33.8	14.5	30	22	16	21	C		D	+	D	+	D	+
Beach 54th St and Arverne Blvd (N leg)	40.0	12.2	29	25	15	22	C		C		D	+	D	+

Notes:
"+" denotes significant adverse impact.

Table 20-20: Summary of Significant Adverse Pedestrian Impacts – Corners and Medians

Location	Available Circulation Space (ft^2/p)				Corner Circulation LOS							
	Weekday			Sat	Weekday						Sat	
	AM	MD	PM	MD	AM		MD		PM		MD	
Beach 59th St and Arverne Blvd (NE corner)	138	104	143	142	A		A		A		A	
Beach 59th St and Arverne Blvd (SE corner)	147	151	161	171	A		A		A		A	
Beach 59th St and Rockaway Fwy (NW corner)	84	117	111	150	A		A		A		A	
Beach 54th St and Beach Channel Dr (NE corner)	485	692	555	483	A		A		A		A	
Beach 54th St and Beach Channel Dr (SE corner)	136	111	97	101	A		A		A		A	
Beach 54th St and Beach Channel Dr (SW corner)	252	214	155	204	A		A		A		A	
Beach 54th St and Beach Channel Dr (NW corner)	81	107	80	91	A		A		A		A	
Beach 54th St and Arverne Blvd (NE corner)	27	25	16	23	C		C		D	+	D	+
Beach 54th St and Arverne Blvd (NW corner)	114	85	54	70	A		A		B		A	
Beach 53rd St and Beach Channel Dr (SE corner)	135	143	122	152	A		A		A		A	
Beach 53rd St and Beach Channel Dr (SW corner)	43	42	38	50	B		B		C		B	
Beach 51st St and Beach Channel Dr (SE corner)	87	93	96	117	A		A		A		A	
Beach 47th St and Rockaway Beach Blvd (SW corner)	88	40	52	57	A		B		B		B	
Beach 47th St and Rockaway Beach Blvd (SE corner)	64	30	38	42	A		C		C		B	
Beach 44th St and Rockaway Beach Blvd (SW corner)	190	83	92	94	A		A		A		A	
Beach 44th St and Rockaway Fwy (NW corner)	111	112	62	181	A		A		A		A	
Beach 56th Pl and Arverne Blvd (NW corner)	110	87	55	115	A		A		B		A	
Beach 56th Pl and Arverne Blvd (NE corner)	84	70	54	114	A		A		B		A	
Beach 56th Pl and Arverne Blvd (SW corner) [1]	151	84	67	81	A		A		A		A	
Beach 56th Pl and Arverne Blvd (SE corner) [1]	111	60	64	74	A		B		A		A	
Beach 56th St and Arverne Blvd (NW corner)	156	171	117	161	A		A		A		A	
Beach 56th St and Arverne Blvd (NE corner)	192	166	121	169	A		A		A		A	
Beach 56th Pl and Rockaway Fwy (NW corner) [1]	293	369	123	234	A		A		A		A	
Beach 56th Pl and Rockaway Fwy (NE corner) [1]	610	739	538	784	A		A		A		A	
Beach 57th St and Arverne Blvd (NW corner)	210	215	164	161	A		A		A		A	
Beach 57th St and Arverne Blvd (NE corner)	167	182	135	135	A		A		A		A	

Notes: Unsignalized corners at two-way stop-controlled intersections with uncontrolled crosswalks across the major street cannot be analyzed. Therefore, the northeast and northwest corners at Beach 53rd Street and Rockaway Boulevard and the southwest corner at Beach 50th Street and Rockaway Beach Boulevard were not included in this table.
"+" denotes significant adverse impact.
(1) Median element that was analyzed at two adjacent corners.

A significant adverse pedestrian impact is considered mitigated if measures implemented would return the anticipated conditions to an acceptable level, following the same impact criteria used in determining impacts. Standard mitigation for significant adverse pedestrian impacts can include providing additional signal green time or new signal phases; widening crosswalks; relocating or removing street furniture; providing curb extensions, neck-downs, or lane reductions to reduce pedestrian crossing distance; and sidewalk widening.

Discussed below are mitigation measures to address the Proposed Actions' significant adverse pedestrian impacts. The mitigation measures generally consist of sidewalk and crosswalk widenings.

Sidewalks

The Proposed Actions would result in significant adverse impacts during one or more peak hours at four of the sidewalks analyzed under the With-Action condition. **Table 20-21: With-Action with Mitigation – Sidewalk Conditions** summarizes the mitigation measures to address these impacts. As shown in **Table 20-21**, the north sidewalk on the east leg of Beach 54th Street and Arverne Boulevard, the south sidewalk on the west leg of Beach 53rd Street and Beach Channel Drive, and the west sidewalk on the north leg of Beach 44th Street and Rockaway Freeway would continue to be significantly adversely impacted during one of more peak hours.

Table 20-21: With-Action with Mitigation – Sidewalk Conditions

Location	Total Width (ft) [1]	Obstruc-tion Width (ft)	Effective Width (ft)	Available Circulation Space (ft^2/p) Weekday AM	Weekday MD	Weekday PM	Sat MD	Non-Platoon Conditions LOS Weekday AM	Weekday MD	Weekday PM	Sat MD	Platoon Conditions LOS Weekday AM	Weekday MD	Weekday PM	Sat MD	Proposed Mitigation
Beach 59th St and Arverne Blvd (E leg, N sidewalk)	5.8	3.0	2.8	49	60	44	48	B	B	B	B	C	C	C	C	-
Beach 59th St and Rockaway Fwy (W leg, N sidewalk)	8.0	3.0	5.0	66	94	69	85	A	A	A	A	C	B	C	C	-
Beach 54th St and Beach Channel Dr (W leg, N sidewalk)	7.0	3.0	4.0	73	103	89	61	A	A	A	A	C	B	C	C	-
Beach 54th St and Arverne Blvd (E leg, N sidewalk)	8.0	3.0	5.0	42	37	39	25	B	C	C	C	C	D +	D +	D +	Unmitigable
Beach 54th St and Arverne Blvd (W leg, N sidewalk)	10.0	3.0	7.0	63	68	55	51	A	A	B	B	C	C	C	C	-
Beach 53rd St and Beach Channel Dr (E leg, S sidewalk)	18.3 [2]	3.0	15.3	260	197	216	148	A	A	A	A	B	B	B	B	-
Beach 53rd St and Beach Channel Dr (W leg, S sidewalk)	10.0	3.0	7.0	35	33	40	24	C	C	C	D +	D +	D +	D +	D +	Unmitigable
Beach 53rd St and Rockaway Beach Blvd (N leg, E sidewalk)	6.5 [2]	3.5	3.0	40	59	49	59	B	B	B	B	C	C	C	C	-
Beach 53rd St and Rockaway Beach Blvd (E leg, N sidewalk)	9.0 [2]	3.5	5.5	40	39	56	60	B	C	B	B	C	D	C	C	-
Beach 50th St and Rockaway Beach Blvd (E leg, S sidewalk)	7.0	3.0	4.0	65	48	49	42	A	B	B	B	C	C	C	C	-
Beach 47th St and Rockaway Beach Blvd (E leg, S sidewalk)	7.8	3.0	4.8	68	77	47	83	A	A	B	A	C	C	C	C	-
Beach 44th St and Rockaway Fwy (N leg, W sidewalk)	5.5	3.0	2.5	61	41	25	51	A	B	C	B	C	C	D +	C	Unmitigable
Beach 44th St and Rockaway Fwy (W leg, N sidewalk)	14.3	3.0	11.3	183	131	72	188	A	A	A	A	B	B	C	B	-
Beach 56th St and Arverne Blvd (W leg, N sidewalk)	11.5	3.0	8.5	46	126	103	93	B	A	A	A	C	B	B	B	Pave one 5' by 5' unpaved section
Beach 57th St and Arverne Blvd (E leg, N sidewalk)	10.0	3.0	7.0	92	144	130	139	A	A	A	A	B	B	B	B	-
Beach 52nd St and Beach Channel Dr (E leg, S sidewalk)	10.5	5.5	5.0	136	84	107	71	A	A	A	A	B	C	B	C	-

Notes:
"+" denotes signinficant adverse impact.
(1) The total width was measured at the narrowest point along the sidewalk.
(2) Measured from the Proposed Project site plan.

North sidewalk on the east leg of Beach 54th Street and Arverne Boulevard

The north sidewalk on the east leg of Beach 54th Street and Arverne Boulevard would experience a significant adverse impact during the Weekday MD, Weekday PM, and Saturday MD peak hours along the sidewalk where a tree pit reduces the effective width of the sidewalk to five feet. No practicable or feasible measures to mitigate the significant adverse impact at this sidewalk were identified; therefore, the significant adverse impact at this location would remain unmitigated.

South sidewalk on the west leg of Beach 53rd Street and Beach Channel Drive

The south sidewalk on the west leg of Beach 53rd Street and Beach Channel Drive would experience a significant adverse impact during the Weekday AM, Weekday MD, Weekday PM, and Saturday MD peak hours due to tree pits that reduce the effective width of the sidewalk to seven feet. No practicable or feasible measures to mitigate the significant adverse impact at this sidewalk were identified; therefore, the significant adverse impact at this location would remain unmitigated.

West sidewalk on the north leg of Beach 44th Street and Rockaway Beach Boulevard

The west sidewalk on the north leg of Beach 44th Street and Rockaway Beach Boulevard would experience a significant adverse impact during the Weekday AM, Weekday MD, Weekday PM, and Saturday MD peak

hours due to utility poles that reduce the effective width of the sidewalk to 2.5 feet. No practicable or feasible measures to mitigate the significant adverse impact at this sidewalk were identified; therefore, the significant adverse impact at this location would remain unmitigated.

North sidewalk on the west leg of Beach 56th Street and Arverne Boulevard

The north sidewalk on the west leg of Beach 56th Street and Arverne Boulevard would experience a significant adverse impact during the Weekday AM peak hour where an unpaved area reduces the effective width of the sidewalk to seven feet. Paving this area over with concrete, approximately five feet by five feet, would fully mitigate the significant adverse impact.

Crosswalks

The Proposed Actions would result in significant adverse impacts during one or more peak hours at the two signalized crosswalks analyzed under the With-Action condition. **Table 20-22: With-Action with Mitigation Crosswalk – Signalized Conditions** summarizes the mitigation measures to address these significant adverse crosswalk impacts. As shown in **Table 20-22**, the south crosswalk at Beach 54th Street and Beach Channel Drive would be fully mitigated by widening the existing crosswalk from 14.5 feet to 20.5 feet. The north crosswalk at Beach 54th Street and Arverne Boulevard would continue to be significantly adversely impacted during the Weekday PM and Saturday MD peak hours.

Table 20-22: With-Action with Mitigation Crosswalk – Signalized Conditions

Location	Length (ft)	Width (ft)	Available Circulation Space (ft^2/p)				Crosswalk Circulation LOS								Proposed Mitigaiton
			Weekday			Sat	Weekday						Sat		
			AM	MD	PM	MD	AM		MD		PM		MD		
Beach 54th St and Beach Channel Dr (S leg)	33.8	20.5	43	32	24	31	B		C		C		C		Increase crosswalk width by 6' from 14.5' to 20.5'
Beach 54th St and Arverne Blvd (N leg)	40.0	12.2	29	25	15	22	C		C		D	+	D	+	Unmitigated

Notes:
"+" denotes significant adverse impact.

Beach 54th Street and Beach Channel Drive, south crosswalk

The Proposed Actions would result in a significant adverse impact to the south crosswalk during the Weekday MD, Weekday PM, and Saturday MD peak hours. This significant adverse impact could be fully mitigated by widening this crosswalk by five feet from 14.5 feet to 20.5 feet.

Beach 54th Street and Arverne Boulevard, north crosswalk

The Proposed Actions would result in a significant adverse impact to the north crosswalk during the Weekday PM and Saturday MD peak hours. Because of the placement of the signal equipment, drainage structures/catch basins, and unpaved areas, widening of this crosswalk is not feasible; therefore, the significant adverse impact at this location would remain unmitigated.

Corners

The Proposed Actions would result in a significant adverse impact during one or more peak hours at one of the corners analyzed under the With-Action condition. As shown in **Table 20-23: With-Action with Mitigation – Corner and Median Conditions**, no practicable or feasible measures to mitigate the significant adverse impact at the northeast corner at Beach 54th Street and Arverne Boulevard were identified.

Table 20-23: With-Action with Mitigation – Corner and Median Conditions

Location	Available Circulation Space (ft^2/p)				Corner Circulation LOS								Proposed Mitigation
	Weekday			Sat	Weekday						Sat		
	AM	MD	PM	MD	AM		MD		PM		MD		
Beach 59th St and Arverne Blvd (NE corner)	138	104	143	142	A		A		A		A		-
Beach 59th St and Arverne Blvd (SE corner)	147	151	161	171	A		A		A		A		-
Beach 59th St and Rockaway Fwy (NW corner)	84	117	111	150	A		A		A		A		-
Beach 54th St and Beach Channel Dr (NE corner)	485	692	555	483	A		A		A		A		-
Beach 54th St and Beach Channel Dr (SE corner)	136	111	97	101	A		A		A		A		-
Beach 54th St and Beach Channel Dr (SW corner)	252	214	155	204	A		A		A		A		-
Beach 54th St and Beach Channel Dr (NW corner)	81	107	80	91	A		A		A		A		-
Beach 54th St and Arverne Blvd (NE corner)	27	25	16	23	C		C		D	+	D	+	Unmitigable
Beach 54th St and Arverne Blvd (NW corner)	114	85	54	70	A		A		B		A		-
Beach 53rd St and Beach Channel Dr (SE corner)	135	143	122	152	A		A		A		A		-
Beach 53rd St and Beach Channel Dr (SW corner)	43	42	38	50	B		B		C		B		-
Beach 51st St and Beach Channel Dr (SE corner)	87	93	96	117	A		A		A		A		-
Beach 47th St and Rockaway Beach Blvd (SW corner)	88	40	52	57	A		B		B		B		-
Beach 47th St and Rockaway Beach Blvd (SE corner)	64	30	38	42	A		C		C		B		-
Beach 44th St and Rockaway Beach Blvd (SW corner)	190	83	92	94	A		A		A		A		-
Beach 44th St and Rockaway Fwy (NW corner)	111	112	62	181	A		A		A		A		-
Beach 56th Pl and Arverne Blvd (NW corner)	110	87	55	115	A		A		B		A		-
Beach 56th Pl and Arverne Blvd (NE corner)	84	70	54	114	A		A		B		A		-
Beach 56th Pl and Arverne Blvd (SW corner) (1)	151	84	67	81	A		A		A		A		-
Beach 56th Pl and Arverne Blvd (SE corner) (1)	111	60	64	74	A		B		A		A		-
Beach 56th St and Arverne Blvd (NW corner)	156	171	117	161	A		A		A		A		-
Beach 56th St and Arverne Blvd (NE corner)	192	166	121	169	A		A		A		A		-
Beach 56th Pl and Rockaway Fwy (NW corner) (1)	293	369	123	234	A		A		A		A		-
Beach 56th Pl and Rockaway Fwy (NE corner) (1)	610	739	538	784	A		A		A		A		-
Beach 57th St and Arverne Blvd (NW corner)	210	215	164	161	A		A		A		A		-
Beach 57th St and Arverne Blvd (NE corner)	167	182	135	135	A		A		A		A		-

Notes: Unsignalized corners at two-way stop-controlled intersections with uncontrolled crosswalks across the major street cannot be analyzed. Therefore, the northeast and northwest corners at Beach 53rd Street and Rockaway Boulevard and the southwest corner at Beach 50th Street and Rockaway Beach Boulevard were not included in this table.
"+" denotes significant adverse impact.
(1) Median element that was analyzed at two adjacent corners.

Beach 54th Street and Arverne Boulevard, northeast corner

The Proposed Actions would result in a significant adverse impact at the northeast corner of Beach 54th Street and Arverne Boulevard during the Weekday PM and Saturday MD peak hours. No practicable or feasible measures to mitigate the significant adverse impact at this corner were identified; therefore, the significant adverse impact at this location would remain unmitigated.

Effects of Traffic Mitigation on Pedestrian Conditions

Traffic mitigation measures would potentially affect pedestrian conditions at crosswalks and corners at five intersections during one or more peak hours.

As shown in **Table 20-24: 2034 With-Action with Traffic Mitigation – Crosswalks at Newly Signalized Intersections**, all affected crosswalks would operate at mid-LOS D or better in all peak hours. Therefore, there would be no significant adverse crosswalk impacts at newly signalized intersections as a result of the traffic mitigation.

Table 20-24: 2034 With-Action with Traffic Mitigation – Crosswalks at Newly Signalized Intersections

Location	Length (ft)	Width (ft)	Available Circulation Space (ft^2/p)				Crosswalk Circulation LOS							
			Weekday			Sat	Weekday						Sat	
			AM	MD	PM	MD	AM		MD		PM		MD	
Beach 53rd St and Beach Channel Dr (S leg) (1)	30.0	10.0	29	30	25	36	C		C		C		C	
Beach 53rd St and Rockaway Beach Blvd (N leg) (1)	35.0	12.0	25	28	36	34	C		C		C		C	
Beach 52nd St and Rockaway Beach Blvd (N leg) (1)	23.0	10.0	102	66	71	84	A		A		A		A	
Beach 52nd St and Rockaway Beach Blvd (E leg) (1)	40.0	12.0	162	66	19	84	A		A		D		A	

Notes:
"+" denotes significant adverse impact.
(1) Newly signalized crosswalk due to traffic mitigation measures.

As shown in **Table 20-25: 2034 With-Action with Traffic Mitigation – Existing Corners**, all affected corners would operate at LOS C or better in all peak hours. Therefore, there would be no significant adverse corner impacts at corners as a result of the traffic mitigation.

Table 20-25: 2034 With-Action with Traffic Mitigation – Existing Corners

Location	Available Circulation Space (ft^2/p)				Corner Circulation LOS							
	Weekday			Sat	Weekday						Sat	
	AM	MD	PM	MD	AM		MD		PM		MD	
Beach 59th St and Arverne Blvd (NE corner)	138	104	143	142	A		A		A		A	
Beach 59th St and Arverne Blvd (SE corner)	147	151	161	171	A		A		A		A	
Beach 59th St and Rockaway Fwy (NW corner)	84	117	111	150	A		A		A		A	
Beach 53rd St and Beach Channel Dr (SE corner)	128	136	118	147	A		A		A		A	
Beach 53rd St and Beach Channel Dr (SW corner)	39	37	30	44	C		C		C		B	
Beach 53rd St and Rockaway Beach Blvd (NE corner)	29	35	49	43	C		C		B		B	
Beach 53rd St and Rockaway Beach Blvd (NW corner)	103	120	155	137	A		A		A		A	

Notes:
"+" denotes significant adverse impact.

As shown in **Table 20-26: 2034 With-Action with Traffic Mitigation – Proposed Corners** , all affected corners would operate at LOS B or better in all peak hours. Therefore, there would be no significant adverse corner impacts at proposed corners as a result of the traffic mitigation.

Table 20-26: 2034 With-Action with Traffic Mitigation – Proposed Corners

Location	Available Circulation Space (ft^2/p)				Corner Circulation LOS			
	Weekday			Sat	Weekday			Sat
	AM	MD	PM	MD	AM	MD	PM	MD
Beach 52nd St and Rockaway Beach Blvd (NE corner)	607	326	169	409	A	A	A	A
Beach 52nd St and Rockaway Beach Blvd (SE corner)	1318	639	325	539	A	A	A	A
Beach 52nd St and Rockaway Beach Blvd (NW corner)	106	66	54	54	A	A	B	B

Parking

Effects of Traffic Mitigation on Parking Conditions

Traffic mitigation measures at the intersection of Beach Channel Drive and Beach 73rd Street (Intersection 13) would include modifications to the curbside parking regulations, which would result in the loss of approximately 16 on-street parking spaces during the Weekday AM, Weekday MD, Weekday PM, and Saturday MD peak hours. These parking spaces are located beyond of the 0.25-mile radius parking area analyzed in Chapter 12, "Transportation." Therefore, the traffic mitigation measures would not result in any significant adverse parking impacts.

Traffic mitigation measures at the intersection of Rockaway Beach Boulevard and Beach 53rd Street would include modifications to the curbside parking regulations, which would result in the loss of approximately ten on-street parking space during the Weekday AM, Weekday MD, Weekday PM, and Saturday MD peak hours. These on-street parking space are located within the 0.25-mile radius parking area analyzed in Chapter 12, "Transportation." As shown in **Table *20-27*: 2034 With-Action with Traffic Mitigation Utilization of Available On-Street Parking Spaces**, the on-street parking demand would represent less than half of the available on-street parking spaces for all peak hours, with the exception of the Weekday Overnight. However, as described in Chapter 12, "Transportation," approximately 55 non-residential parking spaces in building E parking garage would be available to residents for overnight parking; therefore, there would be no significant adverse parking impacts as a result of the traffic mitigation.

Table 20-27: 2034 With-Action with Traffic Mitigation Utilization of Available On-Street Parking Spaces

2034 With-Action with Traffic Mitigation Available Parking Spaces Utilization	Weekday AM	Weekday MD	Weekday PM	Weekday Overnight	Saturday MD
Available Parking Spaces					
With-Action On-Street Available Parking Spaces[1]	518	672	704	760	762
Net Change in With-Action On-Street Parking Supply Due to Traffic Mitigation[2]	-10	-10	-10	-10	-10
Total Available With-Action with Traffic Mitigation On-Street Parking Spaces	508	662	694	750	752
Demand					
With-Action Demand[3]	125	97	85	432	371
Utilization					
Utilization of Available On-Street Parking Spaces by With-Action Demand	**25%**	**15%**	**12%**	**58%**	**49%**

1. For detailed calculations, see Table 12-61.
2. Due to parking regulation change at Rockaway Beach Boulevard and Beach 53rd Street.
3. Project generated (including as-of-right development) parking demand that would not be accomondated in on-site, off-street parking facilities.

VI. Air Quality

As described in Chapter 13, "Air Quality," the maximum predicted $PM_{2.5}$ concentrations at the Rockaway Beach Boulevard/Beach 54th Street/Beach 53rd Street would exceed the New York City Department of Environmental Protection (NYCDEP) annual de minimis value and result in a significant adverse air quality impact. Therefore, traffic mitigation measures were examined to avoid the potential significant adverse impact at the Rockaway Beach Boulevard/Beach 53rd Street intersection location. Signalization of this intersection would be required to provide gaps for vehicles traveling southbound on Beach 53rd Street due to the high pedestrian volumes expected on the north crosswalk. The specific signal timing change for this study intersection (number 27) is outlined in **Table 20-7**. As shown in **Table 20-28: Mobile Source PM2.5 (ug/m3), 2034 With-Action Condition**, with this traffic mitigation measure applied at the Rockaway Beach Boulevard/Beach 53rd Street intersection, the Proposed Project would not result in a significant adverse air quality impact.

Table 20-28: Mobile Source $PM_{2.5}$ (ug/m^3), 2034 With-Action Condition

Time Period	Intersection	No-Action Total	With-Action Total	NAAQS	Increment	De Minimis
24-Hour	Rockaway Beach Blvd/ Beach 54th Street/ Beach 53rd Street	27.8	28.3	35	0.4	8.7
Annual		7.6	7.6	12	0.0	0.3
24-Hour	Beach Channel Drive/ Beach 50th Street	21.1	21.8	35	0.7	8.7
Annual		7.1	7.2	12	0.1	0.3

VII. CONSTRUCTION

Construction of the Proposed Project would result in the potential for significant adverse construction-related impacts on traffic, pedestrian, and noise during peak construction periods. The discussion below outlines potential mitigation measures that would fully or partially mitigate the identified significant adverse impacts.

Transportation

As described in Chapter 18, "Construction," several locations in the study area would experience significant adverse traffic impacts during the peak construction period of Q3 2027. No construction-related pedestrian, transit, or parking significant adverse impacts were identified. Potential mitigation measures that would fully or partially mitigate the identified significant adverse traffic impacts were identified.

Traffic

As described in Chapter 18, "Construction," the peak construction activities associated with the Proposed Project would result in significant adverse traffic impacts at ten and seven signalized intersections during the Weekday PM and Saturday PM peak hours, respectively, and two unsignalized intersections during both the Weekday PM and Saturday PM peak hours. As described below, mitigation measures such as signal timing changes, lane geometry changes, and signalization of unsignalized intersections would mitigate or partially mitigate several of the construction-related traffic impacts.

Table 20-29: Construction-Related Traffic Mitigation summarizes mitigation measures for each of the intersections with construction-related significant adverse traffic impacts during the Weekday PM and Saturday PM peak hours.

Fully Mitigated Significant Adverse Construction-Related Traffic Impacts

The following sections summarize the study intersections that would be fully mitigated during the peak construction period of Q3 2027 based on the mitigation measures.

Signal Timing Reallocation

The significant adverse construction-related traffic impacts at the following study locations would be fully mitigated through the reallocation of green time. The specific signal timing changes for each study location are summarized in **Table 20-29**.

- Beach Channel Drive/Arverne Boulevard and Beach 62nd Street (Intersection 15)
    - The construction-related impact in the Weekday PM and Saturday PM peak hours would be mitigated by reallocating green time. This mitigation measure was not identified for the Proposed Project and would be necessary to address the peak construction period impact only. This intersection would be unmitigated under the With-Action condition for the Proposed Project. Therefore, NYCDOT will determine if this mitigation would need to be maintained or removed post-construction.
- Rockaway Beach Boulevard and Beach 62nd Street (Intersection 16)
    - The construction-related impact in the Weekday PM peak hour would be mitigated by reallocating green time. This mitigation measure was not identified for the Proposed Project during the Weekday PM peak hour; this intersection was unmitigated under the With-Action condition for the Proposed Project during the Weekday PM peak hour. Therefore, this mitigation would be necessary to address the peak construction period impact only. Therefore, NYCDOT will determine if this mitigation would need to be maintained or removed post-construction.
- Rockaway Beach Boulevard and Beach 59th Street (Intersection 21)
    - The construction-related impact in the Weekday PM and Saturday PM peak hours would be mitigated by reallocating green time. Green time would also be reallocated at intersection 20 as part of this mitigation as intersections 20 and 21 operate under the same controller. This mitigation measure was not identified for the Proposed Project and would be necessary to address the peak construction period impact only. This intersection would be unmitigated under the With-Action condition for the Proposed Project. Therefore, NYCDOT will determine if this mitigation would need to be maintained or removed post-construction.
- Edgemere Avenue and Beach 54th Street (Intersection 25)
    - The construction-related impact in the Weekday PM and Saturday PM peak hours would be mitigated by reallocating green time. To maintain operations with intersections that operate under the same controller and offsets, green time would also be reallocated at intersections 23 and 24 during the Weekday PM and Saturday PM peak hour as part of this mitigation. Signal timing reallocation was not identified as a mitigation measure for the Proposed Project and would be necessary to address the peak construction period impacts only. Therefore, NYCDOT will determine if this mitigation would need to be maintained or removed post-construction.
- Beach Channel Drive and Dix Avenue (Intersection 47)
    - The construction-related impact in the Weekday PM and Saturday PM peak hours would be mitigated by reallocating green time. This mitigation measure was not identified for the Proposed Project and would be necessary to address the peak construction period impact only. This intersection would be unmitigated under the With-Action condition for the Proposed Project. Therefore, NYCDOT will determine if this mitigation would need to be maintained or removed post-construction.
- Beach Channel Drive and Hassock Street (Intersection 50)
    - The construction-related impact in the Weekday PM and Saturday PM peak hour would be mitigated by reallocating green time. This mitigation measure was not identified for the Proposed Project and would be necessary to address the peak construction period impacts

only. This intersection would remain unmitigated during the operational Weekday PM and Saturday MD peak hours. Therefore, NYCDOT will determine if this mitigation would need to be maintained or removed post-construction.

Geometric Modifications and Elimination of On-Street Parking

The significant adverse traffic impacts at the following study intersection would be partially mitigated by geometric modifications and/or elimination of on-street parking. The specific changes are outlined in **Table 20-29.**

- Arverne Boulevard and Beach 59th Street (Intersection 19)
    - The significant adverse construction-related traffic impact in the Weekday PM peak hour would be fully mitigated by advancing the mitigation measure for this intersection for the Proposed Project, specifically through the restriping of the westbound approach to provide an additional turn bay. The eastbound approach would be restriped to provide a center median to align the eastbound and westbound approaches.
- Arverne Boulevard and Beach 54th Street (Intersection 23)
    - The significant adverse construction-related traffic impacts in the Weekday PM and Saturday PM peak hours would be fully mitigated by advancing the mitigation measure for this intersection for the Proposed Project, specifically through the elimination of on-street parking on the north curb of the westbound approach between Beach 54th Street and Beach 53rd Street.

Installation of New Traffic Signals

The significant adverse construction-related traffic impacts at the following unsignalized intersections would be fully mitigated by advancing the mitigation measures for these intersections for the Proposed Project, specifically by signalizing the intersections. The specific signal timings for each study intersection are outlined in **Table 20-29**.

- Beach Channel Drive and Beach 53rd Street (Intersection 26)
    - Signalization of this intersection would be required to provide gaps in eastbound and westbound traffic for vehicles traveling northbound on Beach 53rd Street (minor street).
    - For analysis purposes, signal timing was developed for the proposed traffic signal based on the timings at adjacent intersections, required pedestrian crossing times, and the need to accommodate future peak period traffic volumes.
    - New crosswalks and associated pedestrian ramps would be installed across Beach Channel Drive in conjunction with this signal installation.
- Rockaway Beach Boulevard and Beach 53rd Street (Intersection 27)
    - Signalization of this intersection would be required to provide gaps for vehicles traveling southbound on Beach 53rd Street due to the high pedestrian volumes expected on the north crosswalk.
    - Restripe eastbound approach to provide one left-turn lane and one through lane. Restripe westbound approach to align the eastbound and westbound approaches and eliminate on-street parking on the north curb of the westbound receiving lane.
    - For analysis purposes, signal timing was developed for the proposed traffic signal based on the timings at adjacent intersections, required pedestrian crossing times, and the need to accommodate future peak period traffic volumes.

- Approximately 10 parking spaces would be removed as a result of the mitigation.

Partially Mitigated Significant Adverse Traffic Impacts

The significant adverse construction-related traffic impact at the following intersection would be partially mitigated through the reallocation of green time. The specific signal timing changes are outlined in **Table 20-29**.

- Beach Channel Drive and Mott Avenue (Intersection 46)
  - The construction-related impact in the Saturday PM peak hour would be mitigated by reallocating green time. This mitigation measure was not identified for the Proposed Project and would be necessary to address the peak construction period impact only. This intersection would be unmitigated under the With-Action condition for the Proposed Project. Therefore, NYCDOT will determine if this mitigation would need to be maintained or removed post-construction.
  - The construction-related impact at this intersection in the Weekday PM peak hour would be unmitigable.

Unmitigable Significant Adverse Construction-Related Traffic Impacts

Due to pedestrian crossing times that cannot be shortened, practical measures to mitigate the significant adverse construction-related traffic impact at Beach Channel Drive and Beach 116th Street (Intersection 1) during the Weekday PM peak hour could not be identified. Therefore, the significant adverse impact at this intersection would be unmitigable.

Table 20-30 through Table 20-33 show the v/c ratios, delays, and LOS for impacted lane groups at each signalized intersection with implementation of these mitigation measures and compare them to Q3 2027 No-Action and Q3 2027 peak construction conditions for the Weekday AM, Weekday PM, Saturday AM, and Saturday MD peak hours. **Table 20-30 through Table 20-33** also show that significant adverse construction-related impacts would be fully mitigated at all but two lane groups at two intersections during the Weekday PM peak hour. These impacts would constitute unavoidable significant adverse construction-related traffic impacts as a result of the Proposed Project (see Chapter 21, “Unavoidable Adverse Impacts”).

Table 20-34 through Table 20-37 show the v/c ratios, delays, and LOS for impacted lane groups at each unsignalized intersection with implementation of these mitigation measures and compare them to Q3 2027 No-Action and Q3 2027 peak construction conditions for the Weekday AM, Weekday PM, Saturday AM, and Saturday MD peak hours. **Table 20-30 through Table 20-33** also show that significant adverse construction-related impacts would be fully mitigated at all unsignalized intersections during all peak hours.

Table 20-29: Construction-Related Traffic Mitigation

Intersection		Weekday AM Peak Hour							
19 Arverne Boulevard & Beach 59th Street	Mitigation Description	Not impacted. Mitigation measure needed to address Weekday PM impact. Restripe WB approach as one 11' left-turn bay (75'), one 11' through lane, and one 8' parking lane. Stripe an 8' median on eastbound approach for approximately 150' with a 50' taper to align eastbound and westbound approaches.							
	Signal Timing Mitigation	No-Action/With-Action				Mitigated			
			G	A	R		G	A	R
		EB / WB	31.0	3.0	2.0	EB / WB	31.0	3.0	2.0
		SB	19.0	3.0	2.0	SB	19.0	3.0	2.0
		Cycle Length		60	sec	Cycle Length		60	sec
26 Beach Channel Drive & Beach 53rd Street	Mitigation Description	Not impacted. Signalize intersection to mitigate impacts in Weekday PM and Saturday PM peak hours.							
	Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		Unsignalized					G	A	R
						EB / WB	49.0	3.0	2.0
						NB	31.0	3.0	2.0
						Cycle Length		90	sec
27 Rockaway Beach Boulevard & Beach 53rd Street	Mitigation Description	Not impacted. Signalize intersection to mitigate impacts in Weekday PM and Saturday PM peak hours.							
	Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		Unsignalized					G	A	R
						EB / WB	47.0	3.0	2.0
						SB	33.0	3.0	2.0
						Cycle Length		90	sec

Table 20-29 (continued): Construction-Related Traffic Mitigation

Intersection — **Weekday PM Peak Hour**

15 — Beach Channel Drive & Beach 62nd Street

Mitigation Description	Reallocate 1 second from NB / SB phase to WB (Arverne Boulevard) phase.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	35.0	3.0	2.0	EB / WB	35.0	3.0	2.0
	WB (Arverne Blvd)	20.0	3.0	2.0	WB (Arverne Blvd)	21.0	3.0	2.0
	NB / SB	20.0	3.0	2.0	NB / SB	19.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

16 — Rockaway Beach Boulevard & Beach 62nd Street

Mitigation Description	Reallocate 1 second from EB phase to EB / WB phase.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	29.0	3.0	2.0	EB / WB	30.0	3.0	2.0
	EB	25.0	3.0	2.0	EB	24.0	3.0	2.0
	NB	21.0	3.0	2.0	NB	21.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

19 — Arverne Boulevard & Beach 59th Street

Mitigation Description	Restripe WB approach as one 11' left-turn bay (75'), one 11' through lane, and one 8' parking lane. Stripe an 8' median on eastbound approach for approximately 150' with a 50' taper to align eastbound and westbound approaches.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	31.0	3.0	2.0	EB / WB	31.0	3.0	2.0
	SB	19.0	3.0	2.0	SB	19.0	3.0	2.0
	Cycle Length		60	sec	Cycle Length		60	sec

20 — Rockaway Freeway & Beach 59th Street

Mitigation Description	Reallocate 1 second from SB phase to WBT phase as part of mitigation for intersection 21.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	WBT	34.0	3.0	2.0	WBT	35.0	3.0	2.0
	All Peds	7.0	0.0	0.0	All Peds	7.0	0.0	0.0
	SB	24.0	3.0	2.0	SB	23.0	3.0	2.0
	WB	10.0	3.0	2.0	WB	10.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

21 — Rockaway Beach Boulevard & Beach 59th Street

Mitigation Description	Reallocate 1 second from NB / SB phase to EB / WB phase.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	34.0	3.0	2.0	EB / WB	35.0	3.0	2.0
	All Peds	7.0	0.0	0.0	All Peds	7.0	0.0	0.0
	NB / SB	24.0	3.0	2.0	NB / SB	23.0	3.0	2.0
	SB	10.0	3.0	2.0	SB	10.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

23 — Arverne Boulevard & Beach 54th Street

Mitigation Description	Install "No Standing Anytime" parking regulation along north curb of WB approach between Beach 54th Street and Beach 53rd Street. Reallocate 2 seconds from NB / SB phase to EB / WB phase and 1 second from NB / SB phase to NB phase as part of mitigation for intersection 25.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	37.0	3.0	2.0	EB / WB	39.0	3.0	2.0
	NB	10.0	3.0	2.0	NB	11.0	3.0	2.0
	NB / SB	28.0	3.0	2.0	NB / SB	25.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

24 — Rockaway Freeway & Beach 54th Street

Mitigation Description	Reallocate 2 seconds from NB / SB phase to EB / WB phase and 1 second from NB / SB phase to WB phase as part of mitigation for intersection 25.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	37.0	3.0	2.0	EB / WB	39.0	3.0	2.0
	WB	10.0	3.0	2.0	WB	11.0	3.0	2.0
	NB / SB	28.0	3.0	2.0	NB / SB	25.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

Table 20-29 (continued): Construction-Related Traffic Mitigation

Intersection		Weekday PM Peak Hour							
25	**Edgemere Avenue & Beach 54th Street**	**Mitigation Description**	Reallocate 2 seconds from NB / SB phase to EB / WB phase and 1 second from NB / SB phase to SB phase.						
		Signal Timing Mitigation	**No-Action/With-Action**				**Mitigated**			
				G	**A**	**R**		**G**	**A**	**R**
			EB / WB	37.0	3.0	2.0	**EB / WB**	39.0	3.0	2.0
			SB	10.0	3.0	2.0	**SB**	11.0	3.0	2.0
			NB / SB	28.0	3.0	2.0	**NB / SB**	25.0	3.0	2.0
			Cycle Length		**90**	**sec**	**Cycle Length**		**90**	**sec**
26	**Beach Channel Drive & Beach 53rd Street**	**Mitigation Description**	Signalize intersection.						
		Signal Timing Mitigation	**No-Action/With-Action**				**Mitigated**			
			Unsignalized					**G**	**A**	**R**
							EB / WB	49.0	3.0	2.0
							NB	31.0	3.0	2.0
							Cycle Length		**90**	**sec**
27	**Rockaway Beach Boulevard & Beach 53rd Street**	**Mitigation Description**	Signalize intersection. Restripe EB approach as one 11' left-turn lane and one 11' through lane. Restripe WB approach to align EB and WB approaches. Eliminate on-street parking along north curb of WB receiving lanes.						
		Signal Timing Mitigation	**No-Action/With-Action**				**Mitigated**			
			Unsignalized					**G**	**A**	**R**
							EB / WB	47.0	3.0	2.0
							SB	33.0	3.0	2.0
							Cycle Length		**90**	**sec**
47	**Beach Channel Drive & Dix Avenue**	**Mitigation Description**	Reallocate 1 second from EB / WB phase to NB / SB phase.						
		Signal Timing Mitigation	**No-Action/With-Action**				**Mitigated**			
				G	**A**	**R**		**G**	**A**	**R**
			NB / SB	49.0	3.0	2.0	**NB / SB**	50.0	3.0	2.0
			EB / WB	31.0	3.0	2.0	**EB / WB**	30.0	3.0	2.0
			Cycle Length		**90**	**sec**	**Cycle Length**		**90**	**sec**
50	**Beach Channel Drive & Hassock Street**	**Mitigation Description**	Reallocate 1 second from EB / WB phase to NB / SB phase.						
		Signal Timing Mitigation	**No-Action/With-Action**				**Mitigated**			
				G	**A**	**R**		**G**	**A**	**R**
			EB / WB	34.0	3.0	2.0	**EB / WB**	33.0	3.0	2.0
			NB / SB	46.0	3.0	2.0	**NB / SB**	47.0	3.0	2.0
			Cycle Length		**90**	**sec**	**Cycle Length**		**90**	**sec**

Table 20-29 (continued): Construction-Related Traffic Mitigation

Intersection		Saturday AM Peak Hour							
19	Arverne Boulevard & Beach 59th Street	Mitigation Description	Not impacted. Mitigation measure needed to address Weekday PM impact. Restripe WB approach as one 11' left-turn bay (75'), one 11' through lane, and one 8' parking lane. Stripe an 8' median on eastbound approach for approximately 150' with a 50' taper to align eastbound and westbound approaches.						
		Signal Timing Mitigation	No-Action/With-Action				Mitigated			
				G	A	R		G	A	R
			EB / WB	31.0	3.0	2.0	EB / WB	31.0	3.0	2.0
			SB	19.0	3.0	2.0	SB	19.0	3.0	2.0
			Cycle Length		60	sec	Cycle Length		60	sec
26	Beach Channel Drive & Beach 53rd Street	Mitigation Description	Not impacted. Signalize intersection to mitigate impacts in Weekday PM and Saturday PM peak hours.							
		Signal Timing Mitigation	No-Action/With-Action				Mitigated			
			Unsignalized					G	A	R
							EB / WB	49.0	3.0	2.0
							NB	31.0	3.0	2.0
							Cycle Length		90	sec
27	Rockaway Beach Boulevard & Beach 53rd Street	Mitigation Description	Not impacted. Signalize intersection to mitigate impacts in Weekday PM and Saturday PM peak hours.							
		Signal Timing Mitigation	No-Action/With-Action				Mitigated			
			Unsignalized					G	A	R
							EB / WB	47.0	3.0	2.0
							SB	33.0	3.0	2.0
							Cycle Length		90	sec

Table 20-29 (continued): Construction-Related Traffic Mitigation

Intersection — **Saturday PM Peak Hour**

15 — Beach Channel Drive & Beach 62nd Street

Mitigation Description	Reallocate 1 second from NB / SB phase to WB (Arverne Boulevard) phase.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	35.0	3.0	2.0	EB / WB	35.0	3.0	2.0
	WB (Arverne Blvd)	20.0	3.0	2.0	WB (Arverne Blvd)	21.0	3.0	2.0
	NB / SB	20.0	3.0	2.0	NB / SB	19.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

19 — Arverne Boulevard & Beach 59th Street

Mitigation Description	Not impacted. Mitigation measure needed to address Weekday PM impact. Restripe WB approach as one 11' left-turn bay (75'), one 11' through lane, and one 8' parking lane. Stripe an 8' median on eastbound approach for approximately 150' with a 50' taper to align eastbound and westbound approaches.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	31.0	3.0	2.0	EB / WB	31.0	3.0	2.0
	SB	19.0	3.0	2.0	SB	19.0	3.0	2.0
	Cycle Length		60	sec	Cycle Length		60	sec

20 — Rockaway Freeway & Beach 59th Street

Mitigation Description	Reallocate 1 second from SB phase to WBT phase as part of mitigation for intersection 21.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	WBT	34.0	3.0	2.0	WBT	35.0	3.0	2.0
	All Peds	7.0	0.0	0.0	All Peds	7.0	0.0	0.0
	SB	24.0	3.0	2.0	SB	23.0	3.0	2.0
	WB	10.0	3.0	2.0	WB	10.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

21 — Rockaway Beach Boulevard & Beach 59th Street

Mitigation Description	Reallocate 1 second from NB / SB phase to EB / WB phase.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	34.0	3.0	2.0	EB / WB	35.0	3.0	2.0
	All Peds	7.0	0.0	0.0	All Peds	7.0	0.0	0.0
	NB / SB	24.0	3.0	2.0	NB / SB	23.0	3.0	2.0
	SB	10.0	3.0	2.0	SB	10.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

23 — Arverne Boulevard & Beach 54th Street

Mitigation Description	Install "No Standing Anytime" parking regulation along north curb of WB approach between Beach 54th Street and Beach 53rd Street. Reallocate 1 second from NB / SB phase to EB / WB phase and 1 second from NB / SB phase to NB phase as part of mitigation for intersection 25.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	37.0	3.0	2.0	EB / WB	38.0	3.0	2.0
	NB	10.0	3.0	2.0	NB	11.0	3.0	2.0
	NB / SB	28.0	3.0	2.0	NB / SB	26.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

24 — Rockaway Freeway & Beach 54th Street

Mitigation Description	Reallocate 1 second from NB / SB phase to EB / WB phase and 1 second from NB / SB phase to WB phase as part of mitigation for intersection 25.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	37.0	3.0	2.0	EB / WB	38.0	3.0	2.0
	WB	10.0	3.0	2.0	WB	11.0	3.0	2.0
	NB / SB	28.0	3.0	2.0	NB / SB	26.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

25 — Edgemere Avenue & Beach 54th Street

Mitigation Description	Reallocate 1 second from NB / SB phase to EB / WB phase and 1 second from NB / SB phase to SB phase.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	37.0	3.0	2.0	EB / WB	38.0	3.0	2.0
	SB	10.0	3.0	2.0	SB	11.0	3.0	2.0
	NB / SB	28.0	3.0	2.0	NB / SB	26.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

Table 20-29 (continued): Construction-Related Traffic Mitigation

Intersection — **Saturday PM Peak Hour**

26 — Beach Channel Drive & Beach 53rd Street

Mitigation Description	Signalize intersection.				
Signal Timing Mitigation	No-Action/With-Action				
	Unsignalized				
Mitigated		G	A	R	
	EB / WB	49.0	3.0	2.0	
	NB	31.0	3.0	2.0	
	Cycle Length		90	sec	

27 — Rockaway Beach Boulevard & Beach 53rd Street

Mitigation Description	Signalize intersection. Restripe EB approach as one 11' left-turn lane and one 11' through lane. Restripe WB approach to align EB and WB approaches. Eliminate on-street parking along north curb of WB receiving lanes.				
Signal Timing Mitigation	No-Action/With-Action				
	Unsignalized				
Mitigated		G	A	R	
	EB / WB	47.0	3.0	2.0	
	SB	33.0	3.0	2.0	
	Cycle Length		90	sec	

46 — Beach Channel Drive & Mott Avenue

Mitigation Description	Reallocate 1 second from EB / WB phase to NB / SB phase.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	34.0	3.0	2.0	EB / WB	33.0	3.0	2.0
	NB / SB	31.0	3.0	2.0	NB / SB	32.0	3.0	2.0
	EBR / SB	10.0	3.0	2.0	EBR / SB	10.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

47 — Beach Channel Drive & Dix Avenue

Mitigation Description	Reallocate 1 second from EB / WB phase to NB / SB phase.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	NB / SB	49.0	3.0	2.0	NB / SB	50.0	3.0	2.0
	EB / WB	31.0	3.0	2.0	EB / WB	30.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

50 — Beach Channel Drive & Hassock Street

Mitigation Description	Reallocate 1 second from EB / WB phase to NB / SB phase.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated			
		G	A	R		G	A	R
	EB / WB	34.0	3.0	2.0	EB / WB	33.0	3.0	2.0
	NB / SB	46.0	3.0	2.0	NB / SB	47.0	3.0	2.0
	Cycle Length		90	sec	Cycle Length		90	sec

Table 20-30: Q3 2027 Weekday AM Peak Hour No-Action vs. Peak Construction vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	Q3 2027 No-Action				Q3 2027 Peak Construction				Q3 2027 Mitigaiton			
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
1	**Beach Channel Drive and Beach 116th Street**												
	Eastbound	LTR	0.41	25.6	C	LTR	0.42	25.8	C	LTR	0.42	25.8	C
	Westbound	LTR	0.77	25.2	C	LTR	0.78	25.7	C	LTR	0.78	25.7	C
	Northbound	LTR	0.20	43.9	D	LTR	0.20	43.9	D	LTR	0.20	43.9	D
	Southbound	LTR	0.06	45.0	D	LTR	0.06	45.0	D	LTR	0.06	45.0	D
		Intersection		26.2	C	Intersection		26.6	C	Intersection		26.6	C
2	**Newport Avenue and Beach 116th Street**												
	Eastbound	LTR	0.48	28.2	C	LTR	0.48	28.2	C	LTR	0.48	28.2	C
	Northbound	LT	0.22	44.3	D	LT	0.22	44.3	D	LT	0.22	44.3	D
		R	0.20	31.1	C	R	0.20	31.1	C	R	0.20	31.1	C
	Southbound	LTR	0.16	16.8	B	LTR	0.16	16.8	B	LTR	0.16	16.8	B
		Intersection		27.8	C	Intersection		27.8	C	Intersection		27.8	C
3	**Rockaway Beach Boulevard and Beach 116th Street**												
	Eastbound	LTR	0.38	12.0	B	LTR	0.38	12.0	B	LTR	0.38	12.0	B
	Westbound	LTR	0.55	15.2	B	LTR	0.55	15.2	B	LTR	0.55	15.2	B
	Northbound	L	0.03	12.3	B	L	0.03	12.3	B	L	0.03	12.3	B
		TR	0.08	12.7	B	TR	0.08	12.7	B	TR	0.08	12.7	B
	Southbound	L	0.19	14.1	B	L	0.19	14.1	B	L	0.19	14.1	B
		TR	0.10	12.9	B	TR	0.10	12.9	B	TR	0.10	12.9	B
		Intersection		13.6	B	Intersection		13.6	B	Intersection		13.6	B
4	**Beach Channel Drive and Rockaway Freeway**												
	Eastbound	LTR	0.55	25.3	C	LTR	0.56	25.6	C	LTR	0.56	25.6	C
	Westbound	LTR	0.55	25.4	C	LTR	0.56	25.6	C	LTR	0.56	25.6	C
	Northbound	LT	0.37	22.6	C	LT	0.37	22.6	C	LT	0.37	22.6	C
		R	0.01	17.7	B	R	0.01	17.7	B	R	0.01	17.7	B
		Intersection		24.8	C	Intersection		25.0	C	Intersection		25.0	C
5	**Beach Channel Drive and Beach 108th Street**												
	Eastbound	TR	0.47	18.8	B	TR	0.49	19.0	B	TR	0.49	19.0	B
	Westbound	LT	0.53	20.1	C	LT	0.54	20.3	C	LT	0.54	20.3	C
	Northbound	L	0.31	17.1	B	L	0.31	17.1	B	L	0.31	17.1	B
		R	0.12	15.2	B	R	0.12	15.2	B	R	0.12	15.2	B
		Intersection		18.9	B	Intersection		19.0	B	Intersection		19.0	B
6	**Rockaway Freeway and Beach 108th Street**												
	Eastbound	LTR	0.09	14.6	B	LTR	0.09	14.6	B	LTR	0.09	14.6	B
	Westbound	LTR	0.20	15.5	B	LTR	0.20	15.5	B	LTR	0.20	15.5	B
	Northbound	L	0.28	17.2	B	L	0.28	17.2	B	L	0.28	17.2	B
		TR	0.20	15.6	B	TR	0.20	15.6	B	TR	0.20	15.6	B
	Southbound	LTR	0.20	16.0	B	LTR	0.21	16.1	B	LTR	0.21	16.1	B
		Intersection		15.8	B	Intersection		15.8	B	Intersection		15.8	B
7	**Rockaway Beach Boulevard and Beach 108th Street**												
	Eastbound	L	0.32	18.9	B	L	0.32	18.9	B	L	0.32	18.9	B
		TR	0.46	19.9	B	TR	0.47	20.0	C	TR	0.47	20.0	C
	Westbound	L	0.03	14.2	B	L	0.03	14.2	B	L	0.03	14.2	B
		TR	0.59	22.9	C	TR	0.59	22.9	C	TR	0.59	22.9	C
	Northbound	L	0.20	16.2	B	L	0.20	16.2	B	L	0.20	16.2	B
		TR	0.25	16.4	B	TR	0.25	16.4	B	TR	0.25	16.4	B
	Southbound	L	0.13	15.5	B	L	0.14	15.6	B	L	0.14	15.6	B
		TR	0.25	16.6	B	TR	0.25	16.6	B	TR	0.25	16.6	B
		Intersection		19.2	B	Intersection		19.3	B	Intersection		19.3	B
8	**Beach Channel Drive and Beach 92nd Street/Beach 94th Street**												
	Eastbound	T	0.22	7.4	A	T	0.23	7.4	A	T	0.23	7.4	A
	Northeastbound (Cross Bay Bridge Exit Ramp)	R	0.48	38.4	D	R	0.51	39.4	D	R	0.51	39.4	D
	Northeastbound (Beach 94th St)	R	0.08	30.2	C	R	0.08	30.2	C	R	0.08	30.2	C
	Westbound	TR	0.42	1.9	A	TR	0.43	1.9	A	TR	0.43	1.9	A
	Northbound	R	0.05	40.0	D	R	0.05	40.0	D	R	0.05	40.0	D
	Southbound	R	0.01	39.0	D	R	0.01	39.0	D	R	0.01	39.0	D
		Intersection		9.2	A	Intersection		9.5	A	Intersection		9.5	A
9	**Rockaway Freeway and Cross Bay Parkway**												
	Eastbound	TR	0.16	19.1	B	TR	0.16	19.1	B	TR	0.16	19.1	B
	Westbound	L	0.01	35.6	D	L	0.01	35.6	D	L	0.01	35.6	D
		T	0.13	10.4	B	T	0.13	10.4	B	T	0.13	10.4	B
	Southbound (Cross Bay Bridge Off-Ramp)	LTR	0.12	20.4	C	LTR	0.14	20.6	C	LTR	0.14	20.6	C
	Southbound (Beach Channel Drive Off-Ramp)	LTR	0.05	19.8	B	LTR	0.05	19.8	B	LTR	0.05	19.8	B
		Intersection		16.7	B	Intersection		17.0	B	Intersection		17.0	B
10	**Rockaway Beach Boulevard and Cross Bay Parkway**												
	Eastbound	TR	0.25	9.0	A	TR	0.25	9.1	A	TR	0.25	9.1	A
	Westbound	LT	0.25	8.7	A	LT	0.25	8.7	A	LT	0.25	8.7	A
	Southbound (Cross Bay Bridge Off-Ramp)	LT	0.11	14.7	B	LT	0.12	14.8	B	LT	0.12	14.8	B
	Southbound (Beach Channel Drive Off-Ramp)	TR	0.12	15.2	B	TR	0.12	15.2	B	TR	0.12	15.2	B
		Intersection		10.8	B	Intersection		11.0	B	Intersection		11.0	B
11[1]	**Rockaway Freeway and Beach 94th Street**												
	Eastbound	L	0.08	36.8	D	L	0.08	36.8	D	L	0.08	36.8	D
		T	0.10	10.1	B	T	0.11	10.2	B	T	0.11	10.2	B
	Westbound	TR	0.28	20.5	C	TR	0.28	20.5	C	TR	0.28	20.5	C
	Northbound (Cross Bay Bridge On-Ramp)	LTR	0.23	21.4	C	LTR	0.23	21.4	C	LTR	0.23	21.4	C
		Intersection		19.6	B	Intersection		19.5	B	Intersection		19.5	B
12	**Rockaway Beach Boulevard and Beach 94th Street**												
	Eastbound	LT	0.23	8.6	A	LT	0.24	8.7	A	LT	0.24	8.7	A
	Westbound	TR	0.51	12.1	B	TR	0.51	12.1	B	TR	0.51	12.1	B
	Northbound (Cross Bay Bridge On-Ramp)	LT	0.21	15.9	B	LT	0.21	15.9	B	LT	0.21	15.9	B
	Northbound (Beach Channel Drive On-Ramp)	TR	0.05	14.4	B	TR	0.05	14.4	B	TR	0.05	14.4	B
		Intersection		11.8	B	Intersection		11.7	B	Intersection		11.7	B
13[1]	**Beach Channel Drive and Beach 73rd Street**												
	Eastbound	L	0.00	9.3	A	L	0.00	9.3	A	L	0.00	9.3	A
		T	0.28	11.6	B	T	0.30	11.9	B	T	0.30	11.9	B
	Westbound	L	0.15	10.9	B	L	0.16	11.0	B	L	0.16	11.0	B
		TR	0.61	17.6	B	TR	0.62	17.9	B	TR	0.62	17.9	B
	Northbound	LT	0.26	22.4	C	LT	0.26	22.4	C	LT	0.26	22.4	C
	Southbound	LTR	0.02	19.6	B	LTR	0.02	19.6	B	LTR	0.02	19.6	B
		Intersection		16.0	B	Intersection		16.1	B	Intersection		16.1	B
14	**Rockaway Beach Boulevard and Beach 73rd Street**												
	Eastbound	LT	0.22	8.3	A	LT	0.24	8.4	A	LT	0.24	8.4	A
		R	0.06	7.2	A	R	0.06	7.2	A	R	0.06	7.2	A
	Westbound	L	0.05	7.2	A	L	0.05	7.2	A	L	0.05	7.2	A
		T	0.36	9.7	A	T	0.36	9.7	A	T	0.36	9.7	A
		R	0.14	7.9	A	R	0.14	7.9	A	R	0.14	7.9	A
	Northbound	LT	0.06	24.1	C	LT	0.06	24.1	C	LT	0.06	24.1	C
		R	0.02	23.7	C	R	0.02	23.7	C	R	0.02	23.7	C
	Southbound	L	0.23	26.7	C	L	0.23	26.7	C	L	0.23	26.7	C
		TR	0.26	27.2	C	TR	0.26	27.2	C	TR	0.26	27.2	C
		Intersection		12.2	B	Intersection		12.2	B	Intersection		12.2	B
15	**Beach Channel Drive/Arverne Boulevard and Beach 62nd Street**												
	Eastbound	LT	0.72	30.8	C	LT	0.77	33.7	C	LT	0.77	33.7	C
	Westbound (Beach Channel Drive)	T	0.88	47.6	D	T	0.90	51.0	D	T	0.90	51.0	D
	Westbound (Arverne Boulevard)	LR	0.96	82.0	F	LR	0.96	82.0	F	LR	0.96	82.0	F
	Northbound	LTR	0.41	33.0	C	LTR	0.41	33.0	C	LTR	0.41	33.0	C
	Southbound	L	0.41	35.5	D	L	0.41	35.5	D	L	0.41	35.5	D
		R	0.01	27.4	C	R	0.01	27.4	C	R	0.01	27.4	C
		Intersection		46.4	D	Intersection		48.3	D	Intersection		48.3	D

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. "+" denotes significant adverse impact.
1. Stop-controlled approach at signalized intersection.
2. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.

Table 20-30 (continued): Q3 2027 Weekday AM Peak Hour No-Action vs. Peak Construction vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	Q3 2027 No-Action				Q3 2027 Peak Construction				Q3 2027 Mitigaiton			
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
16	**Rockaway Beach Boulevard and Beach 62nd Street**												
	Eastbound	L	0.15	25.3	C	L	0.15	25.3	C	L	0.15	25.3	C
		TR	0.27	7.2	A	TR	0.29	7.3	A	TR	0.29	7.3	A
	Westbound	LTR	0.52	26.9	C	LTR	0.53	26.9	C	LTR	0.53	26.9	C
	Northbound	LTR	0.19	29.0	C	LTR	0.20	29.2	C	LTR	0.20	29.2	C
		Intersection		20.8	C	Intersection		20.6	C	Intersection		20.6	C
18	**Beach Channel Drive and Beach 59th Street**												
	Eastbound	LT	0.28	11.9	B	LT	0.31	12.1	B	LT	0.31	12.1	B
		R	0.01	9.4	A	R	0.01	9.4	A	R	0.01	9.4	A
	Westbound	LTR	0.42	13.6	B	LTR	0.44	13.8	B	LTR	0.44	13.8	B
	Southbound	LTR	0.01	19.4	B	LTR	0.01	19.4	B	LTR	0.01	19.4	B
		Intersection		13.0	B	Intersection		13.1	B	Intersection		13.1	B
19	**Arverne Boulevard and Beach 59th Street**												
	Eastbound	T	0.29	9.0	A	T	0.30	9.1	A	T	0.35	9.6	A
		R	0.11	7.8	A	R	0.11	7.8	A	R	0.11	7.8	A
	Westbound	LT	0.48	11.5	B	LT	0.48	11.6	B				
										L	0.20	8.8	A
										T	0.32	9.5	A
	Southbound	LTR	0.09	14.7	B	LTR	0.09	14.7	B	LTR	0.09	14.7	B
		Intersection		10.4	B	Intersection		10.5	B	Intersection		9.6	A
20	**Rockaway Freeway and Beach 59th Street**												
	Westbound	L	0.57	46.8	D	L	0.57	46.8	D	L	0.57	46.8	D
		T	0.06	8.9	A	T	0.06	8.9	A	T	0.06	8.9	A
	Southbound	LTR	0.49	33.7	C	LTR	0.49	33.7	C	LTR	0.49	33.7	C
		Intersection		33.4	C	Intersection		33.4	C	Intersection		33.4	C
21	**Rockaway Beach Boulevard and Beach 59th Street**												
	Eastbound	TR	0.62	27.4	C	TR	0.65	28.4	C	TR	0.65	28.4	C
	Westbound	LT	0.59	26.2	C	LT	0.59	26.2	C	LT	0.59	26.2	C
	Northbound	LR	0.31	31.5	C	LR	0.31	31.5	C	LR	0.31	31.5	C
	Southbound	LTR	0.44	20.0	C	LTR	0.44	20.1	C	LTR	0.44	20.1	C
		Intersection		25.3	C	Intersection		25.7	C	Intersection		25.7	C
22	**Beach Channel Drive and Beach 54th Street**												
	Eastbound	T	0.29	11.9	B	T	0.31	12.2	B	T	0.31	12.2	B
		R	0.01	9.4	A	R	0.01	9.4	A	R	0.01	9.4	A
	Westbound	LT	0.48	14.9	B	LT	0.49	15.2	B	LT	0.49	15.2	B
	Northbound	LR	0.10	20.7	C	LR	0.10	20.7	C	LR	0.10	20.7	C
	Southbound	LTR	0.18	21.4	C	LTR	0.18	21.5	C	LTR	0.18	21.5	C
		Intersection		15.0	B	Intersection		15.1	B	Intersection		15.1	B
23	**Arverne Boulevard and Beach 54th Street**												
	Eastbound	LTR	0.42	20.8	C	LTR	0.44	21.1	C	LTR	0.44	21.1	C
	Westbound	LTR	0.53	23.4	C	LTR	0.53	23.5	C	LTR	0.53	23.5	C
	Northbound	LTR	0.19	14.0	B	LTR	0.22	14.3	B	LTR	0.22	14.3	B
	Southbound	LTR	0.09	22.4	C	LTR	0.09	22.4	C	LTR	0.09	22.4	C
		Intersection		20.6	C	Intersection		20.6	C	Intersection		20.6	C
24	**Rockaway Freeway and Beach 54th Street**												
	Eastbound	LTR	0.04	16.0	B	LTR	0.04	16.0	B	LTR	0.04	16.0	B
	Westbound	L	0.11	37.1	D	L	0.11	37.1	D	L	0.11	37.1	D
		TR	0.18	9.3	A	TR	0.18	9.3	A	TR	0.18	9.3	A
	Northbound	LTR	0.27	24.3	C	LTR	0.30	24.8	C	LTR	0.30	24.8	C
	Southbound	LTR	0.27	24.4	C	LTR	0.27	24.4	C	LTR	0.27	24.4	C
		Intersection		19.3	B	Intersection		19.7	B	Intersection		19.7	B
25	**Edgemere Avenue and Beach 54th Street**												
	Eastbound	LTR	0.69	27.9	C	LTR	0.84	38.3	D	LTR	0.84	38.3	D
	Westbound	LTR	0.52	22.1	C	LTR	0.52	22.1	C	LTR	0.52	22.1	C
	Northbound	LTR	0.00	21.4	C	LTR	0.00	21.4	C	LTR	0.00	21.4	C
	Southbound	LTR	0.21	14.2	B	LTR	0.21	14.2	B	LTR	0.21	14.2	B
		Intersection		23.2	C	Intersection		27.9	C	Intersection		27.9	C
26	**Beach Channel Drive and Beach 53rd Street**												
	Eastbound	Unsignalized				Unsignalized				TR	0.44	14.1	B
	Westbound									LT	0.46	14.6	B
	Northbound									LR	0.22	22.0	C
										Intersection		15.4	B
27	**Rockaway Beach Boulevard and Beach 53rd Street**												
	Eastbound	Unsignalized				Unsignalized				L	0.09	11.3	B
										T	0.30	13.2	B
	Westbound									TR	0.32	13.6	B
	Southbound									LR	0.28	21.6	C
										Intersection		15.1	B
29	**Beach Channel Drive and Beach 51st Street**												
	Eastbound	L	0.08	10.1	B	L	0.08	10.1	B	L	0.08	10.1	B
		TR	0.49	15.2	B	TR	0.49	15.2	B	TR	0.49	15.2	B
	Westbound	LT	0.39	13.2	B	LT	0.39	13.2	B	LT	0.39	13.2	B
		R	0.04	9.7	B	R	0.04	9.7	B	R	0.04	9.7	B
	Northbound	LTR	0.01	19.4	B	LTR	0.01	19.4	B	LTR	0.01	19.4	B
		Intersection		13.9	B	Intersection		13.9	B	Intersection		13.9	B
39	**Rockaway Freeway and Beach 44th Street**												
	Eastbound	L	0.03	36.0	D	L	0.03	36.0	D	L	0.03	36.0	D
		TR	0.22	17.8	B	TR	0.22	17.8	B	TR	0.22	17.8	B
	Westbound	L	0.01	8.3	A	L	0.01	8.3	A	L	0.01	8.3	A
		TR	0.20	17.6	B	TR	0.20	17.6	B	TR	0.20	17.6	B
	Northbound	LTR	0.02	21.6	C	LTR	0.03	21.7	C	LTR	0.03	21.7	C
	Southbound	LTR	0.11	22.7	C	LTR	0.11	22.7	C	LTR	0.11	22.7	C
		Intersection		18.4	B	Intersection		18.4	B	Intersection		18.4	B
40[1,2]	**Beach Channel Drive/Seagirt Boulevard and Beach 35th Street**												
	Eastbound	LTR	0.37	13.0	B	LTR	0.38	13.3	B	LTR	0.38	13.3	B
	Westbound	LT	0.40	11.9	B	LT	0.41	11.9	B	LT	0.41	11.9	B
	Southbound	LT	0.09	21.2	C	LT	0.09	21.2	C	LT	0.09	21.2	C
		R	0.34	6.9	A	R	0.38	7.3	A	R	0.38	7.3	A
	Northbound	LTR	0.08	15.8	B	LTR	0.08	15.8	B	LTR	0.08	15.8	B
		Intersection		11.7	B	Intersection		11.8	B	Intersection		11.8	B
41[2]	**Rockaway Freeway and Beach 35th Street**												
	Eastbound	L	0.04	34.7	C	L	0.04	34.7	C	L	0.04	34.7	C
		TR	0.32	18.2	B	TR	0.32	18.2	B	TR	0.32	18.2	B
	Westbound	L	0.00	41.0	D	L	0.00	39.0	D	L	0.00	39.0	D
		TR	0.34	8.6	A	TR	0.34	8.5	A	TR	0.34	8.5	A
	Southbound	LTR	0.15	7.6	A	LTR	0.15	7.6	A	LTR	0.15	7.6	A
	Northbound	LTR	0.09	25.7	C	LTR	0.09	25.7	C	LTR	0.09	25.7	C
		Intersection		13.7	B	Intersection		13.7	B	Intersection		13.7	B
42[2]	**Rockaway Freeway and Seagirt Boulevard**												
	Eastbound	L	0.13	40.4	D	L	0.13	40.0	D	L	0.13	40.0	D
		TR	0.14	17.8	B	TR	0.14	18.5	B	TR	0.14	18.5	B
	Westbound	LTR	0.37	29.7	C	LTR	0.38	29.8	C	LTR	0.38	29.8	C
	Southbound	TR	0.31	22.0	C	TR	0.31	22.1	C	TR	0.31	22.1	C
	Northbound	TR	0.38	10.1	B	TR	0.38	10.1	B	TR	0.38	10.1	B
		Intersection		21.9	C	Intersection		22.1	C	Intersection		22.1	C

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. "+" denotes significant adverse impact.
1. Stop-controlled approach at signalized intersection.
2. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.

Table 20-30 (continued): Q3 2027 Weekday AM Peak Hour No-Action vs. Peak Construction vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	Q3 2027 No-Action				Q3 2027 Peak Construction				Q3 2027 Mitigaiton			
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
43	**Rockaway Freeway and Beach 25th Street**												
	Eastbound	LTR	0.35	25.7	C	LTR	0.35	25.7	C	LTR	0.35	25.7	C
	Westbound	LTR	0.29	24.9	C	LTR	0.29	24.9	C	LTR	0.29	24.9	C
	Northbound	L	0.12	36.3	D	L	0.12	36.3	D	L	0.12	36.3	D
		TR	0.34	20.1	C	TR	0.34	20.1	C	TR	0.34	20.1	C
	Southbound	L	0.10	36.1	D	L	0.10	36.1	D	L	0.10	36.1	D
		TR	0.35	20.0	C	TR	0.35	20.0	C	TR	0.35	20.0	C
		Intersection		22.9	C	Intersection		22.9	C	Intersection		22.9	C
44	**Rockaway Freeway and Cornaga Avenue**												
	Eastbound	LTR	0.20	19.5	B	LTR	0.20	19.5	B	LTR	0.20	19.5	B
	Westbound	LTR	0.48	25.0	C	LTR	0.48	25.0	C	LTR	0.48	25.0	C
	Northbound	TR	0.43	26.4	C	TR	0.43	26.4	C	TR	0.43	26.4	C
	Southbound	L	0.05	36.2	D	L	0.05	36.2	D	L	0.05	36.2	D
		TR	0.16	13.2	B	TR	0.16	13.2	B	TR	0.16	13.2	B
		Intersection		22.3	C	Intersection		22.3	C	Intersection		22.3	C
45	**Beach Channel Drive and Cornaga Avenue**												
	Eastbound	LTR	0.20	19.5	B	LTR	0.20	19.5	B	LTR	0.20	19.5	B
	Westbound	LTR	0.22	19.9	B	LTR	0.22	19.9	B	LTR	0.22	19.9	B
	Northbound	L	0.02	12.0	B	L	0.02	12.0	B	L	0.02	12.0	B
		TR	0.39	15.8	B	TR	0.40	15.9	B	TR	0.40	15.9	B
	Southbound	L	0.05	12.3	B	L	0.05	12.3	B	L	0.05	12.3	B
		TR	0.37	15.6	B	TR	0.40	16.0	B	TR	0.40	16.0	B
		Intersection		16.6	B	Intersection		16.8	B	Intersection		16.8	B
46	**Beach Channel Drive and Mott Avenue**												
	Eastbound	LTR	0.47	24.3	C	LTR	0.47	24.3	C	LTR	0.47	24.3	C
	Westbound	LT	0.27	20.9	C	LT	0.27	20.9	C	LT	0.27	20.9	C
		R	0.11	10.2	B	R	0.11	10.2	B	R	0.11	10.2	B
	Northbound	L	0.04	19.8	B	L	0.04	19.9	B	L	0.04	19.9	B
		TR	0.78	36.8	D	TR	0.80	37.9	D	TR	0.80	37.9	D
	Southbound	L	0.38	17.8	B	L	0.38	18.1	B	L	0.38	18.1	B
		TR	0.51	16.4	B	TR	0.54	16.9	B	TR	0.54	16.9	B
		Intersection		23.9	C	Intersection		24.4	C	Intersection		24.4	C
47	**Beach Channel Drive and Dix Avenue**												
	Eastbound	LTR	0.33	24.1	C	LTR	0.33	24.1	C	LTR	0.33	24.1	C
	Westbound	LTR	0.05	19.9	B	LTR	0.05	19.9	B	LTR	0.05	19.9	B
	Northbound	LTR	0.72	21.2	C	LTR	0.73	21.7	C	LTR	0.73	21.7	C
	Southbound	LTR	0.62	17.9	B	LTR	0.66	19.1	B	LTR	0.66	19.1	B
		Intersection		20.1	C	Intersection		20.8	C	Intersection		20.8	C
49	**Beach Channel Drive and Nameoke Avenue**												
	Eastbound	LTR	0.46	26.4	C	LTR	0.46	26.4	C	LTR	0.46	26.4	C
	Northbound	L	0.04	9.7	A	L	0.04	9.8	A	L	0.04	9.8	A
		TR	0.56	16.0	B	TR	0.57	16.2	B	TR	0.57	16.2	B
	Southbound	L	0.08	10.2	B	L	0.08	10.2	B	L	0.08	10.2	B
		TR	0.58	16.5	B	TR	0.61	17.3	B	TR	0.61	17.3	B
		Intersection		17.7	B	Intersection		18.1	B	Intersection		18.1	B
50	**Beach Channel Drive and Hassock Avenue**												
	Eastbound	LR	0.09	18.4	B	LR	0.09	18.4	B	LR	0.09	18.4	B
	Westbound	L	0.11	18.7	B	L	0.11	18.7	B	L	0.11	18.7	B
		TR	0.13	18.8	B	TR	0.13	18.8	B	TR	0.13	18.8	B
	Northbound	LT	0.82	28.7	C	LT	0.83	29.7	C	LT	0.83	29.7	C
	Southbound	T	0.62	19.4	B	T	0.66	20.6	C	T	0.66	20.6	C
		R	0.05	11.2	B	R	0.05	11.2	B	R	0.05	11.2	B
		Intersection		23.4	C	Intersection		24.2	C	Intersection		24.2	C

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. "+" denotes significant adverse impact.
1. Stop-controlled approach at signalized intersection.
2. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.

Table 20-31: Q3 2027 Weekday PM Peak Hour No-Action vs. Peak Construction vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	Q3 2027 No-Action				Q3 2027 Peak Construction					Q3 2027 Mitigaiton				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
1	**Beach Channel Drive and Beach 116th Street**														
	Eastbound	LTR	0.96	51.5	D	LTR	0.96	51.5	D		LTR	0.96	51.5	D	
	Westbound	DefL	1.06	114.2	F	DefL	1.06	114.2	F		DefL	1.06	114.2	F	
		TR	1.41	217.6	F	TR	1.42	221.4	F	+	TR	1.42	221.4	F	U
	Northbound	LTR	0.25	44.5	D	LTR	0.25	44.6	D		LTR	0.25	44.6	D	
	Southbound	LTR	0.25	48.3	D	LTR	0.25	48.3	D		LTR	0.25	48.3	D	
		Intersection		126.6	F	Intersection		128.4	F		Intersection		128.4	F	
2	**Newport Avenue and Beach 116th Street**														
	Eastbound	LTR	0.61	31.7	C	LTR	0.61	31.7	C		LTR	0.61	31.7	C	
	Northbound	LT	0.42	49.4	D	LT	0.43	49.6	D		LT	0.43	49.6	D	
		R	0.40	34.9	C	R	0.40	34.9	C		R	0.40	34.9	C	
	Southbound	LTR	0.39	20.0	C	LTR	0.39	20.1	C		LTR	0.39	20.1	C	
		Intersection		30.3	C	Intersection		30.4	C		Intersection		30.4	C	
3	**Rockaway Beach Boulevard and Beach 116th Street**														
	Eastbound	LTR	0.65	16.9	B	LTR	0.65	16.9	B		LTR	0.65	16.9	B	
	Westbound	LTR	0.99	52.0	D	LTR	1.00	52.4	D		LTR	1.00	52.4	D	
	Northbound	L	0.20	14.4	B	L	0.20	14.4	B		L	0.20	14.4	B	
		TR	0.27	14.8	B	TR	0.27	14.8	B		TR	0.27	14.8	B	
	Southbound	L	0.40	17.9	B	L	0.40	17.9	B		L	0.40	17.9	B	
		TR	0.42	16.9	B	TR	0.42	16.9	B		TR	0.42	16.9	B	
		Intersection		29.9	C	Intersection		30.1	C		Intersection		30.1	C	
4	**Beach Channel Drive and Rockaway Freeway**														
	Eastbound	LTR	1.29	168.3	F	LTR	1.29	169.4	F		LTR	1.29	169.4	F	
	Westbound	LTR	0.94	46.8	D	LTR	0.94	47.7	D		LTR	0.94	47.7	D	
	Northbound	LT	0.35	22.2	C	LT	0.35	22.2	C		LT	0.35	22.2	C	
		R	0.01	17.7	B	R	0.01	17.7	B		R	0.01	17.7	B	
		Intersection		108.5	F	Intersection		109.1	F		Intersection		109.1	F	
5	**Beach Channel Drive and Beach 108th Street**														
	Eastbound	TR	0.81	27.1	C	TR	0.81	27.1	C		TR	0.81	27.1	C	
	Westbound	LT	0.82	28.9	C	LT	0.82	29.0	C		LT	0.82	29.0	C	
	Northbound	L	0.17	15.5	B	L	0.17	15.5	B		L	0.17	15.5	B	
		R	0.16	15.5	B	R	0.16	15.5	B		R	0.16	15.5	B	
		Intersection		26.6	C	Intersection		26.6	C		Intersection		26.6	C	
6	**Rockaway Freeway and Beach 108th Street**														
	Eastbound	LTR	0.31	16.7	B	LTR	0.31	16.7	B		LTR	0.31	16.7	B	
	Westbound	LTR	0.17	15.3	B	LTR	0.17	15.3	B		LTR	0.17	15.3	B	
	Northbound	L	0.30	17.5	B	L	0.30	17.5	B		L	0.30	17.5	B	
		TR	0.18	15.4	B	TR	0.18	15.4	B		TR	0.18	15.4	B	
	Southbound	LTR	0.32	17.6	B	LTR	0.32	17.6	B		LTR	0.32	17.6	B	
		Intersection		16.5	B	Intersection		16.5	B		Intersection		16.5	B	
7	**Rockaway Beach Boulevard and Beach 108th Street**														
	Eastbound	L	0.42	21.4	C	L	0.42	21.5	C		L	0.42	21.5	C	
		TR	0.84	33.7	C	TR	0.84	33.7	C		TR	0.84	33.7	C	
	Westbound	L	0.09	15.3	B	L	0.09	15.3	B		L	0.09	15.3	B	
		TR	0.64	24.3	C	TR	0.65	24.4	C		TR	0.65	24.4	C	
	Northbound	L	0.30	18.1	B	L	0.30	18.1	B		L	0.30	18.1	B	
		TR	0.19	15.7	B	TR	0.19	15.7	B		TR	0.19	15.7	B	
	Southbound	L	0.49	21.6	C	L	0.49	21.6	C		L	0.49	21.6	C	
		TR	0.35	17.8	B	TR	0.35	17.8	B		TR	0.35	17.8	B	
		Intersection		24.7	C	Intersection		24.7	C		Intersection		24.7	C	
8	**Beach Channel Drive and Beach 92nd Street/Beach 94th Street**														
	Eastbound	T	0.66	16.2	B	T	0.66	16.2	B		T	0.66	16.2	B	
	Northeastbound (Cross Bay Bridge Exit Ramp)	R	1.12	123.4	F	R	1.12	123.4	F		R	1.12	123.4	F	
	Northeastbound (Beach 94th St)	R	0.21	32.6	C	R	0.21	32.6	C		R	0.21	32.6	C	
	Westbound	TR	0.62	5.2	A	TR	0.63	5.4	A		TR	0.63	5.4	A	
	Northbound	R	0.21	42.5	D	R	0.21	42.5	D		R	0.21	42.5	D	
	Southbound	R	0.13	39.7	D	R	0.13	39.7	D		R	0.13	39.7	D	
		Intersection		30.9	C	Intersection		30.8	C		Intersection		30.8	C	
9	**Rockaway Freeway and Cross Bay Parkway**														
	Eastbound	TR	0.38	22.0	C	TR	0.38	22.0	C		TR	0.38	22.0	C	
	Westbound	L	0.05	36.2	D	L	0.05	36.2	D		L	0.05	36.2	D	
		T	0.18	10.7	B	T	0.18	10.8	B		T	0.18	10.8	B	
	Southbound (Cross Bay Bridge Off-Ramp)	LTR	0.46	24.3	C	LTR	0.46	24.3	C		LTR	0.46	24.3	C	
	Southbound (Beach Channel Drive Off-Ramp)	LTR	0.14	20.8	C	LTR	0.14	20.8	C		LTR	0.14	20.8	C	
		Intersection		21.4	C	Intersection		21.4	C		Intersection		21.4	C	
10	**Rockaway Beach Boulevard and Cross Bay Parkway**														
	Eastbound	TR	0.69	16.4	B	TR	0.69	16.4	B		TR	0.69	16.4	B	
	Westbound	LT	0.40	10.2	B	LT	0.40	10.3	B		LT	0.40	10.3	B	
	Southbound (Cross Bay Bridge Off-Ramp)	LT	0.44	17.5	B	LT	0.44	17.5	B		LT	0.44	17.5	B	
	Southbound (Beach Channel Drive Off-Ramp)	TR	0.30	17.2	B	TR	0.30	17.2	B		TR	0.30	17.2	B	
		Intersection		15.4	B	Intersection		15.4	B		Intersection		15.4	B	
11 [1]	**Rockaway Freeway and Beach 94th Street**														
	Eastbound	L	0.05	36.2	D	L	0.05	36.2	D		L	0.05	36.2	D	
		T	0.33	12.2	B	T	0.33	12.2	B		T	0.33	12.2	B	
	Westbound	TR	0.29	20.6	C	TR	0.30	20.7	C		TR	0.30	20.7	C	
	Northbound (Cross Bay Bridge On-Ramp)	LTR	0.35	22.7	C	LTR	0.35	22.8	C		LTR	0.35	22.8	C	
		Intersection		18.7	B	Intersection		18.8	B		Intersection		18.8	B	
12	**Rockaway Beach Boulevard and Beach 94th Street**														
	Eastbound	LT	0.75	17.2	B	LT	0.76	17.6	B		LT	0.76	17.6	B	
	Westbound	TR	0.60	13.6	B	TR	0.61	14.0	B		TR	0.61	14.0	B	
	Northbound (Cross Bay Bridge On-Ramp)	LT	0.31	17.0	B	LT	0.31	17.0	B		LT	0.31	17.0	B	
	Northbound (Beach Channel Drive On-Ramp)	TR	0.16	15.5	B	TR	0.16	15.5	B		TR	0.16	15.5	B	
		Intersection		15.8	B	Intersection		16.1	B		Intersection		16.1	B	
13 [1]	**Beach Channel Drive and Beach 73rd Street**														
	Eastbound	L	0.00	9.3	A	L	0.00	9.3	A		L	0.00	9.3	A	
		T	0.72	19.4	B	T	0.72	19.4	B		T	0.72	19.4	B	
	Westbound	L	0.68	39.6	D	L	0.68	39.6	D		L	0.68	39.6	D	
		TR	0.93	37.3	D	TR	0.95	42.2	D		TR	0.95	42.2	D	
	Northbound	LT	0.33	23.5	C	LT	0.33	23.5	C		LT	0.33	23.5	C	
	Southbound	LTR	0.03	19.7	B	LTR	0.03	19.7	B		LTR	0.03	19.7	B	
		Intersection		27.9	C	Intersection		29.9	C		Intersection		29.9	C	
14	**Rockaway Beach Boulevard and Beach 73rd Street**														
	Eastbound	LT	0.65	14.2	B	LT	0.65	14.2	B		LT	0.65	14.2	B	
		R	0.13	7.7	A	R	0.13	7.7	A		R	0.13	7.7	A	
	Westbound	L	0.23	9.8	A	L	0.23	9.8	A		L	0.23	9.8	A	
		T	0.48	11.1	B	T	0.49	11.3	B		T	0.49	11.3	B	
		R	0.19	8.3	B	R	0.19	8.3	B		R	0.19	8.3	B	
	Northbound	LT	0.12	24.9	C	LT	0.12	24.9	C		LT	0.12	24.9	C	
		R	0.03	23.9	C	R	0.03	23.9	C		R	0.03	23.9	C	
	Southbound	L	0.69	39.8	D	L	0.69	39.8	D		L	0.69	39.8	D	
		TR	0.40	29.7	C	TR	0.40	29.7	C		TR	0.40	29.7	C	
		Intersection		17.1	B	Intersection		17.1	B		Intersection		17.1	B	
15	**Beach Channel Drive/Arverne Boulevard and Beach 62nd Street**														
	Eastbound	LT	1.82	401.7	F	LT	1.82	401.7	F		LT	1.82	401.7	F	
	Westbound (Beach Channel Drive)	T	0.80	34.3	C	T	0.82	35.4	D		T	0.82	35.4	D	
	Westbound (Arverne Boulevard)	L	0.98	75.1	E	L	1.01	82.8	F	+	L	0.96	70.0	E	
		R	0.02	27.4	C	R	0.02	27.4	C		R	0.02	26.7	C	
	Northbound	LTR	0.54	34.6	C	LTR	0.54	34.6	C		LTR	0.57	36.2	D	
	Southbound	L	0.64	47.1	D	L	0.64	47.1	D		L	0.69	51.9	D	
		R	0.02	27.5	C	R	0.02	27.5	C		R	0.02	28.3	C	
		Intersection		213.5	F	Intersection		214.8	F		Intersection		213.4	F	

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. "+" denotes significant adverse impact.
1. Stop-controlled approach at signalized intersection.
2. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.

Table 20-31 (continued): Q3 2027 Weekday PM Peak Hour No-Action vs. Peak Construction vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	Q3 2027 No-Action				Q3 2027 Peak Construction					Q3 2027 Mitigaiton				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
16	**Rockaway Beach Boulevard and Beach 62nd Street**														
	Eastbound	L	0.48	31.1	C	L	0.48	31.1	C		L	0.50	32.4	C	
		TR	0.81	18.6	B	TR	0.81	18.6	B		TR	0.81	18.6	B	
	Westbound	LTR	1.71	356.9	F	LTR	1.76	381.3	F	+	LTR	1.67	339.8	F	
	Northbound	LTR	0.37	32.3	C	LTR	0.37	32.3	C		LTR	0.37	32.3	C	
		Intersection		178.8	F	Intersection		191.9	F		Intersection		172.4	F	
18	**Beach Channel Drive and Beach 59th Street**														
	Eastbound	LT	0.56	15.8	B	LT	0.56	15.8	B		LT	0.56	15.8	B	
		R	0.05	9.7	A	R	0.05	9.7	A		R	0.05	9.7	A	
	Westbound	LTR	0.79	24.3	C	LTR	0.80	25.1	C		LTR	0.80	25.1	C	
	Southbound	LTR	0.02	19.5	B	LTR	0.02	19.5	B		LTR	0.02	19.5	B	
		Intersection		20.0	C	Intersection		20.5	C		Intersection		20.5	C	
19	**Arverne Boulevard and Beach 59th Street**														
	Eastbound	T	0.65	13.6	B	T	0.65	13.6	B		T	0.74	16.6	B	
		R	0.17	8.4	A	R	0.17	8.4	A		R	0.17	8.4	A	
	Westbound	LT	1.06	71.7	E	LT	1.19	120.4	F	+					
											L	0.58	21.0	C	
											T	0.59	13.8	B	
	Southbound	LTR	0.13	15.1	B	LTR	0.13	15.1	B		LTR	0.13	15.1	B	
		Intersection		35.0	C	Intersection		54.4	D		Intersection		15.5	B	
20	**Rockaway Freeway and Beach 59th Street**														
	Westbound	L	0.98	103.1	F	L	0.98	103.1	F		L	0.98	103.1	F	
		T	0.14	10.4	B	T	0.14	10.4	B		T	0.14	9.9	A	
	Southbound	LTR	0.69	39.4	D	LTR	0.72	41.0	D		LTR	0.76	44.2	D	
		Intersection		51.4	D	Intersection		51.9	D		Intersection		53.3	D	
21	**Rockaway Beach Boulevard and Beach 59th Street**														
	Eastbound	TR	1.51	264.4	F	TR	1.51	264.4	F		TR	1.46	244.7	F	
	Westbound	LT	1.56	293.1	F	LT	1.59	303.6	F	+	LT	1.44	237.2	F	
	Northbound	LR	0.40	32.1	C	LR	0.41	32.5	C		LR	0.44	34.5	C	
	Southbound	LTR	0.49	20.8	C	LTR	0.50	21.1	C		LTR	0.52	22.2	C	
		Intersection		222.8	F	Intersection		225.5	F		Intersection		195.0	F	
22	**Beach Channel Drive and Beach 54th Street**														
	Eastbound	T	0.56	15.7	B	T	0.56	15.7	B		T	0.56	15.7	B	
		R	0.03	9.6	A	R	0.03	9.6	A		R	0.03	9.6	A	
	Westbound	LT	0.72	21.3	C	LT	0.73	21.9	C		LT	0.73	21.9	C	
	Northbound	LR	0.27	23.6	C	LR	0.27	23.7	C		LR	0.27	23.7	C	
	Southbound	LTR	0.31	23.4	C	LTR	0.31	23.6	C		LTR	0.31	23.6	C	
		Intersection		19.2	B	Intersection		19.5	B		Intersection		19.5	B	
23	**Arverne Boulevard and Beach 54th Street**														
	Eastbound	LTR	1.11	94.6	F	LTR	1.11	94.6	F		LTR	1.03	64.8	E	
	Westbound	LTR	0.97	65.1	E	LTR	1.13	112.0	F	+	LTR	0.97	60.4	E	
	Northbound	LTR	0.56	19.6	B	LTR	0.56	19.7	B		LTR	0.60	22.7	C	
	Southbound	LTR	0.18	23.6	C	LTR	0.18	23.6	C		LTR	0.22	27.0	C	
		Intersection		65.2	E	Intersection		76.7	E		Intersection		51.4	D	
24	**Rockaway Freeway and Beach 54th Street**														
	Eastbound	LTR	0.10	16.5	B	LTR	0.10	16.5	B		LTR	0.09	14.7	B	
	Westbound	L	0.21	38.9	D	L	0.21	38.9	D		L	0.19	37.5	D	
		TR	0.31	10.5	B	TR	0.31	10.5	B		TR	0.28	8.4	A	
	Northbound	LTR	0.70	33.6	C	LTR	0.70	33.7	C		LTR	0.82	43.7	D	
	Southbound	LTR	0.59	30.6	C	LTR	0.61	31.0	C		LTR	0.76	41.6	D	
		Intersection		25.9	C	Intersection		26.0	C		Intersection		32.0	C	
25	**Edgemere Avenue and Beach 54th Street**														
	Eastbound	LTR	8.10	3239.0	F	LTR	8.10	3239.0	F		LTR	5.29	1967.0	F	
	Westbound	LTR	1.18	121.6	F	LTR	1.18	121.6	F		LTR	1.10	84.5	F	
	Northbound	LTR	0.00	21.4	C	LTR	0.00	21.4	C		LTR	0.00	24.2	C	
	Southbound	LTR	1.24	158.7	F	LTR	1.30	181.8	F	+	LTR	1.22	150.2	F	
		Intersection		1475.0	F	Intersection		1472.0	F		Intersection		904.4	F	
26	**Beach Channel Drive and Beach 53rd Street**														
	Eastbound	Unsignalized				Unsignalized					TR	0.75	19.5	B	
	Westbound										LT	0.77	21.5	C	
	Northbound										LR	0.39	28.2	C	
											Intersection		21.3	C	
27	**Rockaway Beach Boulevard and Beach 53rd Street**														
	Eastbound	Unsignalized				Unsignalized					L	0.59	23.1	C	
											T	0.70	21.2	C	
	Westbound										TR	0.53	17.2	B	
	Southbound										LR	0.34	22.6	C	
											Intersection		20.5	C	
29	**Beach Channel Drive and Beach 51st Street**														
	Eastbound	L	0.09	10.5	B	L	0.09	10.5	B		L	0.09	10.5	B	
		TR	0.79	24.6	C	TR	0.79	24.6	C		TR	0.79	24.6	C	
	Westbound	LT	0.64	17.8	B	LT	0.64	17.8	B		LT	0.64	17.8	B	
		R	0.05	9.7	B	R	0.05	9.7	B		R	0.05	9.7	B	
	Northbound	LTR	0.02	19.6	B	LTR	0.02	19.6	B		LTR	0.02	19.6	B	
		Intersection		20.7	C	Intersection		20.7	C		Intersection		20.7	C	
39	**Rockaway Freeway and Beach 44th Street**														
	Eastbound	L	0.04	36.1	D	L	0.04	36.1	D		L	0.04	36.1	D	
		TR	0.36	19.6	B	TR	0.36	19.6	B		TR	0.36	19.6	B	
	Westbound	L	0.03	10.4	B	L	0.03	10.4	B		L	0.03	10.4	B	
		TR	0.37	19.7	B	TR	0.37	19.7	B		TR	0.37	19.7	B	
	Northbound	LTR	0.06	21.9	C	LTR	0.06	21.9	C		LTR	0.06	21.9	C	
	Southbound	LTR	0.23	24.5	C	LTR	0.24	24.8	C		LTR	0.24	24.8	C	
		Intersection		20.2	C	Intersection		20.3	C		Intersection		20.3	C	
40[1,2]	**Beach Channel Drive/Seagirt Boulevard and Beach 35th Street**														
	Eastbound	LTR	0.87dl	22.8	C	LTR	0.91dl	24.7	C		LTR	0.91dl	24.7	C	
		LTR	0.87dl	22.8	C	LTR	0.91dl	24.7	C		LTR	0.91dl	24.7	C	
	Westbound	LT	0.66	22.7	C	LT	0.66	22.8	C		LT	0.66	22.8	C	
	Southbound	LT	0.15	21.9	C	LT	0.15	21.9	C		LT	0.15	21.9	C	
		R	0.69	12.5	B	R	0.69	12.5	B		R	0.69	12.5	B	
	Northbound	LTR	0.17	12.6	B	LTR	0.17	12.6	B		LTR	0.17	12.6	B	
		TR	0.17	12.6	B	TR	0.17	12.6	B		TR	0.17	12.6	B	
		Intersection		19.3	B	Intersection		20.2	C		Intersection		20.2	C	
41[2]	**Rockaway Freeway and Beach 35th Street**														
	Eastbound	L	0.05	34.8	C	L	0.05	34.8	C		L	0.05	34.8	C	
		TR	0.64	24.6	C	TR	0.64	24.6	C		TR	0.64	24.6	C	
	Westbound	L	0.00	0.0	-	L	0.00	0.0	-		L	0.00	0.0	-	
		TR	0.56	9.0	A	TR	0.56	9.0	A		TR	0.56	9.0	A	
	Southbound	LTR	0.23	8.1	A	LTR	0.23	8.1	A		LTR	0.23	8.1	A	
	Northbound	LTR	0.24	27.6	C	LTR	0.24	27.6	C		LTR	0.24	27.6	C	
		Intersection		17.6	B	Intersection		17.6	B		Intersection		17.6	B	
42[2]	**Rockaway Freeway and Seagirt Boulevard**														
	Eastbound	L	0.23	39.1	D	L	0.23	38.7	D		L	0.23	38.7	D	
		TR	0.25	84.9	F	TR	0.25	85.0	F		TR	0.25	85.0	F	
	Westbound	LTR	0.71	37.0	D	LTR	0.71	37.1	D		LTR	0.71	37.1	D	
	Southbound	TR	0.66	30.2	C	TR	0.66	30.2	C		TR	0.66	30.2	C	
	Northbound	TR	0.87	25.9	C	TR	0.87	25.9	C		TR	0.87	25.9	C	
		Intersection		39.2	D	Intersection		39.4	D		Intersection		39.4	D	

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. "+" denotes significant adverse impact.
1. Stop-controlled approach at signalized intersection.
2. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.

Table 20-31 (continued): Q3 2027 Weekday PM Peak Hour No-Action vs. Peak Construction vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	Q3 2027 No-Action				Q3 2027 Peak Construction					Q3 2027 Mitigaiton				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
43	**Rockaway Freeway and Beach 25th Street**														
	Eastbound	LTR	0.33	25.4	C	LTR	0.33	25.4	C		LTR	0.33	25.4	C	
	Westbound	LTR	0.36	26.1	C	LTR	0.36	26.1	C		LTR	0.36	26.1	C	
	Northbound	L	0.18	37.3	D	L	0.18	37.3	D		L	0.18	37.3	D	
		TR	0.49	22.6	C	TR	0.49	22.6	C		TR	0.49	22.6	C	
	Southbound	L	0.11	36.2	D	L	0.11	36.2	D		L	0.11	36.2	D	
		TR	0.43	21.2	C	TR	0.43	21.2	C		TR	0.43	21.2	C	
		Intersection		23.9	C	Intersection		23.9	C		Intersection		23.9	C	
44	**Rockaway Freeway and Cornaga Avenue**														
	Eastbound	LTR	0.21	19.5	B	LTR	0.21	19.5	B		LTR	0.21	19.5	B	
	Westbound	LTR	0.81	39.7	D	LTR	0.81	39.7	D		LTR	0.81	39.7	D	
	Northbound	TR	0.53	28.6	C	TR	0.53	28.6	C		TR	0.53	28.6	C	
	Southbound	L	0.13	37.6	D	L	0.13	37.6	D		L	0.13	37.6	D	
		TR	0.30	14.6	B	TR	0.30	14.6	B		TR	0.30	14.6	B	
		Intersection		27.6	C	Intersection		27.7	C		Intersection		27.7	C	
45	**Beach Channel Drive and Cornaga Avenue**														
	Eastbound	LTR	0.18	19.3	B	LTR	0.18	19.3	B		LTR	0.18	19.3	B	
	Westbound	LTR	0.42	23.0	C	LTR	0.42	23.0	C		LTR	0.42	23.0	C	
	Northbound	L	0.02	12.1	B	L	0.02	12.1	B		L	0.02	12.1	B	
		TR	0.57	18.7	B	TR	0.59	19.2	B		TR	0.59	19.2	B	
	Southbound	L	0.09	13.0	B	L	0.09	13.1	B		L	0.09	13.1	B	
		TR	0.59	19.3	B	TR	0.59	19.3	B		TR	0.59	19.3	B	
		Intersection		19.5	B	Intersection		19.7	B		Intersection		19.7	B	
46	**Beach Channel Drive and Mott Avenue**														
	Eastbound	LTR	0.85	49.3	D	LTR	0.85	49.3	D		LTR	0.85	49.3	D	
	Westbound	LT	0.74	35.7	D	LT	0.74	35.7	D		LT	0.74	35.7	D	
		R	0.21	11.3	C	R	0.21	11.3	C		R	0.21	11.3	C	
	Northbound	L	0.25	28.5	C	L	0.25	28.5	C		L	0.25	28.5	C	
		TR	1.23	150.0	F	TR	1.27	164.7	F	+	TR	1.27	164.7	F	U
	Southbound	L	0.82	45.4	D	L	0.82	45.4	D		L	0.82	45.4	D	
		TR	0.98	45.3	D	TR	0.98	45.3	D		TR	0.98	45.3	D	
		Intersection		71.0	E	Intersection		75.6	E		Intersection		75.6	E	
47	**Beach Channel Drive and Dix Avenue**														
	Eastbound	LTR	0.20	22.1	C	LTR	0.20	22.1	C		LTR	0.21	23.0	C	
	Westbound	LTR	0.17	21.4	C	LTR	0.17	21.4	C		LTR	0.18	22.2	C	
	Northbound	LTR	1.04	65.2	E	LTR	1.07	73.9	E	+	LTR	1.05	66.1	E	
	Southbound	LTR	1.30	163.6	F	LTR	1.30	163.6	F		LTR	1.27	151.9	F	
		Intersection		112.7	F	Intersection		115.8	F		Intersection		106.7	F	
49	**Beach Channel Drive and Nameoke Avenue**														
	Eastbound	LTR	0.34	24.1	C	LTR	0.34	24.1	C		LTR	0.34	24.1	C	
	Northbound	L	0.17	15.0	B	L	0.17	15.0	B		L	0.17	15.0	B	
		TR	0.81	24.8	C	TR	0.83	26.3	C		TR	0.83	26.3	C	
	Southbound	L	0.23	13.3	B	L	0.24	13.8	B		L	0.24	13.8	B	
		TR	1.15	101.0	F	TR	1.15	101.0	F		TR	1.15	101.0	F	
		Intersection		63.8	E	Intersection		64.0	E		Intersection		64.0	E	
50	**Beach Channel Drive and Hassock Avenue**														
	Eastbound	LR	0.13	18.9	B	LR	0.13	18.9	B		LR	0.13	19.6	B	
	Westbound	L	0.27	20.7	C	L	0.27	20.7	C		L	0.28	21.5	C	
		TR	0.35	22.1	C	TR	0.35	22.1	C		TR	0.36	23.0	C	
	Northbound	LT	1.13	99.6	F	LT	1.16	111.7	F	+	LT	1.14	101.0	F	
	Southbound	T	1.17	113.0	F	T	1.17	113.0	F		T	1.15	102.1	F	
		R	0.19	12.6	B	R	0.19	12.6	B		R	0.18	12.1	B	
		Intersection		87.9	F	Intersection		92.2	F		Intersection		83.9	F	

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. "+" denotes significant adverse impact.
1. Stop-controlled approach at signalized intersection.
2. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.

Table 20-32: Q3 2027 Saturday AM Peak Hour No-Action vs. Peak Construction vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	Q3 2027 No-Action				Q3 2027 Peak Construction				Q3 2027 Mitigaiton			
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
1	**Beach Channel Drive and Beach 116th Street**												
	Eastbound	LTR	0.29	23.8	C	LTR	0.30	24.0	C	LTR	0.30	24.0	C
	Westbound	LTR	0.38	15.7	B	LTR	0.39	15.9	B	LTR	0.39	15.9	B
	Northbound	LTR	0.12	42.4	D	LTR	0.12	42.4	D	LTR	0.12	42.4	D
	Southbound	LTR	0.12	45.9	D	LTR	0.12	45.9	D	LTR	0.12	45.9	D
		Intersection		21.0	C	Intersection		21.2	C	Intersection		21.2	C
2	**Newport Avenue and Beach 116th Street**												
	Eastbound	LTR	0.28	24.1	C	LTR	0.28	24.1	C	LTR	0.28	24.1	C
	Northbound	LT	0.22	44.3	D	LT	0.22	44.3	D	LT	0.22	44.3	D
		R	0.21	31.0	C	R	0.21	31.1	C	R	0.21	31.1	C
	Southbound	LTR	0.16	16.7	B	LTR	0.17	16.8	B	LTR	0.17	16.8	B
		Intersection		25.8	C	Intersection		25.8	C	Intersection		25.8	C
3	**Rockaway Beach Boulevard and Beach 116th Street**												
	Eastbound	LTR	0.29	10.8	B	LTR	0.29	10.8	B	LTR	0.29	10.8	B
	Westbound	LTR	0.34	11.6	B	LTR	0.34	11.6	B	LTR	0.34	11.6	B
	Northbound	L	0.07	12.7	B	L	0.07	12.7	B	L	0.07	12.7	B
		TR	0.12	13.0	B	TR	0.12	13.0	B	TR	0.12	13.0	B
	Southbound	L	0.14	13.4	B	L	0.14	13.4	B	L	0.14	13.4	B
		TR	0.15	13.3	B	TR	0.15	13.3	B	TR	0.15	13.3	B
		Intersection		11.9	B	Intersection		11.9	B	Intersection		11.9	B
4	**Beach Channel Drive and Rockaway Freeway**												
	Eastbound	LTR	0.37	22.0	C	LTR	0.38	22.2	C	LTR	0.38	22.2	C
	Westbound	LTR	0.29	20.8	C	LTR	0.30	21.0	C	LTR	0.30	21.0	C
	Northbound	LT	0.14	19.2	B	LT	0.14	19.2	B	LT	0.14	19.2	B
		R	0.00	17.6	B	R	0.00	17.6	B	R	0.00	17.6	B
		Intersection		21.2	C	Intersection		21.4	C	Intersection		21.4	C
5	**Beach Channel Drive and Beach 108th Street**												
	Eastbound	TR	0.26	16.1	B	TR	0.27	16.3	B	TR	0.27	16.3	B
	Westbound	LT	0.23	15.8	B	LT	0.23	15.9	B	LT	0.23	15.9	B
	Northbound	L	0.10	14.8	B	L	0.10	14.8	B	L	0.10	14.8	B
		R	0.04	14.3	B	R	0.04	14.3	B	R	0.04	14.3	B
		Intersection		15.8	B	Intersection		15.9	B	Intersection		15.9	B
6	**Rockaway Freeway and Beach 108th Street**												
	Eastbound	LTR	0.10	14.7	B	LTR	0.10	14.7	B	LTR	0.10	14.7	B
	Westbound	LTR	0.05	14.3	B	LTR	0.05	14.3	B	LTR	0.05	14.3	B
	Northbound	L	0.12	15.1	B	L	0.12	15.1	B	L	0.12	15.1	B
		TR	0.08	14.5	B	TR	0.08	14.5	B	TR	0.08	14.5	B
	Southbound	LTR	0.08	14.7	B	LTR	0.09	14.7	B	LTR	0.09	14.7	B
		Intersection		14.7	B	Intersection		14.7	B	Intersection		14.7	B
7	**Rockaway Beach Boulevard and Beach 108th Street**												
	Eastbound	L	0.08	14.7	B	L	0.08	14.7	B	L	0.08	14.7	B
		TR	0.30	17.1	B	TR	0.30	17.1	B	TR	0.30	17.1	B
	Westbound	L	0.02	14.1	B	L	0.02	14.1	B	L	0.02	14.1	B
		TR	0.25	16.5	B	TR	0.25	16.5	B	TR	0.25	16.5	B
	Northbound	L	0.11	15.0	B	L	0.11	15.0	B	L	0.11	15.0	B
		TR	0.10	14.9	B	TR	0.10	14.9	B	TR	0.10	14.9	B
	Southbound	L	0.15	15.6	B	L	0.15	15.6	B	L	0.15	15.6	B
		LTR	0.14	15.2	B	LTR	0.14	15.2	B	LTR	0.14	15.2	B
		Intersection		16.0	B	Intersection		16.0	B	Intersection		16.0	B
8	**Beach Channel Drive and Beach 92nd Street/Beach 94th Street**												
	Eastbound	T	0.26	7.9	A	T	0.24	7.8	A	T	0.24	7.8	A
	Northeastbound (Cross Bay Bridge Exit Ramp)	R	0.49	38.4	D	R	0.52	39.5	D	R	0.52	39.5	D
	Northeastbound (Beach 94th St)	R	0.08	30.3	C	R	0.08	30.3	C	R	0.08	30.3	C
	Westbound	TR	0.26	1.3	A	TR	0.26	1.3	A	TR	0.26	1.3	A
	Northbound	R	0.13	41.2	D	R	0.13	41.2	D	R	0.13	41.2	D
	Southbound	R	0.06	39.5	D	R	0.06	39.5	D	R	0.06	39.5	D
		Intersection		11.9	B	Intersection		12.3	B	Intersection		12.3	B
9	**Rockaway Freeway and Cross Bay Parkway**												
	Eastbound	TR	0.16	19.1	B	TR	0.16	19.1	B	TR	0.16	19.1	B
	Westbound	L	0.06	36.5	D	L	0.06	36.5	D	L	0.06	36.5	D
		T	0.08	9.9	A	T	0.08	9.9	A	T	0.08	9.9	A
	Southbound (Cross Bay Bridge Off-Ramp)	LTR	0.23	21.5	C	LTR	0.25	21.6	C	LTR	0.25	21.6	C
	Southbound (Beach Channel Drive Off-Ramp)	LTR	0.05	19.8	B	LTR	0.05	19.8	B	LTR	0.05	19.8	B
		Intersection		19.4	B	Intersection		19.5	B	Intersection		19.5	B
10	**Rockaway Beach Boulevard and Cross Bay Parkway**												
	Eastbound	TR	0.25	9.0	A	TR	0.26	9.0	A	TR	0.26	9.0	A
	Westbound	LT	0.18	8.1	A	LT	0.18	8.1	A	LT	0.18	8.1	A
	Southbound (Cross Bay Bridge Off-Ramp)	LT	0.16	15.1	B	LT	0.17	15.1	B	LT	0.17	15.1	B
	Southbound (Beach Channel Drive Off-Ramp)	TR	0.14	15.3	B	TR	0.14	15.3	B	TR	0.14	15.3	B
		Intersection		11.3	B	Intersection		11.4	B	Intersection		11.4	B
11 [1]	**Rockaway Freeway and Beach 94th Street**												
	Eastbound	L	0.07	36.6	D	L	0.07	36.6	D	L	0.07	36.6	D
		T	0.11	10.2	B	T	0.12	10.2	B	T	0.12	10.2	B
	Westbound	TR	0.18	19.3	B	TR	0.18	19.3	B	TR	0.18	19.3	B
	Northbound (Cross Bay Bridge On-Ramp)	LTR	0.20	21.1	C	LTR	0.20	21.1	C	LTR	0.20	21.1	C
		Intersection		18.6	B	Intersection		18.5	B	Intersection		18.5	B
12	**Rockaway Beach Boulevard and Beach 94th Street**												
	Eastbound	LT	0.22	8.4	A	LT	0.23	8.5	A	LT	0.23	8.5	A
	Westbound	TR	0.31	9.4	A	TR	0.31	9.4	A	TR	0.31	9.4	A
	Northbound (Cross Bay Bridge On-Ramp)	LT	0.16	15.4	B	LT	0.16	15.4	B	LT	0.16	15.4	B
	Northbound (Beach Channel Drive On-Ramp)	TR	0.13	15.3	B	TR	0.13	15.3	B	TR	0.13	15.3	B
		Intersection		10.4	B	Intersection		10.4	B	Intersection		10.4	B
13 [1]	**Beach Channel Drive and Beach 73rd Street**												
	Eastbound	L	0.00	9.4	A	L	0.00	9.4	A	L	0.00	9.4	A
		T	0.24	11.3	B	T	0.27	11.5	B	T	0.27	11.5	B
	Westbound	L	0.09	10.1	B	L	0.09	10.2	B	L	0.09	10.2	B
		TR	0.34	12.6	B	TR	0.35	12.8	B	TR	0.35	12.8	B
	Northbound	LT	0.11	20.5	C	LT	0.11	20.5	C	LT	0.11	20.5	C
	Southbound	LTR	0.01	19.5	B	LTR	0.01	19.5	B	LTR	0.01	19.5	B
		Intersection		12.7	B	Intersection		12.8	B	Intersection		12.8	B
14	**Rockaway Beach Boulevard and Beach 73rd Street**												
	Eastbound	LT	0.21	8.2	A	LT	0.22	8.3	A	LT	0.22	8.3	A
		R	0.04	7.1	A	R	0.04	7.1	A	R	0.04	7.1	A
	Westbound	L	0.06	7.2	A	L	0.06	7.2	A	L	0.06	7.2	A
		T	0.20	8.1	A	T	0.20	8.1	A	T	0.20	8.1	A
		R	0.08	7.3	A	R	0.08	7.3	A	R	0.08	7.3	A
	Northbound	LT	0.06	24.2	C	LT	0.06	24.2	C	LT	0.06	24.2	C
		R	0.03	23.8	C	R	0.03	23.8	C	R	0.03	23.8	C
	Southbound	L	0.16	25.6	C	L	0.16	25.6	C	L	0.16	25.6	C
		TR	0.16	25.5	C	TR	0.16	25.5	C	TR	0.16	25.5	C
		Intersection		11.6	B	Intersection		11.6	B	Intersection		11.6	B
15	**Beach Channel Drive/Arverne Boulevard and Beach 62nd Street**												
	Eastbound	LT	0.58	25.7	C	LT	0.64	27.4	C	LT	0.64	27.4	C
	Westbound (Beach Channel Drive)	T	0.30	20.1	C	T	0.31	20.3	C	T	0.31	20.3	C
	Westbound (Arverne Boulevard)	LR	0.49	34.9	C	LR	0.49	34.9	C	LR	0.49	34.9	C
	Northbound	LTR	0.15	28.7	C	LTR	0.15	28.7	C	LTR	0.15	28.7	C
	Southbound	L	0.18	29.8	C	L	0.18	29.8	C	L	0.18	29.8	C
		R	0.00	27.3	C	R	0.00	27.3	C	R	0.00	27.3	C
		Intersection		26.7	C	Intersection		27.4	C	Intersection		27.4	C

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. "+" denotes significant adverse impact.
1. Stop-controlled approach at signalized intersection.
2. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.

Table 20-32 (continued): Q3 2027 Saturday AM Peak Hour No-Action vs. Peak Construction vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	Q3 2027 No-Action				Q3 2027 Peak Construction				Q3 2027 Mitigaiton			
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
16	**Rockaway Beach Boulevard and Beach 62nd Street**												
	Eastbound	L	0.04	23.9	C	L	0.04	23.9	C	L	0.04	23.9	C
		TR	0.28	7.2	A	TR	0.30	7.3	A	TR	0.30	7.3	A
	Westbound	LTR	0.35	24.3	C	LTR	0.36	24.4	C	LTR	0.36	24.4	C
	Northbound	LTR	0.14	28.1	C	LTR	0.15	28.3	C	LTR	0.15	28.3	C
		Intersection		17.3	B	Intersection		17.2	B	Intersection		17.2	B
18	**Beach Channel Drive and Beach 59th Street**												
	Eastbound	LT	0.20	10.9	B	LT	0.23	11.2	B	LT	0.23	11.2	B
		R	0.03	9.6	A	R	0.03	9.6	A	R	0.03	9.6	A
	Westbound	LTR	0.18	10.8	B	LTR	0.19	10.9	B	LTR	0.19	10.9	B
	Southbound	LTR	0.01	19.5	B	LTR	0.01	19.5	B	LTR	0.01	19.5	B
		Intersection		11.0	B	Intersection		11.1	B	Intersection		11.1	B
19	**Arverne Boulevard and Beach 59th Street**												
	Eastbound	T	0.22	8.4	A	T	0.23	8.4	A	T	0.26	8.8	A
		R	0.06	7.4	A	R	0.06	7.4	A	R	0.06	7.4	A
	Westbound	LT	0.28	9.0	A	LT	0.28	9.1	A				
										L	0.10	7.8	A
										T	0.22	8.5	A
	Southbound	LTR	0.07	14.6	B	LTR	0.07	14.6	B	LTR	0.07	14.6	B
		Intersection		9.0	A	Intersection		9.0	A	Intersection		8.8	A
20	**Rockaway Freeway and Beach 59th Street**												
	Westbound	L	0.28	40.4	D	L	0.28	40.4	D	L	0.28	40.4	D
		T	0.05	9.7	A	T	0.05	9.7	A	T	0.05	9.7	A
	Southbound	LTR	0.27	27.6	C	LTR	0.27	27.6	C	LTR	0.27	27.6	C
		Intersection		26.0	C	Intersection		26.0	C	Intersection		26.0	C
21	**Rockaway Beach Boulevard and Beach 59th Street**												
	Eastbound	TR	0.54	25.3	C	TR	0.57	26.1	C	TR	0.57	26.1	C
	Westbound	LT	0.37	21.8	C	LT	0.37	21.8	C	LT	0.37	21.8	C
	Northbound	LR	0.14	26.0	C	LR	0.14	26.0	C	LR	0.14	26.0	C
	Southbound	LTR	0.18	16.1	B	LTR	0.18	16.1	B	LTR	0.18	16.1	B
		Intersection		22.6	C	Intersection		23.0	C	Intersection		23.0	C
22	**Beach Channel Drive and Beach 54th Street**												
	Eastbound	T	0.22	11.1	B	T	0.24	11.3	B	T	0.24	11.3	B
		R	0.01	9.5	A	R	0.01	9.5	A	R	0.01	9.5	A
	Westbound	LT	0.31	12.2	B	LT	0.32	12.4	B	LT	0.32	12.4	B
	Northbound	LR	0.07	20.3	C	LR	0.08	20.3	C	LR	0.08	20.3	C
	Southbound	LTR	0.11	20.6	C	LTR	0.11	20.6	C	LTR	0.11	20.6	C
		Intersection		13.0	B	Intersection		13.1	B	Intersection		13.1	B
23	**Arverne Boulevard and Beach 54th Street**												
	Eastbound	LTR	0.36	19.7	B	LTR	0.37	20.0	B	LTR	0.37	20.0	B
	Westbound	LTR	0.34	19.8	B	LTR	0.34	19.9	B	LTR	0.34	19.9	B
	Northbound	LTR	0.21	14.2	B	LTR	0.24	14.6	B	LTR	0.24	14.6	B
	Southbound	LTR	0.07	22.1	C	LTR	0.07	22.1	C	LTR	0.07	22.1	C
		Intersection		18.5	B	Intersection		18.5	B	Intersection		18.5	B
24	**Rockaway Freeway and Beach 54th Street**												
	Eastbound	LTR	0.04	16.0	B	LTR	0.04	16.0	B	LTR	0.04	16.0	B
	Westbound	L	0.02	35.8	D	L	0.02	35.8	D	L	0.02	35.8	D
		TR	0.11	8.8	A	TR	0.11	8.8	A	TR	0.11	8.8	A
	Northbound	LTR	0.27	24.5	C	LTR	0.31	25.0	C	LTR	0.31	25.0	C
	Southbound	LTR	0.25	24.1	C	LTR	0.25	24.2	C	LTR	0.25	24.2	C
		Intersection		19.9	B	Intersection		20.3	C	Intersection		20.3	C
25	**Edgemere Avenue and Beach 54th Street**												
	Eastbound	LTR	0.63	26.0	C	LTR	0.75	31.6	C	LTR	0.75	31.6	C
	Westbound	LTR	0.37	19.7	B	LTR	0.37	19.7	B	LTR	0.37	19.7	B
	Northbound	LTR	0.00	21.4	C	LTR	0.00	21.4	C	LTR	0.00	21.4	C
	Southbound	LTR	0.50	22.5	C	LTR	0.50	22.6	C	LTR	0.50	22.6	C
		Intersection		23.1	C	Intersection		25.8	C	Intersection		25.8	C
26	**Beach Channel Drive and Beach 53rd Street**												
	Eastbound	Unsignalized				Unsignalized				TR	0.33	12.5	B
	Westbound									LT	0.29	12.0	B
	Northbound									LR	0.15	21.0	C
										Intersection		13.6	B
27	**Rockaway Beach Boulevard and Beach 53rd Street**												
	Eastbound	Unsignalized				Unsignalized				L	0.13	11.7	B
										T	0.25	12.6	B
	Westbound									TR	0.22	12.3	B
	Southbound									LR	0.21	20.5	C
										Intersection		14.0	B
29	**Beach Channel Drive and Beach 51st Street**												
	Eastbound	L	0.02	9.5	A	L	0.02	9.5	A	L	0.02	9.5	A
		TR	0.31	12.3	B	TR	0.31	12.3	B	TR	0.31	12.3	B
	Westbound	LT	0.26	11.6	B	LT	0.26	11.6	B	LT	0.26	11.6	B
		R	0.01	9.4	B	R	0.01	9.4	B	R	0.01	9.4	B
	Northbound	LTR	0.01	19.5	B	LTR	0.01	19.5	B	LTR	0.01	19.5	B
		Intersection		11.9	B	Intersection		11.9	B	Intersection		11.9	B
39	**Rockaway Freeway and Beach 44th Street**												
	Eastbound	L	0.03	36.0	D	L	0.03	36.0	D	L	0.03	36.0	D
		TR	0.11	16.6	B	TR	0.11	16.6	B	TR	0.11	16.6	B
	Westbound	L	0.01	8.1	A	L	0.01	8.1	A	L	0.01	8.1	A
		TR	0.14	16.9	B	TR	0.14	16.9	B	TR	0.14	16.9	B
	Northbound	LTR	0.02	21.5	C	LTR	0.03	21.7	C	LTR	0.03	21.7	C
	Southbound	LTR	0.08	22.2	C	LTR	0.08	22.2	C	LTR	0.08	22.2	C
		Intersection		17.9	B	Intersection		18.1	B	Intersection		18.1	B
40[1,2]	**Beach Channel Drive/Seagirt Boulevard and Beach 35th Street**												
	Eastbound	LTR	0.25	11.3	B	LTR	0.25	11.4	B	LTR	0.25	11.4	B
	Westbound	LT	0.24	12.6	B	LT	0.26	12.4	B	LT	0.26	12.4	B
	Southbound	LT	0.08	21.1	C	LT	0.08	21.1	C	LT	0.08	21.1	C
		R	0.29	6.4	A	R	0.31	6.5	A	R	0.31	6.5	A
	Northbound	LTR	0.06	11.3	B	LTR	0.06	11.4	B	LTR	0.06	11.4	B
		Intersection		10.8	B	Intersection		10.7	B	Intersection		10.7	B
41 [2]	**Rockaway Freeway and Beach 35th Street**												
	Eastbound	L	0.01	34.0	C	L	0.01	34.0	C	L	0.01	34.0	C
		TR	0.19	16.6	B	TR	0.19	16.6	B	TR	0.19	16.6	B
	Westbound	L	0.00	43.0	D	L	0.00	43.0	D	L	0.00	43.0	D
		TR	0.23	8.0	A	TR	0.23	8.0	A	TR	0.23	8.0	A
	Southbound	LTR	0.15	7.7	A	LTR	0.15	7.7	A	LTR	0.15	7.7	A
	Northbound	LTR	0.09	25.7	C	LTR	0.09	25.7	C	LTR	0.09	25.7	C
		Intersection		12.8	B	Intersection		12.8	B	Intersection		12.8	B
42 [2]	**Rockaway Freeway and Seagirt Boulevard**												
	Eastbound	L	0.11	41.2	D	L	0.11	41.2	D	L	0.11	41.2	D
		TR	0.09	12.4	B	TR	0.09	12.5	B	TR	0.09	12.5	B
	Westbound	LTR	0.26	28.4	C	LTR	0.26	28.4	C	LTR	0.26	28.4	C
	Southbound	TR	0.22	20.9	C	TR	0.22	20.8	C	TR	0.22	20.8	C
	Northbound	TR	0.24	10.3	B	TR	0.24	10.3	B	TR	0.24	10.3	B
		Intersection		21.1	C	Intersection		21.1	C	Intersection		21.1	C

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. "+" denotes significant adverse impact.
1. Stop-controlled approach at signalized intersection.
2. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.

Table 20-32 (continued): Q3 2027 Saturday AM Peak Hour No-Action vs. Peak Construction vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	Q3 2027 No-Action				Q3 2027 Peak Construction				Q3 2027 Mitigaiton			
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
43	**Rockaway Freeway and Beach 25th Street**												
	Eastbound	LTR	0.09	22.3	C	LTR	0.09	22.3	C	LTR	0.09	22.3	C
	Westbound	LTR	0.12	22.7	C	LTR	0.12	22.7	C	LTR	0.12	22.7	C
	Northbound	L	0.05	35.3	D	L	0.05	35.3	D	L	0.05	35.3	D
		TR	0.21	18.3	B	TR	0.21	18.3	B	TR	0.21	18.3	B
	Southbound	L	0.08	35.7	D	L	0.08	35.7	D	L	0.08	35.7	D
		TR	0.15	17.6	B	TR	0.15	17.6	B	TR	0.15	17.6	B
		Intersection		20.4	C	Intersection		20.4	C	Intersection		20.4	C
44	**Rockaway Freeway and Cornaga Avenue**												
	Eastbound	LTR	0.07	18.1	B	LTR	0.07	18.1	B	LTR	0.07	18.1	B
	Westbound	LTR	0.21	19.9	B	LTR	0.21	19.9	B	LTR	0.21	19.9	B
	Northbound	TR	0.22	23.1	C	TR	0.22	23.1	C	TR	0.22	23.1	C
	Southbound	L	0.06	36.4	D	L	0.06	36.4	D	L	0.06	36.4	D
		TR	0.10	12.6	B	TR	0.10	12.6	B	TR	0.10	12.6	B
		Intersection		19.5	B	Intersection		19.5	B	Intersection		19.5	B
45	**Beach Channel Drive and Cornaga Avenue**												
	Eastbound	LTR	0.08	18.2	B	LTR	0.08	18.2	B	LTR	0.08	18.2	B
	Westbound	LTR	0.11	18.5	B	LTR	0.11	18.5	B	LTR	0.11	18.5	B
	Northbound	L	0.01	11.8	B	L	0.01	11.8	B	L	0.01	11.8	B
		TR	0.25	14.0	B	TR	0.26	14.1	B	TR	0.26	14.1	B
	Southbound	L	0.02	11.9	B	L	0.02	12.0	B	L	0.02	12.0	B
		TR	0.24	13.9	B	TR	0.28	14.3	B	TR	0.28	14.3	B
		Intersection		14.8	B	Intersection		15.0	B	Intersection		15.0	B
46	**Beach Channel Drive and Mott Avenue**												
	Eastbound	LTR	0.23	20.0	C	LTR	0.23	20.0	C	LTR	0.23	20.0	C
	Westbound	LT	0.23	20.3	C	LT	0.23	20.3	C	LT	0.23	20.3	C
		R	0.09	10.0	B	R	0.09	10.0	B	R	0.09	10.0	B
	Northbound	L	0.03	19.7	B	L	0.03	19.7	B	L	0.03	19.7	B
		TR	0.57	28.1	C	TR	0.59	28.7	C	TR	0.59	28.7	C
	Southbound	L	0.26	14.2	B	L	0.27	14.4	B	L	0.27	14.4	B
		TR	0.38	14.4	B	TR	0.41	14.9	B	TR	0.41	14.9	B
		Intersection		19.3	B	Intersection		19.6	B	Intersection		19.6	B
47	**Beach Channel Drive and Dix Avenue**												
	Eastbound	LTR	0.04	19.8	B	LTR	0.04	19.8	B	LTR	0.04	19.8	B
	Westbound	LTR	0.06	20.0	B	LTR	0.06	20.0	B	LTR	0.06	20.0	B
	Northbound	LTR	0.49	15.0	B	LTR	0.51	15.3	B	LTR	0.51	15.3	B
	Southbound	LTR	0.60	17.3	B	LTR	0.64	18.4	B	LTR	0.64	18.4	B
		Intersection		16.5	B	Intersection		17.2	B	Intersection		17.2	B
49	**Beach Channel Drive and Nameoke Avenue**												
	Eastbound	LTR	0.16	21.3	C	LTR	0.16	21.3	C	LTR	0.16	21.3	C
	Northbound	L	0.01	9.4	A	L	0.01	9.4	A	L	0.01	9.4	A
		TR	0.39	13.1	B	TR	0.40	13.3	B	TR	0.40	13.3	B
	Southbound	L	0.05	9.9	A	L	0.05	9.9	A	L	0.05	9.9	A
		TR	0.52	15.2	B	TR	0.55	15.9	B	TR	0.55	15.9	B
		Intersection		14.7	B	Intersection		15.1	B	Intersection		15.1	B
50	**Beach Channel Drive and Hassock Avenue**												
	Eastbound	LR	0.08	18.3	B	LR	0.08	18.3	B	LR	0.08	18.3	B
	Westbound	L	0.10	18.5	B	L	0.10	18.5	B	L	0.10	18.5	B
		TR	0.08	18.3	B	TR	0.08	18.3	B	TR	0.08	18.3	B
	Northbound	LT	0.60	19.4	B	LT	0.62	19.8	B	LT	0.62	19.8	B
	Southbound	T	0.57	18.3	B	T	0.62	19.4	B	T	0.62	19.4	B
		R	0.06	11.3	B	R	0.06	11.3	B	R	0.06	11.3	B
		Intersection		18.5	B	Intersection		19.2	B	Intersection		19.2	B

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. "+" denotes significant adverse impact.
1. Stop-controlled approach at signalized intersection.
2. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.

Table 20-33: Q3 2027 Saturday PM Peak Hour No-Action vs. Peak Construction vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	Q3 2027 No-Action				Q3 2027 Peak Construction					Q3 2027 Mitigaiton				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
1	**Beach Channel Drive and Beach 116th Street**														
	Eastbound	LTR	0.59	29.0	C	LTR	0.59	29.0	C		LTR	0.59	29.0	C	
	Westbound	LTR	0.91	36.7	D	LTR	0.92	37.6	D		LTR	0.92	37.6	D	
	Northbound	LTR	0.23	44.1	D	LTR	0.24	44.2	D		LTR	0.24	44.2	D	
	Southbound	LTR	0.24	48.1	D	LTR	0.24	48.1	D		LTR	0.24	48.1	D	
		Intersection		34.4	C	Intersection		34.9	C		Intersection		34.9	C	
2	**Newport Avenue and Beach 116th Street**														
	Eastbound	LTR	0.56	30.1	C	LTR	0.56	30.1	C		LTR	0.56	30.1	C	
	Northbound	LT	0.50	51.6	D	LT	0.50	51.8	D		LT	0.50	51.8	D	
		R	0.43	35.7	D	R	0.43	35.7	D		R	0.43	35.7	D	
	Southbound	LTR	0.37	19.7	B	LTR	0.37	19.7	B		LTR	0.37	19.7	B	
		Intersection		30.8	C	Intersection		30.9	C		Intersection		30.9	C	
3	**Rockaway Beach Boulevard and Beach 116th Street**														
	Eastbound	LTR	0.63	16.5	B	LTR	0.63	16.5	B		LTR	0.63	16.5	B	
	Westbound	LTR	0.72	20.3	C	LTR	0.72	20.5	C		LTR	0.72	20.5	C	
	Northbound	L	0.17	13.8	B	L	0.17	13.8	B		L	0.17	13.8	B	
		TR	0.25	14.4	B	TR	0.25	14.4	B		TR	0.25	14.4	B	
	Southbound	L	0.32	16.2	B	L	0.32	16.2	B		L	0.32	16.2	B	
		TR	0.32	15.2	B	TR	0.32	15.2	B		TR	0.32	15.2	B	
		Intersection		17.2	B	Intersection		17.3	B		Intersection		17.3	B	
4	**Beach Channel Drive and Rockaway Freeway**														
	Eastbound	LTR	0.93	45.5	D	LTR	0.93	45.9	D		LTR	0.93	45.9	D	
	Westbound	LTR	0.67	28.6	C	LTR	0.68	28.8	C		LTR	0.68	28.8	C	
	Northbound	LT	0.28	21.2	C	LT	0.29	21.2	C		LT	0.29	21.2	C	
		R	0.01	17.7	B	R	0.01	17.7	B		R	0.01	17.7	B	
		Intersection		36.3	D	Intersection		36.5	D		Intersection		36.5	D	
5	**Beach Channel Drive and Beach 108th Street**														
	Eastbound	TR	0.54	19.8	B	TR	0.54	19.8	B		TR	0.54	19.8	B	
	Westbound	LT	0.47	18.9	B	LT	0.48	18.9	B		LT	0.48	18.9	B	
	Northbound	L	0.20	15.8	B	L	0.20	15.9	B		L	0.20	15.9	B	
		R	0.08	14.7	B	R	0.08	14.7	B		R	0.08	14.7	B	
		Intersection		18.9	B	Intersection		18.9	B		Intersection		18.9	B	
6	**Rockaway Freeway and Beach 108th Street**														
	Eastbound	LTR	0.25	16.1	B	LTR	0.25	16.1	B		LTR	0.25	16.1	B	
	Westbound	LTR	0.12	14.8	B	LTR	0.12	14.8	B		LTR	0.12	14.8	B	
	Northbound	L	0.26	16.8	B	L	0.26	16.8	B		L	0.26	16.8	B	
		TR	0.16	15.2	B	TR	0.16	15.2	B		TR	0.16	15.2	B	
	Southbound	LTR	0.18	15.8	B	LTR	0.18	15.8	B		LTR	0.18	15.8	B	
		Intersection		15.8	B	Intersection		15.8	B		Intersection		15.8	B	
7	**Rockaway Beach Boulevard and Beach 108th Street**														
	Eastbound	L	0.21	16.7	B	L	0.21	16.7	B		L	0.21	16.7	B	
		TR	0.60	22.8	C	TR	0.60	22.8	C		TR	0.60	22.8	C	
	Westbound	L	0.07	14.8	B	L	0.07	14.8	B		L	0.07	14.8	B	
		TR	0.50	20.6	C	TR	0.51	20.7	C		TR	0.51	20.7	C	
	Northbound	L	0.24	16.9	B	L	0.24	16.9	B		L	0.24	16.9	B	
		TR	0.22	16.0	B	TR	0.22	16.0	B		TR	0.22	16.0	B	
	Southbound	L	0.33	18.5	B	L	0.33	18.5	B		L	0.33	18.5	B	
		LTR	0.28	16.8	B	LTR	0.28	16.8	B		LTR	0.28	16.8	B	
		Intersection		19.5	B	Intersection		19.5	B		Intersection		19.5	B	
8	**Beach Channel Drive and Beach 92nd Street/Beach 94th Street**														
	Eastbound	T	0.48	12.2	B	T	0.48	12.2	B		T	0.48	12.2	B	
	Northeastbound (Cross Bay Bridge Exit Ramp)	R	0.93	74.3	E	R	0.93	74.3	E		R	0.93	74.3	E	
	Northeastbound (Beach 94th St)	R	0.16	31.6	C	R	0.16	31.6	C		R	0.16	31.6	C	
	Westbound	TR	0.53	3.9	A	TR	0.54	4.0	A		TR	0.54	4.0	A	
	Northbound	R	0.21	42.2	D	R	0.21	42.2	D		R	0.21	42.2	D	
	Southbound	R	0.10	39.3	D	R	0.10	39.3	D		R	0.10	39.3	D	
		Intersection		20.5	C	Intersection		20.4	C		Intersection		20.4	C	
9	**Rockaway Freeway and Cross Bay Parkway**														
	Eastbound	TR	0.32	21.1	C	TR	0.32	21.1	C		TR	0.32	21.1	C	
	Westbound	L	0.13	37.6	D	L	0.13	37.6	D		L	0.13	37.6	D	
		T	0.17	10.6	B	T	0.17	10.6	B		T	0.17	10.6	B	
	Southbound (Cross Bay Bridge Off-Ramp)	LTR	0.47	24.5	C	LTR	0.47	24.5	C		LTR	0.47	24.5	C	
	Southbound (Beach Channel Drive Off-Ramp)	LTR	0.10	20.3	C	LTR	0.10	20.3	C		LTR	0.10	20.3	C	
		Intersection		21.7	C	Intersection		21.6	C		Intersection		21.6	C	
10	**Rockaway Beach Boulevard and Cross Bay Parkway**														
	Eastbound	TR	0.52	12.4	B	TR	0.52	12.4	B		TR	0.52	12.4	B	
	Westbound	LT	0.36	9.8	A	LT	0.37	9.8	A		LT	0.37	9.8	A	
	Southbound (Cross Bay Bridge Off-Ramp)	LT	0.35	16.7	B	LT	0.35	16.7	B		LT	0.35	16.7	B	
	Southbound (Beach Channel Drive Off-Ramp)	TR	0.30	17.1	B	TR	0.30	17.1	B		TR	0.30	17.1	B	
		Intersection		13.5	B	Intersection		13.5	B		Intersection		13.5	B	
11 [1]	**Rockaway Freeway and Beach 94th Street**														
	Eastbound	L	0.14	37.6	D	L	0.14	37.6	D		L	0.14	37.6	D	
		T	0.23	11.2	B	T	0.23	11.2	B		T	0.23	11.2	B	
	Westbound	TR	0.35	21.6	C	TR	0.37	21.8	C		TR	0.37	21.8	C	
	Northbound (Cross Bay Bridge On-Ramp)	LTR	0.40	23.4	C	LTR	0.41	23.5	C		LTR	0.41	23.5	C	
		Intersection		20.6	C	Intersection		20.7	C		Intersection		20.7	C	
12	**Rockaway Beach Boulevard and Beach 94th Street**														
	Eastbound	LT	0.47	11.0	B	LT	0.47	11.0	B		LT	0.47	11.0	B	
	Westbound	TR	0.63	14.4	B	TR	0.64	14.9	B		TR	0.64	14.9	B	
	Northbound (Cross Bay Bridge On-Ramp)	LT	0.33	17.3	B	LT	0.33	17.3	B		LT	0.33	17.3	B	
	Northbound (Beach Channel Drive On-Ramp)	TR	0.28	17.1	B	TR	0.28	17.1	B		TR	0.28	17.1	B	
		Intersection		13.8	B	Intersection		14.1	B		Intersection		14.1	B	
13 [1]	**Beach Channel Drive and Beach 73rd Street**														
	Eastbound	L	0.00	9.4	A	L	0.00	9.4	A		L	0.00	9.4	A	
		T	0.49	14.2	B	T	0.49	14.2	B		T	0.49	14.2	B	
	Westbound	L	0.30	13.7	B	L	0.30	13.7	B		L	0.30	13.7	B	
		TR	0.69	19.8	B	TR	0.71	20.6	C		TR	0.71	20.6	C	
	Northbound	LT	0.24	22.2	C	LT	0.24	22.2	C		LT	0.24	22.2	C	
	Southbound	LTR	0.02	19.6	B	LTR	0.02	19.6	B		LTR	0.02	19.6	B	
		Intersection		17.3	B	Intersection		17.7	B		Intersection		17.7	B	
14	**Rockaway Beach Boulevard and Beach 73rd Street**														
	Eastbound	LT	0.44	10.6	B	LT	0.44	10.6	B		LT	0.44	10.6	B	
		R	0.09	7.4	A	R	0.09	7.4	A		R	0.09	7.4	A	
	Westbound	L	0.17	8.4	A	L	0.17	8.4	A		L	0.17	8.4	A	
		T	0.40	10.1	B	T	0.41	10.2	B		T	0.41	10.2	B	
		R	0.16	8.0	A	R	0.16	8.0	A		R	0.16	8.0	A	
	Northbound	LT	0.12	24.9	C	LT	0.12	24.9	C		LT	0.12	24.9	C	
		R	0.07	24.3	C	R	0.07	24.3	C		R	0.07	24.3	C	
	Southbound	L	0.35	28.9	C	L	0.35	28.9	C		L	0.35	28.9	C	
		TR	0.34	28.3	C	TR	0.34	28.3	C		TR	0.34	28.3	C	
		Intersection		13.6	B	Intersection		13.6	B		Intersection		13.6	B	
15	**Beach Channel Drive/Arverne Boulevard and Beach 62nd Street**														
	Eastbound	LT	1.18	124.6	F	LT	1.18	124.6	F		LT	1.18	124.6	F	
	Westbound (Beach Channel Drive)	T	0.60	25.7	C	T	0.62	26.1	C		T	0.62	26.1	C	
	Westbound (Arverne Boulevard)	LR	0.99	77.6	E	LR	1.02	85.6	F	+	LR	0.97	71.5	E	
	Northbound	LTR	0.32	30.6	C	LTR	0.32	30.6	C		LTR	0.33	31.7	C	
	Southbound	L	0.39	34.5	C	L	0.39	34.5	C		L	0.41	36.1	D	
		R	0.00	27.3	C	R	0.00	27.3	C		R	0.00	28.1	C	
		Intersection		77.0	E	Intersection		78.6	E		Intersection		76.1	E	

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. "+" denotes significant adverse impact.
1. Stop-controlled approach at signalized intersection.
2. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.

Table 20-33 (continued): Q3 2027 Saturday PM Peak Hour No-Action vs. Peak Construction vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	Q3 2027 No-Action				Q3 2027 Peak Construction					Q3 2027 Mitigaiton				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
16	**Rockaway Beach Boulevard and Beach 62nd Street**														
	Eastbound	L	0.08	24.3	C	L	0.08	24.3	C		L	0.08	24.3	C	
		TR	0.56	10.6	B	TR	0.56	10.6	B		TR	0.56	10.6	B	
	Westbound	LTR	0.88	41.7	D	LTR	0.92	46.3	D		LTR	0.92	46.3	D	
	Northbound	LTR	0.28	30.3	C	LTR	0.28	30.3	C		LTR	0.28	30.3	C	
		Intersection		27.4	C	Intersection		29.9	C		Intersection		29.9	C	
18	**Beach Channel Drive and Beach 59th Street**														
	Eastbound	LT	0.41	13.2	B	LT	0.41	13.2	B		LT	0.41	13.2	B	
		R	0.07	9.9	A	R	0.07	9.9	A		R	0.07	9.9	A	
	Westbound	LTR	0.38	12.9	B	LTR	0.39	13.0	B		LTR	0.39	13.0	B	
	Southbound	LTR	0.02	19.6	B	LTR	0.02	19.6	B		LTR	0.02	19.6	B	
		Intersection		13.0	B	Intersection		13.1	B		Intersection		13.1	B	
19	**Arverne Boulevard and Beach 59th Street**														
	Eastbound	T	0.44	10.4	B	T	0.44	10.4	B		T	0.50	11.4	B	
		R	0.14	8.1	A	R	0.14	8.1	A		R	0.14	8.1	A	
	Westbound	LT	0.69	16.6	B	LT	0.77	20.5	C						
											L	0.34	11.1	B	
											T	0.46	11.1	B	
	Southbound	LTR	0.15	15.3	B	LTR	0.15	15.4	B		LTR	0.15	15.4	B	
		Intersection		13.2	B	Intersection		15.1	B		Intersection		11.2	B	
20	**Rockaway Freeway and Beach 59th Street**														
	Westbound	L	0.56	49.6	D	L	0.56	49.6	D		L	0.56	49.6	D	
		T	0.11	10.1	B	T	0.11	10.1	B		T	0.11	9.7	A	
	Southbound	LTR	0.56	33.6	C	LTR	0.59	34.9	C		LTR	0.62	36.8	D	
		Intersection		31.3	C	Intersection		32.0	C		Intersection		32.9	C	
21	**Rockaway Beach Boulevard and Beach 59th Street**														
	Eastbound	TR	1.10	93.7	F	TR	1.10	93.7	F		TR	1.07	82.1	F	
	Westbound	LT	1.00	68.3	E	LT	1.02	73.0	E	+	LT	0.95	54.1	D	
	Northbound	LR	0.35	30.4	C	LR	0.36	30.6	C		LR	0.38	32.1	C	
	Southbound	LTR	0.39	19.0	B	LTR	0.41	19.3	B		LTR	0.42	20.2	C	
		Intersection		68.3	E	Intersection		69.6	E		Intersection		58.6	E	
22	**Beach Channel Drive and Beach 54th Street**														
	Eastbound	T	0.44	13.7	B	T	0.44	13.7	B		T	0.44	13.7	B	
		R	0.04	9.7	A	R	0.04	9.7	A		R	0.04	9.7	A	
	Westbound	LT	0.64	18.3	B	LT	0.65	18.8	B		LT	0.65	18.8	B	
	Northbound	LR	0.18	22.0	C	LR	0.18	22.0	C		LR	0.18	22.0	C	
	Southbound	LTR	0.26	22.6	C	LTR	0.26	22.6	C		LTR	0.26	22.6	C	
		Intersection		17.0	B	Intersection		17.2	B		Intersection		17.2	B	
23	**Arverne Boulevard and Beach 54th Street**														
	Eastbound	LTR	0.74	29.2	C	LTR	0.74	29.2	C		LTR	0.70	26.2	C	
	Westbound	LTR	0.85	42.0	D	LTR	0.95	59.0	E	+	LTR	0.87	43.3	D	
	Northbound	LTR	0.45	17.6	B	LTR	0.45	17.7	B		LTR	0.47	19.3	B	
	Southbound	LTR	0.15	23.0	C	LTR	0.15	23.0	C		LTR	0.17	25.5	C	
		Intersection		29.6	C	Intersection		35.2	D		Intersection		29.7	C	
24	**Rockaway Freeway and Beach 54th Street**														
	Eastbound	LTR	0.09	16.4	B	LTR	0.09	16.4	B		LTR	0.08	15.2	B	
	Westbound	L	0.03	36.0	D	L	0.03	36.0	D		L	0.03	35.0	D	
		TR	0.22	9.7	A	TR	0.22	9.7	A		TR	0.21	8.2	A	
	Northbound	LTR	0.55	29.4	C	LTR	0.55	29.4	C		LTR	0.61	33.6	C	
	Southbound	LTR	0.53	29.0	C	LTR	0.54	29.3	C		LTR	0.63	34.3	C	
		Intersection		23.4	C	Intersection		23.6	C		Intersection		26.2	C	
25	**Edgemere Avenue and Beach 54th Street**														
	Eastbound	LTR	2.58	749.0	F	LTR	2.58	749.0	F		LTR	2.24	592.1	F	
	Westbound	LTR	0.76	29.0	C	LTR	0.76	29.0	C		LTR	0.72	26.0	C	
	Northbound	LTR	0.00	21.4	C	LTR	0.00	21.4	C		LTR	0.00	23.5	C	
	Southbound	LTR	1.05	91.9	F	LTR	1.08	103.9	F	+	LTR	1.02	83.4	F	
		Intersection		371.0	F	Intersection		371.5	F		Intersection		295.1	F	
26	**Beach Channel Drive and Beach 53rd Street**														
	Eastbound	Unsignalized				Unsignalized					TR	0.61	17.6	B	
	Westbound										LT	0.63	18.5	B	
	Northbound										LR	0.30	23.2	C	
											Intersection		18.7	B	
27	**Rockaway Beach Boulevard and Beach 53rd Street**														
	Eastbound	Unsignalized				Unsignalized					L	0.40	16.9	B	
											T	0.42	14.9	B	
	Westbound										TR	0.47	15.9	B	
	Southbound										LR	0.35	22.7	C	
											Intersection		16.9	B	
29	**Beach Channel Drive and Beach 51st Street**														
	Eastbound	L	0.07	10.1	B	L	0.07	10.1	B		L	0.07	10.1	B	
		TR	0.63	18.0	B	TR	0.63	18.0	B		TR	0.63	18.0	B	
	Westbound	LT	0.53	15.3	B	LT	0.53	15.3	B		LT	0.53	15.3	B	
		R	0.02	9.5	B	R	0.02	9.5	B		R	0.02	9.5	B	
	Northbound	LTR	0.03	19.6	B	LTR	0.03	19.6	B		LTR	0.03	19.6	B	
		Intersection		16.4	B	Intersection		16.4	B		Intersection		16.4	B	
39	**Rockaway Freeway and Beach 44th Street**														
	Eastbound	L	0.06	36.5	D	L	0.06	36.5	D		L	0.06	36.5	D	
		TR	0.22	17.8	B	TR	0.22	17.8	B		TR	0.22	17.8	B	
	Westbound	L	0.02	8.5	A	L	0.02	8.5	A		L	0.02	8.5	A	
		TR	0.28	18.5	B	TR	0.28	18.5	B		TR	0.28	18.5	B	
	Northbound	LTR	0.04	21.7	C	LTR	0.04	21.7	C		LTR	0.04	21.7	C	
	Southbound	LTR	0.17	23.5	C	LTR	0.19	23.7	C		LTR	0.19	23.7	C	
		Intersection		19.2	B	Intersection		19.3	B		Intersection		19.3	B	
40[1,2]	**Beach Channel Drive/Seagirt Boulevard and Beach 35th Street**														
	Eastbound	LTR	0.52	16.9	B	LTR	0.55	17.4	B		LTR	0.55	17.4	B	
	Westbound	LT	0.49	14.2	B	LT	0.49	14.4	B		LT	0.49	14.4	B	
	Southbound	LT	0.17	22.1	C	LT	0.17	22.1	C		LT	0.17	22.1	C	
		R	0.58	9.7	A	R	0.60	10.2	B		R	0.60	10.2	B	
	Northbound	LTR	0.11	11.6	B	LTR	0.11	11.6	B		LTR	0.11	11.6	B	
		Intersection		14.4	B	Intersection		14.9	B		Intersection		14.9	B	
41 [2]	**Rockaway Freeway and Beach 35th Street**														
	Eastbound	L	0.02	34.2	C	L	0.02	34.2	C		L	0.02	34.2	C	
		TR	0.38	19.1	B	TR	0.38	19.1	B		TR	0.38	19.1	B	
	Westbound	L	0.00	44.0	D	L	0.00	48.0	D		L	0.00	48.0	D	
		TR	0.46	8.9	A	TR	0.46	8.8	A		TR	0.46	8.8	A	
	Southbound	LTR	0.29	10.2	B	LTR	0.29	10.2	B		LTR	0.29	10.2	B	
	Northbound	LTR	0.18	26.9	C	LTR	0.18	26.9	C		LTR	0.18	26.9	C	
		Intersection		14.4	B	Intersection		14.4	B		Intersection		14.4	B	
42 [2]	**Rockaway Freeway and Seagirt Boulevard**														
	Eastbound	L	0.23	42.0	D	L	0.23	41.6	D		L	0.23	41.6	D	
		TR	0.18	26.8	C	TR	0.18	28.4	C		TR	0.18	28.4	C	
	Westbound	LTR	0.52	32.0	C	LTR	0.55	32.8	C		LTR	0.55	32.8	C	
	Southbound	TR	0.42	23.7	C	TR	0.45	24.6	C		TR	0.45	24.6	C	
	Northbound	TR	0.47	11.6	B	TR	0.49	11.9	B		TR	0.49	11.9	B	
		Intersection		25.3	C	Intersection		26.0	C		Intersection		26.0	C	

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. "+" denotes significant adverse impact.
1. Stop-controlled approach at signalized intersection.
2. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.

Table 20-33 (continued): Q3 2027 Saturday PM Peak Hour No-Action vs. Peak Construction vs. Mitigated Conditions Level of Service Analysis – Signalized Intersections

#	Intersection & Approach	Q3 2027 No-Action				Q3 2027 Peak Construction					Q3 2027 Mitigaiton				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
43	**Rockaway Freeway and Beach 25th Street**														
	Eastbound	LTR	0.19	23.4	C	LTR	0.19	23.4	C		LTR	0.19	23.4	C	
	Westbound	LTR	0.27	24.7	C	LTR	0.27	24.7	C		LTR	0.27	24.7	C	
	Northbound	L	0.10	36.0	D	L	0.10	36.0	D		L	0.10	36.0	D	
		TR	0.42	21.3	C	TR	0.42	21.3	C		TR	0.42	21.3	C	
	Southbound	L	0.15	36.9	D	L	0.15	36.9	D		L	0.15	36.9	D	
		TR	0.31	19.4	B	TR	0.31	19.4	B		TR	0.31	19.4	B	
		Intersection		22.4	C	Intersection		22.5	C		Intersection		22.5	C	
44	**Rockaway Freeway and Cornaga Avenue**														
	Eastbound	LTR	0.14	18.8	B	LTR	0.14	18.8	B		LTR	0.14	18.8	B	
	Westbound	LTR	0.46	24.0	C	LTR	0.46	24.0	C		LTR	0.46	24.0	C	
	Northbound	TR	0.45	26.6	C	TR	0.45	26.6	C		TR	0.45	26.6	C	
	Southbound	L	0.13	37.5	D	L	0.13	37.5	D		L	0.13	37.5	D	
		TR	0.21	13.6	B	TR	0.21	13.6	B		TR	0.21	13.6	B	
		Intersection		22.3	C	Intersection		22.3	C		Intersection		22.3	C	
45	**Beach Channel Drive and Cornaga Avenue**														
	Eastbound	LTR	0.17	19.2	B	LTR	0.17	19.2	B		LTR	0.17	19.2	B	
	Westbound	LTR	0.23	20.0	C	LTR	0.23	20.0	C		LTR	0.23	20.0	C	
	Northbound	L	0.02	12.0	B	L	0.02	12.0	B		L	0.02	12.0	B	
		TR	0.50	17.4	B	TR	0.52	17.8	B		TR	0.52	17.8	B	
	Southbound	L	0.07	12.6	B	L	0.08	12.7	B		L	0.08	12.7	B	
		TR	0.49	17.3	B	TR	0.49	17.3	B		TR	0.49	17.3	B	
		Intersection		17.7	B	Intersection		17.9	B		Intersection		17.9	B	
46	**Beach Channel Drive and Mott Avenue**														
	Eastbound	LTR	0.65	31.7	C	LTR	0.65	31.7	C		LTR	0.69	34.7	C	
	Westbound	LT	0.59	28.7	C	LT	0.59	28.7	C		LT	0.61	30.3	C	
		R	0.20	11.2	C	R	0.20	11.2	C		R	0.21	11.7	C	
	Northbound	L	0.15	23.3	C	L	0.15	23.3	C		L	0.14	21.9	C	
		TR	1.16	121.5	F	TR	1.20	134.4	F	+	TR	1.16	118.4	F	
	Southbound	L	0.82	43.5	D	L	0.82	46.5	D		L	0.82	43.3	D	
		TR	0.78	24.0	C	TR	0.78	24.0	C		TR	0.77	22.5	C	
		Intersection		54.8	D	Intersection		59.5	E		Intersection		54.4	D	
47	**Beach Channel Drive and Dix Avenue**														
	Eastbound	LTR	0.09	20.5	C	LTR	0.09	20.5	C		LTR	0.10	21.2	C	
	Westbound	LTR	0.13	20.9	C	LTR	0.13	20.9	C		LTR	0.14	21.6	C	
	Northbound	LTR	1.00	53.3	D	LTR	1.03	60.3	E	+	LTR	1.01	53.8	D	
	Southbound	LTR	1.22	132.9	F	LTR	1.22	132.9	F		LTR	1.20	121.9	F	
		Intersection		93.6	F	Intersection		96.2	F		Intersection		87.7	F	
49	**Beach Channel Drive and Nameoke Avenue**														
	Eastbound	LTR	0.33	23.9	C	LTR	0.33	23.9	C		LTR	0.33	23.9	C	
	Northbound	L	0.06	11.2	B	L	0.06	11.2	B		L	0.06	11.2	B	
		TR	0.79	23.2	C	TR	0.81	24.3	C		TR	0.81	24.3	C	
	Southbound	L	0.24	13.8	B	L	0.26	14.4	B		L	0.26	14.4	B	
		TR	1.05	65.6	E	TR	1.05	65.6	E		TR	1.05	65.6	E	
		Intersection		44.5	D	Intersection		44.7	D		Intersection		44.7	D	
50	**Beach Channel Drive and Hassock Avenue**														
	Eastbound	LR	0.18	19.5	B	LR	0.18	19.5	B		LR	0.18	20.2	C	
	Westbound	L	0.20	19.7	B	L	0.20	19.7	B		L	0.20	20.4	C	
		TR	0.18	19.4	B	TR	0.18	19.4	B		TR	0.18	20.1	C	
	Northbound	LT	1.24	140.5	F	LT	1.27	153.7	F	+	LT	1.24	141.3	F	
	Southbound	T	1.16	109.6	F	T	1.16	109.6	F		T	1.14	99.5	F	
		R	0.13	12.0	B	R	0.13	12.0	B		R	0.13	11.4	B	
		Intersection		106.5	F	Intersection		112.2	F		Intersection		102.9	F	

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. "+" denotes significant adverse impact.
1. Stop-controlled approach at signalized intersection.
2. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.

Table 20-34: Q3 2027 Weekday AM Peak Hour No-Action vs. Peak Construction vs. Mitigated Conditions Level of Service Analysis – Unsignalized Intersections

#	Intersection & Approach	Q3 2027 No-Action				Q3 2027 Peak Construction				Q3 2027 Mitigaiton			
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
11 [1]	**Rockaway Freeway and Beach 94th Street**												
	Northbound	T	0.03	9.1	A	T	0.03	9.1	A	T	0.03	9.1	A
13 [1]	**Beach Channel Drive and Beach 73rd Street**												
	Eastbound	R	0.08	8.8	A	R	0.08	8.8	A	R	0.08	8.8	A
	Northbound	R	0.06	10.2	B	R	0.06	10.4	B	R	0.06	10.4	B
17	**Beach Front Road and Beach 62nd Street**												
	Eastbound	LT	0.14	9.9	A	LT	0.14	9.9	A	LT	0.14	9.9	A
	Westbound	TR	0.12	9.7	A	TR	0.12	9.7	A	TR	0.12	9.7	A
	Southbound	LTR	0.00	7.2	A	LTR	0.00	7.2	A	LTR	0.00	7.2	A
26	**Beach Channel Drive and Beach 53rd Street**												
	Westbound	LT	0.03	9.2	A	LT	0.03	9.5	A	Signalized			
	Northbound	LR	0.25	18.5	C	LR	0.31	21.4	C				
27	**Rockaway Beach Boulevard and Beach 53rd Street**												
	Eastbound	LT	0.04	9.2	A	LT	0.04	9.4	A	Signalized			
	Southbound	LR	0.25	14.6	B	LR	0.33	17.7	C				
28	**Rockaway Beach Boulevard and Beach 52nd Street**												
	Eastbound	LTR	0.01	8.0	A	LTR	0.01	8.2	A	LTR	0.01	8.2	A
	Westbound	LTR	0.00	7.7	A	LTR	0.00	7.9	A	LTR	0.00	7.9	A
	Northbound	LR	0.00	0.0	-	LR	0.00	0.0	-	LR	0.00	0.0	-
	Southbound	LTR	0.02	13.1	B	LTR	0.05	15.7	C	LTR	0.05	15.7	C
30	**Beach Channel Drive and Beach 50th Street**												
	Westbound	LT	0.01	8.4	A	LT	0.05	8.6	A	LT	0.05	8.6	A
	Northbound	LR	0.02	13.0	B	LR	0.05	13.1	B	LR	0.05	13.1	B
31	**Rockaway Beach Boulevard and Beach 50th Street**												
	Eastbound	LT	0.01	7.8	A	LT	0.02	7.9	A	LT	0.02	7.9	A
	Southbound	LR	0.02	10.1	B	LR	0.08	10.1	B	LR	0.08	10.1	B
32 [2]	**Beach Channel Drive and Beach 52nd Street**												
	Westbound	LT	0.01	8.3	A	LT	0.01	8.4	A	LT	0.01	8.4	A
	Northbound	LR	0.06	12.5	B	LR	0.06	12.6	B	LR	0.06	12.6	B
33 [2]	**Peninsula Way and Beach 53rd Street**												
	Westbound	LR	0.07	10.5	B	LR	0.07	10.7	B	LR	0.07	10.7	B
	Southbound	LT	0.00	7.8	A	LT	0.00	7.9	A	LT	0.00	7.9	A
34 [2]	**Peninsula Way and Beach 52nd Street**												
	Eastbound	LTR	0.00	7.7	A	LTR	0.00	7.7	A	LTR	0.00	7.7	A
	Westbound	LTR	0.00	7.5	A	LTR	0.00	7.6	A	LTR	0.00	7.6	A
	Northbound	LTR	0.01	10.6	B	LTR	0.01	11.0	B	LTR	0.01	11.0	B
	Southbound	LTR	0.02	11.7	B	LTR	0.03	12.0	B	LTR	0.03	12.0	B
35 [3]	**Peninsula Way and Beach 50th Street**												
	Eastbound												
	Northbound												
36	**Beach Channel Drive and Beach 47th Street**												
	Eastbound	LT	0.00	8.4	A	LT	0.00	8.5	A	LT	0.00	8.5	A
	Northbound	LTR	0.02	12.3	B	LTR	0.02	12.6	B	LTR	0.02	12.6	B
37	**Arverne Boulevard/Rockaway Beach Boulevard and Beach 47th Street**												
	Eastbound	LTR	0.00	7.6	A	LTR	0.00	7.6	A	LTR	0.00	7.6	A
	Westbound	LTR	0.01	8.3	A	LTR	0.01	8.4	A	LTR	0.01	8.4	A
	Northbound	LTR	0.02	12.1	B	LTR	0.03	12.3	B	LTR	0.03	12.3	B
38	**Rockaway Beach Boulevard and Beach 44th Street**												
	Westbound	LT	0.00	8.0	A	LT	0.00	8.0	A	LT	0.00	8.0	A
	Northbound	LR	0.03	12.2	B	LR	0.05	12.9	B	LR	0.05	12.9	B
	Southbound	LTR	0.05	12.0	B	LTR	0.05	12.0	B	LTR	0.05	12.0	B
40 [1,4]	**Beach Channel Drive and Seagirt Boulevard**												
	Westbound	R	0.01	10.2	B	R	0.01	10.3	B	R	0.01	10.3	B
48	**Beach Channel Drive and Birdsall Avenue**												
	Eastbound	LTR	0.01	11.2	B	LTR	0.01	11.5	B	LTR	0.01	11.5	B
	Westbound	LTR	0.00	13.1	B	LTR	0.00	13.3	B	LTR	0.00	13.3	B
	Northbound	LTR	0.00	8.3	A	LTR	0.00	8.4	A	LTR	0.00	8.4	A
	Southbound	LTR	0.00	8.4	A	LTR	0.00	8.4	A	LTR	0.00	8.4	A
51 [3]	**Rockaway Freeway and Beach 52nd Street**												
	Southbound												
P1a [5]	**Parking Lot 1 driveway, via Beach Channel Drive**												
	Westbound	LT	0.00	8.8	A	LT	0.02	10.1	B	LT	0.02	10.1	B
	Northbound	LR	0.01	12.5	B	LR	0.06	17.5	C	LR	0.06	17.5	C
P1b [5]	**Parking Lot 1 driveway, via Beach 53rd Street**												
	Westbound	LR	0.01	10.0	B	LR	0.01	11.0	B	LR	0.01	11.0	B
	Southbound	LT	0.00	7.7	A	LT	0.00	7.9	A	LT	0.00	7.9	A
P2 [5]	**Parking Garage 2 driveway, via Beach 53rd Street**												
	Westbound	LR	0.07	9.9	A	LR	0.06	10.9	B	LR	0.06	10.9	B
	Southbound	LT	0.00	7.7	A	LT	0.03	8.0	A	LT	0.03	8.0	A
P3 [5]	**Parking Garage 3 driveway, via Beach 53rd Street**												
	Westbound	LR	0.06	11.1	B	LR	0.05	12.8	B	LR	0.05	12.8	B
	Southbound	LT	0.00	8.1	A	LT	0.03	8.6	A	LT	0.03	8.6	A
P4 [5]	**Parking Garage 4 driveway, via Rockaway Beach Boulevard**												
	Eastbound	LT	0.00	8.0	A	LT	0.02	8.6	A	LT	0.02	8.6	A
	Southbound	LR	0.03	10.7	B	LR	0.03	14.3	B	LR	0.03	14.3	B
P5 [5]	**Parking Garage 5 driveway, via Peninsula Way**												
	Eastbound	LT	0.01	7.2	A	LT	0.07	7.4	A	LT	0.07	7.4	A
	Southbound	LR	0.07	8.6	A	LR	0.04	8.5	A	LR	0.04	8.5	A
P6 [5]	**Parking Lot 6 driveway, via Beach Channel Drive**												
	Westbound	LT	0.00	8.4	A	LT	0.01	9.6	A	LT	0.01	9.6	A
	Northbound	LR	0.01	13.1	B	LR	0.11	24.3	C	LR	0.11	24.3	C
P7 [3]	**Parking Garage 7 driveway, via Beach 52nd Street**												
	Westbound												
	Southbound												
P8 [3]	**Parking Garage 8 driveway, via Peninsula Way**												
	Westbound												
	Northbound												

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. "+" denotes significant adverse impact.
1. Stop-controlled approach at signalized intersection.
2. Intersection created as part of the Proposed Project.
3. Intersection under construction/not built during Q3 2027.
4. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.
5. Driveway to parking garage/parking lot created as part of the Proposed Project.
6. Minor approach has fewer than 90 PCEs.

Table 20-35: Q3 2027 Weekday PM Peak Hour No-Action vs. Peak Construction vs. Mitigated Conditions Level of Service Analysis – Unsignalized Intersections

#	Intersection & Approach	Q3 2027 No-Action				Q3 2027 Peak Construction					Q3 2027 Mitigaiton				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
11 [1]	**Rockaway Freeway and Beach 94th Street**														
	Northbound	T	0.07	9.3	A	T	0.07	9.3	A		T	0.07	9.3	A	
13 [1]	**Beach Channel Drive and Beach 73rd Street**														
	Eastbound	R	0.25	9.6	A	R	0.25	9.6	A		R	0.25	9.6	A	
	Northbound	R	0.22	17.3	C	R	0.22	17.3	C		R	0.22	17.3	C	
17	**Beach Front Road and Beach 62nd Street**														
	Eastbound	LT	0.39	12.7	B	LT	0.39	12.7	B		LT	0.39	12.7	B	
	Westbound	TR	0.14	10.4	B	TR	0.14	10.4	B		TR	0.14	10.4	B	
	Southbound	LTR	0.01	7.3	A	LTR	0.01	7.3	A		LTR	0.01	7.3	A	
26	**Beach Channel Drive and Beach 53rd Street**														
	Westbound	LT	0.20	18.5	C	LT	0.21	19.3	C		Signalized				
	Northbound	LR	2.48	835.8	F	LR	2.86	1015.0	F	+					
27	**Rockaway Beach Boulevard and Beach 53rd Street**														
	Eastbound	LT	0.35	16.4	C	LT	0.39	18.5	C		Signalized				
	Southbound	LR	1.80	485.9	F	LR	2.25	707.0	F	+					
28	**Rockaway Beach Boulevard and Beach 52nd Street**														
	Eastbound	LTR	0.05	10.0	A	LTR	0.05	10.5	B		LTR	0.05	10.5	B	
	Westbound	LTR	0.00	8.5	A	LTR	0.00	8.6	A		LTR	0.00	8.6	A	
	Northbound	LR	0.00	0.0	-	LR	0.00	0.0	-		LR	0.00	0.0	-	
	Southbound	LTR	0.13	39.2	E	LTR	0.16	51.0	F	6	LTR	0.16	51.0	F	6
30	**Beach Channel Drive and Beach 50th Street**														
	Westbound	LT	0.02	10.4	B	LT	0.03	10.5	B		LT	0.03	10.5	B	
	Northbound	LR	0.09	29.6	D	LR	0.20	22.4	C		LR	0.20	22.4	C	
31	**Rockaway Beach Boulevard and Beach 50th Street**														
	Eastbound	LT	0.01	7.9	A	LT	0.04	8.0	A		LT	0.04	8.0	A	
	Southbound	LR	0.06	12.6	B	LR	0.06	13.5	B		LR	0.06	13.5	B	
32 [2]	**Beach Channel Drive and Beach 52nd Street**														
	Westbound	LT	0.06	11.1	B	LT	0.06	11.2	B		LT	0.06	11.2	B	
	Northbound	LR	0.14	26.2	D	LR	0.20	31.8	D	6	LR	0.20	31.8	D	6
33 [2]	**Peninsula Way and Beach 53rd Street**														
	Westbound	LR	0.10	15.3	C	LR	0.10	15.5	C		LR	0.10	15.5	C	
	Southbound	LT	0.02	9.2	A	LT	0.02	9.3	A		LT	0.02	9.3	A	
34 [2]	**Peninsula Way and Beach 52nd Street**														
	Eastbound	LTR	0.00	8.4	A	LTR	0.00	8.5	A		LTR	0.00	8.5	A	
	Westbound	LTR	0.00	8.3	A	LTR	0.00	8.4	A		LTR	0.00	8.4	A	
	Northbound	LTR	0.16	19.3	C	LTR	0.19	20.9	C		LTR	0.19	20.9	C	
	Southbound	LTR	0.30	36.3	E	LTR	0.34	42.4	E	6	LTR	0.34	42.4	E	6
35 [3]	**Peninsula Way and Beach 50th Street**														
	Eastbound														
	Northbound														
36	**Beach Channel Drive and Beach 47th Street**														
	Eastbound	LT	0.00	9.2	A	LT	0.00	9.2	A		LT	0.00	9.2	A	
	Northbound	LTR	0.13	26.7	D	LTR	0.14	27.8	D		LTR	0.14	27.8	D	
37	**Arverne Boulevard/Rockaway Beach Boulevard and Beach 47th Street**														
	Eastbound	LTR	0.01	8.1	A	LTR	0.01	8.1	A		LTR	0.01	8.1	A	
	Westbound	LTR	0.02	11.2	B	LTR	0.02	11.3	B		LTR	0.02	11.3	B	
	Northbound	LTR	0.22	33.9	D	LTR	0.23	35.1	E		LTR	0.23	35.1	E	
38	**Rockaway Beach Boulevard and Beach 44th Street**														
	Westbound	LT	0.01	9.1	A	LT	0.01	9.1	A		LT	0.01	9.1	A	
	Northbound	LR	0.24	35.4	E	LR	0.25	35.6	E		LR	0.25	35.6	E	
	Southbound	LTR	0.18	22.9	C	LTR	0.18	23.1	C		LTR	0.18	23.1	C	
40 [1,4]	**Beach Channel Drive and Seagirt Boulevard**														
	Westbound	R	0.15	13.5	B	R	0.15	13.8	B		R	0.15	13.8	B	
48	**Beach Channel Drive and Birdsall Avenue**														
	Eastbound	LTR	0.40	122.5	F	LTR	0.42	134.2	F	6	LTR	0.42	134.2	F	6
	Westbound	LTR	0.27	111.9	F	LTR	0.29	125.7	F	6	LTR	0.29	125.7	F	6
	Northbound	LTR	0.01	11.1	B	LTR	0.01	11.1	B		LTR	0.01	11.1	B	
	Southbound	LTR	0.01	9.9	A	LTR	0.01	10.1	B		LTR	0.01	10.1	B	
51 [3]	**Rockaway Freeway and Beach 52nd Street**														
	Southbound														
P1a [5]	**Parking Lot 1 driveway, via Beach Channel Drive**														
	Westbound	LT	0.03	13.9	B	LT	0.03	14.1	B		LT	0.03	14.1	B	
	Northbound	LR	0.12	29.3	D	LR	0.12	30.0	D		LR	0.12	30.0	D	
P1b [5]	**Parking Lot 1 driveway, via Beach 53rd Street**														
	Westbound	LR	0.04	12.9	B	LR	0.04	13.3	B		LR	0.04	13.3	B	
	Southbound	LT	0.00	8.5	A	LT	0.00	8.6	A		LT	0.00	8.6	A	
P2 [5]	**Parking Garage 2 driveway, via Beach 53rd Street**														
	Westbound	LR	0.07	12.7	B	LR	0.08	12.9	B		LR	0.08	12.9	B	
	Southbound	LT	0.04	8.6	A	LT	0.04	8.7	A		LT	0.04	8.7	A	
P3 [5]	**Parking Garage 3 driveway, via Beach 53rd Street**														
	Westbound	LR	0.09	18.5	C	LR	0.09	18.6	C		LR	0.09	18.6	C	
	Southbound	LT	0.04	10.5	B	LT	0.04	10.5	B		LT	0.04	10.5	B	
P4 [5]	**Parking Garage 4 driveway, via Rockaway Beach Boulevard**														
	Eastbound	LT	0.03	9.9	A	LT	0.03	10.4	B		LT	0.03	10.4	B	
	Southbound	LR	0.05	19.1	C	LR	0.05	20.9	C		LR	0.05	20.9	C	
P5 [5]	**Parking Garage 5 driveway, via Peninsula Way**														
	Eastbound	LT	0.07	7.4	A	LT	0.07	7.4	A		LT	0.07	7.4	A	
	Southbound	LR	0.04	8.5	A	LR	0.04	8.5	A		LR	0.04	8.5	A	
P6 [5]	**Parking Lot 6 driveway, via Beach Channel Drive**														
	Westbound	LT	0.02	11.1	B	LT	0.02	11.3	B		LT	0.02	11.3	B	
	Northbound	LR	0.16	34.2	D	LR	0.17	36.0	E		LR	0.17	36.0	E	
P7 [3]	**Parking Garage 7 driveway, via Beach 52nd Street**														
	Westbound														
	Southbound														
P8 [3]	**Parking Garage 8 driveway, via Peninsula Way**														
	Westbound														
	Northbound														

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. "+" denotes significant adverse impact.
1. Stop-controlled approach at signalized intersection.
2. Intersection created as part of the Proposed Project.
3. Intersection under construction/not built during Q3 2027.
4. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.
5. Driveway to parking garage/parking lot created as part of the Proposed Project.
6. Minor approach has fewer than 90 PCEs.

Table 20-36: Q3 2027 Saturday AM Peak Hour No-Action vs. Peak Construction vs. Mitigated Conditions Level of Service Analysis – Unsignalized Intersections

#	Intersection & Approach	Q3 2027 No-Action				Q3 2027 Peak Construction				Q3 2027 Mitigaiton			
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
11 [1]	**Rockaway Freeway and Beach 94th Street**												
	Northbound	T	0.03	9.1	A	T	0.03	9.1	A	T	0.03	9.1	A
13 [1]	**Beach Channel Drive and Beach 73rd Street**												
	Eastbound	R	0.07	8.7	A	R	0.07	8.7	A	R	0.07	8.7	A
	Northbound	R	0.04	9.9	A	R	0.04	10.0	B	R	0.04	10.0	B
17	**Beach Front Road and Beach 62nd Street**												
	Eastbound	LT	0.12	9.8	A	LT	0.12	9.8	A	LT	0.12	9.8	A
	Westbound	TR	0.06	9.4	A	TR	0.06	9.4	A	TR	0.06	9.4	A
	Southbound	LTR	0.00	7.4	A	LTR	0.00	7.4	A	LTR	0.00	7.4	A
26	**Beach Channel Drive and Beach 53rd Street**												
	Westbound	LT	0.03	9.0	A	LT	0.04	9.3	A	Signalized			
	Northbound	LR	0.18	16.0	C	LR	0.23	18.1	C				
27	**Rockaway Beach Boulevard and Beach 53rd Street**												
	Eastbound	LT	0.06	9.0	A	LT	0.06	9.2	A	Signalized			
	Southbound	LR	0.18	14.0	B	LR	0.26	17.0	C				
28	**Rockaway Beach Boulevard and Beach 52nd Street**												
	Eastbound	LTR	0.01	8.3	A	LTR	0.01	8.4	A	LTR	0.01	8.4	A
	Westbound	LTR	0.00	7.6	A	LTR	0.00	7.8	A	LTR	0.00	7.8	A
	Northbound	LR	0.00	9.8	A	LR	0.00	10.7	B	LR	0.00	10.7	B
	Southbound	LTR	0.02	13.2	B	LTR	0.04	16.8	C	LTR	0.04	16.8	C
30	**Beach Channel Drive and Beach 50th Street**												
	Westbound	LT	0.01	8.2	A	LT	0.05	8.4	A	LT	0.05	8.4	A
	Northbound	LR	0.02	12.1	B	LR	0.04	11.8	B	LR	0.04	11.8	B
31	**Rockaway Beach Boulevard and Beach 50th Street**												
	Eastbound	LT	0.00	7.5	A	LT	0.01	7.5	A	LT	0.01	7.5	A
	Southbound	LR	0.01	9.5	A	LR	0.07	9.5	A	LR	0.07	9.5	A
32 [2]	**Beach Channel Drive and Beach 52nd Street**												
	Westbound	LT	0.01	8.4	A	LT	0.01	8.4	A	LT	0.01	8.4	A
	Northbound	LR	0.03	11.3	B	LR	0.03	11.4	B	LR	0.03	11.4	B
33 [2]	**Peninsula Way and Beach 53rd Street**												
	Westbound	LR	0.03	10.4	B	LR	0.04	10.7	B	LR	0.04	10.7	B
	Southbound	LT	0.00	7.9	A	LT	0.00	7.9	A	LT	0.00	7.9	A
34 [2]	**Peninsula Way and Beach 52nd Street**												
	Eastbound	LTR	0.00	7.8	A	LTR	0.00	7.8	A	LTR	0.00	7.8	A
	Westbound	LTR	0.00	7.7	A	LTR	0.00	7.8	A	LTR	0.00	7.8	A
	Northbound	LTR	0.04	12.0	B	LTR	0.04	12.5	B	LTR	0.04	12.5	B
	Southbound	LTR	0.04	14.1	B	LTR	0.06	14.5	B	LTR	0.06	14.5	B
35 [3]	**Peninsula Way and Beach 50th Street**												
	Eastbound												
	Northbound												
36	**Beach Channel Drive and Beach 47th Street**												
	Eastbound	LT	0.00	7.9	A	LT	0.00	8.0	A	LT	0.00	8.0	A
	Northbound	LTR	0.04	11.8	B	LTR	0.04	12.2	B	LTR	0.04	12.2	B
37	**Arverne Boulevard/Rockaway Beach Boulevard and Beach 47th Street**												
	Eastbound	LTR	0.00	7.6	A	LTR	0.01	7.6	A	LTR	0.01	7.6	A
	Westbound	LTR	0.01	8.4	A	LTR	0.01	8.5	A	LTR	0.01	8.5	A
	Northbound	LTR	0.05	13.1	B	LTR	0.05	13.4	B	LTR	0.05	13.4	B
38	**Rockaway Beach Boulevard and Beach 44th Street**												
	Westbound	LT	0.00	7.6	A	LT	0.00	7.6	A	LT	0.00	7.6	A
	Northbound	LR	0.03	12.0	B	LR	0.04	11.5	B	LR	0.04	11.5	B
	Southbound	LTR	0.02	10.9	B	LTR	0.02	10.7	B	LTR	0.02	10.7	B
40 [1,4]	**Beach Channel Drive and Seagirt Boulevard**												
	Westbound	R	0.04	9.7	A	R	0.04	9.8	A	R	0.04	9.8	A
48	**Beach Channel Drive and Birdsall Avenue**												
	Eastbound	LTR	0.01	13.7	B	LTR	0.02	14.2	B	LTR	0.02	14.2	B
	Westbound	LTR	0.01	14.6	B	LTR	0.01	15.3	C	LTR	0.01	15.3	C
	Northbound	LTR	0.00	8.2	A	LTR	0.00	8.3	A	LTR	0.00	8.3	A
	Southbound	LTR	0.00	8.0	A	LTR	0.00	8.0	A	LTR	0.00	8.0	A
51 [3]	**Rockaway Freeway and Beach 52nd Street**												
	Southbound												
P1a [5]	**Parking Lot 1 driveway, via Beach Channel Drive**												
	Westbound	LT	0.01	9.0	A	LT	0.01	9.1	A	LT	0.01	9.1	A
	Northbound	LR	0.02	12.9	B	LR	0.02	13.1	B	LR	0.02	13.1	B
P1b [5]	**Parking Lot 1 driveway, via Beach 53rd Street**												
	Westbound	LR	0.03	10.1	B	LR	0.03	10.4	B	LR	0.03	10.4	B
	Southbound	LT	0.00	7.7	A	LT	0.00	7.8	A	LT	0.00	7.8	A
P2 [5]	**Parking Garage 2 driveway, via Beach 53rd Street**												
	Westbound	LR	0.04	9.8	A	LR	0.04	10.1	B	LR	0.04	10.1	B
	Southbound	LT	0.01	7.7	A	LT	0.01	7.8	A	LT	0.01	7.8	A
P3 [5]	**Parking Garage 3 driveway, via Beach 53rd Street**												
	Westbound	LR	0.03	10.8	B	LR	0.03	11.0	B	LR	0.03	11.0	B
	Southbound	LT	0.01	8.1	A	LT	0.01	8.2	A	LT	0.01	8.2	A
P4 [5]	**Parking Garage 4 driveway, via Rockaway Beach Boulevard**												
	Eastbound	LT	0.01	8.3	A	LT	0.01	8.5	A	LT	0.01	8.5	A
	Southbound	LR	0.02	11.4	B	LR	0.02	12.0	B	LR	0.02	12.0	B
P5 [5]	**Parking Garage 5 driveway, via Peninsula Way**												
	Eastbound	LT	0.02	7.3	A	LT	0.02	7.3	A	LT	0.02	7.3	A
	Southbound	LR	0.03	8.4	A	LR	0.03	8.4	A	LR	0.03	8.4	A
P6 [5]	**Parking Lot 6 driveway, via Beach Channel Drive**												
	Westbound	LT	0.01	8.4	A	LT	0.01	8.6	A	LT	0.01	8.6	A
	Northbound	LR	0.02	12.8	B	LR	0.02	13.1	B	LR	0.02	13.1	B
P7 [3]	**Parking Garage 7 driveway, via Beach 52nd Street**												
	Westbound												
	Southbound												
P8 [3]	**Parking Garage 8 driveway, via Peninsula Way**												
	Westbound												
	Northbound												

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. "+" denotes significant adverse impact.
1. Stop-controlled approach at signalized intersection.
2. Intersection created as part of the Proposed Project.
3. Intersection under construction/not built during Q3 2027.
4. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.
5. Driveway to parking garage/parking lot created as part of the Proposed Project.
6. Minor approach has fewer than 90 PCEs.

Table 20-37: Q3 2027 Saturday PM Peak Hour No-Action vs. Peak Construction vs. Mitigated Conditions Level of Service Analysis – Unsignalized Intersections

#	Intersection & Approach	Q3 2027 No-Action				Q3 2027 Peak Construction					Q3 2027 Mitigaiton				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	
11 [1]	**Rockaway Freeway and Beach 94th Street**														
	Northbound	T	0.07	9.3	A	T	0.07	9.3	A		T	0.07	9.3	A	
13 [1]	**Beach Channel Drive and Beach 73rd Street**														
	Eastbound	R	0.15	9.0	A	R	0.15	9.0	A		R	0.15	9.0	A	
	Northbound	R	0.12	12.5	B	R	0.12	12.5	B		R	0.12	12.5	B	
17	**Beach Front Road and Beach 62nd Street**														
	Eastbound	LT	0.28	11.6	B	LT	0.28	11.7	B		LT	0.28	11.7	B	
	Westbound	TR	0.13	10.1	B	TR	0.13	10.1	B		TR	0.13	10.1	B	
	Southbound	LTR	0.00	7.5	A	LTR	0.00	7.5	A		LTR	0.00	7.5	A	
26	**Beach Channel Drive and Beach 53rd Street**														
	Westbound	LT	0.14	14.0	B	LT	0.14	14.4	B		Signalized				
	Northbound	LR	1.28	248.9	F	LR	1.46	328.2	F	+					
27	**Rockaway Beach Boulevard and Beach 53rd Street**														
	Eastbound	LT	0.23	13.6	B	LT	0.25	14.9	B		Signalized				
	Southbound	LR	1.00	121.8	F	LR	1.18	191.3	F	+					
28	**Rockaway Beach Boulevard and Beach 52nd Street**														
	Eastbound	LTR	0.04	10.1	B	LTR	0.04	10.6	B		LTR	0.04	10.6	B	
	Westbound	LTR	0.00	8.1	A	LTR	0.00	8.2	A		LTR	0.00	8.2	A	
	Northbound	LR	0.00	12.0	B	LR	0.00	12.7	B		LR	0.00	12.7	B	
	Southbound	LTR	0.13	34.0	D	LTR	0.16	43.6	E	6	LTR	0.16	43.6	E	6
30	**Beach Channel Drive and Beach 50th Street**														
	Westbound	LT	0.02	9.8	A	LT	0.02	9.9	A		LT	0.02	9.9	A	
	Northbound	LR	0.10	23.6	C	LR	0.20	19.8	C		LR	0.20	19.8	C	
31	**Rockaway Beach Boulevard and Beach 50th Street**														
	Eastbound	LT	0.01	7.8	A	LT	0.04	7.9	A		LT	0.04	7.9	A	
	Southbound	LR	0.05	11.5	B	LR	0.06	12.2	B		LR	0.06	12.2	B	
32 [2]	**Beach Channel Drive and Beach 52nd Street**														
	Westbound	LT	0.04	10.3	B	LT	0.03	9.2	A		LT	0.03	9.2	A	
	Northbound	LR	0.12	17.5	C	LR	0.11	15.0	B		LR	0.11	15.0	B	
33 [2]	**Peninsula Way and Beach 53rd Street**														
	Westbound	LR	0.11	14.1	B	LR	0.09	11.8	B		LR	0.09	11.8	B	
	Southbound	LT	0.01	8.8	A	LT	0.01	8.1	A		LT	0.01	8.1	A	
34 [2]	**Peninsula Way and Beach 52nd Street**														
	Eastbound	LTR	0.00	8.5	A	LTR	0.00	7.9	A		LTR	0.00	7.9	A	
	Westbound	LTR	0.01	8.4	A	LTR	0.00	7.8	A		LTR	0.00	7.8	A	
	Northbound	LTR	0.15	21.7	C	LTR	0.09	13.2	B		LTR	0.09	13.2	B	
	Southbound	LTR	0.25	37.0	E	LTR	0.11	16.8	C		LTR	0.11	16.8	C	
35 [3]	**Peninsula Way and Beach 50th Street**														
	Eastbound														
	Northbound														
36	**Beach Channel Drive and Beach 47th Street**														
	Eastbound	LT	0.00	7.9	A	LT	0.00	8.8	A		LT	0.00	8.8	A	
	Northbound	LTR	0.04	11.8	B	LTR	0.16	21.5	C		LTR	0.16	21.5	C	
37	**Arverne Boulevard/Rockaway Beach Boulevard and Beach 47th Street**														
	Eastbound	LTR	0.00	7.6	A	LTR	0.01	8.0	A		LTR	0.01	8.0	A	
	Westbound	LTR	0.01	8.4	A	LTR	0.03	10.8	B		LTR	0.03	10.8	B	
	Northbound	LTR	0.05	13.1	B	LTR	0.25	29.9	D		LTR	0.25	29.9	D	
38	**Rockaway Beach Boulevard and Beach 44th Street**														
	Westbound	LT	0.00	7.6	A	LT	0.01	8.1	A		LT	0.01	8.1	A	
	Northbound	LR	0.03	12.0	B	LR	0.14	21.9	C		LR	0.14	21.9	C	
	Southbound	LTR	0.02	10.9	B	LTR	0.07	15.5	C		LTR	0.07	15.5	C	
40 [1,4]	**Beach Channel Drive and Seagirt Boulevard**														
	Westbound	R	0.12	12.1	B	R	0.12	12.1	B		R	0.12	12.1	B	
48	**Beach Channel Drive and Birdsall Avenue**														
	Eastbound	LTR	0.01	13.7	B	LTR	0.19	82.7	F	6	LTR	0.19	82.7	F	6
	Westbound	LTR	0.01	14.6	B	LTR	0.14	153.9	F	6	LTR	0.14	153.9	F	6
	Northbound	LTR	0.00	8.2	A	LTR	0.01	10.7	B		LTR	0.01	10.7	B	
	Southbound	LTR	0.00	8.0	A	LTR	0.01	9.6	A		LTR	0.01	9.6	A	
51 [3]	**Rockaway Freeway and Beach 52nd Street**														
	Southbound														
P1a [5]	**Parking Lot 1 driveway, via Beach Channel Drive**														
	Westbound	LT	0.01	9.0	A	LT	0.03	13.3	B		LT	0.03	13.3	B	
	Northbound	LR	0.02	12.9	B	LR	0.12	26.0	D		LR	0.12	26.0	D	
P1b [5]	**Parking Lot 1 driveway, via Beach 53rd Street**														
	Westbound	LR	0.03	10.1	B	LR	0.05	12.8	B		LR	0.05	12.8	B	
	Southbound	LT	0.00	7.7	A	LT	0.00	8.5	A		LT	0.00	8.5	A	
P2 [5]	**Parking Garage 2 driveway, via Beach 53rd Street**														
	Westbound	LR	0.04	9.8	A	LR	0.10	12.4	B		LR	0.10	12.4	B	
	Southbound	LT	0.01	7.7	A	LT	0.02	8.5	A		LT	0.02	8.5	A	
P3 [5]	**Parking Garage 3 driveway, via Beach 53rd Street**														
	Westbound	LR	0.03	10.8	B	LR	0.10	16.1	C		LR	0.10	16.1	C	
	Southbound	LT	0.01	8.1	A	LT	0.02	9.6	A		LT	0.02	9.6	A	
P4 [5]	**Parking Garage 4 driveway, via Rockaway Beach Boulevard**														
	Eastbound	LT	0.01	8.3	A	LT	0.02	10.6	B		LT	0.02	10.6	B	
	Southbound	LR	0.02	11.4	B	LR	0.07	20.1	C		LR	0.07	20.1	C	
P5 [5]	**Parking Garage 5 driveway, via Peninsula Way**														
	Eastbound	LT	0.02	7.3	A	LT	0.04	7.3	A		LT	0.04	7.3	A	
	Southbound	LR	0.03	8.4	A	LR	0.06	8.5	A		LR	0.06	8.5	A	
P6 [5]	**Parking Lot 6 driveway, via Beach Channel Drive**														
	Westbound	LT	0.01	8.4	A	LT	0.02	10.8	B		LT	0.02	10.8	B	
	Northbound	LR	0.02	12.8	B	LR	0.14	27.9	D		LR	0.14	27.9	D	
P7 [3]	**Parking Garage 7 driveway, via Beach 52nd Street**														
	Westbound														
	Southbound														
P8 [3]	**Parking Garage 8 driveway, via Peninsula Way**														
	Westbound														
	Northbound														

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. - = Approach has no volume recorded during this peak hour. "+" denotes significant adverse impact.
1. Stop-controlled approach at signalized intersection.
2. Intersection created as part of the Proposed Project.
3. Intersection under construction/not built during Q3 2027.
4. Due to complex geometry and per NYCDOT request, LOS results were calculated using Synchro 10.
5. Driveway to parking garage/parking lot created as part of the Proposed Project.
6. Minor approach has fewer than 90 PCEs.

Pedestrians

Effects of Traffic Mitigation on Pedestrian Conditions

Proposed traffic mitigation measures would potentially affect pedestrian conditions at crosswalks and corners at four intersections during one or more peak hours. As shown in **Table 20-38: Q3 2027 Peak Construction Condition with Traffic Mitigation – Crosswalk** and **Table 20-39: Q3 2027 Peak Construction Condition with Traffic Mitigation – Crosswalks at Newly Signalized Intersections,** all of the affected crosswalks would operate at LOS C or better in all peak hours. Therefore, there would be no significant adverse crosswalk impacts as a result of the construction-related traffic mitigation.

Table 20-38: Q3 2027 Peak Construction Condition with Traffic Mitigation – Crosswalk

Location	Length (ft)	Width (ft)	Available Circulation Space (ft^2/p)				Crosswalk Circulation LOS							
			Weekday		Saturday		Weekday				Saturday			
			AM	PM	AM	PM	AM		PM		AM		PM	
Beach 54th St and Arverne Blvd (N leg)	40.0	12.2	80	26	60	32	A		C		A		C	

Notes:
"+" denotes significant adverse impact.

Table 20-39: Q3 2027 Peak Construction Condition with Traffic Mitigation – Crosswalks at Newly Signalized Intersections

Location	Length (ft)	Width (ft)	Available Circulation Space (ft^2/p)				Crosswalk Circulation LOS							
			Weekday		Saturday		Weekday				Saturday			
			AM	PM	AM	PM	AM		PM		AM		PM	
Beach 53rd St and Beach Channel Dr (S leg) [1]	30.0	10.0	88	47	110	53	A		B		A		B	
Beach 53rd St and Rockaway Beach Blvd (N leg) [1]	35.0	12.0	70	59	103	48	A		B		A		B	

Notes:
"+" denotes significant adverse impact.
(1) Newly signalized crosswalk due to traffic mitigation measures.

As shown in **Table 20-40: Q3 2027 Peak Construction Condition with Traffic Mitigation – Corners**, all of the affected corners would operate at LOS C or better in all peak hours. Therefore, there would be no significant adverse corner impacts as a result of the construction-related traffic mitigation.

Table 20-40: Q3 2027 Peak Construction Condition with Traffic Mitigation – Corners

Location	Available Circulation Space (ft^2/p)				Corner Circulation LOS							
	Weekday		Saturday		Weekday				Saturday			
	AM	PM	AM	PM	AM		PM		AM		PM	
Beach 59th St and Rockaway Fwy (NW corner)	175	133	374	176	A		A		A		A	
Beach 54th St and Arverne Blvd (NE corner)	91	27	72	33	A		C		A		C	
Beach 54th St and Arverne Blvd (NW corner)	289	88	190	97	A		A		A		A	
Beach 53rd St and Beach Channel Dr (SE corner)	64	34	77	36	A		C		A		C	
Beach 53rd St and Beach Channel Dr (SW corner)	109	50	126	63	A		B		A		A	
Beach 53rd St and Rockaway Beach Blvd (NE corner)	86	70	122	58	A		A		A		B	
Beach 53rd St and Rockaway Beach Blvd (NW corner)	250	230	334	183	A		A		A		A	

Notes:
"+" denotes significant adverse impact.

Parking

Effects of Traffic Mitigation on Parking Conditions

The traffic mitigation measures at the intersection of Rockaway Beach Boulevard and Beach 53rd Street would include modifications to the curbside parking regulations, which would result in the loss of approximately ten on-street parking spaces during the Weekday AM, Weekday MD, Weekday PM, and Saturday MD peak hours. These on-street parking spaces are located within the 0.25-mile radius parking area analyzed in Chapter 18, "Construction." As shown in **Table 20-41**, the on-street parking demand would

represent less than half of the available on-street parking spaces for all analyzed peak hours; therefore, there would be no significant adverse parking impacts as a result of the proposed traffic mitigation.

Table 20-41: Q3 2027 Peak Construction Period with Traffic Mitigation Utilization of On-Street Parking Spaces

Q3 2027 Peak Construction With Traffic Mitigation Available Parking Spaces Utilization	Weekday AM	Weekday MD	Weekday PM	Weekday Overnight	Saturday MD
Available Parking Spaces					
Peak Construction On-Street Available Parking Spaces[1]	501	651	684	710	740
Net Change in With-Action On-Street Parking Supply Due to Traffic Mitigation[2]	-10	-10	-10	-10	-10
Total Available With-Action with Traffic Mitigation On-Street Parking Spaces	491	641	674	700	730
Demand					
Peak Construction Demand[3]	96	96	14	0	96
Utilization					
Utilization of Available On-Street Parking Spaces by With-Action Demand	**20%**	**15%**	**2%**	**0%**	**13%**

1. For detailed calculations, see Table 18-29.
2. Due to parking regulation change at Rockaway Beach Boulevard and Beach 53rd Street.
3. Parking demand generated by the construction site that would need to be accommodated on street.

Noise

As described in Chapter 18, "Construction," increases in noise levels due to construction activities would occur during the daytime and, occasionally, in the early evening. For some construction periods, the duration and magnitude of the noise levels may constitute a significant adverse construction-period noise impact. Potential impacts would occur to existing buildings with frontage on Beach 53rd Street, which includes the Lawrence Nursing Care Center at 3-57 Beach 53rd Street, and the two residential buildings at 334 Beach 54th Street and 3-09 Beach 53rd Street, respectively. The Seventh Day Adventist Church at 52-05 Rockaway Beach Parkway is also included because the church has services on Saturdays, which are potential construction workdays.

As detailed in Chapter 18, select source and path controls to reduce or eliminate potential significant adverse construction-period noise impacts would be employed by the Applicant; however, these controls would not be sufficient in of themselves to fully address potential construction noise impacts at the sensitive receptors noted above. The following additional path controls would be implemented as mitigation to the extent feasible and practicable: portable noise barriers, panels, curtains, enclosures, and acoustical tents. The required construction and materials for these measures are as shown in Chapter 28 of NYCDEP's Citywide Construction Noise Mitigation. Where practicable and feasible, noise curtains and equipment enclosures will be placed around the noisy equipment shown in **Table 20-42** to provide an STC of 30 (a 5 dBA insertion loss) or greater of noise shielding to sensitive receptor locations.

Table 20-42: Construction Path Controls

Equipment	DEP & FHWA Typical L_{max} Noise Levels at 50 feet (dBA)	Developer-Committed Noise Levels at 50 feet (dBA) (Source Controls)	Developer-Committed Path Controls and Construction Practices
Air Compressor (< 350 cfm)	75-80	67	Portable enclosure; position so noise levels at sensitive receptors < 75 dBA
Chain Saws	85	75	Portable enclosure
Circular Saws	76[1]	76	Portable enclosure
Crane: Manitowoc 999	85	77	Portable enclosure
Drum Mixer	80	76	Portable enclosure
Generators	70-82	68	Portable enclosure
Jackhammer	85	85	Portable enclosure
Mortar Mixer	N.L.	85	Portable enclosure
Pumps (Grout)	77	77	Portable enclosure
Rebar Bending Machine	80	80	Portable enclosure

Notes:
[1]N.L. – not listed by DEP or in RCNM

Source: NYC *CEQR Technical Manual* (2014) and *FHWA Roadway Construction Noise Model User's Guide* (January 2006); NYC Noise Code (2005).

The analysis results found that even with these measures, significant adverse noise impacts would occur on portions of the Peninsula Nursing Home. Although the analysis showed that the additional control measures would reduce the noise impacts to below the significant adverse threshold for the other sensitive receptors, the actual implementation may not be feasible or practicable in all instances that they would necessary to control the noise levels at these receptors. No additional feasible and practicable mitigation measures were identified for these sensitive receptors; therefore, the significant adverse construction-period noise impacts would remain unmitigated.