

# Seaside Park and Community Arts Center

## Chapter 16: Mitigation

---

### A. INTRODUCTION

In accordance with the *City Environmental Quality Review (CEQR) Technical Manual*, where significant adverse impacts are identified, mitigation to reduce or eliminate the impacts to the fullest extent practicable is developed and evaluated. Such potential impacts were identified in the area of traffic. Measures have been examined to minimize or eliminate these anticipated impacts. These mitigation measures are discussed below.

~~Measures to further mitigate adverse impacts may be refined and evaluated between the Draft Environmental Impact Statement (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.~~

### B. PRINCIPAL CONCLUSIONS

#### Transportation

##### *Traffic*

Traffic conditions were evaluated at 28 intersections during the weekday pre-event and post-event and Saturday pre-event and post-event peak hours. As discussed in Chapter 9, "Transportation," the potential for impacts was identified at a total of eight intersections, with different subsets of these eight intersections impacted depending on the analysis period. The traffic impact analysis indicates that the proposed project would have significant adverse impacts at three intersections in both the weekday pre-event and post-event peak hours, at four intersections in the Saturday pre-event peak hour, and at five intersections in the Saturday post-event peak hour.

Mitigation measures have been developed to address these impacts, which are subject to review and approval by NYCDOT. The majority of the locations significantly impacted could be mitigated using standard traffic capacity improvements, such as standard signal timing changes, road markings and parking regulation modifications, which are considered readily implementable measures as per Table 16-18 in the *CEQR Technical Manual*, and conform to the guidance in NYCDOT's 2009 *Street Design Manual*. Recommended mitigation measures include 1 to 3 seconds of signal timing changes at four of the eight impacted intersections, as well as parking regulation modifications at three of the eight intersections. With implementation of these recommended mitigation measures, all of the significant adverse traffic impacts would be fully mitigated, with the exception of traffic movements at the intersections of (1) Shore Parkway Westbound Service Road at Shell Road and (2) Neptune Avenue at Cropsy Avenue/West 17<sup>th</sup> Street. With respect to these two intersections, traffic ~~These intersections would be monitored on days when amphitheater concerts coincide with baseball games at MCU Park in order during a concert event to see if actual conditions would reflect the analyzed With-Action conditions that are based on very conservative assumptions. If necessary during monitoring, traffic~~

enforcement agents (TEAs) would be assigned to these two intersections on days when amphitheater concerts coincide with baseball games during game days to facilitate traffic flow and eliminate any adverse impacts. It should be noted that the TEAs stationed to manage traffic generated by baseball games at MCU Park are typically assigned to locations in the vicinity of MCU Park along Surf Avenue and would not overlap with the TEAs at the intersections of Shore Parkway Westbound Service Road at Shell Road and Neptune Avenue at Cropsey Avenue/West 17<sup>th</sup> Street.

## C. TRANSPORTATION

As discussed in Chapter 9, “Transportation,” the reasonable worst-case scenario for the study of potential transportation-related impacts was determined to be a concert generating up to 6,000 attendees at the proposed open-air amphitheater with a coinciding baseball game at nearby MCU Park, starting at approximately the same time during the summer. This scenario is expected to take place approximately 8 to 10 times a year out of the estimated total of 40 to 50 concerts per year, as discussed previously. The analyses identified the potential for significant adverse traffic impacts, while impacts to area transit (subway and bus) facilities and services, pedestrian elements and parking are not anticipated. Where traffic impacts were identified, measures that could be implemented to mitigate these impacts are discussed below.

### Traffic

The traffic impact analysis indicates that there would be potential for significant adverse impacts at three intersections in both the weekday pre-event and post-event peak hours, at four intersections in the Saturday pre-event peak hour, and at five intersections in the Saturday post-event peak hour. Table 16-1 summarizes the recommended mitigation measures to address these impacts, which are subject to review and approval by NYCDOT. As shown in Table 16-1 these measures consist of standard signal timing changes, road markings and parking regulation modifications, which are considered readily implementable measures as per Table 16-18 in the *CEQR Technical Manual*, and conform to the guidance in NYCDOT’s 2009 *Street Design Manual*.

Table 16-2 compares the v/c ratios, delays and levels of service with implementation of these measures to both the No-Action and With-Action conditions. Under *CEQR Technical Manual* criteria, a significant adverse traffic impact is considered fully mitigated when the resulting level of service (LOS) degradation under the Action-with-Mitigation condition compared to the No-Action condition is no longer deemed significant following the impact criteria described in Section F in Chapter 9, “Transportation.” Under these criteria, if a lane group under the Action-with-Mitigation condition is within LOS A, B or C, or marginally acceptable LOS D (average control delay less than or equal to 45.0 seconds/vehicle for signalized intersections and 30.0 seconds/vehicle for unsignalized intersections), the impact has been mitigated. If the lane group is projected to operate at worse than mid-LOS D (i.e., delay greater than 45 seconds/vehicle at signalized intersections or 30 seconds/vehicle at unsignalized intersections) or at LOS E or F under the Action-With-Mitigation condition, then the impact is considered mitigated when:

- The lane group would operate at LOS D under the No-Action condition and would experience an increase of less than five seconds of delay under the Action-With-Mitigation condition;
- The lane group would operate at LOS E under the No-Action condition and would experience an increase in projected delay of less than four seconds; and

- The lane group would operate at LOS F under the No-Action condition and would experience an increase in projected delay of less than three seconds.

**TABLE 16-1**  
**Recommended Traffic Mitigation Measures**

Intersection		No-Action Signal Timing (Seconds) (1)				Proposed Signal Timing (Seconds) (1)				Recommended Mitigation
		WK PRE	WK POST	SAT PRE	SAT POST	WK PRE	WK POST	SAT PRE	SAT POST	
Shore Parkway EB Ramps/ Bay 52nd St (E-W) @ Cropsey Ave (N-S)	EB	45	45	45	45	45	45	45	44	Shift 1 second from EB to NB/SB 9pm-11pm, Saturday.
	NB/SB	45	45	45	45	45	45	45	46	
Bay 50th/ Shore Parkway WB Off Ramp (E-W) @ Cropsey Ave/ Ave Z (N-S)	WB	31	31	31	31	31	31	31	31	Shift 1 second from NB/SB to NB Only 9pm-11pm, Saturday.
	NB Only	18	18	18	18	18	18	18	19	
	NB/SB	41	41	41	41	41	41	41	40	
Shore Parkway WB Off Ramp (E-W) @ Shell Road (N-S)	WB NB/SB	31.5 58.5	31.5 58.5	31.5 58.5	31.5 58.5	Unmitigatable Impact				
Neptune Avenue (E-W) @ West 20th Street (N-S)	EB/WB	58	58	58	58	58	58	58	58	Implement no standing at all times regulation for approximately 100' along the east curb and re-stripe to create 1 left/right and 1 right-turn lane NB.
	NB	32	32	32	32	32	32	32	32	
Neptune Ave (E-W) @ West 17th St/ Cropsey Ave (N-S)	EB	23	23	23	23	Unmitigatable Impact				
	EB/WB	33	33	33	33					
	SB	34	34	34	34					
Mermaid Avenue (E-W) @ West 20th St (N-S)	EB/WB	34	34	34	34	34	31	34	34	Implement no standing at all times regulation for approximately 100' along the east curb of the NB approach and re-stripe to create 1 left/through and 1 right-turn lane; shift 3 seconds from EB/WB to NB 9pm-11pm, weekday.
	NB	26	26	26	26	26	29	26	26	
Surf Ave (E-W) @ West 17th St (N-S)	EB/WB	57	57	57	57	57	57	57	57	Implement no standing at all times regulation for approximately 100' along the east curb of the SB approach and re-stripe to create 1 left-turn, 1 left/right and 1 right-turn lanes.
	NB	33	33	33	33	33	33	33	33	
Surf Ave (E-W) @ Stillwell Ave (N-S)	EB/WB	62	62	62	62	62	62	59	62	Shift 3 seconds from EB/WB to NB/SB 5pm-7pm, Saturday.
	NB/SB	28	28	28	28	28	28	31	28	

Notes :

- (1) Signal timings shown indicate Green plus Yellow (including All Red) for each phase.  
 (2) EB - eastbound, WB - westbound, NB-northbound, SB - southbound

**TABLE 16-2**  
**Action-with-Mitigation Level of Service Analysis**

Intersection	Lane Group	Weekday Pre-Event Peak Hour									
		No-Action			With-Action			Action-With-Mitigation			
		V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	
Shore Parkway WB Off Ramp (E-W) @ Shell Road	WB-L	0.80	42.3	D	1.11	106.0	F *	Unmitigatable Impact			
	WB-R	0.53	14.8	B	0.53	14.8	B				
	NB-T	0.17	8.6	A	0.17	8.6	A				
	SB-T	0.32	9.7	A	0.32	9.8	A				
Neptune Avenue (E-W) @ West 17th Street / Cropsey Avenue (N-S)	EB-L	1.11	104.8	F	1.12	110.4	F *	Unmitigatable Impact			
	EB-TR	0.23	10.0	B	0.25	10.2	B				
	WB-L	0.26	25.5	C	0.25	25.5	C				
	WB-TR	0.80	35.8	D	0.80	35.8	C				
	SB-L	0.63	31.4	C	0.76	37.0	D				
	SB-T	0.84	41.5	D	1.17	121.5	F *				
	SB-R	0.53	13.1	B	0.59	14.0	B				
Surf Avenue (E-W) @ West 17th Street (N-S)	EB-T	0.19	9.2	A	0.20	9.3	A	0.18	9.2	A	
	WB-T	0.33	10.4	B	0.36	10.7	B	0.38	10.9	B	
	SB-L	0.51	30.2	C	0.59	32.1	C	0.57	31.9	C	
	SB-LR	--	--	--	--	--	--	0.54	31.2	C	
	SB-R	0.90	56.2	E	1.23	152.6	F *	0.90	57.1	E	

  

Intersection	Lane Group	Weekday Post-Event Peak Hour									
		No-Action			With-Action			Action-With-Mitigation			
		V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	
Neptune Avenue (E-W) @ West 20th Street (N-S)	EB-T	0.24	9.2	A	0.31	9.8	A	0.31	9.8	A	
	WB-T	0.30	9.7	A	0.30	9.7	A	0.30	9.7	A	
	NB-Approach	1.17	131.0	F	1.59	308.5	F *	--	46.6	D	
	NB-LR	1.17	131.0	F	1.59	308.5	F *	0.80	44.0	D	
	NB-R	--	--	--	--	--	--	0.86	48.9	D	
Neptune Avenue (E-W) @ West 17th Street / Cropsey Avenue (N-S)	EB-L	0.93	56.3	E	1.35	202.2	F *	Unmitigatable Impact			
	EB-TR	0.14	9.3	A	0.15	9.4	A				
	WB-L	0.09	22.6	C	0.09	22.5	C				
	WB-TR	0.56	28.5	C	0.88	41.9	D				
	SB-L	0.32	24.6	C	0.32	24.6	C				
	SB-T	0.35	24.8	C	0.37	25.2	C				
Mermaid Avenue (E-W) @ West 20th Street (N-S)	EB-LT	0.21	9.6	A	0.21	9.6	A	0.23	11.6	B	
	WB-TR	0.20	9.5	A	0.21	9.6	A	0.24	11.6	B	
	NB-LTR	0.89	37.6	D	1.19	120.3	F *	--	43.9	D	
	NB-LT	--	--	--	--	--	--	0.97	45.9	D	
	NB-R	--	--	--	--	--	--	0.07	11.4	B	

**TABLE 16-2 (continued)**  
**Action-with-Mitigation Level of Service Analysis**

Intersection	Lane Group	Saturday Pre-Event Peak Hour								
		No-Action			With-Action			Action-With-Mitigation		
		V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
Shore Parkway WB Off Ramp (E-W) @ Shell Road	WB-L	0.71	37.2	D	<b>0.95</b>	<b>61.7</b>	<b>E *</b>			
	WB-R	0.34	11.4	B	0.34	11.4	B			
	NB-T	0.17	8.6	A	0.17	8.6	A			
	SB-T	0.30	9.6	A	0.31	9.6	A			Unmitigatable Impact
Neptune Avenue (E-W) @ West 17th Street / Cropsey Avenue (N-S)	EB-L	1.14	116.8	F	1.14	118.0	F			
	EB-TR	0.29	10.5	B	0.30	10.6	B			
	WB-L	0.27	26.1	C	0.27	26.0	C			
	WB-TR	0.79	35.2	D	0.79	35.3	D			
	SB-L	0.59	30.2	C	0.70	34.0	C			
	SB-T	0.82	39.3	D	<b>1.07</b>	<b>86.9</b>	<b>F *</b>			
Surf Avenue (E-W) @ West 17th Street (N-S)	EB-T	0.23	9.5	A	0.23	9.5	A	0.23	9.5	A
	WB-T	0.30	10.1	B	0.32	10.2	B	0.32	10.2	B
	SB-L	0.43	28.1	C	0.51	29.7	C	0.46	28.5	C
	SB-LR	--	--	--	--	--	--	0.44	28.6	C
	SB-R	0.79	42.9	D	<b>1.00</b>	<b>77.1</b>	<b>E *</b>	0.77	44.1	D
Surf Avenue (E-W) @ Stillwell Avenue (N-S)	EB-L	0.41	11.6	B	0.42	11.9	B	0.34	11.8	B
	EB-TR	0.22	7.3	A	0.25	7.5	A	0.27	8.9	A
	WB-L	0.01	6.1	A	0.01	6.1	A	0.01	7.3	A
	WB-TR	0.36	8.4	A	0.38	8.6	A	0.40	10.2	B
	NB-LTR	0.04	25.3	C	0.04	25.3	C	0.04	23.1	C
	SB-DefL	--	--	--	0.78	59.8	E	0.69	46.7	D
	SB-TR	--	--	--	0.69	47.3	D	0.60	38.0	D
	SB-LTR	0.68	40.0	D	<b>0.00</b>	<b>53.3</b>	<b>D *</b>	--	42.2	D

Intersection	Lane Group	Saturday Post-Event Peak Hour								
		No-Action			With-Action			Action-With-Mitigation		
		V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
Shore Parkway EB Ramps / Bay 52nd St (E-W) @ Cropsey Avenue (N-S)	EB-L	0.18	15.6	B	0.18	15.6	B	0.18	16.2	B
	EB-TR	0.34	17.6	B	0.34	17.6	B	0.35	18.3	B
	EB-R	0.46	19.9	B	0.45	19.8	B	0.47	20.6	C
	NB-TR	0.42	17.7	B	0.57	19.7	B	0.56	18.9	B
	NB-R	0.83	33.4	C	<b>0.96</b>	<b>49.3</b>	<b>D *</b>	0.93	44.0	D
	SB-T	0.35	17.0	B	0.35	17.1	B	0.34	16.4	B
	SB-R	0.32	17.4	B	0.32	17.4	B	0.33	18.2	B
Bay 50th St/ Shore Parkway WB Off Ramp <sup>1</sup> (E-W) @ Cropsey Avenue / Avenue Z (N-S)	EB-R	0.46	13.5	B	0.48	13.7	B	0.48	13.8	B
	WB-LTR	0.46	29.5	C	0.46	29.5	C	0.46	29.5	C
	NB-L	0.65	24.0	C	<b>0.97</b>	<b>49.8</b>	<b>D *</b>	0.95	44.9	D
	NB-LT	0.34	9.9	A	0.34	10.0	A	0.34	10.0	A
	NB-T (Av Z)	0.26	9.1	A	0.26	9.1	A	0.26	9.1	A
<sup>1</sup> Off Ramp (EB-R) is unsignalized	SB-TR	0.27	18.5	B	0.26	18.5	B	0.27	19.2	B
Neptune Avenue (E-W) @ West 20th Street (N-S)	EB-T	0.30	9.6	A	0.35	10.1	B	0.36	11.2	B
	WB-T	0.35	10.0	A	0.35	10.0	B	0.36	11.2	B
	NB-Approach	1.48	257.8	F	<b>1.83</b>	<b>412.0</b>	<b>F *</b>	--	62.1	E
	NB-LR	1.48	257.8	F	1.83	412.0	F *	0.95	63.5	E
	NB-R	--	--	--	--	--	--	0.94	60.9	E
Neptune Avenue (E-W) @ West 17th Street / Cropsey Avenue (N-S)	EB-L	1.08	94.4	F	<b>1.38</b>	<b>216.1</b>	<b>F *</b>			
	EB-TR	0.18	9.6	A	0.19	9.7	A			
	WB-L	0.16	23.7	C	0.16	23.6	C			
	WB-TR	0.75	33.5	C	<b>1.00</b>	<b>62.4</b>	<b>E *</b>			
	SB-L	0.35	25.0	C	0.35	25.0	C			
	SB-T	0.46	26.7	C	0.47	26.9	C			
Mermaid Avenue (E-W) @ West 20th Street (N-S)	EB-LT	0.29	10.4	B	0.29	10.4	B	0.29	11.6	B
	WB-TR	0.40	11.6	B	0.41	11.6	B	0.41	11.6	B
	NB-LTR	1.11	90.8	F	0.71	195.0	F *	--	46.5	D
	NB-LT	--	--	--	--	--	--	0.98	50.3	D
	NB-R	--	--	--	--	--	--	0.17	14.3	B

NOTES:

EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound

L-Left, T-Through, R-Right, DfL-Analysis considers a Defacto Left Lane on this approach.

V/C Ratio - Volume to Capacity Ratio, SEC/VEH - Seconds per vehicle

LOS - Level of service

\* - Denotes impacted location.

Analysis is based on the 2000 Highway Capacity Manual Methodology (HCS+™ 5.5).

As shown in Table 16-2, with implementation of the recommended mitigation measures, all of the significant adverse traffic impacts would be fully mitigated, with the exception of traffic movements at the intersections of Shore Parkway Westbound Service Road at Shell Road and Neptune Avenue at Cropsy Avenue/West 17<sup>th</sup> Street. These intersections would be monitored to see if actual conditions would reflect the analyzed With-Action conditions that are based on very conservative assumptions, which include (1) the assignment of all on-street parkers to the project site before reaching their final curbside parking spaces and (2) the coincident analysis of a concert at the amphitheater and a game at MCU Park. ~~If necessary during monitoring, traffic enforcement agents (TEAs) would be assigned to these two intersections during on days when amphitheater concerts coincide with baseball games game days.~~ Up to two traffic enforcement agents (TEAs) would be required at each intersection. These operating details have been discussed with the New York Police Department (NYPD). The Applicant would coordinate with NYPD (as needed) to ensure the enforcement of the proposed operating details. TEAs would only be needed at the intersection of Shore Parkway Westbound Service Road at Shell Road during the pre-event hours from approximately 6 to 8 PM. TEAs would be needed at the intersection of Neptune Avenue at Cropsy Avenue/West 17<sup>th</sup> Street during the pre- and post-event hours from approximately 6 PM to 12 AM. The Applicant would be responsible for all costs associated with the deployment of TEAs by the NYPD for regulating traffic flows, as needed for the purpose of mitigation. These details are outlined in a Memorandum of Understanding (MOU) between the Applicant and NYPD and would be refined over time based on actual operation conditions once the facility has opened.

~~The detailed number and positioning of TEAs needed to effectively balance traffic flows and decrease delays would be coordinated with the New York City DOT and the New York City Police Department. However, a minimum of one TEA per intersection would be needed. Each of the recommended mitigation measures and their effects on traffic conditions are discussed in more detail below.~~

### ***Shore Parkway Eastbound Off-Ramp and On-Ramp at Cropsy Avenue/Bay 52<sup>nd</sup> Street***

The significant adverse impact to the northbound right-turn movement in the Saturday post-event peak hour could be fully mitigated by shifting one second of green time from the eastbound phase to the northbound/southbound phase in the Saturday post-event peak period. In the Action-with-Mitigation condition, this movement would operate at a LOS D with 44.0 seconds of delay. The delay for this movement would increase by 10.6 seconds compared to the No-Action condition.

### ***Shore Parkway Westbound Off-Ramp and On-Ramp at Cropsy Avenue/Bay 50<sup>th</sup> Street***

The significant adverse impact to the northbound left-turn movement in the Saturday post-event peak hour could be fully mitigated by shifting one second of green time from the northbound/southbound phase to the northbound only phase in the Saturday post-event peak period. In the Action-with-Mitigation condition, this movement would operate at a LOS D with 44.9 seconds of delay. The delay for this movement would increase by 20.9 seconds compared to the No-Action condition.

### ***Shore Parkway Westbound Service Road at Shell Road***

Signal timing changes cannot be implemented at this intersection because it is not included in NYCDOT's computerized system. The significant adverse impact to the westbound left-turn movement in both pre-event peak hours is therefore unmitigatable. As noted above, this intersection will be monitored during the weekday pre-event hour to observe the partially mitigated traffic conditions and assign TEAs if necessary.

### ***Neptune Avenue at West 20<sup>th</sup> Street***

The significant adverse impact to the northbound approach in both the weekday and Saturday post-event peak hours could be fully mitigated by implementing a no standing anytime regulation for approximately 100 feet along the east curb on the West 20<sup>th</sup> Street approach to Neptune Avenue. This parking regulation would create two lanes, with a shared left-turn/right-turn and a dedicated right-turn lane, which would have to be marked accordingly. In the Action-with-Mitigation condition, the northbound approach would operate at LOS D with 46.6 seconds of delay in the weekday post-event hour, while it would operate at a LOS E with 62.1 seconds of delay in the Saturday post-event peak hour. The delay for this approach would decrease by 84.4 seconds and 195.7 seconds in the weekday and Saturday post-event peak hours, respectively, compared to the northbound approach in the No-Action condition.

### ***Neptune Avenue at Cropsey Avenue/ West 17<sup>th</sup> Street***

Implementing signal timing changes at this intersection is difficult due to the need for three signal phases and long minimum pedestrian crossing times. The significant adverse impact at this intersection is therefore unmitigatable. It should be noted that the street network changes planned by NYCDOT, as discussed in Chapter 9, "Transportation," are expected to better facilitate the queuing associated with the eastbound left-turn which is already congested during all analyzed peak hours under Existing conditions. In addition, the introduction of a new signal timing plan with an increased cycle length of 120 seconds would increase capacity at this intersection, which may mitigate the significant adverse impact to some of the congested movements. The introduction of a new cycle length would affect the corridors of Neptune Avenue and Cropsey Avenue. This proposal would require signal timing changes and coordination with NYCDOT on a larger scale where the cycle length change would be in effect at particular times of the evening. As a result, special intersection controllers would be needed which NYCDOT has indicated may not be installed by the analysis Build year of 2016. ~~Additional measures will be considered between the Draft and Final EIS based on a Synchro/SimTraffic evaluation of an increased cycle length along the Neptune and Cropsey Avenue corridors.~~ While the creation of an additional southbound through lane would also likely mitigate the significant adverse impact to the southbound through movement, geometric changes to the intersection cannot be recommended due to the temporal nature (fewer than ten times per year) of the impacts. TEAs will be assigned to this intersection on days when amphitheater concerts coincide with baseball games ~~during monitoring~~, as discussed above.

### ***Mermaid Avenue at West 20<sup>th</sup> Street***

The significant adverse impact to the northbound approach in both the weekday and Saturday post-event peak hours could be fully mitigated by shifting three seconds of green time from the eastbound/westbound phase to the northbound phase in the weekday post-event peak period and by implementing a no standing anytime regulation for approximately 100 feet along the east curb on the West 20<sup>th</sup> Street approach to Mermaid Avenue. This parking regulation would create two lanes, with a shared left-turn/right-turn and a dedicated right-turn lane, which would have to be marked accordingly. In the Action-with-Mitigation condition, the northbound approach would operate at LOS D with 43.9 seconds of delay in the weekday post-event hour, while it would operate at a LOS D with 46.5 seconds of delay in the Saturday post-event peak hour. In the weekday post-event hour, the delay for this approach would increase by 6.3 seconds, compared to the northbound approach in the No-Action condition, while it would decrease by 44.3 seconds in the Saturday post-event peak hour, compared to the No-Action condition.

### ***Surf Avenue at West 17<sup>th</sup> Street***

The significant adverse impact to the southbound right-turn movement in both the weekday and Saturday pre-event peak hours could be fully mitigated by implementing a no standing anytime regulation for approximately 100 feet along the east curb on the West 17<sup>th</sup> Street approach to Surf Avenue. This parking regulation would create three lanes, with a dedicated left-turn, a shared left-turn/right-turn and a dedicated right-turn lane, which would have to be marked accordingly. In the Action-with-Mitigation condition, the southbound right-turn movement would operate at a LOS E and LOS D with 57.1 and 44.1 seconds of delay in the weekday and Saturday pre-event peak hours, respectively. The delay for this movement would increase by 0.9 and 1.2 seconds, respectively, compared to the No-Action condition. The southbound left and southbound left-turn/right-turn movements would both operate at LOS C in both the weekday and Saturday pre-event peak-hours in the Action-with-Mitigation condition.

### ***Surf Avenue at Stillwell Avenue***

The significant adverse impact to southbound approach in the Saturday pre-event peak hour could be fully mitigated by shifting three seconds of green time from the eastbound/westbound phase to the northbound/southbound phase in the Saturday pre-event peak period. In the Action-with-Mitigation condition, this approach would operate at a LOS D with 42.2 seconds of delay. The delay for this approach would increase by 2.2 seconds compared to the No-Action condition.

## **Implementation of Mitigation Measures**

Application and implementation of traffic mitigation measures can require the approval of various agencies, depending upon the jurisdiction and type of mitigation proposed. Approval and/or implementation by NYCDOT would be required for the proposed signal timing, road marking and parking regulations traffic mitigation measures described above.

## **Effects of Traffic Mitigation on Pedestrian Conditions**

As discussed above, the recommended mitigation measures would include changes to existing signal timings of up to three seconds at a total of four intersections where significant adverse traffic impacts are forecast. With these recommended signal timing changes, pedestrians would continue to have sufficient time to cross the street at all four locations where these signal timing changes would occur.

## **Effects of Traffic Mitigation on Parking Conditions**

As discussed above, the recommended traffic mitigation plan for the intersections of Neptune Avenue at West 20<sup>th</sup> Street, Mermaid Avenue at West 20<sup>th</sup> Street and Surf Avenue at West 17<sup>th</sup> Street includes implementing no standing anytime regulations for approximately 100 feet along the east curb on the West 20<sup>th</sup> Street approaches to Neptune Avenue and Mermaid Avenue and along the east curb on the West 17<sup>th</sup> Street approach to Surf Avenue, respectively. This regulation would result in the elimination of a maximum of approximately 15 curbside parking spaces in the study area and would require approval and/or implementation by NYCDOT. Given the relatively small number of parking spaces displaced and the availability of alternative modes of transportation with the Coney Island Stillwell Avenue subway station ~~and~~ nearby bus routes and the proposed free shuttle service between the Aquarium parking lot and the project site, any potential on-street parking shortfall resulting from this recommended traffic



mitigation in the PM peak period would not be considered a significant adverse impact under *CEQR Technical Manual* criteria.