APPENDIX C: Transportation

Transportation Planning Factors Memo

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TECHNICAL MEMORANDUM

To: Project Team

From: Philip Habib & Associates

Date: September 3, 2013

Project: Seaside Park and Community Arts Center EIS (PHA #1250)

Re: Transportation Planning Factors and Travel Demand Forecast

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This memorandum summarizes the transportation planning factors to be used for the environmental impact statement (EIS) analyses of traffic, parking, transit, and pedestrian conditions for the proposed Seaside Park and Community Arts Center environmental review. The proposed project includes the construction of a new publicly accessible open space with an open-air amphitheater as well as the restoration and adaptive reuse of a New York City designated landmark in the Coney Island neighborhood of Brooklyn Community District 13. The project is intended to continue the City of New York's efforts to reinvigorate Coney Island by introducing a new recreational and entertainment destination on the Boardwalk. The amphitheater would serve as the home of the Brooklyn Borough President's popular Seaside Summer Concert Series.

PROPOSED PROJECT

The proposed project includes the construction of a new publicly accessible open space with a 5,000 seat open-air amphitheater, and restaurant/banquet hall/event space, as well as the restoration of an LPC-designated landmark in the Coney Island neighborhood of Brooklyn Community District 13. This seating capacity is the same as the current temporary facility located just north of the project site on W. 21st Street. The project site is shown in Figure 1. The project is intended to continue the City of New York's efforts to reinvigorate Coney Island by introducing a new recreational and entertainment destination on the boardwalk. It is anticipated that the proposed amphitheater and other project components would be completed by summer 2015 and the first full year of operation would be 2016. The proposed amphitheater would be an interim use authorized for a period of ten years. Upon completion, the amphitheater would be owned by the City of New York and operated by a not-for-profit entity under a ten year lease with the city. As noted above, the amphitheater would serve as the home of the Brooklyn Borough President's popular Seaside Summer Concert Series for the next 10 years, and provide the community with additional recreational and cultural opportunities during the off-season.

FUTURE NO-ACTION ASSUMPTIONS

The current project site was identified as Parcel B and part of projected development site 2 in the 2009 *Coney Island Rezoning EIS*. The EIS analyses assumed the following uses for the project site: a 60,000 sf reactivated restaurant space at Childs Restaurant (both in the No-Action and With-Action conditions); approximately 223,000 sf (223 DUs) of residential uses adjacent to Childs; approximately 33,978 sf of small scale accessory retail and other enhancing uses along the Boardwalk; and a mapped 1.41-acre Highland View Park along the western portion of site (west of West 22nd Street). Therefore, in the 2016 future without the proposed action, the project site is assumed to be redeveloped with 223 residential units, as well as a 60,000 sf reactivated Childs Restaurant building with a restaurant/banquet hall/event space.

Seaside Park and Community Arts Center

Figure 1
Project Location - Aerial

TRANSPORTATION SURVEY

In order to evaluate the existing transportation characteristics and arrival/exit patterns of the Seaside Concert Series at Coney Island, surveys and attendance counts were conducted by Philip Habib & Associates (PHA) at two concerts in mid August 2012. The surveys and attendance counts were performed on Saturday, August 11, 2012 and Thursday, August 16, 2012. (The detailed results of the survey and attendance counts are presented in Seaside Amphitheater at Coney Island Transportation Survey Memorandum dated September 20, 2012, which is included in Attachment A). The results of this survey are used in the travel demand forecast described below for the proposed project. It should be noted that there was also a concurrent baseball game underway at MCU Park during the August 11 event, and an extensive traffic and transit data collection effort was undertaken.

PRELIMINARY TRAVEL DEMAND FORECAST

Trip Generators

The primary generator of new travel demand associated with the proposed project would be the open-air amphitheater. The largest events at the proposed facility are expected to be the Seaside Summer Concert series, which has been hosted in the Coney Island area, usually on weekdays, since 1978.[1] The new amphitheater would have a total capacity of 5,100 concertgoers compared to the existing typical attendance counted of approximately 4,500 - 5,500 persons. For travel demand forecasting, it is conservatively assumed that an additional 900 standing concert attendees (6,000 total) would be attracted to the amphitheater.

It is expected that the level of travel demand generated by off-season (Labor Day through Memorial Day) uses at the amphitheater would be substantially less than the demand generated by weekday and Saturday concerts during the summer months. Additionally, overall travel demand in Coney Island is substantially lower during cooler months than during the summer concert season, when concert traffic often combines with both beach demand and demand from Brooklyn Cyclones baseball games at nearby MCU Park. Consequently, the travel demand generated by any off-season recreational use of the amphitheater is not expected to result in significant adverse transportation impacts. Therefore, summer weekday and Saturday concerts coinciding with Brooklyn Cyclones baseball games were selected as the reasonable worst case condition for the EIS transportation analysis.

Other project components, namely, the restoration and adaptive reuse of the Childs Restaurant building into a restaurant/banquet hall/event space, are expected in the future even without the proposed project (as discussed in the 2009 *Coney Island Rezoning EIS*)[2] and thus would not introduce new uses to the project site nor substantially increase the demand on existing transportation facilities. Therefore, little, if any, increase in travel demand is expected to result from these other components by 2016.

Peak Hours

Through the 2012 concert season, shows at the existing site typically started at 7:30 PM and ended between 10 and 11 PM on both weekdays and Saturdays. The peak arrival hour for concertgoers, typically precedes or brackets the start time of the concert. For example, count data indicate that the peak arrival hour for the August 11, 2012 "Jackson Unity Tour" concert was 6:15 to 7:15 PM when approximately 45% of concertgoers arrived. On August 16, 2012 at "Gladys Knight and the Commodores," the peak hour for arrival was a bit later at 6:30 to 7:30 PM when approximately 50% of concertgoers arrived.

The EIS transportation analyses for the PM (pre-concert) period will assess conditions with peak project-generated demand superimposed on a 6:30 to 7:30 PM and 5:30 to 6:30 PM pre-event peak hour on a weekday and Saturday, respectively. These peak hours were selected for analysis as they would generally coincide with summer beach traffic and evening commuter traffic, as well as traffic arriving for a 7:00 PM weekday and 6:00 PM Saturday Brooklyn Cyclones baseball game at nearby MCU Park. A 10:00 PM to 11:00 PM weekday and 9:00 to 10:00 PM Saturday evening (post-concert) peak hour were selected for analysis as they would generally

[1] In 2012, the Seaside Summer Concert Series was held at a vacant parking lot on Surf Avenue between West 20th and West 21st Streets.
[2] The EIS assumed that the Childs Restaurant building would be reused under the No-Build condition (EIS p. 1-25).

coincide with peak event exits as well as traffic exiting a baseball game at MCU Park, and as there is typically less overall traffic on the street network later in the evening.

TRANSPORTATION PLANNING FACTORS

Table 1 shows the transportation planning factors to be used for the travel demand forecast generated by the proposed project in the weekday PM and evening hours, as well as Saturday PM and evening hours. These include trip generation rates, temporal and directional distributions, mode choice factors, and vehicle occupancy rates.

Amphitheater
As described above, the amphitheater proposed as part of the project would accommodate approximately 5,100 persons but would be analyzed based on the conservative assumption that an additional 900 standing concert attendees (6,000 total) would be attracted to the amphitheater area. The amphitheater factors in Table 1 are based on surveys of concertgoers at the August 11, 2012 "Jackson Unity Tour" (Saturday) and August 16, 2012 "Gladys Knight and the Commodores" (weekday) concerts at the Seaside Summer Concert Series at Coney Island.

A daily trip generation rate of 2.0 trips per seat, based on the *Atlantic Yards Arena and Redevelopment Project EIS* (2006), is applied to reflect the arrival and departure of each concertgoer, as well as trips associated with event staff and performers. Although it is likely that some portion of concertgoers will travel to Coney Island for other activities (such as the beach or Luna Park) prior to attending an evening concert, it is important to note that the travel demand forecast conservatively does not take credit for these potential linked trips in the pre-event period.

The temporal distribution shown in Table 1 assumes that 25.2 and 22.5 percent of total daily trips (equivalent to 50.4 and 45 percent of all inbound trips) would occur in the PM peak hour prior to weekday and Saturday concerts, respectively. This is based on data from counts conducted on August 11, 2012 at the "Jackson Unity Tour" and August 16, 2012 at the "Gladys Knight and the Commodores" concerts and is generally consistent with other paid concerts.[3] The counts conducted at the Thursday concert documented the temporal distribution shown in Table 1, which assumes that approximately 46.8 percent of total daily trips (equivalent to 93.6 percent of all outbound trips) would occur during the post-concert weekday and Saturday evening peak hours, respectively.

The modal splits reflected in Table 1 are also based on data from surveys of concertgoers at the Seaside Summer Concert Series at Coney Island. As shown, the pre-event modal splits for both days are comparable, with personal auto being the most popular choice (45.3% Saturday; 42.9% weekday) and subway close behind (37.1% Saturday; 40.4% weekday). All remaining modes combined for approximately 18% on Saturday and 17% on weekdays.

As part of the 2012 survey conducted, concertgoers were asked whether they would be temporarily remaining in Coney Island after the concert for other purposes (restaurant, other). At the Saturday concert, approximately 28 percent of attendees stated they would remain in Coney Island after the event; at the weekday concert, approximately 19 percent of attendees stated that they would remain in Coney Island after the event. These percentages were averaged to 22% for both post-event periods on a weekday and Saturday and added to the walk trips for the respective time period since the trips would be remaining in Coney Island within walking distance of the event site. Table 1 shows the resulting modal splits for the Saturday and weekday post-event periods, to be used in the EIS.

[3] The Madison Square Garden Modal Split Analysis (2003) states that for surveyed concerts at MSG, 50% of all incoming trips occurred during the peak hour. This concurs with the 50% counted during the peak hour during the surveyed Thursday concert.

Table 1
Trip Generation Assumptions

Land Use:	Amphitheater				Local Retail	Quality Restaurant	Residential	
Size/Units:	6,000 seat				33,978 gsf	440 seat	223 du	
Trip Generation:	(2)				(4)	(6)	(5)	
Weekday	2.0				205.0	6.0	8.075	
Saturday	2.0				240.0	5.9	9.6	
	(trips/attendee)				(trips/1000 gsf)	(trips/seat)	(trips/du)	
Temporal Distribution:	(1)				(4)	(6)	(5,6)	
Weekday Pre-Event	25.2%				10.0%	10.4%	11.0%	
Weekday Post-Event	46.8%				1.1%	3.0%	3.3%	
Saturday Pre-Event	22.5%				10.0%	12.0%	7.2%	
Saturday Post-Event	46.8%				1.1%	1.0%	3.6%	
	(1)	(3)	(1)	(3)	(5)	(7)	(5)	
Modal Splits:	Weekday Pre-Event	Weekday Post-Event	Saturday Pre-Event	Saturday Post-Event			weekday	Saturday
Auto	42.9%	34.7%	45.3%	32.6%	15.0%	40.0%	32.0%	40.0%
Taxi	1.0%	0.9%	1.0%	0.7%	0.0%	3.0%	1.0%	1.0%
Subway	40.4%	32.7%	37.1%	26.7%	5.0%	41.0%	45.0%	50.0%
MTA Bus	6.2%	5.0%	5.4%	3.9%	10.0%	11.0%	10.0%	4.0%
Walk/Other	9.5%	26.7%	11.2%	36.1%	70.0%	5.0%	12.0%	5.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	(1)	(1)			(5)	(6)		
In/Out Splits:	In	Out			In Out	In Out	In	Out
Weekday Pre-Event	100.0%	0.0%			55.0% 45.0%	67.0% 33.0%	70.0%	30.0%
Weekday Post-Event	0.0%	100.0%			55.0% 45.0%	10.0% 90.0%	95.0%	5.0%
Saturday Pre-Event	100.0%	0.0%			55.0% 45.0%	59.0% 41.0%	50.0%	50.0%
Saturday Post-Event	0.0%	100.0%			55.0% 45.0%	10.0% 90.0%	95.0%	5.0%
Vehicle Occupancy:	(1)	(1)	(1)	(1)	(5)	(8)	(5)	
Auto	2.50	2.90	2.50	2.90	2.00	2.00	1.18	
Taxi	1.75	1.75	1.75	1.75	2.00	2.00	1.18	
Truck Trip Generation:		(1)			(4)	(4)	(4)	
		8			0.350	0.350	0.060	
		daily			per 1,000 sf	per 1,000 sf	per du	
		(1)			(5)	(1)	(1)	
Weekday Pre-Event		0.0%			1.0%	1.0%	0.0%	
Weekday Post-Event		0.0%			0.0%	0.0%	0.0%	
Saturday Pre-Event		0.0%			1.0%	1.0%	0.0%	
Saturday Post-Event		0.0%			0.0%	0.0%	0.0%	
	In	Out			In Out	In Out	In	Out
Pre-Event/Post-Event	50.0%	50.0%			50.0% 50.0%	50.0% 50.0%	50.0%	50.0%

Notes :

(1) PHA surveys conducted at Coney Island on 8/11/12 and 8/16/12. Truck rate based on MSG event in the arena. Vehicle Occupancy based on 2013 Survey Results for Events at Barclays Center

(2) *Atlantic Yards FEIS* (2006)

(3) Increased walk share during departure period accounts for travel from event site to Coney Island amusement/dining sites, as indicated in

(4) *2012 City Environmental Quality Review (CEQR) Technical Manual.* Assumming Post-event temporal distribution reduced by 50%.

(5) *Coney Island Rezoning FEIS* (2009)

(6) Based on *ITE Trip Generation Handbook, 8th Edition* , Land Use Code (931) Qualtiy Restaurant. Based on ITE parking demand for Quality Restaurant land use during post-event time.

(7) Assuming the modal split of Theme Retail land use in Coney Island Rezoning.

(8) Travel Demand from *St. George Waterfront Redevelopment DEIS* (2013).

The persons per auto occupancy was developed from 2013 surveys conducted at the Barclays Center for paid concert events and indicates that there would be an auto occupancy of approximately 2.50 persons per auto on the weekday and 2.90 persons per auto on the Saturday. Additionally, it was determined from the 2012 survey data that there would be approximately 1.75 persons per taxi on both weekdays and Saturdays (it should be noted that not enough taxi data was collected on the Saturday so the weekday taxi data was assumed for the Saturday). The truck trip generation rate of eight trips per day was based on events at Madison Square Garden, although it should be noted that these trips would usually take place in the early morning or during the midday, well before the trips generated by concertgoers.

Travel Demand

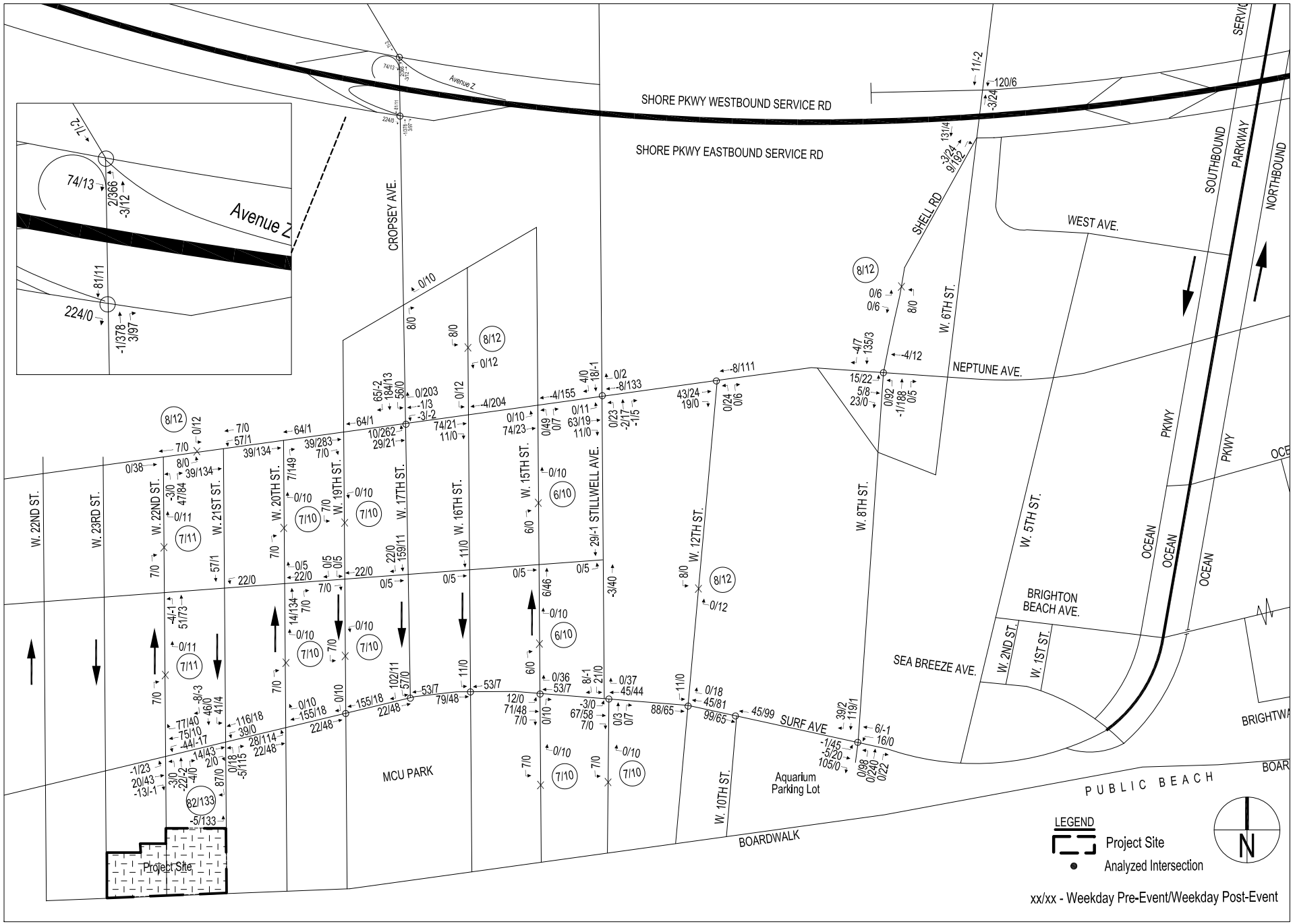
Table 2 summarizes the results of the travel demand forecast for the proposed project based on the factors shown in Table 1 and discussed above. Table 2 also shows the total number of weekday and Saturday peak hour person trips, vehicle trips and transit trips that would be generated by the proposed project in the four analysis periods.

As shown in Table 2, the proposed project would generate a total of 2,302, 5,499, 1,958 and 5,481 person trips during the weekday pre-event and post-event and Saturday pre-event and post-event peak hours, respectively. Table 2 shows that, compared to the No-Action condition, there would be an increase of approximately 456, 815, 358 and 645 vehicle trips (auto and taxi combined) during the weekday pre-event and post-event and Saturday pre-event and post-event, respectively. Compared to the No-Action condition, the proposed project would generate approximately 1,118, 1,807, 907 and 1,462 subway trips and 114, 269, 78 and 210 bus trips during the weekday pre-event and post-event and Saturday pre-event and post-event, respectively. Additionally, the proposed project would generate a net increment of approximately -103, 1,452, -132 and 1,977 walk-only trips during the weekday pre-event and post-event and Saturday pre-event and post-event, respectively, compared to No-Action conditions.

Although there would be some truck trips associated with the delivery of supplies and equipment to the proposed amphitheater (such as concession goods, sound and lighting systems, stage sets, etc.), these trips are expected to be relatively small in number and, given the time needed to set-up and breakdown before and after a concert, would occur well outside of the analyzed pre- and post-concert peak hours.

VEHICLE TRIP ASSIGNMENT AND TRAFFIC STUDY AREA

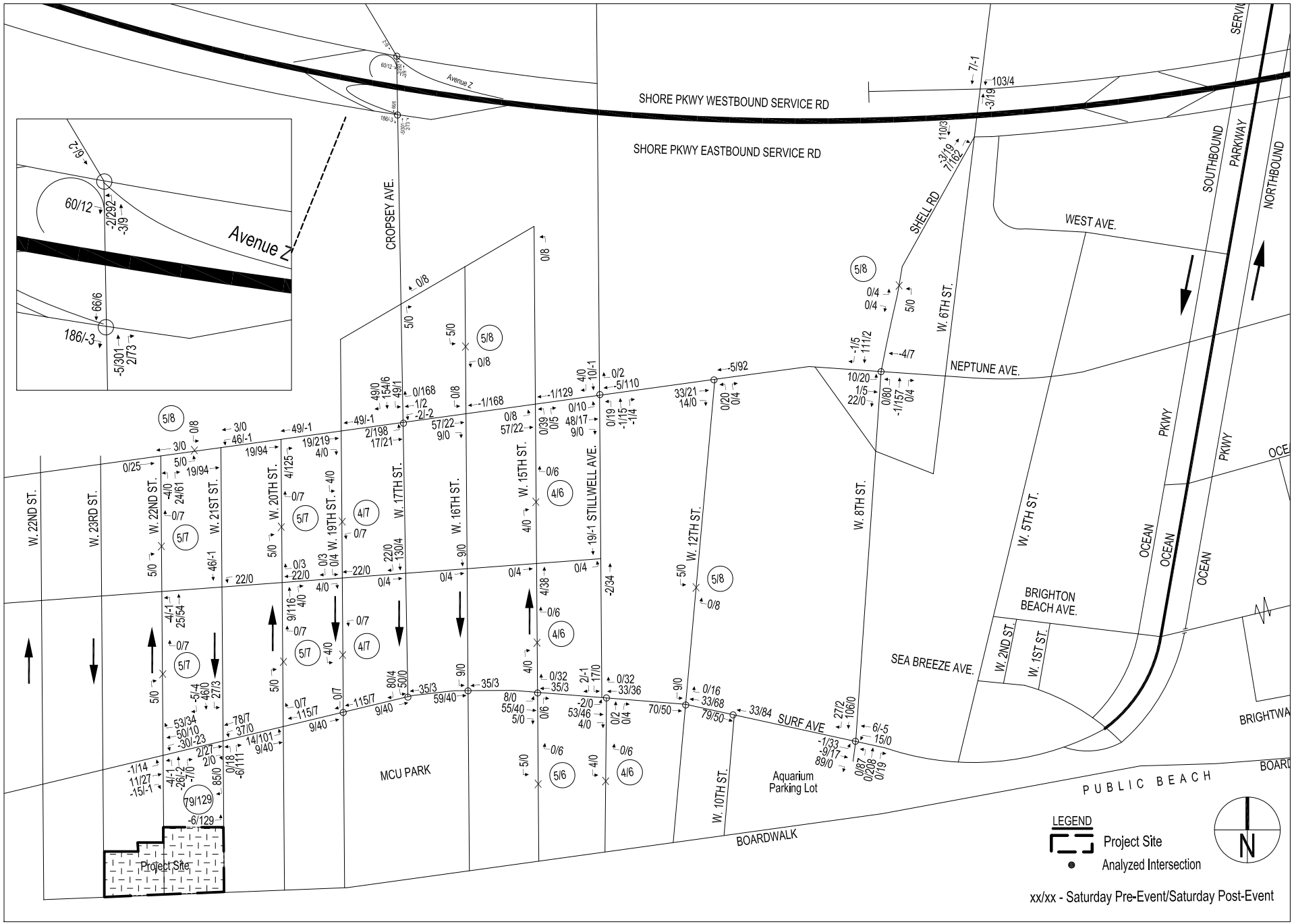
The origins and destinations of weekday and Saturday project increment auto and taxi trips were determined based on zip code data collected from concertgoers surveyed at the Seaside Summer Concert Series at Coney Island in 2012. Autos were assigned to the most likely routes between these origins/destinations and on-street and off-street parking facilities within ½-mile of the project site, including the approximately 350-space Aquarium parking lot south of Surf Avenue at West 8th Street and the 200-space MCU Park Satellite parking lot west of West 21st Street between the Riegelmann Boardwalk and Surf Avenue. Taxis were assigned to the most direct routes between residential origins/destinations on the project site entrance on Surf Avenue at West 22nd Street and West 21st Street. Figure 2A and 2B shows the vehicle assignment diagram for the project-generated traffic, and Figure 3 shows the intersections that would exceed the *2012 CEQR Technical Manual* threshold of 50 vehicles per intersection. As shown in Figures 2A and 2B, project-generated vehicle trips are expected to be most concentrated along Neptune Avenue, Surf Avenue and West 17th Street/Cropsey Avenue corridors with many en route to and from interchanges with the Shore (Belt) Parkway located at Cropsey Avenue.



Seaside Park and Community Arts Center

FIGURE 2A

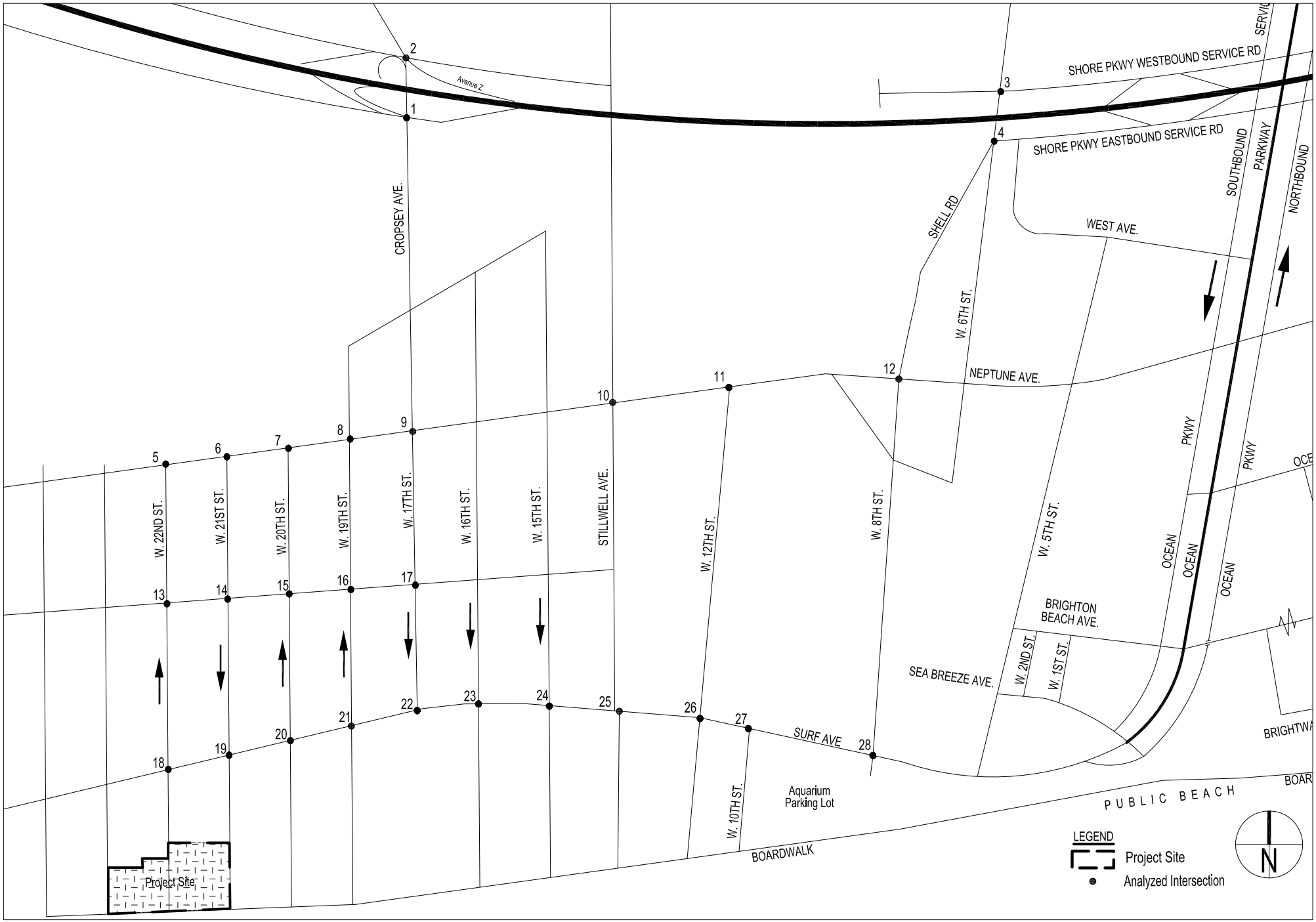
Weekday Net Project Increment Vehicle Trip Assignment



Seaside Park and Community Arts Center

FIGURE 2B

Saturday Net Project Increment Vehicle Trip Assignment



Seaside Park and Community Arts Center

FIGURE 3

Traffic Study Area and Analyzed Intersections

Table 2

Travel Demand Forecast Summary

		No-Action								With-Action						*With-Action - No-Action Increment*
Land Use:		**Quality Restaurant**		**Residential**		**Local Retail**		**No-Action Total**		**Quality Restaurant**		**Amphitheater**		**With-Action Total**		
Size/Units:		440 seat		223 du		33,978 gsf				440 seat		6,000 seat				
Peak Hour Person Trips:																
Weekday Pre-Event		273		198		522		993		273		3,024		3,297		*2,304*
Weekday Post-Event		79		59		57		196		79		5,616		5,695		*5,499*
Saturday Pre-Event		315		130		612		1,056		315		2,700		3,015		*1,959*
Saturday Post-Event		26		65		67		158		26		5,616		5,642		*5,484*
Person Trips:																
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	
Weekday Pre-Event	**Auto**	73	36	44	19	43	35	160	90	73	36	1,297	0	1,370	36	*1,156*
	Taxi	5	3	1	1	0	0	6	4	5	3	30	0	35	3	*28*
	Subway	75	37	62	27	14	12	151	76	75	37	1,222	0	1,297	37	*1,107*
	MTA Bus	20	10	14	6	29	24	63	40	20	10	187	0	207	10	*114*
	Walk/Other	9	5	17	7	201	165	227	177	9	5	287	0	296	5	*-103*
	Total	182	91	138	60	287	236	607	387	182	91	3,023	0	3,205	91	*2,302*
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	
Weekday Post-Event	**Auto**	3	28	18	1	5	4	26	33	3	28	0	1,949	3	1,977	*1,921*
	Taxi	0	2	1	0	0	0	1	2	0	2	0	51	0	53	*50*
	Subway	3	29	25	1	2	1	30	31	3	29	0	1,836	3	1,865	*1,807*
	MTA Bus	1	8	6	0	3	3	10	11	1	8	0	281	1	289	*269*
	Walk/Other	0	4	7	0	22	18	29	22	0	4	0	1,499	0	1,503	*1,452*
	Total	7	71	57	2	32	26	96	99	7	71	0	5616	7	5,687	*5,499*
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	
Saturday Pre-Event	**Auto**	74	52	26	26	50	41	150	119	74	52	1,223	0	1,297	52	*1,080*
	Taxi	6	4	1	1	0	0	7	5	6	4	27	0	33	4	*25*
	Subway	76	53	32	32	17	14	125	99	76	53	1,002	0	1,078	53	*907*
	MTA Bus	20	14	3	3	34	28	57	45	20	14	146	0	166	14	*78*
	Walk/Other	9	6	3	3	235	193	247	202	9	6	302	0	311	6	*-132*
	Total	185	129	65	65	336	276	586	470	185	129	2700	0	2,885	129	*1,958*
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	
Saturday Post-Event	**Auto**	1	9	25	1	6	5	32	15	1	9	0	1,831	1	1,840	*1,794*
	Taxi	0	1	1	0	0	0	1	1	0	1	0	39	0	40	*38*
	Subway	1	10	31	2	2	2	34	14	1	10	0	1,499	1	1,509	*1,462*
	MTA Bus	0	3	2	0	4	3	6	6	0	3	0	219	0	222	*210*
	Walk/Other	0	1	3	0	26	21	29	22	0	1	0	2,027	0	2,028	*1,977*
	Total	2	24	62	3	38	31	102	58	13	11	0	5,616	2	5,639	*5,481*
Vehicle Trips :																
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	
Weekday Pre-Event	**Auto (Total)**	37	18	37	16	22	18	96	52	37	18	519	0	556	18	
	Taxi Balanced	4	4	2	2	0	0	7	7	4	4	17	17	22	22	
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	41	22	39	18	22	18	103	59	41	22	536	17	578	40	
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	
Weekday Post-Event	**Auto (Total)**	2	14	15	1	3	2	20	17	2	14	0	780	2	794	
	Taxi Balanced	1	1	1	1	0	0	2	2	1	1	29	29	30	30	
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	3	15	16	2	3	2	22	19	3	15	29	809	32	824	
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	
Saturday Pre-Event	**Auto (Total)**	37	26	22	22	25	21	84	69	37	26	422	0	459	26	
	Taxi Balanced	4	4	2	2	0	0	7	7	4	4	15	15	20	20	
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	41	30	24	24	25	21	91	76	41	30	437	15	479	46	
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	
Saturday Post-Event	**Auto (Total)**	1	5	21	1	3	3	25	9	1	5	0	631	1	636	
	Taxi	0	1	1	0	0	0	1	1	0	1	0	22	0	23	
	Taxi Balanced	1	1	1	1	0	0	2	2	1	1	22	22	23	23	
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	2	6	22	2	3	3	27	11	2	6	22	653	24	659	

Vehicle Trips:		**No-Action**			**With-Action**			**With-Action - No-Action Increment**		
	Total Vehicle	In	Out	Total	In	Out	Total	**In**	**Out**	**Total**
Weekday	**Pre-event**	103	59	162	578	40	618	**475**	**-19**	**456**
	Post-event	22	19	41	32	824	856	**10**	**805**	**815**
Saturday	**Pre-event**	91	76	167	479	46	525	**388**	**-30**	**358**
	Post-event	27	11	38	24	659	683	**-3**	**648**	**645**

Note: 25% Linked trip credit applied to Local Retail

As shown in Figure 3, a total of 28 intersections (25 signalized and three unsignalized) have been selected for the analysis of traffic conditions during the weekday and Saturday pre- and post-concert peak hours based on the assignment of project-generated traffic shown in Figures 2A and 2B. These intersections, listed below, are where traffic generated by the proposed project is expected to be most concentrated.

Traffic Analysis Locations – Weekday and Saturday

1. Shore Parkway Eastbound Off-Ramp and On-Ramp at Cropsey Avenue/Bay 52nd Street
2. Shore Parkway Westbound Off-Ramp and On-Ramp at Cropsey Avenue/Bay 50th Street
3. Shore Parkway Westbound Service Road at Shell Road
4. Shore Parkway Eastbound Service Road at Shell Road
5. Neptune Avenue at West 22nd Street
6. Neptune Avenue at West 21st Street (unsignalized)
7. Neptune Avenue at West 20th Street
8. Neptune Avenue at West 19th Street
9. Neptune Avenue at Cropsey Avenue
10. Neptune Avenue at Stillwell Avenue
11. Neptune Avenue at West 12th Street
12. Neptune Avenue at West 8th Street
13. Mermaid Avenue at West 22nd Street
14. Mermaid Avenue at West 21st Street
15. Mermaid Avenue at West 20th Street
16. Mermaid Avenue at West 19th Street
17. Mermaid Avenue at West 17th Street
18. Surf Avenue at West 22nd Street (unsignalized)
19. Surf Avenue at West 21st Street
20. Surf Avenue at West 20th Street (unsignalized)
21. Surf Avenue at West 19th Street
22. Surf Avenue at West 17th Street
23. Surf Avenue at West 16th Street
24. Surf Avenue at West 15th Street
25. Surf Avenue at Stillwell Avenue
26. Surf Avenue at West 12th Street
27. Surf Avenue at West 10th Street
28. Surf Avenue at West 8th Street

PARKING

Persons driving to a concert at the Seaside Summer Concert Series' existing location at Surf Avenue and West 21st Street typically found parking either at a curbside location in close proximity to the stage or in the KeySpan lot at MCU Park. Surveys during the August 11, 2012 "Jackson Unity Tour" and August 16, 2012 "Gladys Knight and the Commodores" concerts revealed that on both nights approximately 72% of concertgoers parked on the street and 25% parked at the KeySpan lot at MCU Park. Concert-related parking demand at these on-street locations and off-street facilities would be the same on both weekdays and Saturdays as a result of the proposed project. The EIS will therefore provide analyses of both on-street and off-street parking conditions during a weekday and Saturday concert event at the proposed amphitheater for a radius of ½ - mile from the project site. This survey was also conducted in 2012 along with the other data collection.

SELECTION OF TRANSIT FACILITIES FOR ANALYSIS

According to the general thresholds used by the Metropolitan Transportation Authority and specified in the *2012 CEQR Technical Manual*, detailed transit analyses are not required if an initial screening indicates that a proposed project would result in less than 200 new peak hour subway or bus transit riders, as fewer than this number of new transit trips is considered unlikely to create significant impacts on existing transit facilities. If a

proposed project would generate more than 200 transit trips, then a detailed analysis is warranted for any subway station to which the proposed project would add 200 or more peak hour trips, or for any bus line to which 50 or more passengers per hour would be assigned (in one direction).

Subway

Based on the 2012 surveys, it is anticipated that project-generated subway trips would essentially utilize only one subway station - the Coney Island-Stillwell Avenue (D, F, N, Q) station located approximately 0.4-miles to the east of the site. As shown in Table 3, the proposed project is expected to generate a net total of approximately 1,118, 1,807, 907 and 1,462 new subway trips in the weekday PM (pre-concert), weekday evening (post-concert), Saturday PM (pre-concert) and Saturday evening (post-concert) peak hours, respectively. These trips would be distributed among the four subway lines that service the Coney Island-Stillwell Avenue subway station – D, F, N and Q lines.

The project generated trips were assigned to the four subway lines at the station based on the ridership percentages documented by the surveys conducted in 2012 (see **Table 3**), while No-Action trips were distributed to each of the subway lines based on the existing count data collected as part of the 2012 count program.

Table 3
2012 Survey Subway Line Ridership Distribution

Subway Line	Weekday Percentage	Saturday Percentage
D	24%	29%
F	27%	32%
Q	14%	17%
N	35%	22%
Total	100%	100%

Source: 2012 PHA Surveys

Table 4 below shows the resulting net total of project generated trips assigned to each of the four subway lines at the Coney Island-Stillwell Avenue subway station.

Table 4
Net Total Project Generated Trips by Subway Line

	Weekday Pre-Concert Increment			Weekday Post-Concert Increment			Saturday Pre-Concert Increment			Saturday Post-Concert Increment		
Subway Line	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
D	275	-11	264	-4	443	439	289	-5	284	-6	436	430
F	310	-11	299	-5	495	490	291	-24	267	-9	476	467
Q	144	-13	131	-10	250	240	153	-11	142	-9	255	246
N	417	-4	413	-8	646	638	220	-6	214	-9	328	319
Total	1146	-39	1107	-27	1834	1807	953	-46	907	-33	1495	1462

As shown in Table 4, during the weekday and Saturday pre-concert peak hours, the D, F and N subway lines all exceed the 200 trip threshold and, during the weekday and Saturday post-event peak hours all four subway lines – the D, F, Q and N – exceed the 200 trip threshold. It should be noted, however, that since the Coney Island-Stillwell Avenue subway station is a terminal stop on each of the lines, all inbound trips and outbound trips would travel in one direction.

While a majority of the subway lines being analyzed exceed the 200 peak hour trips per line *CEQR Technical Manual* threshold during the analyzed peak hours, it should be noted that the maximum load points for these lines typically occur closer to the river crossings into Manhattan. Approximately 62% and 59% of concert goers on a weekday and Saturday, respectively, would come from Brooklyn as indicated in the 2012 survey results.

Furthermore, the pre-event and post-event peak hours being analyzed in this EIS occur well after the typical commuter peak hours when line haul conditions are heaviest. Therefore, a detailed line haul analysis is not included in this EIS as significant impacts are unlikely.

Local Bus

Five NYC Transit local bus routes, the B36, B64, B68, B74 and B82 operate within approximately ½-mile of the project site and are likely to be used by the 114, 269, 78 and 210 new bus trips during the weekday pre-event and post-event and Saturday pre-event and post-event, respectively, generated by the proposed project. It is noted that several of those routes terminate in the vicinity of the Stillwell Avenue subway station.

With the low level of new bus demand and a total of five bus routes to serve project-generated demand, significant bus impacts are not expected due to the proposed project's off-peak ridership demand. Therefore, further detailed bus analysis is not included in this EIS.

SELECTION OF PEDESTRIAN ANALYSIS LOCATIONS

Most, if not all, project-generated trips would include a walk component using local sidewalks, street corners, crosswalks, as well as the Boardwalk, to access the proposed amphitheater. Based on the preliminary travel demand forecast shown in Table 2, it is anticipated that the proposed project would have the potential to add more than the 200-trip *2012 CEQR Technical Manual* analysis threshold to sidewalks, corner areas, and crosswalks in the immediate vicinity of the project site during all analysis periods. Accordingly, a total of four pedestrian locations have been selected for the analysis of pedestrian conditions during the weekday and Saturday pre- and post-concert peak hours. These locations, listed below, are where pedestrian trips are expected to be most concentrated (see Figure 9-3), including the boardwalk, sidewalks, corner areas, and crosswalks providing access to entrances, and along corridors leading to the nearby subway station.

<u>Pedestrian Analysis Locations – Weekday and Saturday</u>

1. Surf Avenue at West 21st Street (4 crosswalks; 4 corners)
2. Surf Avenue between West 21st Street and West 20th Street (north and south sidewalks)
3. West 21st Street at the Riegelmann Boardwalk (east and west sidewalks)
4. The Riegelmann Boardwalk between West 22nd and West 21st Street (2 directions)

Attachment A

Seaside Amphitheater 2012 Survey Results

Philip Habib & Associates
Engineers and Planners • 102 Madison Avenue • New York, NY 10016 • 212 929 5656 • 212 929 5605 (fax)

MEMORANDUM

To: Jacob Feingold, Associate, iStar Financial

From: Philip Habib & Associates

Date: September 20, 2012

Subject: Seaside Amphitheater at Coney Island Transportation Survey (1250)

In order to evaluate the existing transportation characteristics and arrival/exit patterns of the Seaside Summer Concert Series at Coney Island, Philip Habib & Associates conducted surveys and attendance counts at two concerts in mid August 2012. Counts took place during the last two concerts of the season, the Jacksons Unity Tour on Saturday, August 11 and Gladys Knight and the Commodores on Thursday, August 16. Saturday night's concert coincided with a Brooklyn Cyclone's home game at nearby MCU Park. On both dates, surveys were performed from 4:00 PM to 7:00 PM and attendance counts between 6:15 PM and 11:15 PM.

Survey Results

Surveys were administered to concertgoers waiting in line at the venue's three entrances, which are shown in Figure 1. Each survey contained five questions with numerous follow ups depending on the respondent's choice of transportation mode (Attachment B). As shown in Table 1 below, the modal split for both days is comparable, with personal auto being the most popular choice (46% Saturday; 43% Thursday) and subway close behind (37% Saturday; 40% Thursday). All remaining modes combined for approximately 17% on Saturday and 16% on Thursday.

Table 1
Modal Split

Mode	Saturday 8/11/12		Thursday 8/16/12	
*Auto	95	46%	214	43%
Taxi	0	0%	4	1%
Bus	11	6%	31	6%
Subway	76	37%	201	40%
Walk	23	11%	32	6%
Other	0	0%	15	3%
Total	**205**	**100%**	**497**	**100%**

*Includes those who were dropped off at concert

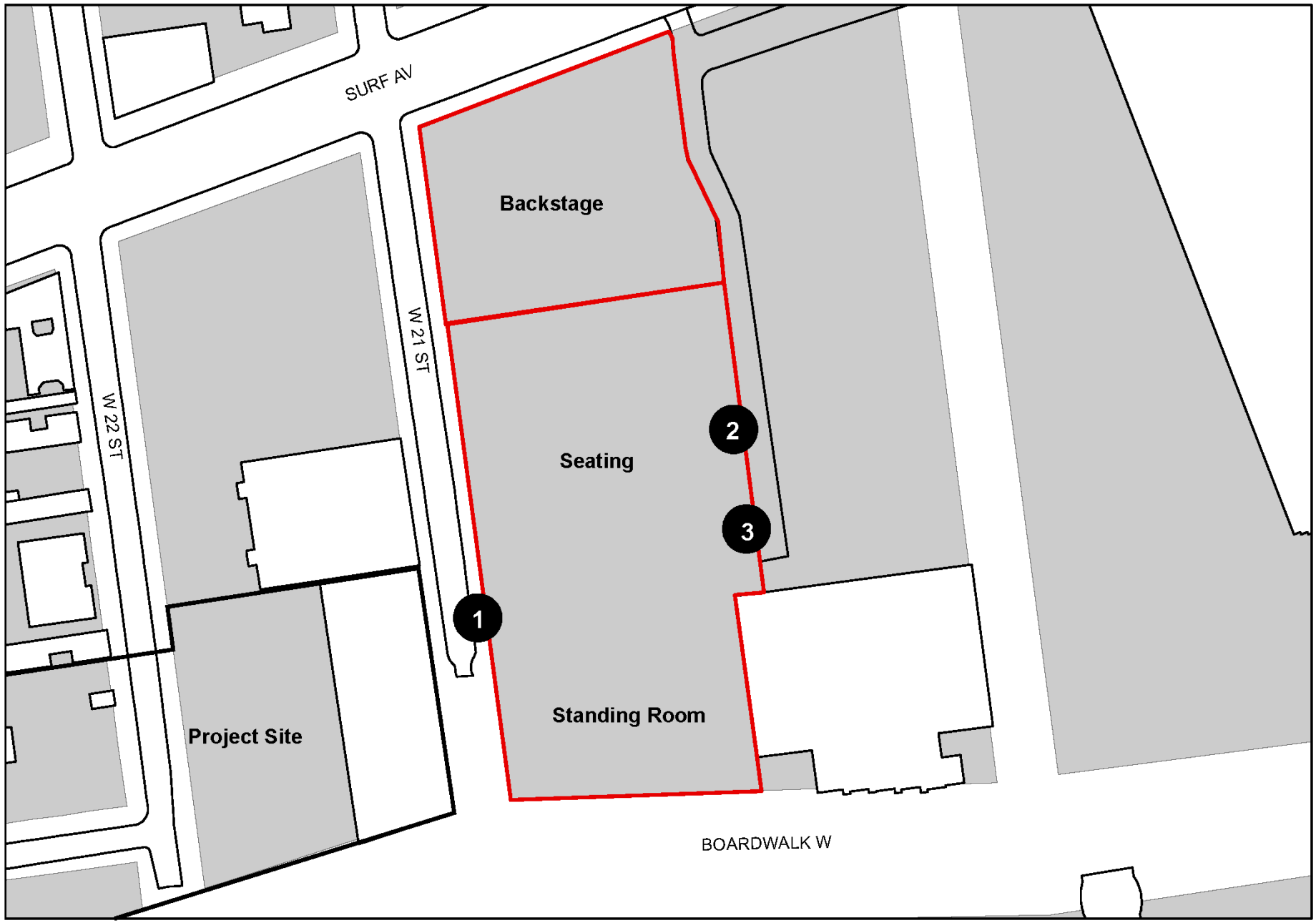


Figure 1: Survey and Count Locations

For those who drove, survey results show that street parking was highly favored over both paid-entry parking ($10) and parking at a private home or business (Table 2). On Saturday and Thursday, 71% and 72% of respondents, respectively, indicated that they had parked on the street. The next most popular parking option was the KeySpan lot at MCU Park (25% Saturday; 22% Thursday). Vehicle occupancy rates from both days show that car pooling was more prevalent on Saturday (2.61 persons per auto) than Thursday (2.19 persons per auto).

Table 2
Parking Locations

Location	Saturday 8/11/12		Thursday 8/16/12	
Street Parking	64	71%	147	72%
KeySpan Lot at MCU Park	22	25%	44	22%
Lot North of Surf Ave at W 17th	1	1%	10	5%
Nathan's Lot on W 15th	1	1%	1	>1%
Parked at Private Location	2	2%	2	>1%
Total	**90**	**100%**	**204**	**100%**

*Please note that the totals differ between Table 1 and Table 2 because some auto users did not park (drop offs) and not everyone provided information on where they parked

Vehicle counts of five area parking lots were conducted on both nights (Table 3). The lots considered were those analyzed in the 2009 Coney Island Rezoning, including: the KeySpan Park Satellite Lot, KeySpan Park Main Lot, two commercial lots north of Surf Avenue at West 17th Street, Nathan's Lot on West 15th Street, and a commercial lot north of Surf Avenue at West 12th Street. The survey revealed that on Saturday night an approximate combined 1,221 parking spaces of the 1,226 available were occupied (100% occupancy). Thursday night's occupancy levels were slightly lower, with only 962 taken spaces (78%). These numbers do not account for the New York Aquarium, which has a parking lot of approximately 350 spaces. In the future with the approved Coney Island Rezoning, the Aquarium will expand its parking capacity by 400 to approximately 750 spaces.

Table 3
Vehicle Counts in Area Parking Lots

Location	Capacity	Saturday 8/11/12 Occupancy		Thursday 8/16/12 Occupancy	
KeySpan Main Parking Lot	750	750	100%	515	68%
Lot North of Surf Ave at W 17th	300	300	100%	300	100%
Nathan's Lot on W 15th	26	26	100%	26	100%
Commercial Lot at W 12th	150	145	97%	121	81%
Total	**1,226**	**1,221**	**100%**	**962**	**78%**

Using zip code data from those who drove, it can be determined that approximately 74% of drivers on Saturday and 85% on Thursday came from a location within New York City. On both nights, Brooklyn was the most popular borough of origin, with 48% of drivers on Saturday and 51% on Thursday. A breakdown of auto trip origin by borough is presented in Table 4 below:

Table 4
Borough of Origin (Auto Only)

Borough	Saturday 8/11/12		Thursday 8/16/12	
Bronx	3	3%	8	4%
Brooklyn	40	48%	108	51%
Manhattan	2	2%	11	5%
Queens	17	17%	37	18%
Staten Island	3	3%	15	7%
Non-NYC	23	26%	31	15%
Total	**88**	**100%**	**210**	**100%**

Similar trends were found for concertgoers traveling by all modes, not just automobiles (Table 5). On both nights, Brooklyn was the most popular borough of origin, with 59% of all modes on Saturday and 62% on Thursday.

Table 5
Borough of Origin (All Modes)

Borough	Saturday 8/11/12		Thursday 8/16/12	
Bronx	11	6%	20	4%
Brooklyn	113	59%	299	62%
Manhattan	8	4%	57	12%
Queens	26	14%	49	10%
Staten Island	5	3%	20	4%
Non-NYC	28	15%	36	7%
Total	**191**	**100%**	**481**	**100%**

As discussed earlier, approximately 37% of total trips on Saturday and 40% of total trips on Thursday were made via subway. Public transit trips (subway and bus combined) accounted for approximately 42% of total trips on Saturday and 47% on Thursday. Table 6 provides a summary of subway ridership on both days broken-down by train line. Results suggest that all four train lines were used moderately, with N train ridership generally lower than the D, F, and Q. For the 6% of respondents (on both Saturday and Thursday) who took the bus, the B36 was the most frequently used line. Running between Sheepshead Bay and Coney Island, the bus carried approximately 55% (6 persons) of bus riders on Saturday and 94% (29 persons) on Thursday. All other riders used the B82 (45% on Saturday, 6% on Thursday), which runs between Spring Creek and Coney Island.

Table 6
Subway Line Taken to Coney Island-Stillwell Ave. Station

Line	Saturday 8/11/12		Thursday 8/16/12	
D	22	29%	49	24%
F	24	32%	54	27%
N	13	17%	28	14%
Q	17	22%	70	35%
Total	**76**	**100%**	**201**	**100%**

While both concerts had advertised start times of 7:30 PM, arrival times at Coney Island differed between the two days. For the Jackson Unity Tour on Saturday, August 11, numerous respondents indicated that they had been in line for longer than 24 hours, some as early as 9 AM on Friday. Comparatively, arrival times for Gladys Knight and the Commodores were less spread out, with most people arriving a few hours prior to the show. Despite these differences, the median arrival times for both shows were similar, with the middle person arriving at 5:00 PM on Saturday and 5:30 PM on Thursday.

The majority of respondents at both concerts indicated that they were coming from home and not their place of employment. On Saturday, only 3% came from work while 97% came from home. Thursday's results were more mixed, with 81% coming from home and 19% coming from work. When asked if they were going home immediately after the show, respondents on Thursday night were more likely to answer 'yes' than respondents on Saturday night (Table 7). Approximately 76% of respondents on Thursday night stated they were going home after the show, compared to 66% on Saturday. Similarly, a higher percentage of respondents (28%) stated that they were staying in the Coney Island area on Saturday night than on Thursday night (19%).

Table 7
Are You Going Home Immediately After the Show?

Line	Saturday 8/11/12		Thursday 8/16/12	
Yes	134	66%	376	76%
No, Coney	58	28%	96	19%
Undecided	13	6%	22	5%
Total	**205**	**100%**	**494**	**100%**

Counts were conducted at the three main entrances of the concert venue, beginning once doors opened and ending once the venue emptied. During the Jackson Unity Tour on Saturday, approximately 4,602 people entered the concert venue during a three hour period between 6:15 PM and 9:15 PM and an estimated 3,111 exited between 9:45 PM and 10:30 PM. On Thursday, approximately 5,592 people entered during the three hour period from 6:15 PM to 9:15 PM and an estimated 5,654 left between 9:45 PM and 11:15 PM. The peak hour for entry on both Saturday and Thursday began once doors opened at 6:15 PM and ended at 7:15 PM. Approximately 2,081 people were admitted during the peak hour on Saturday and 2,090 were admitted on Thursday. The peak period for departure on both nights coincided with the end of the performance. On Saturday, the concert ended around 10:05 PM and an estimated +3,111 people left between 9:30 PM and 10:30 PM. Thursday's concert ended around 10:50 PM and approximately 5,294 departed between 10:15 and 11:15 PM.

Table 8
Summary of Attendance Counts

	Saturday 8/11/12		Thursday 8/16/12	
Time	IN	OUT	IN	OUT
6:15 – 6:30	357	-	204	-
6:30 – 6:45	582	-	628	-
6:45 – 7:00	575	-	633	-
7:00 – 7:15	567	-	625	-
7:15 – 7:30	353	-	928	-
7:30 – 7:45	401	-	377	-
7:45 – 8:00	375	-	368	-
8:00 – 8:15	354	-	392	-
8:15 – 8:30	268	-	371	-
8:30 – 8:45	389	-	651	-
8:45 – 9:00	176	-	319	-
9:00 – 9:15	205	-	96	-
9:45 – 10:00	-	123	-	59
10:00 – 10:15	-	2,288	-	301
10:15 – 10:30	-	700	-	535
10:30 – 10:45	-	-	-	733
10:45 – 11:00	-	-	-	2,635
11:00 – 11:15	-	-	-	1,391
	4,602	**3,111**	**5,592**	**5,654**

Conclusion

The surveys and attendance counts performed on Saturday, August 11, 2012 and Thursday, August 16, 2012 have helped uncover the general transportation characteristics and arrival/exit patterns of the Seaside Summer Concert Series. Results show that personal auto (46% Saturday; 43% Thursday) and subway (37% Saturday; 40% Thursday) were the two most widely used transportation modes for accessing the concert venue. Subway ridership was well-distributed between the four train lines and the majority of those who drove chose to park street side (71% Saturday; 72% Thursday). Local parking lots reached full capacity on Saturday night and were approximately 78% occupied on Thursday night. For drivers, Brooklyn was the most popular borough of origin (48% Saturday; 51% Thursday). The majority of respondents indicated they were coming from home (97% Saturday; 81% Thursday) and were planning to return home immediately after the show (66% Saturday; 76% Thursday). Pedestrian counts revealed that the peak hour for entry began once doors opened at 6:15 PM (2,081 Saturday; 2,090 Thursday) and the peak period for departure coincided with the end of the performance.

Attachment B

AUDIENCE TRAVEL CHARACTERISTICS SURVEY

Audience Travel Characteristics Survey at Seaside Summer Concerts
Coney Island

Date: Thursday, August 16, 2012

Time:

Hello! Can I ask you a couple questions about how you got here?

Did you come by: Car Bus Subway Walk Taxi Bike Other _____

If by car:
Where did you park? Which parking lot?
How many passengers were in the car including the driver?

If by bus:
What bus route?

If by train:
What train line?
Which station did you get off at?

If by taxi:
How many passengers were in the car?

What time did you arrive at Coney Island today? What time did you arrive here at the concert?

Are you coming from home or work?

What's the zip code of the place you're coming from?

Do you plan on going home right after the show or are you sticking around Coney?

Thanks, enjoy the show!