3.3 TRAFFIC AND PARKING

INTRODUCTION

This chapter examines the potential for impacts on traffic and parking associated with the proposed action. As described in detail in the "Future with the Proposed Action" discussion in Chapter 2.0, the proposed action would create opportunities for new housing development on underutilized and vacant land near transit, and would create capacity for much-needed office and commercial space surrounding the corridor's civic uses. Under the latest reasonable worst-case development scenario (RWCDS), the proposed rezoning action would result in the following net increase in development on 11 projected development sites along the 161st Street Corridor:

SF	42,004
SF	306,011
SF	10
DU	594
Spaces	311
	SF SF DU

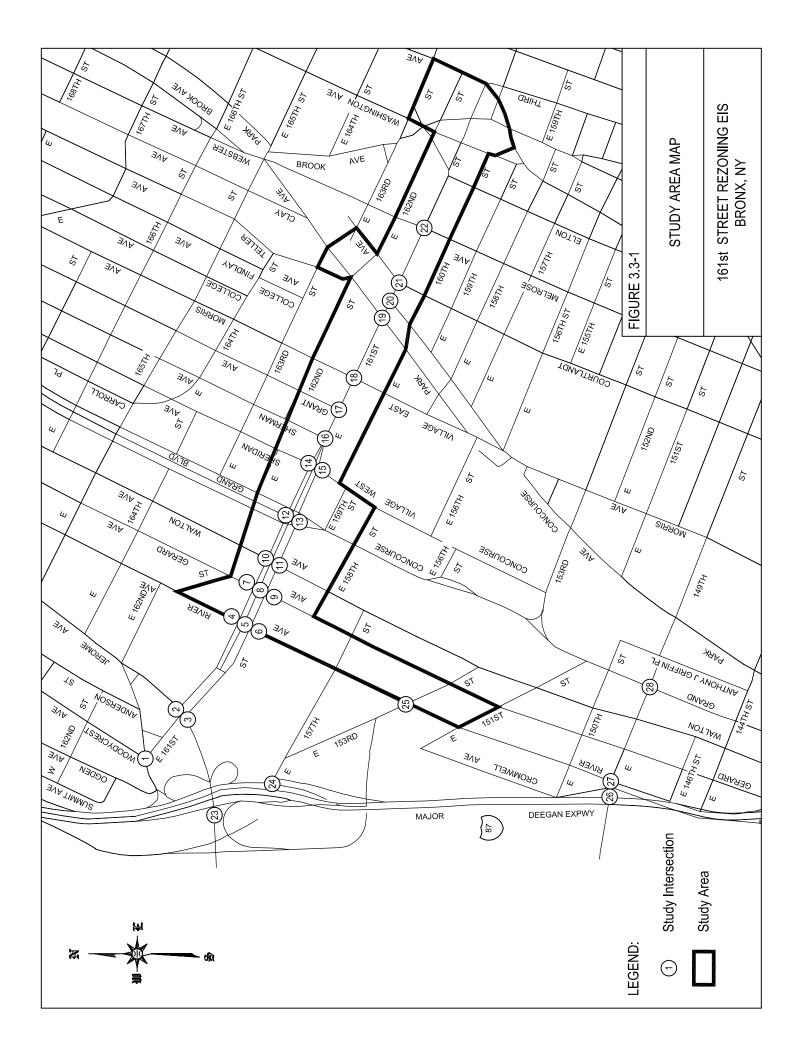
Additional Development Due to Proposed Action **

** See Chapter 2.0 for further details

The traffic study area was selected to include the intersections most likely to be used by concentrations of project-generated vehicles traveling to and from the proposed development sites. As shown in Figure 3.3-1, the traffic study area is focused along the E. 161^{st} Street corridor, from Melrose Avenue on the east to the Major Deegan Expressway (MDE) on the west. Other intersections included in the analysis are E. 153^{rd} Street and River Avenue and two intersections along E. 149^{th} Street – at River Avenue and the Grand Concourse.

As discussed later in this chapter, the proposed action condition is projected to generate net increments of 244 vehicle trips during the weekday AM peak hour (7:30 to 8:30 a.m.), 115 vehicle trips during the weekday midday peak hour (1:00 to 2:00 p.m.), 294 vehicle trips during the weekday PM peak hour (5:00 to 6:00 p.m.), and 97 trips during the Saturday midday peak hour (12:00 to 1:00 PM) - relative to the No-Action condition. Because the incremental vehicle trips generated by the proposed action in the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours exceed the 50 vehicle-trips/peak hour threshold for a detailed analysis as established in the *CEQR Technical Manual*, detailed traffic impact analyses are provided in this EIS for all four time periods.

Any examination of traffic in this area must acknowledge the localized but large influence of Yankee games. Therefore, the potential for traffic impacts was examined in two separate parts: for the typical weekday and Saturday peak hours without a Yankee game ("Non-Game Day") and also a targeted analysis of intersections during typical weekday and Saturday peak hours during which Yankee games were scheduled ("Game Day"). The Non-Game Day analysis for 28 intersections in the study area focused on four peak hours mentioned above: weekday AM, weekday midday, weekday PM, and Saturday midday. The Game Day analysis targeted 22 key intersections in the study area and focused on the pre-game peak hours on Yankee game days: the weekday PM and Saturday midday peak hours.



The following sections describe both the Non-Game Day and the targeted Game Day analyses. First the year 2008 existing traffic conditions in the study area are described. Year 2018 future conditions <u>without</u> the proposed action (the "No-Action condition," assuming the existing zoning), are described next. The change in travel demand resulting from the proposed action is then projected and added to No-Action conditions to develop the year 2018 future with the proposed action ("2018 Action") condition. Included in all future conditions analyses (for both No-Action and Action conditions) are planned changes to the study area's transportation facilities, and increases in traffic demand due to background growth and new developments in and around the study area that are projected to occur by the year 2018. Potential significant impacts, if any, from action-generated trips are then identified and described in detail.

3.3.1 NON-GAME DAY TRAFFIC

EXISTING CONDITIONS

As shown in Figure 3.3-1, the traffic study area for the Non-Game Day analysis consists of 28 intersections to be analyzed for the weekday AM, midday and PM peak hours and the Saturday midday peak hour. The 28 intersections selected for analysis are those that are expected to accommodate the highest concentrations of added vehicular traffic as a result of the proposed action. Existing traffic volumes for these locations were developed based on a combination of field counts conducted in May and June 2008, as well as data from the *Lower Concourse Rezoning EIS*, a parallel study being conducted by the New York City Department of City Planning that overlaps two study intersections along E. 149th Street. The data collection effort also included vehicle classification counts and travel time surveys (to determine vehicle speeds for the air quality assessment). Intersection signal timings were provided by New York City Department of Transportation (NYCDOT) and verified in the field.

Figures 3.3-2 through 3.3-5 show the traffic volumes at each of the 28 study intersections during the weekday AM, midday and PM and Saturday midday peak hours under year 2008 existing traffic conditions.

Street Network

The study area roadway network along the E. 161st Street Corridor in the Bronx (see Figure 3.3-1) reflects the interaction of a broad east-west arterial (E. 161st Street) and its service roadways with a series of important north-south arterials (Grand Concourse, Morris and Melrose Avenues, etc.). Connection to two major transportation facilities – the Macombs Dam Bridge to Manhattan (in the E. 161st Street area) and to the MDE (at both E. 149th and E. 161st Street) create numerous intersections and ramp areas carrying often high traffic volumes during peak travel periods. A mixture of major land uses like Yankee Stadium, Franz Sigel Park, Concourse Plaza and the Metro-North Railroad tracks create large gaps in the network, especially in the east-west direction, focusing more of the traffic onto E. 161st Street and other east-west connectors. The study area includes two major, two-way, east-west arteries, as follows:

<u>E. 161^{st} Street</u> is a two-way, east-west roadway that serves as the principal east-west arterial within the study area, from its connections to the MDE and Macombs Dam Bridge on the west to Melrose Avenue on the east. From that point eastward, it follows a relatively discontinuous path, eventually ending in the vicinity of Prospect Avenue. Within the study area, it typically includes two travel lanes and a parking lane in each direction, with curbside parking in various segments on both sides. To reduce congested and pedestrian/vehicular conflicts, E. 161^{st} Street goes beneath three north-south roadways – the Grand Concourse, Walton Avenue and the Macombs Dam Bridge connector roadway – with connections provided by one-way North and South Service Roads. E. 161^{st} Street accommodates portions of the Bx6 and Bx13 bus routes within the study area, and is a key access roadway to the Metro-North Railroad station at Melrose Avenue and the No. 4, B and D subway lines at E. 161^{st} adjacent to Yankee Stadium.

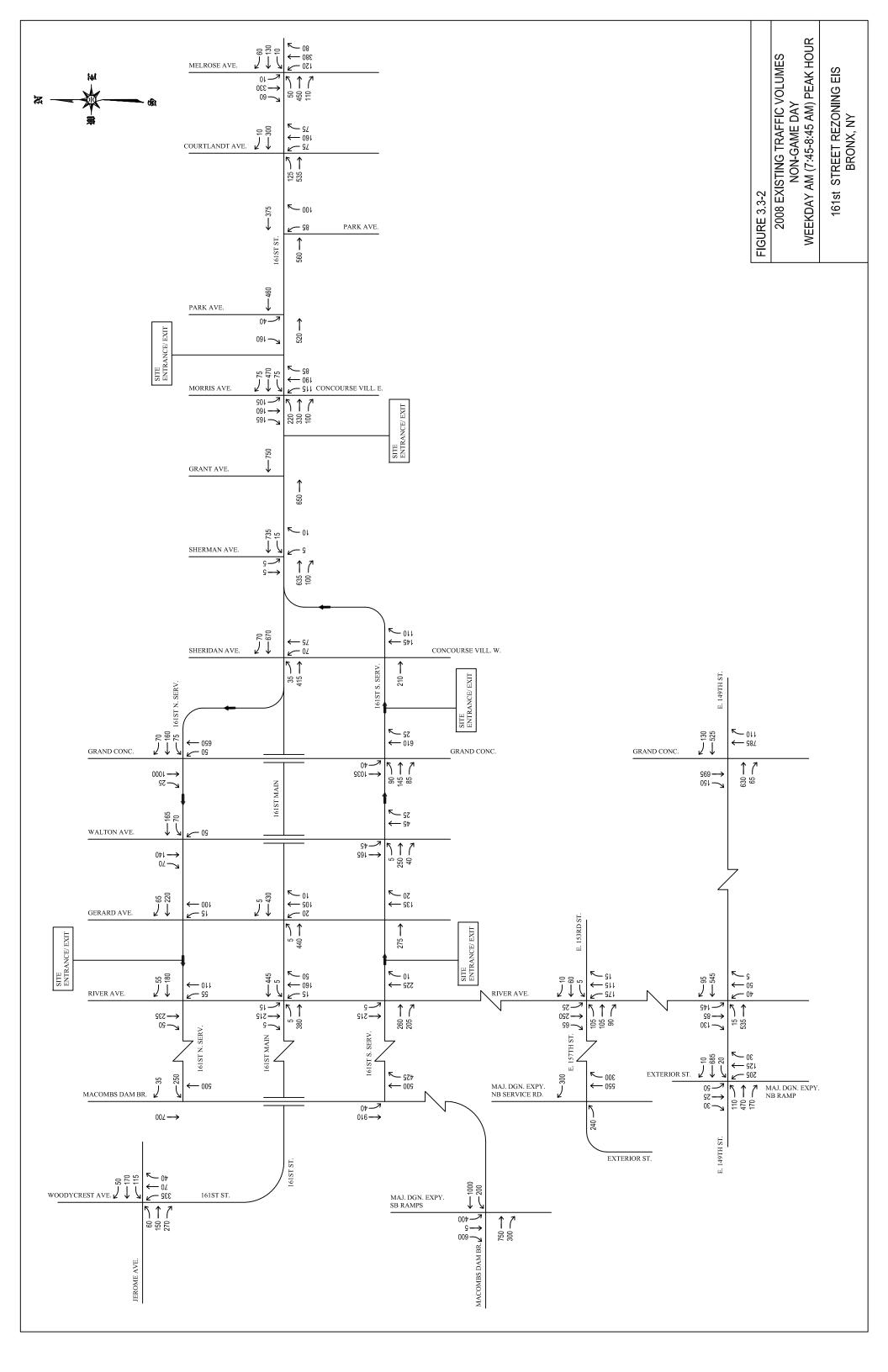
<u>E. 149th Street</u> serves as a major east-west arterial across the southern portions of the Bronx, extending from the Bruckner Expressway on the east and westward to connect with the MDE and then across the 145th Street Bridge into Manhattan. Within the study area, E. 149th Street connects the Hub area to the west to the MDE and then across the 145th Street Bridge to Manhattan. It generally carries two travel lanes in each direction with curbside parking on portions of both sides, and accommodates a portion of the Bx19 bus route within the study area with connections to the No. 2, 4 and 5 subway lines at the Grand Concourse and 3rd Avenue (Hub) stations.

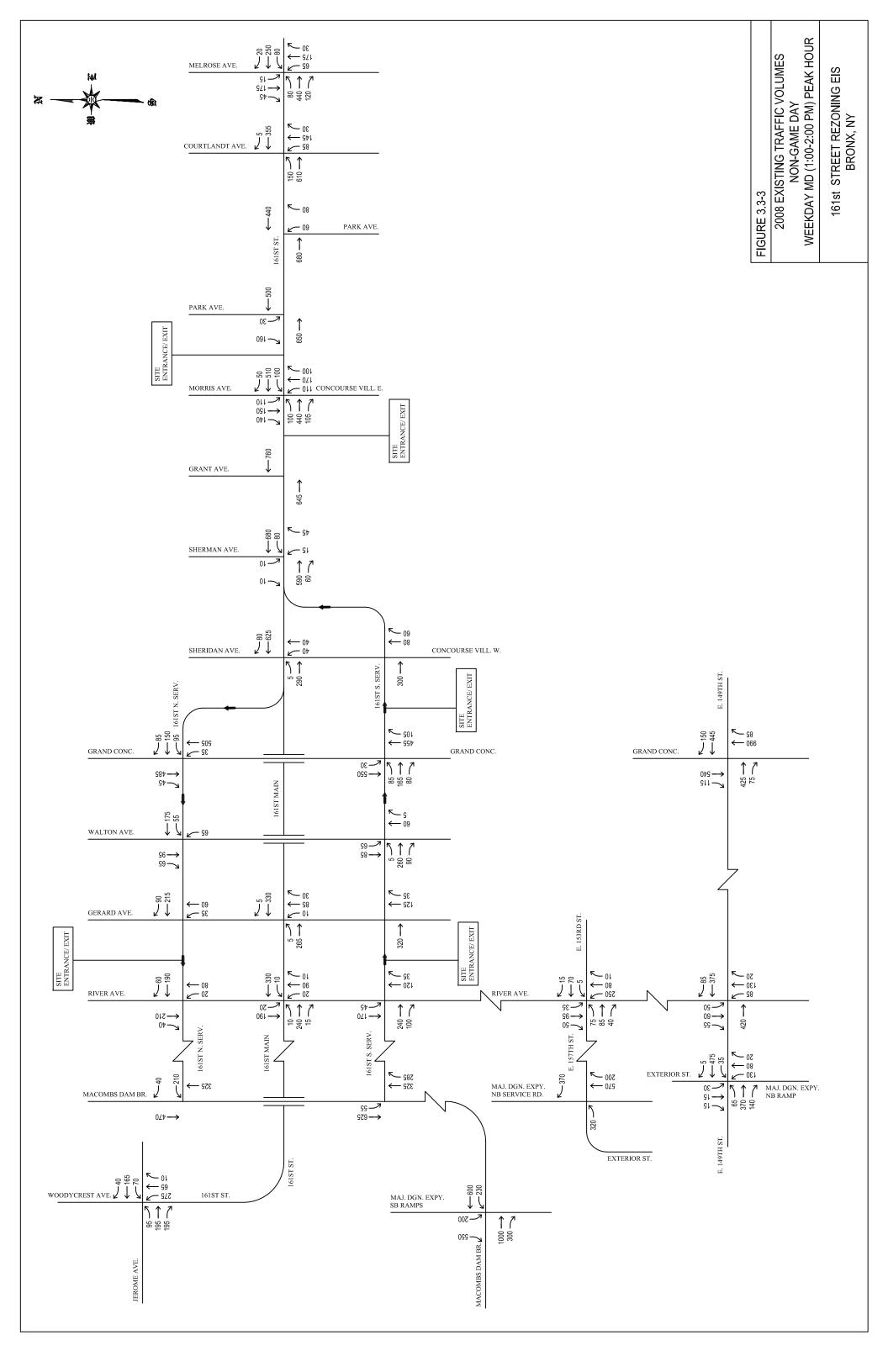
The more important north-south roadways in the study area include the following:

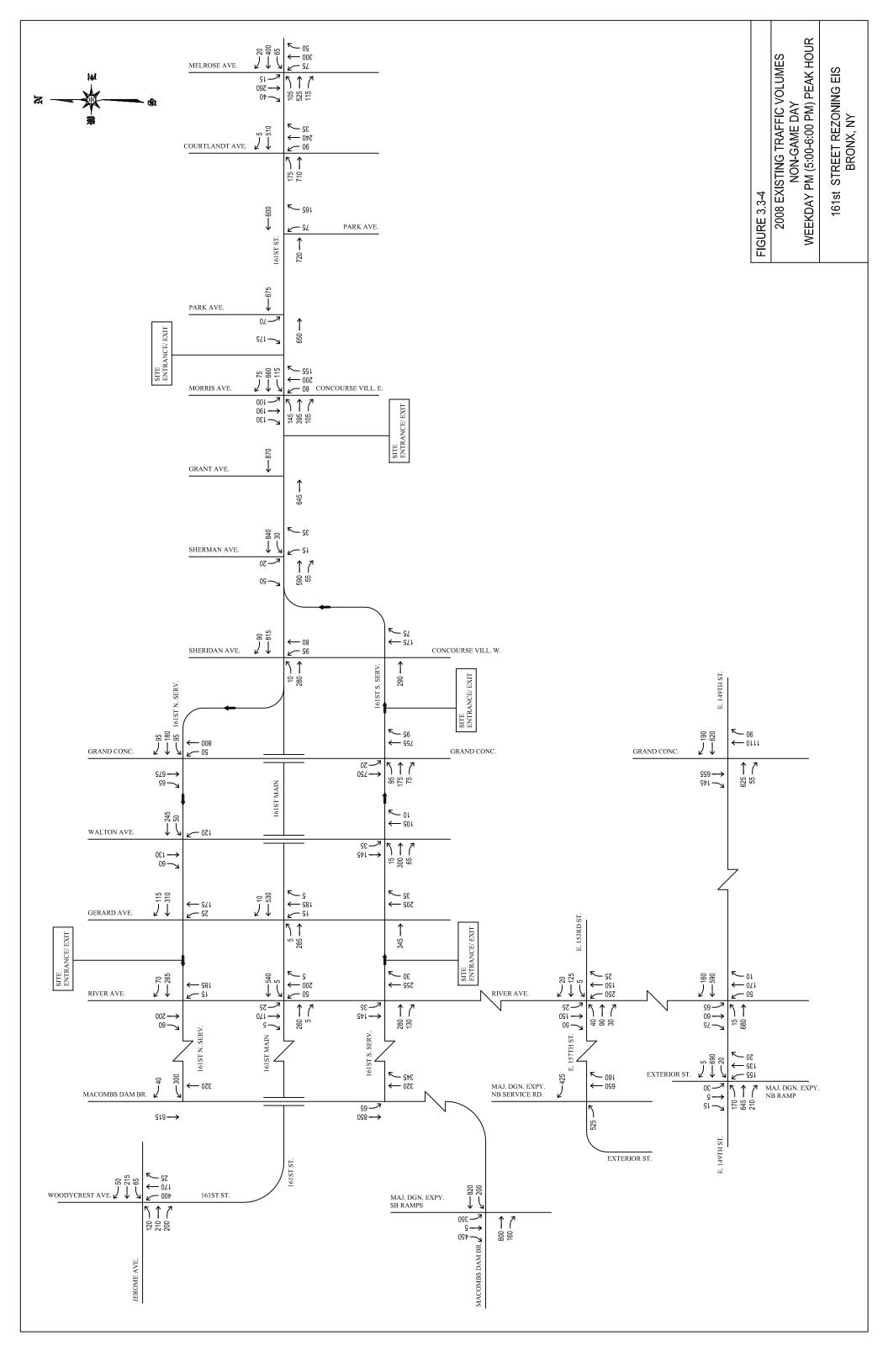
<u>Melrose Avenue</u> is a two-way, north-south local street that extends between the intersection of Park, Brook and Webster Avenues with E. 165th Street to the north to the Hub area of the Bronx to the south. Its direct two-way connection between these important travel nodes, its role as a bus route (Bx2 and Bx41), and its path through an area that has grown substantially in recent years all add to its importance to the community and to the volume of traffic in both directions. Melrose Avenue carries two travel lanes in each direction with curbside parking along portions of both sides of the roadway.

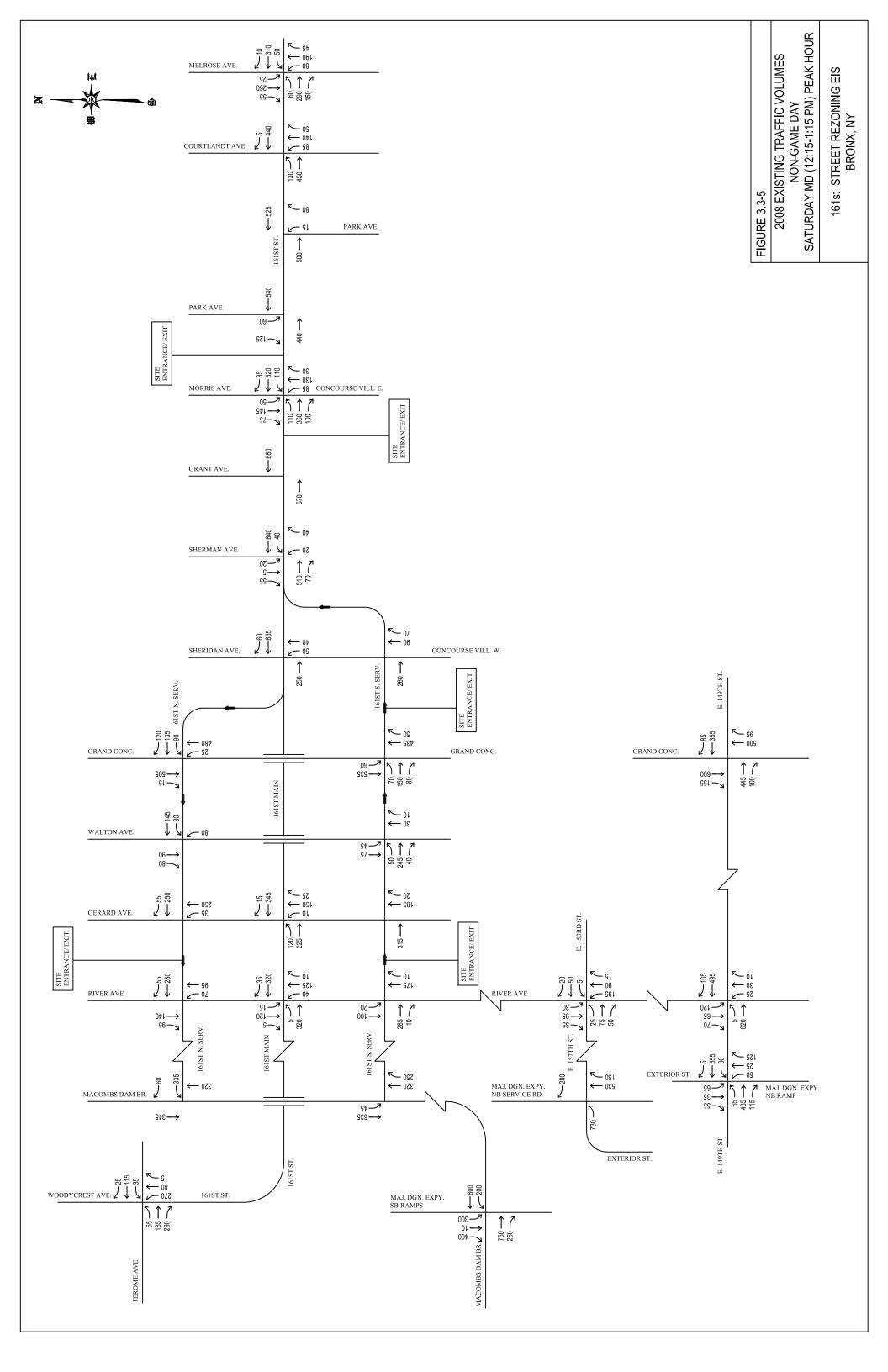
<u>Morris Avenue</u> is an important north-south roadway connecting to the 3rd Avenue Bridge to Manhattan in the south and ending in the Jerome Park area in the northwestern section of the Bronx. Within the project study area, it handles a portion of the Bx32 bus route and generally carries traffic in one lane in each direction with parking on both sides along most of these sections.

<u>Grand Concourse</u> is one of the Bronx's most important and historic arterials, extending virtually the entire length of the borough, from E. 138th Street in the south to the Mosholu Parkway in the north. Within the study area, it has the highest north-west volumes of any of the area's north-south arterials, but only intersects with the north and south service roads of E. 161st Street (the main roadway of which passes beneath the Grand Concourse). The Bx1 and Bx2 bus routes to Manhattan (over the Madison Avenue Bridge) utilize the Grand Concourse south of E. 161st Street. A relatively wide roadway









over its entire length, it carries 2-3 lanes in both directions within the study area, with parking in various portions of both sides of the street.

<u>River Avenue</u>, which extends from Jerome Avenue on the north to E. 149th Street and the 145th Street Bridge to Manhattan on the south, is the fourth busiest north-south local arterial in the study area. It provides access to Yankee Stadium and to the No. 4, B and D subway lines which run in a viaduct over this roadway within the study area. It intersects with both the main lanes and north/south service roads of E. 161st Street, and generally carries 1-2 lanes of traffic in both directions, with traffic flows complicated by the transit viaduct's supporting columns in many areas.

Capacity Analysis

The capacity analyses for the study area intersections are based on the methodologies described in the 2000 Highway Capacity Manual (HCM) and were conducted using Highway Capacity Software Plus (HCS+) Release 5.21. Data collected in the field for these analyses included vehicle turning movement and classification counts on each approach, lane configurations and lane widths on each approach, signal timing parameters and phasing sequences for signalized intersections, curbside parking regulations, and various other physical and operational characteristics. The signal phasing sequences and timing plans used in the analyses of each signalized intersection were obtained from the NYCDOT and verified in the field.

For signalized intersections, the *HCM* methodology calculates volume-to-capacity (v/c) ratios and delays (seconds per vehicle) for lane groups/ movements and approaches. The v/c ratio represents the ratio of traffic volumes on the approach to the approach's vehicle-carrying capacity. At v/c ratios between 0.95 and 1.00, traffic volumes approach capacity and delays to motorists could become substantial. Volume-to-capacity ratios exceeding 1.00 indicate saturated conditions, typically characterized by long delays and building queues.

The *HCM* methodology also expresses the quality of flow for individual lane groups and approaches in terms of level-of-service (LOS) based on the average control delay that motorists experience when traveling through the intersection. Control delay includes delays associated with acceleration, deceleration, and queue move-up time, in addition to stopped delay at the intersection. For signalized intersections, LOS ranges on a letter-grade scale from "A" (average control delays of 10 seconds or less per vehicle) to "F" (average control delays exceeding 80 seconds per vehicle).

For unsignalized intersections, the *HCM* methodology assumes that major street through and right-turning traffic is unaffected by turning movements from the minor street. Left-turns from the major street are assumed to be affected by the opposing (oncoming) major street traffic flow. Minor street traffic movements are affected by all of the conflicting higher-priority movements described above.

As with signalized intersections, the *HCM* methodology for unsignalized intersections expresses the quality of flow in terms of both v/c ratio and a letter-grade LOS, with LOS based on the average control delay experienced by motorists making left-turns from the major street or turns

from the minor street approach. However, the relationships between delay and LOS for unsignalized intersections are different from those for signalized intersections, primarily because motorists expect different levels of performance from these two types of intersections. For unsignalized intersections, LOS ranges from "A" (average control delays of 10 seconds or less per vehicle) to "F" (average control delays exceeding 50 seconds per vehicle).

Table 3.3-1 shows the relationships between average control delay and LOS for signalized and unsignalized intersections using the *HCM* methodologies. Levels-of-service "A", "B" and "C" generally represent extremely favorable to fair levels of traffic flow. At LOS "D", delays increase and the influence of congestion becomes noticeable. LOS "E" is considered to be the limit of acceptable delay for most motorists. LOS "F" is considered to be unacceptable to most motorists, with traffic flow at, or exceeding, the capacity of the roadway. (A poor delay associated with a relatively low v/c ratio may indicate an inadequate traffic signal setting.) For the purposes of this study, a signalized approach or lane group operating at LOS "E" or "F" was classified as congested. For unsignalized intersections, an approach (or lane group) operating at LOS "E" or "F" is also classified as congested.

Level-of-Service	Average Control Delay (s	seconds per vehicle)
Level-01-Sel vice	Signalized Intersections	Unsignalized Intersections
А	≤ 10	≤ 10
В	$> 10 \text{ and } \le 20$	$> 10 \text{ and } \le 15$
С	$> 20 \text{ and } \le 35$	> 15 and \leq 25
D	$> 35 \text{ and } \le 55$	> 25 and \leq 35
Е	$> 55 \text{ and } \le 80$	$> 35 \text{ and } \le 50$
F	> 80	> 50

Table 3.3-1: Level-of-Service Criteria

Source: 2000 Highway Capacity Manual.

Based on the existing traffic volumes shown in Figures 3.3-2 through 3.3-5, intersection capacity analyses were conducted according to the *HCM* methodologies described above. Table 3.3-2 shows the results of the existing traffic conditions capacity analyses at the 28 study intersections during the weekday AM, midday and PM weekday peak hours and in the Saturday midday peak. Existing traffic conditions along the four major study area corridors are described more fully below.

It is important to note that the intersections of 149th St/Exterior/River and 149th/Grand Concourse are also analyzed as part of *Lower Concourse Rezoning EIS*. The weekday AM and PM peak hours for that study are essentially the same as the weekday AM and PM peak hours for this study. However, because that project encompasses a different geography, the weekday and Saturday midday peak hours are significantly different. Therefore, the capacity analysis results for those peak hours may or may not be the same for both studies, although they will certainly be very close.

				Veekday AM Peak Hour			day Midday Peak Hour			Veekday PM Peak Hour			lay Midday Peak Hour 15 to 1:15 p	. ,
Intersection	Approach	Lane Group	(7:4 v/c	5 to 8:45 a. Delay	.m.) LOS	(1:0 v/c	0 to 2:00 p Delay	1.05	(5:0 v/c	0 to 6:00 p Delay	1.05	(12:1 v/c	Delay	Í
			110	(sec/veh)	200	1/0	(sec/veh)	200	1,0	(sec/veh)	200	1,0	(sec/veh)	200
						TERSECT								
		L TR	0.24	19.7 20.5	BC	0.32	20.9 20.1	C C	0.45 0.45	24.2 20.4	C C	0.17	18.2 20.4	B C
	EB	T	0.46	20.5		0.43	20.1		0.45	20.4		0.45	20.4	
1. 161st Street		R												
at Jerome Avenue	WB	L TR	0.50	27.2 23.2	C C	0.29	21.2	C B	0.28	21.2 18.6	C B	0.16	18.7 19.2	B
		LT	0.32	14.7	B	0.24	17.8 14.0	B	0.31	16.3	B	0.32	13.9	B
	NB	R	0.12	12.9	В	0.03	12.0	В	0.07	12.5	В	0.03	12.0	В
	Ov	erall	0.40	19.3	В		17.9	B		18.6	B	0.05	17.8	B
	WB	L R	0.46	25.7 20.8	C C	0.39 0.14	24.3 21.0	C C	0.55	27.8 21.0	C C	0.65	30.1 21.5	C C
2. 161st Street N. Service Road at Macombs Dam Br. Approach	NB	T	0.32	11.3	B	0.21	10.3	B	0.21	10.3	B	0.19	10.1	B
at Macombs Dam Br. Approach	SB	Т	0.47	12.8	В	0.31	11.2	В	0.41	12.2	В	0.19	10.2	В
	Ov WB	erall TR	0.22	14.5 14.7	B	0.24	13.7 14.9	B	0.31	15.3 15.7	B	0.37	17.5 11.3	B
4. 161st Street N. Service Road	NB	LT	0.22	7.5	A	0.24	5.0	A	0.31	6.0	A	0.57	11.3	B
at River Avenue	SB	TR	0.60	28.2	С	0.52	25.9	С	0.58	27.5	С	0.70	29.3	С
	-	erall	0.00	18.7	В	0.04	17.9	B	0.40	17.3	B	0.04	17.5	В
	EB WB	LTR LTR	0.30	15.5 15.9	B	0.21 0.28	14.6 15.2	B	0.19 0.42	14.4 16.7	B	0.34	10.8 10.4	B
5. 161st Street Main Road at River Avenue	NB	LTR	0.43	6.9	A	0.24	5.3	A	0.49	7.8	A	0.48	8.9	A
at River Avenue	SB	LTR	0.39	6.2	A	0.34	5.8	A	0.35	5.9	A	0.31	7.0	Α
	EB OV	rerall TR	0.46	12.3	B	0.33	11.5 15.8	B	0.40	12.7 16.7	B	0.71	9.8	AB
6. 161st Street S. Service Road	NB	TR	0.46	26.5	C	0.33	23.2	C	0.40	30.5	C	0.71	31.0	C
at River Avenue	SB	LT	0.35	5.9	A	0.38	6.3	A	0.33	5.9	A	0.26	6.5	A
-	-	erall		16.9	В		14.5	В		18.6	В		18.2	В
7. 161st Street N. Service Road	WB NB	TR LT	0.19	6.3 19.1	A B	0.21	6.5 18.5	A B	0.29	7.0 22.3	A C	0.23	8.3 10.4	A B
at Gerard Avenue		erall	0.20	9.8	A	0.21	9.1	A	0.00	11.6	B	0.00	9.4	A
		LT	0.26	6.7	A	0.16	6.1	A	0.17	6.2	A	0.35	9.4	А
8 161at Streat Main Dood	EB	DefL T												
 8. 161st Street Main Road at Gerard Avenue 	WB	TR	0.23	6.6	 A	0.18	6.2	 A	0.29	6.9	 A	0.25	8.4	A
	NB	LTR	0.37	20.3	C	0.39	20.7	C	0.53	23.0	С	0.34	8.1	A
		erall	0.00	8.6	A	0.05	9.0	A	0.07	10.1	В	0.07	8.7	A
9. 161st Street S. Service Road	EB NB	T TR	0.22	6.5 35.1	A D	0.25	6.7 38.0	A D	0.27	6.8 55.8	A E	0.27	8.6 19.0	A B
at Gerard Avenue		erall	0.01	15.5	B	0.01	15.9	B	0.00	24.6	C	0.01	12.7	B
	WB	LT	0.14	9.8	Α	0.14	9.8	A	0.18	10.1	В	0.16	10.6	В
10. 161st Street N. Service Road	NB SB	L TR	0.27	18.6 50.1	B	0.31	18.6 38.4	B	0.61	25.7 43.2	C D	0.24	8.7 25.9	A C
at Walton Avenue		erall	0.01	28.9	C	0.04	38.4 22.0	C	0.13	43.2 24.7	C	0.01	25.9 16.3	B
	EB	LTR	0.28	10.9	В	0.36	11.8	B	0.36	11.8	B	0.27	11.4	В
11. 161st Street S. Service Road	NB	TR	0.28	28.0	C	0.24	27.2	C	0.42	30.4	C	0.16	16.3	B
at Walton Avenue	SB	L T	0.23	17.2 12.3	B	0.33 0.22	18.4 10.0	B A	0.21	17.3 11.6	B	0.11 0.14	7.2 2.8	A
	Ov	erall		14.0	B		14.2	В		15.4	B		10.2	B
	WB	LTR	0.31	22.5	С	0.32	20.2	C	0.38	23.5	С	0.37	20.9	C
12. 161st Street N. Service Road	NB	L T	0.41 0.45	8.8 2.8	A A	0.16 0.37	4.5 3.9	A	0.26	4.0 3.3	A	0.11 0.36	4.2 3.8	A
at Grand Concourse	00	T	0.43	18.8	B	0.37	19.2	B	0.33	17.6	B	0.30	19.5	B
	SB	R	0.05	16.5	В	0.09	19.2	В	0.12	17.4	В	0.03	18.5	В
			0.31	13.9 22.4	B	0.20	13.5 19.8	B	0.33	12.5	B C	0.27	14.2	B
	EB NB	LTR TR	0.31	19.3	C B	0.30	19.8 21.9	B C	0.33	22.7 21.5	C	0.27	19.4 20.5	B C
13. 161st Street S. Service Road at Grand Concourse	SB	L	0.18	3.0	Α	0.13	4.5	A	0.13	3.0	A	0.22	5.1	A
		T	0.45	2.5	A	0.26	3.3	A	0.33	2.1	A	0.25	3.3	A
	Ov EB (Main)	erall LT	0.57	11.3 15.4	B	0.34	14.6 11.9	B	0.35	14.7 11.9	B	0.37	13.2 12.7	B
	EB (Service)	T	0.57	9.6	A	0.34	10.0	B	0.35	10.0	A	0.37	12.7	B
14.&15. 161st Street at Concourse Village West/	WB	TR	0.41	12.2	В	0.38	11.9	В	0.50	13.3	В	0.52	13.7	В
Sheridan Avenue	NB	R LTR	0.12	10.4 21.3	B	0.14	10.5 20.0	B C	0.16	10.7 21.2	B	0.14	11.4 10.5	B
									U.20					

Table 3.3-2 Year 2008 Non-Game Day Existing Traffic Conditions 161st Street Rezoning - Bronx, NY

Overall NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound

NB

LTR

L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn, DefL = de facto left-turn

С

В

0.15

20.0

12.2

С

В

21.3

14.1

0.27

0.26

21.2

13.5

С

В

0.14

B B

В

10.5

12.5

v/c = volume-to-capacity ratio, LOS = Level-of-Service

Table 3.3-2 Year 2008 Non-Game Day Existing Traffic Conditions 161st Street Rezoning - Bronx, NY

Intersection	Approach	Lane Group		/eekday AN Peak Hour 5 to 8:45 a.			day Midday Peak Hour 0 to 2:00 p.	. ,		Veekday PM Peak Hour 0 to 6:00 p.			lay Midday Peak Hour I5 to 1:15 p	. ,
intersection	Approach	Lane Group	v/c	Delay (sec/veh)	LOS									
	EB	TR	0.43	8.1	A	0.37	7.5	A	0.36	7.5	A	0.37	8.8	A
16. 161st Street	WB	LT L	0.51	9.0 26.8	A C	0.72	13.3 29.4	B C	0.62	10.7 30.5	B C	0.50	10.1 15.1	B
at Sherman Avenue	NB	R	0.08	26.1	c	0.24	29.4	c	0.27	27.1	c	0.10	15.6	B
	SB	LTR	0.06	25.7	C	0.10	28.0	C	0.68	44.6	D	0.32	17.1	B
	Ov	verall		9.0	Α		12.3	В		13.1	В		10.5	В
17. 161st Street	EB	Т	0.40	12.1	В	0.40	12.1	В	0.40	12.1	В	0.35	11.6	В
at Grant Avenue	WB	Т	0.51	13.5	В	0.51	13.6	В	0.59	14.8	В	0.42	12.4	В
	Ov	verall		12.9	В		12.9	В		13.7	В		12.0	В
	EB	DefL LTR	0.77	32.9	C B			 B		36.4	 D		 10.4	 B
18. 161st Street	WB	LTR	0.68	19.7 14.7	B	0.55	15.0 15.3	B	0.93	36.4	C	0.51	10.4	B
at Concourse Village East/	NB	LTR	0.93	56.1	E	0.81	35.9	D	0.91	51.7	D	0.81	33.9	C
Morris Avenue	SB	LTR	0.96	61.3	Ē	0.85	39.1	D	0.97	64.3	E	0.81	33.0	Č
	Ov	verall		34.3	С		23.2	С		42.2	D		18.4	В
	EB	Т	0.38	12.0	В	0.47	13.1	В	0.47	13.1	В	0.36	8.8	Α
19. 161st Street	WB	Т	0.30	1.7	Α	0.33	1.8	Α	0.44	2.2	Α	0.35	1.5	A
at Park Avenue West	SB	LR	0.66	33.4	С	0.62	31.7	С	0.89	53.1	D	0.58	23.0	С
		verall	0.42	12.2	В	0.42	12.0	B	0.51	16.2	B	0.42	8.0	A
20. 161st Street	EB WB	T T	0.40	2.0 10.6	A B	0.48	2.4 10.9	A B	0.51 0.56	2.6 11.9	A B	0.40	1.7 8.5	A
at Park Avenue East	NB	LR	0.24	10.6 32.8	C	0.28	28.3	C	0.56	47.8	D	0.33	8.5 18.9	B
at rank Avenue Laot		verall	5.05	10.2	в	0.00	8.5	A	0.04	13.8	B	0.00	6.3	A
	EB	LT	0.58	15.2	B	0.70	18.0	B	0.90	29.2	C	0.51	10.5	B
21. 161st Street	WB	TR	0.22	10.5	B	0.25	10.0	B	0.36	11.7	B	0.33	8.5	Α
at Courtlandt Avenue	NB	LTR	1.05	87.7	F	0.80	40.4	D	0.99	69.4	E	0.81	34.0	С
		verall		35.8	D		21.3	С		33.2	С		15.5	В
	EB	LTR	0.52	24.0	С	0.65	27.7	С	0.86	38.2	D	0.51	24.2	С
	WB	LTR	0.19	19.0	В	0.46	23.6	С	0.59	26.3	С	0.39	22.0	С
22. 161st Street	NB	LTR	1.03	77.0	E	0.48	24.6	С	0.75	34.4	С	0.76	36.6	D
at Melrose Avenue	NB	L TR												
	SB	LTR	0.64	28.9	C	0.45	23.9	C	0.57	26.9	C	0.61	28.1	С
	-	verall	0.01	41.0	D	0.10	25.6	Č	0.01	32.7	č	0.01	27.3	č
	EB	TR	0.83	29.7	C	0.93	34.0	C	0.74	26.0	C	0.89	33.5	C
23. Macombs Dam Bridge	WB	L	0.79	38.0	D	0.88	52.1	D	0.75	30.9	C	0.85	47.9	D
at Major Deegan Expy. (I-87)		Т	0.56	15.8	В	0.33	12.9	В	0.47	14.4	В	0.44	14.1	В
Southbound Ramps	SB	LTR	0.83	31.1	С	0.62	24.4	С	0.66	25.3	С	0.58	23.6	С
		verall		26.3	С		28.3	С		22.7	С		26.6	С
	NEB	L	0.31	25.9	С	0.37	26.7	C	0.52	27.8	C	0.92	46.8	D
24. E. 157th Street	WB	R T	0.57	34.1	C F	0.61	34.8	C	0.62	33.7	C	0.61	34.3	C F
at Major Deegan Expy. (I-87) Northbound Off-Ramp	NB	R	1.05 0.61	85.8 33.9	F C	1.04 0.37	80.3 27.8	F	1.04 0.21	79.0 24.5	E C	1.05 0.29	83.3 25.8	C
Nonhoodha Oll-Namp	Ov	verall	0.01	53.0	D	0.37	50.5	D	0.21	47.6	D	0.23	53.5	D
	EB	LTR	0.62	29.0	C	0.40	23.8	C	0.30	22.1	C	0.33	16.5	B
	WB	LTR	0.18	20.7	C	0.26	22.0	C	0.43	25.0	C	0.25	15.8	B
25 E 153rd Street		LTR	0.67	21.0	С	0.63	18.9	В	0.78	25.4	С	0.53	12.3	В
25. E. 153rd Street at River Avenue	NB	DefL												
		TR												
	SB	LTR	0.56	15.3	B	0.38	12.9	B	0.46	13.9	B	0.26	8.5	A
	00		0.90	20.9	C D	0.61	18.8	B C	1.05	21.7	C	0.67	12.9	B C
	EB	LTR L	0.80	37.5	D 	0.61	30.6	С 	1.05	77.1	E	0.67	32.0	
		TR												
		LTR	0.61	30.6	С	0.46	27.4	С	0.72	34.2	С	0.46	27.2	С
	WB	L												
		TR												1
	NB	LTR				0.61	46.5	D	0.57	44.6	D	0.15	37.0	D
26.&27. E. 149th Street	(Exterior)	DefL TR	0.46	51.4 38.9	D D									
at River Avenue/ Exterior Street/		LTR	0.24	38.9								0.46	43.0	 D
Major Deegan Expy. (I-87)	NB	DefL	1.05	119.8	F	0.70	57.7	Е	0.69	55.3	Е			
Northbound Off-Ramp	(Ramp)	TR	0.78	62.0	E	0.49	46.6	D	0.61	49.7	D			
		LTR	0.77	66.3	E	0.31	41.5	D	0.35	43.2	D	0.83	72.3	E
	SB (Ext)	DefL												
		Т												
	0.0	R												
	SB (River)	L TR	0.67	55.2 63.0	E	0.33	42.9	D	0.51	50.4	D	0.53	47.6	D
	(River)	verall	0.83	63.0 50.4	D	0.41	42.3 36.9	D	0.48	44.1 57.0	D	0.39	41.7	D
	EB	TR	0.72	36.9	D	0.51	28.8	C	0.72	36.7	D	0.53	37.3 29.1	C
	WB	TR	0.72	36.9	C	0.51	20.0	C C	0.72	37.6	D	0.55	29.1	c
28. E. 149th Street	NB	TR	0.39	16.5	B	0.53	20.8	C	0.57	19.1	B	0.32	17.7	B
at Grand Concourse	SB	TR	0.38	16.3	В	0.35	18.1	B	0.44	17.2	В	0.41	18.9	В
	Ov	verall		25.2	С		23.5	С		26.3	С		22.2	С
				UNSIGN	ALIZED	NTERSEC	TIONS							
	NB	TR		UNSIGN	ALIZED	NTERSEC	TIONS							
3. 161st Street S. Service Road at Macombs Dam Br. Approach*		TR LT	0.08	UNSIGN 11.0		NTERSEC	1	 A	0.10	9.7	 A	0.06	 9.2	 A

 Image: Construct of the second sec

E. 161st Street Corridor

The study intersections along the E. 161^{st} Street corridor include signalized intersections from Jerome Avenue and the access ramps to the Macombs Dam Bridge on the west to Melrose Avenue on the east. A summary of traffic operations at each of the study intersections along the E. 161^{st} Street corridor is provided below:

- <u>E. 161st Street/Jerome Avenue</u> The eastbound and westbound approaches currently operate at LOS "B" or "C" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour. The northbound approach currently operates at LOS "B" during these same four peak hours.
- <u>E. 161st Street N. Service Road at Macombs Dam Br. Approach</u> The eastbound, westbound and northbound approaches all currently operate at LOS "B" or "C" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour.
- <u>E. 161st Street N. Service Road at River Avenue</u> The westbound through-right movement currently operates at LOS "B" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour. The northbound left-through movement currently operates at LOS "A" or "B" during the four peak hours, while the southbound through-right movement currently operates at LOS "C" during those periods..
- <u>E. 161st Street Main Road at River Avenue</u> The eastbound and westbound approaches both currently operate at LOS "B" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, while the northbound and southbound approaches currently operate at LOS "A" during those periods..
- <u>E. 161st Street S. Service Road at River Avenue</u> The eastbound, northbound and southbound approaches currently operate at LOS "A," "B" or "C" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour.
- <u>E. 161st Street N. Service Road at Gerard Avenue</u> The westbound and northbound approaches both currently operate at LOS "A" or "B" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, except for the northbound approach in the PM peak, when LOS "C" conditions currently exist..
- <u>E. 161st Street Main Road at Gerard Avenue</u> The eastbound and westbound approaches both currently operate at LOS "A" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the northbound approach currently operates at LOS "C" in the three weekday peaks and LOS "A" in the Saturday midday peak hour.
- <u>E. 161st Street S. Service Road at Gerard Avenue</u> The eastbound approach currently operates at LOS "A" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the northbound approach currently operates at LOS "D" in the weekday AM and midday peak hours, LOS "E" in the PM peak hour and LOS "B" in the Saturday midday peak hour.

- <u>E. 161st Street N. Service Road at Walton Avenue</u> The westbound approach currently operates at LOS "A" or "B" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, the northbound approach operates at LOS "B" or "C" in the three weekday peak hours and LOS "A" in the Saturday midday peak hour, and the southbound approach operates at LOS "D" in the three weekday peak hours and LOS "C" in the Saturday midday peak hour.
- <u>E. 161st Street S. Service Road at Walton Avenue</u> The eastbound and northbound approaches currently operate at LOS "B" or "C" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the southbound approach turning movements operate at LOS "A" or "B" in all four peak hours..
- <u>E. 161st Street N. Service Road at Grand Concourse</u> The westbound and northbound approaches both currently operate at LOS "C" and "A" respectively during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the southbound approach operates at LOS "B" during all four peak periods.
- <u>E. 161st Street S. Service Road at Grand Concourse</u> The eastbound and northbound approaches both currently operate at LOS "B" or "C" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the southbound approach operates at LOS "A" during all four peak periods.
- <u>E. 161st at Concourse Village West/Sheridan Avenue</u> The eastbound main and service road approaches both currently operate at LOS "A" or "B" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, the westbound approach operates at LOS "B" in all four peak periods, and the northbound approach operates at LOS "B" or "C" in all four peak periods.
- <u>E. 161st Street at Sherman Avenue</u> The eastbound and westbound approaches both currently operate at LOS "A" or "B" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, the northbound approach operates at LOS "C" in the three weekday peak periods and LOS "B" in the Saturday midday peak, the southbound approach operates at LOS "C" in the weekday AM and midday peak periods, LOS "D" in the PM peak and LOS "B" in the Saturday midday peak period.
- <u>E. 161st Street at Grant Avenue</u> The eastbound and westbound approaches both currently operate at LOS "B" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour.
- <u>E. 161st Street at Concourse Village East/Morris Avenue</u> The eastbound approach currently operates at LOS "B" or "C" during the weekday AM and midday peaks and the Saturday midday peak, and LOS "D" in the PM peak hour, the westbound approach operates at LOS "B" or "C" in the four peak hours, the northbound approach operates at LOS "E" in the weekday AM peak, LOS "D" in the weekday midday and PM peaks, and LOS "C" in the Saturday midday peak hour, and the southbound approach operates at

LOS "E" in the weekday AM and PM peaks, LOS "D" in the weekday midday peak, and LOS "C" in the Saturday midday peak hour

- <u>E. 161st Street at Park Avenue West</u> The eastbound and westbound approaches both currently operate at LOS "A" or "B" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the southbound approach operates at LOS "C" in the weekday AM and midday peaks and the Saturday midday peak and LOS "D" in the weekday PM peak hour.
- <u>E. 161st Street at Park Avenue East</u> The eastbound and westbound approaches both currently operate at LOS "A" or "B" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the southbound approach operates at LOS "C" in the weekday AM and midday peaks, LOS "D in the PM peak and LOS "B in the Saturday midday peak hour.
- <u>E. 161st Street at Courtlandt Avenue</u> The eastbound approach operates at LOS "B" or "C" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, the westbound approach operates at LOS "A" or "B" in the four peak periods, and the northbound approach operates at LOS "F" in the weekday AM peak, LOS "D" in the weekday midday peak, LOS "E" in the PM peak, and LOS "C" in the Saturday midday peak.
- <u>E. 161st Street at Melrose Avenue</u> The eastbound approach currently operates at LOS "C" in the weekday AM and midday peaks and the Saturday midday peak, and LOS "D" in the PM peak hour, the westbound approach operates at LOS "B" or "C" in the four peak periods, the northbound approach operates at LOS "E" in the weekday AM peak, LOS "C" in the weekday midday and PM peaks, and LOS "D" in the Saturday midday peak, and the southbound approach operates at LOS "C" in all four peak periods.
- <u>Macombs Dam Bridge at MDE (I-87) Southbound Ramps</u> The eastbound approaches currently operates at LOS "C" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, the westbound left approach operates at LOS "D" in the weekday AM and midday peaks and the Saturday midday peak and LOS "C" in the PM peak, the westbound through movement operates at LOS "B" in all four peak periods, and the southbound approach operates at LOS "C" in all four peak periods.

Additional Analysis Locations

<u>E. 157th Street at MDE (I-87) Northbound Off-Ramp</u> – The north/eastbound approach currently operates at LOS "C" in the weekday AM, midday and PM peak hours and LOS "D in the Saturday midday peak hour, the westbound approach operates at LOS "C" in all four peak periods, the northbound through movement operates at LOS "E" or "F" in all four peak periods, and the northbound right movement operates at LOS "C" in all four peak periods.

- E. 153rd Street at River Avenue The eastbound, westbound and northbound approaches currently operate at LOS "B" or "C" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the southbound approach operates at LOS "A" or "B" in the four peak periods..
- E. 149th Street at River Avenue/Exterior Street/ MDE (I-87) Northbound Off-Ramp the eastbound approach operates at LOS "D" during the weekday AM peak, LOS "C" in the midday and Saturday midday peak hours and LOS "E" in the PM peak period, the westbound approach operates at LOS "C" in all four peak periods, the northbound Exterior Street approach operates at LOS "D" in all four peak periods, the northbound ramp approach operates at LOS "E/F" in the weekday AM peak and LOS "D/E" in the midday and PM peaks, the southbound approach operates at LOS "E" in the weekday AM and Saturday midday peaks and LOS "D" in the midday and PM peak periods, and the southbound (River Ave.) approach operates at LOS "E" in the weekday AM peak, and LOS "D" in the midday, PM and Saturday midday peak periods.
- E. 149th Street at Grand Concourse The eastbound and westbound approaches both currently operate at LOS "C" or "D" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the northbound and southbound approaches both operate at LOS "B" or "C" in the four peak periods.
- E. 161st Street S. Service Road at Macombs Dam Br. Approach (unsignalized under existing conditions but signalized under all future conditions) - the northbound and southbound approaches to this presently unsignalized intersection currently operate at LOS "A" or "B during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour.

FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION)

In the future without the proposed action, the existing zoning controls would remain in place and as-of-right development would be expected to occur on some of the 11 projected development sites. As presented in the RWCDS discussion in Chapter 2.0 ("Project Description"), it is expected that on the 11 projected development sites, the following additional development would occur under existing zoning over the 2008 to 2018 period:

As-of-Right Deve	elopment: No-	Action Conditions ^{**}
Retail	SF	(4,289)
Office	SF	-
Community Facility	SF	11,720
Residential	DU	295
Parking	Spaces	-

As-of-Right Development: No-Action Conditions**

** See Chapter 2.0 for further details

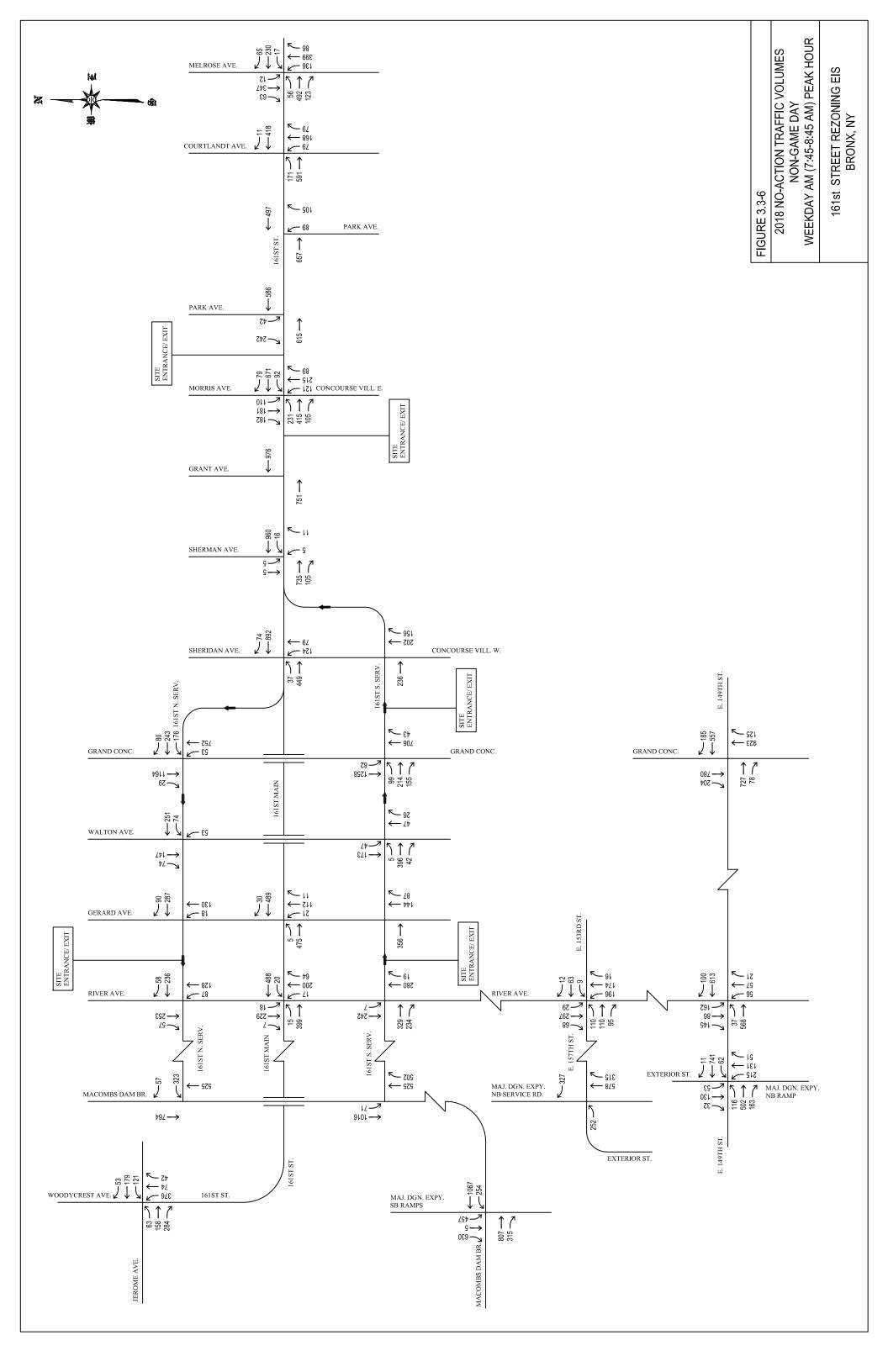
During the 2008 to 2018 period, it is also expected that transportation demands in the study area would change due to specific development projects in the area, as well as general background growth over time. In order to forecast these future demands without the proposed rezoning action, an annual growth rate of 0.5 percent (0.5%) was applied to the existing traffic volumes (in accordance with recommendations described in the *CEQR Technical Manual*), and traffic volumes associated with the specific development projects ("soft sites") described below were added to the adjusted traffic volumes (see Tables 3.3-4A and 3.3-4B) to arrive at 2018 No-Action traffic volumes. In addition, where appropriate, mitigation measures associated with these soft sites were also incorporated into the transportation analyses.

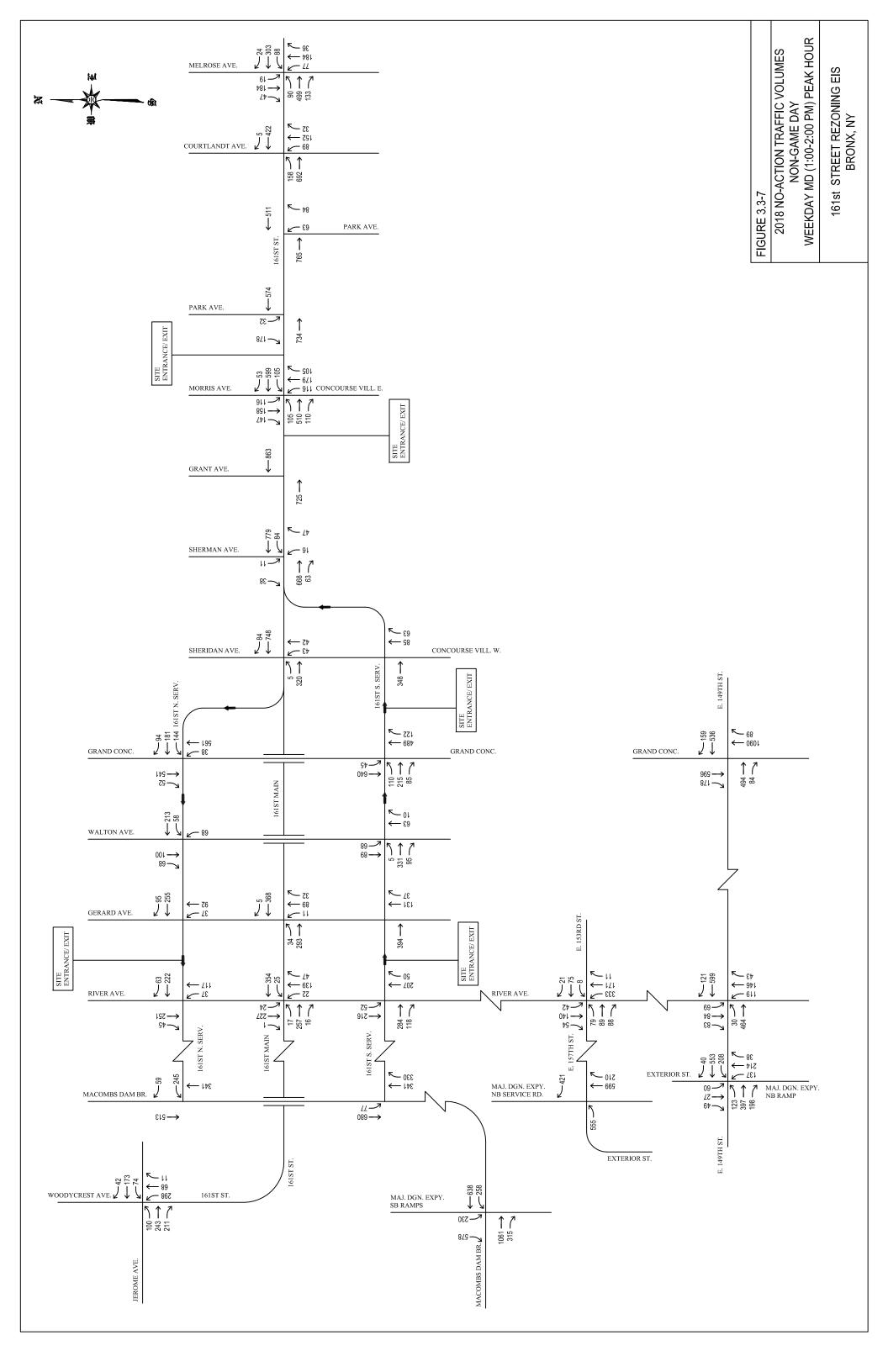
The following are the known projects that will be considered in the analysis of the future without the proposed actions. Projects generally within one-half mile of the rezoning area were initially considered. However, only those projects that would add more than 50 vehicular trips within the study area in any peak hour were included in the No-Action analysis. Further details on these projects are included in Chapter 2.0 of this EIS:

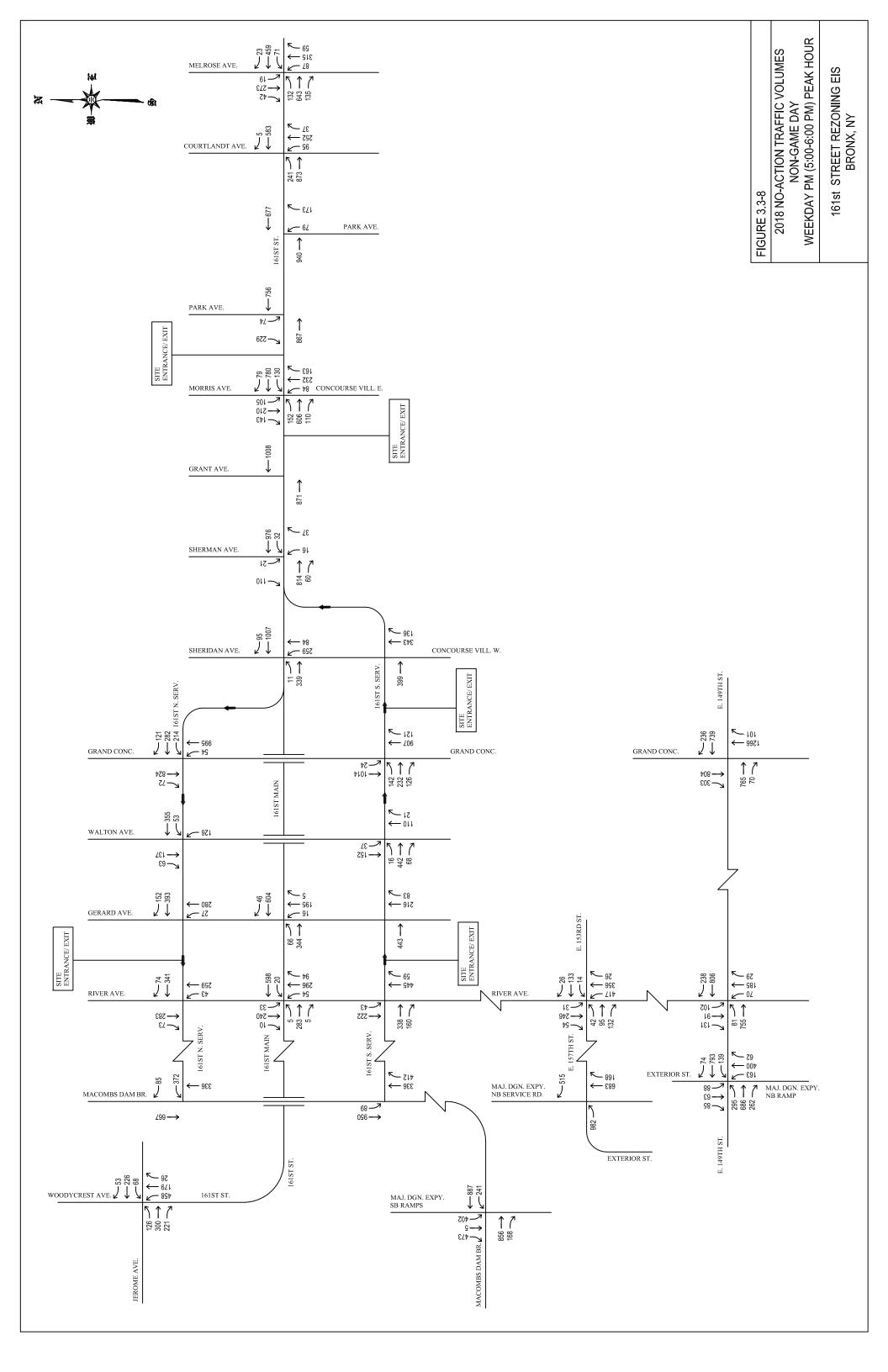
- <u>580 River Avenue</u>: 500 residential units.
- <u>Mott Haven Campus</u>: four school facilities at 3001 Concourse Village East -- two 550seat high schools, one 575-seat combined intermediate and high school, and one 550-seat charter school.
- <u>The Gateway Center at the Bronx Terminal Market</u>: 2,600-space parking garage and approximately one million square feet of retail space; bordered by East 153rd Street, Major Deegan Expressway, and Cromwell Avenue.
- <u>Lower Concourse Rezoning</u>: proposed rezoning of a 30-block area surrounding the lower end of the Grand Concourse, map a new waterfront park, establish a Waterfront Access Plan, make the provisions of Inclusionary Zoning applicable in the area, and other related actions; bounded by the Harlem River to the west, E. 149th Street to the north, Morris and Lincoln Avenues to the east, and the Major Deegan Expressway to the south, with a development potential for 3,414 dwelling units, 571,162 sq. ft. of new retail space, 164,285 sq. ft. of new hotel space (combined for a total of 735,447 sq. ft.), an increase of 63,700 of community facility space, and a net reduction of 598,351 sq. ft. of office space and a net reduction of 308,872 sq. ft. of industrial space.
- <u>Boricua College</u>: 750 residential units, 50,000 sq. ft. of retail space, and a 120,000 sq. ft. college tower.

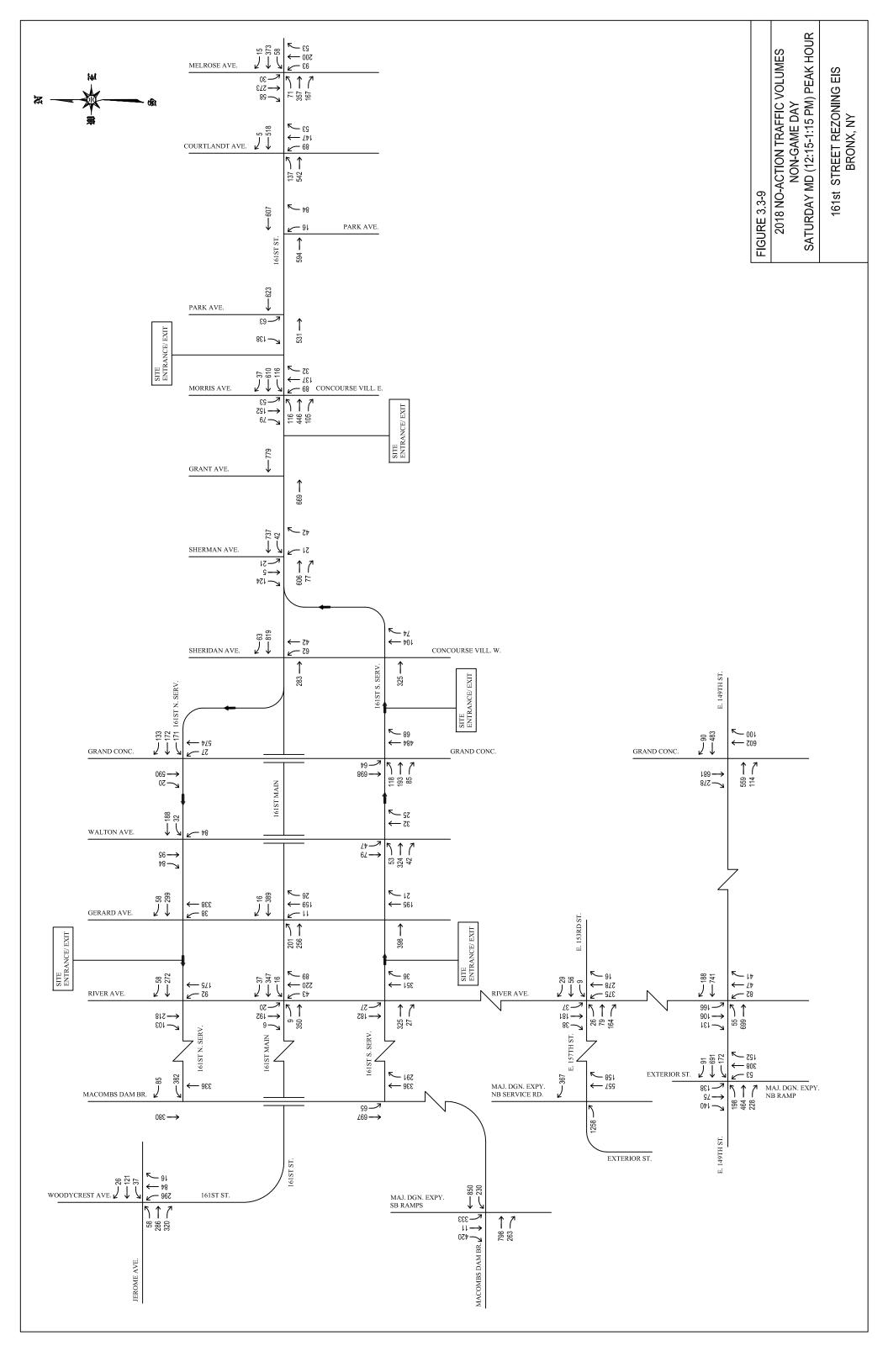
Figures 3.3-6 through 3.3-9 show the projected year 2018 No-Action traffic volumes at each study intersection during the weekday AM, midday and PM peak hours and the Saturday midday peak hour, respectively, for the Non-Game Day analysis.

Besides generating additional traffic, some of the above projects, namely the Bronx Terminal Market EIS and Yankee Stadium EIS, recommend improvements which were considered in the









No Action condition, and carried over to the future Action condition. These improvements are described below:

- <u>E. 161st Street/Jerome Avenue</u> A right-turn lane will be added on the Jerome Avenue eastbound approach. The eastbound approach will provide one left-turn lane, two through lanes and one right-turn lane for future operation.
- <u>E. 161st Street S. Service Road at Macombs Dam Br. Approach</u> The current unsignalized intersection will be upgraded to a signalized intersection.
- <u>E. 161st Street at River Avenue</u> Parking will be prohibited on northbound approach, and signal timing will be optimized.
- <u>E. 161st Street N. Service Road at Walton Avenue</u> –The Walton Avenue southbound approach will become a two-lane approach.
- <u>E. 157th Street at MDE (I-87) Northbound Off-Ramp</u> –The northbound and northeastbound approaches will share the same phase. Signal phase will be changed to combine the unconflicting E. 157th Street northeastbound left-turn and the I-87 off-ramp northbound through movements together.
- <u>E. 153rd Street at River Ave.</u> –The signal timing will be optimized during the PM period.
- <u>E. 149th Street at River Avenue/Exterior Street/ MDE (I-87) Northbound Off-Ramp</u>– Intersection geometry and signal timing will be improved. A left-turn lane will be provided on eastbound and westbound approaches, respectively. A right-turn lane will be added on the Exterior Street southbound approach.

Capacity Analysis

Based on the No-Action traffic volumes shown in Figures 3.3-6 through 3.3-9, intersection capacity analyses were conducted according to the *HCM* methodologies. Table 3.3-3 shows the v/c ratios, average control delays, and levels-of-service under year 2018 No-Action conditions, and compares those results to those under 2008 Existing conditions during each peak hour. As shown in Table 3.3-3, presently congested locations generally become worse, while there would be some newly congested locations in the study area. Overall, under No-Action conditions, of the 28 intersections studied for the Non-Game Day analysis, there would be:

- Seven intersections with one or more congested movements during the weekday AM peak hour (versus five under existing conditions);
- Two intersections during the weekday midday peak hour (versus two under existing conditions);
- Eight intersections during the weekday PM peak hour (versus four under existing conditions); and
- Two intersections during the Saturday midday peak hour (versus two under existing conditions).

Table 3.3-3 Comparison of Non-Game Day 2008 Existing and 2018 No-Action Traffic Conditions 161st Street Rezoning - Bronx, NY

					kday Al :45 to 8							y (MD) 2:00 p.r	Peak Hour n.)					Peak H 00 p.m					Midday 2:15 to 1		Peak Hour m.)	t
Intersection	Approach	Lane Group	20	08 EXISTI	NG	201	8 NO-ACT	ON	20	08 EXISTI	NG	201	18 NO-ACT	ION	2	008 EXISTIN	G	201	18 NO-ACT	ION	20	08 EXISTI	NG	201	18 NO-ACT	ION
			v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS
				1			1		SIC	GNALIZED	INTER	SECTI	ONS					ų								
		L	0.24	19.7	В	0.27	20.5	С	0.32	20.9	С	0.41	23.3	С	0.45	24.2	С	0.63	32.9	С	0.17	18.2	В	0.19	18.6	В
	EB	TR T	0.46	20.5	С				0.43	20.1	С				0.45	20.4	С				0.45	20.4	С			
		R				0.16	16.9 27.4	B				0.24	17.8 23.2	B C				0.30	18.4 23.7	B C				0.28	18.2 25.1	B
1. 161st Street	WB	L	0.50	27.2	С	0.35	21.3	C	0.29	21.2	С	0.24	19.6	В	0.28	21.2	С	0.25	20.0	В	0.16	18.7	В	0.13	17.8	В
at Jerome Avenue	VVD	TR	0.52	23.2	С	0.55	23.9	С	0.24	17.8	В	0.50	22.8	С	0.31	18.6	В	0.65	27.1	С	0.32	19.2	В	0.33	19.4	В
	NB	LT R	0.34 0.12	14.7 12.9	B	0.36	14.9 13.0	B	0.27	14.0 12.0	B	0.29	14.2 12.1	B	0.47	16.3 12.5	B	0.52	17.0 12.5	B	0.26	13.9 12.0	B	0.29	14.1 12.0	B
	Ov	verall	0.12	12.9	B	0.12	20.0	B	0.03	12.0	B	0.03	12.1	B	0.07	12.5	B	0.08	21.5	C	0.03	12.0	B	0.03	12.0	B
		L	0.46	25.7	C	0.60	28.9	C	0.39	24.3	C	0.45	25.5	C	0.55	27.8	C	0.69	32.0	C	0.65	30.1	C	0.74	33.6	C
2. 161st Street N. Service Road	WB	R	0.13	20.8	С	0.20	21.8	С	0.14	21.0	С	0.21	22.0	С	0.14	21.0	С	0.30	23.4	С	0.19	21.5	С	0.27	22.5	С
at Macombs Dam Br. Approach	NB	T T	0.32	11.3	В	0.34	11.4	В	0.21	10.3	В	0.22	10.4	В	0.21	10.3	В	0.22	10.4	В	0.19	10.1	В	0.20	10.2	В
	SB	verall	0.47	12.8 14.5	B	0.51	13.4 15.8	B	0.31	11.2 13.7	B	0.34	11.5 14.4	B	0.41	12.2 15.3	B	0.45	12.6 17.2	B	0.19	10.2 17.5	B	0.21	10.3 19.2	B
	WB	TR	0.22	14.7	B	0.34	21.0	C	0.24	14.9	B	0.33	20.9	C	0.31	15.7	B	0.48	23.0	C	0.37	11.3	В	0.45	13.5	B
4. 161st Street N. Service Road	NB	LT	0.42	7.5	Α	0.48	4.6	Α	0.19	5.0	Α	0.26	2.1	Α	0.34	6.0	Α	0.47	3.5	Α	0.57	12.7	В	0.91	34.8	С
at River Avenue	SB	TR	0.60	28.2	С	0.53	20.6	С	0.52	25.9	С	0.49	19.8	В	0.58	27.5	С	0.62	22.9	С	0.70	29.3	С	0.84	35.9	D
		verall	0.00	18.7	В	0.44	16.6	В	0.04	17.9	В	0.00	16.7	B	0.40	17.3	B	0.00	17.7	В	0.04	17.5	В	0.40	26.7	B
	EB WB	LTR LTR	0.30	15.5 15.9	B	0.44	22.3 22.9	C C	0.21 0.28	14.6 15.2	B	0.29	20.3 21.9	C C	0.19 0.42	14.4 16.7	B	0.29	20.3 24.6	C C	0.34	10.8 10.4	B	0.42	12.7 12.3	B
5. 161st Street Main Road	NB	LTR	0.43	6.9	A	0.44	3.1	A	0.24	5.3	A	0.38	2.7	A	0.49	7.8	A	0.74	8.2	A	0.48	8.9	Ā	1.01	42.7	D
at River Avenue	SB	LTR	0.39	6.2	Α	0.35	2.4	Α	0.34	5.8	Α	0.34	2.3	Α	0.35	5.9	Α	0.42	2.9	Α	0.31	7.0	Α	0.46	6.6	Α
		verall	0.40	12.3	В	0.70	15.1	В	0.00	11.5	В	0.40	13.1	В	0.40	12.7	В	0.00	15.4	В	0.74	9.8	Α		21.1	C
6. 161st Street S. Service Road	EB NB	TR TR	0.46	17.6 26.5	B C	0.70	28.0 19.0	C B	0.33	15.8 23.2	B	0.48	23.0 18.3	C B	0.40	16.7 30.5	B C	0.60	25.3 29.8	C C	0.71	16.6 31.0	B C	0.91 0.90	29.2 41.0	C D
at River Avenue	SB	LT	0.35	5.9	A	0.40	2.3	A	0.37	6.3	A	0.41	2.7	A	0.03	5.9	A	0.44	3.2	A	0.70	6.5	A	0.90	8.4	A
	-	verall	0.00	16.9	В		19.9	B		14.5	В		15.9	В		18.6	В		22.3	С		18.2	В		29.3	C
7. 161st Street N. Service Road	WB	TR	0.19	6.3	Α	0.25	6.7	Α	0.21	6.5	Α	0.24	6.6	Α	0.29	7.0	Α	0.38	7.7	Α	0.23	8.3	A	0.26	8.5	Α
at Gerard Avenue	NB	LT	0.29	19.1	В	0.37	20.2	С	0.24	18.5	В	0.33	19.6	В	0.50	22.3	С	0.77	31.3	С	0.55	10.4	В	0.72	14.2	В
	0	verall LT	0.26	9.8 6.7	A	0.27	10.3 6.8	A	0.16	9.1 6.1	A	0.25	9.9 6.7	A	0.17	11.6 6.2	B A	0.42	15.6 8.4	A	0.35	9.4 9.4	A		11.6	B
	EB	DefL																						0.57	16.1	В
8. 161st Street Main Road		Т																						0.34	9.6	Α
at Gerard Avenue	WB	TR	0.23	6.6	Α	0.24	6.6	Α	0.18	6.2	Α	0.20	6.4	Α	0.29	6.9	Α	0.37	7.5	Α	0.25	8.4	A	0.28	8.6	Α
	NB	LTR	0.37	20.3	C	0.39	20.5	C	0.39	20.7	C	0.41	21.1	C	0.53	23.0	С	0.56	23.6	С	0.34	8.1	A	0.36	8.2	AB
	EB	rerall TR	0.22	8.6 6.5	A	0.28	8.7 6.9	A	0.25	9.0 6.7	A	0.31	9.1 7.1	A	0.27	10.1 6.8	A	0.35	10.6 7.4	A	0.27	8.7 8.6	A	0.34	9.2	A
9. 161st Street S. Service Road	NB	TR	0.54	35.1	D	1.01	87.3	F	0.61	38.0	D	0.64	39.3	D	0.86	55.8	E	1.20	149.4	F	0.51	19.0	В	0.54	19.6	B
at Gerard Avenue		verall		15.5	В		36.2	D		15.9	В		15.6	В		24.6	С		59.3	E		12.7	В		12.8	В
	WB	LT	0.14	9.8	A	0.20	10.2	В	0.14	9.8	A	0.16	10.0	A	0.18	10.1	В	0.25	10.6	В	0.16	10.6	В	0.21	10.9	В
10. 161st Street N. Service Road at Walton Avenue	NB SB	L TR	0.27	18.6 50.1	B	0.24	17.4 28.8	B C	0.31 0.64	18.6 38.4	B	0.28	17.6 27.6	B C	0.61 0.73	25.7 43.2	C D	0.55	22.4 28.2	C C	0.24	8.7 25.9	A C	0.22	8.1 17.2	A B
at Walton Avenue		verall	0.01	28.9	C	0.40	18.3	в	0.04	22.0	C	0.31	17.5	B	0.75	24.7	C	0.30	18.2	B	0.01	16.3	В	0.30	12.7	B
	EB	LTR	0.28	10.9	В	0.41	12.2	B	0.36	11.8	В	0.43	12.5	В	0.36	11.8	В	0.49	13.3	В	0.27	11.4	В	0.33	11.9	В
11. 161st Street S. Service Road	NB	TR	0.28	28.0	С	0.30	28.2	С	0.24	27.2	С	0.27	27.8	С	0.42	30.4	С	0.49	31.9	С	0.16	16.3	В	0.29	18.0	В
at Walton Avenue	SB	L T	0.23	17.2 12.3	B	0.24	17.4 12.5	B	0.33	18.4 10.0	B	0.35	18.9 10.1	B	0.21 0.38	17.3 11.6	B	0.23	17.7 11.8	B	0.11 0.14	7.2	A	0.13	7.5 2.8	A
	0	verall	0.43	12.3	B	0.45	12.5	B	0.22	14.2	B	0.23	14.7	B	0.36	15.4	B	0.40	16.2	B	0.14	10.2	B	0.14	11.3	B
	WB	LTR	0.31	22.5	C	0.49	25.4	C	0.32	20.2	C	0.40	21.3	C	0.38	23.5	C	0.62	28.3	C	0.37	20.9	C	0.51	23.3	C
	NB	L	0.41	8.8	Α	0.55	16.8	В	0.16	4.5	Α	0.18	4.9	Α	0.26	4.0	Α	0.34	5.8	Α	0.11	4.2	Α	0.14	4.5	Α
12. 161st Street N. Service Road		T	0.45	2.8	A	0.52	3.1	A	0.37	3.9	A	0.42	4.1	A	0.55	3.3	A	0.69	4.4	A	0.36	3.8	A	0.42	4.1	A
at Grand Concourse	SB	T R	0.33	18.8 16.5	B	0.39	19.5 16.6	B	0.17	19.2 19.2	B	0.19	19.5 19.4	B	0.23	17.6 17.4	B	0.27	18.1 17.6	B	0.19	19.5 18.5	B	0.23	19.8 18.7	B
	Ov	verall	0.00	13.9	B	0.00	15.6	B	0.09	13.5	B	0.11	19.4	B	0.12	17.4	B	0.14	17.0	B	0.03	14.2	B	0.00	15.4	B
	EB	LTR	0.31	22.4	C	0.46	24.8	C	0.30	19.8	B	0.37	20.8	С	0.33	22.7	С	0.49	25.3	C	0.27	19.4	В	0.35	20.6	С
13. 161st Street S. Service Road	NB	TR	0.36	19.3	В	0.43	20.3	С	0.38	21.9	С	0.41	22.4	С	0.50	21.5	С	0.61	23.6	С	0.27	20.5	С	0.32	21.0	С
at Grand Concourse	SB	L T	0.18	3.0 2.5	A	0.43	7.5 2.9	A	0.13	4.5 3.3	A	0.22	5.6	A	0.13	3.0 2.1	A	0.21	5.0 2.5	A	0.22	5.1 3.3	A	0.26	5.8 3.5	A
	0	verall	0.45	2.5 11.3	B	0.55	2.9 12.6	B	0.20	3.3 14.6	B	0.30	3.4 15.0	A B	0.33	2.1 14.7	B	0.44	2.5 16.0	B	0.25	3.3 13.2	B	0.33	3.5 13.6	B
	EB (Main)	LT	0.57	15.4	B	0.64	17.2	B	0.34	11.9	В	0.38	12.3	B	0.35	11.9	В	0.42	12.9	В	0.37	12.7	B	0.42	13.3	B
14.&15. 161st Street	EB (Service)	TR	0.12	9.6	Α	0.13	9.8	Α	0.17	10.0	В	0.20	10.2	В	0.16	10.0	Α	0.23	10.4	В	0.19	10.8	В	0.24	11.1	В
at Concourse Village West/	WB	LTR	0.41	12.2	В	0.55	13.9	В	0.38	11.9	В	0.46	12.7	В	0.50	13.3	В	0.62	15.1	В	0.52	13.7	В	0.64	15.5	В
Sheridan Avenue	NB	R LTR	0.12 0.27	10.4 21.3	B C	0.13	10.4 22.7	B C	0.14 0.15	10.5 20.0	B	0.15	10.6 20.1	B C	0.16 0.26	10.7 21.2	B	0.16	10.8 24.3	B C	0.14	11.4 10.5	B	0.15	11.5 10.6	B
		verall	0.21	21.3 14.1	B	0.30	15.6	B		20.0 12.2	B		20.1 12.7	B	0.20	13.5	B	0.49	24.3 15.7	B	0.14	10.5 12.5	B	0.15	10.6 13.6	B
NP - porthbound SP - couthbour							13.0	0		12.2			12.1	0		10.0	0		13.7	0		12.5			13.0	

NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound

L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn v/c = volume-to-capacity ratio, LOS = Level-of-Service

Table 3.3-3 Comparison of Non-Game Day 2008 Existing and 2018 No-Action Traffic Conditions 161st Street Rezoning - Bronx, NY

						M Peak 3:45 a.n						y (MD) F 2:00 p.n	Peak Hour n.)					Peak H 00 p.m.					Midday 2:15 to		Peak Hou m.)	r
Intersection	Approach	Lane Group	20	08 EXISTI	NG	201	8 NO-ACT	ION	20	08 EXISTI	NG	201	8 NO-ACT	ION	2	2008 EXISTING	G	201	18 NO-ACT	ION	20	08 EXISTI	NG	201	8 NO-ACT	ION
			v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS
	EB	TR	0.43	8.1	А	0.48	8.7	А	0.37	7.5	А	0.41	7.9	А	0.36	7.5	А	0.48	8.6	А	0.37	8.8	А	0.44	9.4	А
10 101 101 1	WB	LT	0.51	9.0	A	0.66	11.3	В	0.72	13.3	В	0.84	18.4	В	0.62	10.7	В	0.74	13.5	В	0.50	10.1	В	0.58	11.2	В
16. 161st Street at Sherman Avenue	NB	L R	0.08	26.8 26.1	C C	0.08	26.8 26.1	C C	0.24 0.15	29.4 27.6	C C	0.26	30.0 27.6	C C	0.27	30.5 27.1	C C	0.41 0.12	36.3 27.2	D C	0.10	15.1 15.6	B	0.12	15.4 15.7	B
at onemian Avenue	SB	LTR	0.06	25.7	c	0.04	25.7	c	0.19	28.0	č	0.13	35.0	c	0.68	44.6	D	1.25	175.5	F	0.32	17.1	B	0.64	25.7	C
		erall		9.0	Α		10.5	В		12.3	В		15.8	В		13.1	В		30.6	С		10.5	В		12.4	В
17. 161st Street	EB	T	0.40	12.1	В	0.47	12.9	B	0.40	12.1	B	0.45	12.7	В	0.40	12.1	В	0.54	13.9	B	0.35	11.6	B	0.41	12.3	В
at Grant Avenue	WB	erall	0.51	13.5 12.9	B	0.66	16.2 14.8	B	0.51	13.6 12.9	B	0.58	14.7 13.8	B	0.59	14.8 13.7	B	0.68	16.7 15.4	B	0.42	12.4 12.0	B	0.48	13.1 12.7	B
		DefL	0.77	32.9	C	1.14	122.4	F																		
18. 161st Street	EB	TR	0.68	19.7	В	0.82	26.6	С	0.55	15.0	В	0.65	17.1	В	0.93	36.4	D	1.28	155.4	F	0.51	10.4	В	0.61	11.9	В
at Concourse Village East/	WB	LTR	0.56	14.7	B	0.76	19.8	B	0.56	15.3	B	0.67	17.6	B	0.92	32.4	C	1.23	131.7	F	0.55	11.0	B	0.66	12.8	B
Morris Avenue	NB SB	LTR LTR	0.93	56.1 61.3	E	1.04	83.2 91.6	F	0.81	35.9 39.1	D	0.87	41.5 46.6	D	0.91 0.97	51.7 64.3	D	1.02	74.0 99.5	E	0.81	33.9 33.0	C C	0.87	40.3 38.9	D
		erall	0.00	34.3	С	1101	54.3	D	0.00	23.2	C	0.01	26.5	C	0.01	42.2	D	1.00	126.0	F	0.01	18.4	B	0.00	21.1	C
	EB	Т	0.38	12.0	В	0.45	12.8	В	0.47	13.1	В	0.53	14.0	В	0.47	13.1	В	0.63	15.7	В	0.36	8.8	Α	0.44	9.5	Α
19. 161st Street	WB	Т	0.30	1.7	A	0.38	2.0	A	0.33	1.8	A	0.37	1.9	A	0.44	2.2	A	0.49	2.5	A	0.35	1.5	A	0.41	1.7	A
at Park Avenue West	SB	LR	0.66	33.4 12.2	C B	0.93	60.4 18.7	B	0.62	31.7 12.0	C B	0.69	34.8 12.8	C B	0.89	53.1 16.2	D	1.01	78.6 21.8	E C	0.58	23.0 8.0	C A	0.63	24.9 8.6	C
	EB	T	0.40	2.0	A	0.46	2.3	A	0.48	2.4	A	0.54	2.8	A	0.51	2.6	A	0.66	3.8	A	0.40	1.7	A	0.48	2.0	A
20. 161st Street	WB	T	0.24	10.6	В	0.31	11.3	В	0.28	10.9	В	0.32	11.3	В	0.56	11.9	В	0.43	12.5	В	0.33	8.5	Α	0.38	8.9	Α
at Park Avenue East	NB	LR	0.63	32.8	С	0.70	36.2	D	0.50	28.3	C	0.53	29.1	C	0.34	47.8	D	0.88	53.3	D	0.38	18.9	B	0.39	19.3	В
	EB Ov	erall LT	0.58	10.2 15.2	B	0.76	11.0 20.0	B	0.70	8.5 18.0	A B	0.81	8.8 22.2	A C	0.90	13.8 29.2	B	1.01	14.2 49.9	B D	0.51	6.3 10.5	A B	0.60	6.5 11.9	A B
21. 161st Street	WB	TR	0.58	10.5	В	0.76	11.2	B	0.70	10.7	B	0.81	11.1	B	0.90	11.7	B	0.41	12.3	B	0.33	8.5	A	0.80	9.0	A
at Courtlandt Avenue	NB	LTR	1.05	87.7	F	1.11	106.5	F	0.80	40.4	D	0.84	44.2	D	0.99	69.4	Е	1.04	82.8	F	0.81	34.0	С	0.85	37.6	D
		erall		35.8	D		40.8	D		21.3	С		24.0	С		33.2	С		46.0	D		15.5	В		16.6	В
	EB	LTR LTR	0.52	24.0	C	0.58	25.4	C	0.65	27.7	C	0.77	32.4	C	0.86	38.2	D	1.11	98.9	F	0.51	24.2	C	0.64	27.3	C
	WB	LTR	1.03	19.0 77.0	B	0.28	20.3 123.4	C F	0.46	23.6 24.6	C C	0.57	26.3 26.4	C C	0.59	26.3 34.4	C C	0.74	32.0 42.5	C D	0.39	22.0 36.6	C D	0.51	24.2 48.9	C
22. 161st Street	NB	L																								
at Melrose Avenue		TR																								
	SB	LTR	0.64	28.9	С	0.69	30.5	С	0.45	23.9	C	0.49	24.9	C	0.57	26.9	C	0.62	28.5	C	0.61	28.1	C	0.66	29.9	C
	EB	erall TR	0.83	41.0 29.7	D	0.89	54.5 33.4	D	0.93	25.6 34.0	<u>с</u> С	0.98	28.7 42.6	D	0.74	32.7 26.0	C C	0.79	60.5 27.7	C	0.89	27.3 33.5	<u>с</u> С	0.95	31.8 39.7	D
23. Macombs Dam Bridge		L	0.83	38.0	D	1.00	79.6	E	0.93	52.1	D	0.98	74.2	E	0.74	30.9	c	0.79	68.8	E	0.85	47.9	D	0.95	73.7	E
at Major Deegan Expy. (I-87)	WB	Т	0.56	15.8	В	0.60	16.4	В	0.33	12.9	В	0.35	13.1	В	0.47	14.4	В	0.51	14.9	В	0.44	14.1	В	0.47	14.4	В
Southbound Ramps	SB	LTR	0.83	31.1	С	0.90	35.9	D	0.62	24.4	С	0.67	25.5	С	0.66	25.3	С	0.72	26.8	С	0.58	23.6	С	0.63	24.4	С
	NEB	erall	0.31	26.3 25.9	C C		32.3	C	0.37	28.3 26.7	<u>с</u>		34.2	C	0.52	22.7 27.8	C C		27.0	С	0.92	26.6 46.8	D		21.4	C
24. E. 157th Street	WB	R	0.57	34.1	C	0.41	15.9	В	0.61	34.8	c	0.47	16.4	В	0.62	33.7	C	0.50	16.0	В	0.61	34.3	C	0.54	16.8	В
at Major Deegan Expy. (I-87)	NB	Т	1.05	85.8	F	0.37	11.0	В	1.04	80.3	F	0.49	12.0	В	1.04	79.0	E	0.62	12.8	В	1.05	83.3	F	0.83	17.4	В
Northbound Off-Ramp		R	0.61	33.9	С	0.40	12.5	В	0.37	27.8	С	0.24	10.7	В	0.21	24.5	С	0.14	9.2	A	0.29	25.8	С	0.20	9.7	A
	EB	erall LTR	0.62	53.0 29.0	D C	0.65	12.5 30.0	B	0.40	50.5 23.8	D C	0.53	13.0 26.5	B	0.30	47.6 22.1	D C	0.92	13.4 63.4	B	0.33	53.5 16.5	B	0.60	16.8 21.3	B
	WB	LTR	0.02	29.0	C	0.03	21.1	c	0.40	23.8	c	0.33	20.5	c	0.30	25.0	c	0.92	51.7	D	0.33	15.8	B	0.00	16.9	B
25. E. 153rd Street		LTR	0.67	21.0	C				0.63	18.9	B				0.78	25.4	C				0.53	12.3	В			
at River Avenue	NB	DefL				0.70	27.2	С				0.87	37.8	D				0.98	49.3	D				0.81	25.1	С
	SB	TR LTR	0.56	 15.3	 B	0.28	11.8 17.1	B	0.38	12.9	 B	0.26	11.6 14.3	B	0.46	13.9	 B	0.45	8.5 9.4	A	0.26	8.5	 A	0.56	12.4 10.0	B
		erall	0.00	20.9	C	0.04	21.2	C	0.30	12.9	B	0.40	23.8	C	0.40	21.7	C	0.00	32.3	C	0.20	0.5 12.9	B	0.40	17.3	B
		LTR	0.80	37.5	D				0.61	30.6	C				1.05	77.1	E				0.67	32.0	C			
	EB	L				0.62	31.7	С				0.47	23.9	С				1.30	190.2	F				0.83	48.3	D
		TR LTR	0.61	30.6	 C	0.62	23.4	C	0.46	27.4	 C	0.57	22.3	C	0.72	34.2	 C	0.80	28.9	C	0.46	27.2	 C	0.63	23.5	C
	WB	L				0.52	28.4	C				0.95	70.5	E				1.00	102.0	F				0.87	59.1	E
		TR				0.43	19.8	В				0.32	18.2	В				0.44	19.8	В				0.40	19.3	В
	NB	LTR							0.61	46.5	D	1.09	111.8	F	0.57	44.6	D	0.99	83.9	F	0.15	37.0	D			
26.&27. E. 149th Street	(Exterior)	DefL TR	0.46	51.4 38.9	D	1.08	171.2 40.0	F D																1.03	138.3 40.9	F
at River Avenue/ Exterior Street/	NB	LTR										0.93	65.0	Е				1.13	119.5	F	0.46	43.0	D	1.00	76.3	E
Major Deegan Expy. (I-87) Northbound Off-Ramp	(Ramp)	DefL	1.05	119.8	F	1.24	183.3	F	0.70	57.7	E				0.69	55.3	Е									
	(TR	0.78	62.0	E	0.85	63.4	E	0.49	46.6	D				0.61	49.7	D									
		LTR DefL	0.77	66.3	E	0.50	44.4	 D	0.31	41.5	D	0.75	 74.0	 E	0.35	43.2	D	 1.75	428.2	 F	0.83	72.3	Е	2.16	604.9	 F
	SB (Ext)	T				0.37	37.5	D				0.12	33.5	C				0.24	35.2	D				0.25	35.4	D
		R				0.14	34.0	С				0.25	35.7	D			: (0.39	38.3	D				0.55	42.5	D
	SB (River)	L TR	0.67	55.2 63.0	E	0.96	94.6 106.9	F	0.33	42.9 42.3	D	0.76	77.1 47.3	E D	0.51 0.48	50.4 44.1	D	1.14	132.0	F	0.53	47.6 41.7	D	0.99	79.6	E
		erall	0.83	50.4	D	1.05	106.9 56.8	E	0.41	42.3 36.9	D	0.65	47.3 49.3	D	0.48	44.1 57.0	E		83.9	F	0.39	41.7 37.3	D		73.4	E
	EB	TR	0.72	36.9	D	0.84	42.4	D	0.51	28.8	C	0.58	30.5		0.72	36.7	D	0.89	46.4	D	0.53	29.1	C	0.65	31.9	C
28. E. 149th Street	WB	TR	0.65	34.5	С	0.76	38.0	D	0.56	29.8	С	0.65	32.0	С	0.75	37.6	D	0.91	47.4	D	0.38	26.3	С	0.48	28.0	С
at Grand Concourse	NB	TR	0.39	16.5	В	0.46	17.4	B	0.53	20.8	С	0.58	21.8	С	0.57	19.1	В	0.64	20.7	C	0.32	17.7	B	0.38	18.5	В
	SB	TR	0.38	16.3 25.2	B	0.45	17.2 27.6	B	0.35	18.1 23.5	В С	0.42	19.1 24.9	B	0.44	17.2 26.3	B	0.62	20.4 31.6	с с	0.41	18.9 22.2	B	0.55	21.1 24.1	С С
		v. un		23.2	U U		21.0	U U			013		24.3			20.0	Ŭ		51.0	U U		22.2	U U		24.1	

Table 3.3-3 Comparison of Non-Game Day 2008 Existing and 2018 No-Action Traffic Conditions 161st Street Rezoning - Bronx, NY

					kday Al ':45 to 8						Midday :00 to 2		Peak Hour n.)			Weeko (5:0		Peak H 00 p.m.						(SAT) 1:15 p.r	Peak Hour m.)	
Intersection	Approach	Lane Group	2	008 EXISTI	NG	201	8 NO-ACT	ION	20	008 EXISTI	NG	201	18 NO-ACT	ON	2	008 EXISTIN	9	201	8 NO-ACT	ION	20	08 EXISTI	NG	201	8 NO-ACT	ION
intersection	дриоасн		v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS
									UNS	GIGNALIZE	d inte	RSECT	IONS*													
3. 161st Street S. Service Road	NB	TR				0.71	17.2	В				0.46	12.9	В				0.52	13.6	В				0.44	12.6	В
at Macombs Dam Br. Approach*	SB	LT	0.08	11.0	В	0.58	1.2	A	0.08	9.4	A	0.37	0.6	A	0.10	9.7	A	0.52	1.0	A	0.06	9.2	A	0.36	0.5	A
at Macorribs Darri Br. Approach	Ov	/erall					8.7	Α					6.1	Α					6.0	Α					5.9	Α

Intersection of 161st Street at Macombs Dam Bridge is unsignalized in Existing condition, but signalized in all future conditions.
 NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound
 L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn v/c = volume-to-capacity ratio, LOS = Level-of-Service

Table 3.3-4A Estimated Peak Hour Person-Trip Generation Characteristics by Development Site 161st Street Rezoning - Bronx, New York NO-ACTION CONDITIONS

Site #1a												
Land Use	Size (sq.	No. of Dwelling	Weekday Daily	Saturday	Temp	oral Distribution	(%) ^{2,3}		Estima	ated Person-Trip G	eneration Character	istics
Land Use	ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Retail (local)	5,000	0	205 trips per 1,000 gross square-feet	488 trips per 1,000 gross square-feet	3.1%	19.0%	9.6%	9.5%	32	195	98	232
Office	39,000	0	18 trips per 1,000 gross square-feet	1.6 trips per 1,000 gross square-feet	11.8%	15.0%	13.7%	15.0%	83	105	96	9
	TOTALS =	0				TOTAL P	PERSON-TRIPS =		115	300	195	241

Site #1b												
	Sizo (ca	No. of Dwelling	Weekday Daily	Saturday	Temp	oral Distribution	(%) ^{2,3}		Estima	ated Person-Trip G	eneration Characte	ristics
Land Use	512e (Sq. ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Retail (local)	9,778	0	205 trips per 1,000 gross square-feet	488 trips per 1,000 gross square-feet	3.1%	19.0%	9.6%	9.5%	62	381	192	453
Residential	73,022	73	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	54	28	63	41
	TOTALS =	73				TOTAL F	PERSON-TRIPS =		116	409	256	495

Site #2a

	Size (ca	No. of Dwelling	Weekday Daily	Saturday	Temp	oral Distribution	(%) ^{2,3}		Estima	ated Person-Trip Ge	eneration Characte	ristics
Land Use	ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Retail (local)	7,702	0	205 trips per 1,000 gross square-feet	488 trips per 1,000 gross square-feet	3.1%	19.0%	9.6%	9.5%	49	300	152	357
Residential	57,537	58	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	43	22	50	33
	TOTALS =	58				TOTAL F	PERSON-TRIPS =		92	322	202	390

Site #2b

	Sizo (ca	No. of Dwelling	Weekday Daily	Saturday	Temp	oral Distribution	(%) ^{2,3}		Estima	ated Person-Trip Ge	eneration Character	ristics
Land Use	512e (5q. ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Retail (local)	5,000	0	205 trips per 1,000 gross square-feet	488 trips per 1,000 gross square-feet	3.1%	19.0%	9.6%	9.5%	32	195	98	232
Office	6,000	0	18 trips per 1,000 gross square-feet	1.6 trips per 1,000 gross square-feet	11.8%	15.0%	13.7%	15.0%	13	16	15	1
	TOTALS =	0				TOTAL	PERSON-TRIPS =		45	211	113	233

Site #3												
	Size (sa	No. of Dwelling	Weekday Daily	Saturday	Tem	ooral Distribution	(%) ³		Estima	ated Person-Trip Ge	eneration Characte	ristics
Land Use	ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Retail (local)	40,000	0	205 trips per 1,000 gross square-feet	488 trips per 1,000 gross square-feet	3.1%	19.0%	9.6%	9.5%	254	1,558	787	1,854
	TOTALS =	0				TOTAL F	PERSON-TRIPS =		254	1,558	787	1,854

Site #4												
	Size (sa	No. of Dwelling	Weekday Daily	Saturday	Tem	poral Distribution	(%) ²		Estima	ated Person-Trip G	eneration Characte	ristics
Land Use	512e (Sq. ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Office	201,500	0	18 trips per 1,000 gross square-feet	1.6 trips per 1,000 gross square-feet	11.8%	15.0%	13.7%	15.0%	428	544	497	48
	TOTALS =	0				TOTAL	PERSON-TRIPS =		428	544	497	48

Site #5												
	Sizo (ca	No. of Dwelling	Weekday Daily	Saturday	Temp	oral Distribution	(%) ^{2,3}		Estima	ated Person-Trip G	eneration Characte	ristics
Land Use	512e (5q. ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Retail (local)	4,070	0	205 trips per 1,000 gross square-feet	488 trips per 1,000 gross square-feet	3.1%	19.0%	9.6%	9.5%	26	159	80	189
Community Facility ⁴	4,070	0	44.7 trips per 1,000 gross square-feet	26.6 trips per 1,000 gross square-feet	4.0%	9.0%	5.0%	10.0%	7	16	9	11
Residential	26,400	26	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	19	10	22	15
	TOTALS =	26				TOTAL F	PERSON-TRIPS =		52	185	112	214

Site #6												
Land Use	Size (sq.	No. of Dwelling	Weekday Daily	Saturday	Tem	ooral Distribution	(%) ²		Estima	ated Person-Trip Ge	eneration Character	ristics
Lanu Ose	ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Community Facility ⁴	7,650	0	44.7 trips per 1,000 gross square-feet	26.6 trips per 1,000 gross square-feet	4.0%	9.0%	5.0%	10.0%	14	31	17	20
Residential	26,824	27	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	20	10	23	15
	TOTALS =	27				TOTAL F	PERSON-TRIPS =		34	41	40	36

Site #7												
	Cine (or	No. of Dwelling	Weekday Daily	Saturday	Tem	ooral Distribution	(%) ²		Estima	ated Person-Trip G	eneration Characte	ristics
Land Use	ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Residential	25,112	25	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	18	9	22	14
	TOTALS =	25				TOTAL F	PERSON-TRIPS =		18	9	22	14

Site #8 Saturday Temporal Distribution (%)² Estima ted Person-Trip Generation Characteristics Weekday Daily Person-Trip Rate¹ Size (sq. No. of Dwelling ft.) Units Land Use Weekday AM Weekday PM SAT MD Weekday AM Weekday MD Weekday PM SAT MD Person-Trip Rate Weekday MD 25 Residential 25,112 8.075 per dwelling unit 8.075 per dwelling unit 9.1% 4.7% 10.7% 7.0% 18 9 22 14 TOTAL PERSON-TRIPS = TOTALS = 25 18 9 22 14

Site #9												
	Size (sa	No. of Dwelling	Weekday Daily	Saturday	Tem	ooral Distribution	(%) ²		Estima	ated Person-Trip G	eneration Characte	ristics
Land Use	ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Residential	25,112	25	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	18	9	22	14
	TOTALS =	25				TOTAL F	PERSON-TRIPS =		18	9	22	14

Site #10												
	Size (sa	No. of Dwelling	Weekday Daily	Saturday	Tem	ooral Distribution	(%) ²		Estima	ated Person-Trip G	eneration Characte	ristics
Land Use	ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Residential	16,629	17	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	12	6	15	10
	TOTALS =	17				TOTAL	PERSON-TRIPS =		12	6	15	10

Site #11									-			
		No. of Dwelling	Weekday Daily	Saturday	Tem	ooral Distribution	(%) ²		Estim	ated Person-Trip G	eneration Characte	ristics
Land Use	512e (Sq. ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Residential	23,543	24	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	18	9	21	14
	TOTALS =	24				TOTAL F	PERSON-TRIPS =		18	9	21	14
	629,061	300							1,220	3,613	2,301	3,577

Footnotes:

1 = All person-trip rates as per CEQR Technical Manual.
2 = Residential and Office temporal distributions as per CEQR Technical Manual.
3 = Retail temporal distributions as per '1251 h Street Rezoning and Other Actions EIS".
4 = Person-trip generation rate and temporal distribution follow "Health Club" as per CEQR Technical Manual.

Table 3.3-4B Estimated Peak Hour Vehicle-Trip Generation Characteristics by Development Site 161st Street Rezoning - Bronx, New York NO-ACTION CONDITIONS

Site #1a	-	-	1				1																ir						×-			7		
Land Use	Sizo (sa ft	No. of .) Dwelling		Person-Trip haracteristi	o Generation ics	1			Estimate	ed Mode Spl	lit (AM, PM,	SAT) ^{2,3}					Estimated	Mode Split	(MD & Re	s-SAT) ^{2,3}				Weekday /		ed Vehicle-T	rip Generat Neekday M		teristics ^{6,7}	Weekday Pl	м		SAT MD	
Land Use	312e (Sq. 11	Units	Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi S	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Retail (local)	5,000	0	32	195	98	232	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0% 1	00.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	1	1	1	7	3	3	3	2	2	8	4	4
Pass-by Trip Reduction ⁵ =	-																						0	0	0	2	1	1	1	0	0	2	1	1
Net New Trips = Office	39.000	0	83	105	96	9	40.0%	2.0%	28.0%	3.0%	15.0%	9.0%	3.0% 1	00.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	1 21	1 20	1	5	2	2	2 25	1	1 23	6 2	3	3
TOTALS =		0	115	300	195	÷	40.070	2.070	20.070	0.070	10.070	0.070	0.070	00.070	0.070	0.070	10.070	0.070	0.070	10.070	0.070	100.070	22	20	1	12	9	3	20	2	25	8	3	5
	•	•		•								•															•				•			
Site #1b	1		Estimated	Porcon-Trin	Generation		1							<u> </u>									I		Fatimat	ed Vehicle-T	inin Conorat	tion Chara	4 a ria 4 a s ^{6,7}			٦		
		No. of		haracteristi					Estimate	ed Mode Spl	lit (AM, PM,	SAT) ^{1,3}					Estimated	Mode Split	(MD & Re	s-SAT) ^{2,3}			-	Weekday /			Neekday M		lensues	Weekday Pl	М		SAT MD	
Land Use	Size (sq. ft	.) Dwelling Units	-	-	Weekday		Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Potoil (local)	9,778	0	AM 62	MD 381	PM 192	453	2.0%	3.0%		0.0%	6.0%			00.0%			6.0%			-	0.0%		_	1	1			6		3	3		8	
Retail (local) Pass-by Trip Reduction ⁵ =	9,778	0	02	301	192	403	2.0%	3.0%	6.0%	0.0%	0.0%	83.0%	0.0% 1	00.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2	0	0	13 3	2	2	2	1	3	15 4	° 2	2
Net New Trips =	=																						2	1	1	10	5	5	5	2	2	11	6	6
Residential	73,022	73	54	28	63	41	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0% 1	00.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	8	1	7	2	0	2	10	7	3	4	3	1
TOTALS =	82,800	73	116	409	256	495																	10	2	8	12	5	7	14	9	5	15	8	7
Site #2a																																		
		No. of		•	Generation	n			Estimate	ed Mode Spl	lit (AM, PM,	SAT) ^{1,3}					Estimated	Mode Split	(MD & Re	s-SAT) ^{2,3}				Weekday /		ed Vehicle-T			teristics ^{6,7}	Weekdey D	N.4		SAT MD	
Land Use	Size (sq. ft		Weekday	haracteristi Weekday		SAT			Т			,															Neekday M			Weekday Pl				
		Units	AM	MD	PM	MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Retail (local)	7,702	0	49	300	152	357	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0% 1	00.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2	1	1	10	5	5	5	3	3	12	6	6
Pass-by Trip Reduction ⁵ = Net New Trips =	-	-																					0	0	0	3	1 4	1 4	1 4	1	1	3	1 4	1
Residential	57,537	58	43	22	50	33	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0% 1	00.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	7	1	6	2	4	2	8	5	2	3	2	4
TOTALS =	65,239	58	92	322	202	390																	8	2	6	9	4	5	11	7	4	12	6	5
0.4 //01																																		
Site #2b			Estimated	Person-Trip	Generation	1	1																		Estimat	ed Vehicle-T	rin Generat	tion Chara	teristics ^{6,7}			٦		
Land Use	Size (sa ft	No. of .) Dwelling		haracteristi					Estimate	ed Mode Spl	lit (AM, PM,	SAT) ^{2,3}					Estimated	Mode Split	(MD & Re	s-SAT) ^{2,3}				Weekday /			Neekday M			Weekday Pl	М		SAT MD	
Land 000	0120 (04.11	Units	Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Retail (local)	5,000	0	32	195	98	232	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0% 1	00.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	1	1	1	7	3	3	3	2	2	8	4	4
Pass-by Trip Reduction ⁵ =	-,							,			,.												0	0	0	2	1	1	1	0	0	2	1	1
																							0				'	1	,					
Net New Trips =										/										(1	1	1	1	5	2	2	2	1	1	6	3	3
Office	= 6,000	0	13	16 211	15	1	40.0%	2.0%	28.0%	3.0%	15.0%	9.0%	3.0% 1	00.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	1 3	1 3	1 0	5 1	2 1	2 0	2 4	1 0 1	4	0	3 0	0
Office	= 6,000 = 11, 000	0 0		16 211		1 233	40.0%	2.0%	28.0%	3.0%	15.0%	9.0%	3.0% 1	00.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%		1 3	1 0	5	2 1	2 0	2 4	1 0 1	4	-	3 0	0
Office	0,000	ÿ	45	211	113	•	40.0%	2.0%	28.0%	3.0%	15.0%	9.0%	3.0% 1	00.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	1 3	1 3	1 0 1	5 1 6	2 1 3	2 0 2	2 4 6	Ţ	4	0	3 0	0
Office TOTALS = Site #3	= 11,000	0 No. of	45 Estimated	211 Person-Trip	113	•	40.0%	2.0%		3.0%			3.0% 1	00.0%	5.0%			0.0%			0.0%	100.0%	1 3	1 3 4	1 0 1 Estimate	5 1 6 ed Vehicle-T	2 1 3	2 0 2 tion Charao	2 4 6	1	4	0	3 0 3	0
Office TOTALS =	= 11,000	No. of	45 Estimated C	211 Person-Trip haracteristi	113 D Generation	n			Estimat	ted Mode Sp	lit (AM, PM	, SAT) ³					Estimated	Mode Split	(MD & Re	s-SAT) ^{2,3}			1 3 4	1 3 4 Weekday /	1 0 1 Estimate	5 1 6 ed Vehicle-T	2 1 3 rip Generat Weekday M	2 0 2 tion Charac	2 4 6	1 Weekday Pl	4 5 M	0 6	3 0 3 SAT MD	0 3
Office TOTALS = Site #3 Land Use	Size (sq. ft	No. of Dwelling Units	45 Estimated C Weekday AM	211 Person-Trip haracteristi Weekday MD	113 D Generation ics Weekday PM	n SAT MD	Auto	Taxi	Estimat	ted Mode Sp Railroad	olit (AM, PM Bus	, SAT) ³ Walk	Other	Total	Auto	Taxi	Estimated Subway	Mode Split	(MD & Res Bus	s-SAT) ^{2,3} Walk	Other	Total	1 3 4 Total	1 3 4 Weekday /	1 0 Estimate	5 1 6 Vehicle-T	2 1 3 rip Generat Weekday M	2 0 2 tion Charac D Out	2 4 6 teristics ^{6,7}	1 Weekday Pl	M Out	0 6 Total	3 0 3 SAT MD In	0 3 Out
Office TOTALS = Site #3 Land Use Retail (local)	= 11,000	No. of	45 Estimated C Weekday	211 Person-Trip haracteristi Weekday	113 o Generation ics Weekday	n SAT			Estimat	ted Mode Sp	olit (AM, PM Bus	, SAT) ³ Walk	Other		Auto	Taxi	Estimated	Mode Split	(MD & Re	s-SAT) ^{2,3}		Total	1 3 4 Total 9	1 3 4 Weekday / In 4	1 0 Estimate M Out 4	5 1 6 Vehicle-T Total 52	2 1 3 rip Generat Weekday Mi In 26	2 0 2 tion Charac D Out 26	2 4 6 teristics ^{6,7} Total 26	1 Weekday Pl In 13	M Out 13	0 6 Total 62	3 0 3 SAT MD In 31	0 3 Out 31
Office TOTALS = Site #3 Land Use	Size (sq. ft	No. of Dwelling Units	45 Estimated C Weekday AM	211 Person-Trip haracteristi Weekday MD	113 D Generation ics Weekday PM	n SAT MD	Auto	Taxi	Estimat	ted Mode Sp Railroad	olit (AM, PM Bus	, SAT) ³ Walk	Other	Total	Auto	Taxi	Estimated Subway	Mode Split	(MD & Res Bus	s-SAT) ^{2,3} Walk	Other	Total	1 3 4 Total	1 3 4 Weekday /	1 0 Estimate	5 1 6 Vehicle-T	2 1 3 rip Generat Weekday M	2 0 2 tion Charac D Out	2 4 6 tteristics ^{6,7} 7 20	Weekday Pl In 13 3 10	M Out	0 6 Total	3 0 3 SAT MD In	0 3 Out
Office TOTALS = Site #3 Land Use Retail (local) Pass-by Trip Reduction ⁵ =	Size (sq. ft 40,000	0 No. of Dwelling Units	45 Estimated C Weekday AM	211 Person-Trip tharacteristi Weekday MD 1,558	0 Generation ics Weekday PM 787	n SAT MD	Auto	Taxi	Estimat	ted Mode Sp Railroad	olit (AM, PM Bus	, SAT) ³ Walk	Other	Total	Auto	Taxi	Estimated Subway	Mode Split	(MD & Res Bus	s-SAT) ^{2,3} Walk	Other	Total	1 3 4 Total 9 0	1 3 4 Weekday / In 4 0 4	1 0 Estimate M Out 4 0	5 1 6 Vehicle-T Total 52 13	2 1 3 rip Generat Weekday Mi In 26 7	2 0 2 tion Charae D Out 26 7	2 4 6 tteristics ^{6,7} Total 26 7	Weekday Pl In 13 3 10	M 0ut 13 3 10	0 6 Total 62 16	3 0 3 SAT MD In 31 8	0 3 Out 31 8
Office TOTALS = Site #3 Land Use Retail (local) Pass-by Trip Reduction ⁵ = Net New Trips = TOTALS =	Size (sq. ft 40,000	0 No. of Dwelling Units	45 Estimated C Weekday AM 254	211 Person-Trip tharacteristi Weekday MD 1,558	0 Generation ics Weekday PM 787	n SAT MD 1,854	Auto	Taxi	Estimat	ted Mode Sp Railroad	olit (AM, PM Bus	, SAT) ³ Walk	Other	Total	Auto	Taxi	Estimated Subway	Mode Split	(MD & Res Bus	s-SAT) ^{2,3} Walk	Other	Total	1 3 4 Total 9 0 9	1 3 4 Weekday / In 4 0 4	1 0 Estimate M 0 4 0 4	5 1 6 Vehicle-T Total 52 13 39	2 1 3 Weekday Mi In 26 7 20	2 0 2 1 2 1 2 0 0 1 2 0 0 0 1 2 0 2 0 2	2 4 6 tteristics ^{6,7} 7 20	Weekday Pl In 13 3 10	M 0ut 13 3 10	0 6 Total 62 16 47	3 0 3 SAT MD In 31 8 23	0 3 Out 31 8 23
Office TOTALS = Site #3 Land Use Retail (local) Pass-by Trip Reduction ⁵ = Net New Trips =	Size (sq. ft 40,000	No. of Dwelling Units	45 Estimated C Weekday AM 254 254 254	211 Person-Trip haracteristi Weekday MD 1,558 1,558	113 O Generation ics Weekday PM 787 787 787	N SAT MD 1,854	Auto	Taxi	Estimat	ted Mode Sp Railroad	blit (AM, PM Bus 6.0%	, SAT) ³ Walk 83.0%	Other	Total	Auto	Taxi 5 3.0%	Estimated Subway 6.0%	Ande Split	(MD & Re: Bus 6.0%	s-SAT) ^{2,3} Walk 83.0%	Other	Total	1 3 4 Total 9 0 9	1 3 4 Weekday / In 4 0 4	1 0 Estimate M 0 4 4 4 4 4 4	5 1 6 Total 52 13 39 39	2 1 3 Weekday M In 26 7 20 20 20	2 0 2 100 Charace D 20 20 20	2 4 6 Total 26 7 20 20	Weekday Pl In 13 3 10	M 0ut 13 3 10	0 6 Total 62 16 47	3 0 3 SAT MD In 31 8 23	0 3 Out 31 8 23
Office TOTALS = Site #3 Land Use Retail (local) Pass-by Trip Reduction ⁵ = Net New Trips = TOTALS = Site #4	Size (sq. ft 40,000	0 0 0 0 0 0 0 0 0 0 0 0 0 0	45 Estimated C Weekday AM 254 254 Estimated	211 Person-Trip haracteristi Weekday MD 1,558 1,558	113 0 Generation ics Weekday PM 787 787 0 Generation 0 Generation	N SAT MD 1,854	Auto	Taxi	Estimat	ted Mode Sp Railroad	blit (AM, PM Bus 6.0%	, SAT) ³ Walk 83.0%	Other	Total	Auto	Taxi 5 3.0%	Estimated Subway 6.0%	Mode Split	(MD & Re: Bus 6.0%	s-SAT) ^{2,3} Walk 83.0%	Other	Total	1 3 4 Total 9 0 9	1 3 4 Weekday / In 4 0 4	1 0 1 Estimate M 0 4 0 4 0 4 Estimate	5 1 6 Vehicle-T Total 52 13 39 39 39 39	2 1 3 Weekday M In 26 7 20 20 20	2 0 2 2 0 0 0 0 0 0 2 6 7 20 20 20 20	2 4 6 Total 26 7 20 20	Weekday Pl In 13 3 10	M Out 13 3 10 10	0 6 Total 62 16 47	3 0 3 SAT MD In 31 8 23	0 3 Out 31 8 23
Office TOTALS = Site #3 Land Use Retail (local) Pass-by Trip Reduction ⁵ = Net New Trips = TOTALS =	Size (sq. ft 40,000	No. of Dwelling Units	45 Estimated Weekday 254 254 Estimated C Weekday	211 Person-Trip haracteristi Weekday MD 1,558 1,558 1,558 Person-Trip haracteristi Weekday	Generation ics Weekday PM 787 787 787 Generation ics	SAT MD 1,854 1,854 1,854 1,854	Auto	Taxi	Estimat Subway 6.0% Estimat	ted Mode Sp Railroad	blit (AM, PM Bus 6.0%	, SAT) ³ Walk 83.0%	Other 1 0.0% 1	Total	Auto 2.0%	Taxi :	Estimated Subway 6.0%	Mode Split	(MD & Re: Bus 6.0%	s-SAT) ^{2,3} Walk 83.0%	Other	Total	1 3 4 Total 9 0 9	1 3 4 Weekday / In 4 0 4 4 4	1 0 1 Estimate M 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4	5 1 6 Vehicle-T Total 52 13 39 39 39 39	2 1 3 rip Generat Weekday Mi In 26 7 20 20 20 rip Generat	2 0 2 100 Charao D 20 20 20 100 Charao D	2 4 6 Total 26 7 20 20	Weekday Pl In 13 3 10 10	M Out 13 3 10 10	0 6 Total 62 16 47	3 0 3 SAT MD In 31 8 23 23	0 3 Out 31 8 23
Office TOTALS = Site #3 Land Use Retail (local) Pass-by Trip Reduction ⁵ = Net New Trips = TOTALS = Site #4 Land Use	Size (sq. ft 40,000	No. of Dwelling Units	45 Estimated C Weekday AM 254 254 254 Estimated C Weekday AM	211 Person-Trip haracteristi Weekday 1,558 1,558 1,558 Person-Trip haracteristi Weekday MD	113 0 Generation ics Weekday PM 787 787 0 Generation ics Weekday PM	SAT MD 1,854 1,854 1,854 1,854	Auto 2.0%	Taxi 3.0%	Estimat Subway 6.0% Estimat	ted Mode Sp Railroad 0.0% ted Mode Sp Railroad	olit (AM, PM Bus 6.0% I I I I I I I I I I I I I I I I I I I	, SAT) ³ Walk 83.0%	Other 1 0.0% 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	Total 00.0%	Auto 2.0% Auto	Taxi \$	Estimated Subway 6.0% Estimated Subway	Mode Split Railroad	(MD & Res Bus 6.0%	s-SAT) ^{2,3} Walk 83.0% S-SAT) ^{2,3} Walk	Other 0.0%	Total 100.0% Total	1 3 4 Total	1 3 4 Weekday / 1 4 0 4 4 4 4 Weekday / 1 n	1 0 1 Estimate M 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 0 4	5 1 6 Total 52 13 39 39 20 Vehicle-T Cotal Total	2 1 3 rip Generat Weekday Mi 20 20 rip Generat Weekday Mi In	2 0 2 2 0 0 0 0 0 2 6 7 20 20 20 20	2 4 6 Total 26 7 20 20 teristics ^{6,7}	Weekday Pl In 13 3 10 10 Weekday Pl	4 5 M 13 10 10 M	0 6 Total 62 16 47 47 47 Total	3 0 3 SAT MD In 31 8 23 23 23 SAT MD In In	0 3 0ut 31 8 23 23 23 0ut
Office TOTALS = Site #3 Land Use Retail (local) Pass-by Trip Reduction ⁵ = Net New Trips = TOTALS = Site #4 Land Use Office	Size (sq. ft 40,000	0 0	45 Estimated C Weekday 254 254 Estimated C Weekday	211 Person-Trip haracteristi Weekday MD 1,558 1,558 1,558 Person-Trip haracteristi Weekday	Generation ics Weekday PM 787 787 787 Generation ics	SAT MD 1,854 1,854 1,854 1,854	Auto 2.0%	Taxi 3.0%	Estimat Subway 6.0% Estimat	ted Mode Sp Railroad 0.0% ted Mode Sp Railroad	blit (AM, PM Bus 6.0% blit (AM, PM	, SAT) ³ Walk 83.0%	Other 1 0.0% 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	Total 00.0%	Auto 2.0% Auto	Taxi \$	Estimated Subway 6.0% Estimated	Mode Split Railroad	(MD & Res Bus 6.0%	s-SAT) ^{2,3} Walk 83.0%	Other 0.0%	Total 100.0% Total	1 3 4 Total 9 0 9 9 9 9	1 3 4 Weekday / 1 n 4 0 4 4 4 4 Weekday / 1 n 105	1 0 1 Estimate M 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4	5 1 6 Total 52 13 39 39 39	2 1 3 rip Generat Weekday Mi 26 7 20 20 20 20 rip Generat Weekday Mi	2 0 2 100 Characo D 20 20 20 20 20 20 20 20 20 20	2 4 6 Total 26 7 20 20 teristics ^{8,7}	Weekday Pl In 13 3 10 10 Weekday Pl In 6	M 0ut 13 3 10 10 10	0 6 Total 62 16 47 47	3 0 3 3 8 5AT MD 1 23 23 23 23 23 1 23 1 1 1	0 3 Out 31 8 23 23 23
Office TOTALS = Site #3 Land Use Retail (local) Pass-by Trip Reduction ⁵ = Net New Trips = TOTALS = Site #4 Land Use Office TOTALS =	= 11,000 Size (sq. ft 40,000 = 40,000 = 40,000 Size (sq. ft Size (sq. ft 201,500	0 0	45 Estimated C Weekday AM 254 254 Estimated C Weekday AM 428	211 Person-Trip haracteristi Weekday MD 1,558 1,558 1,558 Person-Trip haracteristi Weekday MD 544	113 0 Generation ics Weekday PM 787 0 Generation ics Weekday PM 0 Generation ics Weekday PM 497	SAT MD 1,854 1,854 1,854 SAT MD 48	Auto 2.0%	Taxi 3.0%	Estimat Subway 6.0% Estimat	ted Mode Sp Railroad 0.0% ted Mode Sp Railroad	olit (AM, PM Bus 6.0% I I I I I I I I I I I I I I I I I I I	, SAT) ³ Walk 83.0%	Other 1 0.0% 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	Total 00.0%	Auto 2.0% Auto	Taxi \$	Estimated Subway 6.0% Estimated Subway	Mode Split Railroad	(MD & Res Bus 6.0%	s-SAT) ^{2,3} Walk 83.0% S-SAT) ^{2,3} Walk	Other 0.0%	Total 100.0% Total	1 3 4 Total 9 9 9 9 9 9 9 9 9 9 9 7 1 total 110	1 3 4 Weekday / 1 n 4 0 4 4 4 4 Weekday / 1 n 105	1 0 1 Estimate M 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4	5 1 6 Total 52 13 39 39 39 39 Total Total 39 39	2 1 3 rip Generat Weekday Mi 20 20 20 20 rip Generat Weekday Mi In 34	2 0 2 100 Characo D 20 20 20 20 20 20 20 20 20 20	2 4 6 Total 26 7 7 20 20 teristics ^{6,7}	Weekday Pl In 13 3 10 10 Weekday Pl In 6	M Out 13 3 10 10 M Out 121	0 6 7 7 62 16 47 47 47 7 7 0 12	3 0 3 3 8 5AT MD 1 23 23 23 23 23 1 23 1 1 1	0 3 Out 31 8 23 23 23 0ut 12
Office TOTALS = Site #3 Land Use Retail (local) Pass-by Trip Reduction ⁵ = Net New Trips = TOTALS = Site #4 Land Use Office	= 11,000 Size (sq. ft 40,000 = 40,000 = 40,000 Size (sq. ft Size (sq. ft 201,500	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	45 Estimated C Weekday AM 254 254 Estimated C Weekday AM 428 428	211 Person-Trip haracteristi Weekday 1,558 1,558 1,558 Person-Trip haracteristi Weekday MD 544 544	113 o Generation ics Weekday PM 787 o Generation ics Weekday PM 497 497	SAT MD 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,854	Auto 2.0%	Taxi 3.0%	Estimat Subway 6.0% Estimat Subway 28.0%	ted Mode Sp Railroad 0.0% ted Mode Sp Railroad 3.0%	blit (AM, PM Bus 6.0% blit (AM, PM Bus 15.0%	, SAT) ³ Walk 83.0% , SAT) ² Walk 9.0%	Other 1 0.0% 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	Total 00.0%	Auto 2.0% Auto	Taxi \$ 3.0%	Estimated Subway 6.0% Estimated Subway 10.0%	Mode Split	(MD & Re: Bus 6.0% (MD & Re: Bus 5.0%	s-SAT) ^{2,3} Walk 83.0% s-SAT) ^{2,3} Walk 75.0%	Other 0.0%	Total 100.0% Total	1 3 4 Total 9 9 9 9 9 9 9 9 9 9 9 7 1 total 110	1 3 4 Weekday / 1 n 4 0 4 4 4 4 Weekday / 1 n 105	1 0 1 Estimate 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 4 0 4 4 4 4	5 1 6 Total 52 13 39 39 39 39 Total Total 36 36 36	2 1 3 rip Generat Weekday Mi 26 7 20 20 20 rip Generat Weekday Mi 1n 34 34 34	2 0 2 2 0 0 2 0 2 0 20 20 20 20 20 20 20	2 4 6 Total 226 7 20 20 20 teristics ^{8,7} 20 20 20 128 128	Weekday Pl In 13 3 10 10 Weekday Pl In 6	M Out 13 3 10 10 M Out 121	0 6 7 7 62 16 47 47 47 7 7 0 12	3 0 3 3 8 5AT MD 1 23 23 23 23 23 1 23 1 1 1	0 3 Out 31 8 23 23 23 0ut 12
Office TOTALS = Site #3 Land Use Retail (local) Pass-by Trip Reduction ⁵ = Net New Trips = TOTALS = Site #4 Land Use Office TOTALS = Site #5	Size (sq. ft 40,000 40,000 5 5 40,000 5 5 201,500 5 201,500	0 0	45 Estimated C Weekday AM 254 Estimated C Weekday AM 428 428 Estimated	211 Person-Trip haracteristi Weekday 1,558 1,558 1,558 Person-Trip haracteristi Weekday MD 544 544	113 0 Generation ics Weekday PM 787 0 Generation ics Weekday PM 497 497 0 Generation	SAT MD 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,854	Auto 2.0%	Taxi 3.0%	Estimat Subway 6.0% Estimat Subway 28.0%	ted Mode Sp Railroad 0.0% ted Mode Sp Railroad	blit (AM, PM Bus 6.0% blit (AM, PM Bus 15.0%	, SAT) ³ Walk 83.0% , SAT) ² Walk 9.0%	Other 1 0.0% 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	Total 00.0%	Auto 2.0% Auto	Taxi \$ 3.0%	Estimated Subway 6.0% Estimated Subway 10.0%	Mode Split Railroad	(MD & Re: Bus 6.0% (MD & Re: Bus 5.0%	s-SAT) ^{2,3} Walk 83.0% s-SAT) ^{2,3} Walk 75.0%	Other 0.0%	Total 100.0% Total	1 3 4 Total 9 9 9 9 9 9 9 9 9 9 9 7 1 total 110	1 3 4 Weekday / 1 n 4 0 4 4 4 4 Weekday / 1 n 105	1 0 1 Estimate 0 4 0 4 4 0 4 0 4 4 0 4 4 4 4 4 5 6 6 7 6 7 6 7 7 6 7 7 7 7 8 <td>5 1 6 7 7 7 7 7 7 7 7 7 7 7 7 7</td> <td>2 1 3 rip Generat Weekday Mi 26 7 20 20 20 rip Generat Weekday Mi 1n 34 34 34</td> <td>2 0 2 2 0 0 0 0 0 2 0 20 20 20 20 1 1 1 1</td> <td>2 4 6 Total 226 7 20 20 20 teristics^{8,7} 20 20 20 128 128</td> <td>Weekday Pl In 13 3 10 10 Weekday Pl In 6</td> <td>M Out 13 10 10 M M Out 121 121</td> <td>0 6 7 62 16 47 47 47 7 7 0 12 12 12</td> <td>3 0 3 3 8 5AT MD 1 23 23 23 23 23 1 23 1 1 1</td> <td>0 3 Out 31 8 23 23 23 0ut 12</td>	5 1 6 7 7 7 7 7 7 7 7 7 7 7 7 7	2 1 3 rip Generat Weekday Mi 26 7 20 20 20 rip Generat Weekday Mi 1n 34 34 34	2 0 2 2 0 0 0 0 0 2 0 20 20 20 20 1 1 1 1	2 4 6 Total 226 7 20 20 20 teristics ^{8,7} 20 20 20 128 128	Weekday Pl In 13 3 10 10 Weekday Pl In 6	M Out 13 10 10 M M Out 121 121	0 6 7 62 16 47 47 47 7 7 0 12 12 12	3 0 3 3 8 5AT MD 1 23 23 23 23 23 1 23 1 1 1	0 3 Out 31 8 23 23 23 0ut 12
Office TOTALS = Site #3 Land Use Retail (local) Pass-by Trip Reduction ⁵ = Net New Trips = TOTALS = Site #4 Land Use Office TOTALS =	Size (sq. ft 40,000 40,000 5 5 40,000 5 5 201,500 5 201,500	0 0	Estimated C Weekday AM 254 254 254 Estimated C Weekday AM 428 428 Estimated C Weekday	211 Person-Trip haracteristi Weekday MD 1,558 1,558 1,558 Person-Trip haracteristi Weekday MD 544 544 Person-Trip haracteristi Weekday	113 0 Generation ics Weekday PM 787 0 Generation ics Weekday PM 497 497 o Generation ics Weekday PM 497 o Generation ics Weekday	SAT MD 1,854<	Auto 2.0% Auto 40.0%	Taxi 3.0% Taxi 2.0%	Estimat Subway 6.0% Estimat 28.0% Estimated	ted Mode Sp Railroad 0.0% ted Mode Sp Railroad 3.0% d Mode Split	blit (AM, PM Bus 6.0% blit (AM, PM Bus 15.0% t (AM, PM, S	, SAT) ³ Walk 83.0% , SAT) ² Walk 9.0% SAT) ^{1,2,3,4}	Other 1 0.0% 1	Total 00.0%	Auto 2.0% Auto 5.0%	Taxi 1 3.0% 1 Taxi 1 5.0% 1	Estimated Subway 6.0% Estimated Subway 10.0% Estimated	Mode Split Railroad O.0% Mode Split Railroad O.0% Mode Split Railroad	(MD & Re: Bus 6.0% (MD & Re: 5.0% (MD & Re:	s-SAT) ^{2,3} Walk 83.0% s-SAT) ^{2,3} Walk 75.0% s-SAT) ^{2,3}	Other 0.0% Other 0.0%	Total 100.0% Total 100.0%	1 3 4 Total 9 0 9 9 9 9 9 9 9 9 9 9	1 3 4 In 4 0 4 0 4 0 4 0 4 0 4 0 4 105 105 105 Weekday /	1 0 1 Estimate M 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 Estimate M Estimate	5 1 6 7 7 7 7 7 7 7 7 7 7 7 7 7	2 1 3 rip Generat Weekday Mi 26 7 20 20 20 20 20 20 20 20 20 20	2 0 2 2 0 0 2 0 2 0 20 20 20 20 20 20 20	2 4 6 Total 26 7 20 20 20 teristics ^{6,7} Total 128 128 teristics ^{6,7}	Weekday Pl In 13 3 10 10 Weekday Pl In 6 6 Weekday Pl	M Out 13 3 10 10 10 M Out 121 121	0 6 70tal 62 16 47 47 70tal 12 12 12	3 0 3 3 3 3 3 3 3 3 2 3 2 3 1 3 2 3 1 3 2 3 1 8 2 3 2 3 1 8 2 3 1 3 1 8 2 3 1 3 1 8 2 3 1 3 1 8 2 3 1 3 1 8 2 3 1 3 1 8 2 3 1 3 1 8 2 3 1 3 1 8 2 3 1 3 1 8 2 3 1 3 1 8 2 3 1 1 8 2 3 1 1 9 1 1 9 1 1 1 1 1 1 1 1 1 1 1 1 1	0 3 0ut 31 8 23 23 23 0ut 12 12
Office TOTALS = Site #3 Land Use Retail (local) Pass-by Trip Reduction ⁵ = Net New Trips = TOTALS = Site #4 Land Use Office TOTALS = Site #5 Land Use	Size (sq. ft 40,000 40,000 32 40,000 32 40,000 32 40,000 32 40,000 32 40,000 32 32 40,000 32 32 32 32 32 32 32 32 32 32 32 32 32	0 0	Estimated C Weekday AM 254 254 254 Estimated C Weekday AM 428 428 C Weekday AM	211 Person-Trip haracteristi Weekday MD 1,558 1,558 1,558 Person-Trip haracteristi Weekday MD 544 544 Person-Trip haracteristi Weekday MD	113 0 Generation ics Weekday PM 787 0 Generation ics Weekday PM 497 497 o Generation ics Weekday PM 497 Weekday PM Weekday PM	SAT MD 1,854 1,854 1,854 48 48 48 5AT MD SAT MD	Auto 2.0% Auto 40.0% Auto Auto	Taxi 3.0% Taxi 2.0% Taxi	Estimat Subway 6.0% Estimat Subway 28.0% Estimated Subway	ted Mode Sp Railroad 0.0% ted Mode Sp Railroad 3.0% d Mode Split Railroad	blit (AM, PM Bus 6.0% blit (AM, PM Bus 15.0% t (AM, PM, S Bus	, SAT) ³ Walk 83.0% , SAT) ² Walk 9.0% SAT) ^{1.2.3,4} Walk	Other 1 0.0% 1 0 1 0 1 0 1 0 1 0 1 3.0% 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	Total 00.0% 0	Auto 2.0% Auto 5.0% Auto	Taxi 1 3.0% 1 Taxi 1 5.0% 1 Taxi 1 Taxi 1	Estimated Subway 6.0% Estimated Subway Estimated Subway	Mode Split	(MD & Re: Bus 6.0% (MD & Re: Bus 5.0% (MD & Re: Bus	s-SAT) ^{2,3} Walk 83.0% s-SAT) ^{2,3} Walk 75.0% s-SAT) ^{2,3} Walk	Other 0.0% Other 0.0%	Total 100.0% Total 100.0%	1 3 4 Total 9 0 9 9 9 9 9 9 9 9	1 3 4 In 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 105 105 Weekday / In In	1 0 1 Estimate 4 0 4 4 4 0 4 4 4 4 4 4 4 4 4 4 4 5 6 4 4 4 4 0ut 4 0ut	5 1 6 7 7 7 7 7 7 7 7 7 7 7 7 7	2 1 3 rip Generat Weekday Mi 26 7 20 20 20 20 20 20 20 20 20 20	2 0 2 2 0 0 2 0 0 2 0 20 20 20 20 20 20	2 4 6 Total 26 7 20 20 20 20 20 20 20 20 20 20 20 20 20	Weekday Pl In 13 3 10 10 10 Weekday Pl In 6 4 6	M Out 13 3 10 10 M Out 121 121 M Out	0 6 7 7 62 16 47 47 7 7 0 12 12 12 12	3 0 3 3 5AT MD 1 23 23 23 5AT MD 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 3 Out 31 8 23 23 23 0ut 12 12 12
Office TOTALS = Site #3 Land Use Retail (local) Pass-by Trip Reduction ⁵ = Net New Trips = TOTALS = Site #4 Land Use Office TOTALS = Site #5 Land Use Retail (local)	Size (sq. ft 40,000 40,000 5 5 40,000 5 5 201,500 5 201,500	0 0	Estimated C Weekday AM 254 254 254 Estimated C Weekday AM 428 428 Estimated C Weekday	211 Person-Trip haracteristi Weekday MD 1,558 1,558 1,558 Person-Trip haracteristi Weekday MD 544 544 Person-Trip haracteristi Weekday	113 0 Generation ics Weekday PM 787 0 Generation ics Weekday PM 497 497 o Generation ics Weekday PM 497 o Generation ics Weekday	SAT MD 1,854<	Auto 2.0% Auto 40.0% Auto Auto	Taxi 3.0% Taxi 2.0%	Estimat Subway 6.0% Estimat Subway 28.0% Estimated Subway	ted Mode Sp Railroad 0.0% ted Mode Sp Railroad 3.0% d Mode Split Railroad	blit (AM, PM Bus 6.0% blit (AM, PM Bus 15.0% t (AM, PM, S	, SAT) ³ Walk 83.0% , SAT) ² Walk 9.0% SAT) ^{1.2.3,4} Walk	Other 1 0.0% 1 0 1 0 1 0 1 3.0% 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	Total 00.0% 0	Auto 2.0% Auto 5.0% Auto	Taxi 1 3.0% 1 Taxi 1 5.0% 1 Taxi 1 Taxi 1	Estimated Subway 6.0% Estimated Subway Estimated Subway	Mode Split	(MD & Re: Bus 6.0% (MD & Re: Bus 5.0% (MD & Re: Bus	s-SAT) ^{2,3} Walk 83.0% s-SAT) ^{2,3} Walk 75.0% s-SAT) ^{2,3} Walk	Other 0.0% Other 0.0%	Total 100.0% Total 100.0%	1 3 4 Total 9 0 9 9 9 9 9 9 9 9 9 9 9 9 9 9 7 0 9 9 9 9	1 3 4 Veekday / 1 4 0 4 4 4 4 4 4 4 1 4 1 0 1 0 5 105 105 105	1 0 1 Estimate M 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 Estimate M Estimate	5 1 6 7 7 7 7 7 7 7 7 7 7 7 7 7	2 1 3 rip Generat Weekday Mi 26 7 20 20 20 20 20 20 20 20 20 20	2 0 2 2 0 0 2 0 2 0 20 20 20 20 20 20 20	2 4 6 Total 26 7 20 20 20 teristics ^{6,7} Total 128 128 teristics ^{6,7}	Image: Constraint of the second sec	M Out 13 3 10 10 M Out 121 121 M Out 1 1 1 1 1 1 1 1 1 1 1 1 1	0 6 7 7 6 6 7 6 47 47 7 7 7 7 7 7 7 7 7 7	3 0 3 3 3 3 3 3 3 3 2 3 2 3 1 3 2 3 1 3 2 3 1 8 2 3 2 3 1 8 2 3 1 3 1 8 2 3 1 3 1 8 2 3 1 3 1 8 2 3 1 3 1 8 2 3 1 3 1 8 2 3 1 3 1 8 2 3 1 3 1 8 2 3 1 3 1 8 2 3 1 3 1 8 2 3 1 1 8 2 3 1 1 9 1 1 9 1 1 1 1 1 1 1 1 1 1 1 1 1	0 3 0ut 31 8 23 23 23 0ut 12 12
Office TOTALS = Site #3 Land Use Retail (local) Pass-by Trip Reduction ⁵ = Net New Trips = TOTALS = Site #4 Land Use Office TOTALS = Site #5 Land Use	Size (sq. ft 40,000 40,000 300 201,500 201,500 Size (sq. ft 300 300 300 300 300 300 300 30	0 0	Estimated C Weekday AM 254 254 254 Estimated C Weekday AM 428 428 C Weekday AM	211 Person-Trip haracteristi Weekday MD 1,558 1,558 1,558 Person-Trip haracteristi Weekday MD 544 544 Person-Trip haracteristi Weekday MD	113 0 Generation ics Weekday PM 787 0 Generation ics Weekday PM 497 497 o Generation ics Weekday PM 497 Weekday PM Weekday PM	SAT MD 1,854 1,854 1,854 48 48 48 A8 MD	Auto 2.0% Auto 40.0% Auto Auto	Taxi 3.0% Taxi 2.0% Taxi	Estimat Subway 6.0% Estimat Subway 28.0% Estimated Subway	ted Mode Sp Railroad 0.0% ted Mode Sp Railroad 3.0% d Mode Split Railroad	blit (AM, PM Bus 6.0% blit (AM, PM Bus 15.0% t (AM, PM, S Bus	, SAT) ³ Walk 83.0% , SAT) ² Walk 9.0% SAT) ^{1.2.3,4} Walk	Other 1 0.0% 1 0 1 0 1 0 1 0 1 0 1 3.0% 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	Total 00.0% 0	Auto 2.0% Auto 5.0% Auto	Taxi 1 3.0% 1 Taxi 1 5.0% 1 Taxi 1 Taxi 1	Estimated Subway 6.0% Estimated Subway Estimated Subway	Mode Split	(MD & Re: Bus 6.0% (MD & Re: Bus 5.0% (MD & Re: Bus	s-SAT) ^{2,3} Walk 83.0% s-SAT) ^{2,3} Walk 75.0% s-SAT) ^{2,3} Walk	Other 0.0% Other 0.0%	Total 100.0% Total 100.0%	1 3 4 Total 9 0 9 9 9 9 9 9 9 9 9 9 9 9 9 10 110 11	1 3 4 In 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 105 105 Weekday / In In	1 0 1 0 1 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0	5 1 6 7 7 7 7 7 7 7 7 7 7 7 7 7	2 1 3 rip Generat Weekday Mi 26 7 20 20 20 20 20 20 7 20 20 20 20 20 20 20 20 20 20	2 0 2 2 0 0 2 0 2 0 2 0 2 0 2 0 2 0 2 0	2 4 6 Total 26 7 20 20 20 20 20 20 20 20 20 20 20 20 20	Weekday Pl In 13 3 10 10 10 Weekday Pl In 6 4 6	M Out 13 3 10 10 M Out 121 121 M Out	0 6 7 7 62 16 47 47 7 7 0 12 12 12 12	3 0 3 3 3 3 3 3 3 3 23 23 23 23 1 1 1 1 1 1	0 3 0ut 31 8 23 23 23 0ut 12 12 12 3
Office TOTALS = Site #3 Land Use Retail (local) Pass-by Trip Reduction ⁵ = Net New Trips = TOTALS = Site #4 Land Use Office TOTALS = Site #5 Land Use Retail (local) Pass-by Trip Reduction ⁵ = Pass-by Trip Reduction ⁵ = Net New Trips = Community Facility Net New Trips =	- 11,000 Size (sq. ft 40,000 - - 40,000 - - 40,000 - 4,070	0 0	Estimated C Weekday AM 254 254 254 Estimated C Weekday AM 428 428 428 Estimated C Weekday AM 26 7	211 Person-Trip haracteristi Weekday MD 1,558 1,558 1,558 Person-Trip haracteristi Weekday MD 544 544 Person-Trip haracteristi Weekday MD 159 159 16	113 0 Generation ics Weekday PM 787 0 Generation ics Weekday PM 497 497 497 6 Generation ics Weekday PM 497 6 Generation ics Weekday PM 80 9	SAT MD 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,854 1,89 1,89 11	Auto 2.0% Auto 40.0% Auto 40.0% 40.0%	Taxi 3.0% Taxi 2.0% Taxi 3.0%	Estimat Subway 6.0% Estimat Subway 28.0% Estimated Subway 6.0% 6.0% 12.0%	ted Mode Sp Railroad 0.0% ted Mode Sp Railroad 3.0% d Mode Split Railroad 0.0%	blit (AM, PM Bus 6.0% blit (AM, PM Bus 15.0% t (AM, PM, S Bus 6.0% 5.0%	, SAT) ³ Walk 83.0% 83.0% 9.0% 9.0% SAT) ^{1,2,3,4} Walk 83.0% 83.0%	Other I 0.0% 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	Total 00.0% 1	Auto 2.0% Auto 5.0% Auto 2.0% 5.0% 5.0% 5.0% 4.00 5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.0%	Taxi 1 3.0% 3.0% Taxi 1 5.0% 3.0% 5.0% 5.0%	Estimated Subway 6.0% Estimated Subway 10.0% Estimated Subway 6.0%	Mode Split Railroad 0.0% Mode Split Railroad 0.0% Mode Split Railroad	(MD & Re: Bus 6.0% (MD & Re: Bus 5.0% (MD & Re: Bus 5.0%	s-SAT) ^{2,3} Walk 83.0% s-SAT) ^{2,3} Walk 75.0% 83.0% 75.0%	Other 0.0% Other 0.0% Other 0.0%	Total 100.0% Total 100.0% 100.0% 100.0%	1 3 4 Total 9 0 9 9 9 9 9 9 9 9 0 9 9 9 0 9 9 9 9	1 3 4 In 4 0 4 0 4 0 4 0 4 0 4 0 105 105 105 0 0 0 0 0 0 0 0 0 0 0	1 0 1 0 4 0 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 0 0 0 0 0 0 0 0 0	5 1 6 7 7 7 7 7 7 7 7 7 7 7 7 7	2 1 3 rip Generat Weekday Mi 26 7 20 20 20 20 20 20 20 20 20 20	2 0 2 2 0 2 0 0 2 6 7 20 20 20 20 20 20 20 20 20 20 20 20 20	2 4 6 tteristics ^{6,7} 20 20 20 20 20 20 20 20 20 20 20 20 20	Image: Non-State State St	M Out 13 3 10 10 10 M Out 121 121 M Out 121 121 M Out 121 121 0 0	0 6 7 7 6 6 6 47 47 7 7 7 7 7 7 7 7 7 7 7	3 0 3 3 SAT MD In 31 θ 23 23 SAT MD In 1 1 1 1 1 1 3 3 7 2 1 2 1 1	0 3 3 23 23 23 23 23 23 23 23 23 23 23 23
Office TOTALS = Site #3 Land Use Retail (local) Pass-by Trip Reduction ⁵ = Net New Trips = TOTALS = Site #4 Land Use Office TOTALS = Site #5 Land Use Retail (local) Pass-by Trip Reduction ⁵ = Net New Trips =	size (sq. ft 40,000 40,000 ≤ 40,000 ≤ 201,500 Size (sq. ft 201,500 Size (sq. ft 4,070 4,070 20,000	0 0	Estimated C Weekday AM 254 254 254 Estimated C Weekday AM 428 428 428 428 26 C Weekday AM 26 7 19	211 Person-Trip haracteristi Weekday MD 1,558 1,558 1,558 Person-Trip Haracteristi Weekday MD 544 544 9 Haracteristi Weekday MD 159	113 0 Generation ics Weekday PM 787 0 Generation ics Weekday PM 497 497 497 6 Generation ics Weekday PM 497 497 9 22	SAT MD 1,854 1,15	Auto 2.0% Auto 40.0% Auto 40.0% 40.0%	Taxi 3.0% Taxi 2.0% Taxi 3.0%	Estimat Subway 6.0% Estimat Subway 28.0% Estimated Subway 6.0% 6.0% 12.0%	ted Mode Sp Railroad 0.0% ted Mode Sp Railroad 3.0% d Mode Split Railroad 0.0%	blit (AM, PM Bus 6.0% blit (AM, PM Bus 15.0% t (AM, PM, S Bus 6.0% 5.0%	, SAT) ³ Walk 83.0% 83.0% 9.0% 9.0% SAT) ^{1,2,3,4} Walk 83.0% 83.0%	Other I 0.0% 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	Total 00.0% 1	Auto 2.0% Auto 5.0% Auto 2.0% 5.0% 5.0% 5.0% 4.00 5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.0% 5.0%	Taxi 1 3.0% 3.0% Taxi 1 5.0% 3.0% 5.0% 5.0%	Estimated Subway 6.0% Estimated Subway 10.0% Estimated Subway 6.0% 10.0%	Mode Split Railroad 0.0% Mode Split Railroad 0.0% Mode Split Railroad	(MD & Re: Bus 6.0% (MD & Re: Bus 5.0% (MD & Re: Bus 6.0%	s-SAT) ^{2,3} Walk 83.0% s-SAT) ^{2,3} Walk 75.0% 83.0% 75.0%	Other 0.0% Other 0.0% Other 0.0%	Total 100.0% Total 100.0% Total 100.0%	1 3 4 Total 9 0 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	1 3 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 105 105 Weekday / In 0 0 0 0 0 0 0 0 0 0	1 0 1 0 1 0 0 4 0 4 0 4 0 4 0 4 4 4 4 4 4 4 0 0 0 0 0 0 0 0 0 0 0	5 1 6 7 7 7 7 7 7 7 7 7 7 7 7 7	2 1 3 rip Generat Weekday M 26 7 20 20 20 20 20 20 20 20 20 20	2 0 2 2 0 0 2 0 0 2 0 20 20 20 20 20 20	2 4 6 Total 26 7 20 20 20 20 20 20 20 20 20 20 20 20 20	Image: Constraint of the second sec	4 5 M 13 3 10 10 110	0 6 7 7 62 16 47 47 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	3 0 3 3 3 1 3 1 2 3 2 3 2 3 2 3 2 3 1 1 1 1	0 3 3 0ut 23 23 23 23 0ut 12 12 12 12 3 1 2

Table 3.3-4B Estimated Peak Hour Vehicle-Trip Generation Characteristics by Development Site 161st Street Rezoning - Bronx, New York NO-ACTION CONDITIONS

Site #6																																_		
		No. of			p Generation				Estima	ated Mode Sp	olit (AM, PN	, SAT) ^{1,4}					Estimate	d Mode Spl	it (MD & R	es-SAT) ^{2,3}				A/ A	Estimate					Weeleder D]	0.47.100	n
Land Use	Size (sq. ft.)	Dwelling	(haracteris	lics						. ,									,				Weekday A	M		Weekday M	טו		Weekday P	VI		SAT MD	
	0.20 (04)	Linite	Weekday	Weekday	Weekday	SAT	Auto	Tavi	Subway	Railroad	Bue	Walk	Other	Total	Auto	Tavi	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
		Units	AM	MD	PM	MD	Auto	Ταλί	Subway	Kalifoau	Dus	Wain	Other	Total	Auto	Ιαλί	Subway	Kaliloau	Dus	Walk	Other	TOtal	TUtai		Out	Total		Out	Total		Out	Total		Out
Community Facility	7,650	0	14	31	17	20	4.0%	9.0%	12.0%	0.0%	5.0%	70.0%	0.0%	100.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	1	0	1	2	1	1	2	1	0	2	1	0
Residential	26,824	27	20	10	23	15	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	3	0	3	1	0	1	4	2	1	1	1	0
TOTALS	= 34,474	27	34	41	40	36																	4	1	3	3	1	2	5	4	1	3	2	1

	nd Use	Sizo (sg. ft.)	No. of		d Person- Character						Estim	ated Mode Sp	olit (AM, PN	I, SAT) ¹					Estimate	d Mode Sp	lit (MD & R	es-SAT) ^{2,3}				Veekday Al			⁻ rip Genera Weekday M	ntion Charac		Weekday PN	<u>л</u>		SAT MD]
La	ia use	Size (Sq. 11.)	Units	Weekda AM	y Weeko MD	day W	/eekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential		25,112	25	18	9		22	14	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	3	0	2	1	0	1	3	2	1	1	1	0
	TOTALS =	= 25,112	25	18	9		22	14																	3	0	2	1	0	1	3	2	1 '	1	1	0

				No. of	Estimated	Person-Trip	p Generatio	n			Fatim	ated Mode S		A CAT ¹					Estimat	d Mada Cu	lit (MD & R						Estimate	d Vehicle-1	rip Genera	tion Charac	teristics6,7]		
	Land U	lso .	Size (sa ft)	No. of Dwelling	С	haracterist	ics				Estim	ated wode a	plit (AW, PW	i, SAT)					Estimat	a woae sp		es-SAT)			١	Weekday Al	M		Weekday N	ID	, <u> </u>	Weekday Pl	М		SAT MD	
	Land		0120 (39.11.)	Units	Weekday	Weekday	Weekday	SAT	Auto	Tavi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
				onito	AM	MD	PM	MD	Auto	Ταλί	Gubway	Ramoau	503	Walk	Other	Total	Auto	Ταλί	Oubway	Ramoau	Bus	Walk	other	Total	Total		out	Total		out	Total		out	Total		out
Reside	ential		25,112	25	18	9	22	14	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	3	0	2	1	0	1	3	2	1	1	1	0
		TOTALS =	25,112	25	18	9	22	14																	3	0	2	1	0	1	3	2	1	1	1	0

Site #9

Land Use	Size (sq. ft.)	No. of	Estimated C	Person-Trip haracterist	o Generation ics	ı			Estima	ted Mode Sp	olit (AM, PN	I, SAT) ¹					Estimate	l Mode Spl	it (MD & Re	es-SAT) ^{2,3}			1	Veekday Al	Estimate M		Frip Genera Weekday N	ition Charac		Neekday PN	И		SAT MD	
Land Use	Size (Sq. 11.)	Units	Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential	25,112	25	18	9	22	14	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	3	0	2	1	0	1	3	2	1	1	1	0
TOTALS =	25,112	25	18	9	22	14																	3	0	2	1	0	1	3	2	1	1	1	0

Site #10

Land Use	Size (sq. ft.)	No. of		Person-Trip haracterist	o Generatio ics	n			Estima	ated Mode S	plit (AM, PN	/I, SAT) ¹					Estimate	d Mode Sp	lit (MD & R	es-SAT) ^{2,3}				Weekday A			rip Generat Weekday M			Neekday P	M		SAT MD	
Land Use	512e (Sq. 11.)	Units	Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential	16,629	17	12	6	15	10	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	2	0	2	1	0	0	2	2	1	1	1	0
TOTALS	= 16,629	17	12	6	15	10																	2	0	2	1	0	0	2	2	1	1	1	0

Site #11

			No. of	Estimated	Person-Tr	ip Generatio	n			Ectima	ated Mode S		A SAT) ¹					Ectimato	d Mada Sn	lit (MD & Re	-SAT) ^{2,3}						d Vehicle-T		ation Charac						
Land	العم	Size (sa. ft.)	Dwelling	C	Characteris	tics				Latina	iteu Moue 3	Silt (Awi, Pw	n, 3AT)					Lotimate	u woue op		5-3AT)			v	Veekday Al	м		Weekday N	/ID	<u> </u>	Weekday PM	М		SAT MD	
Land	030	0126 (34. 11.)	Unite	Weekday	Weekda	y Weekday	SAT	Auto	Tavi	Subway	Railroad	Bue	Walk	Other	Total	Auto	Taxi	Subway	Pailroad	Bue	Walk	Other	Total	Total	In	0t	Total	In	Out	Total	In	Out	Total	In	
			Units	AM	MD	PM	MD	Auto	Taxi	Subway	Kalifoau	Bus	Walk	Other	TOLAI	Auto	Taxi	Subway	Kalifoau	Bus	Walk	Other	Total	Total	III	Out	Total	m	Out	TOLAI		Out	TOLAI	m	Out
Residential		23,543	24	18	9	21	14	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	3	0	2	1	0	1	3	2	1	1	1	0
	TOTALS =	23,543	24	18	9	21	14																	3	0	2	1	0	1	3	2	1	1	1	0
-																																			
		629,061	300	1,220	3,613	2,301	3,577																	185	142	43	127	80	47	233	55	178	116	55	61

Footnotes:

1 = Residential modal split based on Census 2000 Journey-to-Work data for census tracts comprising the rezoning area (59.01, 59.02, 61, 173, 183, 195).

2 = Office modal split based on Census 2000 Reverse Journey-to-Work data census tracts comprising the rezoning area (59.01, 59.02, 61, 173, 183, 195).

3 = Retail modal split for AM, PM, based on modal split for retail in "125th Street Rezoning and Related Actions EIS". For MD, all modal splits from "125th Street Rezoning and Related Actions EIS".

4 = Community facility modal split based on modal split for community facility in "125th Street Rezoning and Related Actions EIS".
 5 = 25% pass-by and linked-trip reduction assumed for retail trips during weekday MD and PM peak hours. No pass-by reduction for retail assumed for weekday AM peak hour.

6 = Vehicle occupancy rates (Auto = 1.65 / Taxi = 1.4) as per "125th Street Rezoning and Related Actions EIS".

7 = Directional Splits (In%/Out%): Residential AM (15/85) PM (70/30), Retail AM (50/50) PM (50/50), Office AM (96/4) PM (5/95), and Community Facility AM (41/59) PM (75/25), from Pushkarev & Zupan, "Urban Space for Pedestrains," (1975).

Newly congested intersections, as well as those where current congestion would no longer occur under the 2018 No-Action Condition, are discussed below.

Newly Congested Intersections

Along the E. 161st Street corridor, there would be three newly congested intersections:

- E.161st Street S. Service Road at Gerard Avenue Weekday AM and PM peaks.
- <u>E. 161st Street at Concourse Village East/Morris Avenue</u> Weekday AM and PM peaks.
- <u>E. 161st Street at Park Avenue West</u> Weekday AM and PM peaks.
- <u>E. 161st Street at Melrose Avenue</u> Weekday PM peak.
- <u>Macombs Dam Bridge at MDE (I-87) Southbound Ramps</u> Weekday AM, Midday, PM and Saturday midday peaks.
- <u>E. 153rd Street at River Avenue</u> Weekday PM peak.
- <u>E. 149th Street at River Avenue/Exterior Street/ MDE (I-87) Northbound Off-Ramp</u>-Weekday AM, Midday and Saturday midday peaks.

Existing Congested Locations No Longer Congested under No-Action Conditions

• <u>E. 157th Street at MDE (I-87) Northbound Off-Ramp</u> – Weekday AM, Midday, PM and Saturday midday peaks.

Traffic operations within the study area under the 2018 No-Action Condition are described more fully below.

E. 161st Street Corridor

- <u>E. 161st Street/Jerome Avenue</u> The eastbound and westbound approaches would operate at LOS "B" or "C" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the northbound approach would operate at LOS "B" during these same four peak hours.
- <u>E. 161st Street N. Service Road at Macombs Dam Br. Approach</u> The westbound approach would operate at LOS "C" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the northbound and southbound approaches would operate at LOS "B" during the four peak periods.
- <u>E. 161st Street N. Service Road at River Avenue</u> The westbound approach would operate at LOS "B" or "C" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, the northbound approach would operate at LOS "A" in the three weekday peaks and LOS "C" in the Saturday midday peak, and the southbound approach would operate at LOS "B" or "C" in the three weekday peaks and at LOS "D" in the Saturday midday peak period.

- <u>E. 161st Street Main Road at River Avenue</u> The eastbound and westbound approaches would both operate at LOS "B" of "C" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the northbound and southbound approaches would operate at LOS "A" during all four peak periods with the exception of the Saturday midday peak, when the northbound approach would operate at LOS "D."
- <u>E. 161st Street S. Service Road at River Avenue</u> The eastbound approach would operate at LOS "C" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, the northbound approach would operate at LOS "B" or "C" in the three weekday peaks and at LOS "D" in the Saturday midday peak, and the southbound approach would operate at LOS "A" in all four peak periods.
- <u>E. 161st Street N. Service Road at Gerard Avenue</u> The westbound approach would operate at LOS "A" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the northbound approach would operate at LOS "B" or "C" in all four peak periods.
- <u>E. 161st Street Main Road at Gerard Avenue</u> The eastbound and westbound approaches would both operate at LOS "A" or "B" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the northbound approach would operates at LOS "C" in the three weekday peaks and LOS "A" in the Saturday midday peak hour.
- <u>E. 161st Street S. Service Road at Gerard Avenue</u> The eastbound approach would operates at LOS "A" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the northbound approach would operates at LOS "F" in the weekday AM peak, LOS "D" in the midday peak hour, LOS "F" in the PM peak hour and LOS "B" in the Saturday midday peak hour.
- <u>E. 161st Street N. Service Road at Walton Avenue</u> The westbound approach would operates at LOS "A" or "B" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, the northbound approach would operates at LOS "B" in the weekday AM and midday peak hours, LOS "C" in the PM peak and LOS "A" in the Saturday midday peak hour, and the southbound approach would operates at LOS "C" in the three weekday peak hours and LOS "B" in the Saturday midday peak hours.
- <u>E. 161st Street S. Service Road at Walton Avenue</u> The eastbound and northbound approaches would both operate at LOS "B" or "C" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the southbound approach would operate at LOS "A" or "B" in all four peak hours..
- <u>E. 161st Street N. Service Road at Grand Concourse</u> The westbound approach would operate at LOS "C" respectively during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the northbound and southbound approaches would operate at LOS "A" or "B" during all four peak periods.

- <u>E. 161st Street S. Service Road at Grand Concourse</u> The eastbound and northbound approaches would both operate at LOS "C" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the southbound approach would operate at LOS "A" during all four peak periods.
- <u>E. 161st at Concourse Village West/Sheridan Avenue</u> The eastbound main and service road approaches would both operate at LOS "A" or "B" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, the westbound approach would operate at LOS "B" in all four peak periods, and the northbound approach would operate at LOS "B" or "C" in all four peak periods.
- <u>E. 161st Street at Sherman Avenue</u> The eastbound and westbound approaches would both operate at LOS "A" or "B" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, the northbound approach would operate at LOS "C" in the weekday AM and midday peaks and LOS "B" or "C" in the PM and Saturday midday peak periods, with the exception of the northbound left movement, which would operate at LOS "D" in the PM peak period.
- <u>E. 161st Street at Grant Avenue</u> The eastbound and westbound approaches would both operate at LOS "B" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour.
- <u>E. 161st Street at Concourse Village East/Morris Avenue</u> The eastbound approach would operates at LOS "B" during the weekday and Saturday midday peaks, and LOS "F" in the weekday AM and PM peak hours, the westbound approach would operate at LOS "B" in all peak hours except the weekday PM peak (LOS "F"), the northbound approach would operate at LOS "F" and "E" in the weekday AM and PM peaks, respectively and at LOS "D" in the weekday and Saturday midday peaks, and the southbound approach would operate at LOS "F" in the weekday AM and PM peaks, and the southbound approach would operate at LOS "F" in the weekday AM and PM peaks and at LOS "D" in the weekday midday peaks.
- <u>E. 161st Street at Park Avenue West</u> The eastbound and westbound approaches would operate at LOS "A" or "B" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the southbound approach would operates at LOS "E" in the weekday AM and PM peaks and at LOS "B" or "C" in the weekday and Saturday midday peaks.
- <u>E. 161st Street at Park Avenue East</u> The eastbound and westbound approaches both would operate at LOS "A" or "B" during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the southbound approach would operates at LOS "D" in the weekday AM and PM peaks and at LOS "C" in the weekday and Saturday midday peaks.
- <u>E. 161st Street at Courtlandt Avenue</u> The eastbound approach would operate at LOS "B" or C" during the weekday AM and midday and Saturday midday peaks and at LOS "D" in the PM peak hour, the westbound approach would operate at LOS "A" or "B" in

the four peak periods, and the northbound approach would operate at LOS "F" in the weekday AM and PM peaks and LOS "D" in the weekday and Saturday midday peaks.

- <u>E. 161st Street at Melrose Avenue</u> The eastbound approach would operate at LOS "C" in the weekday AM and midday peaks and the Saturday midday peak, and LOS "F" in the PM peak hour, the westbound approach would operate at LOS "C" in the four peak periods, the northbound approach would operate at LOS "F" in the weekday AM peak, LOS "C" in the weekday midday peak and LOS "D" in the PM and Saturday midday peak, and the southbound approach would operate at LOS "C" in all four peak periods.
- <u>Macombs Dam Bridge at MDE (I-87) Southbound Ramps</u> The eastbound approach would operate at LOS "C" during the weekday AM and PM peak hours and at LOS "D" in the weekday and Saturday midday peak hours, the westbound left approach would operate at LOS "E" in all four peak periods, and the southbound approach would operate at LOS "D" in the weekday AM peak and LOS "C" in the other three peak periods.

Additional Analysis Locations

- <u>E. 157th Street at MDE (I-87) Northbound Off-Ramp</u> all approaches to this intersection would operate at LOS "A" or "B" in the four peak periods.
- <u>E. 153rd Street at River Avenue</u> The eastbound and westbound approaches would operate at LOS "B" or "C" during the weekday AM, midday and Saturday midday peak hours and at LOS "E" or "F" in the PM peak hour, the northbound approach would operate at LOS "B" or "C" in the weekday and Saturday midday peak hours and at LOS "D" in the weekday or PM peak periods, and the southbound approach would operate at LOS "A" or "B" in all four peak periods.
- <u>E. 149th Street at River Avenue/Exterior Street/ MDE (I-87) Northbound Off-Ramp</u>
 - Weekday AM peak hour. The eastbound and westbound approaches would operate at LOS "C". The northbound Exterior Street, MDE northbound off-ramp and southbound River Avenue would operate at LOS "F", while the southbound Exterior Street would operate at LOS "D". The intersection would operate at an overall LOS "E".
 - Weekday midday peak hour. The eastbound and westbound approaches would operate at LOS "C" and "D", respectively. The northbound Exterior Street, MDE northbound off-ramp and southbound River Avenue would operate at LOS "F", "E" and "E", respectively, while the southbound Exterior Street would operate at LOS "D". The intersection would operate at an overall LOS "D".
 - Weekday PM peak hour. The eastbound and westbound approaches would operate at LOS "E" and "C", respectively, while the eastbound and westbound left-turn movements are projected to operate at LOS "F". The northbound Exterior Street, MDE northbound off-ramp, southbound Exterior Street and southbound River Avenue would operate at LOS "F". The intersection would operate at an overall LOS "F".

- Saturday midday peak hour. The eastbound and westbound approaches would operate at LOS "C". The northbound Exterior Street, MDE northbound off-ramp, southbound Exterior Street and southbound River Avenue would operate at LOS "F", "E", "F" and "E", respectively. The intersection would operate at an overall LOS "E".
- <u>E. 149th Street at Grand Concourse</u> The eastbound and westbound approaches would both operate at LOS "D" during the weekday AM peak, LOS "C" in the weekday and Saturday midday peaks, and LOS "D" in the PM peak hour, and the northbound and southbound approaches would both operate at LOS "B" or "C" in the four peak periods.
- <u>E. 161st Street S. Service Road at Macombs Dam Br. Approach (unsignalized in 2008 but signalized by 2018)</u> the northbound and southbound approaches would operate at LOS "A" or "B during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour.

FUTURE WITH THE PROPOSED ACTION

As noted at the beginning of this chapter and discussed in greater detail in Chapter 2.0 of this document, 11 projected development sites have been identified and are analyzed herein for their potential as the RWCDS to impact future traffic conditions. The proposed action would result in a net increase of 594 residential dwelling units (DUs), 42,004 sq. ft. of retail space, 306,011 sq. ft. of office space, and 10 sq. ft. of community facility space.

Trip Generation and Assignment

Trip generation was calculated separately for each land use component related to the proposed action. Under the proposed action, the No-Action land uses on the 11 development sites would be redeveloped in the future in accordance with the land use plan under the Action scenario. As a result, the trip generation analysis takes credit for vehicle trips generated by No-Action land uses that would be displaced.

Tables 3.3-4A and 3.3-4B show the transportation planning assumptions used to estimate the projected person and vehicle trips under the No-Action condition, including the sizes of each land use, weekday and Saturday daily trip generation rates, temporal distributions, modal splits, and in/out splits. Tables 3.3-5A and 3.3-5B show the corresponding transportation planning assumptions and person and vehicle trips for the Action condition. Table 3.3-6 compares the resulting vehicle trip generation characteristics under No-Action and Action conditions to determine the vehicle trip increments during each of the four peak hours for the Non-Game Day analysis. As shown in Table 3.3-6, the proposed action condition is projected to generate net vehicle trip increments of:

- 244 vehicle trips during the weekday AM peak hour, 7:30 to 8:30 AM);
- 115 vehicle trips during the weekday midday peak hour (1:00 to 2:00 PM);
- 294 vehicle trips during the weekday PM peak hour (5:00 to 6:00 PM); and
- 97 vehicle trips during the Saturday midday peak hour (1:00 to 2:00 PM).

Table 3.3-5A Estimated Peak Hour Person-Trip Generation Characteristics by Development Site 161st Street Rezoning - Bronx, New York ACTION CONDITIONS

Site #1												
Land Use	Size (sq.	No. of Dwelling	Weekday Daily	Saturday	Temp	oral Distribution	(%) ^{2,3}		Estima	ated Person-Trip G	eneration Characte	ristics
Lanu Ose	ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Retail (local)	28,983	0	205 trips per 1,000 gross square-feet	488 trips per 1,000 gross square-feet	3.1%	19.0%	9.6%	9.5%	184	1,129	570	1,344
Office	34,455	0	18 trips per 1,000 gross square-feet	1.6 trips per 1,000 gross square-feet	11.8%	15.0%	13.7%	15.0%	73	93	85	8
Residential	244,595	245	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	180	93	212	138
	TOTALS =	245				TOTAL P	ERSON-TRIPS =		437	1,315	867	1,490

	Size (sa	No. of Dwelling	Weekday Daily	Saturday	Temp	oral Distribution	(%) ^{2,3}		Estima	ated Person-Trip G	eneration Characte	eristics
Land Use	ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Retail (local)	22,840	0	205 trips per 1,000 gross square-feet	488 trips per 1,000 gross square-feet	3.1%	19.0%	9.6%	9.5%	145	890	449	1,059
Office	23,813	0	18 trips per 1,000 gross square-feet	1.6 trips per 1,000 gross square-feet	11.8%	15.0%	13.7%	15.0%	51	64	59	6
Residential	214,936	215	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	158	82	186	122
	TOTALS =	215				TOTAL P	ERSON-TRIPS =		354	1,036	694	1,186

Site #3												
	Size (ca	No. of Dwelling	Weekday Daily	Saturday	Temp	oral Distribution	(%) ^{2,3}		Estima	ated Person-Trip G	eneration Characte	eristics
Land Use	5120 (Sq. ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Retail (local)	17,000	0	205 trips per 1,000 gross square-feet	488 trips per 1,000 gross square-feet	3.1%	19.0%	9.6%	9.5%	108	662	335	788
Residential	153,000	153	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	112	58	132	86
	TOTALS =	153				TOTAL P	ERSON-TRIPS =		220	720	467	875

Site #4												
	Size (sa	No. of Dwelling	Weekday Daily	Saturday	Temp	oral Distribution	(%) ^{2,3}		Estima	ated Person-Trip G	eneration Character	eristics
Land Use	ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Retail (local)	33,000	0	205 trips per 1,000 gross square-feet	488 trips per 1,000 gross square-feet	3.1%	19.0%	9.6%	9.5%	210	1,285	649	1,530
Office	495,216	0	18 trips per 1,000 gross square-feet	1.6 trips per 1,000 gross square-feet	11.8%	15.0%	13.7%	15.0%	1,052	1,337	1,221	119
	TOTALS =	0				TOTAL P	ERSON-TRIPS =		1,262	2,622	1,871	1,649

Site #5									_			
	Size (sq.	No. of Dwelling	Weekday Daily	Saturday	Temp	oral Distribution	(%) ^{2,3}		Estima	ated Person-Trip G	eneration Charact	eristics
Land Use	ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Retail (local)	7,480	0	205 trips per 1,000 gross square-feet	488 trips per 1,000 gross square-feet	3.1%	19.0%	9.6%	9.5%	48	291	147	347
Office	0	0	18 trips per 1,000 gross square-feet	1.6 trips per 1,000 gross square-feet	11.8%	15.0%	13.7%	15.0%	0	0	0	0
Community Facility ⁴	7,480	0	44.7 trips per 1,000 gross square-feet	26.6 trips per 1,000 gross square-feet	4.0%	9.0%	5.0%	10.0%	13	30	17	20
Residential	45,760	46	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	34	17	40	26
	TOTALS =	46				TOTAL P	ERSON-TRIPS =		95	339	204	393

Site #6												
Land Use	Size (sq.	No. of Dwelling	Weekday Daily	Saturday	Temp	oral Distribution	(%) ^{2,3}		Estima	ated Person-Trip G	eneration Characte	ristics
Lanu Use	ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Retail (local)	4.250	0	205 trips per 1,000	488 trips per 1,000	3.1%	19.0%	9.6%	9.5%	27	166	84	197
Relati (IUCal)	4,230	0	gross square-feet	gross square-feet	3.176	19.0%	9.0%	9.5%	21	100	04	197
O	4.250	0	44.7 trips per 1,000	26.6 trips per 1,000	4.0%	9.0%	5.0%	10.0%	0	17	0	11
Community Facility*	4,230	0	gross square-feet	gross square-feet	4.0%	9.0%	5.0%	10.0 %	0	17	9	
Residential	33,000	33	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	24	13	29	19
	TOTALS =	33				TOTAL P	ERSON-TRIPS =		59	195	122	227

Site #7									_			
	Size (sa	No. of Dwelling	Weekday Daily	Saturday	Tem	oral Distribution	1 (%) ²		Estima	ted Person-Trip G	eneration Characte	eristics
Land Use	ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Residential	39,420	39	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	29	15	34	22
	TOTALS =	39				TOTAL P	ERSON-TRIPS =		29	15	34	22

Site #8									-			
		No. of Dwelling	Weekday Daily	Saturday	Tem	ooral Distribution	n (%)²		Estima	ted Person-Trip G	eneration Characte	eristics
Land Use	ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Residential	39,420	39	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	29	15	34	22
	TOTALS =	39				TOTAL P	ERSON-TRIPS =		29	15	34	22

Land Use Size (sq. ft.) No. of Dwelling Units Weekday Daily Person-Trip Rate ¹ Saturday Person-Trip Rate ¹ Temporal Distribution (%) ² Estimated Person-Trip Generation Characteristics Residential 39.420 39 8.075 per dwelling unit 8.075 per dwelling unit 9.1% 4.7% 10.7% 7.0% 29 15 34 22 TOTAL S = 39 39 5.75 per dwelling unit 9.1% TOTAL PERSON-TRIPS = 29 15 34 22	Site #9												
Land Use ft.) Units Person-Trip Rate ¹ Person-Trip Rate Weekday AM Weekday AM SAT MD Weekday AM Weekday AM Weekday AM Weekday AM SAT MD Residential 39,420 39 8.075 per dwelling unit 8.075 per dwelling unit 9.1% 4.7% 10.7% 7.0% 29 15 34 22		Size (sa	No. of Dwelling	Weekday Daily	Saturday	Tem	ooral Distribution	1 (%) ²		Estima	ated Person-Trip G	eneration Characte	əristics
	Land Use				Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
TOTAL S = 39 TOTAL PERSON-TRIPS = 29 15 34 22	Residential	39,420	39	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	29	15	34	22
		TOTALS =	39				TOTAL P	ERSON-TRIPS =		29	15	34	22

Site #10									_			
	Size (ea	No. of Dwelling	Weekday Daily	Saturday	Tem	ooral Distribution	1 (%) ²		Estima	ted Person-Trip G	eneration Characte	eristics
Land Use	ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Residential	34,805	35	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	26	13	30	20
	TOTALS =	35				TOTAL P	ERSON-TRIPS =		26	13	30	20

	Size (ca	No. of Dwelling	Weekday Daily	Saturday	Tem	ooral Distribution	n (%) ²		Estima	ated Person-Trip G	eneration Characte	eristics
Land Use	512e (Sq. ft.)	Units	Person-Trip Rate ¹	Person-Trip Rate	Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Residential	49,277	49	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	36	19	42	28
	TOTALS =	49				TOTAL P	ERSON-TRIPS =		36	19	42	28

Fortexes
 Foundes:
 1 = All person-trip rates as per CEQR Technical Manual.
 2 = Residential and Office temporal distributions as per CEQR Technical Manual.
 3 = Retail temporal distributions as per "125th Street Rezoning and Other Actions EIS".
 4 = Person-trip generation rate and temporal distribution follow "Health Club" as per CEQR Technical Manual.

Table 3.3-5B Estimated Peak Hour Vehicle-Trip Generation Characteristics by Development Site 161st Street Rezoning - Bronx, New York ACTION CONDITIONS

Site #1																																	-		
Land		Size (eg. ft.)	No. of	. c	Person-Trip Characteristic		Ì			Estimate	ed Mode Spl	it (AM, PM,	SAT) ^{1,2,3}					Estimate	ed Mode Sp	olit (MD & R	es-SAT) ^{2,3}				Neekday Al			'rip Generat Weekday M	tion Charact		Weekday PN	M		SAT MD	
Land	use	Size (sq. ft.)	Units	Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Retail (local)		28,983	0	184	1,129	570	1,344	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	6	3	3	38	19	19	19	10	10	45	23	23
Pass-by Trip	Reduction ⁵ =																							0	0	0	9	5	5	5	2	2	11	6	6
	et New Trips =																							6	3	3	28	14	14	14	7	7	34	17	17
Office		34,455	0	73	93	85	8	40.0%	2.0%	28.0%	3.0%	15.0%	9.0%	3.0%	100.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	19	18	1	6	6	0	22	1	21	2	0	2
Residential		244,595	245	180	93	212	138	24.0%	1.3%	47.8%	0.6%	13.3%	8.9%	3.9%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	28	4	24	8	1	7	33	23	10	12	8	4
	TOTALS =	308,033	245	437	1,315	867	1,490																	53	25	28	43	21	21	69	31	38	48	25	23
																														·					

Site	#2	

		No. of	Estimated	Person-Trip	p Generatio	n			Fatimat	ad Mada Cul		CAT)1,2,3					Fatimate	d Mada Cul		CAT)2,3					Estimate	d Vehicle-1	Trip Genera	tion Charac	teristics ^{6,7}]		
Land Use	Size (sq. ft.)	No. of Dwelling	0	Characterist	ics				Estimat	ed Mode Spl	IT (AW, PW,	SAT)					Estimate	d Mode Spl						Weekday A	M		Weekday N	D	v	Veekday Pl	M		SAT MD	
Land Use	512e (Sq. 11.)		Weekday	Weekday	Weekday	SAT	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
		onita	AM	MD	PM	MD	Auto	Taxi	Subway	Kalifoau	Bus	Walk	Other	Total	Auto	Taxi	Subway	Kalifoau	Bus	Walk	Other	Total	Total		Out	Total		Out	Total		Out	Total		Out
Retail (local)	22,840	0	145	890	449	1,059	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	5	2	2	30	15	15	15	8	8	36	18	18
Pass-by Trip Reduction ⁵ =	-																						0	0	0	7	4	4	4	2	2	9	4	4
Net New Trips =	=																						5	2	2	22	11	11	11	6	6	27	13	13
Office	23,813	0	51	64	59	6	40.0%	2.0%	28.0%	3.0%	15.0%	9.0%	3.0%	100.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	13	12	1	4	4	0	15	1	14	1	0	1
Residential	214,936	215	158	82	186	122	24.0%	1.3%	47.8%	0.6%	13.3%	8.9%	3.9%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	25	4	21	7	1	6	29	20	9	11	7	3
TOTALS =	261,589	215	354	1,036	694	1,186																	42	19	24	34	16	17	55	27	29	39	21	18

Site	e #3																																_		
			No. of	Estimated	Person-Trip	Generation				Estimat	ed Mode Sp		CAT)1,3					Fatimata	d Mada Cul	lit (MD & Re	- CAT)2,3					Estimate	d Vehicle-T	rip Genera	tion Charact	teristics ^{6,7}					
	Land Use	Size (sq. ft.)	Dwelling	0	Characteristic	cs				Estimat	ea Mode Sp	ont (AW, PW	, 5AT) ⁻					Estimate	a wode spi	III (IVID & Re	S-5AT)				Weekday A	М		Neekday M	D	V	Neekday PN	M		SAT MD	
	Lanu 036	512e (5q. 1t.)	Units	Weekday	Weekday	Weekday	SAT	Auto	Tavi	Subway	Railroad	Buc	Walk	Other	Total	Auto	Tovi	Subway	Pailroad	Buc	Walk	Other	Total	Total	In	Qu#	Total	In	0.14	Total	In	0.14	Total	In	Out
			onno	AM	MD	PM	MD	Auto	Taxi	Subway	Kalifoau	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	TOLAI		Out	TOLAI	m	Out	Total		Out	TOLAI		Out
Ret	ail (local)	17,000	0	108	662	335	788	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	4	2	2	22	11	11	11	6	6	26	13	13
	Pass-by Trip Reduction ⁵ =																							0	0	0	6	3	3	3	1	1	7	3	3
	Net New Trips =																							4	2	2	17	8	8	8	4	4	20	10	10
Res	sidential	153,000	153	112	58	132	86	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	17	3	15	5	1	4	20	14	6	8	5	2
	TOTALS =	170,000	153	220	720	467	875																	21	4	16	22	9	13	29	18	10	27	15	12

Site #4																																_		
		No. of	Estimated	Person-Trip	Generation				Fatima	ted Mode Sp		CAT)2,3					Estimate	d Mada Cu	lit (MD & R						Estimate	d Vehicle-T	rip Genera	tion Charact	eristics6,7					
Land Use	Size (sq. ft.)		C	haracteristi	cs				Estima	ted Mode Sp	ont (Awi, Pw	i, SAT) '					Estimate	a wode Sp		es-SAT)				Weekday A	М		Weekday M	D	V	Veekday PN	Λ		SAT MD	
Land Ose	312e (3q. 11.)	Unite	Weekday	Weekday	Weekday	SAT	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Tavi	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	0t	Total	In	0.14	Total	In	Out
		Units	AM	MD	PM	MD	Auto	Ιάλι	Subway	Kalifoau	Dus	wain	Other	TOLAT	Auto	Taxi	Subway	Kalifoau	Dus	Walk	Other	TOLAI	TOLAI		Out	TOLAI		Out	TOLAI	m	Out	TOLAI	m	Out
Retail (local)	33,000	0	210	1,285	649	1,530	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	7	4	4	43	22	22	22	11	11	51	26	26
Pass-by Trip Reduction ⁵ =																							0	0	0	11	5	5	5	З	3	13	6	6
Net New Trips =																							7	4	4	32	16	16	16	8	8	38	19	19
Office	495,216	0	1,052	1,337	1,221	119	40.0%	2.0%	28.0%	3.0%	15.0%	9.0%	3.0%	100.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	270	259	11	88	85	4	313	16	298	31	2	29
TOTALS =	528,216	0	1,262	2,622	1,871	1,649																	277	263	14	121	101	20	330	24	306	69	21	48

Site #5																																		
		No. of	Estimated	Person-Trip	Generation	1			Ectimate	ed Mode Spl		SAT)1,2,3,4					Ectimate	ed Mode Sp		000 SAT)2,3					Estimate	d Vehicle-T	rip Genera	tion Charact	eristics ^{6,7}					
Land Use	Size (sq. ft.)		C	haracteristi	cs				Estimate	a woue spi	IL (AIVI, FIVI,	3AT)					Estimate	a mode sp		les-3AT)				Weekday A	М		Weekday M	ID	V	Veekday PN	Λ		SAT MD	
Land Ose	0126 (34.11.)	Units	Weekday	Weekday	Weekday	-	Auto	Тахі	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
			AM	MD	PM	MD	Auto	Tuxi	Gability	Rainoad	Bus	Walk	ounor	Total	Auto	Tuxi	Cubinay	Rumouu	Bus	main	other	Total	Total		out	Total		out	Total		out	Total		, Out
Retail (local)	7,480	0	48	291	147	347	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2	1	1	10	5	5	5	2	2	12	6	6
Pass-by Trip Reduction ⁵ =																							0	0	0	2	1	1	1	1	1	3	1	1
Net New Trips =																							2	1	1	7	4	4	4	2	2	9	4	4
Office	0	0	0	0	0	0	40.0%	2.0%	28.0%	3.0%	15.0%	9.0%	3.0%	100.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	0	0	0	0	0	0	0	0	0	0	0	0
Community Facility	7,480	0	13	30	17	20	4.0%	9.0%	12.0%	0.0%	5.0%	70.0%	0.0%	100.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	1	0	1	2	1	1	1	1	0	2	1	0
Residential	45,760	46	34	17	40	26	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	5	1	4	2	0	1	6	4	2	2	2	1
TOTALS =	60,720	46	95	339	204	393																	8	2	6	11	5	6	11	7	4	13	7	5

Table 3.3-5B Estimated Peak Hour Vehicle-Trip Generation Characteristics by Development Site 161st Street Rezoning - Bronx, New York ACTION CONDITIONS

		No. of	Estimated F	Person-Trip	Generation	1			Ectimate	d Mode Spli		SAT)1,2,3,4					Ectimate	d Mada Sa	olit (MD & R	00 SAT)2,3					Estimate	d Vehicle-T	rip Genera	tion Charac	teristics ^{6,7}					
Land Use	Size (sq. ft.)		C	haracteristic	cs				Estimate	a mode Spi	ι (ΑΙΝΙ, ΓΙΝΙ ,	SAT)					Estimate	u woue sp		es-3AT)			1	Weekday Al	N	1	Weekday M	ID	V	Veekday PN	N		SAT MD	
Land 000	0120 (04.11.)	Units	Weekday	Weekday	Weekday	SAT	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
			AM	MD	PM	MD	Auto	Ταλί	Gubway	Ramoad	Dus	Walk	oulei	Total	Auto	Ταλί	Oubway	Rainoau	Bus	Walk	oulei	Total	Total		Out	Total		out	Total		Out	Total		Out
Retail (local)	4,250	0	27	166	84	197	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	1	0	0	6	3	3	3	1	1	7	3	3
Pass-by Trip Reduction ⁵ =																							0	0	0	1	1	1	1	0	0	2	1	1
Net New Trips =																							1	0	0	4	2	2	2	1	1	5	2	2
Community Facility	4,250	0	8	17	9	11	4.0%	9.0%	12.0%	0.0%	5.0%	70.0%	0.0%	100.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	1	0	0	1	0	1	1	1	0	1	1	0
Residential	33,000	33	24	13	29	19	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	4	1	3	1	0	1	4	3	1	2	1	0
TOTALS =	41,500	33	59	195	122	227																	5	1	4	6	3	4	7	5	3	8	4	3

Site #7

Site #6

			lo, of	Estimated I			ion				Estimat	ed Mode Sp							Estimate	ed Mode Sn	olit (MD & R	es-SAT) ^{2,3}						d Vehicle-T	Trip Genera	tion Charac	teristics ^{6,7}					
Land Use	Size (ca	4 \ D	valling	C	haracteris	stics					Louina		ли (<i>д</i> ай, т и	ii, O AT)					Louinad			65 OAT)			۱	Neekday Al	M		Weekday N	ID		Weekday P	M		SAT MD	
Land Use	Size (sq.	π.) D	Jnits	Weekday	Weekda	y Weekd	ay SAT	-	Auto	Taul	0	Dellased	Dur	W-II.	011	Tetel	A	Taul	0	Dellased	Dura	W-II.	011	Tatal	Tetel	1	01	Tetal		01	Tetal	1	01	Tatal	l	01
			Jints	AM	MD	PM	MD	4	Auto	Тахі	Subway	Railroad	Bus	waik	Other	Iotai	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Total	IN	Out	Total	IN	Out	Total	IN	Out	Total	IN	Out
Residential	39,42)	39	29	15	34	22	2	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	4	1	4	1	0	1	5	4	2	2	1	1
TOTALS	5 = 39,42)	39	29	15	34	22																		4	1	4	1	0	1	5	4	2	2	1	1

Site #8

			No. of	Estimate		ip Generatio	ı			Estima	ted Mode Sp	lit (AM. PN	L SAT) ¹					Estimate	d Mode Sp	lit (MD & R	es-SAT) ^{2,3}								ation Charac						
	Land Use	Size (sq. ft) Dwellin	a	Characteris	stics						,	.,,						a mode op					\\	Neekday A	M		Weekday N	1D	۱ I	Weekday Pl	<u>M</u>		SAT MD	
	Lana 050	0120 (04.11	., Direini	Weekda	y Weekda	y Weekday	SAT	Auto	Tavi	Subway	Pailroad	Pue	Walk	Othor	Total	Auto	Tavi	Subway	Railroad	Buc	Walk	Other	Total	Total	In	Out	Total	In	0t	Total	In	Out	Total	In	Out
			onits	AM	MD	PM	MD	Auto	Тахі	Subway	Kallioau	Dus	Walk	Other	Total	Auto	Taxi	Subway	Kalli uau	Bus	Walk	Other	Total	Total		Out	Total	m	Out	Total		Out	TOLAI		Out
Re	esidential	39,420	39	29	15	34	22	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	4	1	4	1	0	1	5	4	2	2	1	1
	TOTALS	5 = 39,420	39	29	15	34	22																	4	1	4	1	0	1	5	4	2	2	1	1

Site #9

	and Use	Size (or (t))	No. of		l Person-Trip Characterist	o Generation ics	l			Estim	ated Mode S	plit (AM, PN	I, SAT) ¹					Estimat	ed Mode Sp	lit (MD & R	es-SAT) ^{2,3}				Neekday A		0	Frip Genera Weekday N	tion Charac ID	teristics ^{6,7}	Weekday P	м		SAT MD	
La	la Use	Size (sq. ft.)	Units	Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential		39,420	39	29	15	34	22	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	4	1	4	1	0	1	5	4	2	2	1	1
	TOTALS =	39,420	39	29	15	34	22																	4	1	4	1	0	1	5	4	2	2	1	1

Site #10

		and Use		No. of	Estimated	Person-Trip	o Generatio	ı			Ectima	ted Mode Sp		1 SAT) ¹					Estimate	d Modo Sn	lit (MD & R	06-SAT) ^{2,3}					Estimate	ed Vehicle-	Trip Genera	tion Charact	teristics ^{6,7}					
	Land U		Size (sq. ft.)	NO. Of Dwelling	(Characteristi	ics				Louina	ted Mode Sp	JIIL (AIVI, FIV	I, 3AT)					Louinad	u woue op		65-5AT)				Neekday AM	И		Weekday N	1D		Weekday PM	Λ		SAT MD	
	Lanu Use	550	0120 (04.11.)	Unite	Weekday	Weekday	Weekday	SAT	Auto	Tavi	Subway	Bailroad	Bue	Walk	Other	Total	Auto	Tavi	Subway	Dailroad	Bus	Walk	Other	Total	Total	In	04	Total	In	0t	Total	In	0t	Total	In Out	
				Onita	AM	MD	PM	MD	Auto	Idxi	Subway	Kalifoau	Dus	Walk	Other	Total	Auto	Taxi	Subway	Kalifuau	Dus	Walk	Other	TOLAI	TOLAT		Out	Total	m	Out	TOLAI		Out	TOLAI		
Res	idential		34,805	35	26	13	30	20	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	4	1	3	1	0	1	5	3	1	2	1 1	
		TOTALS =	34,805	35	26	13	30	20																	4	1	3	1	0	1	5	3	1	2	1 1	

Site #11

			No. of	Estimated	Person-Tri	p Generation				Ectimo	ted Mode S		M CATI					Ectimate	d Mada Sn	lit (MD & Re	5 6 AT)2,3					Estimate	d Vehicle-1	Frip Genera	tion Charac	teristics6,7					
Land Us		Size (sq. ft.)	Dwolling	C	Characterist	ics				Lauma	ted would be	pint (Ann, Fi	WI, 3AT)					LStimate	a Mode Sp		55-3AT)			~	Neekday Al	М		Weekday N	1D	'	Weekday Pl	М		SAT MD	
Land Use	50	512e (Sq. 11.)	Units	Weekday	Weekday	Weekday	SAT	Auto	Taxi	Subway	Pailroad	Bue	Walk	Othor	Total	Auto	Taxi	Subway	Pailroad	Bue	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
			00	AM	MD	PM	MD	Auto	Taxi	Subway	Kalifoau	Dus	Walk	Other	Total	Auto	Ιαλί	Subway	Kalifoau	Bus	wain	Oulei	Total	Total		Out	Total		Out	Total		Out	Total		Out
Residential		49,277	49	36	19	42	28	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	5	1	5	2	0	1	6	5	2	2	2	1
	TOTALS =	49,277	49	36	19	42	28																	5	1	5	2	0	1	6	5	2	2	2	1
		1,572,400	893	2,574	6,303	4,397	5,933																	429	318	111	243	156	86	528	131	397	213	101	112

Footnotes: 1 = Residential modal split based on Census 2000 Journey-to-Work data for census tracts comprising the rezoning area (59.01, 59.02, 61, 173, 183, 195). 2 = Office modal split based on Census 2000 Reverse Journey-to-Work data census tracts comprising the rezoning area (59.01, 59.02, 61, 173, 183, 195). 3 = Retail modal split for AM, PM, based on modal split for retail in "125th Street Rezoning and Related Actions EIS". For MD, all modal splits from "125th Street Rezoning and Related Actions EIS".

4 = Community facility modal split based on modal split for community facility in "125th Street Rezoning and Related Actions EIS".

5 = 25% pass-by and linked-trip reduction assumed for retail trips during weekday MD and PM peak hours. No pass-by reduction for retail assumed for weekday AM peak hour.

6 = Vehicle occupancy rates (Auto = 1.65 / Taxi = 1.4) as per "125th Street Rezoning and Related Actions EIS".

7 = Directional Splits (In%/Out%): Residential AM (15/85) PM (70/30), Retail AM (50/50) PM (50/50), Office AM (96/4) PM (5/95), and Community Facility AM (41/59) PM (75/25), from Pushkarev & Zupan, "Urban Space for Pedestrains," (1975).

Table 3.3-6 Estimated Peak Hour Vehicle-Trip Generation Increments by Development Site 161st Street Rezoning - Bronx, New York

									ning - Bronx, New York	ĸ										
Site #1		Existing Vehicle Tr	ips				No-Action Vehicle Tri	ps				Action Vehicle Trips					Action - No-Action Veh	cle Trip Increment		
	Weekday AM	Weekday MD			SAT MD	Weekday AM	Weekday MD		SAT MD		Weekday AM	Weekday MD			AT MD	Weekday AN				SAT MD
Land Use								ut Total In Ou 7 7 4 4												
Retail (local) Office	2 1 1	8 4 7 7	4 4 <u>2</u> 0 25 1			21 20 1						<u>28</u> <u>14</u> <u>14</u> <u>6</u> <u>6</u> <u>0</u>						0 -3 0		
Residential	0 0 0	0 0						2 10 7 3												
Total Site Vehicle Trips	s = 23 21 2	15 11																		
	-			-		ii.			1	1										
Site #2		Existing Vehicle Tr				We - 1 . 1 AM	No-Action Vehicle Tri				West 1	Action Vehicle Trips	W/		THE	W	Action - No-Action Veh			0.17.115
Land Use	Weekday AM	Weekday MD	Weekday P		SAT MD	Weekday AM	Weekday MD	Weekday PM ut Total In Ou	SAT MD		Weekday AM	Weekday MD	Weekday PN		AT MD	Weekday AN				SAT MD
Retail (local)	18tai in Out	14 7	7 7 3	3 16	1 In Out	3 1 1	12 6 f	ut lotal in Ou	15 7	7 5	2 2	22 11 11	10tai in 11 6	6 27	13 13	2 1	1 10 5	Out Iotai Ir	3 12	
Office	3 3 0	1 1	0 4 0	4 0	0 0	3 3 0	1 1 0	$\frac{1}{2}$ $\frac{1}$	0 0	0 13	12 1	4 4 0	15 1	14 1	0 1	10 9	0 3 3	0 11 1	11 1	0 1
Residential	0 0 0	0 0	0 0 0	0 0	0 0	7 1 6	2 0 2	2 8 5 2	3 2	1 25	4 21	7 1 6	29 20	9 11	7 3	18 3	15 5 1	4 21 1	5 6 8	5 2
Total Site Vehicle Trips	s = 6 5 2	15 8	7 11 4	7 17	8 9	12 5 7	15 8 8	3 18 9 9	18 9	9 42	19 24	34 16 17	55 27	29 39	21 18	30 13	17 18 9	10 37 1	3 20 21	11 9
1	-	Estado - Maltala Es	•			(r	No. A setting Mathematica		- <u>1</u> 1	n		A					Andrea Markan Mate	- 1. T -1. 1		
Site #3	Weekday AM	Existing Vehicle Tr Weekday MD		PM .	SAT MD	Weekday AM	No-Action Vehicle Tri Weekday MD	ps Weekday PM	SAT MD		Weekday AM	Action Vehicle Trips Weekday MD	Weekday PN		AT MD	Weekday AN	Action - No-Action Veh Weekday		av PM	SAT MD
Land Use								ut Total In Ou												
Retail (local)								0 20 10 10												
Office	0 0 0	0 0	0 0 0) 0 0 0				0 0 0					0 0 0		0 0	0 0
Residential								0 0 0												
Total Site Vehicle Trips	s= 9 4 4	39 20	20 20 10	10 47	23 23	9 4 4	39 20 2	0 20 10 10	47 23	23 21	4 16	22 9 13	29 18	10 27	15 12	12 0	12 -17 -11	-7 9 8	0 -19	-8 -11
		Existing Vehicle Tr	ins		г		No-Action Vehicle Tri	ns		1 1		Action Vehicle Trips		- T	<u> </u>		Action - No-Action Vehi	cle Trin Increment	1	
Site #4	Weekdav AM	Weekday MD		PM	SAT MD	Weekday AM	Weekday MD		SAT MD	<u> </u>	Weekday AM	Weekday MD	Weekdav PN	I S/	AT MD	Weekday AN		MD Weekd	ay PM	SAT MD
Land Use	Total In Out	Total In	Out Total In	Out Tota	l In Out	Total In Out	Total In O	ut Total In Oເ	Total In	Out Total	In Out	Total In Out	Total In	Out Total	In Out	Total In	Out Total In	Out Total Ir	Out Tota	al In Out
Retail (local)			0 0 0	0 0	0 0	0 0 0	0 0 0	0 0 0	0 0	0 7	4 4	32 16 16	16 8	8 38	19 19	7 4	4 32 16	16 16 8	8 38	
Office	110 105 4	36 34	1 128 6		1 12			128 6 12				88 85 4						2 186 9		1 17
Residential	0 0 0		÷ ÷	- -	0 0				ţ,			0 0 0						0 0 0		
I otal Site Vehicle Trips	s = 110 105 4	36 34	1 128 6	121 12	1 12	110 105 4	36 34 1	128 6 12	12 1	12 277	203 14	121 101 20	330 24	JUD 69	21 48	167 157	10 85 66	18 202 1	185 57	20 36
		Existing Vehicle Tr	ips				No-Action Vehicle Tri	ps				Action Vehicle Trips		<u> </u>	<u> </u>		Action - No-Action Veh	cle Trip Increment]	
Site #5	Weekday AM	Weekday MD		PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD	°	Weekday AM	Weekday MD	Weekday PN	I S/	AT MD	Weekday AN			ay PM	SAT MD
Land Use	Total In Out	Total In	Out Total In	Out Tota	l In Out	Total In Out	Total In O	ut Total In Oເ	Total In	Out Total	In Out	Total In Out	Total In	Out Total	In Out	Total In	Out Total In	Out Total Ir	Out Tota	al In Out
Retail (local) + Comm. Facilit	ty 2 1 1		4 4 2	2 10	5 5			3 2 1	6 3	3 3									1 5	3 2
Office	0 0 0	0 0	0 0 0	0 0	0 0	0 0 0	0 0 0	0 0 0	0 0	0 0	0 0	0 0 0		0 0	0 0	0 0	0 0 0	0 0 0	0 0	0 0
Residential	0 0 0 0 s = 2 1 1	0 0		0 0	0 0	3 0 2	1 0 1		1 1	0 5	1 4	2 0 1	6 4 11 7	2 2	2 1	2 0	2 1 0	2 5 2	1 1	1 0
Total Site Vehicle Trips	5= 2 1 1	9 4	4 4 2	2 10	5 5	4 1 3	0 3 3	5 0 4 2	/ 4	3 0	2 0	11 5 0	11 /	4 13	7 3	4 1	3 5 2	3 3 3	2 0	3 2
		Existing Vehicle Tr	ips				No-Action Vehicle Tri	DS				Action Vehicle Trips					Action - No-Action Veh	cle Trip Increment		
Site #6	Weekday AM	Weekday MD		M	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD		Weekday AM	Weekday MD	Weekday PN	S/	AT MD	Weekday AN	Weekday	MD Weekd	ay PM	SAT MD
Land Use	Total In Out	Total In	Out Total In	Out Tota	l In Out	Total In Out	Total In O	ut Total In Οι	Total In	Out Total	In Out	Total In Out	Total In	Out Total	In Out	Total In	Out Total In	Out Total Ir	Out Tota	I In Out
Retail (local) + Comm. Facilit	ty 1 1 1	5 2	2 2 1	1 6	3 3		2 1 1		2 1			5 3 3					0 3 2	2 1 1		2 2
Office	0 0 0	0 0	0 0 0	0 0	0 0	0 0 0						0 0 0				0 0	0 0 0	0 0 0		0 0
Total Site Vehicle Trips	s= 1 1 1											1 0 1 6 3 4						2 2 1		
											<u> </u>	· · ·		<u> </u>						
Site #7		Existing Vehicle Tr	ips				No-Action Vehicle Tri	ps				Action Vehicle Trips					Action - No-Action Veh	cle Trip Increment		
	Weekday AM	Weekday MD			SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD		Weekday AM	Weekday MD	Weekday PN		AT MD	Weekday AN				SAT MD
Land Use								<u>ut Total In Οι</u>												
Retail (local) Office	0 0 0	0 0			0 0			0 0 0 0 0 0 0 0				0 0 0 0 0 0				0 0		0 0 0		0 0
Residential	0 0 0											1 0 1						0 2 1		0 0
	s= 0 0 0																			ţ ţ
Site #8		Existing Vehicle Tr					No-Action Vehicle Tri					Action Vehicle Trips					Action - No-Action Veh			
Land Use	Weekday AM	Weekday MD			SAT MD	Weekday AM	Weekday MD	Weekday PM ut Total In Ou	SAT MD		Weekday AM	Weekday MD	Weekday PN		AT MD	Weekday AN				SAT MD
Retail (local)								0 0 0 0												
Office	0 0 0	0 0	0 0 0	0 0	0 0							0 0 0						0 0 0		0 0
Residential	0 0 0		0 0 0		0 0	3 0 2	1 0 1	I 3 2 1	1 1	0 4	1 4	1 0 1	5 4	2 2	1 1	2 0	1 0 0	0 2 1	1 1	0 0
Total Site Vehicle Trips	s = 0 0 0	0 0	0 0 0	0 0	0 0					0 4	1 4	1 0 1	5 4							0 0
[Evicting V-Link T	ine			1	No-Action Vehicle Tri	ne				Action Vahials Tring					Action - No-Action Veh	clo Trip Incromost	1	
Site #9	Weekday AM	Existing Vehicle Tr Weekday MD		M	SAT MD	Weekday AM			SAT MD	╙────╢────	Weekday AM	Action Vehicle Trips Weekday MD	Weekday PN	e	AT MD	Weekday AN			av PM	SAT MD
Land Use								ut Total In Ou												
Retail (local)	0 0 0	0 0	0 0 0	0 0	0 0	0 0 0	0 0 0	0 0 0	0 0	0 0	0 0	0 0 0	0 0	0 0	0 0	0 0	0 0 0	0 0 0	0 0	0 0
Office								0 0 0 0 0												
Residential																				
I otal Site Vehicle Trips	s= 0 0 0	U U	v j U U	U 0	U U	<u>ວ</u> 0 2		J J J 2 1	1 1 1	U 4	1 4	i U 1	J J J	4 2	ı 1	2 0		U 2 1		0 0
		Existing Vehicle Tr	ips	1			No-Action Vehicle Tri	ps		1		Action Vehicle Trips			1 1		Action - No-Action Veh	cle Trip Increment	1	
Site #10	Weekday AM	Weekday MD	Weekday P		SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD		Weekday AM	Weekday MD	Weekday PN		AT MD	Weekday AN	Weekday	MD Weekd		SAT MD
Land Use	Total In Out	Total In	Out Total In	Out Tota	l In Out	Total In Out	Total In O	ut Total In Οι	Total In	Out Total	In Out	Total In Out	Total In	Out Total	In Out	Total In	Out Total In	Out Total Ir	Out Tota	
Retail (local)								0 0 0												
Office Residential								0 0 0 0 0 2 2 1												
	s= 0 0 0																			
						······································														المتعملين
Site #11		Existing Vehicle Tr					No-Action Vehicle Tri					Action Vehicle Trips					Action - No-Action Veh			
	Weekday AM		Weekday P					Weekday PM				Weekday MD			AT MD			MD Weekd		SAT MD
Land Use Retail (local)								ut Total In Ou 0 0 0 0												
Office		0 0		0 0	0 0		0 0 0		0 0	0 0	0 0	0 0 0	0 0	0 0	0 0	0 0	0 0 0		0 0	0 0
Residential								J 3 2 1												
	s= 0 0 0																			
		440		407		405 (10 10	107		440				500							40
TOTALS	S = 151 137 14	118 79	39 194 27	167 104	45 59	185 142 43	127 80 4	r 233 55 17	116 55	61 429	318 111	243 156 86	528 131	397 213	101 112	244 175	ъв 115 76	39 294 70	219 97	46 51
1 – Negotivo voluco represer	nt a net loss from the No-Action	condition																		
i = Negative values represer																				

The resulting vehicle trips were assigned to the study area based on their anticipated origins and destinations, using the most direct routes to and from each of the 11 projected development sites. Figures 3.3-10 to 3.3-13 show incremental traffic assignments generated by the proposed action – essentially the difference on each affected intersection approach between the 2018 No-Action and 2018 Action Conditions traffic volumes during the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours. The total traffic volumes under the 2018 Action Condition are depicted in Figures 3.3-14 to 3.3-17 for each of the four peak hours.

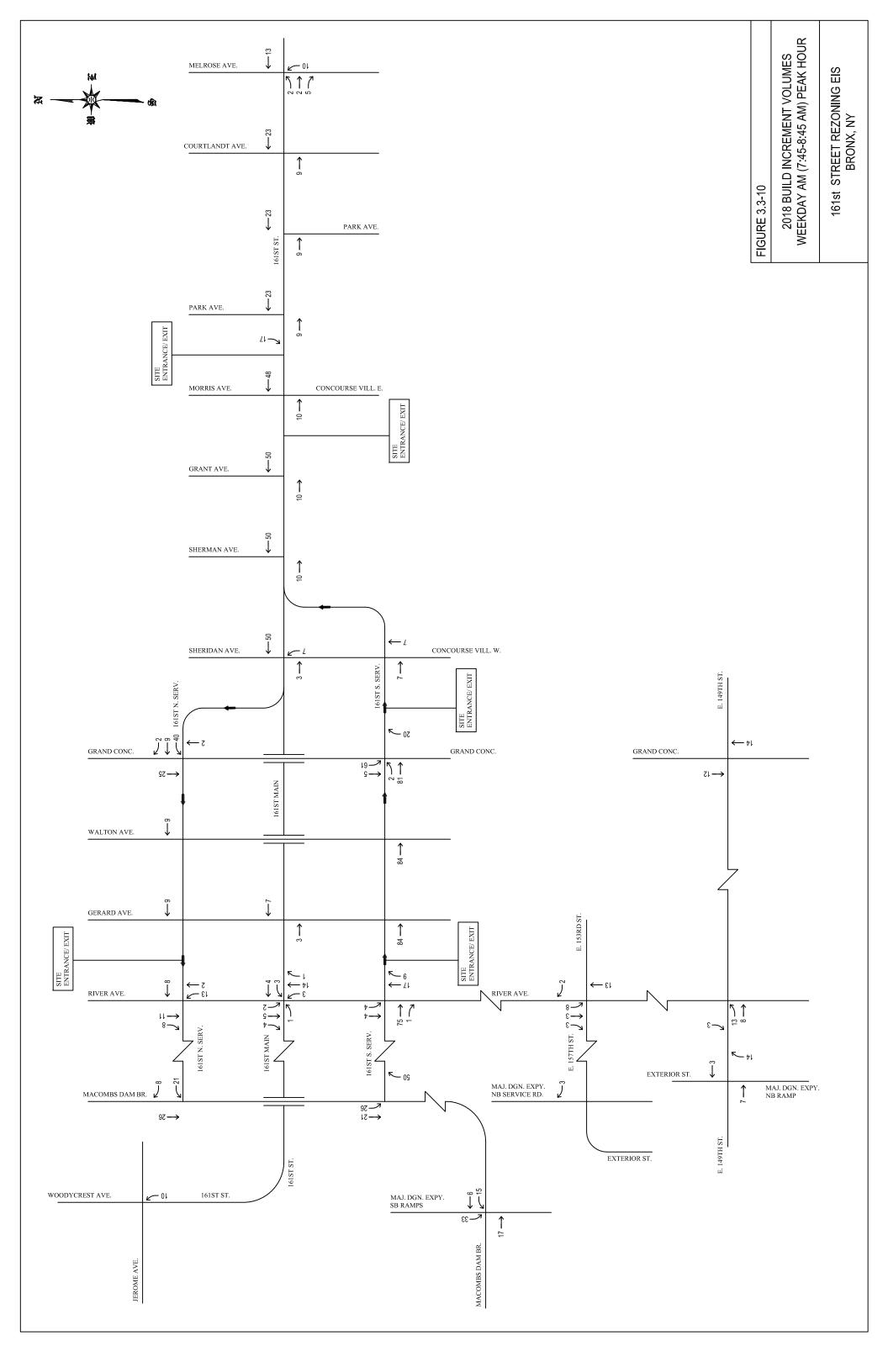
Capacity Analysis and Determination of Traffic Impacts

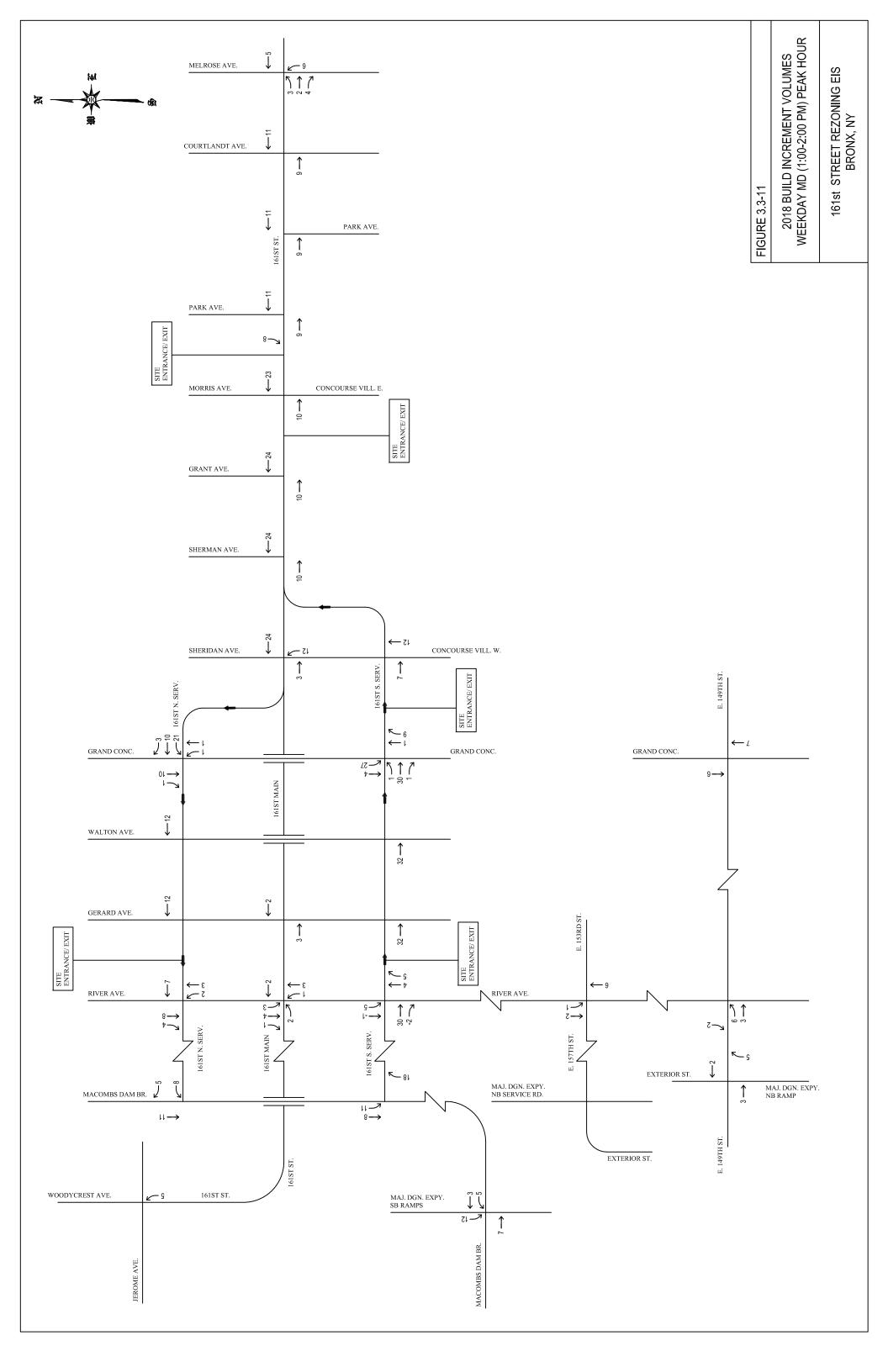
Based on the Action condition traffic volumes shown in Figures 3.3-14 through 3.3-17, intersection capacity analyses were conducted according to the *HCM* methodologies. According to the thresholds established in the *CEQR Technical Manual*, the following situations represent significant traffic impacts:

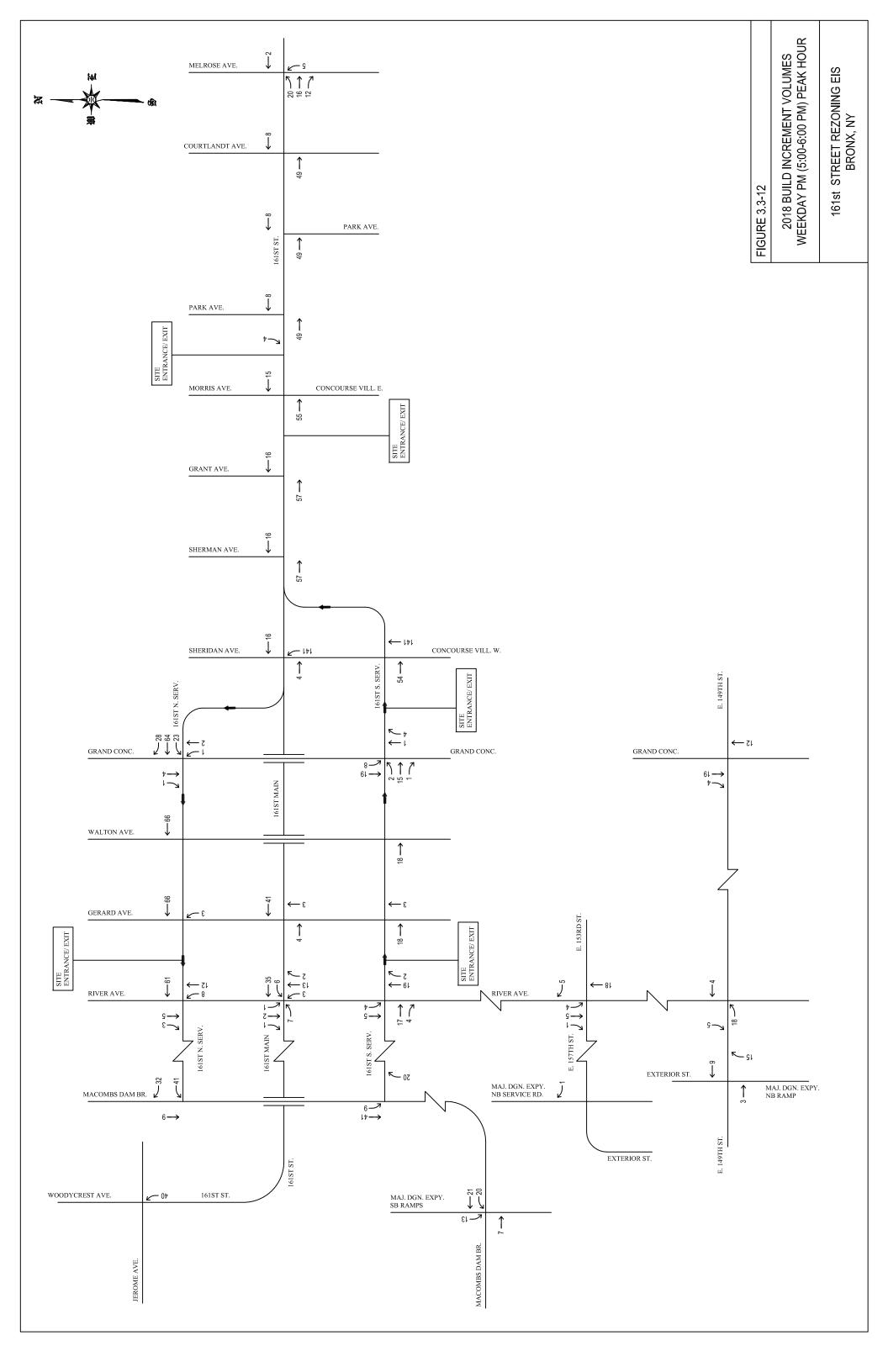
- 1) A No-Action LOS "A", "B" or "C" that deteriorates to mid-LOS "D" or worse under the Action condition is considered significant. (The *CEQR Technical Manual* further states that for a No-Action LOS "A", "B" or "C", which declines to mid-LOS "D" or worse under the Action condition, mitigation to mid-LOS "D" is required.)
- 2) For a No-Action mid-LOS "D", an increase of five or more seconds of delay in a lane group under the Action condition is considered significant.
- 3) For No-Action LOS "E", an increase of four or more seconds of delay in a lane group under the Action condition is considered significant.
- 4) For No-Action LOS "F", an increase of three or more seconds of delay in a lane group under the Action condition is considered significant. However, if the delay exceeds 120 seconds under the No-Action condition, an increase of 1.0 second in delay is considered significant, unless the proposed action would generate fewer than five vehicles through that lane group during the peak hour under consideration.

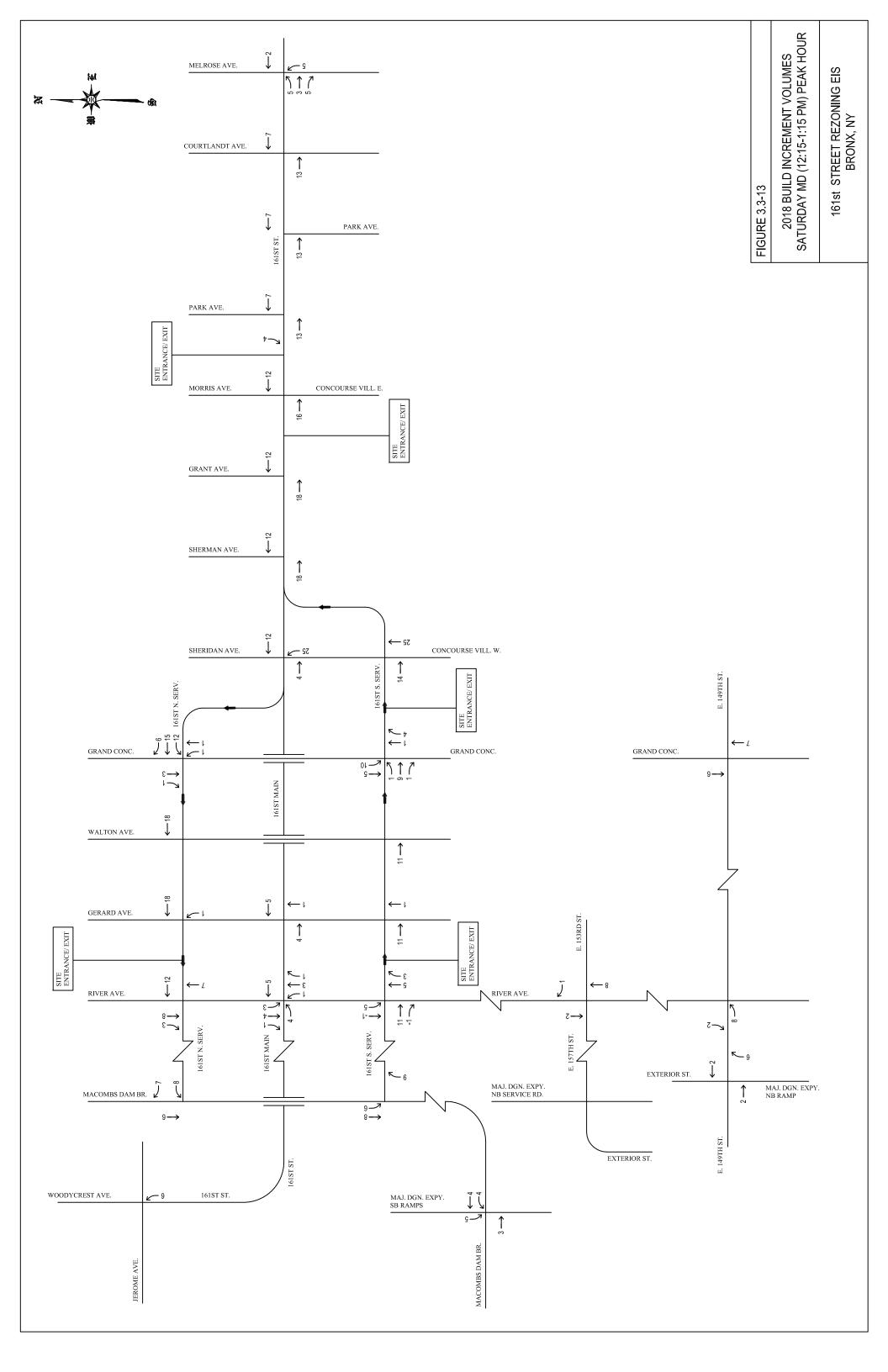
Table 3.3-7 shows the v/c ratios, average control delays, and levels-of-service under year 2018 Action conditions, and compares those results to those under 2018 No-Action conditions during each peak hour, and then notes (with an "X" in the "Impact?" column) any movements or approaches that are projected to experience a significant traffic impact based on the *CEQR* criteria described above. As shown in Table 3.3-7, and summarized in Table 3.3-8 below, there would be the following number of intersections with one or more significantly adversely impacted movements during each of the Non-Game Day peak hours analyzed:

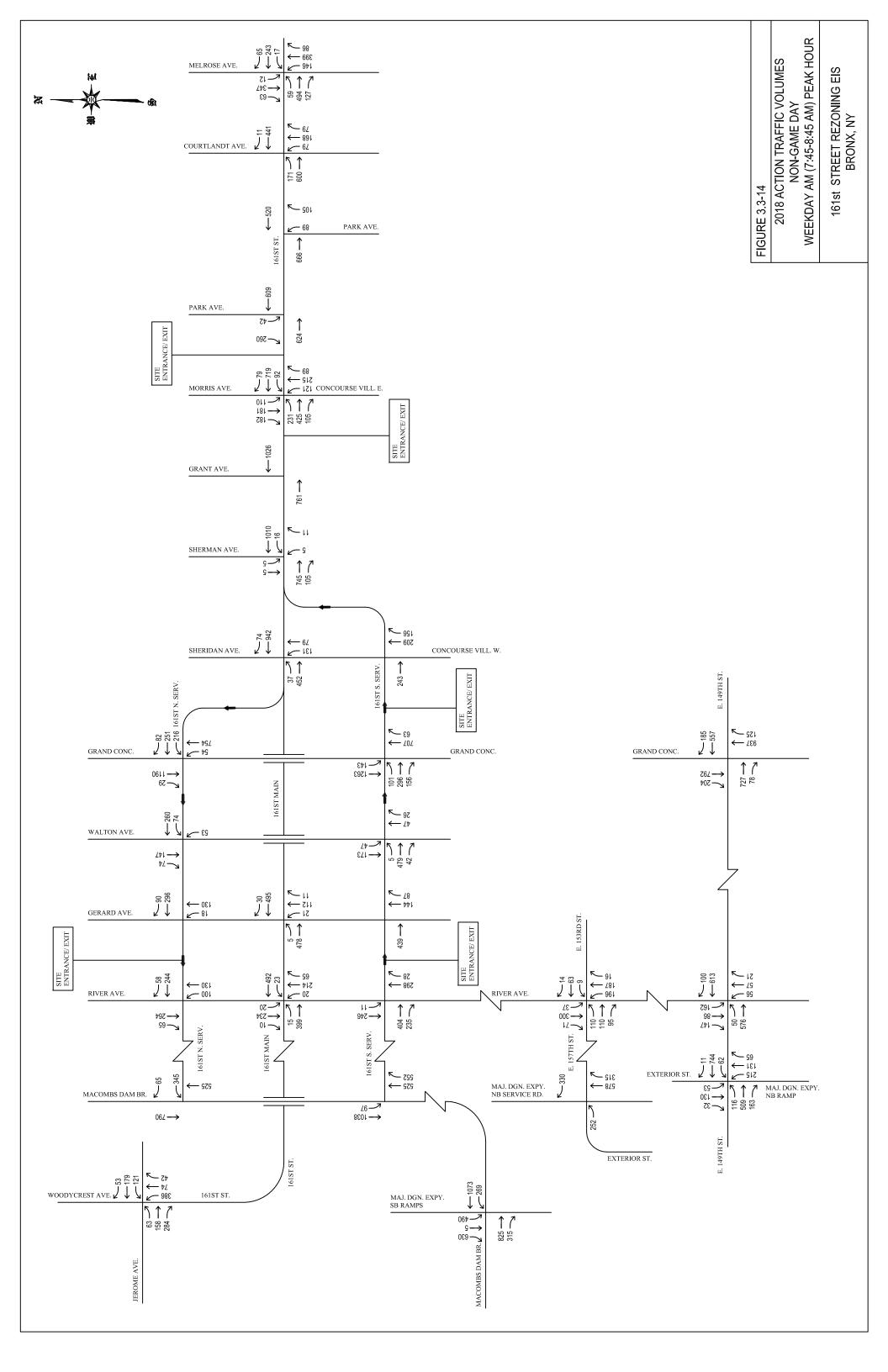
- Four intersections during the weekday AM peak hour;
- No intersections during the weekday midday peak hour;
- Five intersections during the weekday PM peak hour; and
- Two intersections during the Saturday midday peak hour.

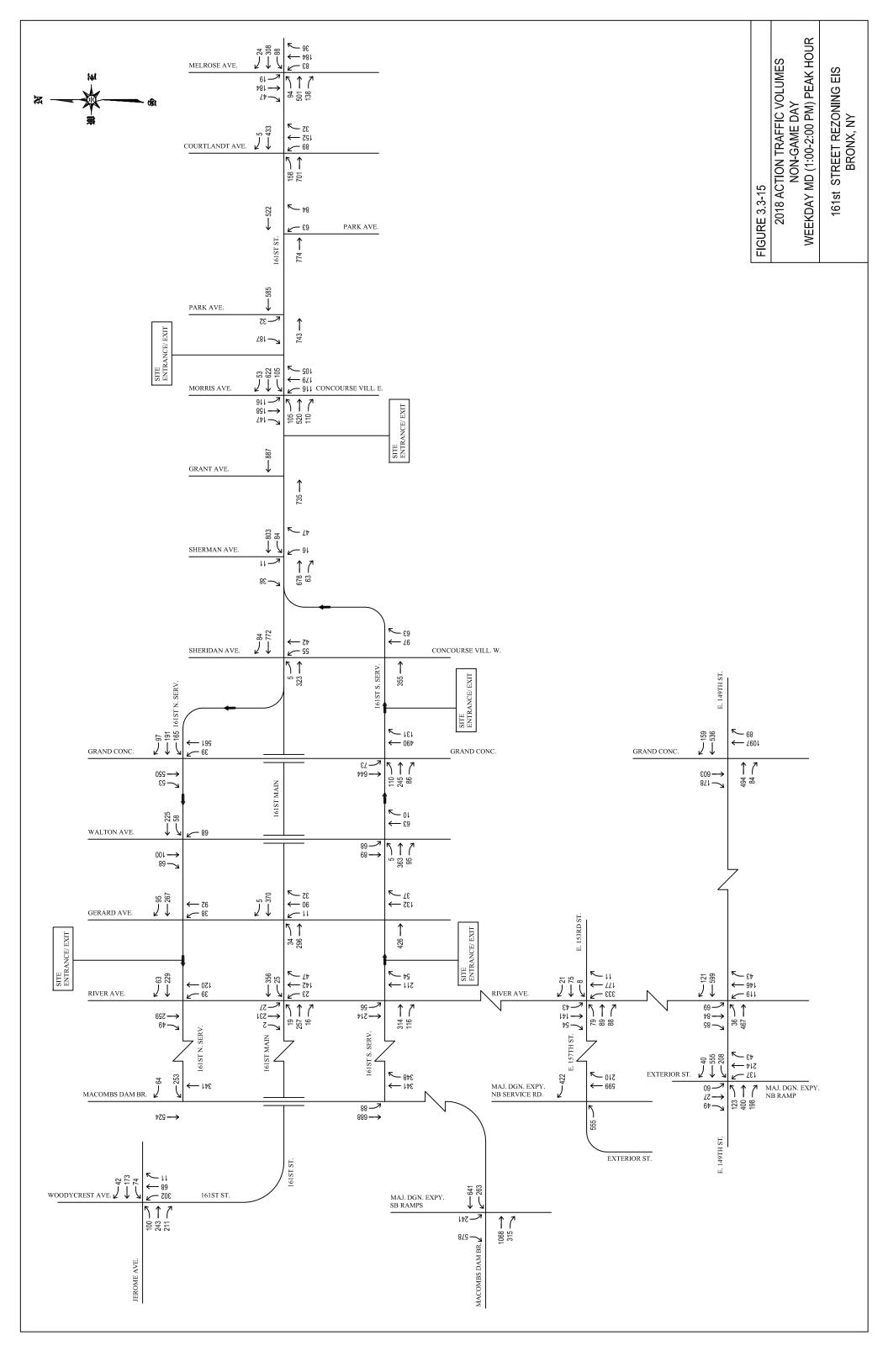


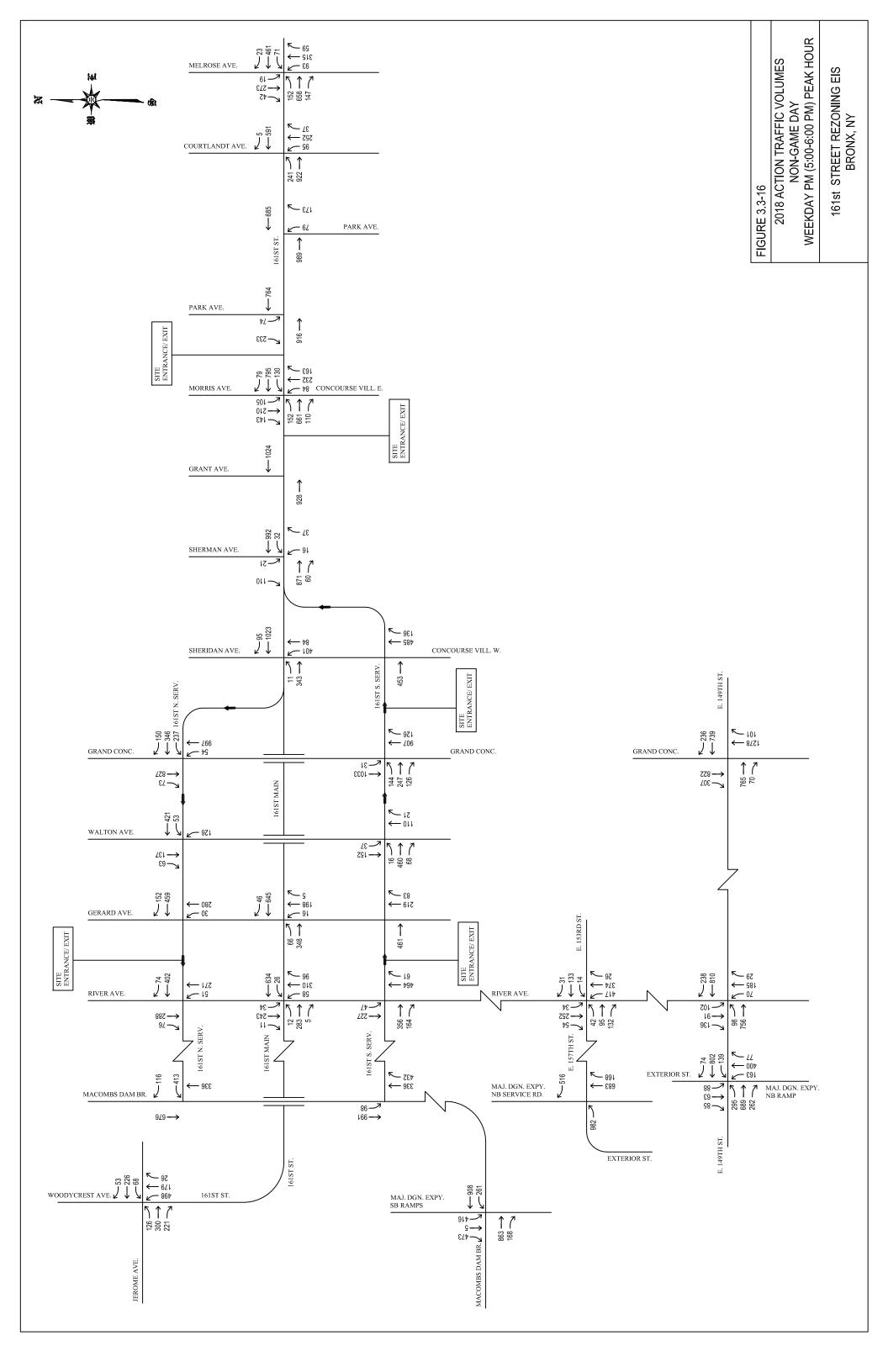












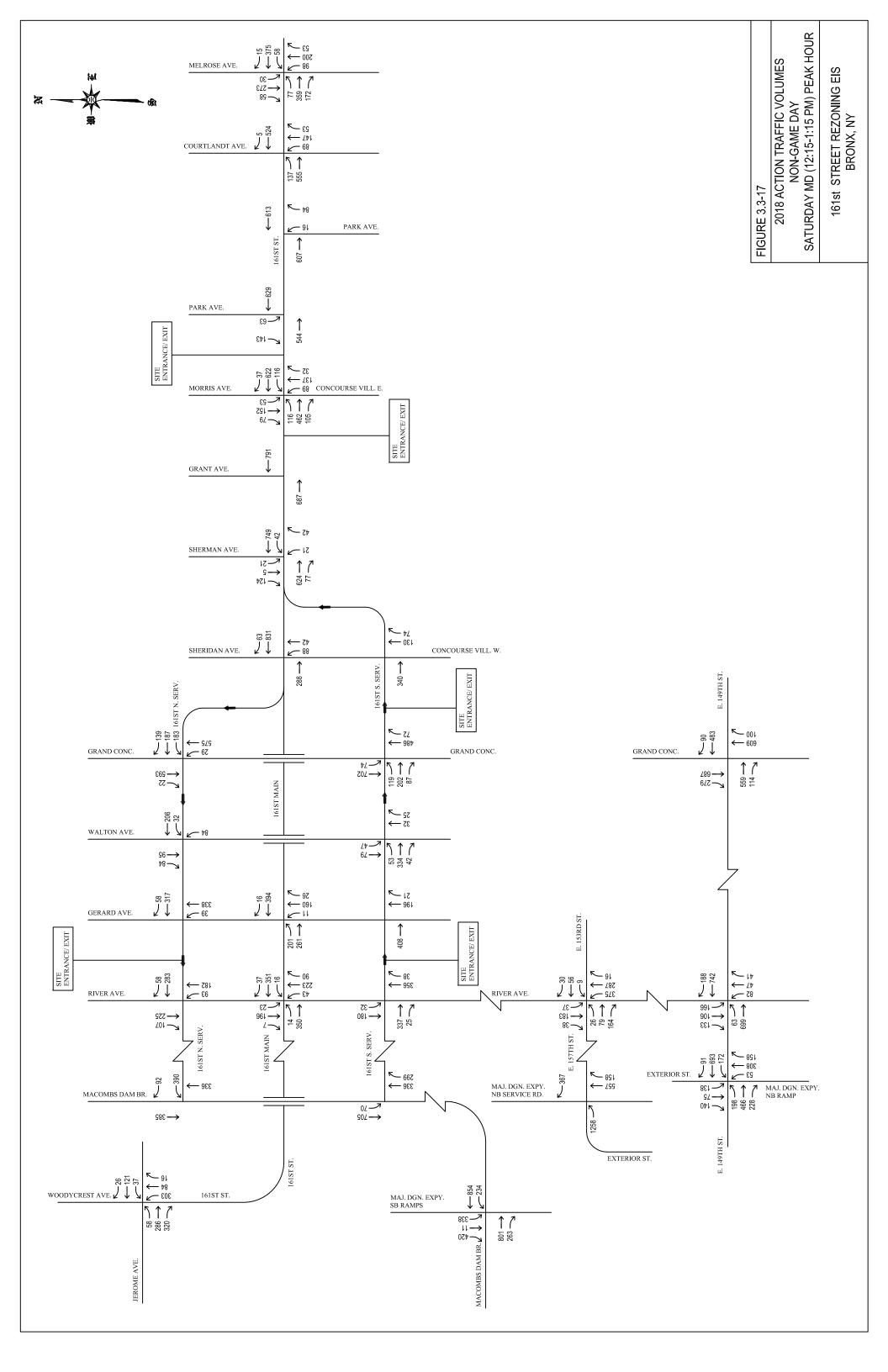


Table 3.3-7 Year 2018 Comparison of Non-Game Day Traffic Conditions: No Mitigation 161st Street Rezoning - Bronx, NY

				W NO-ACTIO	(7:45	y AM Po to 8:45						(1:00	iday (N to 2:00		our				(5:00 t	PM Pe o 6:00					Saturd	(12:15	day (S. to 1:1		lour	
Intersection	Approach	Lane Group	v/c	Delay (sec/veh)	LOS	v/c	ACTION Delay (sec/veh)	LOS	Impact?	v/c	Delay (sec/veh)	LOS	v/c	ACTION Delay (sec/veh)	LOS	Impact?	v/c	Delay (sec/veh)	LOS	v/c	ACTION Delay (sec/veh)	LOS	Impact?	v/c	Delay (sec/veh)	LOS	v/c	ACTION Delay (sec/veh)	LOS	Impact?
		<u> </u>		<u>, ,</u>	l.		. ,		-	ļ	SIGNA	LIZED	INTER	SECTIONS	3	_		. ,	l.	l	. ,		-		<u> </u>			<u>r</u>	_	
		L	0.27	20.5	С	0.27	20.5	С	1	0.41	23.3	С	0.41	23.3	С	1	0.63	32.9	С	0.63	32.9	С		0.19	18.6	В	0.19	18.6	В	
	EB	TR T	 0.16	 16.9	 B	0.16	 16.9	 B		0.24	 17.8	 B	0.24	 17.8	 B		0.30		 B	0.30		 B		 0.28			0.28		 B	
1. 161st Street		R	0.63	27.4	C	0.63	27.4	C		0.24	23.2	C	0.24	23.2	C		0.50	23.7	C	0.50	23.7	C		0.28	25.1	C	0.28	25.1	С	
at Jerome Avenue	WB	L	0.35	21.3	C C	0.35	21.3	С		0.24	19.6	В	0.24	19.6	B	-	0.25	20.0	B C	0.25	20.0	B		0.13	17.8	BB	0.13	17.8	B	
	NB	TR LT	0.55	23.9 14.9	B	0.55	23.9 15.0	C B		0.50	22.8 14.2	C B	0.50	22.8 14.2	B		0.65	27.1 17.0	B	0.65	27.1 17.5	B		0.33	19.4 14.1	B	0.33	19.4 14.2	B	
		R	0.12	13.0	В	0.12	13.0	В		0.03	12.1	В	0.03	12.1	В		0.08	12.5	В	0.08	12.5	В		0.03	12.0	В	0.03	12.0	В	
		verall	0.60	20.0 28.9	B	0.64	20.0 30.1	B		0.45	19.0 25.5	B	0.47	19.0 25.8	B	_	0.69	21.5 32.0	C C	0.76	21.2 35.6	D		0.74	18.7 33.6	B	0.75	18.6 34.4	B	_
2. 161st Street N. Service Road	WB	R	0.20	21.8	С	0.23	22.2	С		0.21	22.0	С	0.23	22.2	С		0.30	23.4	С	0.42	25.4	С		0.27	22.5	С	0.29	22.9	С	
at Macombs Dam Br. Approach	NB SB	T T	0.34	11.4 13.4	B	0.34	11.4 13.6	B		0.22	10.4	B	0.22	10.4	B		0.22	10.4 12.6	B	0.22	10.4 12.6	B		0.20	10.2	B	0.20	10.2	B	
		verall	0.01	15.8	B	0.00	16.3	B		0.01	14.4	B	0.00	14.6	В		0.10	17.2	B	0.10	18.8	B		0.21	19.2	В	0.21	19.6	B	
4. 161st Street N. Service Road	WB NB	TR LT	0.34	21.0 4.6	C A	0.35	21.1 6.2	C		0.33	20.9 2.1	C A	0.34	21.0 2.2	C		0.48	23.0 3.5	C	0.55	24.2 4.3	C A		0.45	13.5 34.8	B C	0.46	13.6 43.4	B	\square
at River Avenue	SB	TR	0.48	4.6 20.6	C	0.57	21.5	A C		0.26	2.1 19.8	B	0.27	20.3	C		0.47	22.9	A C	0.53	23.4	C		0.91	34.8	D	0.96		D	
	Ov	verall		16.6	В		17.4	В			16.7	В		16.9	В			17.7	В		18.6	В			26.7	С		30.1	С	
	EB WB	LTR LTR	0.44	22.3 22.9	C C	0.44	22.3 23.0	C C		0.29	20.3 21.9	C C	0.30	20.4 22.0	C C		0.29 0.59	20.3 24.6	C C	0.33	20.8 25.6	C C		0.42	12.7 12.3	B	0.43	12.9 12.3	B	
5. 161st Street Main Road at River Avenue	NB	LTR	0.44	3.1	Α	0.47	3.4	Α		0.38	2.7	Α	0.39	2.8	Α		0.74	8.2	Α	0.78	9.6	A		1.01	42.7	D	1.01	44.5	D	
	SB	LTR verall	0.35	2.4 15.1	A	0.37	2.5 15.0	AB		0.34	2.3 13.1	A	0.36	2.4 13.1	A		0.42	2.9 15.4	AB	0.43	2.9 16.4	A		0.46	6.6 21.1	A	0.48	6.9 21.6	A	
	EB	TR	0.70	28.0	C	0.79	31.1	C		0.48	23.0	C	0.51	23.5	C		0.60	25.3	C	0.63	25.8	C		0.91	29.2	C	0.93	32.6	C	
6. 161st Street S. Service Road	NB	TR	0.46	19.0	В	0.51	20.0	B		0.41	18.3	В	0.43	18.5	В		0.79	29.8	С	0.82	31.9	С		0.90	41.0	D		44.1	D	
at River Avenue	SB	LT	0.34	2.3 19.9	A	0.34	2.3 22.3	A C		0.40	2.7 15.9	A	0.41	2.8 16.5	A		0.44	3.2 22.3	A C	0.47	3.6 23.4	A C		0.54	8.4 29.3	A C	0.59	9.6 32.3	A	
7. 161st Street N. Service Road	WB	TR	0.25	6.7	A	0.26	6.8	Α		0.24	6.6	Α	0.25	6.7	A		0.38	7.7	Α	0.41	8.0	Α		0.26	8.5	Α	0.28	8.6	A	
at Gerard Avenue	NB	LT	0.37	20.2 10.3	CB	0.37	20.2 10.2	CB		0.33	19.6	B	0.33	19.6 9.9	B		0.77	31.3 15.6	CB	0.78	31.7 15.5	C		0.72	14.2 11.6	B	0.73	14.3 11.6	B	
		LT	0.27	6.8	A	0.28	6.9	A		0.25	6.7	A	0.25	6.8	A		0.42	8.4	A	0.43	8.6	A								
8, 161st Street Main Road	EB	DefL T																						0.57	16.1 9.6	B	0.57	16.2 9.7	B	
at Gerard Avenue	WB	TR	0.24	6.6	A	0.29	7.0	A		0.20	6.4	A	0.20	6.4	A		0.37	7.5	A	0.39	7.7	A		0.34	9.6 8.6	A	0.35	8.7	A	
	NB	LTR	0.39	20.5	С	0.40	20.6	С		0.41	21.1	С	0.41	21.1	С		0.56	23.6	С	0.57	23.8	С		0.36	8.2	A	0.37	8.2	A	
	EB	verall TR	0.28	8.7 6.9	A	0.34	8.8 7.4	A	_	0.31	9.1 7.1	A	0.33	9.1 7.3	A	_	0.35	10.6 7.4	B A	0.36	10.7 7.5	B A	-	0.34	10.2 9.2	B A	0.35	10.3 9.2	A	
 161st Street S. Service Road at Gerard Avenue 	NB	TR	1.01	87.3	F	1.01	87.3	F		0.64	39.3	D	0.65	39.5	D		1.20	149.4	F	1.21	154.3	F	Х	0.54	19.6	В	0.54	19.7	В	
	WB	verall LT	0.20	36.2 10.2	DB	0.20	32.8 10.3	C B	_	0.16	15.6 10.0	B A	0.17	15.3 10.0	BB		0.25	59.3 10.6	B	0.28	60.2 11.0	B		0.21	12.8 10.9	B	0.22	12.9 11.0	B	
10. 161st Street N. Service Road	NB	L	0.24	17.4	В	0.24	17.4	В		0.28	17.6	В	0.28	17.6	В		0.55	22.4	С	0.55	22.4	С		0.22	8.1	Α	0.22	8.1	A	
at Walton Avenue	SB	TR	0.40	28.8	C	0.40	28.8 18.2	C		0.31	27.6	C	0.31	27.6 17.3	C		0.36	28.2	CB	0.36	28.2 17.8	C		0.30	17.2 12 7	B	0.30	17.2 12.7	B	
	EB	LTR	0.41	12.2	B	0.48	13.1	B		0.43	12.5	B	0.45	12.9	B		0.49	18.2 13.3	B	0.51		B	-	0.33	11.9	B	0.34		B	
11. 161st Street S. Service Road	NB	TR	0.30	28.2	С	0.30	28.2	С		0.27	27.8	С	0.27	27.8	С		0.49	31.9	С	0.49	31.9	С		0.29	18.0	B	0.29	18.0	B	
at Walton Avenue	SB	T	0.24 0.45	17.4 12.5	B	0.24 0.45	17.4 12.5	B		0.35	18.9 10.1	B	0.35	18.9 10.1	B		0.23 0.40	17.7 11.8	B	0.23	17.7 11.8	B		0.13	7.5 2.8	A	0.13	7.5 2.8	A	
		verall		14.3	В		14.7	В			14.7	В		14.8	В			16.2	В		16.3	В			11.3	В		11.4	В	
	WB	LTR L	0.49	25.4 16.8	C B	0.54	26.4 18.7	C B		0.40	21.3 4.9	C A	0.43	21.8 4.9	C		0.62	28.3 5.8	C A	0.74	32.1 5.9	C A		0.51 0.14	23.3 4.5	C A	0.54	24.0 4.6	C	
12. 161st Street N. Service Road	NB	Т	0.52	3.1	Α	0.52	3.1	Α		0.42	4.1	Α	0.42	4.1	Α		0.69	4.4	Α	0.69	4.4	Α		0.42	4.1	Α	0.43	4.1	Α	
at Grand Concourse	SB	T R	0.39	19.5 16.6	B	0.40	19.6 16.6	B		0.19	19.5 19.4	B	0.20	19.5 19.4	B		0.27	18.1 17.6	B	0.28	18.1 17.6	B		0.23	19.8 18.7	B	0.23	19.9 18.7	B	
		verall		15.6	В		16.1	В		0.11	14.2	В		14.5	B			15.0	В		16.6	В			15.4	В		15.8	В	
	EB NB	LTR TR	0.46	24.8	C C	0.54	26.3	C C		0.37	20.8	C C	0.39	21.2	C		0.49	25.3	C C	0.50	25.6 23.7	C C		0.35	20.6	C C	0.36	20.7	C	
13. 161st Street S. Service Road	SB	L	0.43	20.3 7.5	A	0.45	20.6 25.4	C		0.41	22.4 5.6	A	0.43	22.6 7.9	A		0.61	23.6 5.0	A	0.62	6.4	A		0.32	5.8	A	0.32	6.3	A	\vdash
at Grand Concourse		T	0.55	2.9	Α	0.55	2.9	A		0.30	3.4	Α	0.30	3.4	A		0.44	2.5	Α	0.45	2.5	Α		0.33	3.5	Α	0.33	3.5	A	
	EB (Main)	verall	0.64	12.6 17.2	B	0.65	14.3 17.4	B		0.38	15.0 12.3	B	0.38	15.3 12.3	B		0.42	16.0 12.9	B	0.43	16.1 12.9	B		0.42	13.6 13.3	B	0.43	13.7 13.4	B	
14.&15. 161st Street	EB (Service)	TR	0.13	9.8	Α	0.14	9.8	Α		0.20	10.2	В	0.20	10.3	В		0.23	10.4	В	0.26	10.7	В		0.24	11.1	В	0.25	11.2	В	
at Concourse Village West/	WB	LTR R	0.55	13.9 10.4	B	0.58	14.4 10.4	B		0.46	12.7 10.6	B	0.47	12.9 10.6	B		0.62	15.1 10.8	BB	0.63	15.2 10.8	B		0.64	15.5 11.5	B	0.65	15.7 11.5	B	
Sheridan Avenue	NB	LTR	0.38	22.7	С	0.39	22.8	С		0.15	20.1	С	0.13	20.2	С		0.49	24.3	С	0.63	26.8	С		0.15	10.6	В	0.13	10.7	B	
	Ov	verall		15.6	B north-e		15.9	В			12.7	В		12.8	В			15.7	В		16.7	В			13.6	В		13.7	В	

NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn v/c = volume-to-capacity ratio, LOS = Level-of-Service

Table 3.3-7 Year 2018 Comparison of Non-Game Day Traffic Conditions: No Mitigation 161st Street Rezoning - Bronx, NY

					(7:45	y AM Po to 8:45						(1:00	iday (M to 2:00	. /	our					PM Pea o 6:00 p	o.m.)					(12:15		AT) Peak H 5 p.m.)	lour	
Intersection	Approach	Lane Group	v/c	Delay (sec/veh)	N LOS	v/c	ACTION Delay (sec/veh)	LOS	npact?	v/c	Delay (sec/veh)	N LOS	v/c	ACTION Delay (sec/veh)	LOS	Impact?	v/c	Delay	LOS	v/c	ACTION Delay (sec/veh)	LOS	mpact?	v/c	Delay (sec/veh)	N LOS	v/c	ACTION Delay (sec/veh)	LOS	mpact?
	EB	TR	0.48	(sec/ven) 8.7	A	0.49	(sec/ven) 8.7	A	5	0.41	(sec/ven) 7.9	А	0.41	(sec/ven) 8.0	A	5	0.48	(sec/veh) 8.6	A	0.51	(sec/ven) 9.0	A	5	0.44	(sec/ven) 9.4	A	0.45	(sec/ven) 9.5	A	=
	WB	LT	0.66	11.3	В	0.69	11.9	В		0.84	18.4	В	0.86	19.8	В		0.74	13.5	В	0.76	14.1	В		0.58	11.2	В	0.59	11.3	В	
16. 161st Street at Sherman Avenue	NB	L R	0.08	26.8 26.1	C C	0.08	26.8 26.1	C C		0.26	30.0 27.6	C C	0.26	30.0 27.6	C C		0.41 0.12	36.3 27.2	D C	0.41 0.12	36.3 27.2	D C		0.12	15.4 15.7	B	0.12	15.4 15.7	B	
at onomain mondo	SB	LTR	0.06	25.7	С	0.06	25.7	С		0.47	35.0	С	0.47	35.0	С		1.25	175.5	F	1.25	175.5	F		0.64	25.7	С	0.64	25.7	С	
	EB Ov	erall T	0.47	10.5 12.9	B	0.47	10.9 13.0	B		0.45	15.8 12.7	B	0.45	16.6 12.8	B		0.54	30.6 13.9	B	0.57	30.4 14.4	B		0.41	12.4 12.3	B	0.43	12.5 12.4	B	
17. 161st Street at Grant Avenue	WB	T erall	0.66	16.2 14.8	B	0.69	17.0 15.3	B		0.58	14.7 13.8	B	0.60	15.0 14.0	B		0.68	16.7 15.4	B	0.69	17.0 15.8	B		0.48	13.1 12.7	B	0.49	13.2 12.8	B	
	EB	DefL	1.14	122.4	F	1.39	228.2	F	Х													 F	X							
18. 161st Street	WB	TR LTR	0.82	26.6 19.8	C B	0.83	27.7 24.0	C		0.65	17.1 17.6	B	0.66	17.5 18.2	B		1.28	155.4 131.7	F	1.36	189.9 153.4	F	X	0.61	11.9 12.8	B	0.63	12.2 13.1	B	
at Concourse Village East/ Morris Avenue	NB SB	LTR LTR	1.04	83.2 91.6	F	1.04	83.2 91.6	F		0.87	41.5 46.6	D	0.87	41.5 46.6	D		1.02	74.0 99.5	E	1.02	74.0 99.5	E		0.87	40.3 38.9	D	0.87	40.3 38.9	D	
		erall	1.07	54.3	D	1.07	64.0	E	х	0.91	26.5	c	0.91	26.6	C		1.09	126.0	F	1.09	146.4	F	х	0.80	21.1	C	0.00	21.1	C	
10, 101, 101, 11	EB	T	0.45	12.8	B	0.45	12.9	B		0.53	14.0 1.9	B	0.54	14.1 2.0	B		0.63	15.7 2.5	B	0.67	16.4 2.5	B		0.44	9.5	A	0.45	9.6 1.7	A	
19. 161st Street at Park Avenue West	WB SB	LR	0.38	2.0 60.4	A	0.40	2.0 73.0	A	х	0.37	1.9 34.8	A C	0.38	36.5	A D		1.01	2.5 78.6	A	0.50	2.5 82.2	A F		0.41 0.63	1.7 24.9	A C	0.41	25.6	A C	
		erall		18.7	В		21.7	С			12.8	В		13.2	В			21.8	С		22.7	С			8.6	Α		8.8	Α	
20. 161st Street	EB WB	T	0.46	2.3 11.3	A B	0.47	2.4 11.7	A B		0.54	2.8 11.3	A B	0.55	2.8 11.4	A B		0.66	3.8 12.5	A B	0.70	4.2 12.5	A B		0.48	2.0 8.9	A	0.49	2.0 8.9	A	
at Park Avenue East	NB	LR	0.70	36.2	D	0.70	36.2	D		0.53	29.1	С	0.53	29.1	С		0.88	53.3	D	0.88	53.3	D		0.39	19.3	В	0.39	19.3	В	
	EB Ov	erall LT	0.76	20.0	B C	0.77	20.8	BC		0.81	8.8 22.2	A C	0.82	8.8 22.9	A C		1.01	14.2 49.9	B D	1.02	14.2 50.4	B D		0.60	6.5 11.9	B	0.61	6.5 12.1	A B	_
21. 161st Street	WB	TR	0.30	11.2	В	0.32	11.3	В		0.30	11.1	В	0.31	11.2	В		0.41	12.3	B	0.39	12.1	B		0.39	9.0	Α	0.40	9.1	Α	
at Courtlandt Avenue	NB	LTR erall	1.11	106.5 40.8	F	1.11	106.5 40.7	F		0.84	44.2 24.0	D	0.84	44.2 24.2	D		1.04	82.8 46.0	F D	1.00	71.9 43.9	E D		0.85	37.6 16.6	DB	0.85	37.6 16.6	DB	
	EB	LTR	0.58	25.4	C	0.59	25.7	C		0.77	32.4	C	0.79	33.6	C		1.11	98.9	F	1.19	130.9	F	Х	0.64	27.3	C	0.67	28.3	C	_
	WB	LTR	0.28	20.3	C	0.29	20.4	C	v	0.57	26.3	C	0.58	26.6	C		0.74	32.0	С	0.76	33.2	С		0.51	24.2	С	0.52	24.3	С	
22. 161st Street	NB	LTR L	1.16	123.4		1.21	144.8		^	0.54	26.4	C	0.56	26.9	C		0.85	42.5	D 	0.87	45.3	D 		0.88	48.9	D	0.91	53.2	D 	
at Melrose Avenue	SB	TR LTR	0.69	 30.5	 C	 0.69	 30.5	 C		0.49	 24.9	 C	0.49	 24.9	 C		 0.62	28.5	 C	0.62	 28.6	 C		 0.66	 29.9	 C	0.66	 29.9	 C	
		erall	0.69	54.5	D	0.69	30.5 60.9	E	х	0.49	24.9 28.7	c	0.49	24.9 29.4	c		0.62	28.5 60.5	E	0.62	28.6 75.4	E	х	0.66	29.9 31.8	c	0.66	29.9 33.0	c	
	EB	TR	0.89	33.4	С	0.90	34.5	С		0.98	42.6	D	0.99	43.6	D		0.79	27.7	С	0.79	27.9	С		0.95	39.7	D	0.95	40.0	D	
23. Macombs Dam Bridge at Major Deegan Expy. (I-87)	WB	L T	1.00	79.6 16.4	B	1.06	95.7 16.5	F	Х	0.98	74.2 13.1	B	1.00 0.35	77.1 13.1	B		0.97	68.8 14.9	B	1.06 0.52	93.8 15.1	F B	Х	0.97	73.7 14.4	B	0.99	77.8 14.5	EB	X
Southbound Ramps	SB	LTR	0.90	35.9	D	0.91	37.3	D		0.67	25.5	С	0.67	25.5	С		0.72	26.8	С	0.73	27.2	С		0.63	24.4	C	0.63	24.5	С	
	Ov NEB	erall		32.3	С		34.4	C			34.2	C		34.9	C			27.0	С		29.5	C			21.4	С		31.9	С	
24. E. 157th Street	WB	R	0.41	15.9	В	0.41	16.0	В		0.47	16.4	В	0.47	16.4	В		0.50	16.0	В	0.50	16.0	В		0.54	16.8	В	0.54	16.8	В	
at Major Deegan Expy. (I-87) Northbound Off-Ramp	NB	T R	0.37	11.0 12.5	B	0.37	11.0 12.5	B		0.49	12.0 10.7	B	0.49	12.0	B		0.62	12.8 9.2	B	0.62	12.8 9.2	B A		0.83	17.4 9.7	B A	0.83	17.4 9.7	B	
Hornboaria on Hamp	Ov	erall	0.10	12.5	B	0.10	12.5	B		0.21	13.0	B	0.21	13.0	B		0.11	13.4	B	0.111	13.4	В		0.20	16.8	В	0.20	16.8	В	
	EB WB	LTR LTR	0.65	30.0 21.1	C C	0.65	29.9 21.2	C C		0.53	26.5 22.8	C C	0.53	26.5 22.8	00		0.92	63.4 51.7	E D	0.93	65.4 55.3	E		0.60	21.3 16.9	C B	0.60	21.3 16.9	C B	-
25. E. 153rd Street		LTR																												
at River Avenue	NB	DefL TR	0.70	27.2 11.8	C B	0.72	28.3 12.0	C B		0.87	37.8 11.6	D B	0.87	38.1 11.7	DB		0.98	49.3 8.5	D	0.99	53.1 8.8	D		0.81	25.1 12.4	C B	0.81	25.3 12.7	C B	
	SB	LTR	0.64	17.1	В	0.67	18.1	B		0.48	14.3	В	0.48	14.4	B		0.53	9.4	Α	0.55	9.8	Α		0.40	10.0	Α	0.40	10.0	B	
	Ov	erall LTR		21.2	С		21.6	С			23.8	С		23.8	С			32.3	С		33.8	C			17.3	В		17.4	В	-
	EB	LIK	0.62	31.7	C	0.62	31.7	С		0.47	23.9	C	0.47	23.9	С		1.30	190.2	F	1.31	194.8	F	Х	0.83	48.3	D	0.83	48.7	D	
		TR LTR	0.62	23.4	C	0.63	23.5	C		0.57	22.3	C	0.57	22.3	C		0.80	28.9	С	0.80	28.9	C		0.63	23.5	C	0.63	23.5	C	
	WB	L	0.52	28.4	С	0.53	28.9	С		0.95	70.5	Е	0.95	70.5	Е		1.00	102.0	F	1.01	104.1	F		0.87	59.1	E	0.87	59.1	Е	
		TR LTR	0.43	19.8	В	0.43	19.8	В		0.32	18.2 111.8	B	0.32	18.2 113.8	B		0.44	19.8 83.9	B	0.44	19.8 86.0	B		0.40	19.3	В	0.40	19.3	В	
26.&27. E. 149th Street	NB (Exterior)	DefL	1.08	171.2	F	1.08	171.2	F									0.99							1.03	138.3	F	1.03	138.3	F	
at River Avenue/ Exterior Street/	(LAterior)	TR LTR	0.43	40.0	D	0.43	40.0	D		0.93	65.0		0.95	67.7			 1.13	 119.5		 1.16	 131.6	 F	v	0.46	40.9 76.3	D	0.46	40.9 79.8	DE	
Major Deegan Expy. (I-87) Northbound Off-Ramp	NB (Ramp)	DefL	1.24	183.3	F	1.24	183.3	F															^							
Nonnbound On-Kamp	(itanip)	TR	0.85	63.4	Е	0.88	67.0	E																						
	CD (Ext)	DefL	0.50	44.4	D	0.51	45.0	 D		0.75	74.0	E	0.77	77.8	Е		1.75	428.2	F	1.75	428.2	F		2.16	604.9	F	2.22	632.2	F	х
	SB (Ext)	T R	0.37	37.5 34.0	D C	0.37	37.5 34.0	D C		0.12	33.5 35.7	C D	0.12 0.25	33.5	С		0.24 0.39	35.2	D D	0.24 0.39	35.2 38.3	D D		0.25	35.4 42.5	D D	0.25	35.4 42.5	D	
	SB	L	0.96	94.6	F	0.96	94.6	F		0.25	77.1	E	0.76	35.7 77.1	D		1.14	38.3 132.0	F	1.16	38.3 138.9	F	х	0.55	42.5	E	0.55		F	
	(River)	TR erall	1.05	106.9	F	1.05	106.9	F		0.65	47.3 49.3	D	0.66	47.6	D			83.9			 97 E	 F	Y		73.4				 E	
	EB	TR	0.84	56.8 42.4	D	0.84	57.2 42.4	D		0.58	49.3 30.5	C	0.58	50.3 30.5	C		0.89	83.9 46.4	D	0.89	87.5 46.4	D	~	0.65	73.4 31.9	C	0.65	75.3 31.9	E C	-
28. E. 149th Street	WB	TR	0.76	38.0	D	0.76	38.0	D		0.65	32.0	С	0.65	32.0	С		0.91	47.4	D	0.91	47.4	D		0.48	28.0	С	0.48	28.0	С	
at Grand Concourse	NB SB	TR TR	0.46	17.4 17.2	B	0.46	17.5 17.3	B		0.58	21.8 19.1	C B	0.59	21.8 19.1	C B		0.64	20.7 20.4	C C	0.65	20.8 20.6	C C		0.38	18.5 21.1	B C	0.38	18.5 21.2	B C	
		erall		27.6	C		27.6	C			24.9	C		24.9	C			31.6	Č		31.6	Č			24.1	Č		24.2	Č	
														SECTION																
	NB	TR	0.71					B		0.46	12.9		0.48				0.52	13.6	В		13.9	В		0.44	12.6		0.45		B	L
3. 161st Street S. Service Road at Macombs Dam Br. Approach*	SB	LT	0.58	1.2	Α	0.62	1.5	A		0.37	0.6	A	0.39	0.6	Α		0.52	1.0	Α	0.55	1.1	A		0.36	0.5	A	0.37	0.6	A	

Intersection of 161st Street at Macombs Dam Bridge is unsignalized in Existing condition, but signalized in all future conditions.
 NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound
 I = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn v/c = volume-to-capacity ratio, LOS = Level-of-Service

Intersections			e Day Impa ated by 'X'	cts
	AM	MD	PM	SAT
9. 161st Street S. Service Road at Gerard Avenue			X	
18. 161st Street at Concourse Village East/ Morris Avenue	X		X	
19. 161st Street at Park Avenue West	X			
22. 161st Street at Melrose Avenue	X		X	
23. Macombs Dam Bridge at Major Deegan Expy. (I-87) Southbound Ramps	X		X	X
26.&27. E. 149th Street at River Avenue/ Exterior Street/ Major Deegan Expy. (I-87) Northbound Off-Ramp			X	X

Table 3.3-8Summary of Non-Game Day Traffic Impacts

These significant adverse impacts are described in more detail below.

E. 161st Street Corridor Impact Locations

- <u>E. 161st Street S. Service Road at Gerard Avenue</u> During the weekday PM peak hour, delays for vehicles on the northbound approach are projected to increase from 149.4 seconds/vehicle (LOS "F") under the No-Action condition to 154.3 seconds/vehicle (LOS "F") under the Action condition
- <u>E. 161st Street at Concourse Village East/Morris Avenue</u> During the weekday AM peak hour, delays for vehicles on the eastbound *de facto* left turning movement are projected to increase from 122.4 seconds/vehicle (LOS "F") under the No-Action condition to 228.2 seconds/vehicle (LOS "F") under the Action condition; on the eastbound through movements in the PM peak hour delays for vehicles are projected to increase from 155.4 seconds/vehicle (LOS "F") under the No-Action condition to 189.9 seconds/vehicle (LOS "F") under the Action condition to 189.9 seconds/vehicle (LOS "F") under the Action condition; and on the westbound approach in the PM peak hour delays for vehicles are projected to increase from 131.7 seconds/vehicle (LOS "F") under the No-Action condition.
- <u>E. 161st Street at Park Avenue West</u> During the weekday AM peak hour, delays for vehicles on the eastbound approach are projected to increase from 60.4 seconds/vehicle (LOS "E") under the No-Action condition to 73.0 seconds/vehicle (LOS "E") under the Action condition.

- <u>E. 161st Street at Melrose Avenue</u> During the weekday AM peak hour, delays for vehicles on the northbound approach are projected to increase from 123.4 seconds/vehicle (LOS "F") under the No-Action condition to 144.8 seconds/vehicle (LOS "F") under the Action condition; during the weekday PM peak hour, delays for vehicles on the eastbound approach are projected to increase from 98.9 seconds/vehicle (LOS "F") under the No-Action condition to 130.9 seconds/vehicle (LOS "F") under the Action condition.
- <u>Macombs Dam Bridge at MDE (I-87) Southbound Ramps</u> During the weekday AM peak hour, delays for vehicles on the westbound left turn movement are projected to increase from 79.6 seconds/vehicle (LOS "E") under the No-Action condition to 95.7 seconds/vehicle (LOS "F") under the Action condition; during the weekday PM peak hour, delays for vehicles on the westbound left turn movement are projected to increase from 68.8 seconds/vehicle (LOS "E") under the No-Action condition to 93.8 seconds/vehicle (LOS "F") under the Action condition; during the Saturday midday peak hour, delays for vehicles on the westbound left turn movement are projected to increase from 73.7 seconds/vehicle (LOS "E") under the No-Action condition to 77.8 seconds/vehicle (LOS "E") under the Action condition.

Additional Impact Locations

E. 149th Street at River Avenue/Exterior Street/ MDE (I-87) Northbound Off-Ramp -

During the weekday PM peak hour, delays for vehicles on the eastbound left turn movement are projected to increase from 190.2 seconds/vehicle (LOS "F") under the No-Action condition to 194.8 seconds/vehicle (LOS "F") under the Action condition; delays for vehicles on the MDE northbound off-ramp are projected to increase from 119.5 seconds/vehicle (LOS "F") under the No-Action condition to 131.6 seconds/vehicle (LOS "F") under the No-Action condition to 131.6 seconds/vehicle (LOS "F") under the Action condition; and delays for vehicles on the southbound (River Ave.) through-right movement are projected to increase from 132.0 seconds/vehicle (LOS "F") under the No-Action condition to 138.9 seconds/vehicle (LOS "F") under the Action condition.

During the Saturday midday peak hour, delays for vehicles on the southbound Exterior Street approach are projected to increase from 604.9 seconds/vehicle (LOS "F") under the No-Action condition to 632.2 seconds/vehicle (LOS "F") under the Action condition.

In summary, the traffic analyses in this section for the Non-Game Day analysis demonstrate that the proposed rezoning action would result in significant adverse impacts at a number of locations during one or more of the four analyzed peak hours. Recommended mitigation measures of offset these projected impacts are discussed in Section 3.3.3 of this chapter.

3.3.2 GAME DAY TRAFFIC

EXISTING CONDITIONS

In addition to the Non-Game Day analysis, a targeted Game Day analysis was done for those pre-game peak hours affected by the surge of traffic that accompanies Yankee games. On weekdays, the pre-game peak for night games overlaps the weekday PM peak hour. On weekends, the pre-game peak overlaps the Saturday midday peak hour.

The analysis for the Game-Day was targeted to 22 of the 28 intersections of the study area analyzed under the Non-Game Day scenario. The 22 intersections selected for analysis are those that are expected to accommodate the highest concentrations of added vehicular traffic as a result of the proposed action. As shown in Figure 3.3-1, the 22 intersections analyzed as part of the targeted Game Day analysis include the following (the number indicates that shown in Figure 3.3-1):

- East 161st Street N. Service Road and River Avenue (4)
- East 161st Street Main Road and River Avenue (5)
- East 161st Street S. Service road and River Avenue (6)
- East 161st Street N. Service Road and Gerard Avenue (7)
- East 161st Street Main Road and Gerard Avenue (8)
- East 161st Street S. Service road and Gerard Avenue (9)
- East 161st Street N. Service Road and Walton Avenue (10)
- East 161st Street S. Service Road and Walton Avenue (11)
- East 161st Street N. Service Road and Grand Concourse (12)
- East 161st Street S. Service Road and Grand Concourse (13)
- East 161st Street (main road and both service roads) and Sheridan Avenue/Concourse Village West (14, 15)
- East 161st Street and Sherman Avenue (16)
- East 161st Street and Grant Avenue (17)
- East 161st Street and Morris Avenue/Concourse Village East (18)
- East 161st Street and Park Avenue West (19)
- East 161st Street and Park Avenue East (20)
- East 161st Street and Cortlandt Avenue (21)
- East 161st Street and Melrose Avenue (22)
- East 149th Street and River Avenue/Exterior Street (26, 27)
- East 149th Street and Grand Concourse (28)

Existing traffic volumes for these locations were developed based on the field counts conducted in September 2008 during weekday and Saturday pre-game peak periods. Intersection signal timings were provided by New York City Department of Transportation (NYCDOT) and verified in the field.

Figures 3.3-18 and 3.3-19 show the traffic volumes at each of the 22 game day study intersections during the weekday PM and Saturday midday peak hours under year 2008 existing Game Day traffic conditions.

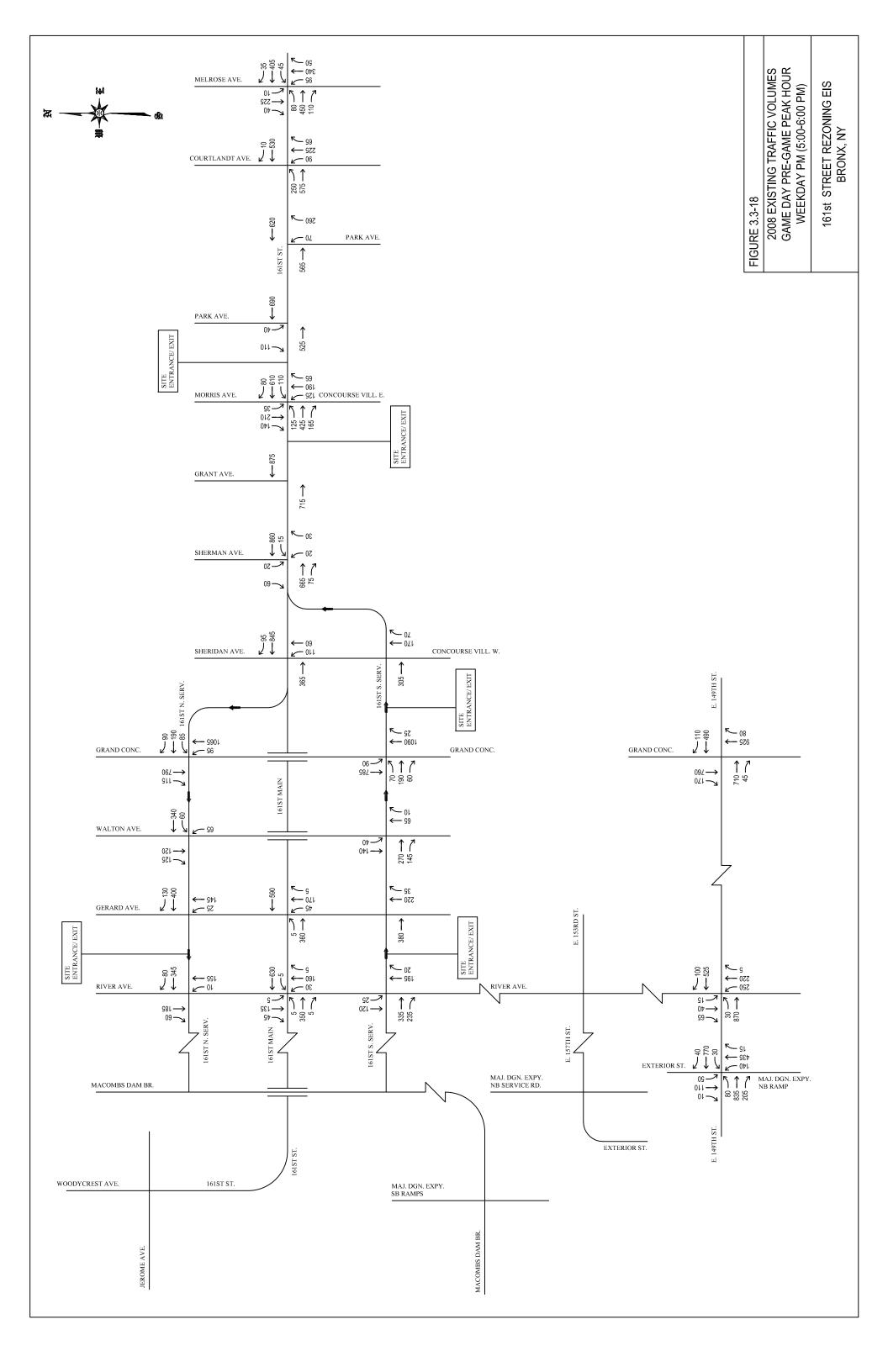
The street network and capacity analyses methodology are described above.

Based on the existing traffic volumes shown in Figures 3.3-18 and 3.3-19, intersection capacity analyses were conducted according to the *HCM* methodologies described above. Table 3.3-9 shows the results of the existing traffic conditions capacity analyses at the 22 study intersections during the game day weekday PM peak hour and in the Saturday midday peak. Existing traffic conditions along the major study area corridors are described more fully below.

E. 161st Street Corridor

The study intersections for the game day analysis along the E. 161st Street corridor include signalized intersections from Jerome Avenue and the access ramps to the Macombs Dam Bridge on the west to Melrose Avenue on the east. A summary of traffic operations at each of the study intersections along the E. 161st Street corridor is provided below:

- <u>E. 161st Street N. Service Road at River Avenue</u> The westbound through-right movement currently operates at LOS "B" during both the weekday PM and Saturday midday peak hours; During the weekday PM peak hour, the northbound left-through movement currently operates at LOS "A" and the southbound through-right movement currently operates at LOS "C". During the Saturday midday peak, the northbound and southbound through movements on River Avenue were closed by police, and the southbound through traffic was diverted to the right-turn movement, which caused a LOS "F" on the southbound approach during the Saturday midday peak hour.
- <u>E. 161st Street Main Road at River Avenue</u> The eastbound and westbound approaches both currently operate at LOS "B" during the weekday PM peak hour and in the Saturday midday peak hour, while the northbound and southbound approaches currently operate at LOS "A" during the weekday PM peak hour. During the Saturday midday peak, the northbound and southbound through movements on River Avenue were closed by police.
- <u>E. 161st Street S. Service Road at River Avenue</u> The eastbound approach currently operates at LOS "B" during both the weekday PM and Saturday midday peak hours; and the northbound and southbound approaches currently operate at LOS "C," and "A", during the weekday PM peak hour, respectively. During the Saturday midday peak, the northbound and southbound through movements on River Avenue were closed by police.
- <u>E. 161st Street N. Service Road at Gerard Avenue</u> The westbound and northbound approaches both currently operate at LOS "A" during the weekday PM peak hour and in the Saturday midday peak hour, except for the northbound approach during the PM peak hour, when LOS "C" conditions currently exist.



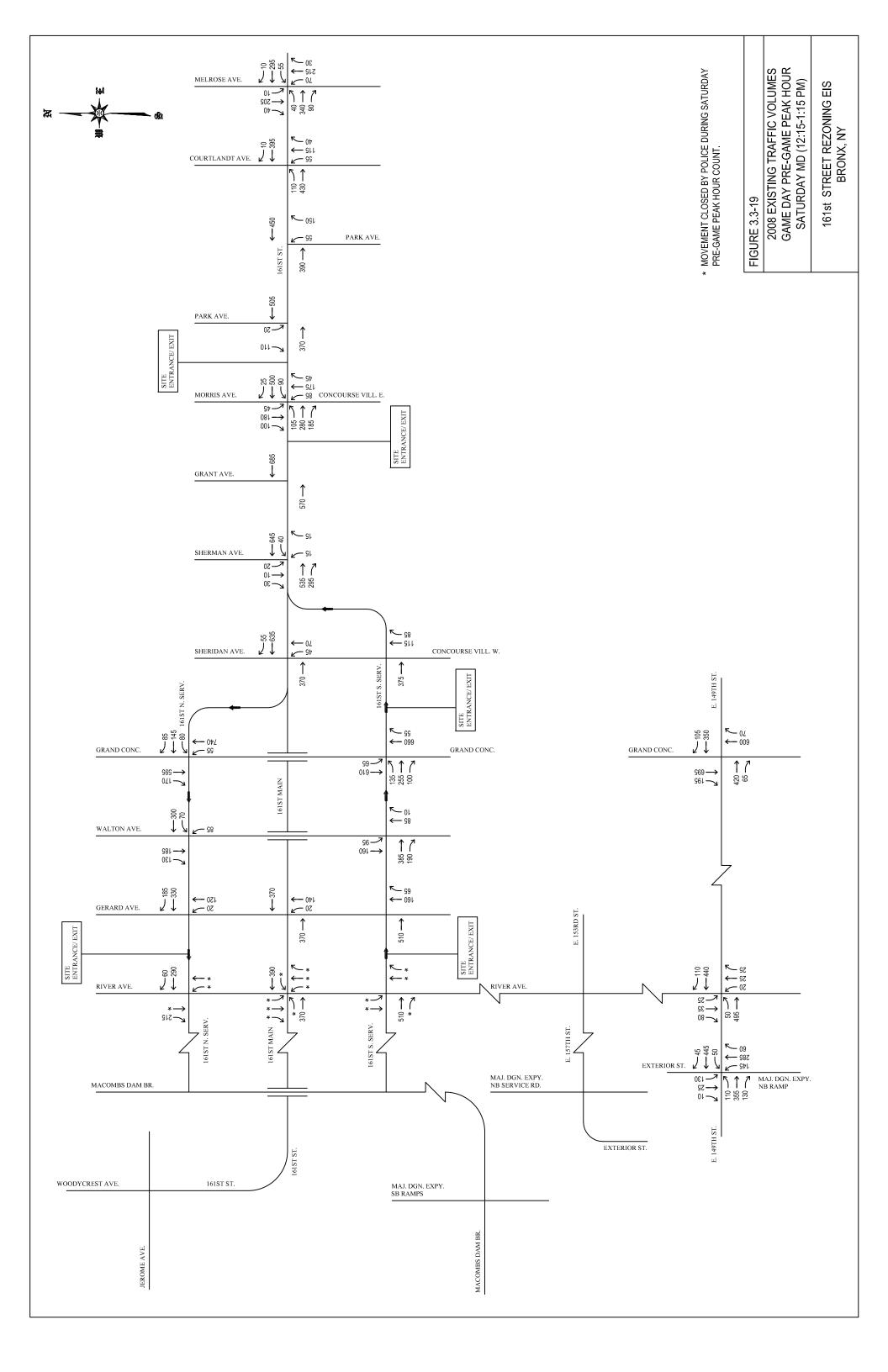


Table 3.3-9
Year 2008 Game Day Existing Traffic Conditions
161st Street Rezoning - Bronx, NY

Intersection	Approach	Lane Group		Weekday F Peak Hou 00 to 6:00	r		day Midday (Peak Hour 15 to 1:15 p.	
intersection	Арргоасн	Lane Group	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS
		SIGNALIZED	INTERSE	CTIONS				
	WB	TR	0.45	17.4	В	0.39	11.3	В
4. 161st Street N. Service Road	NB	LT	0.31	5.6	A	*	*	*
at River Avenue	SB	TR erall	0.59	28.2	C B	1.03	81.1	F D
	EB		0.29	17.9 15.3	B	0.25	39.4	B
	WB	LTR	0.29	18.0	B	0.23	10.0	B
5. 161st Street Main Road	NB	LTR	0.41	6.7	A	*	*	*
at River Avenue	SB	LTR	0.34	5.8	А	*	*	*
	Ov	erall		13.8	В		10.3	В
	EB	TR	0.56	19.1	В	0.44	11.7	В
6. 161st Street S. Service Road	NB	TR	0.53	26.1	C	*	*	*
at River Avenue	SB	LT erall	0.21	5.0	A	*		*
	-		0.00	18.8	B	0.20	11.7	B
7. 161st Street N. Service Road	WB NB	TR LT	0.32	7.2 21.0	A C	0.39	9.5 7.3	A
at Gerard Avenue		erall	0.45	10.5	B	0.27	9.0	A
		LT	0.24	6.6	A	0.25	8.4	A
	EB	DefL						
8. 161st Street Main Road		Т						
at Gerard Avenue	WB	TR	0.30	7.0	А	0.26	8.5	А
	NB	LTR	0.61	24.7	С	0.29	7.5	Α
	Ov	erall		10.4	В		8.3	Α
9. 161st Street S. Service Road	EB	T	0.24	6.6	A	0.42	9.8	A
at Gerard Avenue	NB	TR erall	0.80	48.2	D C	0.54	19.9	B
	-		0.07	22.8	-	0.00	12.7	B
10. 161st Street N. Service Road	WB NB	LT L	0.27	10.8 17.0	B	0.29	11.5 8.1	B
at Walton Avenue	SB	TR	0.20	29.3	C	0.20	18.1	B
	-	erall	0.11	18.0	B	0.10	13.8	B
	EB	LTR	0.32	11.3	B	0.58	14.9	B
11 161 at Streat C. Cardian Dead	NB	TR	0.20	26.6	C	0.22	16.8	B
11. 161st Street S. Service Road at Walton Avenue	SB	L	0.12	15.8	В	0.22	8.1	А
	-	Т	0.30	10.6	В	0.25	3.3	Α
	-	erall		13.0	В		12.6	В
	WB	LTR	0.36	23.0	C	0.30	19.8	В
10 161 at Streat N. Candes Deed	NB	L	0.39	5.8	A	0.19	4.8	A
12. 161st Street N. Service Road at Grand Concourse		T T	0.65	3.9 18.1	A B	0.48	4.4 19.7	A B
	SB	R	0.27	10.1	B	0.21	21.8	C
	Ov	erall	0.20	12.6	B	0.20	13.6	B
	EB	LTR	0.32	22.5	C	0.47	22.3	C
	NB	TR	0.56	22.4	C	0.57	25.0	C
13. 161st Street S. Service Road	SB	L	0.67	22.3	C	0.47	13.4	В
at Grand Concourse		Т	0.34	2.1	А	0.28	3.4	Α
		erall		15.8	В		18.3	В
	EB (Main)	LT	0.39	12.3	В	0.48	14.0	В
14.&15. 161st Street	EB (Service)	T	0.20	10.2	В	0.30	11.6	В
at Concourse Village West/	WB	TR	0.47	12.8	Вр	0.46	13.0	B
Sheridan Avenue	NP	R	0.16	10.8	B C	0.17	11.8	B
	NB	LTR erall	0.27	21.3	B	0.24	11.2	B
* - Movement closed by police du				13.3	В		12.6	В

* - Movement closed by police during Saturday pre-game peak hour count.

NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound

L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left v/c = volume-to-capacity ratio, LOS = Level-of-Service

Table 3.3-9 Year 2008 Game Day Existing Traffic Conditions 161st Street Rezoning - Bronx, NY

Intersection	Approach	Lane Group		Weekday P Peak Hou 00 to 6:00	r		day Midday Peak Hour 15 to 1:15 p.	
			v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS
	EB	TR	0.46	8.4	А	0.59	11.1	В
	WB	LT	0.50	8.9	A	0.59	11.4	В
16. 161st Street	NB	L	0.16	28.5	С	0.09	15.0	B
at Sherman Avenue	SB	R LTR	0.13 0.54	27.4 34.4	<u>с</u> с	0.10 0.25	14.9 15.7	B
	-	erall	0.54	11.7	B	0.25	11.7 11.7	B
	EB	T	0.49	13.2	B	0.35	11.5	B
17. 161st Street	WB	T	0.55	14.0	B	0.43	12.5	B
at Grant Avenue	Ov	erall		13.6	В		12.1	В
	ED	DefL						
18. 161st Street	EB	LTR	0.76	20.4	С	0.53	10.7	В
at Concourse Village East/	WB	LTR	0.84	24.8	С	0.54	10.8	В
Morris Avenue	NB	LTR	1.05	90.5	F	0.84	37.5	D
	SB	LTR	0.85	41.9	<u>D</u>	0.78	29.9	С
		erall	0.07	36.1	D	0.01	18.5	B
10 161ct Street	EB WB	T T	0.37	11.9	B	0.24	7.8	A
19. 161st Street at Park Avenue West	SB	LR	0.50	2.5 26.6	A C	0.33	1.4 18.2	A B
at Faik Avenue West	-	erall	0.47	8.7	A	0.30	6.1	A
	EB	Т	0.36	1.8	A	0.27	1.2	A
20. 161st Street	WB	Ť	0.38	11.8	B	0.27	8.1	A
at Park Avenue East	NB	LR	1.04	85.1	F	0.81	36.9	D
		erall		25.4	C		12.4	В
		DefL						
	EB	Т						
21. 161st Street		LT	1.05	63.0	Е	0.54	10.8	В
at Courtlandt Avenue	WB	TR	0.38	11.9	В	0.30	8.3	Α
	NB	LTR	1.04	82.7	F	0.63	24.4	С
	Ov	erall		52.7	D		12.6	В
	EB	LTR	0.66	28.1	С	0.47	23.2	С
	WB	LTR	0.55	25.1	С	0.37	21.7	С
22. 161st Street		LTR	1.05	82.7	F	0.67	30.8	С
at Melrose Avenue	NB	L						
	SB	TR LTR	0.53	 25.7	 C	0.48	 24.4	 C
	-	erall	0.55	41.7	D	0.40	24.4	C
		LTR	1.04	74.2	E	0.83	39.7	D
	EB	L						
		TR						
		LTR	0.62	31.2	С	0.63	31.1	С
	WB	L						
		TR						
	NB	LTR				0.19	37.7	D
26.&27. E. 149th Street	(Exterior)	DefL	1.04	114.6	F			
at River Avenue/ Exterior Street/		TR LTR	0.56	45.9 97.1	D F	 1.05		 F
Major Deegan Expy. (I-87)	NB	DefL	1.05	97.1		1.05	96.5 	F
Northbound Off-Ramp	(Ramp)	TR						
		LTR						
	SB (Ext)	DefL						
		L	0.53	63.0	Е	0.79	101.8	F
		TR	0.48	43.4	D	0.33	40.4	D
	SB	L	0.09	36.8	D	0.16	38.1	D
	(River)	TR	0.37	41.1	D	0.37	41.3	D
		erall	0.70	69.5	<u> </u>	0.10	61.2	E
	EB	TR	0.79	39.6	D	0.46	27.7	C
28. E. 149th Street	WB	TR TR	0.59	32.8	C	0.40	26.7	C B
at Grand Concourse	NB SB	TR	0.42	16.9 18.1	B B	0.33 0.50	17.8 20.2	В С
		erall	0.01	25.4	C	0.00	20.2 22.2	c
 Movement closed by police during the second s					U U		22.2	0

* - Movement closed by police during Saturday pre-game peak hour count. NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound

L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left v/c = volume-to-capacity ratio, LOS = Level-of-Service

- <u>E. 161st Street Main Road at Gerard Avenue</u> The eastbound and westbound approaches both currently operate at LOS "A" during the weekday PM peak hour and in the Saturday midday peak hour, while the northbound approach currently operates at LOS "C" during the weekday PM peak hour and LOS "A" during the Saturday midday peak hour.
- <u>E. 161st Street S. Service Road at Gerard Avenue</u> The eastbound approach currently operates at LOS "A" during the weekday PM peak hour and in the Saturday midday peak hour, while the northbound approach currently operates at LOS "D" during the weekday PM peak hour and at LOS "B" during the Saturday midday peak hour.
- <u>E. 161st Street N. Service Road at Walton Avenue</u> The westbound approach currently operates at LOS "B" during the weekday PM and Saturday midday peak hours, the northbound approach operates at LOS "B" during the weekday PM and LOS "A" during the Saturday midday peak hour, and the southbound approach operates at LOS "C" during the weekday PM peak hour and LOS "B" during the Saturday midday peak hour.
- <u>E. 161st Street S. Service Road at Walton Avenue</u> The eastbound approach currently operates at LOS "B" during both the weekday PM and Saturday midday peak hours; and the northbound approach operates at LOS "B" and "C" during the weekday PM peak hour and the Saturday midday peak hour respectively. The southbound approach turning movements operate at LOS "B" during the weekday PM peak hour and LOS "A" during the Saturday midday peak hour.
- <u>E. 161st Street N. Service Road at Grand Concourse</u> The westbound approach currently operates at LOS "C" during the weekday PM peak hour and at LOS "B" during the Saturday midday peak hour, the northbound approach currently operates at LOS "A" during the weekday PM peak hour and Saturday midday peak hour, and the southbound approach operates at LOS "B" or "C" during weekday PM peak hour and Saturday midday peak hour and Saturday midday peak hour.
- <u>E. 161st Street S. Service Road at Grand Concourse</u> The eastbound and northbound approaches both currently operate at LOS "C" during the weekday PM peak hour and Saturday midday peak hour, while the southbound approaches operates at LOS "A" during both the weekday PM and Saturday midday peak hours.
- <u>E. 161st at Concourse Village West/Sheridan Avenue</u> The eastbound main and service road approaches and the westbound approach all currently operate at LOS "B" during the weekday PM peak hour and Saturday midday peak hour, and the northbound approach operates at LOS "C" during the weekday PM peak hour and at LOS "B" during the Saturday midday peak hour.
- <u>E. 161st Street at Sherman Avenue</u> The eastbound and westbound approaches both currently operate at LOS "A" during the weekday PM peak hour and at an LOS "B" during the Saturday midday peak hour, respectively, the northbound approach operates at LOS "C" during the weekday PM peak hour and LOS "B" in the Saturday midday peak,

the southbound approach operates at LOS "C" during the weekday PM peak hour and at LOS "B" during the Saturday midday peak period.

- <u>E. 161st Street at Grant Avenue</u> The eastbound and westbound approaches both currently operate at LOS "B" during the weekday PM peak hour and Saturday midday peak hour.
- <u>E. 161st Street at Concourse Village East/Morris Avenue</u> The eastbound and westbound approaches currently operate at LOS "C" during the weekday PM peak and at LOS "B" during the Saturday midday peak; The northbound approach operates at LOS "F" during the weekday PM peaks and LOS "D" during the Saturday midday peak hour; and the southbound approach operates at LOS "D" during the weekday PM peak hour and at LOS "C" during the Saturday midday peak hour and at LOS "C" during the Saturday midday peak hour
- <u>E. 161st Street at Park Avenue West</u> The eastbound and westbound approaches both currently operate at LOS "A" or "B" during the weekday PM peak hour and in the Saturday midday peak hour, while the southbound approach operates at LOS "C" in the weekday PM peak hour and at LOS "B" during the Saturday midday peak.
- <u>E. 161st Street at Park Avenue East</u> The eastbound and westbound approaches both currently operate at LOS "A" or "B" during the weekday PM peak hour and in the Saturday midday peak hour, while the southbound approach operates at LOS "F" during the weekday PM peak hour and at LOS "D during the Saturday midday peak hour.
- <u>E. 161st Street at Courtlandt Avenue</u> The eastbound approach currently operates at LOS "E" during the weekday PM peak hour and at LOS "B" during the Saturday midday peak hour, the westbound approach currently operates at LOS "B" during the weekday PM peak hour and at LOS "A" during the Saturday midday peak hour, and the northbound approach currently operates at LOS "F" during the weekday PM peak and at LOS "C" during the Saturday midday peak.
- <u>E. 161st Street at Melrose Avenue</u> The eastbound and westbound approaches currently operate at LOS "C" during the weekday PM peak hour and Saturday midday peak hour, the northbound approach currently operates at LOS "F" during the weekday PM peak hour and at LOS "C" during the Saturday midday peak hour, and the southbound approach currently operates at LOS "C" during the weekday PM peak hour and Saturday midday peak hour.

Additional Analysis Locations

• <u>E. 149th Street at River Avenue/Exterior Street/ MDE (I-87) Northbound Off-Ramp</u> – The eastbound approach currently operates at LOS "E" during the weekday PM peak hour and at LOS "D" during the Saturday midday peak hour. The westbound approach currently operates at LOS "C" during both the weekday PM and Saturday midday peak hours. The northbound Exterior Street approach currently operates at LOS "F" during the weekday PM peak hour. The Major

Deegan Expressway northbound off-ramp approach currently operates at LOS "F" during both the weekday PM and Saturday midday peak hours. The southbound Exterior Street approach currently operates at LOS "D" during the weekday PM peak hour and at LOS "E" during the Saturday midday peak hour. The southbound River Avenue approach currently operates at LOS "D" during both the weekday PM and Saturday midday peak hours.

• <u>E. 149th Street at Grand Concourse</u> – The eastbound approach currently operates at LOS "D" during the weekday PM peak hour and at LOS "C" during the Saturday midday peak hour, the westbound approach currently operates at LOS "C" during the weekday PM peak hour and in the Saturday midday peak hour, the northbound approach currently operates at an LOS "B" during the weekday PM peak hour and Saturday midday peak hour, and southbound approach currently operates at LOS "B" during the weekday PM peak hour and at LOS "C" during the Saturday midday peak hour, and southbound approach currently operates at LOS "B" during the weekday PM peak hour and at LOS "C" during the Saturday midday peak hour.

FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION)

As previously stated in this chapter, in the future without the proposed action, the existing zoning controls would remain in place and as-of-right development would be expected to occur on some of the 11 projected development sites. As presented in the RWCDS discussion in Chapter 2.0 ("Project Description"), it is expected that on the 11 projected development sites, the following additional development would occur under existing zoning over the year 2008 to year 2018 period:

· · · · · · · · · · · · · · · · · · ·												
Retail	SF	(4,289)										
Office	SF	-										
Community Facility	SF	11,720										
Residential	DU	295										
Parking	Spaces	-										

As-of-Right Development: No-Action Conditions**

** See Chapter 2.0 for further details

During the 2008 to 2018 period, it is also expected that transportation demands in the study area would change due to specific development projects in the area, as well as general background growth over time. In order to forecast these future demands without the proposed rezoning action, an annual growth rate of 0.5 percent (0.5%) was applied to the existing traffic volumes (in accordance with recommendations described in the *CEQR Technical Manual*), and traffic volumes associated with the specific development projects ("soft sites") described below were added to the adjusted traffic volumes (see Tables 3.3-4A and 3.3-4B) to arrive at 2018 No-Action traffic volumes. In addition, where appropriate, mitigation measures associated with these soft sites were also incorporated into the transportation analyses.

Known projects generally within one-half mile of the rezoning area were initially considered in analysis of the future without the proposed actions. However, only those projects that would add more than 50 vehicular trips within the study area in any peak hour were included in the No-

Action analysis. These projects were already described in the discussion of Non-Game-Day analysis above. All of those projects applied to Non-Game-Day and to Game-Day as well. The only project that did not apply to Non-Game Day but applies to the Game-Day scenario is the following:

• <u>Yankee Stadium Redevelopment</u>: relocation of Yankee Stadium from south of E. 161st Street to north of E. 161st Street.

Figures 3.3-20 and 3.3-21 show the projected year 2018 Game Day No-Action traffic volumes at each study intersection during weekday PM peak hour and the Saturday midday peak hour, respectively.

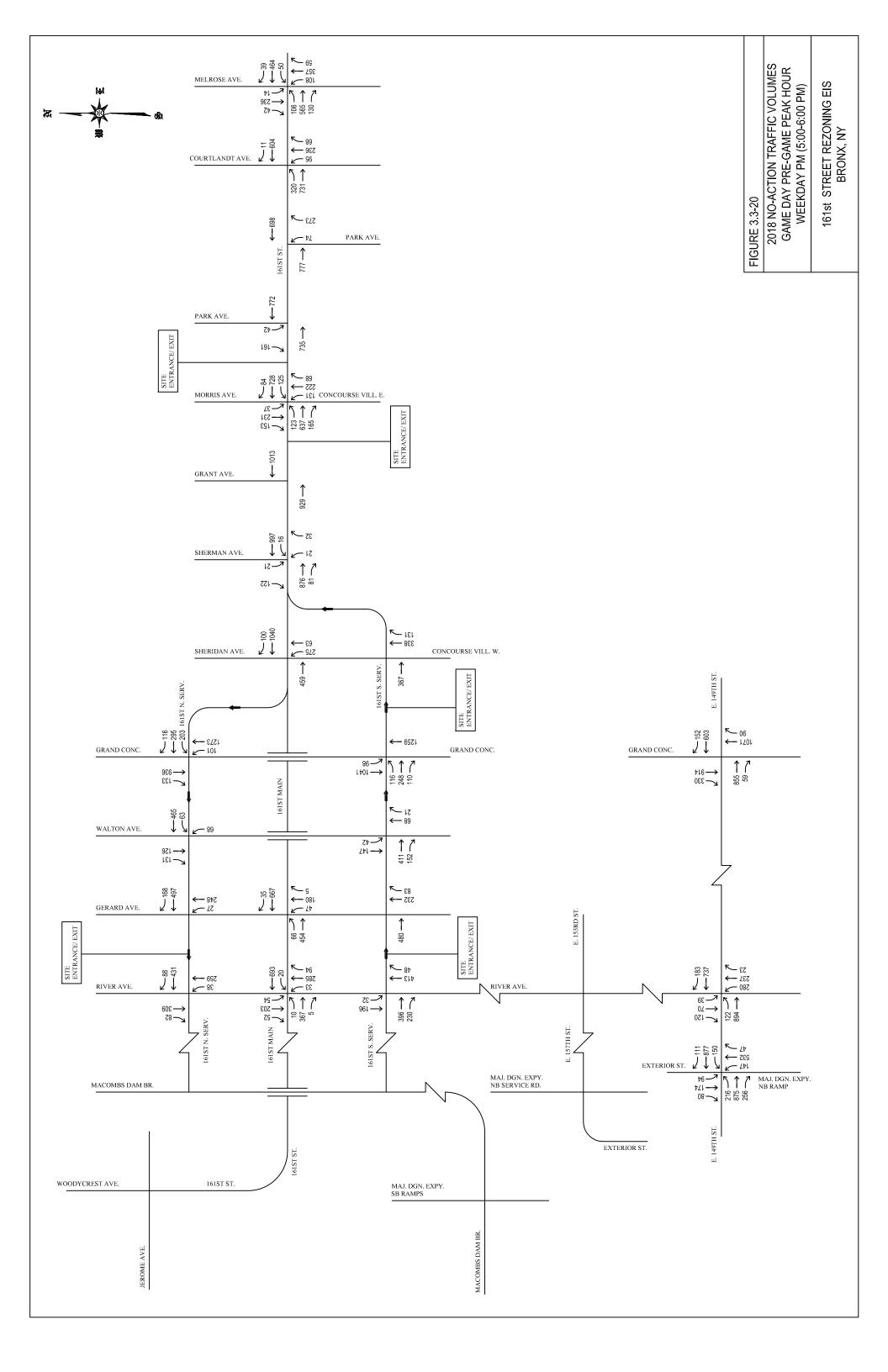
Besides generating additional traffic, the projects listed above, recommend improvements which were considered in the No Action condition for both the Non-Game Day and Game Day scenarios, and carried over to the future Action condition.

Capacity Analysis

During traffic counts conducted for Game Day scenario, north-south movements at the intersections of 161st Street and River Avenue were closed by police. Accordingly, these movements were assumed to be closed in the Existing conditions analysis. However, according to the proposed scheme for the Yankee Stadium redevelopment, these movements remain open to traffic in the future. Therefore, the closures shown in the Existing conditions at these intersections are not applicable to the future No-Action and Action conditions.

Based on the No-Action traffic volumes shown in Figures 3.3-20 and 3.3-21, intersection capacity analyses were conducted according to the *HCM* methodologies. Table 3.3-10 shows the v/c ratios, average control delays, and levels-of-service under year 2018 No-Action conditions during game days, and compares to the 2008 Game Day Existing conditions. As shown in Table 3.3-10, presently congested locations generally become worse, while there would be some newly congested locations in the study area. Overall, under No-Action conditions, of the 22 intersections studied for game day analysis, there would be:

- Nine intersections with one or more congested movements (i.e., LOS "E" or "F) during the weekday PM peak hour (versus five under existing conditions); and
- One intersection during the Saturday midday peak hour (versus two under existing conditions).



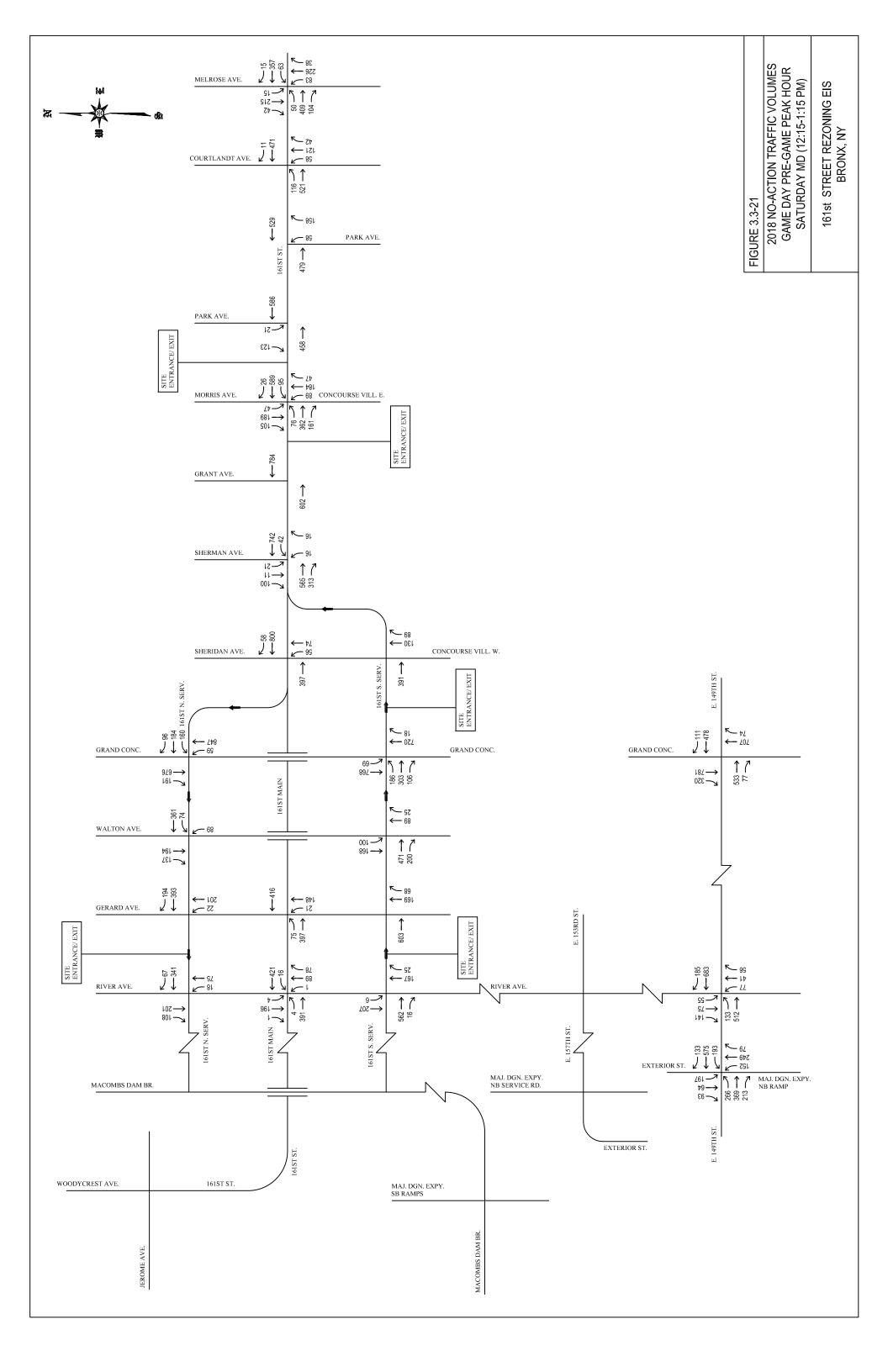


Table 3.3-10
Comparison of Game Day 2008 Existing and 2018 No-Action Traffic Conditions
161st Street Rezoning - Bronx, NY

				Weekd (5:0	lay PM 0 to 6:					Saturday I (12	Midday 2:15 to			r
Intersection	Approach	Lane Group	2	008 EXISTIN	G	201	8 NO-ACT	ION	20	08 EXISTIN	NG	201	8 NO-ACT	ION
intersection	Арріоасн	Lane Group	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS
			SIC	SNALIZED IN	TERSE	CTION	S							
	WB	TR	0.45	17.4	В	0.68	27.2	С	0.39	11.3	В	0.49	13.7	В
4. 161st Street N. Service Road	NB	LT	0.31	5.6	Α	0.54	4.1	Α	*	*	*	0.22	4.7	Α
at River Avenue	SB	TR	0.59	28.2	С	0.69	25.5	С	1.03	81.1	F	0.87	39.7	D
		erall		17.9	В		20.6	С		39.4	D		22.1	С
	EB	LTR	0.29	15.3	В	0.39	21.5	С	0.25	10.0	В	0.32	11.8	В
5. 161st Street Main Road	WB	LTR	0.50	18.0	B	0.80	31.3	C	0.31	10.5	B	0.39	12.5	B
at River Avenue	NB	LTR	0.41	6.7	A	0.63	5.4	A	*	*	*	0.38	5.7	A
	SB	LTR	0.34	5.8	A	0.61	5.2	A	*			0.31	5.0	A
		erall	0.50	13.8	B	0.70	18.9	B		10.3	B	0.50	9.9	A
6 161 of Stroot S. Sonvice Band	EB NB	TR TR	0.56	19.1 26.1	B C	0.76	29.8 28.0	C C	0.44	11.7	B *	0.58	14.8 28.7	B C
6. 161st Street S. Service Road at River Avenue	SB	LT	0.53	26.1 5.0	A	0.77	28.0	A	*	*	*	0.77	28.7 5.8	A
at river Avenue	-	erall	0.21	5.0 18.8	B	0.30	2.1 24.9	A C		11.7	В	0.39	5.8 17.2	B
	WB	TR	0.32	7.2	A	0.40	7.9	A	0.39	9.5	A	0.44	10.0	A
7. 161st Street N. Service Road	NB	LT	0.32	21.0	c	0.40	27.2	Ċ	0.39	7.3	A	0.44	8.5	A
at Gerard Avenue		erall	0.45	10.5	В	0.03	13.4	В	0.21	9.0	A	0.41	9.6	A
		LT	0.24	6.6	A	0.43	8.2	A	0.25	8.4	A	0.38	9.5	A
	EB	DefL												
8. 161st Street Main Road at Gerard Avenue		T												
	WB	TR	0.30	7.0	А	0.36	7.5	Α	0.26	8.5	А	0.29	8.7	Α
	NB	LTR	0.61	24.7	С	0.64	25.6	С	0.29	7.5	Α	0.31	7.6	Α
	Ov	erall		10.4	В		10.8	В		8.3	Α		8.9	Α
	EB	TR	0.24	6.6	Α	0.30	7.0	Α	0.42	9.8	Α	0.49	10.5	В
9. 161st Street S. Service Road	NB	TR	0.80	48.2	D	1.10	111.6	F	0.54	19.9	В	0.57	20.6	С
at Gerard Avenue	Ov	erall		22.8	С		48.2	D		12.7	В		13.2	В
	WB	LT	0.27	10.8	В	0.35	11.6	В	0.29	11.5	В	0.34	12.0	В
10. 161st Street N. Service Road	NB	L	0.20	17.0	В	0.21	17.2	В	0.20	8.1	Α	0.21	8.3	Α
at Walton Avenue	SB	TR	0.44	29.3	С	0.46	29.6	С	0.40	18.1	В	0.42	18.4	В
	Ov	erall		18.0	В		17.7	В		13.8	В		14.0	В
	EB	LTR	0.32	11.3	В	0.42	12.4	В	0.58	14.9	В	0.67	16.4	В
11. 161st Street S. Service Road	NB	TR	0.20	26.6	С	0.24	27.3	С	0.22	16.8	В	0.27	17.5	В
at Walton Avenue	SB	L	0.12	15.8	В	0.13	16.0	В	0.22	8.1	A	0.24	8.3	A
		Т	0.30	10.6	В	0.31	10.7	В	0.25	3.3	A	0.26	3.4	A
		erall		13.0	В		13.7	В		12.6	В		14.0	В
	WB	LTR	0.36	23.0	С	0.61	27.8	С	0.30	19.8	В	0.42	21.6	С
	NB	L	0.39	5.8	A	0.51	9.8	A	0.19	4.8	A	0.22	5.3	A
12. 161st Street N. Service Road		<u>Т</u>	0.65	3.9	A	0.78	5.6	A	0.48	4.4	A	0.56	4.8	A
at Grand Concourse	SB	T	0.27	18.1	B	0.32	18.7	В	0.21	19.7	B	0.24	20.0	B
	01	R erall	0.26	19.2	B	0.30	19.8	B	0.28	21.8	C	0.31	22.4	C
			0.00	12.6	B	0.40	15.3	B	0.47	13.6	B	0.57	14.6	B
	EB NB	LTR TR	0.32	22.5 22.4	C C	0.48	25.0 23.7	C C	0.47 0.57	22.3 25.0	C C	0.57 0.58	24.3 25.3	C C
13. 161st Street S. Service Road		L	0.56	22.4	C	0.62	65.5	E	0.57	25.0 13.4	B	0.58	25.3 16.4	B
at Grand Concourse	SB	L T	0.07	22.3	A	0.93	2.5	A	0.47	3.4	A	0.35	3.6	A
	Ov	erall	0.07	15.8	B	0.77	18.0	B	0.20	18.3	B	0.00	18.5	B
	EB (Main)	LT	0.39	12.3	B	0.49	13.7	B	0.48	14.0	B	0.52	14.5	B
	EB (Service)	TR	0.33	10.2	B	0.43	10.5	B	0.30	11.6	B	0.31	11.7	B
14.&15. 161st Street		LTR	0.20	12.8	B	0.57	14.3	B	0.46	13.0	B	0.57	14.5	B
at Concourse Village West/	WB	R	0.16	10.8	B	0.17	10.9	B	0.17	11.8	B	0.18	11.9	B
Sheridan Avenue	NB	LTR	0.27	21.3	C	0.51	24.7	C	0.24	11.2	В	0.26	11.4	В
		erall		13.3	В		15.5	В		12.6	В		13.5	В
- Movement closed by police du	ing Saturday	pro gamo poak	bourc											

* - Movement closed by police during Saturday pre-game peak hour count.

 $\mathsf{NB} = \mathsf{northbound}, \, \mathsf{SB} = \mathsf{southbound}, \, \mathsf{EB} = \mathsf{eastbound}, \, \mathsf{WB} = \mathsf{westbound}, \, \mathsf{NEB} = \mathsf{north-eastbound}$

L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn, DefL = de facto left-turn v/c = volume-to-capacity ratio, LOS = Level-of-Service

Table 3.3-10
Comparison of Game Day 2008 Existing and 2018 No-Action Traffic Conditions
161st Street Rezoning - Bronx, NY

Intersection 16. 161st Street at Sherman Avenue	Approach EB WB	Lane Group		008 EXISTIN	G	201	A NO AOT							
	WB					201	8 NO-ACT	ION	20	08 EXISTI	NG	201	8 NO-ACT	ION
	WB		v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS
		TR	0.46	8.4	Α	0.59	9.9	Α	0.59	11.1	В	0.62	11.6	В
		LT	0.50	8.9	Α	0.59	10.1	В	0.59	11.4	В	0.67	12.9	В
at Sherman Avenue	NB	L	0.16	28.5	С	0.28	33.3	С	0.09	15.0	В	0.13	15.7	В
		R	0.13	27.4	C	0.14	27.5	С	0.10	14.9	B	0.11	15.0	B
	SB	LTR erall	0.54	34.4	C	1.01	81.9 20.2	F C	0.25	15.7	B	0.62	22.4	C
	EB	T	0.49	11.7 13.2	B	0.64	20.2 15.6	с В	0.35	11.7 11.5	B	0.27	13.7	B
17. 161st Street	WB	<u> </u>	0.49	13.2	B	0.64	15.6	B	0.35	11.5	B	0.37	11.7 13.3	B
at Grant Avenue		erall	0.00	13.6	B	0.00	15.5	B	0.40	12.0	B	0.50	12.6	B
·	-	DefL												
	EB	TR	0.76	20.4	С	1.01	50.8	D	0.53	10.7	В	0.52	10.5	В
18. 161st Street	WB	LTR	0.84	24.8	C	1.13	91.1	F	0.54	10.8	В	0.63	12.1	В
at Concourse Village East/	NB	LTR	1.05	90.5	F	1.21	145.8	F	0.84	37.5	D	0.90	45.6	D
Morris Avenue	SB	LTR	0.85	41.9	D	0.94	54.3	D	0.78	29.9	С	0.83	33.6	С
	-	erall		36.1	D		78.4	E		18.5	В		20.5	С
	EB	Т	0.37	11.9	В	0.52	13.7	В	0.24	7.8	Α	0.31	8.3	Α
19. 161st Street	WB	Т	0.50	2.5	A	0.55	2.8	A	0.33	1.4	A	0.35	1.5	A
at Park Avenue West	SB	LR	0.47	26.6	C	0.63	31.8	C	0.38	18.2	B	0.62	24.2	C
	-	erall	0.00	8.7	A	0.50	10.9	B	0.07	6.1	A	0.00	8.3	A
	EB	T	0.36	1.8	A	0.50	2.4	A	0.27	1.2	A	0.33	1.4	A
20. 161st Street at Park Avenue East	WB NB	T LR	0.38	11.8 85.1	B	0.42	12.3 102.0	B	0.28	8.1	A D	0.33	8.5 42.0	A D
al Park Avenue East		erall	1.04	25.4	C	1.09	26.7	C	0.81	36.9 12.4	B	0.86	42.0 12.9	B
<u> </u>	0.			23.4			20.7			12.4	D 			
	EB	DefL												
21, 161st Street	ED	T LT	 1.05	63.0	 E		72.9	E	0.54	10.8	 B	0.59	11.6	 B
at Courtlandt Avenue	WB	TR	0.38	11.9	B	1.08	12.9	B	0.30	8.3	A	0.39	8.7	A
	NB	LTR	1.04	82.7	F	1.10	99.9	F	0.63	24.4	C	0.67	25.7	C
		erall	1.01	52.7	D	1.10	61.7	E	0.00	12.6	B	0.01	13.1	B
	EB	LTR	0.66	28.1	C	0.94	49.8	D	0.47	23.2	C	0.57	25.5	C
	WB	LTR	0.55	25.1	C	0.78	34.1	C	0.37	21.7	C	0.49	23.8	C
22. 404 at Stread		LTR	1.05	82.7	F	1.16	123.9	F	0.67	30.8	С	0.78	36.7	D
22. 161st Street at Melrose Avenue	NB	L												
at Mellose Avenue		TR												
	SB	LTR	0.53	25.7	С	0.60	27.7	С	0.48	24.4	С	0.53	25.7	С
	Ov	erall		41.7	D		61.4	E		24.9	С		27.7	С
		LTR	1.04	74.2	E				0.83	39.7	D			
	EB					0.76	38.6	D				0.97	72.3	E
l –						0.86	31.0	С	0.63		 C	0.65	23.9	C
	WB	LTR L	0.62	31.2	C	1.67	 371.8	 F	0.63	31.1		1.01	93.2	 F
	110	TR				0.36	18.1	B				0.34	18.5	В
l F		LTR						F	0.19	37.7	D			
	NB (Extorior)	DefL	1.04	114.6	F	1.54	309.3	F				0.91	95.7	F
26.&27. E. 149th Street	(Exterior)	TR	0.56	45.9	D	0.76	51.8	D				0.46	41.1	D
at River Avenue/ Exterior Street/ Major Deegan Expy. (I-87)	NB	LTR	1.05	97.1	F	1.43	242.8	F	1.05	96.5	F	1.15	127.1	F
Northbound Off-Ramp	(Ramp)	DefL												
	(TR												
		LTR												
	SB (Ext)	DefL T		 62 0					0.70			0.79	 52 7	
		T R	0.53	63.0	E D	0.94	69.3	E D	0.79 0.33	101.8 40.4	F D	0.78	52.7 36.5	D
F	SB	LTR	0.48	43.4 36.8	D	0.33	35.8 37.6	D	0.33	40.4 38.1	D	0.30	46.0	D
	(River)	TR	0.09	41.1	D	0.45			0.16	41.3	D	0.70	40.0	
	· · ·	erall	0.01	69.5	E		106.0	F	0.01	61.2	E		57.7	E
	EB	TR	0.79	39.6	D	0.96	56.5	E	0.46	27.7	C	0.58	30.1	C
	WB	TR	0.59	32.8	C	0.75	37.5	D	0.40	26.7	C	0.50	28.6	C
28. E. 149th Street	NB	TR	0.42	16.9	B	0.49	17.8	B	0.33	17.8	B	0.38	18.5	B
at Grand Concourse	SB	TR	0.51	18.1	В	0.69	21.9	С	0.50	20.2	С	0.65	23.2	С
* - Movement closed by police durir		erall		25.4	С		31.5	С		22.2	С		24.4	С

* - Movement closed by police during Saturday pre-game peak hour count.
 NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound

L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn, DefL = de facto left-turn v/c = volume-to-capacity ratio, LOS = Level-of-Service

Newly Congested Intersections

Along the E. 161st Street corridor, there would be the following newly congested intersections during game days:

- <u>E. 161st Street S. Service Road at Gerard Avenue</u> The northbound through-right-turn movement which currently operates at LOS "D" during the weekday PM peak hour is projected to operate at LOS "F" under the year 2018 No-Action Condition.
- <u>E. 161st Street S. Service Road at Grand Concourse</u> The southbound left-turn movement which currently operates at LOS "C" during the weekday PM peak hour is projected to operate at LOS "E" under the year 2018 No-Action Condition.
- <u>E. 161st Street at Sherman Avenue</u> The southbound left-through-right-turn movement which currently operates at LOS "C" during the weekday PM peak hour is projected to operate at LOS "F" under the year 2018 No-Action Condition.
- <u>E. 161st Street at Concourse Village East/Morris Avenue</u> While the northbound leftthrough-right-turn movement is projected to continue to operate at LOS "F" during the weekday PM peak hour, the westbound left-through-right-turn movement which currently operates at LOS"C" during the weekday PM peak hour is projected to operate at LOS "F" under the year 2018 No-Action Condition.
- <u>E. 149th Street at River Avenue/Exterior Street/ MDE (I-87) Northbound Off-Ramp The</u> westbound approach which currently operates at LOS "C" during the weekday PM peak hour is projected to operate at LOS "F" under the year 2018 No-Action Condition due to the congested left-turn movement. During the Saturday midday peak hour, the eastbound and westbound left-turn movements which currently operate at LOS "D" and "C" are projected to operate at LOS "E" and "F", respectively.
- <u>E. 149th Street at Grand Concourse</u> The eastbound through-right-turn movement which currently operates at LOS "D" during the weekday PM peak hour is projected to operate at LOS "E" under the 2018 No-Action Condition.

Existing Congested Intersections No Longer Congested under No-Action Conditions

In the Game Day analysis scenario, there are no newly congested intersections under the 2018 No-Action conditions.

Traffic operations within the study area under the 2018 No-Action Condition are described more fully below.

E. 161st Street Corridor

- <u>E. 161st Street N. Service Road at River Avenue</u> The westbound through-right movement is projected to operate at LOS "C" during the weekday PM peak hour and at LOS "B" during the Saturday midday peak hour, the northbound left-through movement is projected to operate at LOS "A" during the weekday PM peak hour and Saturday midday peak hour, and the southbound through-right movement is projected to operate at LOS "C" during the weekday PM peak hour and Saturday midday peak hour, and the southbound through-right movement is projected to operate at LOS "C" during the weekday PM peak hour and operate at LOS "D" during the Saturday midday peak hour.
- <u>E. 161st Street Main Road at River Avenue</u> The eastbound and westbound approaches are projected to operate at LOS "C" during the weekday PM peak hour and at LOS "B" during the Saturday midday peak hour, while the northbound and southbound approaches are projected to operate at LOS "A" during those periods.
- <u>E. 161st Street S. Service Road at River Avenue</u> The eastbound approach is projected to operate at LOS "C" and "B" during the weekday PM and Saturday midday peak hours, respectively. The northbound and southbound approaches are projected to operate at LOS "C," and "A" respectively during both the weekday PM and Saturday midday peak hours.
- <u>E. 161st Street N. Service Road at Gerard Avenue</u> The westbound and northbound approaches are projected to operate at LOS "A" during the weekday PM peak hour and in the Saturday midday peak hour, except for the northbound approach in the PM peak hour, when LOS "C" is projected.
- <u>E. 161st Street Main Road at Gerard Avenue</u> The eastbound and westbound approaches are projected to operate at LOS "A" during the weekday PM peak hour and during the Saturday midday peak hour, while the northbound approach is projected to operate at LOS "C" during the weekday PM peak hour and at LOS "A" during the Saturday midday peak hour.
- <u>E. 161st Street S. Service Road at Gerard Avenue</u> The eastbound approach is projected to operate at LOS "A" during the weekday PM peak hour and at LOS "B" during the Saturday midday peak hour, while the northbound approach is projected to operate at LOS "F" in the weekday PM peak hour and LOS "C" in the Saturday midday peak hour.
- <u>E. 161st Street N. Service Road at Walton Avenue</u> The westbound approach is projected to operate at LOS "B" during the weekday PM peak hour and during the Saturday midday peak hour, the northbound approach is projected to operate at LOS "B" in the weekday PM peak hour and at LOS "A" during the Saturday midday peak hour, and the southbound approach is projected to operate at LOS "C" during the weekday PM peak hours and at LOS "B" during the Saturday midday peak hour, and the
- <u>E. 161st Street S. Service Road at Walton Avenue</u> The eastbound approach is projected to operate at LOS "B" during both the weekday PM and Saturday midday peak hours; and the northbound approach is projected to operate at LOS "C" or "B" respectively during the weekday PM and Saturday midday peak hours. The southbound approach is

projected to operate at LOS "B" during the weekday PM peak hour and at LOS "A" during the Saturday midday peak hour.

- <u>E. 161st Street N. Service Road at Grand Concourse</u> The westbound approach is projected to operate at LOS "C" during both the weekday PM peak hour and in the Saturday midday peak hour. The northbound approach is projected to operate at LOS "A" during both the weekday PM peak hour and Saturday midday peak hour; and the southbound approach is projected to operate at LOS "B" and "C" respectively, during weekday PM and Saturday midday peak hours.
- <u>E. 161st Street S. Service Road at Grand Concourse</u> The eastbound and northbound approaches are both projected to operate at LOS "C" during the weekday PM peak hour and Saturday midday peak hour, while the southbound approach is projected to operates at an overall LOS "A" during the weekday PM peak hour and Saturday midday peak hour, expect for the southbound left-turn movement, which is projected to operate at LOS "E" and "B" in the weekday PM and Saturday midday peak hours, respectively.
- <u>E. 161st at Concourse Village West/Sheridan Avenue</u> The eastbound main and service road approaches and the westbound approach are all projected to operate at LOS "B" during the weekday PM peak hour and Saturday midday peak hour, and the northbound approach is projected to operate at LOS "C" during the weekday PM peak hour and at LOS "B" during the Saturday midday peak hour.
- <u>E. 161st Street at Sherman Avenue</u> The eastbound and westbound approaches are projected to operate at LOS "A" or "B" during the weekday PM peak hour and Saturday midday peak hour, the northbound approach is projected to operate at LOS "C" during the weekday PM peak hour and at LOS "B" during the Saturday midday peak, and the southbound approach is projected to operate at LOS "F" in the weekday PM peak hour and at LOS "C" in the Saturday midday peak period.
- <u>E. 161st Street at Grant Avenue</u> The eastbound and westbound approaches are both projected to operate at LOS "B" during the weekday PM peak hour and Saturday midday peak hour.
- <u>E. 161st Street at Concourse Village East/Morris Avenue</u> The eastbound approach is projected to operates at LOS "D" during the weekday PM peak and at LOS "B" during the Saturday midday peak, the westbound approach is projected to operate at LOS "F" during the weekday PM peak hour and at LOS "B" during the Saturday midday peak hour, the northbound approach is projected to operate at LOS "F" during the weekday PM peaks and at LOS "D" during the Saturday midday peak hour, the northbound approach is projected to operate at LOS "F" during the southbound approach is projected to operate at LOS "C" during the Saturday midday peak hour.
- <u>E. 161st Street at Park Avenue West</u> The eastbound and westbound approaches are projected to operate at LOS "A" or "B" during the weekday PM peak hour and Saturday

midday peak hour, and the southbound approach is projected to operate at LOS "C" during the weekday PM peak hour and Saturday midday peak hour.

- <u>E. 161st Street at Park Avenue East</u> The eastbound and westbound approaches are both projected to operate at LOS "A" or "B" during the weekday PM peak hour and Saturday midday peak hour, and the southbound approach is projected to operate at LOS "F" during the weekday PM peak hour and at LOS "D during the Saturday midday peak hour.
- <u>E. 161st Street at Courtlandt Avenue</u> The eastbound approach is projected to operate at LOS "E" during the weekday PM peak hour and at LOS "B" during the Saturday midday peak hour, the westbound approach is projected to operate at LOS "B" during the weekday PM peak hour and at LOS "A" during the Saturday midday peak hour, and the northbound approach is projected to operate at LOS "F" during the weekday PM peak hour and at LOS "C" during the Saturday midday peak hour.
- <u>E. 161st Street at Melrose Avenue</u> The eastbound approach is projected to operate at LOS "D" during the weekday PM peak hour and at LOS "C" during the Saturday midday peak hour, the westbound approach is projected to operate at LOS "C" during both the weekday PM peak hour and Saturday midday peak hour, the northbound approach is projected to operate at LOS "F" during the weekday PM peak hour and at LOS "D" during the Saturday midday peak hour, and the southbound approach is projected to operate at LOS "C" during both the weekday PM peak hour and Saturday midday peak hour, and the southbound approach is projected to operate at LOS "C" during both the weekday PM peak hour and Saturday midday peak hour.

Additional Analysis Locations

- <u>E. 149th Street at River Avenue/Exterior Street/ MDE (I-87) Northbound Off-Ramp</u>
 - Weekday PM Peak Hour. The E.149th Street eastbound and westbound approaches are projected to operate at LOS "C" and "F", respectively, where the westbound left-turn movement is projected to fail at LOS "F". The northbound Exterior Street approach is projected to operate at LOS "F" due to the failed left-turn movement while the through-right-turn movement will operate at LOS "D". The MDE northbound off-ramp is projected to operate at LOS "F". The southbound Exterior Street approach is projected to operate at LOS "F". The southbound Exterior Street approach is projected to operate at LOS "F". The southbound River Avenue approach is projected to operate at LOS "D". The overall intersection is projected to operate at LOS "F".
 - Saturday Midday Peak Hour. The E.149th Street eastbound and westbound approaches are projected to operate at an overll LOS "D" while the eastbound and westbound left-turn movements are projected to operate at LOS "E" and "F", respectively. The northbound Exterior Street approach is projected to operate at LOS "E" due to a failed left-turn movement, regardless of the through-right-turn movement at LOS "D". The MDE northbound off-ramp is projected to operate at LOS "F". The southbound Exterior Street and River Avenue approaches are projected to operate at LOS "E".

• <u>E. 149th Street at Grand Concourse</u> – The eastbound approach is projected to operate at LOS "E" during the weekday PM peak hour and at LOS "C" during the Saturday midday peak hour, the westbound approach is projected to operate at LOS "D" during the weekday PM peak hour and at LOS "C" during the Saturday midday peak hour, the northbound approach is projected to operate at an LOS "B" during both the weekday PM peak hour and Saturday midday peak hour, and the southbound approach is projected to operate at LOS "C" during both the weekday PM peak hour and Saturday midday peak hour, and the southbound approach is projected to operate at LOS "C" during both the weekday PM peak hour and Saturday midday peak hour.

FUTURE WITH THE PROPOSED ACTION

A total of 11 projected development sites have been identified and are analyzed herein for their potential as the RWCDS to impact future traffic conditions. The proposed action would result in a net increase of:

- 594 residential dwelling units (DUs);
- 42,004 sq. ft. of retail space;
- 306,011 sq. ft. of office space; and
- 10 sq. ft. of community facility space.

Trip Generation and Assignment

Trip generation was calculated separately for each land use component related to the proposed action. Under the proposed action, the No-Action land uses on the 11 development sites would be redeveloped in the future in accordance with the land use plan under the Action scenario. As a result, the trip generation analysis takes credit for vehicle trips generated by No-Action land uses that would be displaced.

Tables 3.3-4A and 3.3-4B show the transportation planning assumptions used to estimate the projected person and vehicle trips under the No-Action condition, including the sizes of each land use, weekday and Saturday daily trip generation rates, temporal distributions, modal splits, and in/out splits. Tables 3.3-5A and 3.3-5B show the corresponding transportation planning assumptions and person and vehicle trips for the Action condition. Table 3.3-6 compares the resulting vehicle trip generation characteristics under No-Action and Action conditions to determine the vehicle trip increments during the weekday PM peak hour and Saturday midday peak hour. As shown in Table 3.3-6, the proposed action condition is projected to generate *net* vehicle trip increments of:

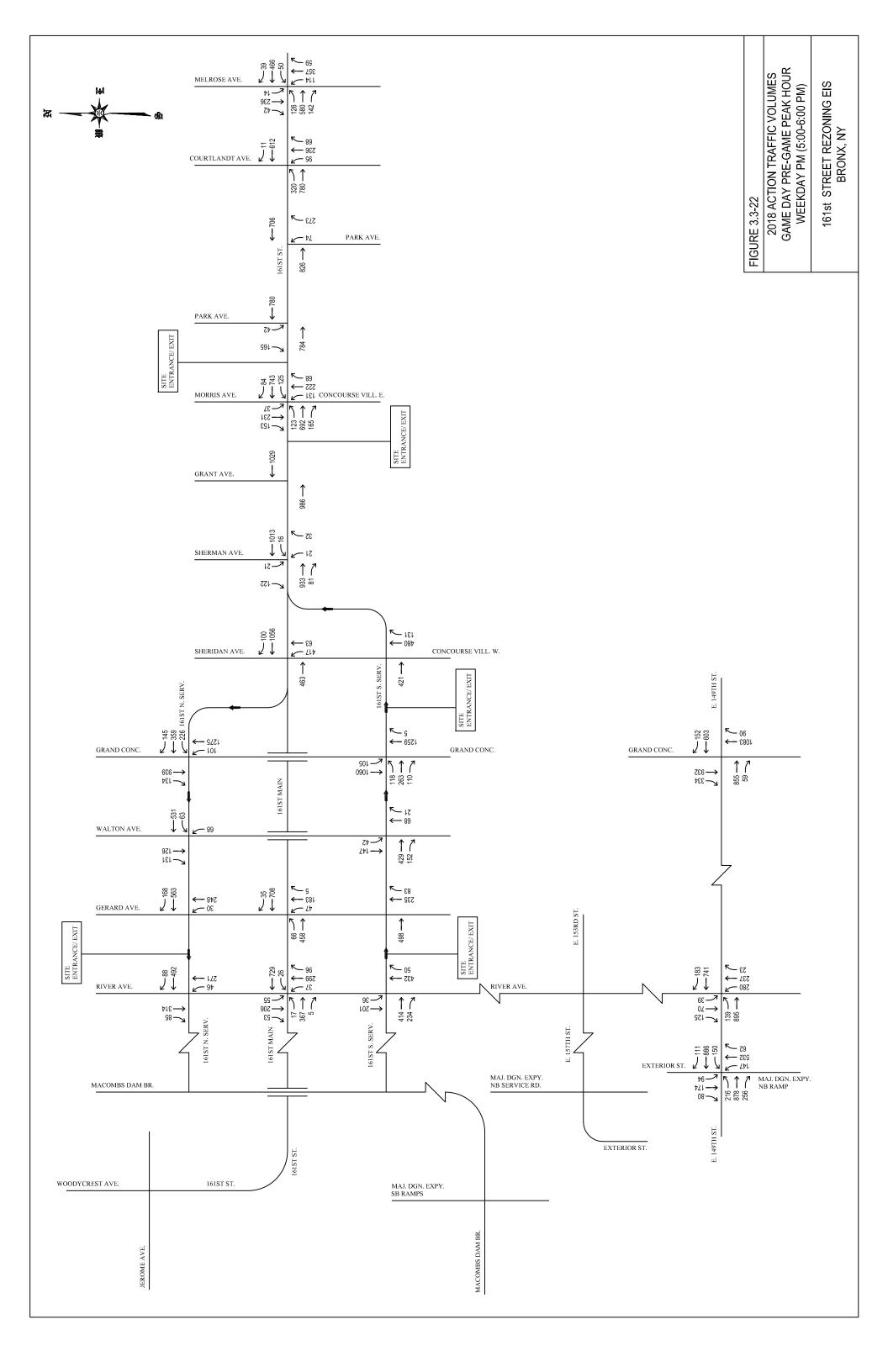
- 294 net vehicle trips during the weekday PM peak hour (5:00 to 6:00 PM); and
- 97 net vehicle trips during the Saturday midday peak hour (1:00 to 2:00 PM).

The resulting vehicle trips were assigned to the study area based on their anticipated origins and destinations, using the most direct routes to and from each of the 11 projected development sites. The incremental traffic assignments generated by the proposed action – essentially the difference

on each affected intersection approach between the 2018 No Action and 2018 Action traffic volumes is shown in Figures 3.3-12 and 3.3-13. Note that these incremental traffic assignments are the same for both the Non-Game Day and Game Day scenarios. Figures 3.3-22 and 3.3-23 depict the total traffic volumes under the 2018 Game Day Action condition during the weekday PM peak hour and Saturday midday peak hour.

Capacity Analysis and Determination of Traffic Impacts

Based on the Action condition traffic volumes shown in Figures 3.3-22 through 3.3-23, intersection capacity analyses were conducted according to the *HCM* methodologies. Table 3.3-11 shows the v/c ratios, average control delays, and levels-of-service under year 2018 Action conditions. According to the thresholds established in the *CEQR Technical Manual*, which is described in Section X.2.3, Table 3.3-11 compares those results to those under 2018 No-Action conditions during each peak hour, and then notes (with an "X" in the "Impact?" column) any movements or approaches that are projected to experience a significant traffic impact based on the *CEQR* criteria described above. As shown in Table 3.3-11, and summarized in Table 3.3-12 below, there would be five (5) intersections during the weekday PM peak hour and one (1) intersection during the Saturday midday peak hour with one or more significantly adversely impacted movements. These significant adverse impacts are described in more detail below.



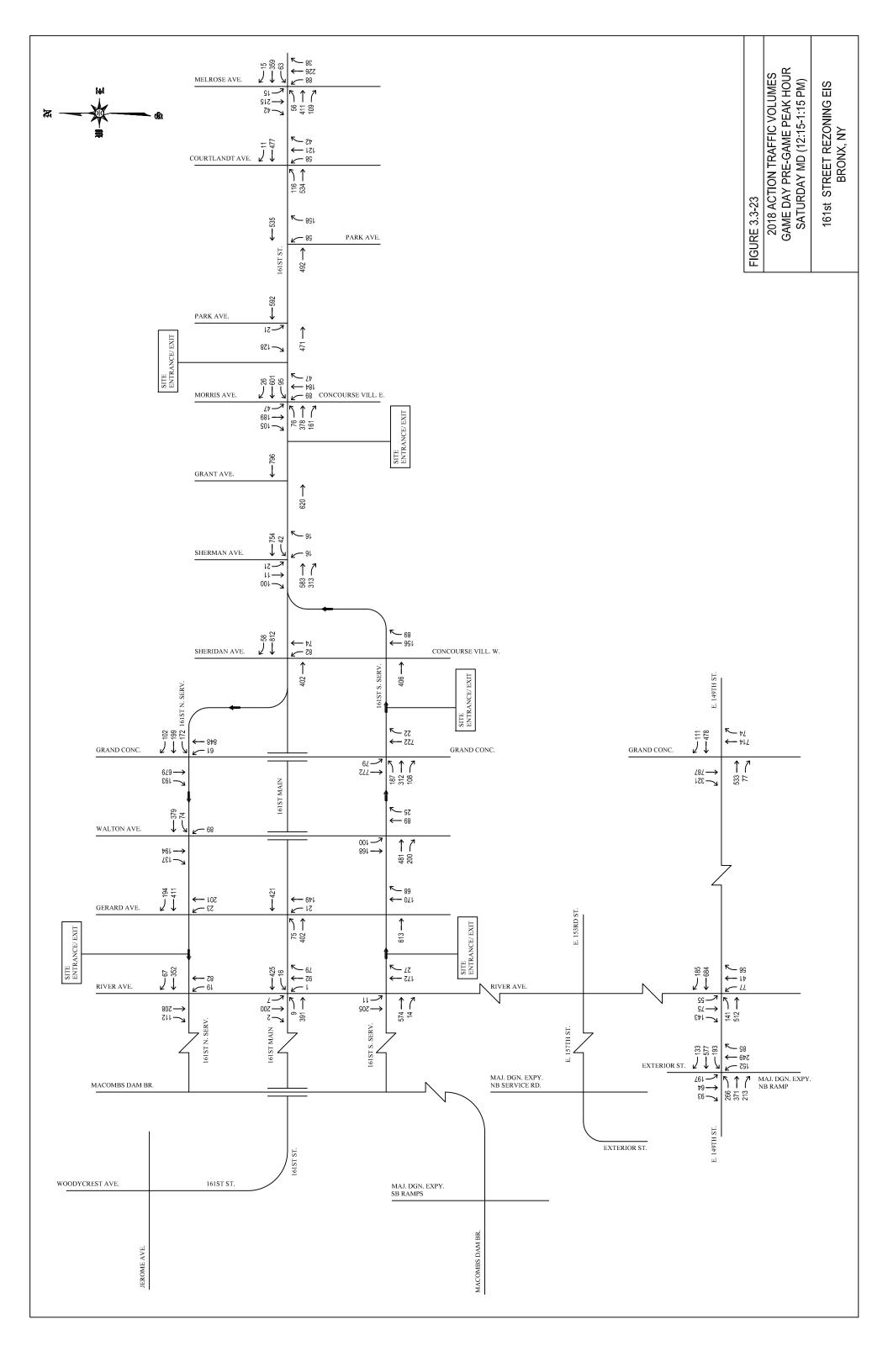


Table 3.3-11
Year 2018 Comparison of Game Day Traffic Conditions: No Mitigation
161st Street Rezoning - Bronx, NY

					ekday (5:00 to		ak Hour o.m.)				Saturd		day (S to 1:1	AT) Peak H 5 p.m.)	lour	
	•			NO-ACTION			ACTION		~.	1		<u>`</u>		ACTION		~
Intersection	Approach	Lane Group	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	Impact?	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	Impact?
				SIGNALI	ZED IN	TERSE	CTIONS		,							
	WB	TR	0.68	27.2	С	0.75	29.7	С		0.49	13.7	В	0.50	13.8	В	
4. 161st Street N. Service Road	NB	LT	0.54	4.1	A	0.62	5.5	A		0.22	4.7	A	0.24	4.9	A	
at River Avenue	SB	TR	0.69	25.5	С	0.71	26.1	С		0.87	39.7	D	0.90	44.0	D	
		erall		20.6	С		22.3	С			22.1	C		23.7	С	
	EB	LTR	0.39	21.5	C	0.44	22.4	C		0.32	11.8	В	0.36	12.2	B	
5. 161st Street Main Road	WB NB	LTR LTR	0.80	31.3	C	0.92	41.1	D		0.39	12.5	B	0.40	12.5	B	
at River Avenue	SB	LTR	0.63	5.4 5.2	A	0.66	6.0 5.5	A		0.38	5.7 5.0	A	0.39	5.8 5.3	A	
	-	erall	0.01	5.2 18.9	B	0.63	23.5	C		0.31	9.9	A	0.34	5.3 10.0	B	
	EB	TR	0.76	29.8	C	0.79	30.9	C	1	0.58	14.8	B	0.58	14.8	B	
6. 161st Street S. Service Road	NB	TR	0.70	23.0	C	0.73	30.3	C		0.30	28.7	C	0.80	31.0	C	
at River Avenue	SB	LT	0.30	2.1	A	0.33	2.3	A		0.39	5.8	A	0.50	7.4	A	
	-	erall		24.9	C		26.2	C			17.2	B		18.1	B	
7 464 of Oreget N. Oregins D.	WB	TR	0.40	7.9	A	0.44	8.2	A		0.44	10.0	A	0.45	10.1	B	
7. 161st Street N. Service Road	NB	LT	0.69	27.2	С	0.70	27.6	С		0.41	8.5	Α	0.41	8.6	Α	
at Gerard Avenue	Ov	erall		13.4	В		13.5	В			9.6	Α		9.7	Α	
		LT	0.43	8.2	Α	0.43	8.3	Α		0.38	9.5	Α	0.38	9.5	Α	
	EB	DefL														
8. 161st Street Main Road		Т														
at Gerard Avenue	WB	TR	0.36	7.5	Α	0.38	7.6	Α		0.29	8.7	Α	0.30	8.7	Α	
	NB	LTR	0.64	25.6	С	0.65	25.8	С		0.31	7.6	Α	0.31	7.7	Α	
	-	erall		10.8	В		10.9	В			8.9	Α		8.9	Α	
9. 161st Street S. Service Road	EB	TR	0.30	7.0	A	0.31	7.1	A		0.49	10.5	В	0.50	10.6	В	
at Gerard Avenue	NB	TR	1.10	111.6	F	1.11	114.6	F	Х	0.57	20.6	С	0.57	20.6	С	
		erall		48.2	D		48.7	D			13.2	В		13.2	В	
	WB	LT	0.35	11.6	В	0.39	12.0	В		0.34	12.0	B	0.35	12.1	B	
10. 161st Street N. Service Road	NB	L	0.21	17.2	В	0.21	17.2	B		0.21	8.3	A	0.21	8.3	A	
at Walton Avenue	SB	TR arall	0.46	29.6	С	0.46	29.6	С		0.42	18.4	В	0.42	18.4	B	
	EB	erall LTR	0.42	17.7	B	0.44	17.6	B		0.67	14.0	B	0.68	14.0	B	
	NB	TR	0.42	12.4 27.3	C	0.44	12.6 27.3	ь С		0.67	16.4 17.5	В	0.68	16.6 17.5	B	
11. 161st Street S. Service Road		L	0.24	16.0	B	0.24	16.0	B		0.27	8.3	A	0.27	8.3	A	┢───┤
at Walton Avenue	SB	T	0.13	10.0	B	0.13	10.0	B		0.24	3.4	A	0.24	3.4	A	
	Qv	erall		13.7	B		13.8	B			14.0	В		14.1	B	
	WB	LTR	0.61	27.8	C	0.73	31.2	C		0.42	21.6	C	0.45	22.1	C	
		L	0.51	9.8	A	0.52	9.9	A		0.12	5.3	A	0.23	5.4	A	
12. 161st Street N. Service Road	NB	Т	0.78	5.6	Α	0.78	5.6	А		0.56	4.8	Α	0.56	4.9	Α	
at Grand Concourse	SB	Т	0.32	18.7	В	0.32	18.7	В		0.24	20.0	В	0.24	20.0	В	
	30	R	0.30	19.8	В	0.30	19.9	В		0.31	22.4	С	0.32	22.4	С	
	Ov	erall		15.3	В		16.6	В			14.6	В		14.8	В	
	EB	LTR	0.48	25.0	С	0.50	25.3	С		0.57	24.3	С	0.58	24.6	С	
13. 161st Street S. Service Road	NB	TR	0.62	23.7	С	0.63	23.8	С		0.58	25.3	С	0.59	25.4	С	
at Grand Concourse	SB	L	0.93	65.5	E	1.00	83.2	F	Х	0.53	16.4	B	0.61	21.4	C	
	-	Т	0.44	2.5	A	0.45	2.5	A		0.35	3.6	A	0.35	3.6	A	
		erall	0.10	18.0	В	0.10	18.7	B		0.70	18.5	В	0.50	18.8	B	
	EB (Main)		0.49	13.7	B	0.49	13.7	B		0.52	14.5	B	0.52	14.6	B	
14.&15. 161st Street	EB (Service)	TR LTR	0.24	10.5	B	0.27	10.8	B		0.31	11.7	B	0.32	11.8	B	
at Concourse Village West/	WB	R	0.57 0.17	14.3 10.9	B	0.58 0.17	14.4 10.9	B		0.57	14.5 11.9	B	0.58	14.6 11.9	B	
Sheridan Avenue	NB	LTR	0.17	24.7	C	0.17	27.4	ь С		0.18	11.9	B	0.18	11.9	B	
		erall	0.01	15.5	B	0.00	16.6	B		0.20	13.5	B	0.20	13.5	B	
	50	. an		13.5			10.0				10.0	5		10.0		

NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound

L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn, DefL = de facto left-turn v/c = volume-to-capacity ratio, LOS = Level-of-Service

					ekday (5:00 to		ak Hour p.m.)				Saturd	-	day (S to 1:1	AT) Peak H 5 p.m.)	lour	
Intersection	Approach	Lane Group		NO-ACTION			ACTION		~	I	NO-ACTIO	<u>`</u>		ACTION		~
Intersection	Approach	Lane Group	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	Impact?	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	Impact?
	EB	TR	0.59	9.9	Α	0.62	10.4	В		0.62	11.6	В	0.64	11.8	В	
	WB	LT	0.59	10.1	B	0.60	10.2	B		0.67	12.9	B	0.69	13.2	В	
16. 161st Street at Sherman Avenue	NB	L R	0.28	33.3 27.5	C C	0.28	33.3 27.5	C C		0.13	15.7 15.0	B	0.13	15.7 15.0	B	
at Sherman Avenue	SB	LTR	1.01	81.9	F	1.01	81.9	F		0.62	22.4	C	0.62	22.4	C	
		erall		20.2	С		20.1	С			13.7	B		13.9	B	
17. 161st Street	EB	Т	0.64	15.6	В	0.68	16.4	В		0.37	11.7	В	0.38	11.8	В	
at Grant Avenue	WB	Т	0.63	15.5	В	0.64	15.7	В		0.50	13.3	В	0.50	13.4	В	
	Ov	erall		15.5	В		16.0	В			12.6	В		12.7	В	
	EB	DefL							V							
18. 161st Street	WB	TR LTR	1.01	50.8 91.1	D	1.06	64.4 104.0	E F	X	0.52	10.5 12.1	B	0.53	10.6 12.3	B B	
at Concourse Village East/	NB	LTR	1.13	145.8	F	1.10	145.8	F	~	0.03	45.6	D	0.04	45.6	D	
Morris Avenue	SB	LTR	0.94	54.3	D	0.94	54.3	D		0.83	33.6	C	0.83	33.6	C	
	Ov	erall		78.4	E		87.3	F	Х		20.5	С		20.5	С	
	EB	Т	0.52	13.7	В	0.55	14.3	В		0.31	8.3	Α	0.31	8.3	Α	
19. 161st Street	WB	Т	0.55	2.8	Α	0.56	2.9	A		0.35	1.5	A	0.39	1.6	Α	
at Park Avenue West	SB	LR	0.63	31.8	С	0.64	32.3	С		0.62	24.2	С	0.44	19.3	В	
		erall	0.50	10.9	B	0.50	11.2	B		0.00	8.3	A	0.04	6.5	A	
20. 161st Street	EB WB	T T	0.50	2.4 12.3	A B	0.53	2.6 12.4	A B		0.33	1.4 8.5	A	0.34	1.4 8.5	A A	
at Park Avenue East	NB	LR	1.09	102.0	F	1.09	102.0	F		0.33	42.0	D	0.34	42.0	D	
		erall	1.00	26.7	C	1.00	26.1	С		0.00	12.9	B	0.00	12.8	B	
		DefL														
	EB	Т														
21. 161st Street		LT	1.08	72.9	Е	1.09	76.0	Е		0.59	11.6	В	0.61	11.8	В	
at Courtlandt Avenue	WB	TR	0.40	12.2	В	0.41	12.3	В		0.36	8.7	Α	0.36	8.7	Α	
	NB	LTR	1.10	99.9	F	1.10	99.9	F		0.67	25.7	С	0.67	25.7	С	
	_	erall		61.7	E		63.1	E			13.1	В		13.1	В	
	EB WB	LTR	0.94	49.8	D C	1.04	75.3	E	Х	0.57	25.5	C C	0.60	26.1	C C	
	VVB	LTR LTR	0.78	34.1 123.9	F	0.80	35.6 136.1	D	Х	0.49	23.8 36.7	D	0.49	23.9 38.3	D	
22. 161st Street	NB								~							
at Melrose Avenue		TR														
	SB	LTR	0.60	27.7	С	0.60	27.7	С		0.53	25.7	С	0.53	25.7	С	
	Ov	erall		61.4	E		73.6	E	X		27.7	С		28.3	С	
		LTR														
	EB	L	0.76	38.6	D	0.76	39.2	D		0.97	72.3	E	0.98	73.2	E	
		TR LTR	0.86	31.0	C	0.86	31.2	C		0.65	23.9	C	0.65	24.0	C	
	WB	L	1.67	371.8	F	1.69	380.1	F	Х	1.01	93.2	F	1.01	93.2	F	
		TR	0.36	18.1	В	0.37	18.1	В		0.34	18.5	В	0.34	18.5	В	
	NB	LTR														
26.&27. E. 149th Street	(Exterior)	DefL	1.54	309.3	F	1.57	320.2	F	Х	0.91	95.7	F	0.92	97.3	F	
at River Avenue/ Exterior Street/	(TR	0.76	51.8	D	0.76	51.8	D		0.46	41.1	D	0.46	41.1	D	V
Major Deegan Expy. (I-87)	NB	LTR DefL	1.43	242.8	F	1.43	242.8	F		1.15	127.1	F	1.16	131.7	F	Х
Northbound Off-Ramp	(Ramp)	TR														
		LTR														
	SB (Ext)	DefL										F			F	
		Т	0.94	69.3	Е	0.94	69.3	Е		0.78	52.7	D	0.79	52.9	D	
	0.5	R	0.33	35.8	D	0.33	35.8	D		0.30	36.5	D	0.30	36.5	D	
	SB (Pivor)		0.45	37.6	D	0.46	37.8	D		0.70	46.0	D	0.71	46.2	D	
	(River)	TR erall		106.0	F		107.5	F			57.7	E		58.8	E	
	EB	TR	0.96	56.5	E	0.96	56.5	E		0.58	30.1	C	0.58	30.1	C	
	WB	TR	0.30	37.5	D	0.30	37.5	D		0.50	28.6	C	0.50	28.6	C	
28. E. 149th Street	NB	TR	0.49	17.8	В	0.50	17.9	В		0.38	18.5	B	0.38	18.5	B	
at Grand Concourse	SB	TR	0.69	21.9	С	0.70	22.2	С		0.65	23.2	С	0.65	23.3	С	
	Ov	erall		31.5	С		31.5	С			24.4	С		24.4	С	

Table 3.3-11 Year 2018 Comparison of Game Day Traffic Conditions: No Mitigation 161st Street Rezoning - Bronx, NY

 $\mathsf{NB} = \mathsf{northbound}, \, \mathsf{SB} = \mathsf{southbound}, \, \mathsf{EB} = \mathsf{eastbound}, \, \mathsf{WB} = \mathsf{westbound}, \, \mathsf{NEB} = \mathsf{north-eastbound}$

L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn, DefL = de facto left-turn v/c = volume-to-capacity ratio, LOS = Level-of-Service

Intersections	Design	ay Impacts ated by 'X'
	PM	SAT
9. 161st Street S. Service Road at Gerard Avenue	X	
13. 161st Street S. Service Road at Grand Concourse	X	
18. 161st Street at Concourse Village East/ Morris Avenue	X	
22. 161st Street at Melrose Avenue	X	
26.&27. E. 149th Street at River Avenue/ Exterior Street/ Major Deegan Expy. (I-87) Northbound Off-Ramp	X	X

Table 3.3-12Summary of Game Day Traffic Impacts

E. 161st Street Corridor Impact Locations

- <u>E. 161st Street S. Service Road at Gerard Avenue</u> During the weekday PM peak hour, delays for vehicles on the northbound through-right-turn approach are projected to increase from 111.6 seconds/vehicle (LOS "F") under the No-Action condition to 114.6 seconds/vehicle (LOS "F") under the game-day Action condition.
- <u>E. 161st Street S. Service Road at Grand Concourse</u> During the weekday PM peak hour, delays for vehicles on the southbound left-turn approach are projected to increase from 65.5 seconds/vehicle (LOS "E") under the No-Action condition to 83.2 seconds/vehicle (LOS "F") under the game-day Action condition.
- <u>E. 161st Street at Concourse Village East/Morris Avenue</u> During the weekday PM peak hour, delays for vehicles on the eastbound through-right-turn movements are projected to increase from 50.8 seconds/vehicle (LOS "D") under the No-Action condition to 64.4 seconds/vehicle (LOS "E") under the game-day Action condition; and during the weekday PM peak hour, delays for vehicles on the westbound approach are projected to increase from 91.1 seconds/vehicle (LOS "F") under the No-Action condition to 104.0 seconds/vehicle (LOS "F") under the game-day Action condition.
- <u>E. 161st Street at Melrose Avenue</u> During the weekday PM peak hour, delays for vehicles on the eastbound approach are projected to increase from 49.8 seconds/vehicle (LOS "D") under the No-Action condition to 75.3 seconds/vehicle (LOS "E") under the game-day Action condition; and during the weekday PM peak hour delays for vehicles on the northbound though-left-turn movements are projected to increase from 123.9 seconds/vehicle (LOS "F") under the No-Action condition to 136.1 seconds/vehicle (LOS "F") under the Action condition.

Additional Impact Locations

- E. 149th Street at River Avenue/Exterior Street/ MDE (I-87) Northbound Off-Ramp
 - During the weekday PM peak hour, delays for vehicles on the westbound left turn movement are projected to increase from 371.8 seconds/vehicle (LOS "F") under the No-Action condition to 380.1 seconds/vehicle (LOS "F") under the game-day Action condition; and delays for vehicles on the northbound Exterior Street leftturn movement are projected to increase from 309.3 seconds/vehicle (LOS "F") under the No-Action condition to 320.2 seconds/vehicle (LOS "F") under the game-day Action condition.
 - During the Saturday midday peak hour, delays for vehicles on the MDE northbound off-ramp are projected to increase from 127.1 seconds/vehicle (LOS "F") under the No-Action condition to 131.7 seconds/vehicle (LOS "F") under the Action condition.

In summary, the traffic analyses in this section for the game day analysis demonstrate that the proposed rezoning action would result in significant adverse impacts at a number of locations during the analyzed weekday PM and Saturday midday peak hours. Recommended mitigation measures of off-set these projected impacts are discussed in Section 3.3.3 of this chapter.

3.3.3 RECOMMENDED MITIGATION MEASURES

This section presents potential transportation-related mitigation and improvement measures that address those significant adverse traffic impacts that are projected to occur as a result of the proposed action. The following mitigation measures would off-set those impacts identified above:

Mitigation Measures

- <u>E. 161st Street S. Service Road at Gerard Avenue</u> Re-allocate one (1) second of green time from the eastbound phase to the northbound phase during the weekday PM peak period.
- <u>E. 161st Street S. Service Road at Grand Concourse</u> Re-allocate two (2) seconds of green time from the eastbound phase to the northbound-southbound phase during the weekday PM peak period.
- <u>E. 161st Street at Concourse Village East/Morris Avenue</u>
 - Prohibit on-street parking along Concourse Village East northbound approach to accommodate one additional northbound lane. This prohibition should extend for a distance of approximately 150 feet south of E. 161st Street. This change would result in the loss of approximately six (6) existing parking spaces along Concourse Village East northbound approach.
 - Restripe Concourse Village East northbound approach to two (2) 10.5-foot wide lanes.
 - Re-allocate six (6) seconds of green time from the northbound phase to the eastbound-westbound phase during the weekday AM, midday, and PM peak periods.
- <u>E. 161st Street at Park Avenue East and West</u> Re-allocate two (2) seconds of green time from the eastbound-westbound phase to the northbound-southbound phase during the weekday AM and midday peak periods.
- <u>E. 161st Street at Melrose Avenue</u>
 - Prohibit on-street parking along Melrose Avenue northbound approach to accommodate the northbound left-turns in a separate lane. This prohibition should extend for a distance of approximately 150 feet south of E. 161st Street. This change would result in the loss of approximately six (6) existing parking spaces along Melrose Avenue northbound approach.
 - Restripe Melrose Avenue northbound approach to a 11-foot wide, 100-foot long left-turn bay and a 13-foot wide through-right-turn lane;
 - Re-allocate four (4) seconds of green time from the northbound-southbound phase to the eastbound-westbound phase during the weekday AM and PM peak periods.

• <u>Macombs Dam Bridge at Major Deegan Expressway (I-87) Southbound Ramps</u> – Reallocate one (1) second of green time from the southbound phase to the westbound leftturn movement lead phase during the weekday AM and PM and Saturday midday peak periods.

Tables 3.3-13 and 3.3-14 compare the year 2018 Mitigated Action to the year 2018 No-Action traffic conditions for the Non-Game Day and Game Day scenarios, respectively. As shown in Tables 3.3-13 and 3.3-14, the proposed mitigation measures would mitigate all projected adverse traffic impacts described in the chapter above, with the following exception:

- <u>E. 149th Street at River Avenue/Exterior Street/ MDE (I-87) Northbound Off-Ramp.</u> Despite the improved geometry and widening proposed by the Gateway Center at Bronx Terminal Market EIS, which were discussed in earlier, significant traffic impacts remain which are identified below:
 - E. 149th Street westbound left-turn movement during the weekday PM peak hour
 - Exterior Street northbound left-turn movement during the weekday PM peak hour
 - MDE northbound off-ramp during the Saturday midday peak hour

Traffic analyses indicate that any mitigation favoring any one of the above impacted movements will inevitably cause new impacts on one of the other movements. In other words, there is no spare capacity at this intersection in the Future Action condition.

Table 3.3-13 Year 2018 Comparison of Non-Game Day Traffic Conditions: With Mitigation 161st Street Rezoning - Bronx, NY

					(7:45	to 8:45	eak Hour a.m.) GATED B				Week	(1:00	to 2:00	ID) Peak) p.m.) IGATED E				W NO-ACTIO	(5:00	to 6:00	eak Hour p.m.) GATED B				Saturd	(12:15	to 1:1	AT) Peak 5 p.m.) GATED B		
Intersection	Approach	Lane Group	v/c	Delay			Delay	1.05	Impact?	v/c	Delay	LOS	v/c	Delay	LOS	Impact?	v/c	Delay	LOS	v/c	Delay		Impact?	v/c	Delay	LOS	v/c	Delay	1.05	pact?
				(sec/veh))		(sec/veh)	<u></u>		(sec/veh			(sec/veh)	Ē		(sec/veh)			(sec/veh)		Ē		(sec/veh)			(sec/veh	1	Impa
			-	-										ECTIONS	;	.11								-			-			-
		L TR	0.27	20.5	C F	0.27	20.5	C		0.41	23.3	C	0.41	23.3	C F		0.63	32.9	C	0.63	32.9	C F		0.19	18.6	B	0.19	18.6	B	
	EB	Т	0.16	16.9	В	0.16	16.9	В		0.24	17.8	В	0.24	17.8	В		0.30	18.4	В	0.30	18.4	В		0.28	18.2	В	0.28	18.2	В	
1. 161st Street		R	0.63	27.4 21.3	C C	0.63	27.4 21.3	C C		0.48	23.2 19.6	C B	0.48	23.2 19.6	C B	-	0.50	23.7 20.0	C B	0.50	23.7 20.0	C B		0.58	25.1 17.8	C B	0.58	25.1 17.8	C B	
at Jerome Avenue	WB	TR	0.55	23.9	С	0.55	23.9	C		0.50	22.8	С	0.50	22.8	С		0.65	27.1	С	0.65	27.1	C		0.33	19.4	В	0.33	19.4	B	
	NB	LT R	0.36	14.9 13.0	B	0.37	15.0 13.0	B		0.29	14.2 12.1	B	0.30	14.2 12.1	B		0.52	17.0 12.5	BB	0.55	17.5 12.5	BB		0.29 0.03	14.1 12.0	BB	0.29	14.2 12.0	B	
	Ov	verall	0.12	20.0	B	0.12	20.0	B		0.05	19.0	B	0.05	12.1	B		0.00	21.5	C	0.00	21.2	C		0.03	18.7	B	0.03	18.6	B	
	WB	L	0.60	28.9	С	0.64	30.1	С		0.45	25.5	С	0.47	25.8	С		0.69	32.0	С	0.76	35.6	D		0.74	33.6	С	0.75	34.4	С	
2. 161st Street N. Service Road	NB	R T	0.20	21.8 11.4	CB	0.23	22.2 11.4	CB		0.21	22.0 10.4	CB	0.23	22.2	C B		0.30	23.4	CB	0.42	25.4 10.4	C		0.27	22.5 10.2	C B	0.29	22.9	C B	
at Macombs Dam Br. Approach	SB	Т	0.51	13.4	В	0.53	13.6	В		0.34	11.5	В	0.35	11.5	В		0.45	12.6	В	0.45	12.6	В		0.21	10.3	В	0.21	10.3	В	
	Ov WB	verall TR	0.34	15.8	B	0.35	16.3 21.1	B		0.33	14.4 20.9	B	0.34	14.6 21.0	B		0.48	17.2 23.0	B	0.55	18.8 24.2	B		0.45	19.2 13.5	B	0.46	19.6 13.6	B	
4. 161st Street N. Service Road	NB	LT	0.48	4.6	Ă	0.57	6.2	A		0.26	2.1	Ă	0.27	2.2	Ă		0.47	3.5	Ă	0.53	4.3	Ă		0.91	34.8	C	0.96	43.4	D	
at River Avenue	SB	TR	0.53	20.6 16.6	С	0.57	21.5 17.4	CB		0.49	19.8	В	0.52	20.3 16.9	С		0.62	22.9 17.7	C	0.63	23.4 18.6	CB		0.84	35.9 26.7	D	0.87	38.9 30.1	D	
	EB	LTR	0.44	16.6 22.3	B C	0.44	17.4 22.3	C		0.29	16.7 20.3	B	0.30	16.9 20.4	B		0.29	20.3	BC	0.33	20.8	C		0.42	26.7 12.7	B	0.43	30.1 12.9	B	-
5. 161st Street Main Road	WB	LTR	0.49	22.9	С	0.50	23.0	С		0.42	21.9	С	0.42	22.0	С		0.59	24.6	С	0.64	25.6	С	1	0.37	12.3	В	0.37	12.3	В	
at River Avenue	NB SB	LTR LTR	0.44	3.1 2.4	A	0.47	3.4 2.5	A		0.38	2.7 2.3	A	0.39	2.8 2.4	A	_	0.74	8.2 2.9	A	0.78	9.6 2.9	A		1.01 0.46	42.7 6.6	DA	1.01 0.48	44.5 6.9	D	
		verall	0.00	15.1	В	0.01	15.0	B		0.04	13.1	В	0.00	13.1	B		0.42	15.4	B	0.40	16.4	B		0.40	21.1	C	0.40	21.6	C	
6. 161st Street S. Service Road	EB NB	TR TR	0.70	28.0 19.0	CB	0.79	31.1 20.0	CB		0.48	23.0 18.3	C B	0.51	23.5 18.5	CB		0.60	25.3	C C	0.63	25.8 31.9	C C	-	0.91	29.2 41.0	C D	0.93	32.6 44.1	C	
at River Avenue	SB	LT	0.46	2.3	A	0.34	20.0	A		0.41	2.7	A	0.43	2.8	A		0.79	29.8 3.2	A	0.82	31.9	A		0.90	8.4	A	0.92	9.6	A	
	Ov	verall		19.9	В		22.3	С			15.9	В		16.5	В			22.3	С		23.4	С			29.3	С		32.3	С	
7. 161st Street N. Service Road	WB NB	TR LT	0.25	6.7 20.2	A C	0.26	6.8 20.2	A C		0.24	6.6 19.6	AB	0.25	6.7 19.6	AB		0.38	7.7 31.3	A C	0.42	8.5 28.4	A C		0.26	8.5 14.2	A B	0.28	8.6 14.3	AB	
at Gerard Avenue		verall		10.3	В		10.2	В			9.9	Α		9.9	Α			15.6	В		14.8	В		0.12	11.6	В	0.10	11.6	В	
	EB	LT DefL	0.27	6.8	A	0.28	6.9	A		0.25	6.7	A	0.25	6.8	A		0.42	8.4	A	0.44	9.1	A		0.57		FB	0.57		F	
8. 161st Street Main Road	LD	T			F			F				F			F				F			F		0.34	9.6	A	0.35	9.7	A	
at Gerard Avenue	WB	TR	0.24	6.6	A	0.29	7.0	A		0.20	6.4	A	0.20	6.4	A		0.37	7.5	A	0.39	8.2	A		0.28	8.6	A	0.29	8.7	A	
	NB Ov	LTR	0.39	20.5 8.7	C	0.40	20.6 8.8	C	_	0.41	21.1 9.1	C	0.41	21.1 9.1	C		0.56	23.6 10.6	CB	0.55	22.1 10.8	CB		0.36	8.2 10.2	AB	0.37	8.2 10.3	A	
9. 161st Street S. Service Road	EB	TR	0.28	6.9	Α			Α		0.31		Α	0.33	7.3	Α		0.35	7.4	Α	0.37	8.0	Α		0.34	9.2	A	0.35	9.2	Α	
at Gerard Avenue	NB	TR	1.01	87.3 36.2	F	1.01	87.3 32.8	F		0.64	39.3 15.6	D	0.65	39.5 15.3	D		1.20	149.4	F	1.16	131.8 52.4	F		0.54	19.6 12.8	B	0.54	19.7 12.9	B	
	WB	LT	0.20	10.2	В	0.20	10.3	В		0.16	10.0	Ā	0.17	10.0	B		0.25	10.6	В	0.28	11.0	В		0.21	10.9	B	0.22	11.0	B	
10. 161st Street N. Service Road at Walton Avenue	NB SB	L TR	0.24	17.4 28.8	B	0.24	17.4 28.8	B		0.28	17.6 27.6	B C	0.28	17.6 27.6	B	-	0.55	22.4 28.2	C C	0.55	22.4 28.2	C C		0.22	8.1 17.2	A B	0.22	8.1 17.2	AB	
at waton Avenue	Ov	verall	0.40	18.3	B	0.40	18.2	B		0.31	17.5	В	0.31	17.3	B		0.30	18.2	B	0.30	17.8	B		0.50	12.7	B	0.50	12.7	B	
	EB NB	LTR TR	0.41	12.2 28.2	B	0.48	13.1 28.2	B C		0.43	12.5 27.8	B C	0.45	12.9 27.8	B		0.49	13.3 31.9	B C	0.51	13.5 31.9	B C		0.33	11.9 18.0	B	0.34	12.0 18.0	B	
11. 161st Street S. Service Road		L	0.30	17.4	В	0.30	17.4	B		0.27	18.9	В	0.27	18.9	В		0.49	17.7	B	0.49	17.7	В		0.29	7.5	A	0.29	7.5	A	
at Walton Avenue	SB	Т	0.45	12.5	В	0.45	12.5	В		0.23	10.1	В	0.23	10.1	В		0.40	11.8	В	0.40	11.8	В		0.14	2.8	A	0.14	2.8	A	
	WB	verall LTR	0.49	14.3 25.4	B	0.54	14.7 26.4	B C		0.40	14.7 21.3	B	0.43	14.8 21.8	B C	_	0.62	16.2 28.3	B C	0.77	16.3 34.7	B C		0.51	11.3 23.3	BC	0.54	11.4 24.0	B C	
	NB	L	0.55	16.8	В	0.58	18.7	В		0.18	4.9	Α	0.19	4.9	Α		0.34	5.8	Α	0.33	5.4	Α		0.14	4.5	Α	0.15	4.6	Α	
 12. 161st Street N. Service Road at Grand Concourse 		T T	0.52	3.1 19.5	AB	0.52	3.1 19.6	AB		0.42	4.1 19.5	AB	0.42	4.1 19.5	A B		0.69	4.4 18.1	AB	0.67	4.1 17.0	AB		0.42	4.1 19.8	AB	0.43	4.1 19.9	AB	
	SB	R	0.05	16.6	В	0.40	16.6	В		0.13	19.4	В	0.20	19.4	В		0.14	17.6	В	0.13	16.5	В		0.25	18.7	В	0.25	18.7	В	
		verall	0.40	15.6	В	0.54	16.1	В		0.27	14.2	В	0.20	14.5	В		0.40	15.0	B	0.50	16.8	B		0.25	15.4	B	0.26	15.8	В	
10. 404-th Otrach C. Comission Date 1	EB NB	LTR TR	0.46	24.8 20.3	C C	0.54	26.3 20.6	C C		0.37	20.8 22.4	C C	0.39	21.2 22.6	C C	1	0.49	25.3 23.6	C C	0.52 0.60	27.2 22.1	C C	1	0.35	20.6 21.0	сc	0.36	20.7 21.1	C C	
 13. 161st Street S. Service Road at Grand Concourse 	SB	L	0.43	7.5	A	0.78	25.4	C		0.22	5.6	Α	0.37	7.9	Α		0.21	5.0	Α	0.26	5.7	A		0.26	5.8	Α	0.30	6.3	A	
		verall	0.55	2.9 12.6	A	0.55	2.9 14.3	A		0.30	3.4 15.0	AB	0.30	3.4 15.3	A		0.44	2.5 16.0	AB	0.43	2.4 15.7	A B		0.33	3.5 13.6	AB	0.33	3.5 13.7	AB	
	EB (Main)	LT	0.64	17.2	В	0.65	17.4	В		0.38	12.3	В	0.38	12.3	В		0.42	12.9	В	0.43	12.9	В		0.42	13.3	В	0.43	13.4	В	
14.&15. 161st Street	EB (Service)	TR LTR	0.13	9.8 13.9	AB	0.14 0.58	9.8 14.4	AB		0.20	10.2 12.7	B	0.20	10.3 12.9	B		0.23	10.4 15.1	BB	0.26 0.63	10.7 15.2	B		0.24 0.64	11.1 15.5	B	0.25	11.2 15.7	B	
at Concourse Village West/ Sheridan Avenue	WB	R	0.13	10.4	В	0.13	10.4	В		0.15	10.6	В	0.15	10.6	В		0.16	10.8	В	0.16	10.8	В		0.15	11.5	В	0.15	11.5	В	
Sheriuari Avenue	NB	LTR	0.38	22.7	С	0.39	22.8	CB		0.16	20.1 12.7	CB	0.17	20.2 12.8	С		0.49	24.3 15.7	С	0.63	26.8	CB		0.15	10.6	B	0.17	10.7	B	
NB = northbound, SB = southbour				15.6	В		15.9	В			12.7	В		12.8	В		-	15./	В		16.7	В			13.6	В		13.7	В	

 NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound

 L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/right-turn

v/c = volume-to-capacity ratio, LOS = Level-of-Service

Table 3.3-13 Year 2018 Comparison of Non-Game Day Traffic Conditions: With Mitigation 161st Street Rezoning - Bronx, NY

					(7:45	to 8:4	Peak Hour 5 a.m.)					(1:00	to 2:00	. /		1			(5:00	to 6:00						(12:15	to 1:1	AT) Peak I 5 p.m.)		_
Intersection	Approach	Lane Group	v/c	Delay (sec/veh)			Delay (sec/veh)	1.05	Impact?	v/c	NO-ACTIO Delay (sec/veh)	LOS		Delay (sec/veh)	LOS	Impact?	v/c	NO-ACTION Delay (sec/veh)	LOS	V/c	GATED BI Delay (sec/veh)	LOS	Impact?	v/c	NO-ACTIO Delay (sec/veh)	LOS		IGATED B Delay (sec/veh)	LOS	Impact?
	EB	TR	0.48		А	0.49	8.7	Α		0.41	7.9	Α	0.41	8.0	Α		0.48	8.6	Α	0.51	9.0	Α		0.44	9.4	A	0.45	9.5	Α	
16. 161st Street	WB	LT	0.66		B	0.69	11.9 26.8	B C		0.84	18.4 30.0	B C	0.86	19.8 30.0	B		0.74	13.5 36.3	B D	0.76	14.1 36.3	B		0.58	11.2 15.4	B	0.59	11.3 15.4	B	┢──
at Sherman Avenue	NB	R	0.04		С	0.04		С		0.15	27.6	С	0.15	27.6	С		0.12	27.2	С	0.12	27.2	С		0.17	15.7	В	0.17	15.7	В	
	SB	LTR	0.06	25.7 10.5	C	0.06	25.7 10.9	CB		0.47	35.0 15.8	C B	0.47	35.0 16.6	CB		1.25	175.5 30.6	F	1.25	175.5 30.4	F		0.64	25.7 12.4	C B	0.64	25.7 12.5	C B	
17. 161st Street	EB	Т	0.47	12.9	В	0.47	13.0	В		0.45	12.7	В	0.45	12.8	В		0.54	13.9	В	0.57	14.4	В		0.41	12.3	В	0.43	12.4	В	
at Grant Avenue	WB	erall	0.66	16.2 14.8	B	0.69	17.0 15.3	B		0.58	14.7 13.8	B	0.60	15.0 14.0	B		0.68	16.7 15.4	B	0.69	17.0 15.8	B		0.48	13.1 12.7	B	0.49	13.2 12.8	B	
	EB	DefL	1.14	122.4	F	1.12	112.0	F				F			F				F			F				F			F	
18. 161st Street	WB	TR LTR	0.82	26.6 19.8	C B	0.79		C B		0.65	17.1 17.6	B	0.56	11.4 11.8	B		1.28	155.4 131.7	F	1.22	123.9 86.5	F		0.61	11.9 12.8	B	0.62	12.2 13.1	B	-
at Concourse Village East/ Morris Avenue	NB	LTR	1.04	83.2	F	0.77	38.6	D		0.87	41.5	D	0.70	33.6	С		1.02	74.0	E	0.78	38.1	D		0.87	40.3	D	0.49	18.3	В	
inonio ritorido	SB	LTR	1.07	91.6 54.3	F	0.83	42.2 34.0	D C		0.91	46.6 26.5	D	0.73	35.0 19.2	D B		1.09	99.5 126.0	F	0.81	40.8 85.8	D		0.86	38.9 21.1	D C	0.50	18.4 14.4	B	-
	EB	T	0.45	12.8	В	0.47	14.2	В		0.53	14.0	В	0.56	15.6	B		0.63	15.7	В	0.69	18.3	В		0.44	9.5	A	0.45	9.6	A	
19. 161st Street at Park Avenue West	WB SB	T LR	0.38	2.0 60.4	A	0.41		A		0.37	1.9 34.8	A C	0.40	2.1 32.2	A C		0.49	2.5 78.6	A	0.52	2.7 64.1	A		0.41 0.63	1.7 24.9	A C	0.41 0.65	1.7 25.6	A C	-
al Faik Avenue west		rerall	0.33	18.7	B	0.33	18.9	В		0.03	12.8	В	0.07	13.4	B		1.01	21.8	C	0.30	20.5	C		0.03	8.6	A	0.05	8.8	A	
20. 16101 Street	EB	T	0.46	2.3	A	0.49		A		0.54	2.8	A	0.57	3.1	A		0.66	3.8	A	0.73	4.8	A		0.48	2.0	A		2.0	A	F
20. 161st Street at Park Avenue East	WB NB	LR	0.31	11.3 36.2	B	0.34		B C		0.32	11.3 29.1	B C	0.34 0.49	12.6 26.5	B C		0.43	12.5 53.3	B D	0.45	13.8 43.9	B D		0.38	8.9 19.3	A B	0.39	8.9 19.3	A B	L
	Ov	rerall	0.71	11.0	В		10.9	В			8.8	A		9.1	A			14.2	В		13.6	В		0.04	6.5	Α		6.5	Α	
21. 161st Street	EB WB	LT TR	0.76	20.0 11.2	C B	0.77	20.8 11.3	C B		0.81	22.2 11.1	C B	0.82	22.9 11.2	C B		1.01 0.41	49.9 12.3	D B	1.02	50.4 12.1	D B		0.60	11.9 9.0	B	0.61	12.1 9.1	B A	┣—
at Courtlandt Avenue	NB	LTR	1.11	106.5	F	1.11	106.5	F		0.84	44.2	D	0.84	44.2	D		1.04	82.8	F	1.00	71.9	E		0.85	37.6	D	0.85	37.6	D	
	EB Ov	LTR	0.58	40.8 25.4	D	0.55	40.7 22.4	D C		0.77	24.0 32.4	<u>с</u>	0.73	24.2 28.0	C		1.11	46.0 98.9	D	1.10	43.9 91.1	D		0.64	16.6 27.3	B	0.61	16.6 24.2	B	
	WB	LTR	0.28	20.3	С	0.35	17.9	B		0.57	26.3	С	0.73	28.0	c		0.74	32.0	C	0.69	27.3	C		0.51	24.2	С	0.61	24.2	C	
22. 161st Street	NB	LTR	1.16	123.4	F	 0.55	33.8	 C		0.54	26.4	C	0.24	23.6	 C		0.85	42.5	D	0.31	25.4	 C		0.88	48.9	D	0.37	26.9	 C	-
at Melrose Avenue	ND	TR				0.66		C					0.35	24.1	c					0.59	29.7	c					0.53	28.3	C	F
	SB	LTR	0.69		С	0.65		C		0.49		C	0.46	26.5	C		0.62	28.5	С	0.58	29.5	С		0.66	29.9	C	0.62	30.6	C	
	EB	TR	0.89	54.5 33.4	D C	0.90	26.4 34.5	<u>с</u>		0.98	28.7 42.6	D	0.99	25.8 43.6	D		0.79	60.5 27.7	C	0.79	54.4 27.9	D C		0.95	31.8 39.7	D	0.95	25.5 40.0	D	-
23. Macombs Dam Bridge	WB	L	1.00	79.6	E	0.98	72.1	Е		0.98	74.2	Ε	0.93	58.6	E		0.97	68.8	E	0.98	70.6	Е		0.97	73.7	Е	0.91	59.3	E	
at Major Deegan Expy. (I-87) Southbound Ramps	SB	LTR	0.60		B	0.59		B		0.35	13.1 25.5	B	0.34	12.5 26.7	B		0.51	14.9 26.8	B	0.51	14.4 28.6	B		0.47	14.4 24.4	B C	0.46	13.8 25.6	B	-
	Ov	verall		32.3	С		33.8	С			34.2	С		33.6	С			27.0	С		27.7	С			21.4	С		30.6	С	
24. E. 157th Street	NEB WB	R	0.41	15.9	 B	0.41	16.0	 B		0.47		 B	0.47		 B		0.50	16.0	 B	0.50		 B		0.54		 B	0.54		 B	-
at Major Deegan Expy. (I-87)	NB	T	0.37	11.0	В	0.37	11.0	В		0.49	12.0	В	0.49	12.0	В		0.62	12.8	В	0.62	12.8	В		0.83	17.4	В	0.83	17.4	В	
Northbound Off-Ramp		R	0.40	12.5 12.5	B	0.40	12.5 12.5	B		0.24	10.7 13.0	B	0.24	10.7 13.0	B		0.14	9.2 13.4	A B	0.14	9.2 13.4	A B		0.20	9.7 16.8	A B	0.20	9.7 16.8	AB	-
	EB	LTR	0.65	30.0	С	0.65	29.9	С		0.53	26.5	С	0.53	26.5	С		0.92	63.4	Е	0.93	65.4	E		0.60	21.3	С	0.60	21.3	С	
	WB	LTR LTR	0.21	21.1	C	0.22	21.2	C		0.31	22.8	C	0.31	22.8	C		0.79	51.7	D	0.82	55.3	E		0.33	16.9	В	0.33	16.9	B	
 E. 153rd Street at River Avenue 	NB	DefL	0.70	27.2	С	0.72	28.3	С		0.87	37.8	D	0.87	38.1	D		0.98	49.3	D	0.99	53.1	D		0.81	25.1	С	0.81	25.3	С	
at River Avenue	SB	TR LTR	0.28		B	0.30		B		0.26	11.6 14.3	B	0.27	11.7 14.4	B		0.45	8.5 9.4	A	0.47	8.8 9.8	A		0.56	12.4 10.0	B	0.57	12.7 10.0	B	<u> </u>
		rerall	0.04	21.2	C	0.01	21.6	C		0.40	23.8	C	0.40	23.8	C		0.00	32.3	C	0.00	33.8	C		0.40	17.3	В	0.40	17.4	B	
	50	LTR																				 F	V						 D	
	EB	TR	0.62	31.7 23.4	C C	0.62	31.7 23.5	C C		0.47	23.9 22.3	C C	0.47	23.9 22.3	C C		1.30 0.80	190.2 28.9	C	1.31 0.80	194.8 28.9	C	×	0.83	48.3 23.5	D C	0.83	48.7 23.5	C	-
	WB	LTR													F															
	VVD	L TR	0.52	28.4 19.8	C B	0.53	28.9 19.8	C B		0.95	70.5 18.2	B	0.95	70.5 18.2	B		1.00 0.44	102.0 19.8	F	1.01 0.44	104.1 19.8	F B		0.87	59.1 19.3	E B	0.87	59.1 19.3	E	-
	NB	LTR								1.09	111.8	F	1.09	113.8	F		0.99	83.9	F	1.00	86.0	F								
26.&27. E. 149th Street	(Exterior)	DefL TR	1.08	171.2 40.0	F	1.08	171.2 40.0	D																1.03 0.46	138.3 40.9	F D	1.03 0.46	138.3 40.9	F	-
It River Avenue/ Exterior Street/ Major Deegan Expy. (I-87)	NB	LTR								0.93	65.0	E	0.95	67.7	E		1.13	119.5	F	1.16	131.6	F	Х	1.00	76.3	Е	1.01	79.8	E	
Northbound Off-Ramp	(Ramp)	DefL TR	1.24 0.85		F	1.24 0.88		F																						
		LTR																												
	SB (Ext)	DefL T	0.50		D	0.51 0.37		D		0.75	74.0 33.5	E C	0.77	77.8 33.5	C		1.75 0.24	428.2 35.2	F D	1.75 0.24	428.2 35.2	F D		2.16 0.25	604.9 35.4	F D	2.22 0.25	632.2 35.4	F	X
	00	R	0.14	34.0	С	0.14	34.0	С		0.25	35.7	D	0.25	35.7	D		0.39	38.3	D	0.39	38.3	D	~	0.55	42.5	D	0.55	42.5	D	
	SB (River)	L (LTR) TR	0.96		F	0.96		F		0.76		E D	0.76	77.1 47.6	E D		1.14	132.0	F	1.16	138.9	F	X	0.99	79.6	E 	0.99	80.7	F 	1
	Ov	verall		56.8	Е		57.2	Е			49.3	D		50.3	D			83.9	F		87.5	F	Х		73.4	E		75.3	Е	
	EB WB	TR TR	0.84		D	0.84		D		0.58		C C	0.58	30.5 32.0	C C		0.89	46.4 47.4	DD	0.89	46.4 47.4	DD		0.65	31.9 28.0	C C	0.65	31.9 28.0	C C	1
28. E. 149th Street at Grand Concourse	NB	TR	0.46	17.4	В	0.46	17.5	В		0.58	21.8	С	0.59	21.8	С		0.64	20.7	С	0.65	20.8	С		0.38	18.5	В	0.38	18.5	В	
	SB	TR	0.45	17.2 27.6	B	0.45	17.3 27.6	B		0.42	19.1 24.9	B	0.42	19.1 24.9	BC		0.62	20.4 31.6	с <mark>с</mark>	0.63	20.6 31.6	С С		0.55	21.1 24.1	С С	0.55	21.2 24.2	С С	
		J. un		27.0			27.0				UNSIGNA							51.0	<u> </u>		51.0				24.1	<u> </u>		24.2	<u> </u>	<u> </u>
161 at Streat C. Carrier D	NB	TR	0.71	17.2	В			F		0.46		В			F		0.52	13.6	В			F		0.44	12.6	В			F	
8. 161st Street S. Service Road t Macombs Dam Br. Approach*	SB	LT	0.58		A	0.62	1.5	A		0.37	0.6	A	0.39	0.6	A		0.52	1.0	A	0.55	1.1	A		0.36	0.5	Α		0.6	A	F
- Intersection of 161st Street at		rerall		8.7	A						6.1	Α			F			6.0	Α						5.9	Α			F	1

Intersection of 161st Street at Macombs Dam Bridge is unsignalized in Existing condition, but signalized in all future conditions.
 NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound
 I = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn v/c = volume-to-capacity ratio, LOS = Level-of-Service

													1. 15	AT) D		
				W		/ PM P to 6:00	eak Hour p.m.)				Saturd		• •	AT) Peak H 5 p.m.)	lour	
Intersection	Approach	Lane Group		NO-ACTION			IGATED B	UILD	5	1	NO-ACTIO	N	MIT	IGATED B	JILD	2
intersection	Approach	Lane Group	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	Impact?	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	Impact?
				SIGNAL	IZED IN	NTERS	ECTIONS									
	WB	TR	0.68	27.2	С	0.75	29.7	С		0.49	13.7	В	0.50	13.8	В	
4. 161st Street N. Service Road	NB	LT	0.54	4.1	A	0.62	5.5	A		0.22	4.7	A	0.24	4.9	A	l
at River Avenue	SB	TR	0.69	25.5	С	0.71	26.1	С		0.87	39.7	D	0.90	44.0	D	
		erall	0.00	20.6	C	0.44	22.3	C		0.00	22.1	C	0.00	23.7	C	
	EB WB	LTR LTR	0.39	21.5 31.3	C C	0.44	22.4 41.1	C D		0.32	11.8 12.5	B	0.36	12.2 12.5	B	
5. 161st Street Main Road	NB	LTR	0.63	5.4	A	0.92	6.0	A		0.39	5.7	A	0.40	5.8	A	
at River Avenue	SB	LTR	0.61	5.2	A	0.63	5.5	A		0.31	5.0	A	0.34	5.3	A	
	-	erall	0.01	18.9	B	0.00	23.5	C		0.01	9.9	A	0.01	10.0	B	
	EB	TR	0.76	29.8	C	0.79	30.9	C		0.58	14.8	В	0.58	14.8	B	
6. 161st Street S. Service Road	NB	TR	0.77	28.0	С	0.81	30.1	С		0.77	28.7	С	0.80	31.0	С	
at River Avenue	SB	LT	0.30	2.1	Α	0.33	2.3	Α		0.39	5.8	Α	0.50	7.4	Α	
		erall		24.9	С		26.2	С			17.2	В		18.1	В	
7. 161st Street N. Service Road	WB	TR	0.40	7.9	Α	0.45	8.8	A		0.44	10.0	A	0.45	10.1	В	I
at Gerard Avenue	NB	LT	0.69	27.2	С	0.67	25.2	С		0.41	8.5	A	0.41	8.6	Α	
	Ov	erall		13.4	В		13.2	В			9.6	Α		9.7	Α	
		LT	0.43	8.2	A	0.44	8.8	A		0.38	9.5	A	0.38	9.5	A	I
8. 161st Street Main Road	EB	DefL T														
at Gerard Avenue	WB	TR	0.36	7.5	A	0.39	8.1	A		0.29	8.7	A	0.30	8.7	A	
at Geraid Avenue	NB	LTR	0.64	25.6	C	0.62	23.7	c		0.23	7.6	A	0.30	7.7	A	
		erall	0.04	10.8	B	0.02	11.0	В		0.01	8.9	A	0.01	8.9	A	
	EB	TR	0.30	7.0	A	0.32	7.6	A		0.49	10.5	B	0.50	10.6	B	
9. 161st Street S. Service Road	NB	TR	1.10	111.6	F	1.06	96.9	F		0.57	20.6	С	0.57	20.6	С	
at Gerard Avenue	Ov	erall		48.2	D		42.2	D			13.2	В		13.2	В	
	WB	LT	0.35	11.6	В	0.39	12.0	В		0.34	12.0	В	0.35	12.1	В	
10. 161st Street N. Service Road	NB	L	0.21	17.2	В	0.21	17.2	В		0.21	8.3	Α	0.21	8.3	Α	
at Walton Avenue	SB	TR	0.46	29.6	С	0.46	29.6	С		0.42	18.4	В	0.42	18.4	В	
		erall		17.7	В		17.6	В			14.0	В		14.0	В	
	EB	LTR	0.42	12.4	B	0.44	12.6	B		0.67	16.4	В	0.68	16.6	В	İ
11. 161st Street S. Service Road	NB	TR	0.24	27.3	C B	0.24	27.3	C B		0.27	17.5	B	0.27	17.5	B	l
at Walton Avenue	SB	L T	0.13	16.0 10.7	B	0.13	16.0 10.7	В		0.24	8.3 3.4	A	0.24	8.3 3.4	A	
	Ov	erall	0.01	13.7	B	0.01	13.8	B		0.20	14.0	B	0.20	14.1	B	
	WB	LTR	0.61	27.8	C	0.75	33.6	C		0.42	21.6	C	0.45	22.1	C	<u> </u>
		L	0.51	9.8	Ă	0.49	8.9	Ā		0.22	5.3	Ā	0.23	5.4	Ā	
12. 161st Street N. Service Road	NB	Т	0.78	5.6	Α	0.75	5.0	Α		0.56	4.8	Α	0.56	4.9	Α	
at Grand Concourse	SB	Т	0.32	18.7	В	0.31	17.5	В		0.24	20.0	В	0.24	20.0	В	
		R	0.30	19.8	В	0.29	18.6	В		0.31	22.4	С	0.32	22.4	С	
		erall		15.3	В		16.6	В			14.6	В		14.8	В	
	EB	LTR	0.48	25.0	С	0.52	26.9	С		0.57	24.3	С	0.58	24.6	С	i
13. 161st Street S. Service Road	NB	TR	0.62	23.7	C	0.61	22.2	C		0.58	25.3	C	0.59	25.4	C	il
at Grand Concourse	SB	L T	0.93	65.5 2.5	E A	0.93	64.2 2.4	E A		0.53	16.4 3.6	B A	0.61 0.35	21.4 3.6	C A	l
	0	erall	0.44	2.5 18.0	B	0.44	17.7	B		0.35	3.6 18.5	B	0.35	3.0 18.8	B	
	EB (Main)	LT	0.49	13.7	B	0.49	13.7	B		0.52	14.5	B	0.52	14.6	B	
	EB (Service)	TR	0.49	10.5	B	0.49	10.8	B		0.32	14.5	B	0.32	14.6	B	
14.&15. 161st Street		LTR	0.24	14.3	B	0.27	14.4	B		0.57	14.5	B	0.52	14.6	B	
at Concourse Village West/	WB	R	0.17	10.9	B	0.17	10.9	B		0.18	11.9	B	0.18	11.9	B	1
Sheridan Avenue	NB	LTR	0.51	24.7	С	0.65	27.4	С		0.26	11.4	В	0.28	11.6	В	
	Ov	erall		15.5	В		16.6	В			13.5	В		13.5	В	

Table 3.3-14 Year 2018 Game Day Comparison of Traffic Conditions: With Mitigation 161st Street Rezoning - Bronx, NY

 $\mathsf{NB}=\mathsf{northbound},\,\mathsf{SB}=\mathsf{southbound},\,\mathsf{EB}=\mathsf{eastbound},\,\mathsf{WB}=\mathsf{westbound},\,\mathsf{NEB}=\mathsf{north-eastbound}$

L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn, DefL = de facto left-turn v/c = volume-to-capacity ratio, LOS = Level-of-Service

				W		/ PM Po to 6:00	eak Hour p.m.)				Saturd	-	• •	AT) Peak H 5 p.m.)	lour	
Intersection	Annroach			NO-ACTION	-		GATED B	JILD	~	1	NO-ACTIO	-		IGATED BI	JILD	~
Intersection	Approach	Lane Group	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	Impact?	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	Impact?
	EB	TR	0.59	9.9	Α	0.62	10.4	В		0.62	11.6	В	0.64	11.8	В	
	WB	LT	0.59	10.1	В	0.60	10.2	В		0.67	12.9	В	0.69	13.2	В	
16. 161st Street	NB	L	0.28	33.3	С	0.28	33.3	С		0.13	15.7	В	0.13	15.7	В	
at Sherman Avenue	SB	R LTR	0.14	27.5 81.9	C F	0.14	27.5 81.9	C F		0.11 0.62	15.0 22.4	B C	0.11 0.62	15.0 22.4	B C	
	-	erall	1.01	20.2	C	1.01	20.1	C		0.02	13.7	B	0.02	13.9	B	
	EB	T	0.64	15.6	B	0.68	16.4	B		0.37	11.7	B	0.38	11.8	B	
17. 161st Street	WB	T	0.63	15.5	B	0.64	15.7	B		0.50	13.3	B	0.50	13.4	B	
at Grant Avenue	Ov	erall		15.5	В		16.0	В			12.6	В		12.7	В	
	EB	DefL														
18. 161st Street		TR	1.01	50.8	D	0.93	29.2	С		0.52	10.5	В	0.53	10.5	В	
at Concourse Village East/	WB	LTR	1.13	91.1	F	1.02	50.1	D		0.63	12.1	В	0.63	12.3	В	
Morris Avenue	NB	LTR	1.21	145.8	F	0.82	42.6	D		0.90	45.6	D	0.50	18.5	В	J
	SB	LTR	0.94	54.3	D	0.71	33.9	C		0.83	33.6	C	0.49	18.2	B	
		erall T	0.50	78.4	E	0.55	38.8	D		0.04	20.5	C	0.24	13.7	B	
19. 161st Street	EB WB	T	0.52	13.7 2.8	B A	0.55	14.3 2.9	B A		0.31	8.3 1.5	A	0.31	8.3 1.6	A A	J
at Park Avenue West	SB	LR	0.55	2.8	C A	0.56	32.3	C		0.35	24.2	C	0.39	1.6	B	J
		erall	0.00	10.9	B	0.04	11.2	B		0.02	8.3	A	0.77	6.5	A	
	EB	Т	0.50	2.4	A	0.53	2.6	A		0.33	1.4	A	0.34	1.4	A	
20. 161st Street	WB	Т	0.42	12.3	В	0.43	12.4	В		0.33	8.5	Α	0.34	8.5	Α	
at Park Avenue East	NB	LR	1.09	102.0	F	1.09	102.0	F		0.86	42.0	D	0.86	42.0	D	
	Ov	erall		26.7	С		26.1	С			12.9	В		12.8	В	
		DefL														
	EB	Т														
21. 161st Street		LT	1.08	72.9	E	1.09	76.0	E		0.59	11.6	В	0.61	11.8	В	
at Courtlandt Avenue	WB	TR	0.40	12.2	B	0.41	12.3	B		0.36	8.7	A	0.36	8.7	A	
	NB	LTR	1.10	99.9	F	1.10	99.9	F		0.67	25.7	C B	0.67	25.7	C B	
	EB	LTR	0.04	61.7 49.8	D	0.06	63.1 50.2	_		0.57	13.1 25.5	в С	0.56	13.1 22.7	в С	
	EB WB	LTR	0.94 0.78	49.8 34.1	C	0.96	28.9	D C		0.57	25.5	C C	0.56	22.7	C C	
	110	LTR	1.16	123.9	F					0.43	36.7	D				
22. 161st Street	NB	L				0.44	28.6	С					0.30	24.9	С	
at Melrose Avenue		TR				0.74	35.2	D					0.53	27.9	С	
	SB	LTR	0.60	27.7	С	0.56	28.8	С		0.53	25.7	С	0.50	27.1	С	
	Ov	erall		61.4	E		37.6	D			27.7	С		24.0	С	
		LTR														
	EB	L	0.76	38.6	D C	0.76	39.2 31.2	D C		0.97	72.3	E C	0.98	73.2	E C	
		TR LTR	0.86	31.0		0.86	31.2			0.65	23.9		0.65	24.0		
	WB	L	1.67	371.8	F	1.69	380.1	F	Х	1.01	93.2	F	1.01	93.2	F	
		TR	0.36	18.1	B	0.37	18.1	B		0.34	18.5	B	0.34	18.5	В	
	NB	LTR														
26.&27. E. 149th Street	(Exterior)	DefL	1.54	309.3	F	1.57	320.2	F	Х	0.91	95.7	F	0.92	97.3	F	
at River Avenue/ Exterior Street/	(=/(01)01)	TR	0.76	51.8	D	0.76	51.8	D		0.46	41.1	D	0.46	41.1	D	
Major Deegan Expy. (I-87)	NB	LTR Defi	1.43	242.8	F	1.43	242.8	F		1.15	127.1	F	1.16	131.7	F	Х
Northbound Off-Ramp	(Ramp)	DefL TR														
		LTR														J
	an (= .)	DefL														
	SB (Ext)	LT	0.94	69.3	Е	0.94	69.3	Е		0.78	52.7	D	0.79	52.9	D	
		R	0.33	35.8	D	0.33	35.8	D		0.30	36.5	D	0.30	36.5	D	
	SB	LTR	0.45	37.6	D	0.46	37.8	D		0.70	46.0	D	0.71	46.2	D	
	(River)	TR														
		erall		106.0	F		107.5	F			57.7	E		58.8	E	
	EB	TR	0.96	56.5	E	0.96	56.5	E		0.58	30.1	C	0.58	30.1	C	J
28. E. 149th Street	WB	TR	0.75	37.5	D	0.75	37.5	D		0.51	28.6	C	0.51	28.6	C	
at Grand Concourse	NB SB	TR TR	0.49	17.8 21.9	B C	0.50	17.9 22.2	B C		0.38	18.5 23.2	B C	0.38	18.5 23.3	B C	
		erall	0.69	31.5	с с	0.70	31.5	c		0.05	23.2 24.4	c	0.05	23.3 24.4	c	
	00	ciali		31.3	L L		31.5	L L			24.4	U U		24.4	U.	

Table 3.3-14 Year 2018 Game Day Comparison of Traffic Conditions: With Mitigation 161st Street Rezoning - Bronx, NY

 $\mathsf{NB} = \mathsf{northbound}, \, \mathsf{SB} = \mathsf{southbound}, \, \mathsf{EB} = \mathsf{eastbound}, \, \mathsf{WB} = \mathsf{westbound}, \, \mathsf{NEB} = \mathsf{north-eastbound}$

L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn, DefL = de facto left-turn v/c = volume-to-capacity ratio, LOS = Level-of-Service

3.3.4 PARKING

EXISTING CONDITIONS

On-Street Parking Utilization

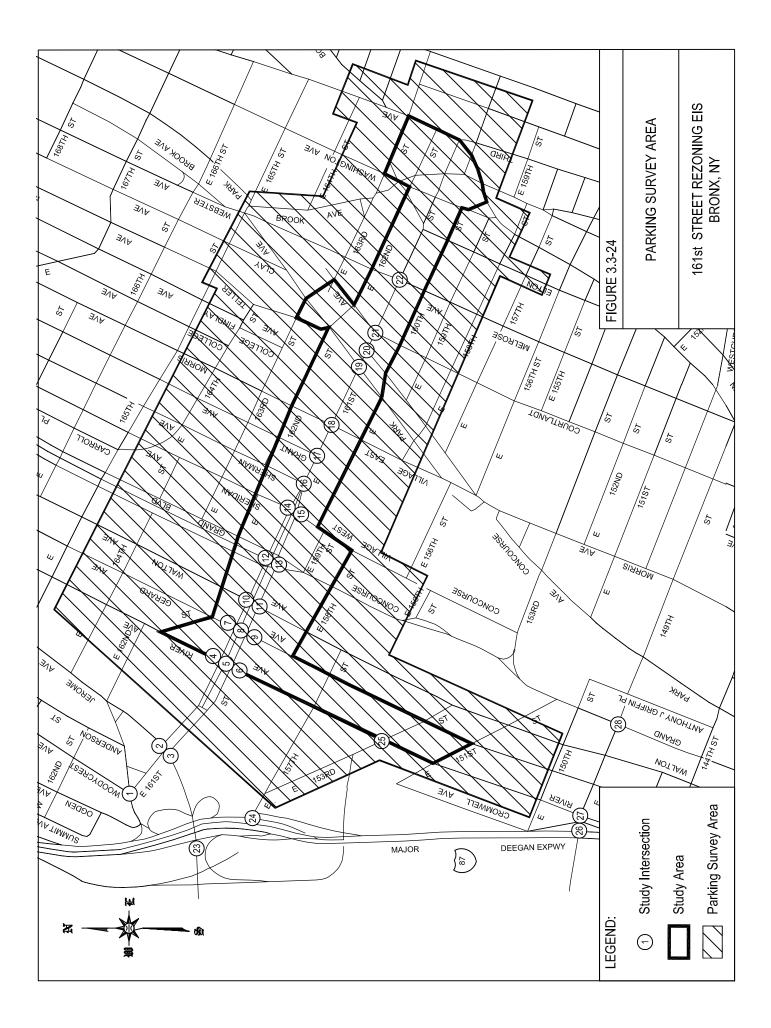
A survey of existing parking utilization was conducted on all streets within 400 feet of the proposed development sites (see Figure 3.3-24). This survey documented the total number of legal, on-street parking spaces on each block-face based on available curb space and existing parking regulations, as well as the total number of legally and illegally parked vehicles on each block-face during the weekday AM (7:00 to 9:00 AM), midday (12:00 to 2:00 PM), and PM ($\underline{5}$:00 to $\underline{6}$:00 PM) peak periods, as well as during Saturday midday peak period (12:00 to 1:00 PM). The survey was done for the Non-Game Day scenario. Table 3.3-15 summarizes the results of this existing conditions utilization survey and identifies the existing number of legal, on-street parking spaces, as well as the existing parking utilization during each of the four study time periods. It should be noted that the legal number of parking spaces varies across the study time periods because of time-of-day variations in the posted parking regulations. It should also be noted that Game Day conditions in the study area are covered extensively in the Yankee Stadium Redevelopment EIS. Further, the Yankee Stadium redevelopment proposes fewer seats, increased parking supplies, and nearby transit improvements, all of which should alleviate parking demand in the study area under future Game Day conditions.

As shown in Table 3.3-15, existing curbside parking utilization was observed to peak at approximately 90 percent during the weekday midday peak period. Existing utilization during the other three study time periods ranges from approximately 66 percent during the weekend midday peak period to approximately 82 percent during the weekday PM peak period. The results of this survey indicate that existing on-street parking demand does not exceed the current supply, and that parking spaces are currently available in the study area. Summaries of the existing on-street parking utilization surveys are available upon request.

Time Period	Number of Existing Legal Parking Spaces	Number of Parked Vehicles ¹	Existing Parking Utilization
Weekday AM Peak Period	3,004	2,006	79%
Weekday Midday Peak Period	3,301	2,708	90%
Weekday PM Peak Period	3,301	2,500	82%
Saturday Midday Peak Period	3,310	2,058	66%

Table 3.3-15Summary of Existing On-Street Parking Utilization

1 = Includes legally and illegally parked vehicles.



Off-Street Parking Utilization

Eight public and three private off-street parking lots and garages located within a 400 foot radius of the projected development sites were also surveyed to identify their respective capacities and utilization during the weekday AM, midday, and PM peak periods. As shown in Table 3.3-16, the three private parking facilities provide a total of 64 spaces for residents, and have a maximum existing utilization of 83 percent during the weekday AM peak hour. As shown in Table 3.3-16, the overall off-street parking utilization within the study area is approximately $\frac{74}{24}$ percent during the weekday AM peak period, approximately $\frac{64}{22}$ percent during the weekday PM peak period.

FACILITY		PUBLIC/	LEGAL	NU I	XISTIN JMBER PARKEI EHICLE	OF)		PERCEN		EM	PTY LE SPACE	
NAME	ADDRESS	PRIVATE	CAPACITY	AM	MD	PM	AM	MD	PM	AM	MD	PM
N/A (Private)	1010 Sherman Avenue	Private	36	33	<u>21</u>	<u>36</u>	92%	<u>58%</u>	<u>100%</u>	3	<u>15</u>	<u>0</u>
Princess Parking Corp	800 Grand Concourse	Public	100	100	100	88	100%	100%	88%	0	0	12
Flash Parking System	702 Concourse Village West	Public	110	75	69	61	68%	63%	55%	35	41	49
Yankee Stadium Lot #3	950 River Avenue	Public	1,200	1,100	920	310	92%	77%	26%	100	280	890
A & Z Corp.	180 East 156 th Street	Public	100	100	91	75	100%	91%	75%	0	9	25
751 CVW	751 Concourse Village West	Public	120	118	<u>120</u>	73	98%	<u>100%</u>	61%	2	<u>0</u>	47
Prince Garage	771 Concourse Village West	Public	100	98	70	65	98%	70%	65%	2	30	35
N/A (Private)	Corner of Anderson Avenue / Jerome Avenue	Private	14	6	6	4	43%	43%	29%	8	8	10
Precise Parking Associates	702 Grand Concourse	Public	150	10	11	8	7%	7%	5%	140	139	142
Central Parking System	200 East 161 St Street	Public	1,208	<u>678</u>	<u>584</u>	<u>300</u>	<u>56%</u>	<u>48%</u>	<u>25%</u>	<u>530</u>	<u>624</u>	<u>908</u>
N/A (Private)	162 nd Street between Grant Avenue / Morris Avenue	Private	14	14	12	7	100%	86%	50%	0	2	7
		TOTAL	<u>3,152</u>	2,332	<u>2,004</u>	<u>1,027</u>	<u>74%</u>	<u>64%</u>	33%	<u>820</u>	<u>1,148</u>	2,125
		PUBLIC	<u>3,088</u>	<u>2,279</u>	<u>1,965</u>	<u>980</u>	<u>74%</u>	<u>64%</u>	32%	<u>809</u>	<u>1,123</u>	<u>2,108</u>
		PRIVATE	<u>64</u>	<u>53</u>	<u>39</u>	<u>47</u>	<u>83%</u>	<u>61%</u>	<u>73%</u>	<u>11</u>	<u>25</u>	<u>17</u>

 Table 3.3-16

 Summary of Existing Off-Street Parking Utilization

Note: Off-street parking survey was performed in May, 2008 and supplemental information was collected in July 2009.

FUTURE CONDITIONS

The future conditions parking analyses identify projected future parking conditions in the study area in the 2018 horizon year both *without* the proposed land use action (i.e. the future "No-Action" condition under the existing zoning), and *with* the proposed land use action (i.e. the future "Action" condition under the proposed zoning).

Background Growth

All future conditions parking analyses (both "No-Action" and "Action") include anticipated future increases in on-street and off-street parking demand resulting from background growth over time. This background growth reflects long-term growth trends due to city-wide population increases and on-going development throughout the region. To establish the baseline future parking demand for both the No-Action and Action conditions analyses, an annual parking growth rate of one-half percent (0.5%) was assumed based on the recommended growth rate for the Bronx identified in Section 331 of the *City Environmental Quality Review (CEQR) Technical Manual*. This growth rate was then applied to the existing on-street and off-street parking demands over ten years (from 2008 to 2018) to arrive at the projected future baseline parking demand in the 2018 horizon year.

Table 3.3-17 shows the resulting baseline future parking demand projections for on-street parking within the project study area during the weekday AM, midday, and PM peak periods.

Time Period	Number of Existing Legal Parking Spaces	Projected Number of Parked Vehicles	Projected Future Baseline Parking Utilization
Weekday AM Peak Period	3,004	2,096	83%
Weekday Midday Peak Period	3,301	2,819	94%
Weekday PM Peak Period	3,301	2,601	86%
Saturday Midday Peak Period	3,310	2,147	69%

Table 3.3-17Summary of Future Year 2018 On-Street Parking Utilization

As shown in Table 3.3-17, the future year 2018 baseline parking demand is not projected to exceed the number of existing on-street parking spaces during any of the four peak study time periods.

Table 3.3-18 shows the resulting baseline future parking demand projections for off-street parking within the project study area during the weekday AM, midday, and PM peak periods.

		PUBLIC/	LEGAL	NU	ROJECTE JMBER (ED VEHI)F	FUTU I	ROJECTI RE BASH PARKINO ILIZATI	ELINE G
FACILITY NAME	ADDRESS	PRIVATE	CAPACITY	AM	MD	PM	AM	MD	PM
N/A (Private)	1010 Sherman Avenue	Private	36	35	<u>22</u>	<u>38</u>	96%	<u>61%</u>	<u>105%</u>
Princess Parking Corp	800 Grand Concourse	Public	100	105	105	92	105%	105%	92%
Flash Parking System	702 Concourse Village West	Public	110	79	72	64	72%	66%	58%
Yankee Stadium Lot #3	950 River Avenue	Public	1,200	1155	966	326	96%	81%	27%
A & Z Corp.	180 East 156 th Street	Public	100	105	96	79	105%	96%	79%
751 CVW	751 Concourse Village West	Public	120	124	<u>126</u>	77	103%	<u>105%</u>	64%
Prince Garage	771 Concourse Village West	Public	100	103	74	68	103%	74%	68%
N/A (Private)	Corner of Anderson Avenue / Jerome Avenue	Private	14	6	6	4	45%	45%	30%
Precise Parking Associates	702 Grand Concourse	Public	150	11	12	8	7%	8%	6%
Central Parking System	200 East 161 st Street	Public	1,208	<u>712</u>	<u>613</u>	<u>315</u>	<u>59%</u>	<u>51%</u>	<u>26%</u>
N/A (Private)	162 nd Street between Grant Avenue and Morris Avenue	Private	14	15	13	7	105%	90%	53%
		TOTAL	3,152	<u>2,449</u>	<u>2,104</u>	<u>1,078</u>	<u>78%</u>	<u>67%</u>	<u>34%</u>
		PUBLIC	3,088	<u>2,393</u>	<u>2,063</u>	<u>1,029</u>	<u>77%</u>	<u>67%</u>	<u>33%</u>
		PRIVATE	64	<u>56</u>	<u>41</u>	<u>49</u>	<u>87%</u>	<u>64%</u>	<u>77%</u>

Table 3.3-18Summary of Future Year 2018 Off-Street Parking Utilization

As shown in Table 3.3-18, under future baseline conditions, parking utilization would increase to approximately $\underline{78}$ percent during the weekday AM peak period (versus $\underline{74}$ percent under existing conditions), approximately $\underline{67}$ percent during the weekday midday peak period (versus $\underline{64}$ percent under existing conditions), and approximately $\underline{34}$ percent during the weekday PM peak period (versus $\underline{33}$ percent under existing conditions). Therefore, as shown in Table 3.3-18, the projected off-street parking demand in the overall study area is not expected to exceed the total legal capacity. However, it should be noted that, as indicated in Table 3.3-18, there are instances where the projected future baseline parking demand at a particular off-street parking facility exceeds the legal capacity. In those cases, it can be assumed that motorists seeking a parking space at a fully-occupied parking facility would proceed to the next nearest parking facility where parking spaces are available.

Projected Future No-Action Parking Conditions

The future No-Action condition assumes that the existing zoning at each of the proposed development sites would remain unchanged through the 2018 horizon year. However, under the existing zoning, the proposed sites would be developed in the future to accommodate a net increase of approximately 296 residential units. It is important to note that under the existing zoning (i.e. the No-Action condition), as-of-right accessory parking is not required.

The additional parking demand associated with development of the sites under the No-Action condition was estimated based on the projected parking demand associated with the net increase in residential units anticipated under the existing zoning. The peak parking generation rate and temporal distribution from the Institute of Transportation Engineers' (ITE) standard reference manual, Parking Generation, 3rd Edition, were applied to the projected residential units using ITE land use code 224. Because the parking generation rates published in the ITE manual are developed from empirical studies of parking demand at other similar land uses throughout the United States, the parking demand estimate for the residential uses were modified to reflect auto ownership rates in the Bronx, relative to auto ownership rates in the United States (using Census 2000 data for census tracts 49, 53.01, 57, 59.01, 59.02, 61, 65, 67, 69, 71, 75, 77, 133, 135, 137, 139, 141, 143, 145, 173, 175, 181, 183, 187, 189, 193, 195, 197, and 199 in the Bronx). Based on the resulting parking generation profile for the residential units, the projected parking demands under the No-Action condition were identified for the weekday AM, midday, and PM peak periods. As shown in Table 3.3-19, under future No-Action conditions, the projected net new parking demand is 30 vehicles during the weekday AM peak hour, 22 vehicles during the weekday midday peak hour, and 43 vehicles during the weekday PM peak hour.

With the anticipated increase in residential units under the No-Action condition, sufficient onstreet and off-street parking supply is anticipated to be available in the study area to accommodate the net additional No-Action parking demands during all three peak periods. Specifically, there are approximately 908 available on-street parking spaces during the weekday AM peak hour, approximately 482 available on-street parking spaces during the weekday midday peak hour, and approximately 700 available on-street parking spaces during the weekday PM peak hour. Similarly, the off-street parking facilities provide approximately <u>703</u> available spaces during the weekday AM peak hour, approximately available <u>1,048</u> spaces during the weekday midday peak hour, and approximately available <u>2,074</u> spaces during the weekday PM peak hour.

Table 3.3-19 Parking Temporal Distribution Analysis 161st Street Rezoning - Bronx, NY **NO-ACTION YEAR 2018**

161st STREET REZONING - NO ACTION 2018 USES						
RETAIL USE	71,550	square feet				
RESIDENTIAL	300	dwelling units				
OFFICE	246,500	square feet				
COMMUNITY FACILITY	11720	square feet				

AVERAGE PEAK P	AVERAGE PEAK PERIOD PARKING DEMAND						
RETAIL USE (1)	2.65	vehicles per 1000sq. ft. GLA					
VEHICULAR MODE SPLIT (2)	5%	of total retail trips					
RESIDENTIAL (3)	1.73	vehicles per dwelling unit					
VEHICULAR MODE SPLIT (4)	25%	of total residential trips					
OFFICE (5)	2.80	vehicles per 1000sq. ft. GLA					
VEHICULAR MODE SPLIT (6)	42%	of total office trips					
COMMUNITY FACILITY (7)	5.19	vehicles per 1000sq. ft. GLA					
VEHICULAR MODE SPLIT (8)	13%	of total community facilty trips					
STUDY AREA CENSUS DATA (9)	0.27	vehicles per dwelling unit					
UNITED STATES CENSUS DATA (10)	1.90	vehicles per dwelling unit					

161st STREET PEAK PARKING DEMAND						
RETAIL USE	9	parking spaces				
RESIDENTIAL	74	parking spaces				
OFFICE	290	parking spaces				
COMMUNITY FACILITY	8	parking spaces				
AM PARKING DEMAND	229	parking spaces				
MIDDAY PARKING DEMAND	310	parking spaces				
PM PARKING DEMAND	230	parking spaces				

Net new Parking Demand (increase fr0m existing conditions)							
AM PARKING DEMAND 30 parking space							
MIDDAY PARKING DEMAND	22	parking spaces					
PM PARKING DEMAND	43	parking spaces					

		TEMPORAL DISTRIBUTION (F	PARKING) BY USE			TEMPORAL D	ISTRIBUTION (PAR	KING) BY USE	
				COMMUNITY		RESIDENTIAL		COMMUNITY	
	RETAIL USE (1)	RESIDENTIAL (3)	OFFICE USE (5)	FACILITY (7)	RETAIL DEMAND	DEMAND	OFFICE DEMAND	FACILITY	TOTAL DEMAND
TIME PERIOD	% of peak period	% of peak period	% of peak period	% of peak period	Volume	Volume	Volume	Volume	Volume
12:00 AM 1:00 AM	0%	98%	0%	0%	0	73	0	0	73
1:00 AM 2:00 AM	0%	98%	0%	0%	0	73	0	0	73
2:00 AM 3:00 AM	0%	98%	0%	0%	0	73	0	0	73
3:00 AM 4:00 AM	0%	98%	0%	0%	0	73	0	0	73
4:00 AM 5:00 AM	0%	98%	0%	0%	0	73	0	0	73
5:00 AM 6:00 AM	0%	100%	0%	0%	0	74	0	0	74
6:00 AM 7:00 AM	0%	84%	0%	0%	0	62	0	0	62
7:00 AM 8:00 AM	5%	62%	20%	0%	0	46	58	0	104
8:00 AM 9:00 AM	18%	41%	68%	0%	2	30	197	0	229
9:00 AM 10:00 AM	38%	34%	90%	0%	3	25	261	0	289
10:00 AM 11:00 AM	53%	32%	96%	86%	5	24	278	7	307
11:00 AM 12:00 PM	86%	31%	95%	71%	8	23	276	6	307
12:00 PM 1:00 PM	100%	30%	94%	53%	9	22	273	4	304
1:00 PM 2:00 PM	98%	31%	96%	49%	9	23	278	4	310
2:00 PM 3:00 PM	91%	33%	100%	42%	8	24	290	3	322
3:00 PM 4:00 PM	86%	37%	99%	49%	8	27	287	4	322
4:00 PM 5:00 PM	81%	45%	92%	76%	7	33	267	6	307
5:00 PM 6:00 PM	57%	61%	62%	88%	5	45	180	7	230
6:00 PM 7:00 PM	69%	69%	0%	100%	6	51	0	8	57
7:00 PM 8:00 PM	82%	72%	0%	77%	7	53	0	6	60
8:00 PM 9:00 PM	70%	80%	0%	62%	6	59	0	5	65
9:00 PM 10:00 PM	42%	89%	0%	0%	4	66	0	0	70
10:00 PM 11:00 PM	10%	92%	0%	0%	1	68	0	0	69
11:00 PM 12:00 AM	0%	94%	0%	0%	0	70	0	0	70

Notes:

1 Source: ITE Parking Generation 3rd Edition - Landuse 820, Monday - Thursday, Non-December

2 Retail modal split for AM, PM, based on modal split for retail in "125th Street Rezoning and Related Actions EIS". For MD, all modal splits from "125th Street Rezoning and Related Actions EIS"

3 Source: ITE Parking Generation 3rd Edition: Landuse 224, weekday

4 Residential modal split based on Census 2000 Journey-to-Work data for census tracts comprising the rezoning area 5 Source: ITE Parking Generation 3rd Edition: Landuse 701, weekday Urban Data

6 Office modal split based on Census 2000 Reverse Journey-to-Work data census tracts comprising the rezoning area (59.01, 59.02, 61, 173, 183, 195).

7 Source: ITE Parking Generation 3rd Edition: Landuse 492, weekday Data

8 Community facility modal split based on modal split for community facility in "125th Street Rezoning and Related Actions EIS"

9 Source: U.S. Census Bureau Census 2000; Census Tract data - Table QT-H11 Vehicles Available

10 Source: U.S. Census Bureau Census 2000; UNITED STATES - Table QT-H11 Vehicles Available

Projected Future Action Parking Conditions

The future Action condition assumes that the zoning at each of the proposed development sites would change in the 2018 horizon year. Under the proposed zoning, the sites would be developed in the future to accommodate total increases of approximately 899 dwelling units, 37,715 square-feet of retail, 306,984 square-feet of office space, and 11,730 square-feet of community facilities. These proposed land use changes have posed requirements to provide as-of-right accessory parking totaling approximately 311 spaces on the projected development sites.

The additional parking demand associated with development of the sites under the Action condition was estimated based on the projected parking demand associated with the individual land uses anticipated to be developed under the proposed zoning. The peak parking generation rates and temporal distributions from ITE's Parking Generation, 3rd Edition, were applied to the incremental land use changes under the proposed zoning, using the respective land use codes. Again, because the parking generation rates in the ITE manual are developed from empirical studies of parking demand at other similar land uses throughout the United States, the parking demand estimate for the residential uses were modified to reflect auto ownership rates in the Bronx, relative to auto ownership rates in the United States (using Census 2000 data for census tracts 49, 53.01, 57, 59.01, 59.02, 61, 65, 67, 69, 71, 75, 77, 133, 135, 137, 139, 141, 143, 145, 173, 175, 181, 183, 187, 189, 193, 195, 197, and 199 in the Bronx). Similarly, the auto mode splits for the proposed retail, office, and community facility uses were applied to the parking demand estimates to reflect the site-specific mode of travel for patrons of these proposed uses. The hourly parking generation profiles for all land uses were aggregated to arrive at the combined total parking generation profile under the Action condition. Based on the resulting parking generation profile for the Action condition, the projected net additional parking demands under the Action condition were identified for the weekday AM, midday, and PM peak periods.

Table 3.3-20 shows the total estimated hourly parking demand that would be generated by the projected development sites under the Action condition. As shown in Table 3.3-20, the proposed Action condition would generate a maximum total net parking demand of 337 vehicles during the weekday AM peak hour, 420 vehicles during the weekday midday peak hour, and 360 vehicles during the weekday PM peak hour.

Table 3.3-20 Parking Temporal Distribution Analysis 161st Street Rezoning - Bronx, NY ACTION YEAR 2018

161st STREET REZONING - ACTION 2018 USES						
RETAIL USE	113,553	square feet				
RESIDENTIAL	893	dwelling units				
OFFICE	553,484	square feet				
COMMUNITY FACILITY	11730	square feet				

AVERAGE PEAK P	AVERAGE PEAK PERIOD PARKING DEMAND						
RETAIL USE (1)	2.65	vehicles per 1000sq. ft. GLA					
VEHICULAR MODE SPLIT (2)	5%	of total retail trips					
RESIDENTIAL (3)	1.73	vehicles per dwelling unit					
VEHICULAR MODE SPLIT (4)	25%	of total residential trips					
OFFICE (5)	2.80	vehicles per 1000sq. ft. GLA					
VEHICULAR MODE SPLIT (6)	42%	of total office trips					
COMMUNITY FACILITY (7)	5.19	vehicles per 1000sq. ft. GLA					
VEHICULAR MODE SPLIT (8)	13%	of total community facilty trips					
STUDY AREA CENSUS DATA (9)	0.27	vehicles per dwelling unit					
UNITED STATES CENSUS DATA (10)	1.90	vehicles per dwelling unit					

161st STREET PEAK PARKING DEMAND							
RETAIL USE	15	parking spaces					
RESIDENTIAL	219	parking spaces					
OFFICE	651	parking spaces					
COMMUNITY FACILITY	8	parking spaces					
AM PARKING DEMAND	536	parking spaces					
MIDDAY PARKING DEMAND	708	parking spaces					
PM PARKING DEMAND	547	parking spaces					

Net new Parking Demand (increase fr0m existing conditions)								
AM PARKING DEMAND 337 parking spaces								
MIDDAY PARKING DEMAND	420	parking spaces						
PM PARKING DEMAND	360	parking spaces						

		TEMPORAL DISTRIBUTION (P	ARKING) BY USE			TEMPORAL D	ISTRIBUTION (PAR	KING) BY USE	
				COMMUNITY		RESIDENTIAL		COMMUNITY	
	RETAIL USE (1)	RESIDENTIAL (3)	OFFICE USE (5)	FACILITY (7)	RETAIL DEMAND	DEMAND	OFFICE DEMAND	FACILITY	TOTAL DEMAND
TIME PERIOD	% of peak period	% of peak period	% of peak period	% of peak period	Volume	Volume	Volume	Volume	Volume
12:00 AM 1:00 AM	0%	98%	0%	0%	0	215	0	0	215
1:00 AM 2:00 AM	0%	98%	0%	0%	0	215	0	0	215
2:00 AM 3:00 AM	0%	98%	0%	0%	0	215	0	0	215
3:00 AM 4:00 AM	0%	98%	0%	0%	0	215	0	0	215
4:00 AM 5:00 AM	0%	98%	0%	0%	0	215	0	0	215
5:00 AM 6:00 AM	0%	100%	0%	0%	0	219	0	0	219
6:00 AM 7:00 AM	0%	84%	0%	0%	0	184	0	0	184
7:00 AM 8:00 AM	5%	62%	20%	0%	1	136	130	0	267
8:00 AM 9:00 AM	18%	41%	68%	0%	3	90	443	0	536
9:00 AM 10:00 AM	38%	34%	90%	0%	6	74	586	0	666
10:00 AM 11:00 AM	53%	32%	96%	86%	8	70	625	7	703
11:00 AM 12:00 PM	86%	31%	95%	71%	13	68	618	6	699
12:00 PM 1:00 PM	100%	30%	94%	53%	15	66	612	4	693
1:00 PM 2:00 PM	98%	31%	96%	49%	15	68	625	4	708
2:00 PM 3:00 PM	91%	33%	100%	42%	14	72	651	3	737
3:00 PM 4:00 PM	86%	37%	99%	49%	13	81	644	4	738
4:00 PM 5:00 PM	81%	45%	92%	76%	12	99	599	6	710
5:00 PM 6:00 PM	57%	61%	62%	88%	9	134	404	7	547
6:00 PM 7:00 PM	69%	69%	0%	100%	10	151	0	8	161
7:00 PM 8:00 PM	82%	72%	0%	77%	12	158	0	6	170
8:00 PM 9:00 PM	70%	80%	0%	62%	11	175	0	5	186
9:00 PM 10:00 PM	42%	89%	0%	0%	6	195	0	0	201
10:00 PM 11:00 PM	10%	92%	0%	0%	2	201	0	0	203
11:00 PM 12:00 AM	0%	94%	0%	0%	0	206	0	0	206

Notes:

1 Source: ITE Parking Generation 3rd Edition - Landuse 820, Monday - Thursday, Non-December

2 Retail modal split for AM, PM, based on modal split for retail in "125th Street Rezoning and Related Actions EIS". For MD, all modal splits from "125th Street Rezoning and Related Actions EIS"

3 Source: ITE Parking Generation 3rd Edition: Landuse 224, weekday

4 Residential modal split based on Census 2000 Journey-to-Work data for census tracts comprising the rezoning area 5 Source: ITE Parking Generation 3rd Edition: Landuse 701, weekday Urban Data

6 Office modal split based on Census 2000 Reverse Journey-to-Work data census tracts comprising the rezoning area (59.01, 59.02, 61, 173, 183, 195).

7 Source: ITE Parking Generation 3rd Edition: Landuse 492, weekday Data

8 Community facility modal split based on modal split for community facility in "125th Street Rezoning and Related Actions EIS"

9 Source: U.S. Census Bureau Census 2000; Census Tract data - Table QT-H11 Vehicles Available

10 Source: U.S. Census Bureau Census 2000; UNITED STATES - Table QT-H11 Vehicles Available

The proposed Action would generate an increase in parking demand as compared to the No-Action scenario. However, as shown in Table 3.3-21, the projected additional parking demand under the Action condition can be accommodated by the available on-street and off-street parking supply under the future baseline condition.

Peak Period	Increase in Parking Demand under Action Condition (vehicles)	Available On-Street Parking Supply (spaces)	Available Off-Street Parking Supply (spaces)	Total Future Available Parking Supply (spaces)
Weekday AM	337	908	<u>703</u>	<u>1,611</u>
Weekday Midday	420	482	<u>1,048</u>	<u>1,530</u>
Weekday PM	360	700	<u>2,074</u>	<u>2,774</u>

 Table 3.3-21

 Comparison of Future Action Parking Demand vs. Future Available Supply

Conclusion

In conclusion, under the Action condition, the future available parking supply is projected to be sufficient to accommodate the estimated future parking demand that is not otherwise accommodated in the accessory parking facilities. The proposed Action would therefore not result in a significant adverse impact to on-street parking conditions.

3.3.5 TRAFFIC SAFETY

According to the *CEQR Technical Manual*, locations within close proximity to sensitive land uses, such as hospitals, schools, parks, nursing homes, or elderly housing, which could be affected by traffic volumes generated by the Proposed Action, require a detailed analysis of safety impacts. Roadways with high accident rates or a design that makes it difficult for pedestrians to traverse safely also require analysis. The *CEQR Technical Manual* (page 3O-4) considers an intersection to be a high-accident location if there are five (5) or more pedestrian/bicycle accidents in any year in the most recent three-year period for which data is available.

Accident records for the 28 intersections within the study area were obtained from NYCDOT for the three-year period from January 1, 2004 to December 31, 2006. Table 3.3-22 summarizes the data to present pedestrian and bicycle accidents for the three-year period. A review of these records revealed that there are five (5) or more accidents at the following intersections:

• East 161st Street/Morris Avenue/Concourse Village East: There were five pedestrian and one bicycle related accidents in 2006, four pedestrian related accidents in 2005, and one pedestrian and one bicycle related accidents in 2004.

Detailed accident histories identifying the locations and contributing factors of each of the pedestrian/bicycle accidents were not available. However, inattentiveness, disregard of signals, and other human factors behaviors by the driver or the pedestrian are often responsible for such accidents. Implementation of the following measures would reduce the likelihood of pedestrian and vehicular conflicts at the study intersections listed above:

- Installation of high-visibility crosswalks, and re-painting of existing crosswalks, to delineate the pedestrian crossing path.
- Installation of pedestrian and vehicle warning signs.

Application and implementation of the safety improvements described above would require approval from NYCDOT.

 Table 3.3-22

 Summary of Pedestrian and Bicycle Related Accident Locations

 161st Street Rezoning - Bronx, New York

			2004			2005		2006		
NODE #	INTERSECTIONS	τοται	PEDESTRIAN	BICYCLIST	τοται	PEDESTRIAN	BICYCLIST	τοται	PEDESTRIAN	BICYCLIST
3207	Jerome Ave and E. 161st Street			Acci	ident D	ata No	ot Avail	lable		
2336	E. 161st Street N. Service Rd and Macombs Dam Bridge	0	0	0	0	0	0	0	0	0
3181	E. 161st Street S. Service Rd and Macombs Dam Bridge	0	0	0	1	1	0	0	0	0
2338	E. 161st Street and River Avenue	2	2	0	0	0	0	0	0	0
2334	E. 161st Street N. Service Rd and River Avenue	2	2	0	1	1	0	2	2	0
2337	E. 161st Street S. Service Rd and River Avenue	0	0	0	0	0	0	0	0	0
2206	E. 161st Street and Gerard Avenue	0	0	0	0	0	0	1	1	0
2205	E. 161st Street N. Service Rd and Gerard Avenue	0	0	0	0	0	0	1	1	0
2207	E. 161st Street S. Service Rd and Gerard Avenue	0	0	0	0	0	0	0	0	0
2175	E. 161st Street N. Service Rd and Walton Avenue	1	1	0	2	2	0	0	0	0
2208	E. 161st Street S. Service Rd and Walton Avenue	0	0	0	1	1	0	1	1	0
2166	E. 161st Street N. Service Rd and Grand Concourse	0	0	0	0	0	0	0	0	0
2167	E. 161st Street S. Service Rd and Grand Concourse	0	0	0	1	1	0	1	1	0
2176	E. 161st Street N. Service Rd and Sheridan Avenue	2	1	1	0	0	0	2	1	1
2210	E. 161st Street S. Service Rd and Sheridan Avenue	0	0	0	0	0	0	0	0	0
2192	E. 161st Street and Sherman Avenue	1	1	0	0	0	0	1	0	1
2193	E. 161st Street and Grant Ave	1	1	0	0	0	0	0	0	0
2194	E. 161st Street and Morris Ave/Concourse Village East	2	1	1	4	4	0	6	5	1
2240	E. 161st Street and Park Avenue	0	0	0	1	1	0	3	3	0
2237	E. 161st Street and Courtlandt Avenue	1	0	1	0	0	0	0	0	0
2236	E. 161st Street and Melrose Avenue	0	0	0	1	1	0	2	0	2
4101	Major Degan Expwy SB Ramp and Macombs Dam Br.	0	0	0	0	0	0	0	0	0
4100	Major Degan Expwy NB Service Rd and E. 157th Street	0	0	0	0	0	0	0	0	0
2341	E. 153rd Street and River Avenue	0	0	0	0	0	0	1	1	0
4117	E. 149th Street and River Avenue	0	0	0	0	0	0	0	0	0
2309	E. 149th Street and Grand Concourse	3	3	0	1	1	0	1	1	0