3.15 TRAFFIC AND PARKING

INTRODUCTION

This chapter describes the existing traffic and parking characteristics of the study area, conditions projected in the future without the proposed action, and conditions following implementation of the proposed action, including identification of any associated impacts. As described in Chapter 2.0, the proposed action includes zoning map and zoning text amendments proposed by the New York City Department of City Planning (DCP). The rezoning area is located in the Mott Haven neighborhood of the Bronx, generally bounded by East 149th Street in the north, East 135th Street in the south, Morris Avenue in the east, and the Harlem River in the west, and is fully contained within Bronx Community District 1. Typically, CEQR assessments of large area-wide zoning proposals not associated with specific development projects assume a 10-year build period. This is the time frame that can be reasonably predicted into the foreseeable future without engaging in highly speculative projections. Thus, the traffic and parking analyses in this document address a development program that could reasonably be constructed by 2018 as described in the reasonable worst-case development scenario (RWCDS) section of Chapter 2.0. The traffic and parking analyses detailed herein considered auto, taxi and truck trips, as well as parking demand and changes in supply related to "projected" development sites.

This chapter describes in detail the existing traffic and parking conditions in the study area. Future conditions in the year 2018 without the proposed action (the No-Action condition) are then determined, including additional transportation-system demand and any changes in the roadways and parking supply expected by the year 2018. The increase in travel demand resulting from the proposed actions is then projected and added to the No-Action condition to develop the 2018 Future With the Proposed Action condition (the With-Action condition). Significant adverse impacts from project-generated trips are then identified, and described in detail.

The findings of the analysis disclosed herein indicated that significant traffic impacts would result under the With Action condition in comparison to conditions in the future without the proposed action. Specifically, significant traffic impacts were identified at 8 intersections during the AM peak hour, at 7 intersections during the weekday midday peak hour, at 12 intersections during the PM peak hour, and at 9 intersections during the Saturday midday. Parking analysis indicated that a daytime parking shortfall in the study area would occur in the future, but that the shortfall would be less in the future with than without the proposed action.

3.15.1 METHODOLOGY

The intersection operations analyses performed in this study were based on the methodology presented in the *Highway Capacity Manual (HCM) using HCS+ Software,* incorporating the latest updates.

The HCM methodology expresses quality of flow in terms of level of service (LOS), which is based for intersection analysis on the amount of delay that a driver typically experiences in traveling through an intersection. LOS measures for signalized intersections are reported using letter designations and range from LOS A, with minimal delay (10 seconds or less per vehicle), to LOS F, which represents long delays (80 seconds or greater per vehicle). The HCM methodology also provides a volume-to-capacity (v/c) ratio for each signalized intersection approach or lane group. The v/c ratio represents the ratio of the traffic volume on an approach/lane group to its traffic capacity. At a v/c ratio of between 0.95 and 1.0, near-capacity conditions are reached and delays can becomes substantial. Ratios of greater than 1.05 indicate oversaturated conditions.

For unsignalized intersections (e.g., controlled by stop signs on the minor street), the HCM methodology generally assumes that major street traffic is not affected by minor street flows. Left turns from the major street are assumed to be affected by the opposing, or oncoming, major street flow. Minor street traffic is obviously affected by all conflicting movements. Similar to signalized intersections, the HCM methodology expresses the quality of flow at unsignalized intersections in terms of LOS measures based on the amount of delay that a driver experiences. This relationship differs somewhat from the criteria used for signalized intersections, primarily because drivers expect different levels of delay at the two different types of intersections. For unsignalized intersections, these measures range from LOS A (10 seconds or less of delay per vehicle) to LOS F (50 seconds or more of delay per vehicle).

Table 3.15-1 indicates the LOS/delay relationship for signalized and unsignalized intersections using the HCM methodology. Levels of service A, B and C generally represent extremely favorable to fair levels of traffic flow; at LOS D the influence of congestion becomes noticeable; LOS E is considered to be the limit of acceptable delay; and LOS F is considered to be unacceptable to most drivers.

Table 3.15-1: Intersection Level of Service (LOS) Criteria

Level of Service	Average Delay per Vehicle (seconds)	
	Signalized Intersections	**Unsignalized Intersections**
A	less than 10.1	less than 10.1
B	10.1 to 20.0	10.1 to 15.0
C	20.1 to 35.0	15.1 to 25.0
D	35.1 to 55.0	25.1 to 35.0
E	55.1 to 80.0	35.1 to 50.0
F	greater than 80.0	greater than 50.0

Source: 2000 Highway Capacity Manual

For this traffic analysis, each intersection was evaluated by overall intersection delay, approach delay and, where appropriate, by lane group or movement delay (e.g., through, left turn, right turn, and de facto turn, if a lane is not exclusively designated for turns but becomes an exclusive turn lane based upon its operational characteristics).

3.15.2 EXISTING CONDITIONS

The study area selected for traffic analysis is located in the southwest corner of the Bronx and is shown on Figure 3.15-1. The traffic study area was selected to reflect that area within which the level of incremental vehicle trips generated by the proposed action would be the highest and generally extends ¼-mile outside the proposed rezoning area. The traffic study area is bounded on the north by East 153rd Street, on the east by Willis Avenue and on the west and the south by the Harlem River. A total of 33 signalized and 5 unsignalized intersections were selected for analysis within or bordering on the traffic study area, encompassing the principal intersections through which the majority of persons and goods traveling by vehicle to and from the projected development sites are expected to pass, plus three intersections at the touchdown points of the 145th Street and Madison Avenue Bridges in Manhattan. These 38 intersections are analyzed for vehicular traffic for typical weekday 8:00–9:00 AM, 12:00–1:00 PM (midday), and 5:00–6:00 PM, and the Saturday 2:00–3:00 PM peak hours, the periods when demand generated by these development sites would be heaviest. Also, in order to assess traffic conditions at those study locations that may be affected by traffic volumes associated with New York Yankee home games, a separate focused analysis was performed for weekday PM peak and Saturday midday hours representative of pre-game traffic conditions. This analysis is presented separately in Section 3.15.5.

Street Network

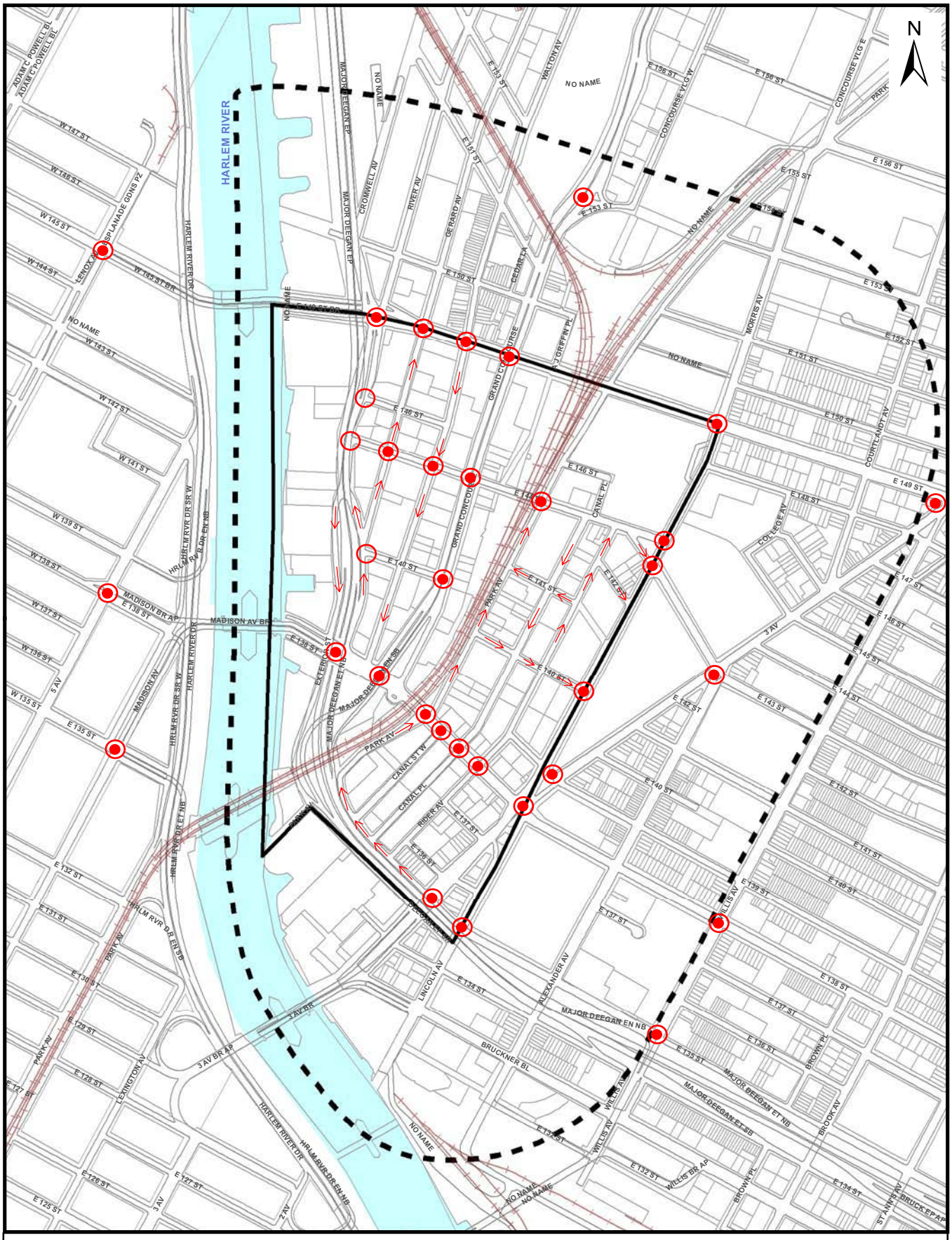
The study area street network includes local streets, arterials, an interstate highway and several Harlem River bridges connecting the boroughs of the Bronx and Manhattan. The major arterials traversing the study area are described below.

- Grand Concourse is a key north-south Bronx arterial that originates in the study area and extends north approximately five miles to Mosholu Parkway. Within the study area, Grand Concourse provides three travel lanes and a parking lane in each direction.

- East 149th Street provides for east-west travel through the south Bronx, to/from Manhattan via the 145th Street Bridge, and intersects with several north-south arterials, including Third Avenue, Willis Avenue and Prospect Avenue. Within the study area, East 149th Street provides two travel lanes plus a parking lane in each direction.

- East 138th Street also provides for east-west travel in the south Bronx and to/from Manhattan via the Madison Avenue Bridge. Within the study area, East 138th Street provides two lanes in each direction plus parking west of Morris Avenue, and one lane in each direction plus parking east of Morris Avenue.

- East 135th Street is a one-way westbound street that extends from its intersection with Bruckner Boulevard to the east to Park Avenue within the study area. East 135th Street functions as a principle corridor of traffic between Bruckner Boulevard, the Major Deegan Expressway (MDE) and the Third Avenue Bridge.



Legend

Proposed Rezoning Area

1/4-Mile Study Area

200 0 200 400 600 800 Feet

Signalized Intersection

Unsignalized Intersection

One Way Street

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

Figure 3.15-1

Traffic Analysis Locations

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

- Third Avenue operates as a two-way, two-lane, north-south arterial with parking from East 138th Street to East Fordham Road, approximately four miles. South of East 138th Street, Third Avenue proceeds one-way southbound to the Manhattan-bound Third Avenue Bridge. The Third Avenue Bridge operates as a one-way pair with the Bronx-bound Willis Avenue Bridge to the east.

- Willis Avenue, a two-lane, two-way arterial with parking, extends from the Bronx-bound Willis Avenue Bridge to East 149th Street and generally disperses traffic from the bridge to the various east-west roadways it intersects.

- Morris Avenue, a two-lane, north-south arterial with parking, begins at its intersection with Third Avenue and East 138th Street and proceeds north approximately four miles to West Fordham Road.

- Exterior Street provides access to land uses on the Harlem River and is located at-grade below the elevated MDE in certain sections. Access to the northbound and from the southbound MDE is provided via Exterior Street as well as to the Macombs Dam Bridge approximately one-half mile north of the study area.

The MDE (I-87) begins just east of the study area at its interchange with the Bruckner Expressway (I-278), turns north and continues to Westchester County, I-287 and the Tappan Zee Bridge. MDE on- and off-ramps interchange with study area roadways as follows:

- Westbound/northbound off-ramps to East 135th Street, East 138th Street, the Grand Concourse and East 149th Street

- Southbound/eastbound off-ramps to Exterior Street and East 134th Street

- Northbound on-ramps from East 135th Street and Exterior Street

- Southbound/eastbound on-ramp from Exterior Street

Other roadways within the study area and particularly within the rezoning area primarily function as local collector-distributors. Many roadways consist of very short street segments. East 144th Street, which is the only east-west roadway other than East 149th Street and East 138th Street to traverse the rezoning area, is a two-lane, two-way street extending from Exterior Street to Morris Avenue. Other roadways within the rezoning area include the single-lane, one-way northbound Gerard Avenue and Park Avenue, and the one-way southbound Walton Avenue.

Bicycle Facilities

Bicycle lanes (Class 2: on-street striped route) are in-place on two streets in the study area. Northbound and southbound bicycle lanes are in-place on Gerard Avenue and Walton Avenue, respectively, from East 138th Street extending north to beyond the study area. Future bicycle paths (Class 1) are proposed on Harlem River bridges, and routes (Class 2) are proposed on East 149th, East 143rd, East 138th and Exterior Streets, Morris/Third Avenue, Alexander Avenue and Willis Avenue in the study area.

Data Collection

Manual turning movement counts were conducted for typical weekday conditions at 44 locations in the traffic study area in May/June 2008 and at seven locations for game day conditions in September 2008, as discussed in Section 3.15.5. Vehicle classification counts and speed surveys were also conducted in May/June 2008, as were field surveys of parking regulations, lane configurations and other physical and operational characteristics of the street network. In addition, ATR (Automatic Traffic Recorder) counts were conducted at 24 locations on both the major study area roadway elements, such as bridges, arterials and expressway ramps, as well as local streets, from Saturday, May 10, 2008 through Saturday, May 24, 2008. Signal timing plans for signalized intersections within the study area were obtained from the New York City Department of Transportation (NYCDOT). On-street parking supply and weekday on- and off-street parking utilization surveys were conducted within ¼-mile of the rezoning area in September 2008. Subsequent to the completion of data collection for typical day conditions, the NYCDOT revised operations at the "Hub", the study intersection of East 149th Street, Melrose Avenue and Third Avenue. Additional traffic data was collected in March 2009 and the effect of the revised operations at this location has been incorporated in this document.

Traffic Volumes

The traffic data compiled for this project as described above were summarized, adjusted to average typical weekday (Tuesday through Thursday) levels and balanced on a network-wide basis for the weekday AM, midday and PM and Saturday midday peak hours. Figures 3.15-2 (A to C) through 3.15-5 (A-C) illustrate the resulting 2008 base traffic volumes for the typical weekday AM (8:00 to 9:00 AM), midday (12 noon to 1:00 PM), PM (5:00 to 6:00 PM) and typical Saturday midday (2:00 to 3:00 PM) peak hours, respectively. Traffic levels in the study area are highest overall during the weekday PM peak hour, followed by the weekday AM peak hour, the Saturday midday peak hour and the weekday midday peak hour. The arterials discussed above, particularly the Grand Concourse, East 149th Street, East 138th Street, East 135th Street, as well as the Harlem River Bridges, carry the highest traffic levels in the study area.

For example, two-way traffic volumes on the Grand Concourse south of East 144th Street range from slightly more than 2,000 vehicles per hour (vph) during the PM peak hour to approximately 1,300 vph during the midday weekday and Saturday peak hours. Two-way traffic volumes on East 149th Street are approximately 1,500 vph during the AM and PM peak hours in the study area and range on East 138th Street from approximately 1000 vph just west of Third Avenue to between 1,500 and 2,000 vph at the Madison Avenue Bridge. Likewise, traffic levels along East 135th Street are generally between 1,000 vph and 1,500 vph. Somewhat lower traffic volumes are carried by Third Avenue and Morris Avenue in the study area, generally varying between 500 vph and nearly 1,000 vph. Traffic levels on other study area roadways are generally less than 500 vph.

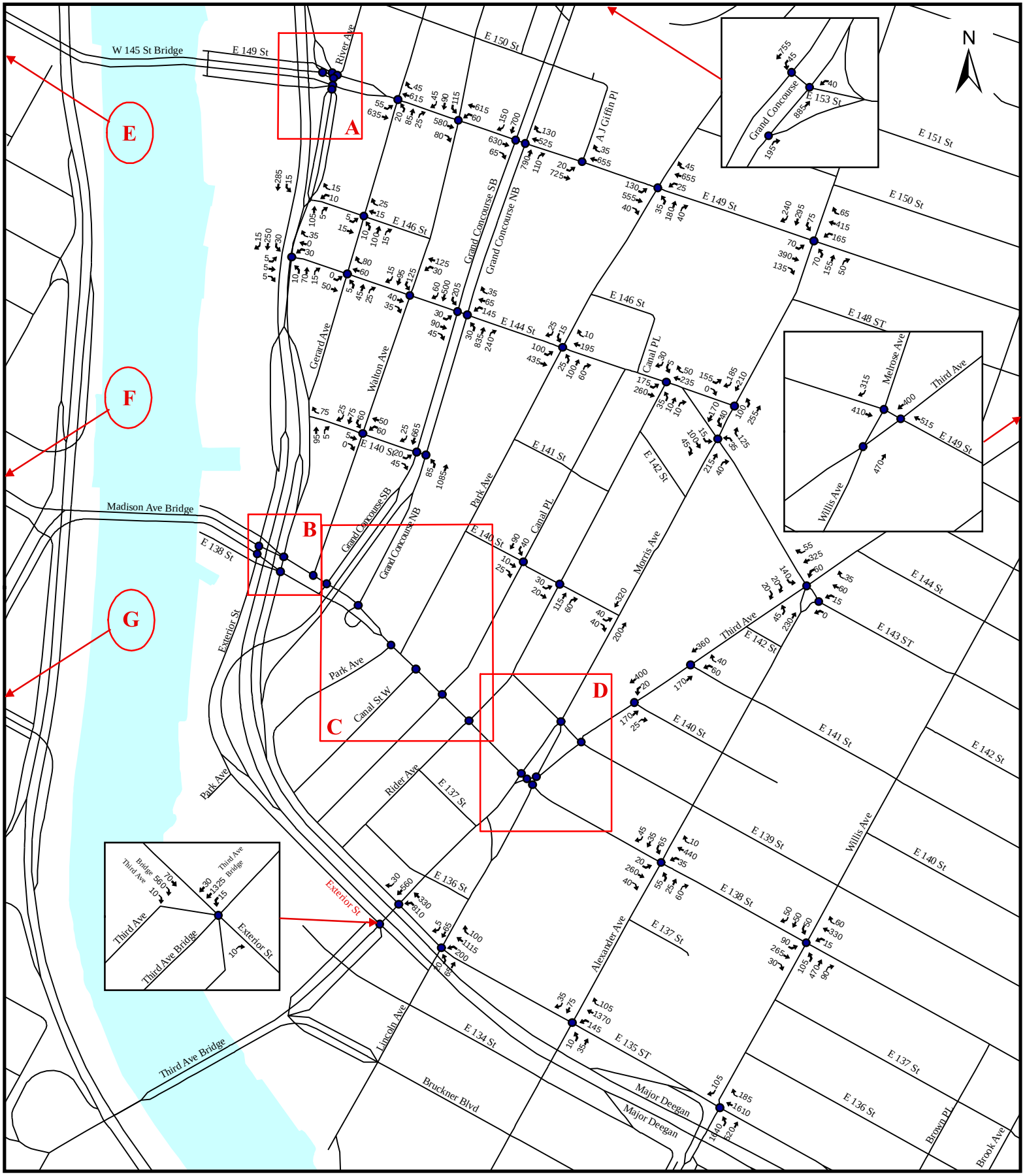


Figure 3.15-2A

**This figure has been modified for the FEIS*

2008 Existing Traffic
Typical Day - AM Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

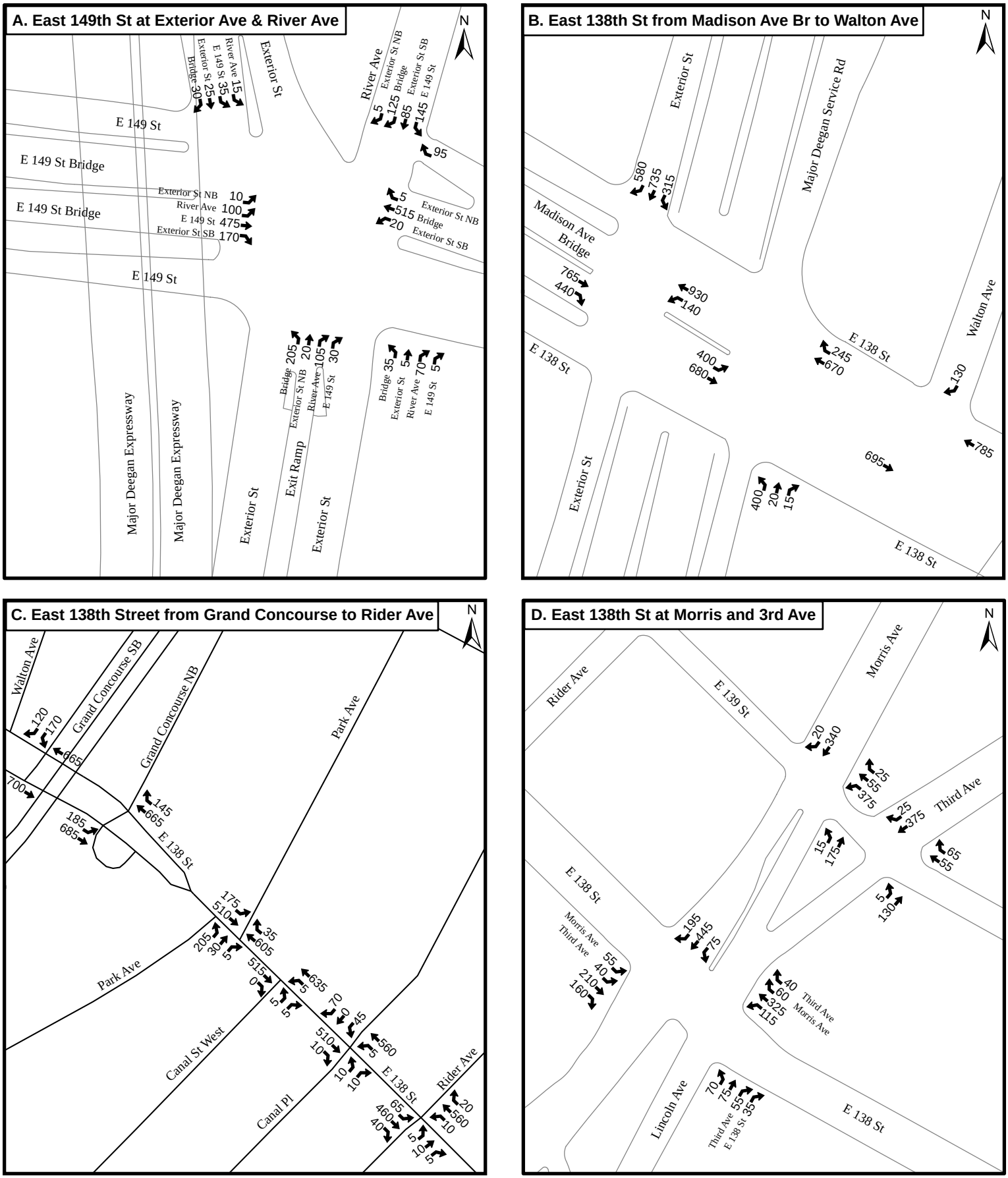


Figure 3.15-2B

2008 Existing Traffic
Typical Day - AM Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

40 0 40 80 120 160 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

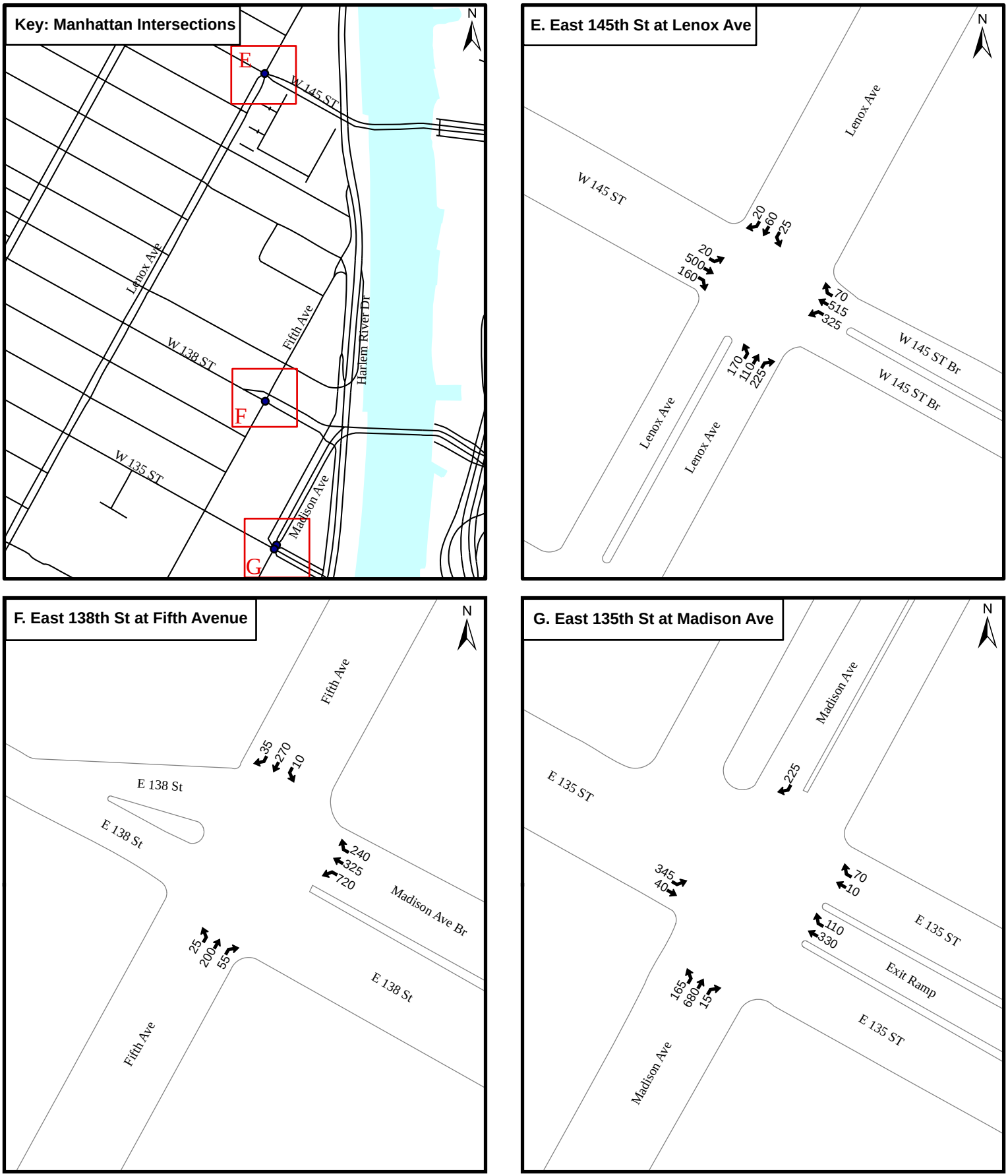


Figure 3.15-2C

2008 Existing Traffic
Typical Day - AM Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

10 0 10 20 30 40
Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

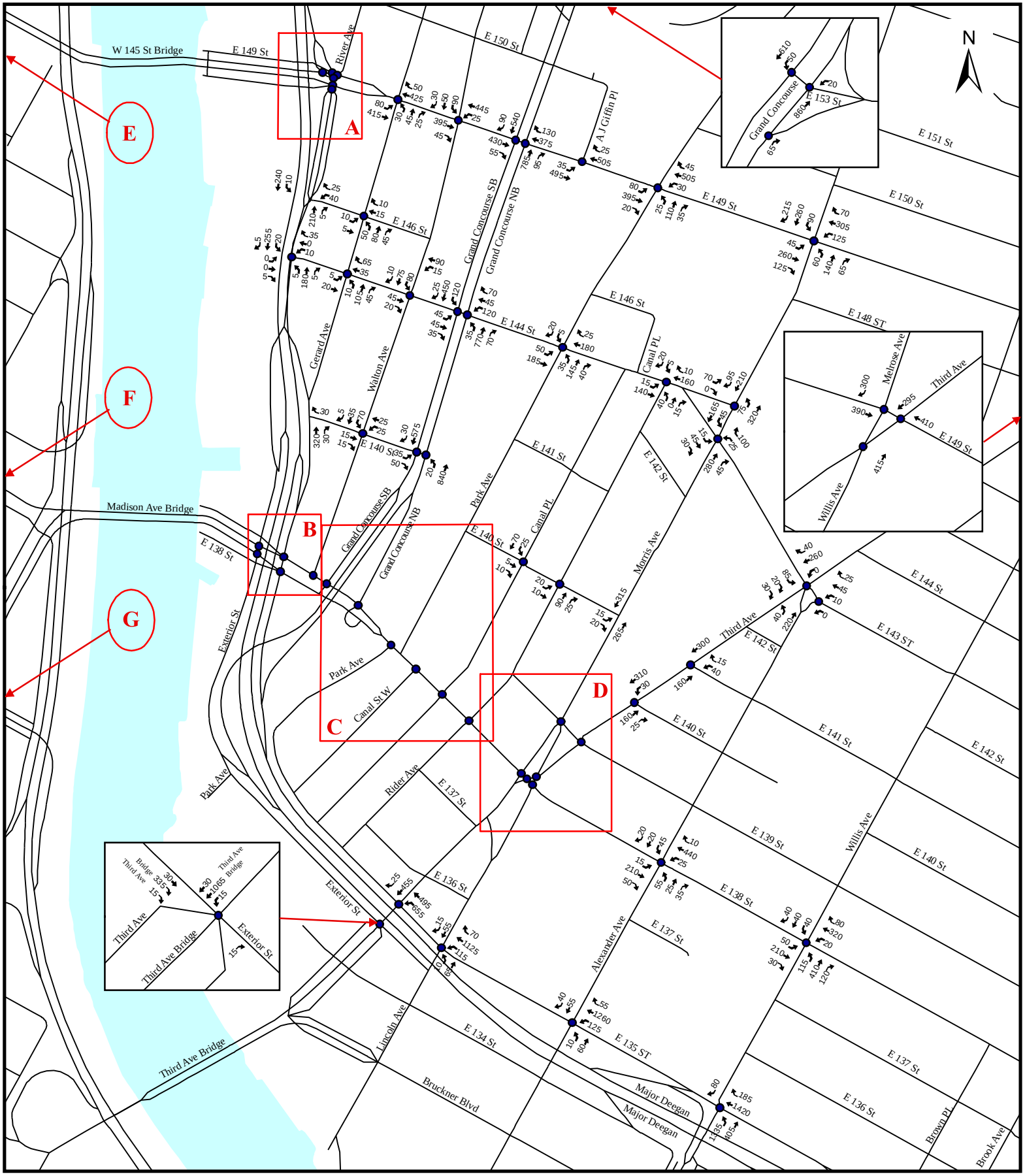


Figure 3.15-3A

**This figure has been modified for the FEIS*

180 0 180 360 540 720 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

2008 Existing Traffic
Typical Day - MD Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

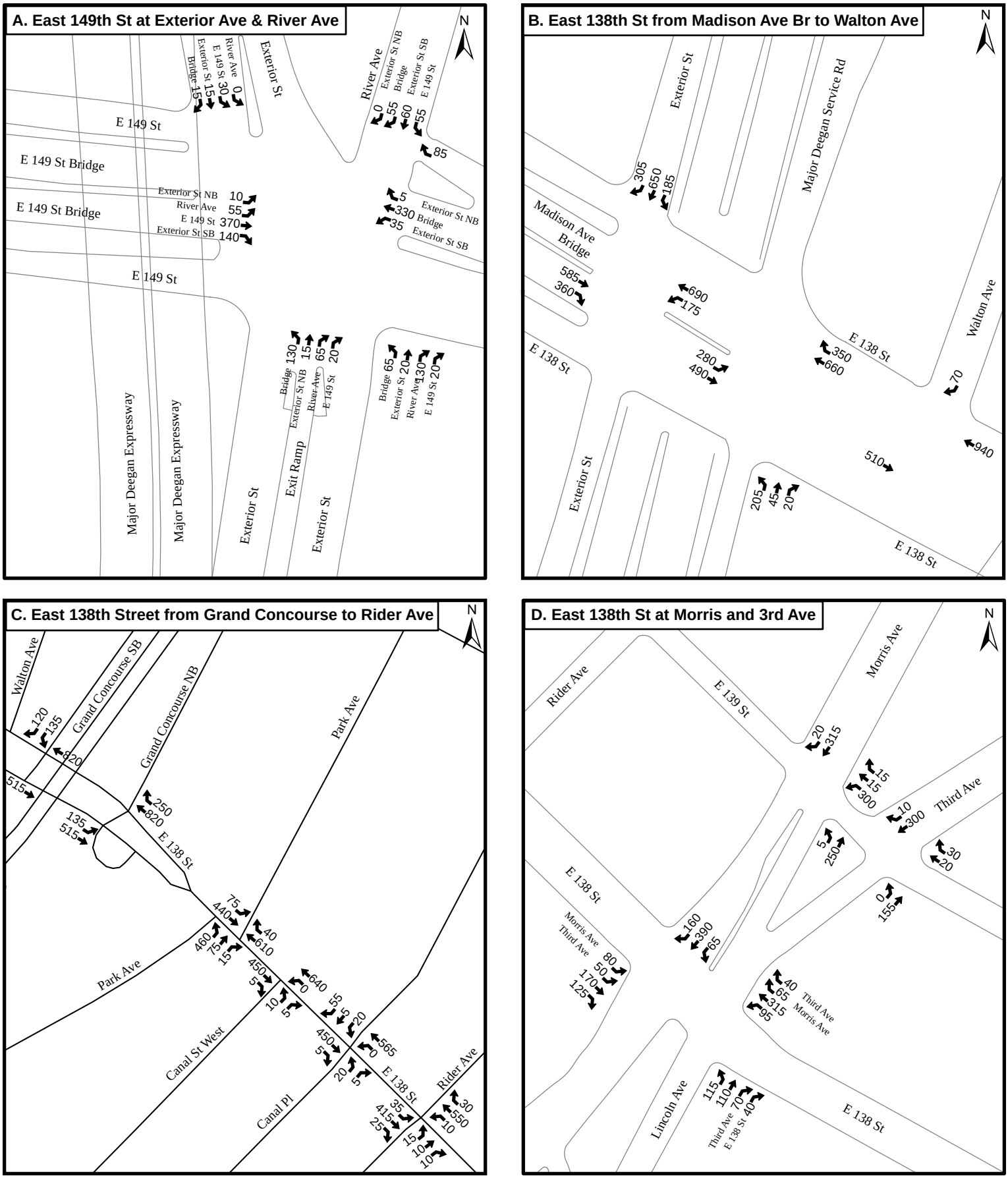


Figure 3.15-3B

2008 Existing Traffic
Typical Day - MD Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

40 0 40 80 120 160 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

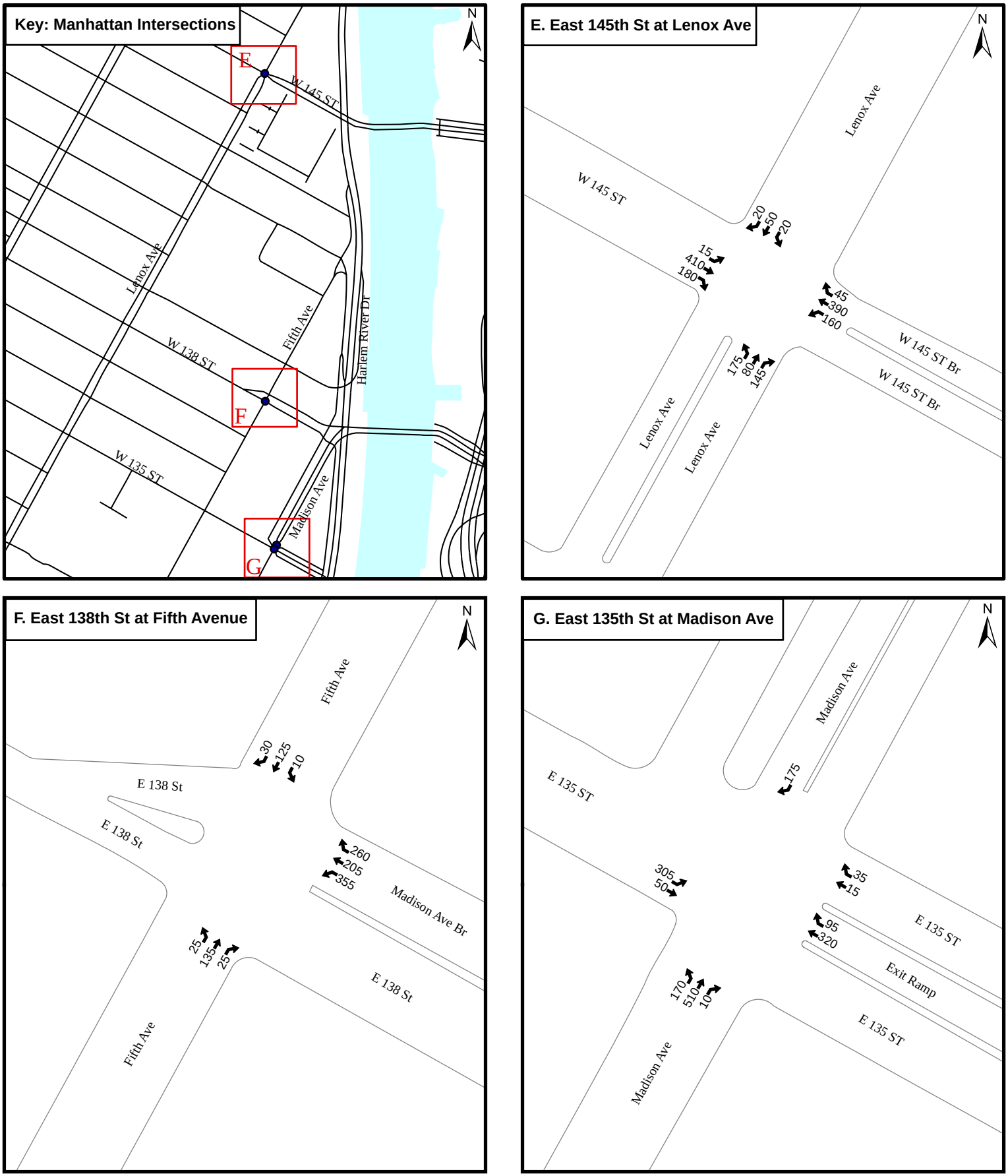


Figure 3.15-3C

2008 Existing Traffic
Typical Day - MD Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

10 0 10 20 30 40
Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

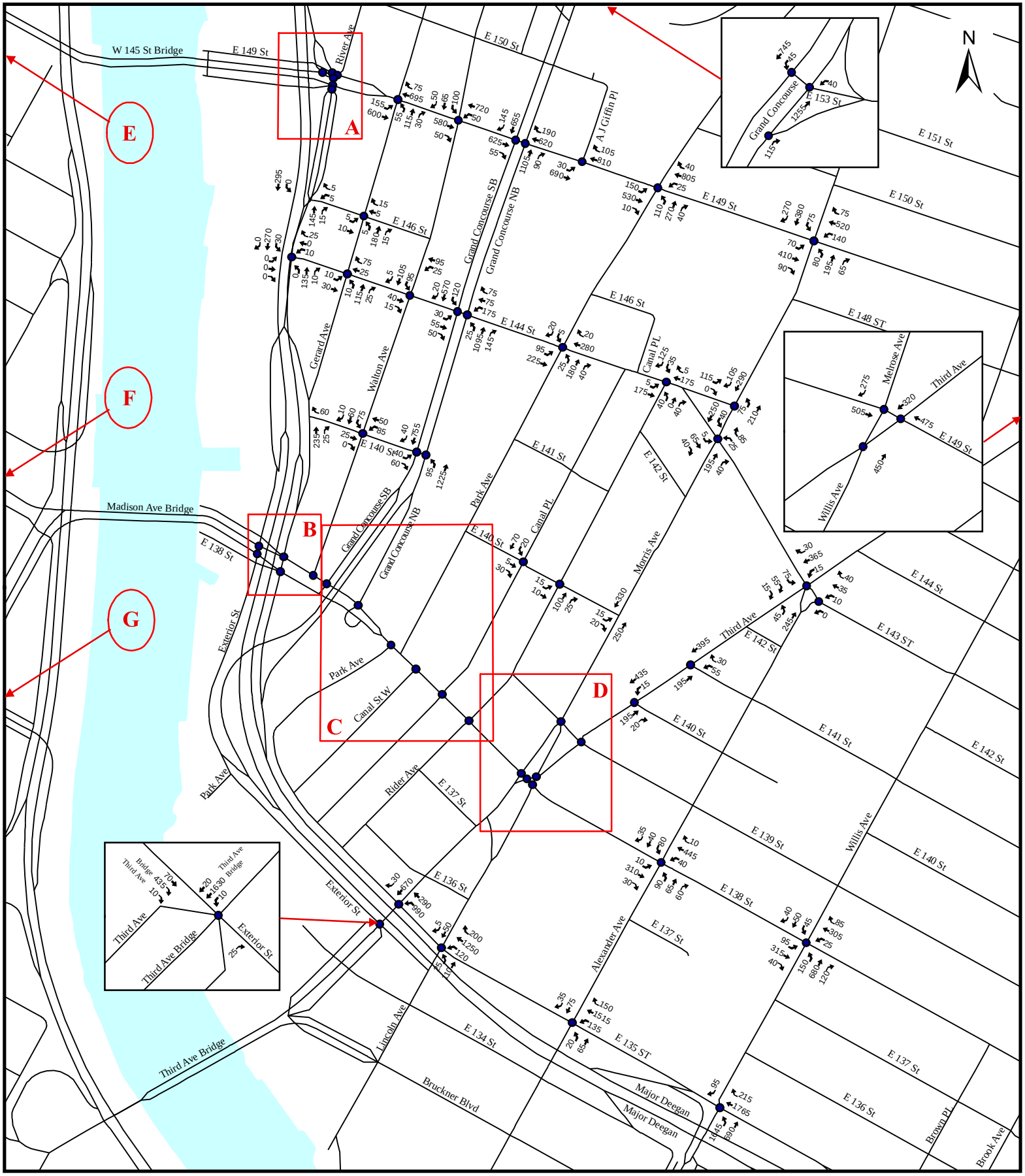


Figure 3.15-4A

**This figure has been modified for the FEIS*

180 0 180 360 540 720 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

2008 Existing Traffic
Typical Day - PM Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

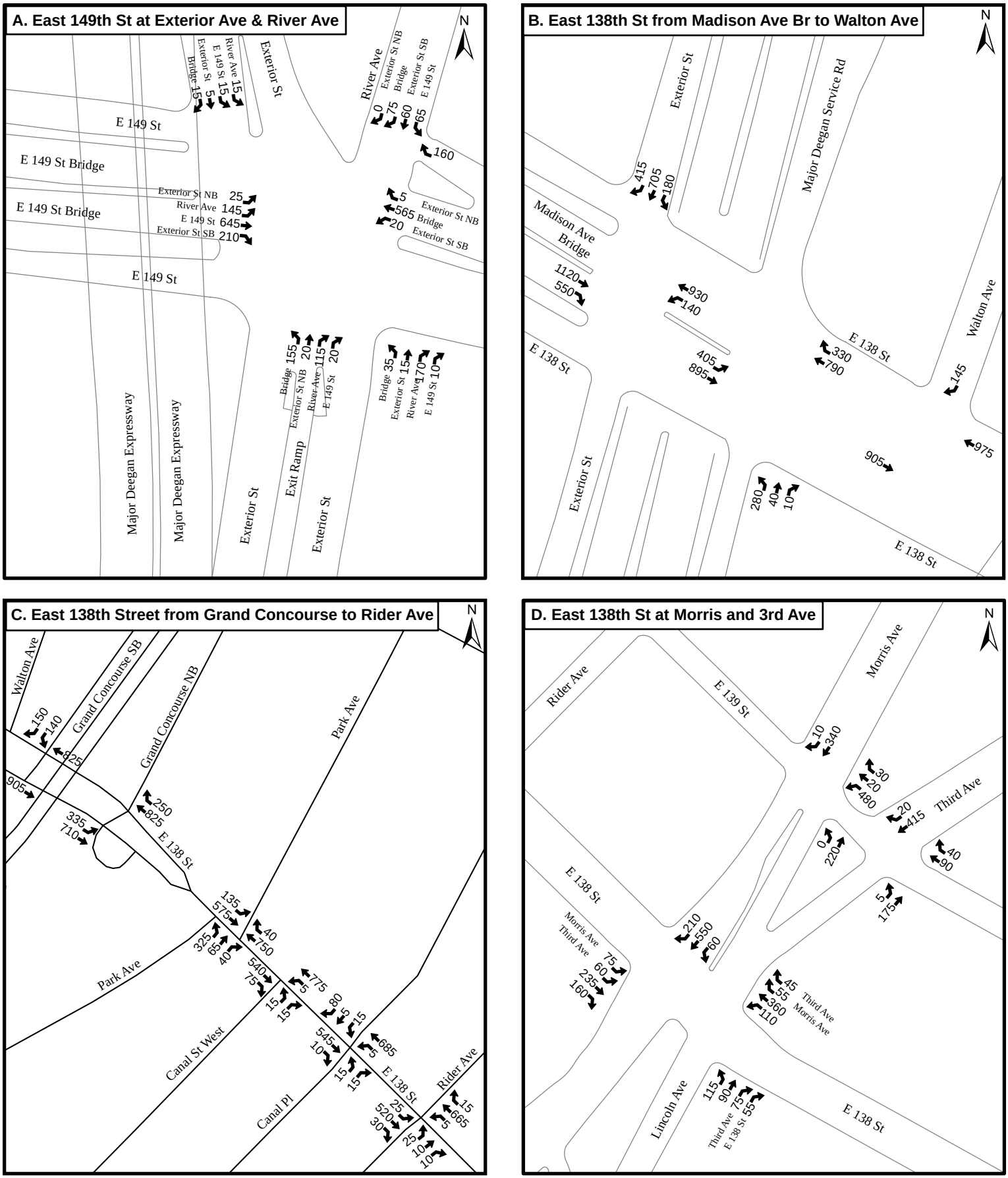


Figure 3.15-4B

2008 Existing Traffic
Typical Day - PM Peak Hour

40 0 40 80 120 160 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

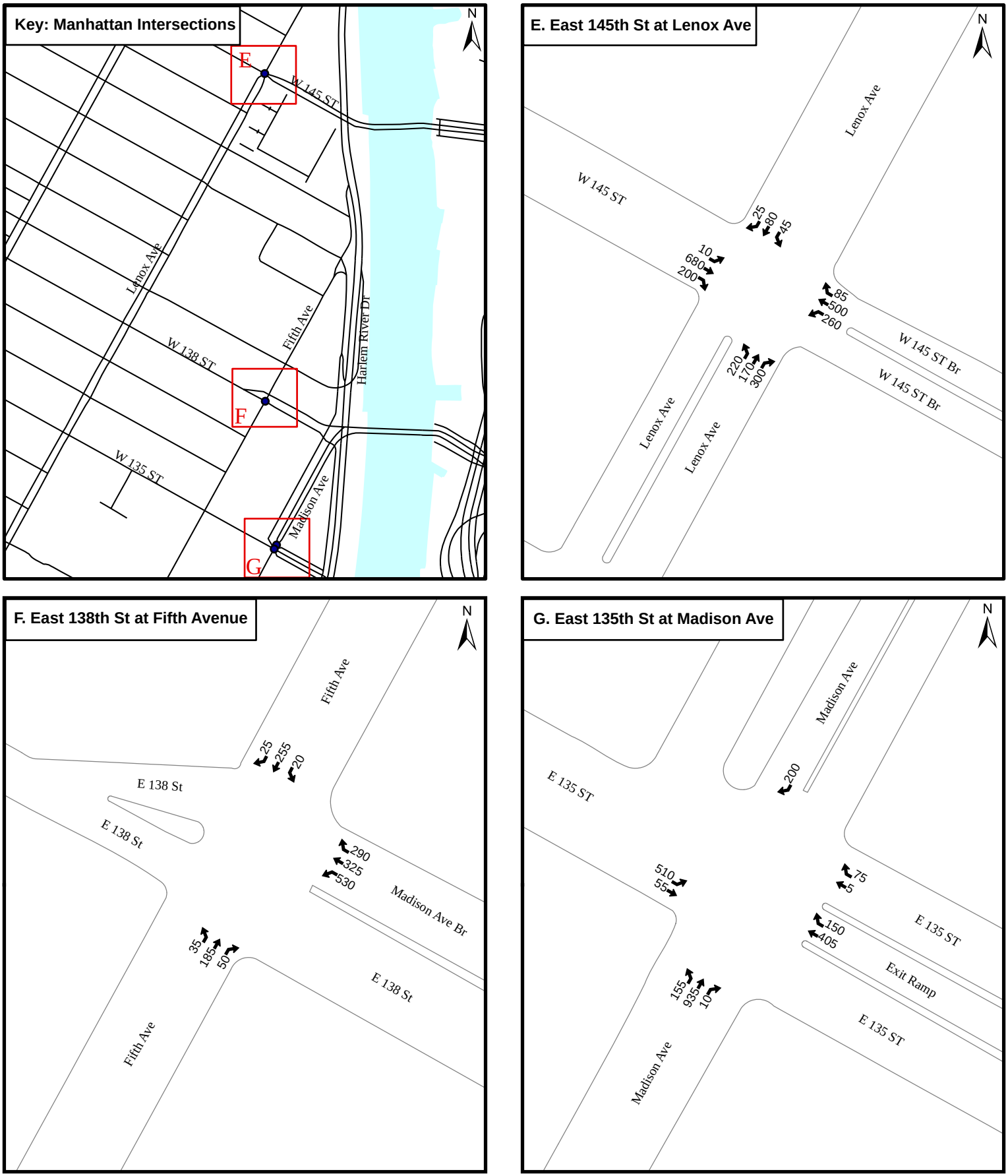


Figure 3.15-4C

2008 Existing Traffic
Typical Day - PM Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

10 0 10 20 30 40
Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

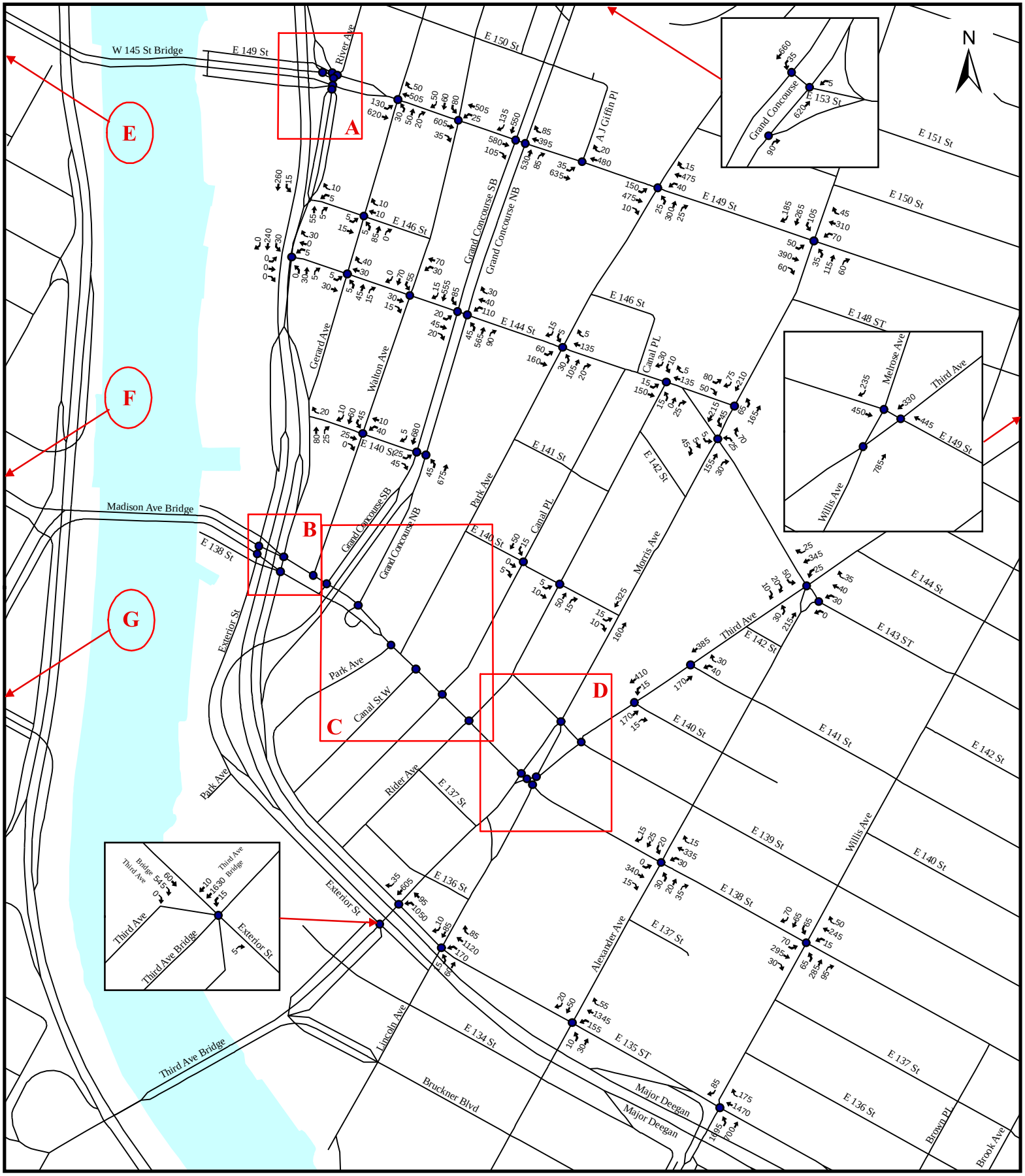


Figure 3.15-5A

**This figure has been modified for the FEIS*

2008 Existing Traffic

Typical Day - Saturday MD Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

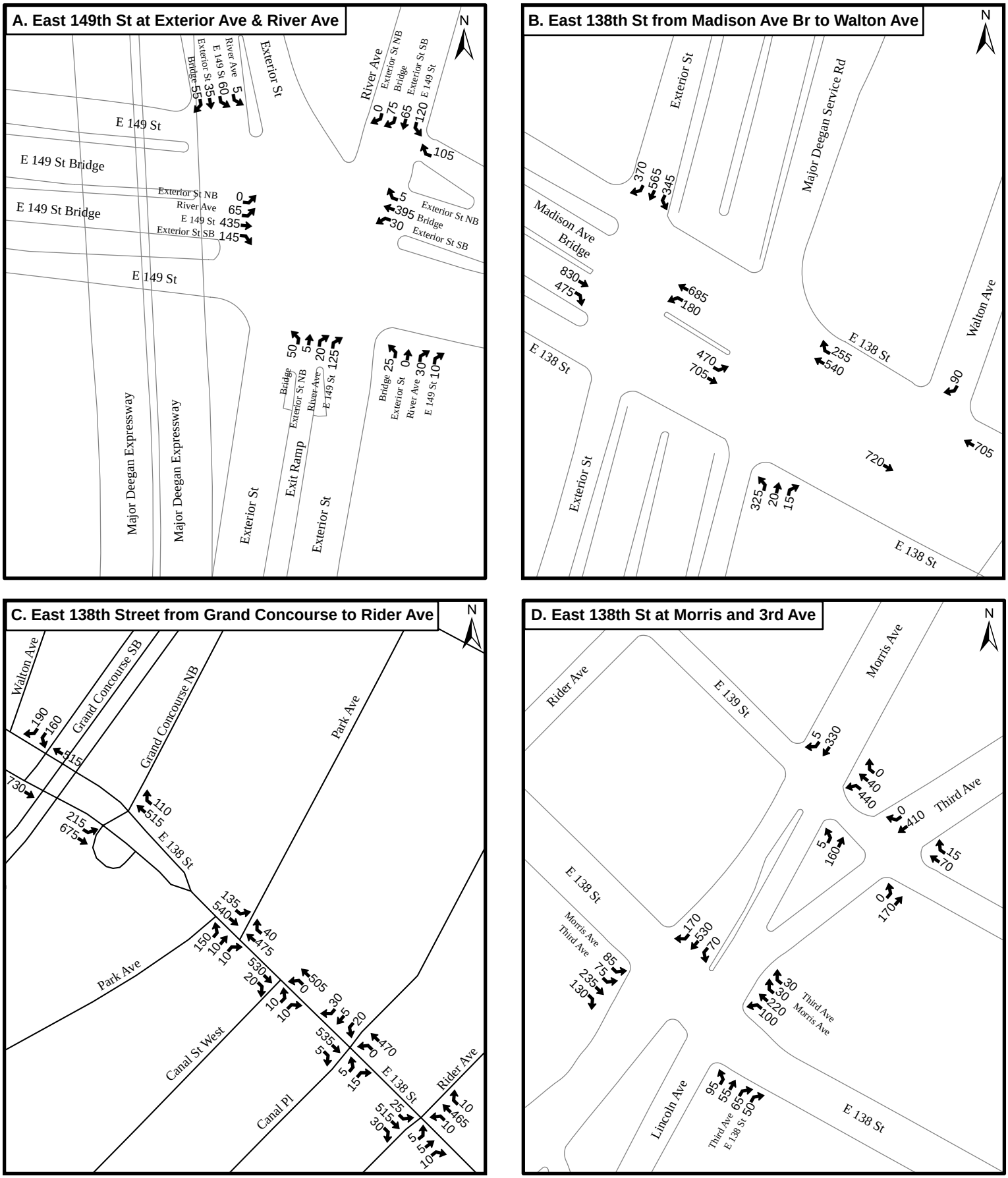


Figure 3.15-5B

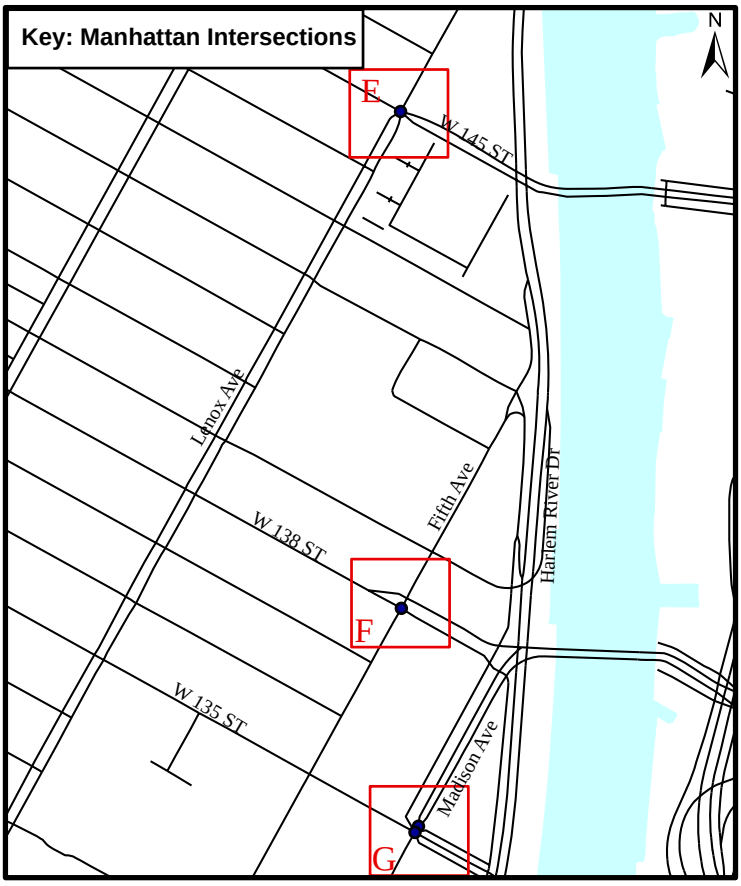
2008 Existing Traffic
Typical Day - Saturday MD Peak Hour

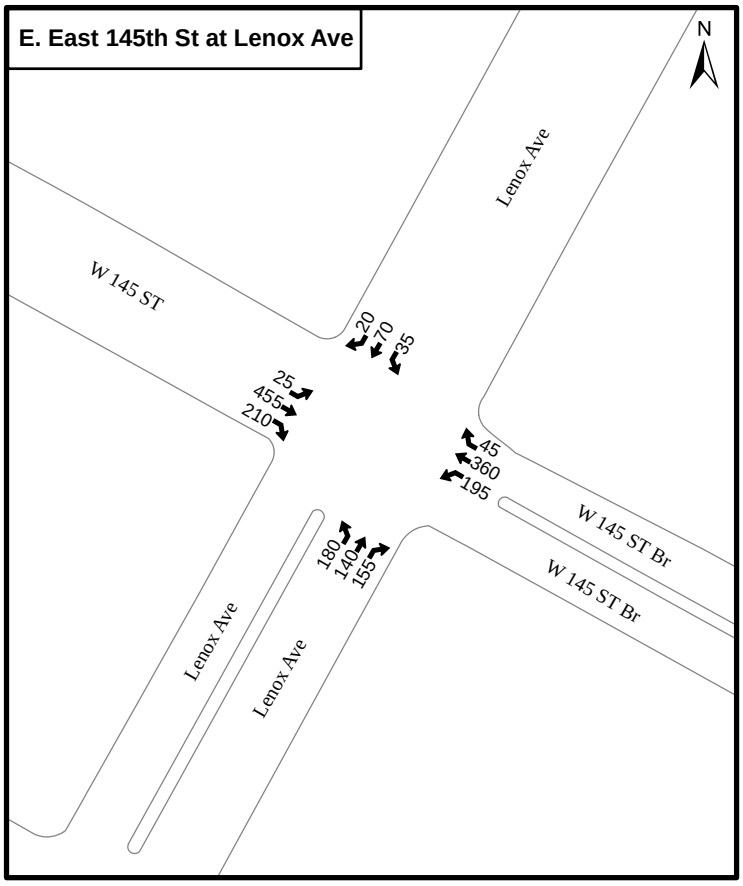
Lower Concourse Rezoning and Related Actions EIS

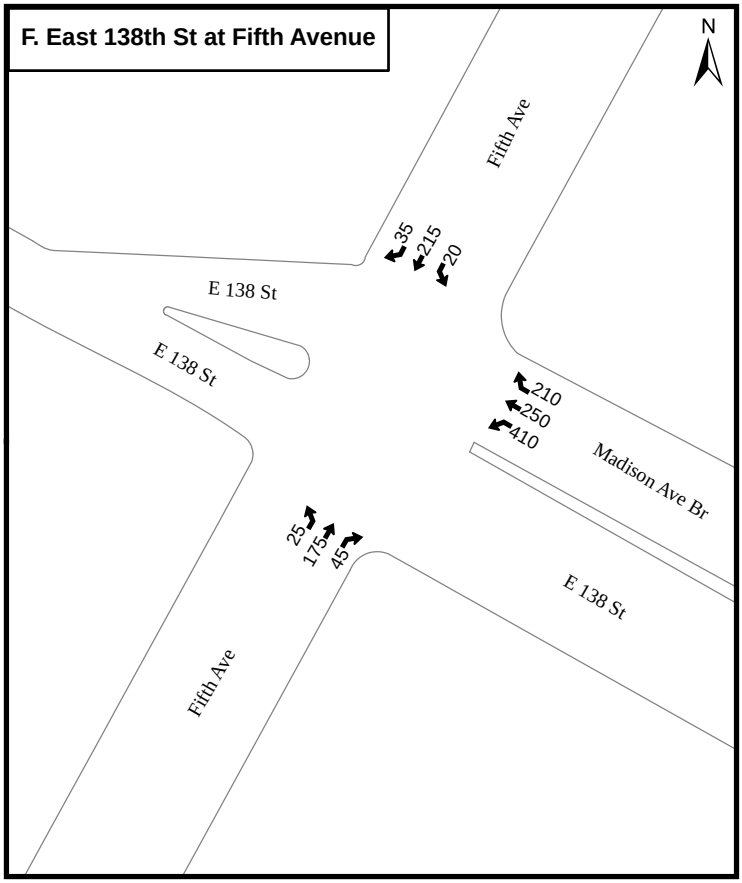
40 0 40 80 120 160 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

NYC Department of City Planning







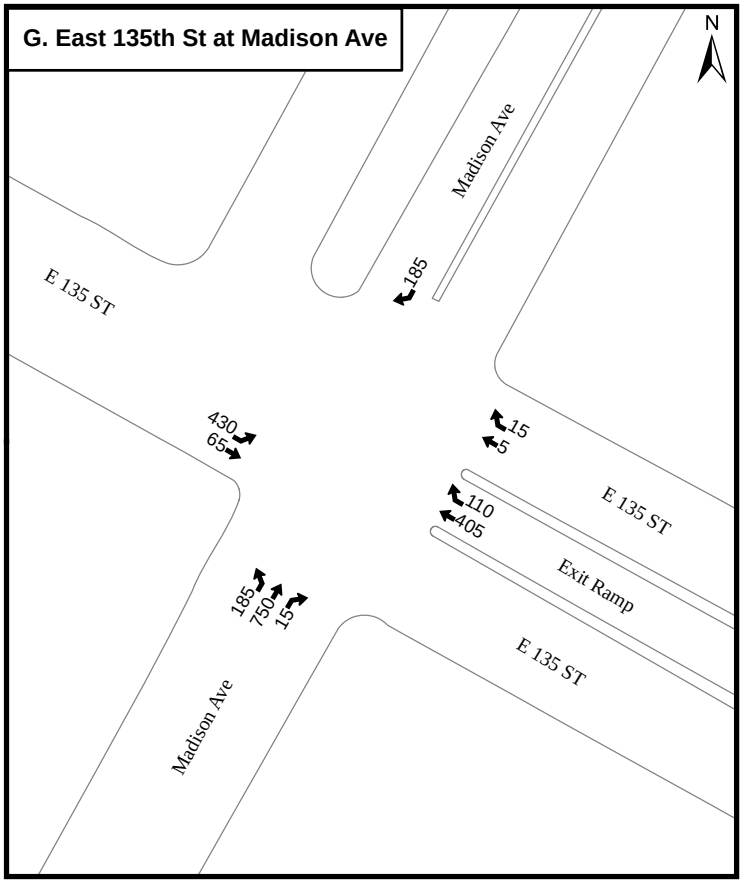


Figure 3.15-5C

2008 Existing Traffic
Typical Day - Saturday MD Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

10 0 10 20 30 40
Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

Levels of Service

Table 13.15-2 shows the results of the capacity analysis at the 33 signalized and 5 unsignalized intersections in the four peak hours analyzed for typical weekday and Saturday conditions. The tables highlight those intersection movements that operate at level of service (LOS) E or F and/or have a high volume to capacity (v/c) ratio (above 0.90). Conditions at those intersections where poor levels of service and or high v/c ratios were identified for each specific analysis period are described below

AM Peak Hour

- East 149th Street with Exterior Street, River Avenue and the MDE NB Off-Ramp: The MDE off-ramp operates as a two-lane ramp at LOS E with 85.2 average seconds of delay per vehicle for the de facto left turn movement and 60.0 seconds of average seconds of delay for the through and right turn lane group. River Road operates at LOS E with 61.3 average seconds of delay for the left turn lane and 63.0 average seconds of delay for the through and right turn lane.

- East 149th Street and Gerard Avenue: Gerard Avenue operates at LOS E with 61.3 average seconds of delay. East 149th Street and Walton Avenue: Walton Avenue operates at LOS F with 85.4 average seconds of delay and a v/c ratio of 0.95.

- East 138th Street and the MDE NB Off-Ramp: The northbound MDE off-ramp operates at LOS E with 59.9 average seconds of delay and a v/c ratio of 0.78. The westbound East 138th Street approach operates at LOS E with 57.1 average seconds of delay and a v/c ratio of 0.88.

- East 138th Street and Exterior Street: The eastbound East 138th Street approach from the Madison Avenue Bridge operates at a v/c ratio of 0.92.

- West 145th Street and Lennox Avenue: The de facto left turn on the westbound approach from the 145th Street Bridge operates at LOS E with 74.9 average seconds of delay and a v/c ratio of 0.98.

- East 135th Street and Madison Avenue: The through and right turn lane group on the northbound Madison Avenue approach operates with a v/c ratio of 0.94.

Midday Peak Hour

- East 149th Street and Walton Avenue: Walton Avenue operates at LOS E with 55.1 average seconds of delay.

- East 149th Street and Morris Avenue: The northbound Morris Avenue approach operates at LOS E with 62.1 average seconds of delay and a v/c ratio of 0.91.

- East 138th Street and the MDE NB Off-Ramp: The northbound MDE off-ramp operates at LOS E with 55.3 average seconds of delay.

- East 138th Street and Exterior Street: The southbound Exterior Street left turn, through and right turn lane group operates at a v/c ratio of 0.92.

Table 3.15-2: Existing Conditions Level of Service Analysis - Typical Day

		AM Peak Hour				MD Peak Hour				PM Peak Hour				SAT Peak Hour			
Signalized Intersection	**Approach[1]**	**Lane Group[2]**	**V/C Ratio**	**Delay (sec.)**	**LOS**	**Lane Group[2]**	**V/C Ratio**	**Delay (sec.)**	**LOS**	**Lane Group[2]**	**V/C Ratio**	**Delay (sec.)**	**LOS**	**Lane Group[2]**	**V/C Ratio**	**Delay (sec.)**	**LOS**
East 153rd Street (E-W) @	WB	L	0.10	30.0	C	L	0.04	26.4	C	L	0.08	29.7	C	L	0.01	26.1	C
Grand Concourse (N-S)	NB	T	0.25	11.0	B	T	0.27	13.0	B	T	0.38	12.2	B	T	0.19	12.2	B
	SB	L	0.21	12.5	B	L	0.32	16.7	B	L	0.36	18.8	B	L	0.13	12.5	B
		T	0.31	11.7	B	T	0.25	12.9	B	T	0.31	11.6	B	T	0.27	13.1	B
	Intersection			11.9	B			13.3	B			12.5	B			12.7	B
East 149th Street (E-W) @	EB	TR	0.75	37.9	D	TR	0.50	28.8	C	TR	0.74	37.7	D	TR	0.66	32.4	C
Grand Concourse (N-S)	WB	TR	0.68	35.3	D	TR	0.50	28.5	C	TR	0.78	38.8	D	TR	0.42	27.1	C
	NB	TR	0.40	16.5	B	TR	0.44	19.4	B	TR	0.57	19.1	B	TR	0.33	17.9	B
	SB	TR	0.40	16.6	B	TR	0.34	18.0	B	TR	0.46	17.4	B	TR	0.37	18.4	B
	Intersection			25.6	C			22.7	C			26.8	C			23.6	C
East 149th Street (E-W) @	EB	LTR	0.89	44.5	D	LTR	0.67	32.6	C	LTR	1.04	73.3	E	LTR	0.73	34.5	C
River Avenue (N-S) &	WB	LTR	0.59	30.2	C	LTR	0.45	27.1	C	LTR	0.66	32.0	C	LTR	0.40	26.1	C
Exterior Street (N-S)	NB (Ext)	LTR	0.39	41.1	D	LTR	0.68	46.5	D	LTR	0.41	41.2	D	LTR	0.15	37.0	D
	NB (MD)													LTR	0.48	43.6	D
		DefL	0.93	85.2	F	DefL	0.66	54.8	D	DefL	0.67	53.3	D				
		TR	0.76	60.0	E	TR	0.48	46.1	D	TR	0.60	49.0	D				
	SB (Ext)													LTR	0.39	41.9	D
		DefL	0.44	46.4	D	DefL	0.19	39.4	D	DefL	0.23	40.7	D				
		TR	0.23	39.5	D	TR	0.15	38.2	D	TR	0.11	37.7	D				
	SB (River)	L	0.73	61.3	E	L	0.36	43.8	D	L	0.41	44.6	D	L	0.53	47.6	D
		TR	0.83	63.0	E	TR	0.41	42.3	D	TR	0.48	44.1	D	TR	0.40	42.1	D
	Intersection			48.4	D			37.1	D			54.6	D			35.7	D
East 149th Street (E-W) @	EB	LT	0.47	8.6	A	LT	0.40	8.0	A	LT	0.64	11.8	B	LT	0.53	9.6	A
Gerard Avenue (N-S)	WB	TR	0.32	6.9	A	TR	0.24	6.4	A	TR	0.34	7.1	A	TR	0.26	6.5	A
	NB	LTR	0.74	61.3	E	LTR	0.46	46.5	D	LTR	0.75	59.4	E	LTR	0.58	50.2	D
	Intersection			13.8	B			11.5	B			15.7	B			13.0	B
East 149th Street (E-W) @	EB	TR	0.37	7.4	A	TR	0.25	6.5	A	TR	0.33	7.0	A	TR	0.35	7.2	A
Walton Avenue (N-S)	WB	LT	0.42	8.0	A	LT	0.29	6.8	A	LT	0.46	8.4	A	LT	0.32	7.0	A
	SB	LTR	0.95	85.4	F	LTR	0.68	55.1	E	LTR	0.81	65.3	E	LTR	0.74	58.9	E
	Intersection			20.6	C			15.1	B			15.8	B			14.6	B
East 149th Street (E-W) @	EB	L	0.28	20.4	C	L	0.21	18.8	B	L	0.45	26.2	C	L	0.25	19.7	B
Morris Avenue (N-S)		TR	0.43	20.7	C	TR	0.40	20.3	C	TR	0.40	20.1	C	TR	0.34	19.2	B
	WB	L	0.71	37.7	D	L	0.55	28.3	C	L	0.60	30.7	C	L	0.25	19.5	B
		TR	0.38	19.8	B	TR	0.35	19.4	B	TR	0.49	21.7	C	TR	0.32	19.0	B
	NB	LTR	0.82	48.9	D	LTR	0.91	62.1	E	LTR	1.04	94.1	F	LTR	0.51	29.1	C
	SB	LTR	0.72	33.0	C	LTR	0.66	31.0	C	LTR	0.78	35.1	D	LTR	0.57	28.2	C
	Intersection			29.0	C			30.1	C			35.4	D			23.4	C
East 149th Street (E-W) @	EB	T	0.38	20.7	C	T	0.37	20.5	C	T	0.45	21.5	C	T	0.40	20.9	C
Third Avenue (N-S) &	WB	T	0.44	21.3	C	T	0.39	20.7	C	T	0.37	20.5	C	T	0.38	20.5	C
Melrose Avenue (N-S)	NB	T	0.33	13.9	B	T	0.31	13.8	B	T	0.28	13.5	B	T	0.51	16.1	B
	SB (Third)	T	0.46	16.2	B	T	0.38	15.0	B	T	0.36	14.7	B	T	0.35	14.6	B
	SB (M)	R	0.66	22.2	C	R	0.63	21.5	C	R	0.64	22.1	C	R	0.45	17.0	B
	Intersection			18.7	B			18.2	B			18.6	B			17.8	B
East 144th Street (E-W) @	EB	LT	0.10	13.8	B	LT	0.05	13.5	B	LT	0.12	14.0	B	LT	0.08	13.7	B
Gerard Avenue (N-S)	WB	TR	0.40	17.5	B	TR	0.26	15.7	B	TR	0.32	16.4	B	TR	0.19	14.7	B
	NB	LTR	0.16	7.4	A	LTR	0.28	8.5	A	LTR	0.25	8.1	A	LTR	0.12	7.1	A
	Intersection			14.0	B			11.5	B			12.0	B			11.4	B
East 144th Street (E-W) @	EB	TR	0.20	14.7	B	TR	0.14	14.2	B	TR	0.11	14.0	B	TR	0.11	13.9	B
Walton Avenue (N-S)	WB	LT	0.38	17.2	B	LT	0.25	15.4	B	LT	0.29	15.8	B	LT	0.27	15.6	B
	SB	LTR	0.33	8.8	A	LTR	0.27	8.2	A	LTR	0.32	8.7	A	LTR	0.18	7.6	A
	Intersection			12.8	B			11.5	B			11.6	B			11.7	B
East 144th Street (E-W) @	EB	LTR	0.47	38.7	D	LTR	0.38	35.6	D	LTR	0.49	43.1	D	LTR	0.23	32.5	C
Grand Concourse (N-S)	WB	LTR	0.72	49.9	D	LTR	0.72	48.3	D	LTR	1.04	106.7	F	LTR	0.53	39.7	D
	NB	LTR	0.63	23.4	C	LTR	0.54	22.7	C	LTR	0.68	21.5	C	LTR	0.39	20.4	C
	SB	DefL	0.87	45.8	D	DefL	0.49	17.4	B	DefL	0.68	28.7	C	DefL	0.25	11.9	B
		TR	0.32	11.0	B	TR	0.30	11.7	B	TR	0.33	9.0	A	TR	0.31	11.7	B
	Intersection			26.6	C			23.9	C			30.3	C			20.2	C
East 144th Street (E-W) @	EB	LT	0.88	35.7	D	LT	0.36	16.9	B	LT	0.63	23.3	C	LT	0.28	15.9	B
Park Avenue (N-S)	WB	TR	0.29	16.0	B	TR	0.26	15.6	B	TR	0.42	17.6	B	TR	0.18	14.7	B
	NB	LTR	0.33	16.6	B	LTR	0.38	17.5	B	LTR	0.47	18.8	B	LTR	0.25	15.6	B
	SB	LR	0.10	14.1	B	LR	0.06	13.6	B	LR	0.07	13.9	B	LR	0.05	13.6	B
	Intersection			26.9	C			16.6	B			19.7	B			15.4	B
East 144th Street (E-W) @	EB	LR	0.30	15.7	B	LR	0.13	14.1	B	LR	0.20	14.7	B	LR	0.25	15.3	B
Morris Avenue (N-S)	NB	LT	0.60	13.0	B	LT	0.50	10.6	B	LT	0.41	9.7	A	LT	0.29	8.4	A
	SB	TR	0.57	12.0	B	TR	0.40	9.5	A	TR	0.59	12.2	B	TR	0.40	9.5	A
	Intersection			13.1	B			10.5	B			11.7	B			10.3	B

Table 3.15-2: Existing Conditions Level of Service Analysis – Typical Day (Con't)

		AM Peak Hour				MD Peak Hour				PM Peak Hour				SAT Peak Hour			
Signalized Intersection	**Approach[1]**	**Lane Group[2]**	**V/C Ratio**	**Delay (sec.)**	**LOS**	**Lane Group[2]**	**V/C Ratio**	**Delay (sec.)**	**LOS**	**Lane Group[2]**	**V/C Ratio**	**Delay (sec.)**	**LOS**	**Lane Group[2]**	**V/C Ratio**	**Delay (sec.)**	**LOS**
East 143rd Street (E-W) @	EB	LTR	0.34	16.4	B	LTR	0.26	15.5	B	LTR	0.31	16.2	B	LTR	0.18	14.7	B
Morris Avenue (N-S)	WB	LR	0.49	19.5	B	LR	0.32	16.6	B	LR	0.37	17.2	B	LR	0.31	16.3	B
	NB	TR	0.41	9.6	A	TR	0.41	9.6	A	TR	0.32	8.6	A	TR	0.25	8.0	A
	SB	LT	0.31	8.6	A	LT	0.31	8.7	A	LT	0.40	9.5	A	LT	0.34	8.9	A
	Intersection			12.8	B			11.4	B			11.7	B			10.7	B
East 143rd Street (E-W) @	EB	LTR	0.39	12.7	B	LTR	0.36	12.3	B	LTR	0.46	13.9	B	LTR	0.30	11.5	B
Third Avenue (N-S) &	WB	LTR	0.72	19.9	B	LTR	0.39	12.6	B	LTR	0.56	15.3	B	LTR	0.50	14.3	B
Alexander Avenue (N-S)	NB	LTR	0.34	24.3	C	LTR	0.22	22.6	C	LTR	0.22	22.6	C	LTR	0.34	24.6	C
	SB	LTR	0.54	30.3	C	LTR	0.46	27.2	C	LTR	0.45	26.9	C	LTR	0.22	22.9	C
	Intersection			20.3	C			16.7	B			17.6	B			16.1	B
East 140th Street (E-W) @	EB	LR	0.20	36.7	D	LR	0.24	37.3	D	LR	0.44	41.4	D	LR	0.26	37.8	D
Grand Concourse (N-S)	NB	LT	0.52	11.4	B	LT	0.32	9.2	A	LT	0.69	14.6	B	LT	0.40	10.0	A
	SB	TR	0.25	8.6	A	TR	0.24	8.5	A	TR	0.28	8.8	A	TR	0.26	8.6	A
	Intersection			11.4	B			10.5	B			14.5	B			10.9	B
East 140th Street (E-W) @	EB	LR	0.29	18.2	B	LR	0.12	16.3	B	LR	0.14	16.4	B	LR	0.11	16.1	B
Morris Avenue (N-S)	NB	T	0.12	5.5	A	T	0.16	5.7	A	T	0.13	5.6	A	T	0.08	5.4	A
	SB	T	0.20	5.9	A	T	0.19	5.9	A	T	0.18	5.9	A	T	0.17	5.8	A
	Intersection			7.9	A			6.6	A			6.6	A			6.6	A
East 139th Street (E-W) @	WB	LTR	0.45	11.1	B	LTR	0.32	9.6	A	LTR	0.51	12.0	B	LTR	0.41	10.6	B
Morris Avenue (N-S)	NB	LT	0.33	37.4	D	LT	0.39	38.2	D	LT	0.27	36.3	D	LT	0.25	36.0	D
	SB	TR	0.65	43.8	D	TR	0.49	39.9	D	TR	0.50	40.0	D	TR	0.50	40.0	D
	Intersection			28.5	C			28.1	C			25.4	C			25.6	C
East 139th Street (E-W) @	WB	TR	0.34	27.4	C	TR	0.18	31.3	C	TR	0.38	35.3	D	TR	0.30	33.4	C
Third Avenue (N-S)	NB	LT	0.22	35.7	D	LT	0.21	35.6	D	LT	0.29	36.6	D	LT	0.26	36.2	D
	SB	TR	0.76	31.1	C	TR	0.46	14.9	B	TR	0.64	19.2	B	TR	0.57	17.0	B
	Intersection			31.4	C			22.8	C			26.4	C			24.8	C
East 138th Street (E-W) @	EB	L	0.62	26.0	C	L	0.48	18.7	B	L	0.67	30.1	C	L	0.63	18.2	B
Major Deegan Expwy Off-Ramp NB		T	0.23	6.6	A	T	0.15	4.1	A	T	0.27	4.1	A	T	0.20	4.3	A
(N-S)	WB	TR	0.88	57.1	E	TR	0.76	38.8	D	TR	0.71	38.1	D	TR	0.55	33.4	C
	NB	LTR	0.78	59.9	E	LTR	0.68	55.3	E	LTR	0.96	93.3	F	LTR	0.84	64.6	E
	Intersection			38.8	D			30.3	C			33.3	C			27.3	C
East 138th Street (E-W) @	EB	TR	0.92	54.2	D	TR	0.59	28.5	C	TR	0.81	32.8	C	TR	0.74	32.1	C
Exterior Street SB (N-S)	WB	L	0.69	53.0	D	L	0.62	37.6	D	L	0.61	40.6	D	L	0.70	42.0	D
		T	0.76	49.9	D	T	0.59	34.1	C	T	0.56	34.2	C	T	0.44	31.4	C
	SB	LTR	0.83	36.7	D	LTR	0.92	50.5	D	LTR	1.05	86.6	F	LTR	0.91	48.6	D
		R	0.59	15.5	B	R	0.41	15.7	B	R	0.52	21.9	C	R	0.43	16.1	B
	Intersection			43.2	D			35.6	D			45.3	D			35.6	D
East 138th Street (E-W) @	EB	T	0.30	12.0	B	T	0.21	11.2	B	T	0.35	12.5	B	T	0.32	12.1	B
Grand Concourse SB (N-S)	WB	T	0.26	11.6	B	T	0.32	12.2	B	T	0.32	12.1	B	T	0.20	11.1	B
	SB	L	0.39	35.5	D	L	0.30	33.9	C	L	0.30	33.7	C	L	0.32	34.2	C
		R	0.34	34.9	C	R	0.30	34.0	C	R	0.48	38.0	D	R	0.53	39.5	D
	Intersection			16.1	B			15.5	B			16.2	B			17.2	B
East 138th Street (E-W) @	EB					LT	0.48	17.8	B	LT	0.73	24.4	C	LT	0.60	20.2	C
Park Avenue (N-S)		DefL	0.68	30.9	C												
		T	0.60	20.9	C												
	WB	TR	0.43	16.8	B	TR	0.45	17.1	B	TR	0.50	17.9	B	TR	0.33	15.4	B
	NB	L	0.71	41.5	D	L	0.86	51.8	D	L	0.91	57.4	E	L	0.41	31.6	C
		TR	0.10	26.6	C	TR	0.19	27.9	C	TR	0.34	30.3	C	TR	0.06	26.0	C
	Intersection			24.7	C			26.7	C			29.9	C			20.4	C
East 138th Street (E-W) @	EB	TR	0.36	15.8	B	TR	0.30	15.1	B	TR	0.36	15.7	B	TR	0.35	15.5	B
Canal Place (N-S)	WB	LT	0.40	16.4	B	LT	0.38	16.0	B	LT	0.46	17.2	B	LT	0.30	15.0	B
	NB	LR	0.11	26.8	C	LR	0.09	26.5	C	LR	0.13	27.0	C	LR	0.08	26.4	C
	SB	LTR	0.43	32.6	C	LTR	0.21	28.4	C	LTR	0.30	29.9	C	LTR	0.20	28.1	C
	Intersection			18.7	B			16.9	B			18.2	B			16.7	B
East 138th Street (E-W) @	EB	LTR	0.51	18.3	B	LTR	0.42	16.8	B	LTR	0.44	16.9	B	LTR	0.42	16.6	B
Rider Avenue (N-S)	WB	LTR	0.44	16.9	B	LTR	0.45	17.1	B	LTR	0.44	16.8	B	LTR	0.34	15.6	B
	NB	LTR	0.10	26.7	C	LTR	0.11	26.8	C	LTR	0.18	27.8	C	LTR	0.08	26.4	C
	Intersection			17.9	B			17.3	B			17.5	B			16.4	B
East 138th Street (E-W) @	EB	LTR	0.63	22.7	C					LTR	0.74	26.3	C				
Third Avenue (N-S) &						DefL	0.46	16.2	B					DefL	0.58	18.3	B
Morris Avenue (N-S)						TR	0.38	12.6	B					TR	0.52	14.6	B
	WB	LTR	0.72	25.3	C	LTR	0.47	13.2	B	LTR	0.68	23.8	C	LTR	0.33	11.5	B
	NB	DefL	0.37	20.6	C	DefL	0.76	51.5	D	DefL	0.72	38.6	D	DefL	0.89	80.6	F
		TR	0.17	15.3	B	TR	0.26	22.5	C	TR	0.18	15.4	B	TR	0.19	21.8	C
	SB	L	0.23	16.6	B	L	0.26	23.9	C	L	0.17	15.8	B	L	0.23	23.2	C
		TR	0.36	17.1	B	TR	0.45	24.5	C	TR	0.41	17.6	B	TR	0.56	26.1	C
	Intersection			20.7	C			20.4	C			22.2	C			22.6	C

Table 3.15-2: Existing Conditions Level of Service Analysis – Typical Day (Con't)

Signalized Intersection	Approach[1]	AM Peak Hour				MD Peak Hour				PM Peak Hour				SAT Peak Hour			
		Lane Group2	V/C Ratio	Delay (sec.)	LOS	Lane Group2	V/C Ratio	Delay (sec.)	LOS	Lane Group2	V/C Ratio	Delay (sec.)	LOS	Lane Group2	V/C Ratio	Delay (sec.)	LOS
East 138th Street (E-W) @	EB	LTR	0.86	45.8	D	LTR	0.64	25.1	C	LTR	0.99	67.4	E	LTR	0.73	27.8	C
Willis Avenue (N-S)	WB	LTR	0.64	29.1	C	LTR	0.84	35.2	D	LTR	0.72	32.7	C	LTR	0.52	20.8	C
	NB	LTR	0.60	26.5	C	LTR	0.67	22.9	C	LTR	0.88	38.7	D	LTR	0.47	19.1	B
	SB					LTR	0.19	15.6	B					LTR	0.47	19.1	B
		DefL	0.32	24.6	C					DefL	0.53	39.5	D				
		TR	0.19	19.8	B					TR	0.18	19.8	B				
	Intersection			31.3	C			26.2	C			43.1	D			21.6	C
East 135th Street WB (E-W) @	WB	L	0.52	12.6	B	L	0.38	10.3	B	L	0.55	13.0	B	L	0.58	13.5	B
Third Avenue (N-S)		LT	0.40	10.1	B	LT	0.38	9.8	A	LT	0.41	10.2	B	LT	0.26	8.7	A
	SB	T	0.40	37.5	D	T	0.31	36.4	D	T	0.43	38.0	D	T	0.40	37.5	D
		R	0.14	35.2	D	R	0.09	34.3	C	R	0.11	34.6	C	R	0.17	35.7	D
	Intersection			20.2	C			17.7	B			20.2	C			21.0	C
East 135th Street EB (E-W) @	EB	TR	0.41	31.8	C	TR	0.22	28.4	C	TR	0.35	30.5	C	TR	0.37	30.9	C
Third Avenue (N-S)		R	0.58	34.8	C	R	0.35	30.1	C	R	0.43	31.4	C	R	0.53	33.3	C
	NB	R	0.05	32.9	C	R	0.06	33.2	C	R	0.09	33.7	C	R	0.02	32.6	C
	SB	LT	0.41	15.1	B	LT	0.34	14.2	B	LT	0.46	15.6	B	LT	0.46	15.7	B
	Intersection			21.4	C			18.3	B			19.8	B			20.5	C
East 135th Street (E-W) @	WB	LTR	0.88	25.3	C	LTR	0.69	19.3	B	LTR	0.87	24.0	C	LTR	0.75	20.4	C
Lincoln Avenue (N-S)	NB	LT	0.11	7.2	A	LT	0.07	7.0	A	LT	0.13	7.3	A	LT	0.07	7.0	A
	SB	TR	0.05	6.9	A	TR	0.08	7.0	A	TR	0.04	6.8	A	TR	0.07	6.9	A
	Intersection			22.9	C			17.7	B			21.8	C			18.7	B
East 135th Street (E-W) @	WB	TR	0.63	11.0	B	TR	0.57	10.1	B	TR	0.67	11.8	B	TR	0.57	10.2	B
Willis Avenue (N-S)	NB	T	0.56	43.4	D	T	0.42	41.0	D	T	0.70	46.6	D	T	0.75	48.2	D
	SB	R	0.25	39.3	D	R	0.18	38.3	D	R	0.19	38.4	D	R	0.19	38.4	D
	Intersection			19.8	B			17.4	B			21.6	C			22.7	C
West 145th Street (E-W) @	EB	LTR	0.66	25.6	C	LTR	0.60	24.2	C	LTR	0.85	33.1	C	LTR	0.70	26.6	C
Lenox Avenue (N-S)	WB	DefL	0.98	74.9	E	DefL	0.49	16.3	B	DefL	1.01	77.0	E	DefL	0.60	20.7	C
		TR	0.68	18.6	B	TR	0.51	14.9	B	TR	0.70	19.2	B	TR	0.47	14.2	B
	NB	L	0.49	28.3	C	L	0.44	27.2	C	L	0.52	32.7	C	L	0.54	31.5	C
		LTR	0.50	25.4	C	LTR	0.44	24.5	C	LTR	0.56	26.0	C	LTR	0.52	26.1	C
	SB	LTR	0.17	21.0	C	LTR	0.15	21.1	C	LTR	0.29	22.6	C	LTR	0.22	21.5	C
	Intersection			30.3	C			21.8	C			31.6	C			23.3	C
West 138th Street (E-W) @	WB	L	0.63	23.7	C	L	0.27	17.2	B	L	0.45	19.9	B	L	0.34	18.1	B
Fifth Avenue (N-S)		LTR	0.69	23.5	C	LTR	0.46	19.2	B	LTR	0.67	23.1	C	LTR	0.51	19.9	B
	NB	LTR	0.34	20.8	C	LTR	0.23	19.6	B	LTR	0.36	21.2	C	LTR	0.29	20.2	C
	SB	LTR	0.32	20.6	C	LTR	0.21	19.3	B	LTR	0.35	21.0	C	LTR	0.32	20.6	C
	Intersection			22.6	C			19.0	B			21.8	C			19.8	B
East 135th Street (E-W) @	EB	L	0.74	47.3	D	L	0.70	44.8	D	L	1.05	99.7	F	L	0.99	83.9	F
Madison Avenue (N-S)		LT	0.64	41.0	D	LT	0.68	43.2	D	LT	0.86	58.4	E	LT	0.86	59.2	E
	WB (SR)	TR	0.36	33.1	C	TR	0.25	30.8	C	TR	0.37	33.4	C	TR	0.12	28.8	C
	WB (Ramp)	TR	0.84	46.5	D	TR	0.72	40.2	D	TR	0.89	50.8	D	TR	0.85	47.2	D
	NB	L	0.45	30.7	C	L	0.46	30.9	C	L	0.43	30.2	C	L	0.46	30.9	C
		TR	0.94	50.3	D	TR	0.67	33.4	C	TR	1.05	75.7	E	TR	0.90	45.9	D
	SB	R	0.36	28.2	C	R	0.23	26.5	C	R	0.30	27.4	C	R	0.36	28.1	C
	Intersection			43.5	D			36.4	D			63.3	E			49.2	D

Unsignalized Intersection	Approach[1]	AM Peak Hour				MD Peak Hour				PM Peak Hour				PM Peak Hour			
		Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS
East 138th Street (E-W) @	NB	LR	0.07	14.6	B	LR	0.10	14.0	B	LR	0.12	17.4	C	LR	0.06	13.9	B
Canal Street (N-S)	Intersection			-	-			-	-			-	-			-	-
East 140th Street (E-W) @	WB	R	0.09	9.7	A	R	0.05	10.9	B	R	0.09	10.3	B	R	0.02	8.8	A
Exterior St NB (N-S)	Intersection			-	-			-	-			-	-			-	-
East 144th Street (E-W) @	EB	LTR	0.10	16.8	C	LTR	0.02	11.1	B	LTR	0.00	0.0	A	LTR	0.00	0.0	A
Exterior Street (N-S)	WB	LTR	0.21	13.8	B	LTR	0.14	13.2	B	LTR	0.08	11.2	B	LTR	0.07	9.4	A
	Intersection			-	-			-	-			-	-			-	-
East 146th Street (E-W) @	NB	TR	0.17	10.3	B	TR	0.36	12.6	B	TR	0.26	10.6	B	TR	0.10	9.5	A
Exterior Street (N-S)	SB	LT	0.49	14.0	B	LT	0.45	14.3	B	LT	0.42	12.2	B	LT	0.38	11.6	B
	Intersection			-	-			-	-			-	-			-	-
East 146th Street (E-W) @	NB	LTR	0.21	10.6	B	LTR	0.26	10.6	B	LTR	0.27	10.8	B	LTR	0.16	10.2	B
Gerard Avenue (N-S)	Intersection			-	-			-	-			-	-			-	-

Notes:
1. EB - Eastbound, WB - Westbound, NB - Northbound, SB - Southbound
2. L - Left, T- Through, R - Right, DefL - De Facto Left Turn
Congested intersections are designated by shading.

PM Peak Hour

- East 149th Street with Exterior Street, River Avenue and the MDE NB Off-Ramp: The eastbound approach from the 145th Street Bridge operates at LOS E with 73.3 average seconds of delay and a v/c ratio of 1.04.

- East 149th Street and Gerard Avenue: Gerard Avenue operates at LOS E with 59.4 average seconds of delay.

- East 149th Street and Walton Avenue: Walton Avenue operates at LOS E with 65.3 average seconds of delay.

- East 149th Street and Morris Avenue: The northbound Morris Avenue approach operates at LOS F with 94.1 average seconds of delay and a v/c ratio of 1.04.

- East 144th Street and Grand Concourse: The westbound East 144th Street approach operates at LOS F with 106.7 average seconds of delay and a v/c ratio of 1.04.

- East 138th Street and the MDE NB Off-Ramp: The northbound MDE off-ramp operates at LOS F with 93.3 average seconds of delay and a v/c ratio of 0.96.

- East 138th Street and Exterior Street: The southbound Exterior Street left turn, through and right turn lane group operates at LOS F with 86.6 average seconds of delay a v/c ratio of 1.05.

- East 138th Street and Park Avenue: The northbound Park Avenue left turn lane operates at LOS E with 57.4 average seconds of delay and a v/c ratio of 0.91.

- East 138th Street and Willis Avenue: The eastbound East 138th Street approach operates at LOS E with 67.4 average seconds of delay and a v/c ratio of 0.99.

- West 145th Street and Lennox Avenue: The de facto left turn on the westbound approach from the 145th Street Bridge operates at LOS E with 77.0 seconds of average delay and a v/c ratio of 1.01.

- East 135th Street and Madison Avenue: The exclusive eastbound East 135th Street left turn lane operates at LOS F with 99.7 average seconds of delay and a v/c ratio of 1.05. The eastbound East 135th Street left turn and through shared lane operates at LOS E with 58.4 average seconds of delay. The northbound Madison Avenue through and right turn shared lane operates at LOS E with 75.7 average seconds of delay and a v/c ratio of 1.05. The overall intersection operates at LOS E with 63.9 average seconds of delay.

Saturday Peak Hour

- East 149th Street and Walton Avenue: Walton Avenue operates at LOS E with 58.9 average seconds of delay.

- East 138th Street and the MDE NB Off-Ramp: The northbound MDE off-ramp operates at LOS E with 64.6 seconds of delay and a v/c ratio of 0.84.

- East 138th Street and Exterior Street: The southbound Exterior Street left turn, through and right turn lane group operates at a v/c ratio of 0.91.

- East 138th Street with Morris Avenue and Third Avenue: The northbound de facto left turn lane operates at LOS F with 80.6 average seconds of delay.

- East 135th Street and Madison Avenue: The eastbound East 135th Street exclusive left turn lane operates at LOS F with 83.9 average seconds of delay and a v/c ratio of 0.99. The eastbound East 135th Street left turn and through shared lane operates at LOS E with 59.2 average seconds of delay. The northbound Madison Avenue through and right turn shared lane operates with a v/c ratio of 0.90.

Parking

A parking study area was delineated within ¼ mile of the Lower Concourse rezoning area, as shown on Figure 3.15-6A. Within this parking study area, existing on-street parking regulations and parking supply were inventoried. Public off-street parking facilities were also inventoried within the parking study area and their locations are also indicated on Figure 3.15-6A. On-street parking regulations within the parking study area are illustrated on Figure 3.15-6B and the parking regulations legend provided on Figure 3.15-6C. On- and off-street parking utilization for the weekday overnight and midday periods was surveyed in September 2008. Indicated in Table 3.15-3 is the address, license number where available, licensed capacity and the weekday midday and overnight demand utilization rate and available capacities for the eight off-street parking facilities within the Lower Concourse parking study area. There are approximately 1550 off-street parking spaces in the area. At midday during the week, several facilities are effectively fully occupied, and overall, 88 percent of the study area off-street parking supply is utilized with 180 spaces available midday. Overnight, the overall off-street parking utilization rate is lower at 66 percent with 535 spaces available, but this overnight utilization data indicates that there is a significant level of vehicle storage in these facilities.

Table 3.15-3: Existing Off-Street Parking Supply and Utilization

				Weekday Midday			Weekday Overnight		
No.	Address	License Number	Licensed Capacity	Utilization Rate	Demand	Available Capacity	Utilization Rate	Demand	Available Capacity
1	225 E 149th St.	1121478	156	50%	78	78	100%	156	0
2	297 E 148th St.	1086341	110	85%	94	17	35%	39	72
3	362-364 E 148th St.	1132122	80	100%	80	0	30%	24	56
4	315 E 149th St.	N/A	315	75%	237	78	40%	125	190
5	565 Courtlandt Ave	1031278	50	90%	45	5	75%	38	13
6	296 Grand Concourse	1209226	58	95%	55	3	80%	46	12
7	230 E 149th St.	1007334	750	100%	750	0	75%	563	188
8	363 E 138th St	N/A	30	100%	30	0	80%	24	6
		Total	**1549**	**88%**	**1369**	**180**	**66%**	**1015**	**535**

Within the parking study area, there are 2,036 legal on-street parking spaces, of which 171 spaces are metered. Parking regulations for street cleaning reduce the number of spaces available for short periods on specific blocks on all weekdays except Wednesday. In addition, nighttime regulations reduce the number of on-street spaces available on certain blocks for a three-hour period between midnight and 3:00 AM on Monday and Thursday.

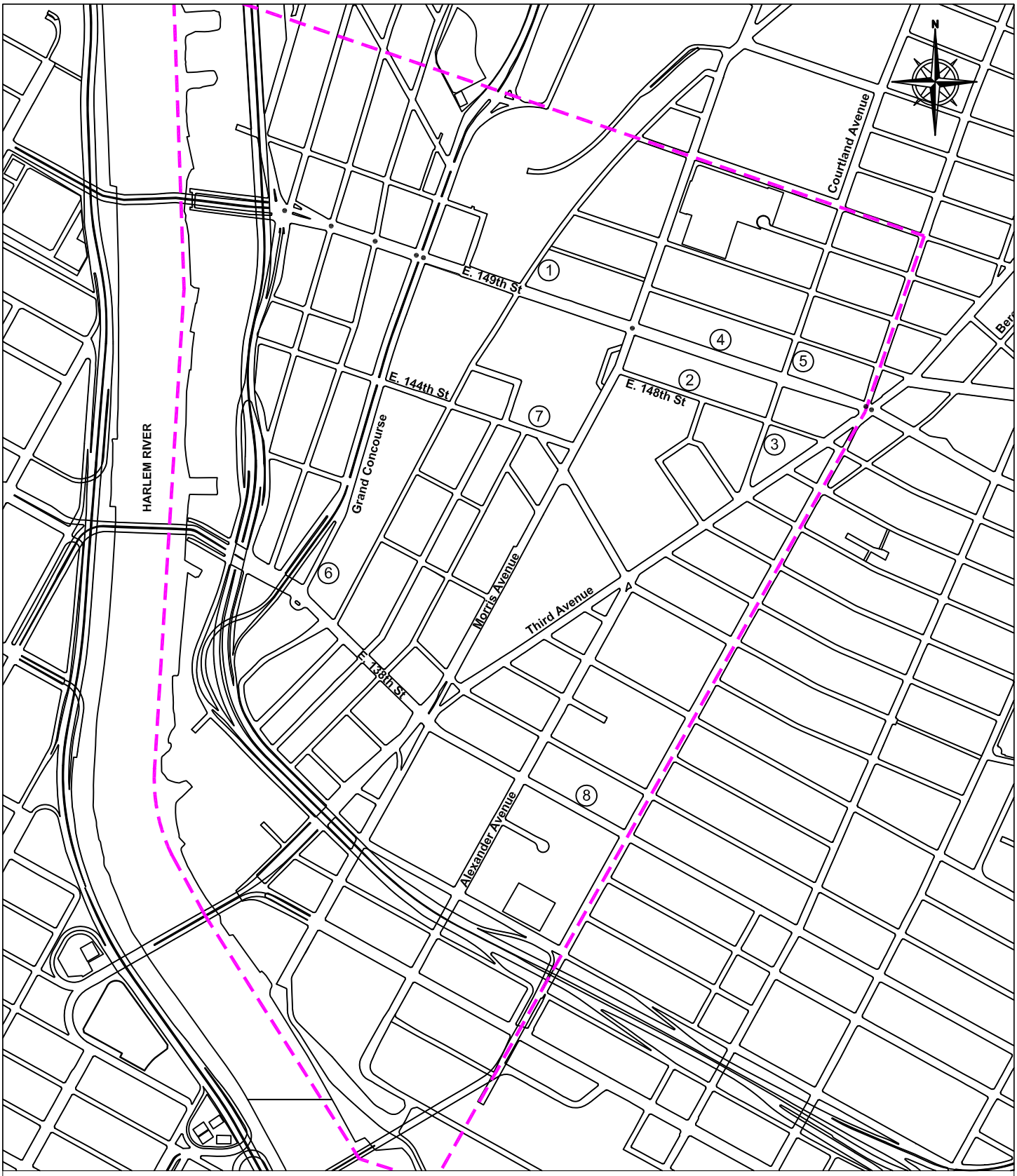


Figure 3.15-6A

Parking Study Area and Off-Street Parking Facilities

Legend

Parking Study Area Boundary

⑦ Off-Street Parking Facility

Lower Concourse Rezoning and Related Actions EIS

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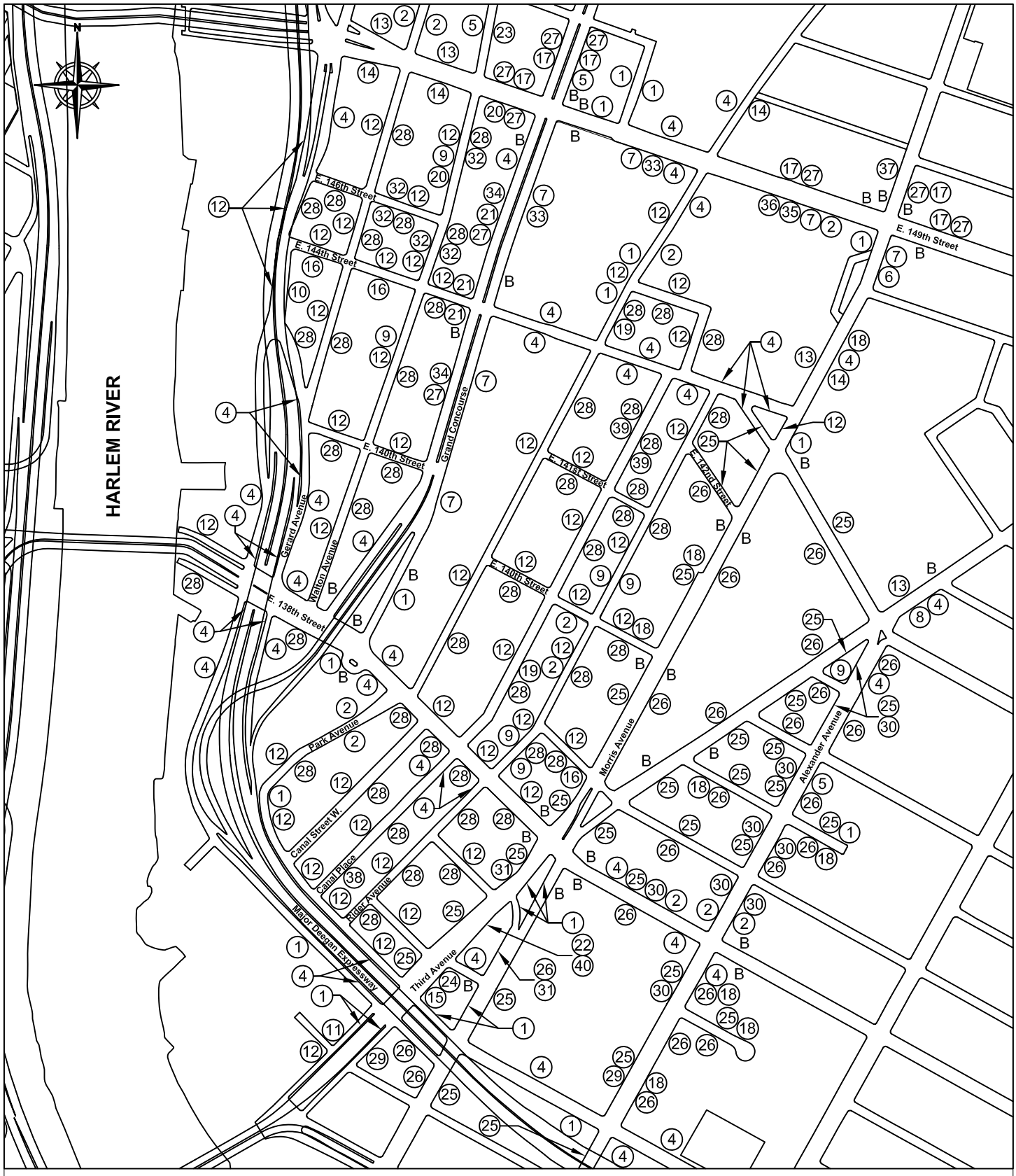

Figure 3.15-6B On-Street Parking Regulations

Legend

(7) Parking Regulation

Lower Concourse Rezoning and Related Actions EIS

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① No Standing Anytime
② No Standing Except Authorized Vehicles
③ No Stopping Anytime
④ No Parking Anytime
⑤ No Parking 9 - 10:30 AM Mon & Thu
⑥ One Hour Parking 9 AM - 7 PM Except Sun
⑦ No Parking 8:30 - 9 AM Except Sun
⑧ No Parking 8:30 - 10 AM Tue & Fri
⑨ No Parking 8 AM - 6 PM Mon thru Fri
⑩ No Parking - Loading Zone
⑪ No Standing Except Trucks Loading & Unloading 8 AM - 4 PM Mon thru Fri
⑫ No Parking Midnight - 3 AM Mon
⑬ No Parking 8 - 9:30 AM Mon & Thu
⑭ No Parking 8 - 9:30 AM Tue & Fri
⑮ No Parking 7:30 - 8 AM Tue & Fri
⑯ No Parking 8 AM - 6 PM Except Sun
⑰ One Hour Parking 8:30 AM - 7 PM Except Sun
⑱ No Parking 7 AM - 4 PM School Days
⑲ No Standing Except Trucks 8 AM - 6 PM Except Sun
⑳ One Hour Parking 8:30 AM - 7 PM Mon thru Fri
㉑ No Parking 7 AM - 5 PM School Days
㉒ No Parking 7:30 - 8 AM Except Sun
㉓ No Parking 9 - 10:30 AM Tue & Fri
㉔ No Parking Midnight - 5 AM
㉕ No Parking 11:30 AM - 1 PM Mon & Thu
㉖ No Parking 11:30 AM - 1 PM Tue & Fri
㉗ No Parking 8 - 8:30 AM Except Sun
㉘ No Parking Midnight - 3 AM Thu
㉙ Parallel Parking Only
㉚ Back In Angle Parking Only
㉛ One Hour Parking 9 AM - 7 PM Except Sun
㉜ Six Hour Parking 9 AM - 7 PM Mon thru Fri
㉝ Six Hour Parking 9 AM - 7 PM Except Sun
㉞ Six Hour Parking 8:30 AM - 7 PM Mon thru Fri
㉟ Two Hour Parking 9 AM - 7 PM Except Sun
㊱ No Standing Except Farmers Market Vehicles 8 AM - 3 PM Tue & Fri July - Nov
㊲ No Standing 7 AM - 7 PM Mon thru Fri
㊳ 48 Hour Parking Detached Trailers
㊴ No Parking 9 AM - 6 PM Mon thru Fri
㊵ One Hour Parking 8 AM - 7 PM Except Sun
B Bus Stop - No Standing

Figure 3.15-6C **On-Street Parking Regulations Legend**

Table 13.15-4 provides the on-street parking utilization for the weekday midday and overnight periods when no street cleaning regulations are in effect as surveyed on a Wednesday. Nearly all on-street non-metered parking spaces were utilized during the weekday midday with a slightly lower utilization rate for metered spaces. Overnight, approximately 70 percent of the on-street spaces were utilized with an available capacity of 598 free spaces. Overnight parking supply is reduced by approximately 450 spaces in the study area over two weekday nights, which would increase the overnight on-street utilization to approximately 90 percent. Midday Monday and Thursday and midday Tuesday and Friday, on-street parking supply is reduced by approximately 390 and 340 spaces, respectively for approximately one and one-half hours each day.

Table 3.15-4: Existing On-Street Parking Supply and Utilization

Analysis Period	Capacity	Utilization Rate	Demand	Available Capacity
Weekday Midday	1,767 Non-Metered	99%	1,750	17
	171 Metered	89%	153	18
Weekday Overnight	2,036	71%	1,438	598

Safety

Accident data for intersections within the study area were obtained from the NYCDOT. This information provides the most recent three years of available accident data, from January 1, 2005, to December 31, 2007 and is presented in Table 3.15-5. The table provides by intersection the total number of reportable accidents (involving fatality, injury or more than $1,000 in property damage), fatalities, and injuries during the study period, as well as a yearly breakdown of pedestrian- and bicycle-related accidents at each intersection.

A total of 215 reportable accidents occurred in the study area during the reporting period. There were no fatalities, 321 injuries, and 69 pedestrian- and 10 bicycle-related accidents were reported. Between 20 and 25 accidents were reported at four intersections in the study over the three-year period. At this level of accident activity, these intersections would not be included with those exhibiting the highest frequency of accidents in the city.

According to the City Environmental Quality Review (CEQR) *Technical Manual,* a high pedestrian accident location is one where five or more pedestrian-related accidents occurred in any year over the most recent three-year period. Two intersections in the study area experienced pedestrian-related accidents at this level—East 149th Street with Courtlandt Avenue and East 149th Street with Morris Avenue. Both intersections are signalized and are located within the active commercial area along East 149th Street. In addition, Lincoln Hospital is located on the southwest corner of the intersection of Morris Avenue with 149th Street. Two bicycle-related accidents were reported at the intersection of Park Avenue with East 138th Street.

Table 3.15-5: Study Area Accident History

		2005, 2006, 2007			Accidents by Year					
Intersection		Overall Accidents			Pedestrian			Bicycle		
Main Street	Cross Street	Reportable Accidents	Fatalities	Injuries	2005	2006	2007	2005	2006	2007
3rd Avenue	Bruckner Boulevard	2	0	2	0	1	0	0	0	0
3rd Avenue	East 138th Street	7	0	12	0	1	2	0	1	0
3rd Avenue	East 135th Street	8	0	14	0	0	0	0	0	0
Canal Place	East 138th Street	1	0	1	0	0	0	0	0	0
Canal Place	East 140th Street	1	0	1	0	0	0	0	0	0
Canal Place	East 141th Street	1	0	2	0	0	0	0	0	0
Canal Street West	Major Deegan Expwy	2	0	3	0	0	0	0	0	0
East 149th Street	Courtlandt Avenue	22	0	34	5	5	4	0	0	0
East 149th Street	Exterior Street	11	0	18	0	0	0	0	0	0
East 149th Street	Gerard Avenue	6	0	8	1	0	0	0	1	0
East 149th Street	Grand Concourse	24	0	38	1	2	3	0	0	1
East 149th Street	Major Deegan Expwy	6	0	8	1	0	0	0	0	0
East 149th Street	Melrose Avenue	7	0	7	1	2	0	0	0	1
East 149th Street	Park Avenue	9	0	23	1	0	0	0	0	0
East 149th Street	River Avenue	1	0	1	0	0	1	0	0	0
East 149th Street	Walton Avenue	7	0	14	0	0	1	0	0	0
Gerard Avenue	East 140th Street	1	0	1	0	0	0	0	0	0
Grand Concourse	East 140th Street	10	0	18	0	0	0	0	0	0
Grand Concourse	East 144th Street	24	0	38	1	2	1	1	0	0
Madison Avenue	East 138th Street	1	0	2	0	0	0	0	0	0
Morris Avenue	East 139th Street	4	0	5	1	0	1	0	0	0
Morris Avenue	East 140th Street	4	0	4	1	1	0	0	0	0
Morris Avenue	East 142nd Street	2	0	4	0	1	0	0	0	0
Morris Avenue	East 144th Street	2	0	2	0	1	0	1	0	0
Morris Avenue	East 149th Street	21	0	26	5	5	4	1	0	0
Morris Avenue	East 148th Street	4	0	5	0	0	3	0	1	0
Morris Avenue	East 143rd Street	7	0	7	4	0	2	0	0	0
Park Avenue	East 138th Street	9	0	10	1	1	1	0	1	1
Park Avenue	East 140th Street	1	0	1	0	0	0	0	0	0
Park Avenue	East 141st Street	1	0	2	0	0	0	0	0	0
Park Avenue	East 144th Street	2	0	2	0	0	1	1	0	0
Park Avenue	Major Deegan Expwy	2	0	2	0	0	0	0	0	0
Rider Avenue	East 138th Street	2	0	2	0	0	0	0	0	0
Rider Avenue	East 140th Street	2	0	3	0	0	0	0	0	0
Rider Avenue	East 144th Street	1	0	1	0	0	0	0	0	0
	Total	**215**	**0**	**321**	**23**	**22**	**24**	**4**	**4**	**3**

Source: NYCDOT

3.15.3 FUTURE WITHOUT THE PROPOSED ACTION

Traffic and parking conditions in the future without the proposed action were assessed to establish the No-Action condition, against which to evaluate potential project impacts. The No-Action analysis presented in this section focuses on typical weekday and Saturday conditions in 2018, the year by which the 31 projected development sites that comprise the RWCDS defined in Chapter 3.1 are assumed to be fully developed. No-Action analyses for game day weekday PM peak and Saturday midday conditions are presented in Section 3.15.5.

Future Development

Within the rezoning area, it is expected that the current land use trends and general development patterns would continue without implementation of the proposed action. It is projected that such development would be comprised of approximately 598,000 gross square feet (gsf) of office space, 217,000 gsf of warehouse/manufacturing space, 78,000 gsf of community facilities and 2,000 gsf of retail, as illustrated on Table 3.1-2 in Chapter 2.0. . Additionally, an 800-seat charter high school is proposed to be constructed by 2018 on one of the potential development sites in the rezoning area.

Outside, but within the ½-mile radius of the rezoning area, several projects are under construction or projected to be completed by 2018, as described in Chapter 3.1, detailed in Table 3.1-3 and illustrated on Figure 3.1-4. This includes 1,000,000 gsf of new retail space as part of the Gateway Center at the Bronx Terminal Market project, four schools of approximately 2,300 seats total in the Mott Haven Campus, a proposed rezoning in the area of East 161st Street, plus the addition of 479 dwelling units at four development sites.

Traffic Volumes

Future 2018 traffic levels on study area roadways absent the proposed actions are expected to increase due to the future development both within and outside the study area, as noted above, as well as due to overall growth. The development of No-Action traffic volumes in the study area involved several steps as described below.

First, a background growth of 0.50 percent per year (as recommended by the *CEQR Technical Manual*) was applied to existing traffic volumes, for a total increase in traffic due to general growth of 5.0 percent by 2018. It was assumed that traffic generated by the residents of the 479 new dwelling units expected to be constructed within one-half mile of the rezoning area would be included in this background growth. Next, traffic projected to be generated by the Gateway Center at the Bronx Terminal Market project and the Mott Haven Campus development that would use study area roadways was derived from the traffic analysis provided as part of the approved environmental review documents for these two projects. Likewise, traffic expected to be generated by development that would occur due to the East 161st Street rezoning action that would use study area roadways was also assigned to the study area network. Lastly, traffic expected to be generated by new development within the rezoning area was assigned to the traffic network.

Trip generation estimates for developments within the rezoning area were based upon information provided in approved studies, standard references, such as the *CEQR Technical Manual*, and the U.S. Census database, and are described in detail in Section 3.15.4. The resulting 2018 No-Action traffic volume networks for the weekday AM, midday, PM and Saturday peak hours are provided on Figures 3.15-7 (A to C) through 3.15-10 (A-C).

Roadway Modifications

Most of the improvements and modifications to study area roadways currently planned over the study horizon to 2018 focus on Exterior Street and the MDE:

- East 149th Street with Exterior Street, River Avenue and the MDE NB Off-Ramp: The Gateway Center at the Bronx Terminal Market has proposed and is funding significant geometric improvements at this intersection that will enhance capacity and improve operations at this intersection. Included is a widening and upgrade of Exterior Street; redesigning the median on East 149th Street to provide an exclusive left-turn lane westbound; and on the 145th Street Bridge, providing an exclusive left-turn lane eastbound, plus widening of the MDE northbound off-ramp to provide two 12-foot lanes.

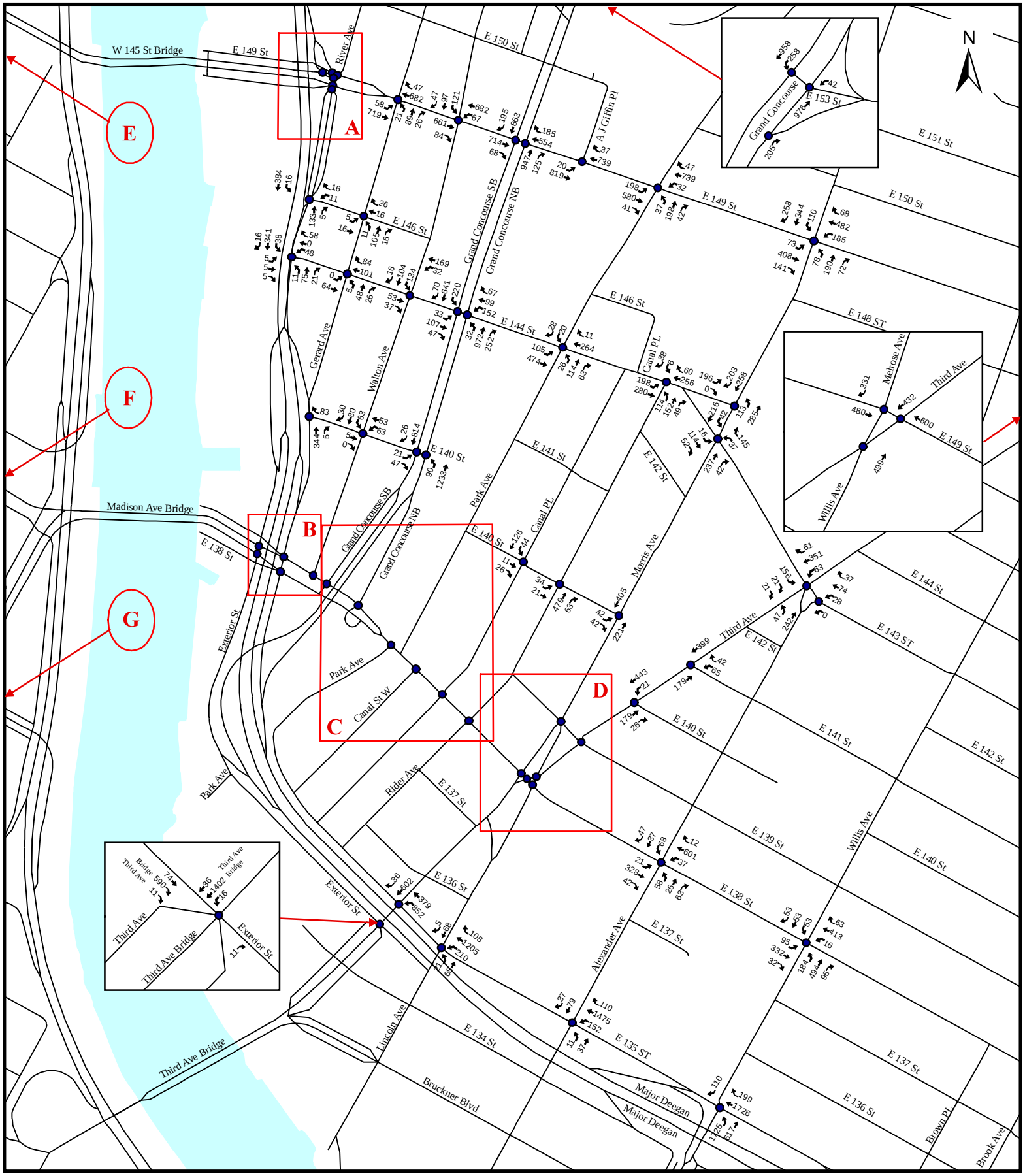


Figure 3.15-7A

**This figure has been modified for the FEIS*

2018 No Build Traffic
Typical Day - AM Peak Hour

240 0 240 480 720 960 Feet

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

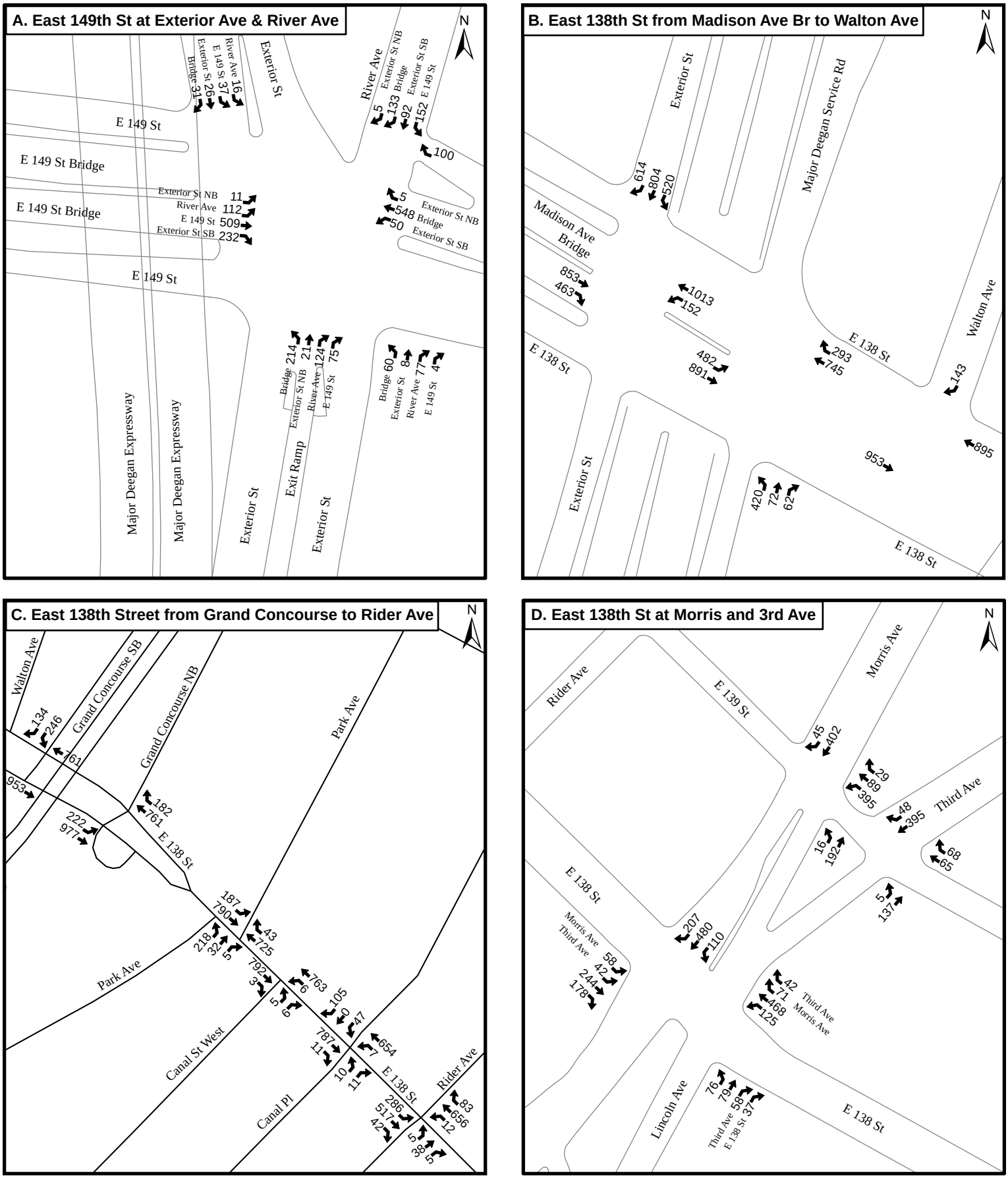


Figure 3.15-7B

2018 No-Action Traffic
Typical Day - AM Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

40 0 40 80 120 160 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

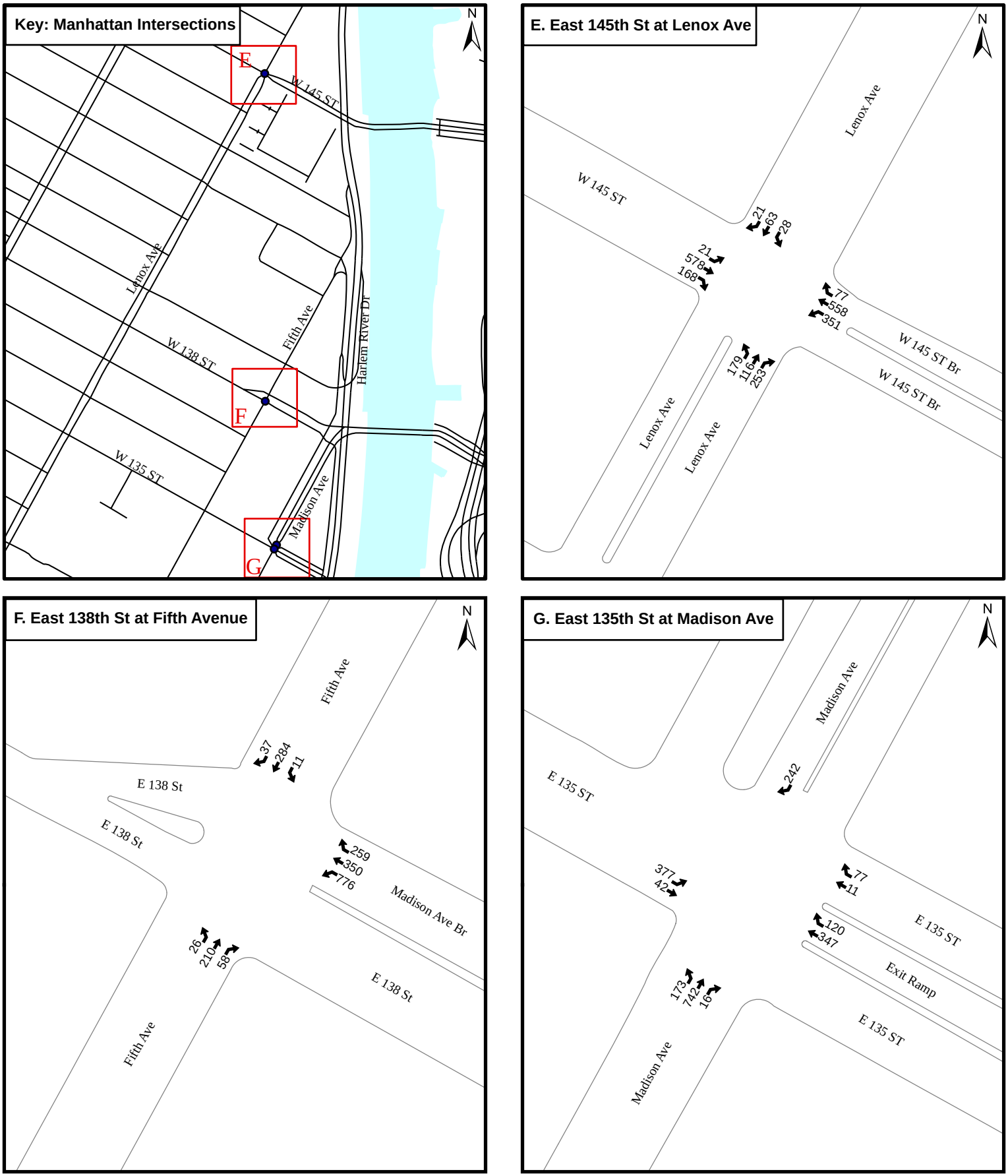


Figure 3.15-7C

2018 No-Action Traffic
Typical Day - AM Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

10 0 10 20 30 40
Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

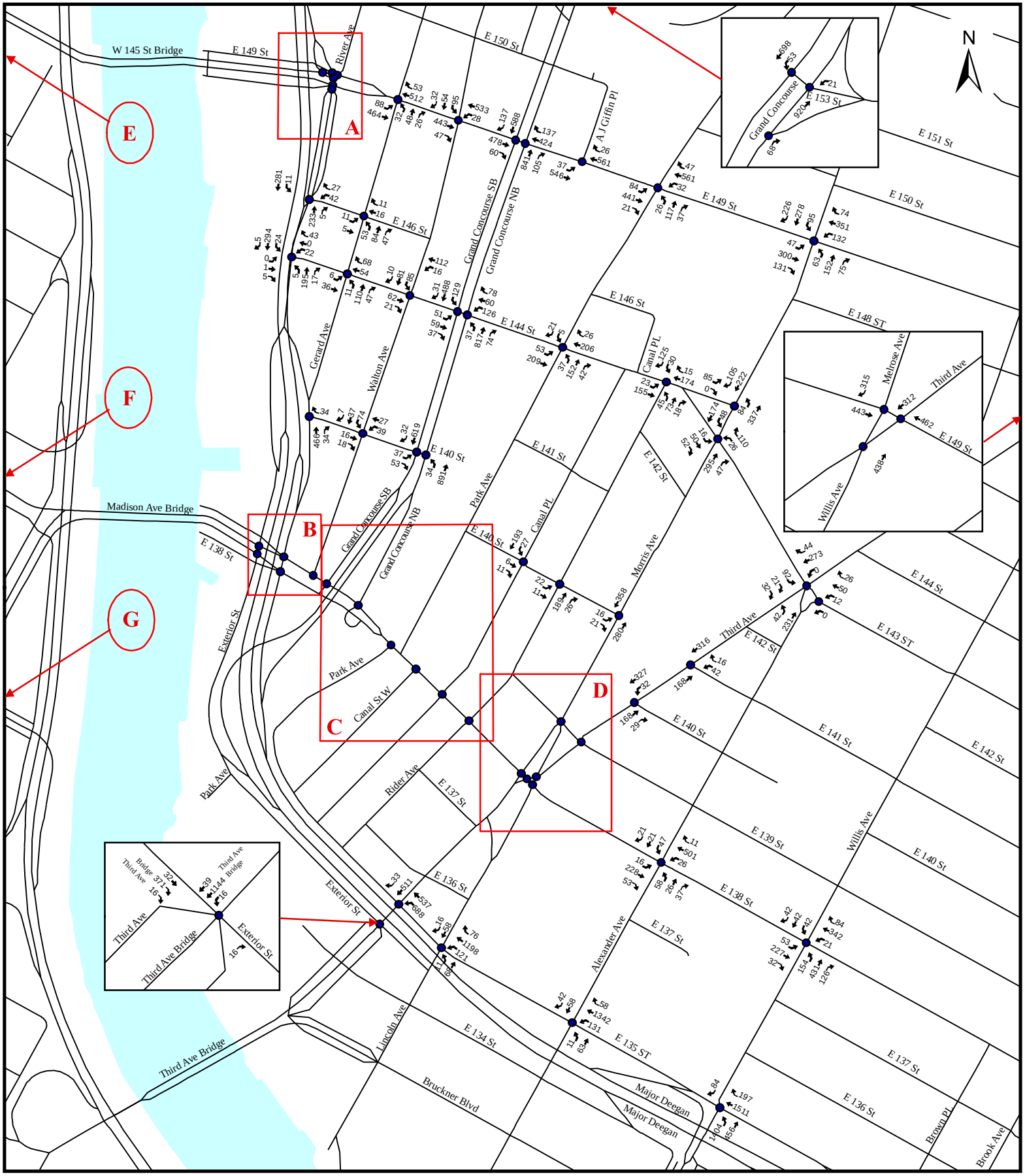


Figure 3.15-8A

**This figure has been modified for the FEIS*

2018 No Build Traffic
Typical Day - MD Peak Hour

240 0 240 480 720 960 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

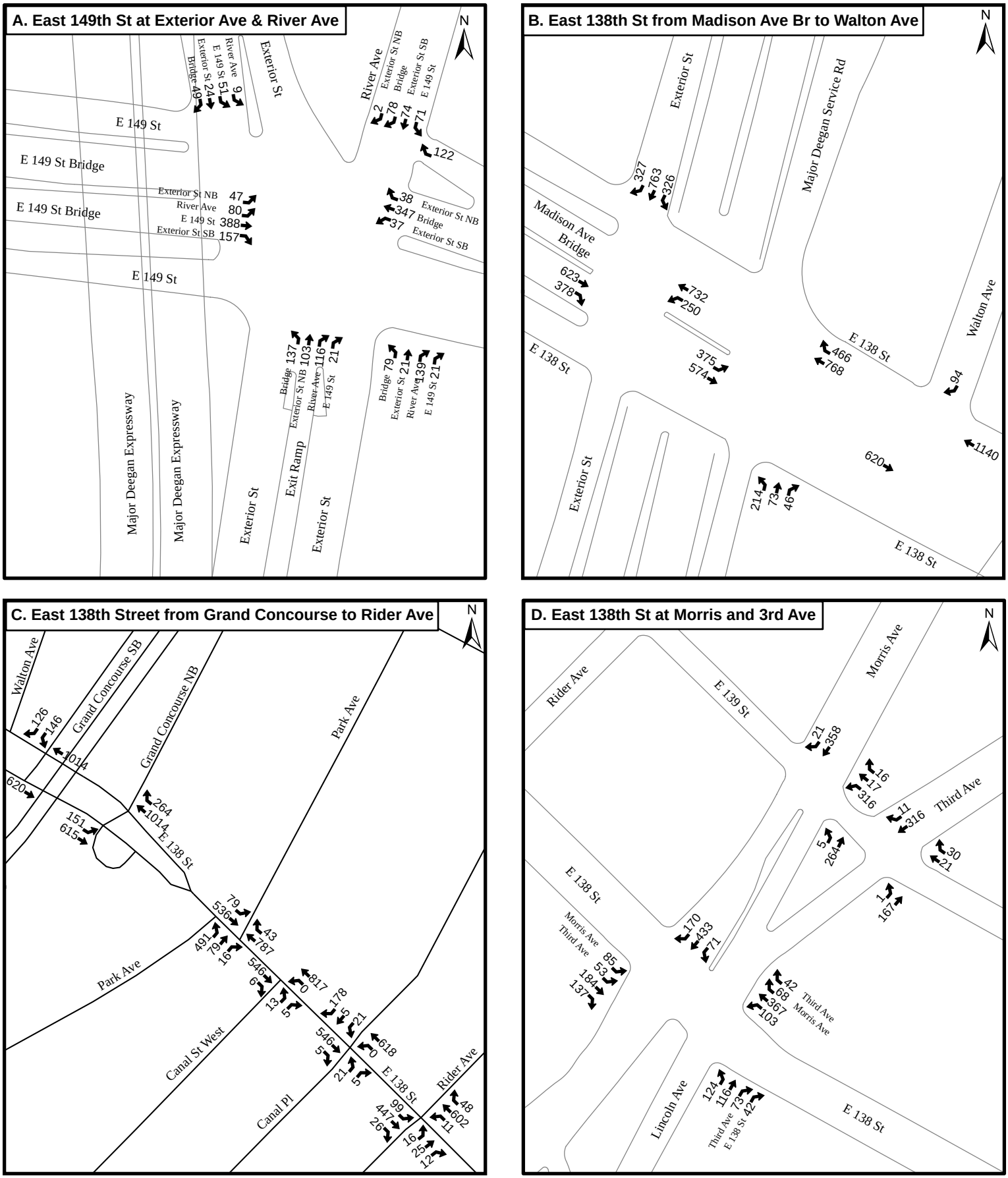


Figure 3.15-8B

2018 No-Action Traffic
Typical Day - MD Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

40 0 40 80 120 160 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

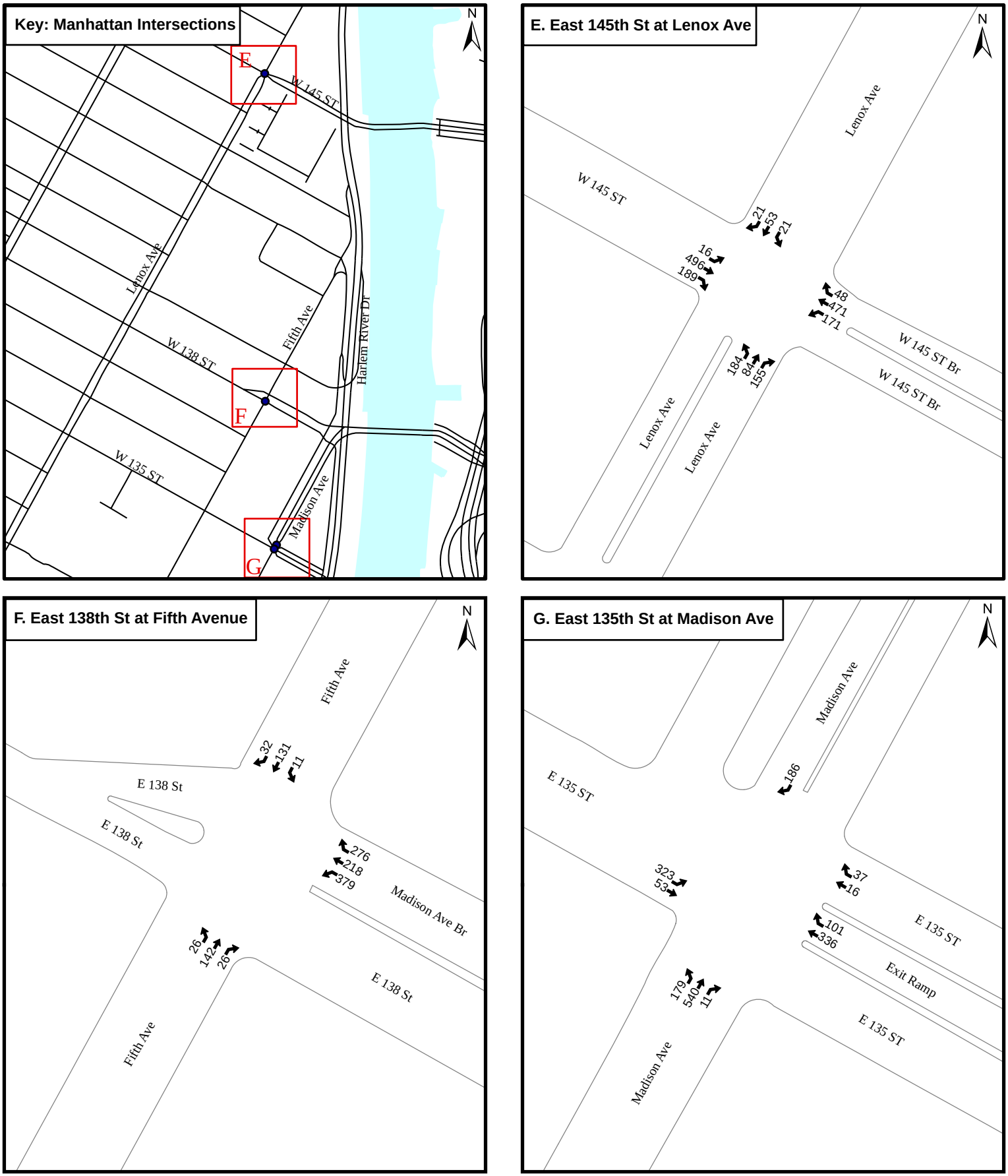


Figure 3.15-8C

2018 No-Action Traffic
Typical Day - MD Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

10 0 10 20 30 40
Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

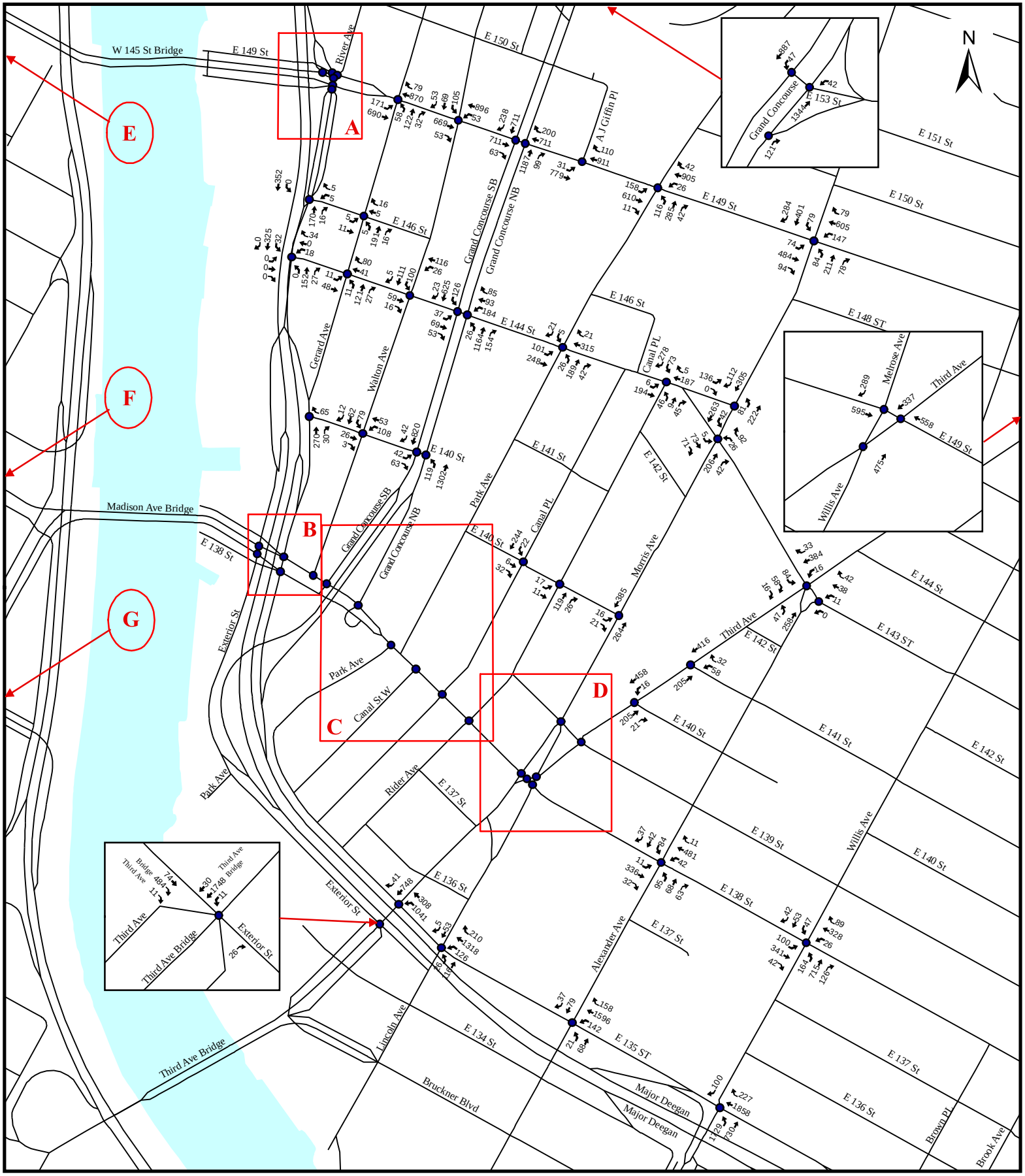


Figure 3.15-9A

**This figure has been modified for the FEIS*

240 0 240 480 720 960 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

2018 No Build Traffic
Typical Day - PM Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

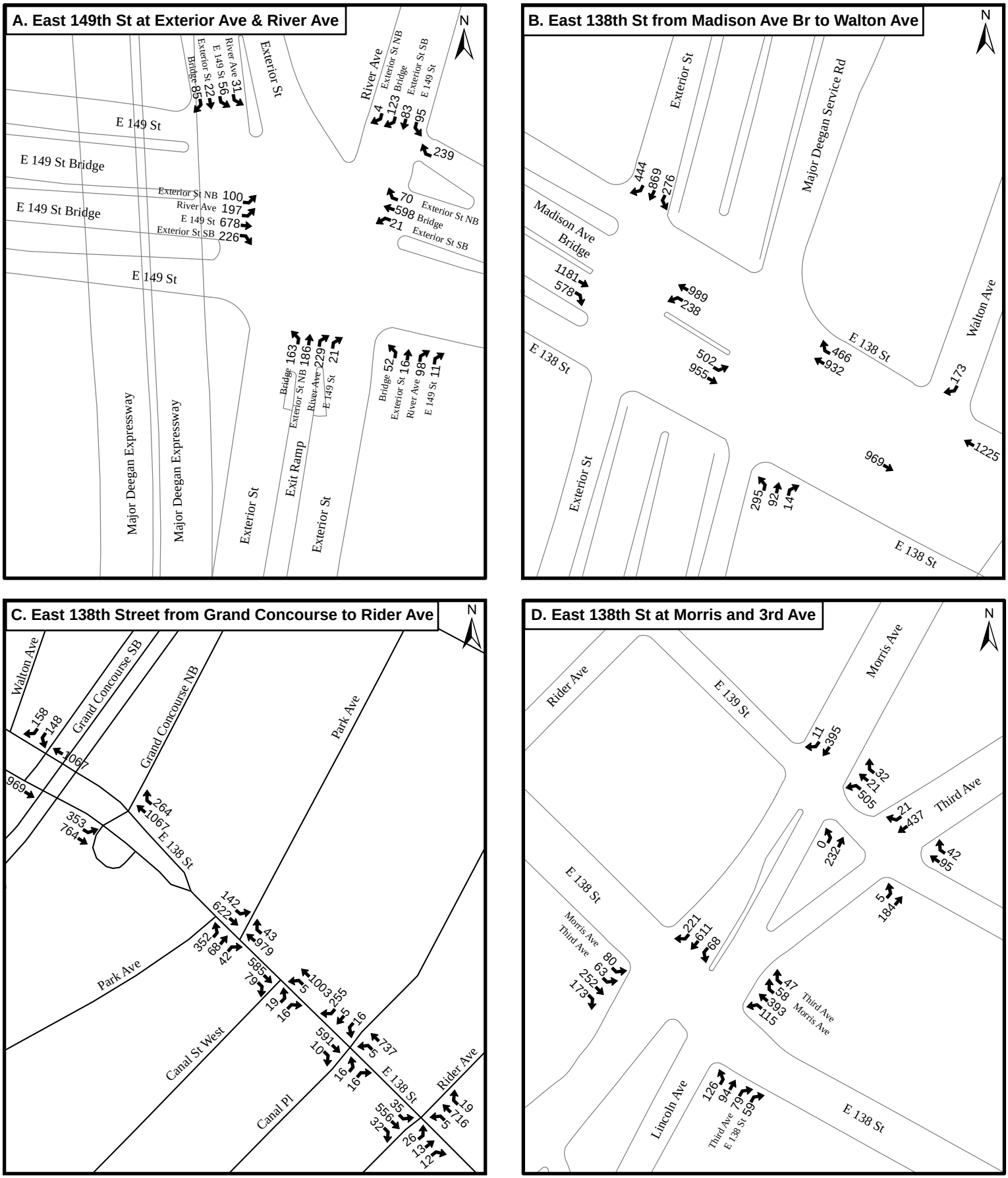


Figure 3.15-9B

2018 No-Action Traffic
Typical Day - PM Peak Hour

40 0 40 80 120 160 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

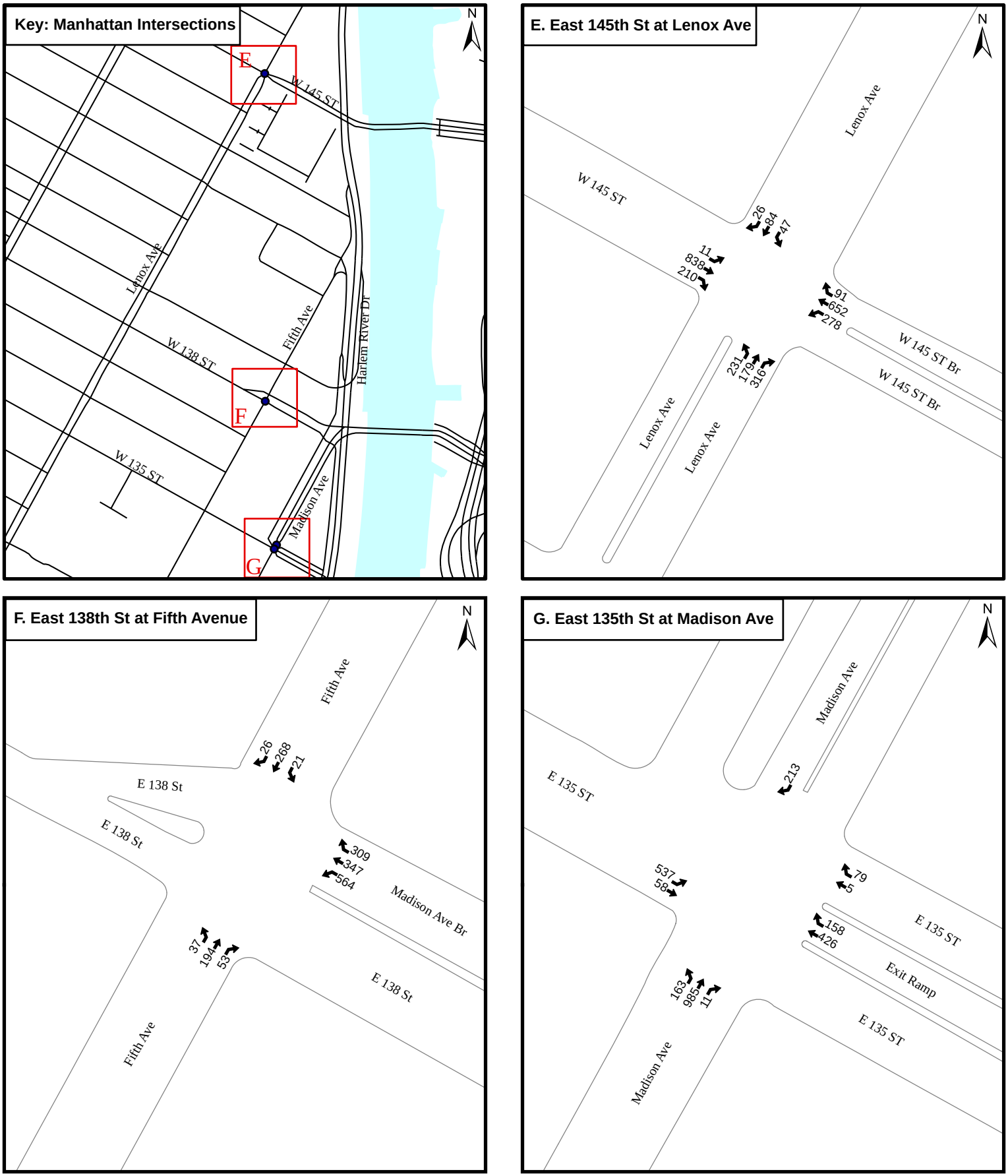


Figure 3.15-9C

2018 No-Action Traffic
Typical Day - PM Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

10 0 10 20 30 40
Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

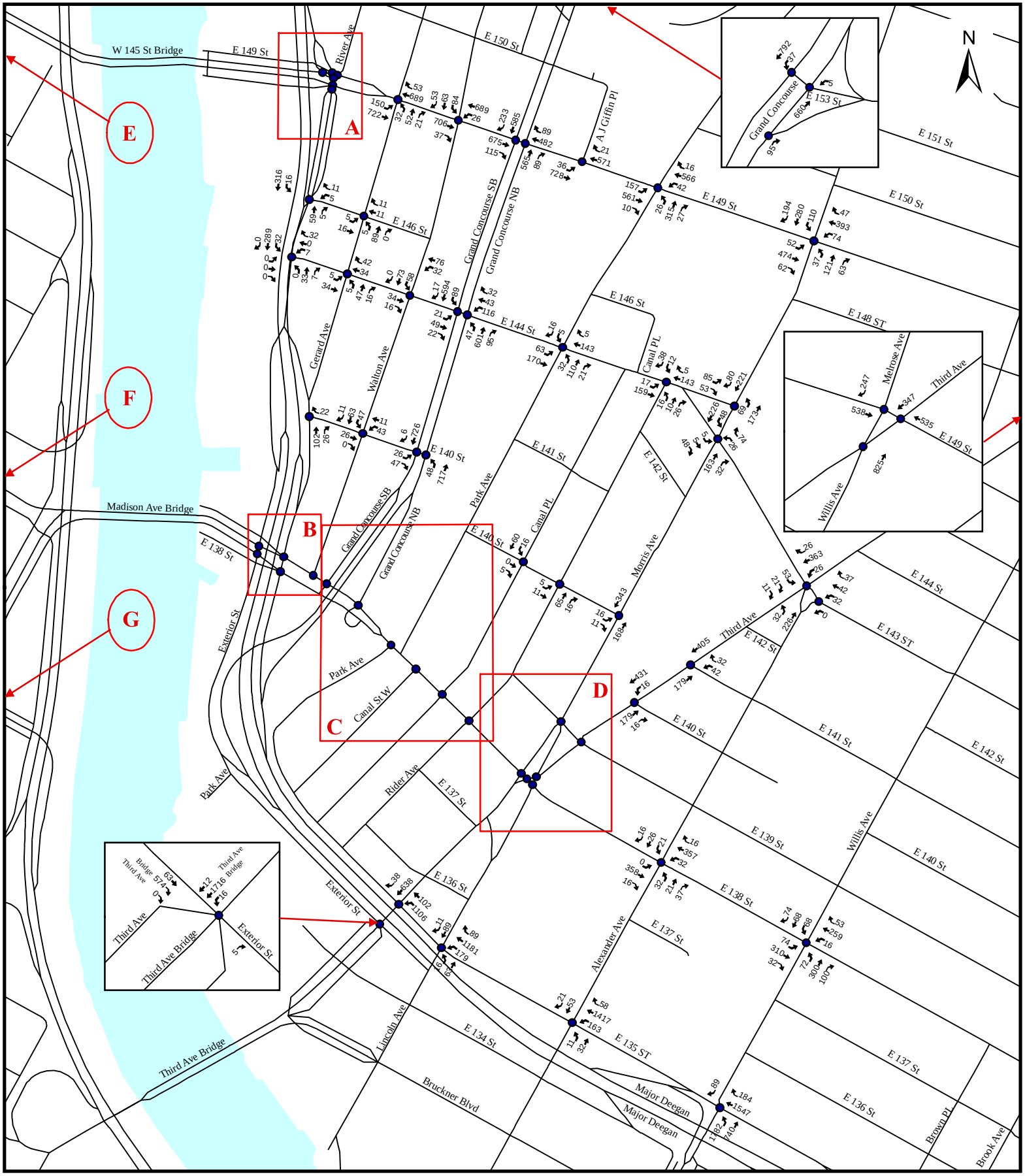


Figure 3.15-10A

**This figure has been modified for the FEIS*

2018 No Build Traffic

Typical Day - Saturday MD Peak Hour

520 0 520 1,040 1,560 2,080 Feet

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

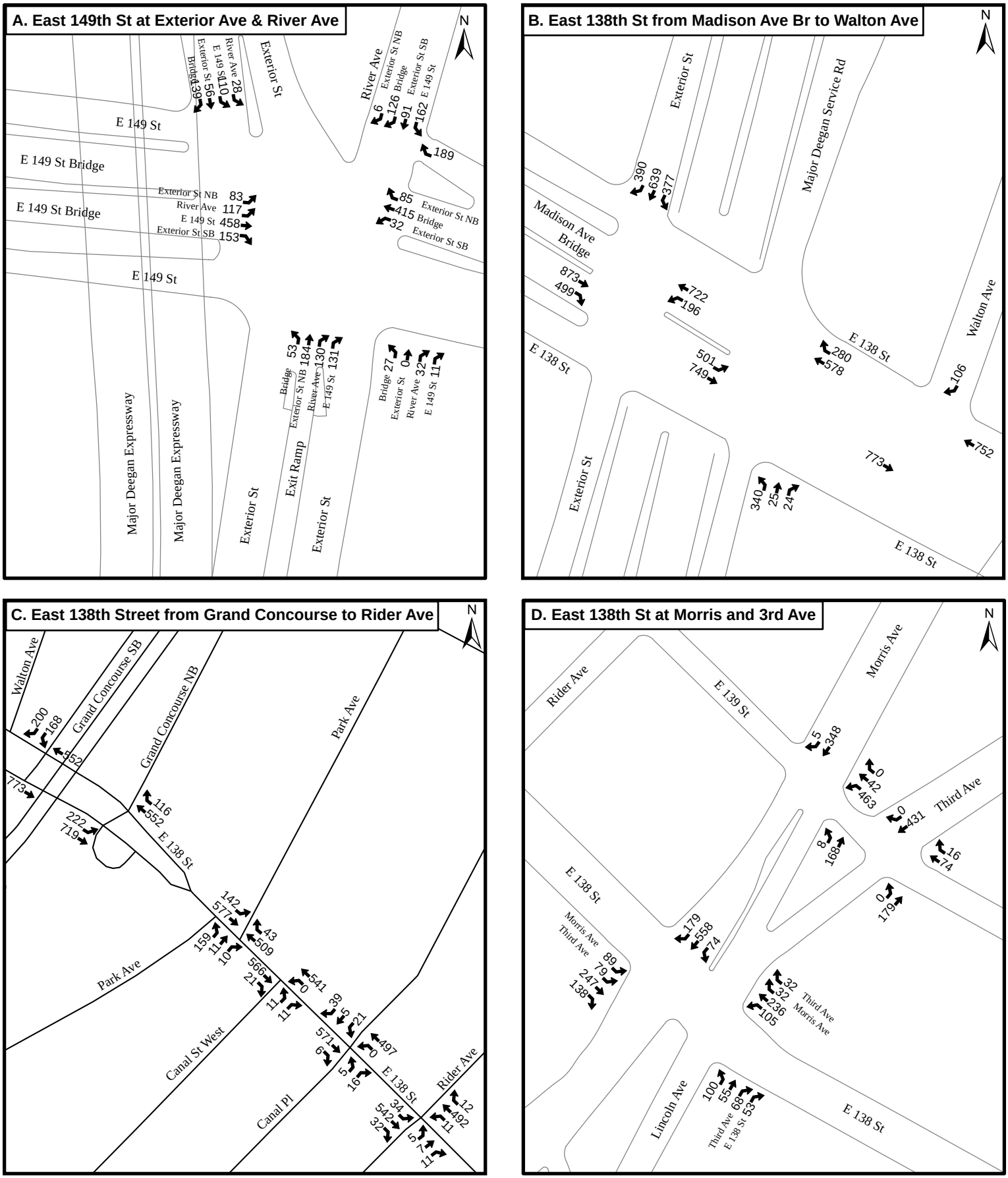


Figure 3.15-10B

2018 No-Action Traffic
Typical Day - Saturday MD Peak Hour

40 0 40 80 120 160 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

Lower Concourse Rezoning and Related Actions EIS
NYC Department of City Planning

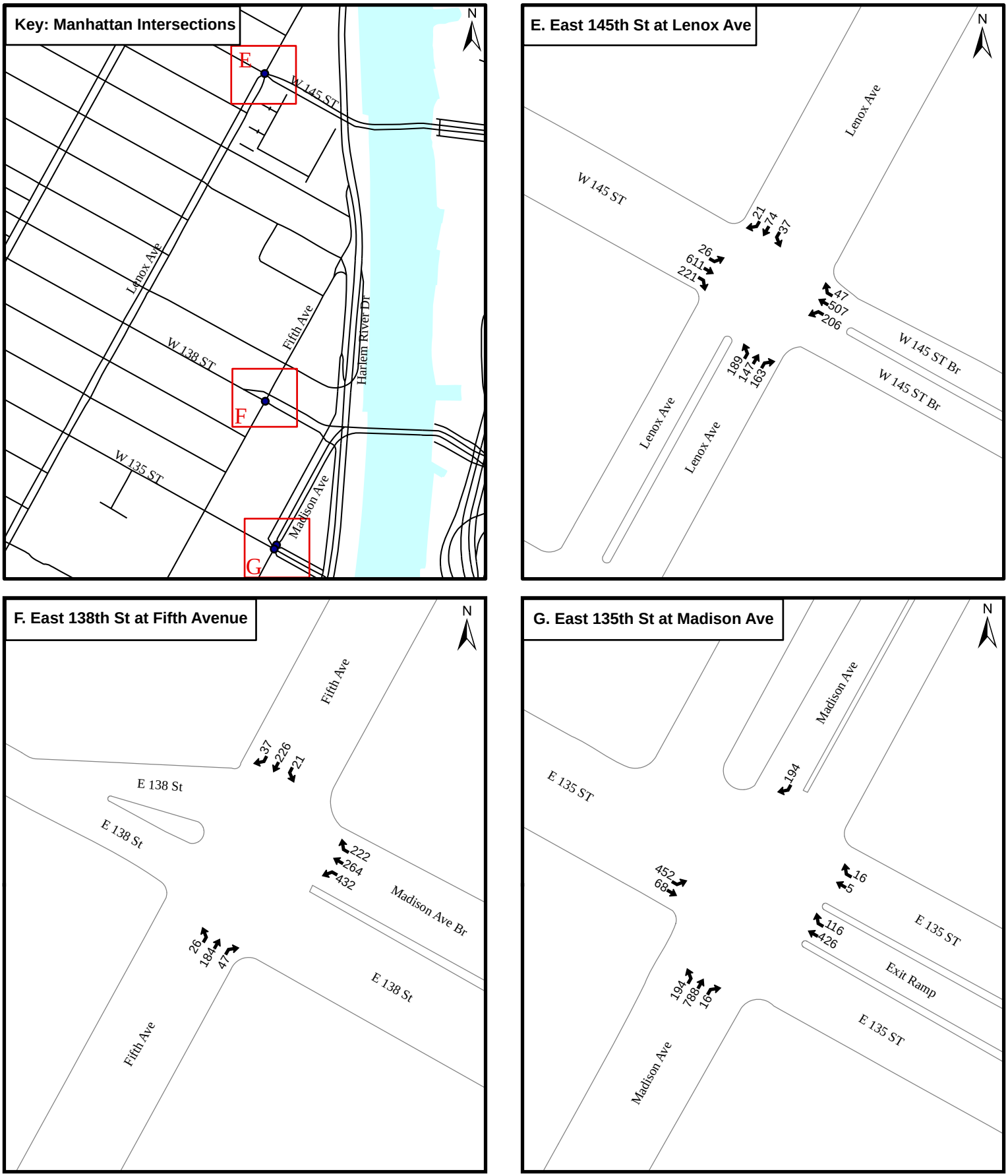


Figure 3.15-10C

2018 No-Action Traffic

Typical Day - Saturday MD Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

10 0 10 20 30 40 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

- The New York State Department of Transportation is studying major improvements to the MDE in the Lower Concourse study area and proposes to rehabilitate and widen the MDE Viaduct (BIN 1-06680-9) and associated ramps, between East 138th Street and the Macombs Dam Bridge. Other improvements proposed within the project limits address several of the non-standard and non-conforming features (e.g., cross-sectional elements, horizontal alignment, vertical profiles, stopping sight distances, and acceleration and deceleration lanes) and safety and operational issues near critical mainline-ramp junctions (e.g., East 138th and East 149th Streets). This MDE project is being progressed in two phases: . Phase I of the project concentrates primarily on the efforts proposed in the northern section of the project limits between East 149th Street and the Macombs Dam Bridge, which is being coordinated with the improvements proposed as part of the Bronx Terminal Market project discussed above; while Phase II concentrates primarily on the southern section of the project limits between East 138th Street and East 149th Street. Both phases address distinct needs of the project: primarily structural in the northern section and safety and operations in the southern section. However, a design alternative in the southern section that would effect local street operations on Exterior Street as it relates to its junction with the MDE southbound off-ramp has not as yet been finalized.

- NYCDOT's bicycle program is adding a Class 2 bicycle lane on Willis Avenue. This action will result in the removal of a southbound lane on Willis Avenue from East 135th Street to Third Avenue. Future bicycle paths (Class 1) are proposed on Harlem River bridges, and routes (Class 2) are proposed on East 149th, East 143rd, East 138th and Exterior Streets, Morris/Third Avenue, and Alexander Avenue, although final geometries have not been determined.

- Other roadway modifications have been proposed in the study area as part of mitigation measures for other projects, primarily though striping and signal timing changes. As proposed by the Mott Haven School Facility EIS, a new southbound lead phase would be incorporated at the intersection of East 153rd Street and the Grand Concourse. The proposed phasing timings were adjusted to meet pedestrian crossing time requirements. The need for other proposed mitigation measures will be reassessed as part of the traffic analysis for the future with the proposed action.

Levels of Service

Table 3.15-6 presents a comparison of the existing and No-Action LOS for the study area intersections under typical weekday and Saturday peak hour conditions. Notable deteriorations in LOS, compared to existing conditions, are discussed below.

Table 3.15-6: 2018 No-Action Conditions Level of Service Analysis – Typical Day

		AM Peak Hour						MD Peak Hour						PM Peak Hour						SAT Peak Hour					
			EXISTING			NO BUILD			EXISTING			NO BUILD			EXISTING			NO BUILD			EXISTING			NO BUILD	
Signalized Intersection	Approach[1]	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS
East 153rd Street (E-W) @ Grand Concourse (N-S)	WB	L	0.10	30.0	C	0.11	30.0	C	L	0.04	26.4	C	0.04	26.5	C	L	0.08	29.7	C	0.09	29.8	C	L	0.01	26.1	C	0.01	26.1	C
	NB	T	0.25	11.0	B	0.32	16.0	B	T	0.27	13.0	B	0.32	17.1	B	T	0.38	12.2	B	0.45	16.5	B	T	0.19	12.2	B	0.22	16.0	B
	SB	L	0.21	12.5	B	0.87	37.3	D	L	0.32	16.7	B	0.29	12.5	B	L	0.36	18.8	B	0.28	12.7	B	L	0.13	12.5	B	0.13	10.0	A
		T	0.31	11.7	B	0.39	12.4	B	T	0.25	12.9	B	0.28	13.2	B	T	0.31	11.6	B	0.37	12.3	B	T	0.27	13.1	B	0.32	13.6	B
	Intersection			11.9	B		17.1	B			13.3	B		15.5	B			12.5	B		15.1	B			12.7	B		14.6	B
East 149th Street (E-W) @ Grand Concourse (N-S)	EB	TR	0.75	37.9	D	0.84	42.6	D	TR	0.50	28.8	C	0.56	30.0	C	TR	0.74	37.7	D	0.85	43.4	D	TR	0.66	32.4	C	0.77	36.1	D
	WB	TR	0.68	35.3	D	0.78	39.3	D	TR	0.50	28.5	C	0.55	29.6	C	TR	0.78	38.8	D	0.87	44.5	D	TR	0.42	27.1	C	0.50	28.4	C
	NB	TR	0.40	16.5	B	0.47	17.6	B	TR	0.44	19.4	B	0.47	19.9	B	TR	0.57	19.1	B	0.61	19.9	B	TR	0.33	17.9	B	0.35	18.1	B
	SB	TR	0.40	16.6	B	0.50	18.1	B	TR	0.34	18.0	B	0.40	18.8	B	TR	0.46	17.4	B	0.56	19.1	B	TR	0.37	18.4	B	0.47	19.8	B
	Intersection			25.6	C		27.9	C			22.7	C		23.5	C			26.8	C		30.0	C			23.6	C		25.5	C
East 149th Street (E-W) @ River Avenue (N-S) & Exterior Street (N-S)	EB	LTR	0.89	44.5	D				LTR	0.67	32.6	C				LTR	1.04	73.3	E				LTR	0.73	34.5	C			
		L				0.69	42.6	D	L				0.58	36.0	D	L				1.41	240.4	F	L				0.91	63.6	E
		TR				0.81	43.5	D	TR				0.60	35.8	D	TR				0.75	36.0	D	TR				0.60	33.8	C
	WB	LTR	0.59	30.2	C				LTR	0.45	27.1	C				LTR	0.66	32.0	C				LTR	0.40	26.1	C			
		L				1.10	173.9	F	L				0.37	45.8	D	L				0.34	41.9	D	L				0.23	39.2	D
		TR				0.85	56.8	E	TR				0.72	49.2	D	TR				0.83	47.4	D	TR				0.84	53.2	D
	NB (Ext)	LTR	0.39	41.1	D				LTR	0.68	46.5	D				LTR	0.41	41.2	D				LTR	0.15	37.0	D	0.21	40.3	D
		DefL				0.71	70.8	E	DefL				0.69	59.0	E	DefL				0.93	110.3	F							
		TR				0.33	39.7	D	TR				0.57	46.1	D	TR				0.44	46.1	D							
	NB (MD)								LTR				0.73	44.1	D	LTR				0.98	68.2	E	LTR	0.48	43.6	D	0.72	42.2	D
		DefL	0.93	85.2	F	0.70	48.1	D	DefL	0.66	54.8	D				DefL	0.67	53.3	D										
		TR	0.76	60.0	E	0.59	42.2	D	TR	0.48	46.1	D				TR	0.60	49.0	D										
	SB (Ext)																						LTR	0.39	41.9	D			
		DefL	0.44	46.4	D	0.32	35.4	D	DefL	0.19	39.4	D	0.50	44.7	D	DefL	0.23	40.7	D	1.33	263.4	F	DefL				1.00	116.2	F
		TR	0.23	39.5	D				TR	0.15	38.2	D				TR	0.11	37.7	D										
		T				0.07	30.3	C	T				0.08	30.4	C	T				0.07	31.0	C	T				0.13	30.4	C
		R				0.10	30.8	C	R				0.18	31.9	C	R				0.35	36.0	D	R				0.36	34.5	C
	SB (River)	LTR				0.88	61.0	E	LTR				0.51	42.5	D	LTR				0.85	63.2	E	LTR				0.86	62.5	E
		L	0.73	61.3	E				L	0.36	43.8	D				L	0.41	44.6	D				L	0.53	47.6	D			
		TR	0.83	63.0	E				TR	0.41	42.3	D				TR	0.48	44.1	D				TR	0.40	42.1	D			
	Intersection			48.4	D		52.0	D			37.1	D		42.7	D			54.6	D		74.4	E			35.7	D		46.1	D
East 149th Street (E-W) @ Gerard Avenue (N-S)	EB	LT	0.47	8.6	A	0.54	9.5	A	LT	0.40	8.0	A	0.48	8.9	A	LT	0.64	11.8	B				LT	0.53	9.6	A	0.68	12.7	B
																DefL				0.73	24.8	C							
																T				0.70	13.9	B							
	WB	TR	0.32	6.9	A	0.35	7.2	A	TR	0.24	6.4	A	0.28	6.7	A	TR	0.34	7.1	A	0.42	7.8	A	TR	0.26	6.5	A	0.34	7.1	A
	NB	LTR	0.74	61.3	E	0.77	63.9	E	LTR	0.46	46.5	D	0.49	47.4	D	LTR	0.75	59.4	E	0.80	63.5	E	LTR	0.58	50.2	D	0.61	51.6	D
	Intersection			13.8	B		14.3	B			11.5	B		11.9	B			15.7	B		17.8	B			13.0	B		14.2	B
East 149th Street (E-W) @ Walton Avenue (N-S)	EB	TR	0.37	7.4	A	0.42	7.9	A	TR	0.25	6.5	A	0.28	6.7	A	TR	0.33	7.0	A	0.37	7.4	A	TR	0.35	7.2	A	0.40	7.7	A
	WB	LT	0.42	8.0	A	0.49	8.8	A	LT	0.29	6.8	A	0.35	7.3	A	LT	0.46	8.4	A	0.58	10.0	A	LT	0.32	7.0	A	0.43	8.0	A
	SB	LTR	0.95	85.4	F	1.00	98.0	F	LTR	0.68	55.1	E	0.73	58.0	E	LTR	0.81	65.3	E	0.86	71.4	E	LTR	0.74	58.9	E	0.78	62.2	E
	Intersection			20.6	C		22.5	C			15.1	B		15.3	B			15.8	B		16.7	B			14.6	B		14.7	B
East 149th Street (E-W) @ Morris Avenue (N-S)	EB	L	0.28	20.4	C	0.33	21.8	C	L	0.21	18.8	B	0.23	19.5	B	L	0.45	26.2	C	0.57	33.3	C	L	0.25	19.7	B	0.30	21.0	C
		TR	0.43	20.7	C	0.45	21.0	C	TR	0.40	20.3	C	0.44	20.9	C	TR	0.40	20.1	C	0.45	21.0	C	TR	0.34	19.2	B	0.40	20.1	C
	WB	L	0.71	37.7	D	0.83	50.7	D	L	0.55	28.3	C	0.61	32.1	C	L	0.60	30.7	C	0.71	38.4	D	L	0.25	19.5	B	0.31	20.9	C
		TR	0.38	19.8	B	0.43	20.6	C	TR	0.35	19.4	B	0.39	20.0	B	TR	0.49	21.7	C	0.57	23.1	C	TR	0.32	19.0	B	0.39	20.0	B
	NB	LTR	0.82	48.9	D	1.16	137.3	F	LTR	0.91	62.1	E	1.04	94.9	F	LTR	1.04	94.1	F	1.15	131.6	F	LTR	0.51	29.1	C	0.56	30.8	C
	SB	LTR	0.72	33.0	C	0.88	42.8	D	LTR	0.66	31.0	C	0.70	32.6	C	LTR	0.78	35.1	D	0.83	37.6	D	LTR	0.57	28.2	C	0.60	29.0	C
	Intersection			29.0	C		45.2	D			30.1	C		35.9	D			35.4	D		41.9	D			23.4	C		24.1	C
East 149th Street (E-W) @ Third Avenue (N-S) & Melrose Avenue (N-S)	EB	T	0.38	20.7	C	0.45	21.6	C	T	0.37	20.5	C	0.42	21.2	C	T	0.45	21.5	C	0.53	22.7	C	T	0.40	20.9	C	0.48	21.9	C
	WB	T	0.44	21.3	C	0.51	22.4	C	T	0.39	20.7	C	0.44	21.4	C	T	0.37	20.5	C	0.44	21.3	C	T	0.38	20.5	C	0.45	21.5	C
	NB	T	0.33	13.9	B	0.34	14.1	B	T	0.31	13.8	B	0.32	14.0	B	T	0.28	13.5	B	0.30	13.6	B	T	0.51	16.1	B	0.53	16.5	B
	SB (Third)	T	0.46	16.2	B	0.50	16.8	B	T	0.38	15.0	B	0.40	15.3	B	T	0.36	14.7	B	0.38	14.9	B	T	0.35	14.6	B	0.37	14.8	B
	SB (M)	R	0.66	22.2	C	0.70	23.7	C	R	0.63	21.5	C	0.67	22.9	C	R	0.64	22.1	C	0.68	23.7	C	R	0.45	17.0	B	0.48	17.5	B
	Intersection			18.7	B		19.6	B			18.2	B		18.9	B			18.6	B		19.5	B			17.8	B		18.6	B
East 144th Street (E-W) @ Gerard Avenue (N-S)	EB	LT	0.10	13.8	B	0.13	14.1	B	LT	0.05	13.5	B	0.09	13.8	B	LT	0.12	14.0	B	0.17	14.5	B	LT	0.08	13.7	B	0.09	13.7	B
	WB	TR	0.40	17.5	B	0.54	20.2	C	TR	0.26	15.7	B	0.33	16.6	B	TR	0.32	16.4	B	0.39	17.3	B	TR	0.19	14.7	B	0.21	14.9	B
	NB	LTR	0.16	7.4	A	0.16	7.5	A	LTR	0.28	8.5	A	0.30	8.6	A	LTR	0.25	8.1	A	0.27	8.2	A	LTR	0.12	7.1	A	0.13	7.1	A
	Intersection			14.0	B		16.1	B			11.5	B		12.3	B			12.0	B		12.9	B			11.4	B		11.6	B
East 144th Street (E-W) @ Walton Avenue (N-S)	EB	TR	0.20	14.7	B	0.23	15.0	B	TR	0.14	14.2	B	0.17	14.5	B	TR	0.11	14.0	B	0.14	14.2	B	TR	0.11	13.9	B	0.12	14.0	B
	WB	LT	0.38	17.2	B	0.48	18.8	B	LT	0.25	15.4	B	0.30	16.1	B	LT	0.29	15.8	B	0.34	16.5	B	LT	0.27	15.6	B	0.29	15.8	B
	SB	LTR	0.33	8.8	A	0.36	9.1	A	LTR	0.27	8.2	A	0.29	8.4	A	LTR	0.32	8.7	A	0.34	8.8	A	LTR	0.18	7.6	A	0.20	7.6	A
	Intersection			12.8	B		13.9	B			11.5	B		12.0	B			11.6	B		12.2	B			11.7	B		12.0	B
East 144th Street (E-W) @ Grand Concourse (N-S)	EB	LTR	0.47	38.7	D	0.55	40.9	D	LTR	0.38	35.6	D	0.46	37.4	D	LTR	0.49	43.1	D	0.59	46.4	D	LTR	0.23	32.5	C	0.24	32.8	C
	WB	LTR	0.72	49.9	D	0.96	78.4	E	LTR	0.72	48.3	D	0.81	55.4	E	LTR	1.04	106.7	F	1.16	145.5	F	LTR	0.53	39.7	D	0.56	40.8	D
	NB	LTR	0.63	23.4	C	0.73	25.9	C	LTR	0.54	22.7	C	0.57	23.4	C	LTR	0.68	21.5	C	0.72	22.7	C	LTR	0.39	20.4	C	0.42	20.7	C
	SB	DefL	0.87	45.8	D	0.97	76.9	E	DefL	0.49	17.4	B	0.56	19.8	B	DefL	0.68	28.7	C	0.76	41.8	D	DefL	0.25	11.9	B	0.28	12.4	B
		TR	0.32	11.0	B	0.40	11.9	B	TR	0.30	11.7	B	0.33	12.0	B	TR	0.33	9.0	A	0.36	9.3	A	TR	0.31	11.7	B	0.33	12.0	B
	Intersection			26.6	C		33.5	C			23.9	C		25.8	C			30.3	C		36.9	D			20.2	C		20.6	C
East 144th Street (E-W) @ Park Avenue (N-S)	EB	LT	0.88	35.7	D	1.05	74.2	E	LT	0.36	16.9	B	0.40	17.6	B	LT	0.63	23.3	C	0.74	28.0	C	LT	0.28	15.9	B	0.30	16.1	B
	WB	TR	0.29	16.0	B	0.39	17.3	B	TR	0.26	15.6	B	0.30	16.0	B	TR	0.42	17.6	B	0.47	18.3	B	TR	0.18	14.7	B	0.19	14.8	B
	NB	LTR	0.33	16.6	B	0.36	17.1	B	LTR	0.38	17.5	B	0.40	17.8	B	LTR	0.47	18.8	B	0.49	19.2	B	LTR	0.25	15.6	B	0.26	15.8	B
	SB	LR	0.10	14.1	B	0.13	14.4	B	LR	0.06	13.6	B	0.06	13.6	B	LR	0.07	13.9	B	0.08	13.9	B	LR	0.05	13.6	B	0.05	13.6	B
	Intersection			26.9	C		46.6	D			16.6	B		17.0	B			19.7	B		21.7	C			15.4	B		15.5	B

Table 3.15-6: 2018 No-Action Conditions Level of Service Analysis – Typical Day (Con't)

		AM Peak Hour							MD Peak Hour							PM Peak Hour							SAT Peak Hour						
			EXISTING			NO BUILD				EXISTING			NO BUILD				EXISTING			NO BUILD				EXISTING			NO BUILD		
Signalized Intersection	Approach[1]	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS
East 144th Street (E-W) @ Morris Avenue (N-S)	EB	LR	0.30	15.7	B	0.38	16.7	B	LR	0.13	14.1	B	0.16	14.3	B	LR	0.20	14.7	B	0.23	15.0	B	LR	0.25	15.3	B	0.27	15.4	B
	NB	LT	0.60	13.0	B	0.75	18.7	B	LT	0.50	10.6	B	0.54	11.3	B	LT	0.41	9.7	A	0.46	10.4	B	LT	0.29	8.4	A	0.31	8.6	A
	SB	TR	0.57	12.0	B	0.66	14.0	B	TR	0.40	9.5	A	0.43	9.9	A	TR	0.59	12.2	B	0.62	12.9	B	TR	0.40	9.5	A	0.43	9.7	A
	Intersection			13.1	B		16.3	B			10.5	B		11.1	B			11.7	B		12.4	B			10.3	B		10.5	B
East 143rd Street (E-W) @ Morris Avenue (N-S)	EB	LTR	0.34	16.4	B	0.38	17.1	B	LTR	0.26	15.5	B	0.35	16.7	B	LTR	0.31	16.2	B	0.46	18.4	B	LTR	0.18	14.7	B	0.19	14.8	B
	WB	LR	0.49	19.5	B	0.56	21.3	C	LR	0.32	16.6	B	0.35	17.0	B	LR	0.37	17.2	B	0.40	17.8	B	LR	0.31	16.3	B	0.33	16.6	B
	NB	TR	0.41	9.6	A	0.45	10.1	B	TR	0.41	9.6	A	0.44	9.9	A	TR	0.32	8.6	A	0.34	8.8	A	TR	0.25	8.0	A	0.26	8.1	A
	SB	LT	0.31	8.6	A	0.37	9.3	A	LT	0.31	8.7	A	0.33	8.8	A	LT	0.40	9.5	A	0.42	9.7	A	LT	0.34	8.9	A	0.36	9.1	A
	Intersection			12.8	B		13.6	B			11.4	B		12.1	B			11.7	B		12.7	B			10.7	B		10.9	B
East 143rd Street (E-W) @ Third Avenue (N-S) & Alexander Avenue (N-S)	EB	LTR	0.39	12.7	B	0.41	13.2	B	LTR	0.36	12.3	B	0.38	12.6	B	LTR	0.46	13.9	B	0.49	14.4	B	LTR	0.30	11.5	B	0.31	11.7	B
	WB	LTR	0.72	19.9	B	0.78	22.5	C	LTR	0.39	12.6	B	0.41	12.9	B	LTR	0.56	15.3	B	0.59	16.0	B	LTR	0.50	14.3	B	0.53	14.8	B
	NB	LTR	0.34	24.3	C	0.44	26.3	C	LTR	0.22	22.6	C	0.25	23.0	C	LTR	0.22	22.6	C	0.24	22.9	C	LTR	0.34	24.6	C	0.37	25.0	C
	SB	LTR	0.54	30.3	C	0.65	35.1	D	LTR	0.46	27.2	C	0.50	28.2	C	LTR	0.45	26.9	C	0.50	28.0	C	LTR	0.22	22.9	C	0.24	23.1	C
	Intersection			20.3	C		22.8	C			16.7	B		17.2	B			17.6	B		18.3	B			16.1	B		16.5	B
East 140th Street (E-W) @ Grand Concourse (N-S)	EB	LR	0.20	36.7	D	0.21	36.8	D	LR	0.24	37.3	D	0.26	37.7	D	LR	0.44	41.4	D	0.46	41.9	D	LR	0.26	37.8	D	0.27	38.0	D
	NB	LT	0.52	11.4	B	0.61	12.9	B	LT	0.32	9.2	A	0.36	9.6	A	LT	0.69	14.6	B	0.77	16.9	B	LT	0.40	10.0	A	0.43	10.3	B
	SB	TR	0.25	8.6	A	0.30	9.0	A	TR	0.24	8.5	A	0.25	8.6	A	TR	0.28	8.8	A	0.30	9.0	A	TR	0.26	8.6	A	0.27	8.8	A
	Intersection			11.4	B		12.2	B			10.5	B		10.8	B			14.5	B		16.0	B			10.9	B		11.2	B
East 140th Street (E-W) @ Morris Avenue (N-S)	EB	LR	0.29	18.2	B	0.30	18.4	B	LR	0.12	16.3	B	0.13	16.4	B	LR	0.14	16.4	B	0.14	16.5	B	LR	0.11	16.1	B	0.12	16.2	B
	NB	T	0.12	5.5	A	0.13	5.6	A	T	0.16	5.7	A	0.17	5.8	A	T	0.13	5.6	A	0.14	5.6	A	T	0.08	5.4	A	0.09	5.4	A
	SB	T	0.20	5.9	A	0.25	6.2	A	T	0.19	5.9	A	0.22	6.1	A	T	0.18	5.9	A	0.21	6.0	A	T	0.17	5.8	A	0.18	5.9	A
	Intersection			7.9	A		7.9	A			6.6	A		6.7	A			6.6	A		6.7	A			6.6	A		6.7	A
East 139th Street (E-W) @ Morris Avenue (N-S)	WB	LTR	0.45	11.1	B	0.50	11.9	B	LTR	0.32	9.6	A	0.34	9.8	A	LTR	0.51	12.0	B	0.53	12.5	B	LTR	0.41	10.6	B	0.44	10.9	B
	NB	LT	0.33	37.4	D	0.40	38.7	D	LT	0.39	38.2	D	0.41	38.5	D	LT	0.27	36.3	D	0.29	36.5	D	LT	0.25	36.0	D	0.26	36.1	D
	SB	TR	0.65	43.8	D	0.81	51.0	D	TR	0.49	39.9	D	0.55	41.2	D	TR	0.50	40.0	D	0.57	41.7	D	TR	0.50	40.0	D	0.52	40.5	D
	Intersection			28.5	C		32.5	C			28.1	C		29.0	C			25.4	C		26.7	C			25.6	C		25.9	C
East 139th Street (E-W) @ Third Avenue (N-S)	WB	TR	0.34	27.4	C	0.37	28.1	C	TR	0.18	31.3	C	0.19	31.5	C	TR	0.38	35.3	D	0.40	35.8	D	TR	0.30	33.4	C	0.32	33.7	C
	NB	LT	0.22	35.7	D	0.24	35.8	D	LT	0.21	35.6	D	0.23	35.7	D	LT	0.29	36.6	D	0.30	36.8	D	LT	0.26	36.2	D	0.28	36.4	D
	SB	TR	0.76	31.1	C	0.85	37.9	D	TR	0.46	14.9	B	0.49	15.5	B	TR	0.64	19.2	B	0.68	20.3	C	TR	0.57	17.0	B	0.60	17.8	B
	Intersection			31.4	C		35.5	D			22.8	C		23.2	C			26.4	C		27.2	C			24.8	C		25.4	C
East 138th Street (E-W) @ Major Deegan Expwy Off-Ramp NB (N-S)	EB	L	0.62	26.0	C	0.75	32.4	C	L	0.48	18.7	B	0.64	26.7	C	L	0.67	30.1	C	0.84	43.0	D	L	0.63	18.2	B	0.69	22.1	C
		T	0.23	6.6	A	0.30	7.1	A	T	0.15	4.1	A	0.18	4.2	A	T	0.27	4.1	A	0.28	4.2	A	T	0.20	4.3	A	0.21	4.3	A
	WB	TR	0.88	57.1	E	1.00	76.6	E	TR	0.76	38.8	D	0.93	49.8	D	TR	0.71	38.1	D	0.90	46.8	D	TR	0.55	33.4	C	0.59	34.1	C
	NB	LTR	0.78	59.9	E	1.06	104.4	F	LTR	0.68	55.3	E	0.86	68.1	E	LTR	0.96	93.3	F	1.20	168.2	F	LTR	0.84	64.6	E	0.91	73.1	E
	Intersection			38.8	D		55.0	D			30.3	C		39.0	D			33.3	C		50.6	D			27.3	C		29.9	C
East 138th Street (E-W) @ Exterior Street SB (N-S)	EB	TR	0.92	54.2	D	1.00	69.2	E	TR	0.59	28.5	C	0.63	29.2	C	TR	0.81	32.8	C	0.85	34.9	C	TR	0.74	32.1	C	0.78	33.4	C
	WB	L	0.69	53.0	D	0.74	56.9	E	L	0.62	37.6	D	1.05	103.4	F	L	0.61	40.6	D	1.04	108.0	F	L	0.70	42.0	D	0.75	45.8	D
		T	0.76	49.9	D	0.83	52.9	D	T	0.59	34.1	C	0.50	32.4	C	T	0.56	34.2	C	0.59	35.0	C	T	0.44	31.4	C	0.46	31.7	C
	SB	LTR	0.83	36.7	D	1.04	69.4	E	LTR	0.92	50.5	D	1.19	133.5	F	LTR	1.05	86.6	F	1.33	203.0	F	LTR	0.91	48.6	D	1.01	67.4	E
		R	0.59	15.5	B	0.62	16.5	B	R	0.41	15.7	B	0.44	16.3	B	R	0.52	21.9	C	0.56	22.8	C	R	0.43	16.1	B	0.46	16.5	B
	Intersection			43.2	D		58.9	E			35.6	D		69.1	E			45.3	D		83.1	F			35.6	D		42.0	D
East 138th Street (E-W) @ Grand Concourse SB (N-S)	EB	T	0.30	12.0	B	0.41	13.2	B	T	0.21	11.2	B	0.25	11.5	B	T	0.35	12.5	B	0.37	12.8	B	T	0.32	12.1	B	0.34	12.4	B
	WB	T	0.26	11.6	B	0.29	11.9	B	T	0.32	12.2	B	0.40	13.0	B	T	0.32	12.1	B	0.41	13.2	B	T	0.20	11.1	B	0.21	11.2	B
	SB	L	0.39	35.5	D	0.56	39.7	D	L	0.30	33.9	C	0.33	34.3	C	L	0.30	33.7	C	0.32	34.0	C	L	0.32	34.2	C	0.34	34.5	C
		R	0.34	34.9	C	0.38	35.7	D	R	0.30	34.0	C	0.31	34.3	C	R	0.48	38.0	D	0.51	38.8	D	R	0.53	39.5	D	0.56	40.4	D
	Intersection			16.1	B		17.5	B			15.5	B		15.7	B			16.2	B		16.5	B			17.2	B		17.4	B
East 138th Street (E-W) @ Park Avenue (N-S)	EB	LT				1.04	66.4	E	LT	0.48	17.8	B	0.62	21.1	C	LT	0.73	24.4	C				LT	0.60	20.2	C	0.65	21.6	C
		DefL	0.68	30.9	C											DefL				0.99	92.5	F							
		T	0.60	20.9	C											T				0.69	23.6	C							
	WB	TR	0.43	16.8	B	0.52	18.2	B	TR	0.45	17.1	B	0.57	19.2	B	TR	0.50	17.9	B	0.65	20.8	C	TR	0.33	15.4	B	0.36	15.7	B
	NB	L	0.71	41.5	D	0.76	44.0	D	L	0.86	51.8	D	0.92	59.4	E	L	0.91	57.4	E	0.98	72.0	E	L	0.41	31.6	C	0.43	32.2	C
		TR	0.10	26.6	C	0.10	26.7	C	TR	0.19	27.9	C	0.20	28.1	C	TR	0.34	30.3	C	0.36	30.7	C	TR	0.06	26.0	C	0.06	26.1	C
	Intersection			24.7	C		44.6	D			26.7	C		29.4	C			29.9	C		37.4	D			20.4	C		21.2	C
East 138th Street (E-W) @ Canal Place (N-S)	EB	TR	0.36	15.8	B	0.55	18.7	B	TR	0.30	15.1	B	0.37	15.9	B	TR	0.36	15.7	B	0.39	16.1	B	TR	0.35	15.5	B	0.37	15.8	B
	WB	LT	0.40	16.4	B	0.47	17.4	B	LT	0.38	16.0	B	0.41	16.4	B	LT	0.46	17.2	B	0.50	17.8	B	LT	0.30	15.0	B	0.31	15.2	B
	NB	LR	0.11	26.8	C	0.13	27.2	C	LR	0.09	26.5	C	0.12	27.1	C	LR	0.13	27.0	C	0.19	28.3	C	LR	0.08	26.4	C	0.08	26.4	C
	SB	LTR	0.43	32.6	C	0.56	36.3	D	LTR	0.21	28.4	C	0.54	35.8	D	LTR	0.30	29.9	C	0.79	47.8	D	LTR	0.20	28.1	C	0.23	28.7	C
	Intersection			18.7	B		20.8	C			16.9	B		19.5	B			18.2	B		23.4	C			16.7	B		17.0	B
East 138th Street (E-W) @ Rider Avenue (N-S)	EB	LTR	0.51	18.3	B				LTR	0.42	16.8	B	0.70	24.0	C	LTR	0.44	16.9	B	0.50	18.1	B	LTR	0.42	16.6	B	0.46	17.3	B
		DefL				1.23	160.3	F																					
		TR				0.79	29.5	C																					
	WB	LTR	0.44	16.9	B	0.58	19.5	B	LTR	0.45	17.1	B	0.51	18.2	B	LTR	0.44	16.8	B	0.50	17.9	B	LTR	0.34	15.6	B	0.37	15.9	B
	NB	LTR	0.10	26.7	C	0.25	29.0	C	LTR	0.11	26.8	C	0.17	27.7	C	LTR	0.18	27.8	C	0.20	28.2	C	LTR	0.08	26.4	C	0.09	26.5	C
	Intersection			17.9	B		45.3	D			17.3	B		21.3	C			17.5	B		18.6	B			16.4	B		17.0	B
East 138th Street (E-W) @ Third Avenue (N-S) & Morris Avenue (N-S)	EB	LTR	0.63	22.7	C	0.81	31.1	C								LTR	0.74	26.3	C	0.89	37.8	D							
									DefL	0.46	16.2	B	0.54	19.2	B								DefL	0.58	18.3	B	0.59	18.1	B
									TR	0.38	12.6	B	0.42	13.0	B								TR	0.52	14.6	B	0.58	15.8	B
	WB	LTR	0.72	25.3	C	0.97	47.5	D	LTR	0.47	13.2	B	0.54	14.2	B	LTR	0.68	23.8	C	0.80	29.3	C	LTR	0.33	11.5	B			
																							DefL				0.30	12.4	B
																							TR				0.35	12.1	B
	NB	DefL	0.37	20.6	C	0.43	22.8	C	DefL	0.76	51.5	D	0.90	75.4	E	DefL	0.72	38.6	D	0.85	56.3	E	DefL	0.89	80.6	F	1.02	117.4	F
		TR	0.17	15.3	B	0.18	15.4	B	TR	0.26	22.5	C	0.28	22.7	C	TR	0.18	15.4	B	0.19	15.5	B	TR	0.19	21.8	C	0.20	21.9	C
	SB	L	0.23	16.6	B	0.34	18.5	B	L	0.26	23.9	C	0.29	24.5	C	L	0.17	15.8	B	0.19	16.1	B	L	0.23	23.2	C	0.24	23.4	C
		TR	0.36	17.1	B	0.39	17.4	B	TR	0.45	24.5	C	0.49	25.1	C	TR	0.41	17.6	B	0.45	18.0	B	TR	0.56	26.1	C	0.59	26.6	C
	Intersection			20.7	C		30.0	C			20.4	C		22.5	C			22.2	C		27.5	C			22.6	C		24.9	C

Table 3.15-6: 2018 No-Action Conditions Level of Service Analysis – Typical Day (Con't)

Signalized Intersection	Approach[1]	AM Peak Hour						MD Peak Hour						PM Peak Hour						SAT Peak Hour					
			EXISTING			NO BUILD			EXISTING			NO BUILD			EXISTING			NO BUILD			EXISTING			NO BUILD	
		Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS
East 138th Street (E-W) @ Willis Avenue (N-S)	EB	LTR	0.86	45.8	D	0.90	51.4	D	LTR	0.64	25.1	C	0.72	28.5	C	LTR	0.99	67.4	E	1.09	99.9	F	LTR	0.73	27.8	C	0.80	31.8	C
	WB	LTR	0.64	29.1	C	0.77	34.7	C	LTR	0.84	35.2	D	0.90	41.2	D	LTR	0.72	32.7	C	0.77	35.2	D	LTR	0.52	20.8	C	0.56	21.7	C
	NB	LTR	0.60	26.5	C	0.70	29.1	C	LTR	0.67	22.9	C	0.70	23.5	C	LTR	0.88	38.7	D	0.89	39.6	D	LTR	0.47	19.1	B	0.47	18.9	B
	SB	LTR				0.59	30.8	C	LTR	0.19	15.6	B	0.43	20.3	C					0.63	34.3	C	LTR	0.47	19.1	B	0.66	27.5	C
		DefL	0.32	24.6	C											DefL	0.53	39.5	D										
		TR	0.19	19.8	B											TR	0.18	19.8	B										
	Intersection			31.3	C		35.8	D			26.2	C		29.2	C			43.1	D		52.4	D			21.6	C		24.7	C
East 135th Street WB (E-W) @ Third Avenue (N-S)	WB	L	0.52	12.6	B	0.54	13.0	B	L	0.38	10.3	B	0.40	10.5	B	L	0.55	13.0	B	0.58	13.5	B	L	0.58	13.5	B	0.61	14.1	B
		LT	0.40	10.1	B	0.44	10.6	B	LT	0.38	9.8	A	0.40	10.1	A	LT	0.41	10.2	B	0.44	10.4	B	LT	0.26	8.7	A	0.27	8.8	A
	SB	T	0.40	37.5	D	0.43	37.9	D	T	0.31	36.4	D	0.35	36.8	D	T	0.43	38.0	D	0.48	38.7	D	T	0.40	37.5	D	0.42	37.8	D
		R	0.14	35.2	D	0.17	35.7	D	R	0.09	34.3	C	0.12	34.8	C	R	0.11	34.6	C	0.15	35.3	C	R	0.17	35.7	D	0.18	35.9	D
	Intersection			20.2	C		20.6	C			17.7	B		18.3	B			20.2	C		21.1	C			21.0	C		21.4	C
East 135th Street EB (E-W) @ Third Avenue (N-S)	EB	TR	0.41	31.8	C	0.43	32.4	C	TR	0.22	28.4	C	0.24	28.8	C	TR	0.35	30.5	C	0.38	31.0	C	TR	0.37	30.9	C	0.39	31.3	C
		R	0.58	34.8	C	0.61	35.6	D	R	0.35	30.1	C	0.39	30.7	C	R	0.43	31.4	C	0.48	32.3	C	R	0.53	33.3	C	0.56	34.0	C
	NB	R	0.05	32.9	C	0.05	33.1	C	R	0.06	33.2	C	0.07	33.3	C	R	0.09	33.7	C	0.10	33.8	C	R	0.02	32.6	C	0.02	32.6	C
	SB	LT	0.41	15.1	B	0.45	15.5	B	LT	0.34	14.2	B	0.38	14.6	B	LT	0.46	15.6	B	0.50	16.2	B	LT	0.46	15.7	B	0.49	16.0	B
	Intersection			21.4	C		21.8	C			18.3	B		18.7	B			19.8	B		20.5	C			20.5	C		20.9	C
East 135th Street (E-W) @ Lincoln Avenue (N-S)	WB	LTR	0.88	25.3	C	0.94	30.9	C	LTR	0.69	19.3	B	0.74	20.1	C	LTR	0.87	24.0	C	0.91	26.8	C	LTR	0.75	20.4	C	0.79	21.4	C
	NB	LT	0.11	7.2	A	0.11	7.2	A	LT	0.07	7.0	A	0.07	7.0	A	LT	0.13	7.3	A	0.14	7.3	A	LT	0.07	7.0	A	0.08	7.0	A
	SB	TR	0.05	6.9	A	0.05	6.9	A	TR	0.08	7.0	A	0.09	7.0	A	TR	0.04	6.8	A	0.04	6.8	A	TR	0.07	6.9	A	0.07	7.0	A
	Intersection			22.9	C		27.9	C			17.7	B		18.4	B			21.8	C		24.3	C			18.7	B		19.5	B
East 135th Street (E-W) @ Willis Avenue (N-S)	WB	TR	0.63	11.0	B	0.67	11.8	B	TR	0.57	10.1	B	0.60	10.7	B	TR	0.67	11.8	B	0.71	12.6	B	TR	0.57	10.2	B	0.60	10.6	B
	NB	T	0.56	43.4	D	0.67	45.7	D	T	0.42	41.0	D	0.47	41.8	D	T	0.70	46.6	D	0.74	47.8	D	T	0.75	48.2	D	0.79	49.9	D
	SB	R	0.25	39.3	D	0.51	46.6	D	R	0.18	38.3	D	0.36	42.7	D	R	0.19	38.4	D	0.39	43.2	D	R	0.19	38.4	D	0.39	43.2	D
	Intersection			19.8	B		21.8	C			17.4	B		18.4	B			21.6	C		22.7	C			22.7	C		23.7	C
West 145th Street (E-W) @ Lenox Avenue (N-S)	EB	LTR	0.66	25.6	C	0.75	28.2	C	LTR	0.60	24.2	C	0.69	26.3	C	LTR	0.85	33.1	C	1.01	55.8	E	LTR	0.70	26.6	C	0.86	34.0	C
	WB	DefL	0.98	74.9	E	1.17	120.2	F	DefL	0.49	16.3	B	0.58	19.8	B	DefL	1.01	77.0	E	1.15	128.5	F	DefL	0.60	20.7	C	0.78	34.3	C
		TR	0.68	18.6	B	0.73	20.4	C	TR	0.51	14.9	B	0.61	16.8	B	TR	0.70	19.2	B	0.88	29.1	C	TR	0.47	14.2	B	0.64	17.5	B
	NB	L	0.49	28.3	C	0.55	30.5	C	L	0.44	27.2	C	0.46	28.1	C	L	0.52	32.7	C	0.62	35.1	D	L	0.54	31.5	C	0.57	38.8	D
		LTR	0.50	25.4	C	0.53	26.0	C	LTR	0.44	24.5	C	0.46	25.0	C	LTR	0.56	26.0	C	0.60	26.6	C	LTR	0.52	26.1	C	0.56	27.0	C
	SB	LTR	0.17	21.0	C	0.19	21.2	C	LTR	0.15	21.1	C	0.16	20.8	C	LTR	0.29	22.6	C	0.31	22.8	C	LTR	0.22	21.5	C	0.24	21.7	C
	Intersection			30.3	C		37.8	D			21.8	C		22.7	C			31.6	C		46.4	D			23.3	C		27.9	C
West 138th Street (E-W) @ Fifth Avenue (N-S)	WB	L	0.63	23.7	C	0.68	25.2	C	L	0.27	17.2	B	0.33	18.1	B	L	0.45	19.9	B	0.48	20.4	C	L	0.34	18.1	B	0.35	18.3	B
		LTR	0.69	23.5	C	0.75	25.0	C	LTR	0.46	19.2	B	0.57	20.8	C	LTR	0.67	23.1	C	0.72	24.3	C	LTR	0.51	19.9	B	0.54	20.3	C
	NB	LTR	0.34	20.8	C	0.36	21.1	C	LTR	0.23	19.6	B	0.24	19.7	B	LTR	0.36	21.2	C	0.38	21.5	C	LTR	0.29	20.2	C	0.30	20.4	C
	SB	LTR	0.32	20.6	C	0.34	20.8	C	LTR	0.21	19.3	B	0.22	19.5	B	LTR	0.35	21.0	C	0.37	21.2	C	LTR	0.32	20.6	C	0.34	20.8	C
	Intersection			22.6	C		23.7	C			19.0	B		20.0	B			21.8	C		22.5	C			19.8	B		20.1	C
East 135th Street (E-W) @ Madison Avenue (N-S)	EB	L	0.74	47.3	D	0.81	53.2	D	L	0.70	44.8	D	0.74	47.6	D	L	1.05	99.7	F	1.10	117.3	F	L	0.99	83.9	F	1.04	96.9	F
		LT	0.64	41.0	D	0.69	43.5	D	LT	0.68	43.2	D	0.72	45.6	D	LT	0.86	58.4	E	0.90	64.8	E	LT	0.86	59.2	E	0.91	65.9	E
	WB (SR)	TR	0.36	33.1	C	0.40	33.9	C	TR	0.25	30.8	C	0.27	31.1	C	TR	0.37	33.4	C	0.39	33.8	C	TR	0.12	28.8	C	0.13	28.9	C
	WB (Ramp)	TR	0.84	46.5	D	0.89	51.5	D	TR	0.72	40.2	D	0.76	41.9	D	TR	0.89	50.8	D	0.94	57.0	E	TR	0.85	47.2	D	0.90	51.6	D
	NB	L	0.45	30.7	C	0.47	31.1	C	L	0.46	30.9	C	0.48	31.4	C	L	0.43	30.2	C	0.45	30.7	C	L	0.46	30.9	C	0.48	31.3	C
		TR	0.94	50.3	D	1.02	69.0	E	TR	0.67	33.4	C	0.71	34.6	C	TR	1.05	75.7	E	1.10	95.3	F	TR	0.90	45.9	D	0.95	52.4	D
	SB	R	0.36	28.2	C	0.39	28.6	C	R	0.23	26.5	C	0.28	27.1	C	R	0.30	27.4	C	0.32	27.6	C	R	0.36	28.1	C	0.38	28.4	C
	Intersection			43.5	D		52.2	D			36.4	D		37.7	D			63.3	E		74.9	E			49.2	D		54.9	D

Unsignalized Intersection	Approach[1]	AM Peak Hour						MD Peak Hour						PM Peak Hour						SAT Peak Hour					
			EXISTING			BUILD			EXISTING			NO BUILD			EXISTING			BUILD			EXISTING			BUILD	
		Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS
East 138th Street (E-W) @ Canal Street (N-S)	NB	LR	0.07	14.6	B	0.11	20.9	C	LR	0.10	14.0	B	0.16	17.9	C	LR	0.12	17.4	C	0.17	22.0	C	LR	0.06	13.9	B	0.07	14.6	B
	Intersection			-	-		-	-			-	-		-	-			-	-		-	-			0.0	0		-	-
East 140th Street (E-W) @ Exterior St NB (N-S)	WB	R	0.09	9.7	A	0.15	12.0	B	R	0.05	10.9	B	0.07	12.4	B	R	0.09	10.3	B	0.10	10.7	B	R	0.02	8.8	A	0.02	8.9	A
	Intersection			-	-		-	-			-	-		-	-			-	-		-	-			0.0	0		-	-
East 144th Street (E-W) @ Exterior Street (N-S)	EB	LTR	0.10	16.8	C	0.14	21.6	C	LTR	0.02	11.1	B	0.02	11.9	B	LTR	0.00	0.0	A	0.00	0.0	A	LTR	0.00	0.0	A	0.00	0.0	A
	WB	LTR	0.21	13.8	B	0.44	20.1	C	LTR	0.14	13.2	B	0.23	14.6	B	LTR	0.08	11.2	B	0.14	12.9	B	LTR	0.07	9.4	A	0.09	9.8	A
	Intersection			-	-		-	-			-	-		-	-			-	-		-	-			-	-		-	-
East 146th Street (E-W) @ Exterior Street (N-S)	NB	TR	0.17	10.3	B	0.21	10.6	B	TR	0.36	12.6	B	0.40	13.1	B	TR	0.26	10.6	B	0.30	11.0	B	TR	0.10	9.5	A	0.10	9.6	A
	SB	LT	0.49	14.0	B	0.65	17.9	C	LT	0.45	14.3	B	0.53	16.0	C	LT	0.42	12.2	B	0.50	13.4	B	LT	0.38	11.6	B	0.45	12.5	B
	Intersection			-	-		-	-			-	-		-	-			-	-		-	-			-	-		-	-
East 146th Street (E-W) @ Gerard Avenue (N-S)	NB	LTR	0.21	10.6	B	0.23	10.8	B	LTR	0.26	10.6	B	0.28	10.8	B	LTR	0.27	10.8	B	0.29	11.0	B	LTR	0.16	10.2	B	0.17	10.2	B
	Intersection			-	-		-	-			-	-		-	-			-	-		-	-			0.0	0		-	-

Notes:
1. EB - Eastbound, WB - Westbound, NB - Northbound, SB - Southbound
2. L - Left, T- Through, R - Right, DefL - De Facto Left Turn
Congested intersections are designated by shading.

AM Peak Hour

- East 149th Street with Exterior Street, River Avenue and the MDE NB Off-Ramp: The westbound left turn lane would operate at LOS F with 173.9 average seconds of delay and a v/c ratio of 1.10. The westbound through and right turn lane group would operate at LOS E with 56.8 average seconds of delay. The northbound Exterior Street de facto left turn lane would operate at LOS E with 70.8 average seconds of delay. Southbound River Road would operate at LOS E with 61.0 average seconds of delay.

- East 149th Street and Morris Avenue: The northbound approach would deteriorate to LOS F with 137.3 average seconds of delay and a v/c ratio of 1.16.

- East 144th Street and Grand Concourse: The westbound East 144th Street approach would deteriorate to LOS E with 78.4 average seconds of delay and a v/c ratio of 0.96. The southbound de facto left turn lane would deteriorate to LOS E with 76.9 average seconds of delay and a v/c ratio of 0.97.

- East 144th Street and Park Avenue: The eastbound approach would deteriorate to LOS E with 74.2 average seconds of delay and a v/c ratio of 1.05.

- East 138th Street and the MDE NB Off-Ramp: The northbound MDE off-ramp would deteriorate to LOS F with 104.4 average seconds of delay and a v/c ratio of 1.06. The westbound East 138th Street approach would deteriorate further in LOS E with 76.6 average seconds of delay and a v/c ratio of 1.00.

- East 138th Street and Exterior Street: The southbound Exterior Street left turn, through and right turn lane group would deteriorate to LOS E with 69.4 average seconds of delay and a v/c ratio of 1.04. The eastbound East 138th Street approach from the Madison Avenue Bridge would deteriorate to LOS E with 69.2 average seconds of delay and a v/c ratio of 1.00. The westbound left turn lane would deteriorate to LOS E with 56.9 average seconds of delay. The overall intersection would operate at LOS E with 58.9 average seconds of delay.

- East 138th Street with Park Avenue: The eastbound approach would deteriorate to LOS E with 66.4 average seconds of delay and a v/c ratio of 1.04.

- East 138th Street and Rider Avenue: The eastbound de facto left turn would operate at LOS F with 160.3 average seconds of delay and a v/c ratio of 1.23.

- East 138th Street and Willis Avenue: The eastbound approach would operate with a v/c ratio of 0.90.

- East 135th Street and Lincoln Avenue: The westbound approach would operate with a v/c ratio of 0.94.

- West 145th Street and Lennox Avenue: The de facto left turn on the westbound approach from the 145th Street Bridge would deteriorate to LOS F with 120.2 average seconds of delay and a v/c ratio of 1.17.

- East 135th Street and Madison Avenue: The through and right turn lane group on the northbound Madison Avenue approach would deteriorate to LOS E with 69.0 average seconds of delay and a v/c ratio of 1.02.

Midday Peak Hour

- East 149th Street with Exterior Street, River Avenue and the MDE NB Off-Ramp: The northbound Exterior Street de facto left turn lane would operate at LOS E with 59.0 average seconds of delay.

- East 149th Street and Morris Avenue: The northbound Morris Avenue approach would deteriorate to LOS F with 94.9 average seconds of delay and a v/c ratio of 1.04.

- East 144th Street and Grand Concourse: The westbound East 144th Street approach would deteriorate to LOS E with 55.4 average seconds of delay.

- East 138th Street and the MDE NB Off-Ramp: The northbound MDE off-ramp would deteriorate further in LOS E with 68.1 average seconds of delay and a v/c ratio of 0.86. The westbound East 138th Street approach would operate with a v/c ratio of 0.93.

- East 138th Street and Exterior Street: The southbound Exterior Street left turn, through and right turn lane group would deteriorate to LOS F with 133.5 average seconds of delay and a v/c ratio of 1.19. The westbound left turn lane would deteriorate to LOS F with 103.4 average seconds of delay and a v/c ratio of 1.05. The overall intersection of East 138th Street and Exterior Street would operate at LOS E with 69.1 average seconds of delay.

- East 138th Street with Park Avenue: The northbound left turn lane would deteriorate to LOS E with 59.4 average seconds of delay and a v/c ratio of 0.92.

- East 138th Street with Morris Avenue and Third Avenue: The northbound de facto left turn lane would deteriorate to LOS E with 75.4 average seconds of delay and a v/c ratio of 0.90.

PM Peak Hour

- East 149th Street with Exterior Street, River Avenue and the MDE NB Off-Ramp: The eastbound left turn lane from the 145th Street Bridge would operate at LOS F with 240.4 average second of delay and a v/c ratio of 1.41. The northbound Exterior Street de facto left turn lane would operate at LOS F with 110.3 average seconds of delay and a v/c ratio of 0.93. The MDE northbound off-ramp would operate at LOS E with 68.2 average seconds of delay and a v/c ratio of 0.98. The southbound Exterior Street de facto left turn lane would deteriorate to LOS F with 263.4 average seconds of delay and a v/c ratio of 1.33 and southbound River Road would operate at LOS E

with 63.2 average seconds of delay. The overall intersection would operate at LOS E with 74.4 average seconds of delay.

- East 149th Street and Morris Avenue: The northbound Morris Avenue approach would deteriorate further in LOS F with 131.6 average seconds of delay and a v/c ratio of 1.15.

- East 144th Street and Grand Concourse: The westbound East 144th Street approach would deteriorate further in LOS F with 145.5 average seconds of delay and a v/c ratio of 1.16.

- East 138th Street and the MDE NB Off-Ramp: The northbound MDE off-ramp would deteriorate further in LOS F with 168.2 average seconds of delay and a v/c ratio of 1.20. The westbound East 138th Street approach would operate with a v/c ratio of 0.90.

- East 138th Street and Exterior Street: The westbound East 138th Street left turn lane would deteriorate to LOS F with 108.8 average seconds of delay and a v/c ratio of 1.04. The southbound Exterior Street left turn, through and right turn lane group would deteriorate further in LOS F with 203.0 average seconds of delay and a v/c ratio of 1.33. The overall intersection of East 138th Street with southbound Exterior Street would operate at LOS F with 83.1 average seconds of delay.

- East 138th Street and Park Avenue: The eastbound East 138th Street de facto left turn lane would operate at LOS F with 92.5 average seconds of delay and a v/c ratio of 0.99.

- East 138th Street with Morris Avenue and Third Avenue: The northbound de facto left turn lane would operate at LOS E with 56.3 average seconds of delay.

- East 138th Street and Willis Avenue: The eastbound East 138th Street approach would deteriorate to LOS F with 95.5 average seconds of delay and a v/c ratio of 1.08. The northbound Willis Avenue approach would operate at a v/c ratio of 0.94.

- East 135th Street and Lincoln Avenue: The westbound approach would operate at a v/c ratio of 0.91.

- West 145th Street and Lennox Avenue: The de facto left turn on the westbound approach from the 145th Street Bridge would deteriorate to LOS F with 128.5 average seconds of delay and a v/c ratio of 1.15. The eastbound approach would deteriorate to LOS E with 55.8 average seconds of delay and a v/c ratio of 1.01.

- East 135th Street and Madison Avenue: The exclusive eastbound East 135th Street left turn lane would deteriorate further in LOS F with 117.3 average seconds of delay and a v/c ratio of 1.10. The northbound Madison Avenue through and right turn shared lane would deteriorate to LOS F with 95.3 average seconds of delay and a v/c ratio of 1.10 and the westbound ramp would deteriorate to LOS E with 57.0 average seconds of delay and a v/c ratio of 0.94.

Saturday Peak Hour

- East 149th Street with Exterior Street, River Avenue and the MDE NB Off-Ramp: The eastbound left turn lane would operate at LOS E with 63.6 average seconds of delay and a v/c ratio of 0.91. The southbound Exterior Street de facto left turn lane would operate at LOS F with 116.2 average seconds of delay and a v/c ratio of 1.00. Southbound River Road would operate at LOS E with 62.5 average seconds of delay.

- East 138th Street and the MDE NB Off-Ramp: The northbound MDE off-ramp would deteriorate within LOS E with 73.1 average seconds of delay and a v/c ratio of 0.91.

- East 138th Street and Exterior Street: The southbound left turn, through and right turn lane group would deteriorate to LOS E with 67.4 average seconds of delay and a v/c ratio of 1.01.

- East 138th Street with Morris Avenue and Third Avenue: The northbound de facto left turn lane would deteriorate further in LOS F with 117.4 average seconds of delay and a v/c ratio of 1.02.

Parking

The utilization of both off-street and on-street parking facilities in the study area would increase due to the area's background growth (5.0 percent over existing demand by 2018). Additionally, in the future without the proposed action, the as-of-right retail, office, warehouse/manufacturing and academic related development will further increase daytime parking demand.

Table 13.5-7 provides the projected 2018 parking demand and available capacity in the study area for weekday midday and overnight conditions, excluding the effects of street cleaning and night time regulations in effect on certain days, as discussed in Section 3.15.2. Midday parking demand in the study area is projected to increase by nearly 950 spaces, largely due to the projected development of nearly 600,000 square feet of office space, and approximately 300,000 square feet of manufacturing/warehouse and community facility space in the study area by 2018. Since little existing midday on-street capacity is available, existing utilization and future demand is presented as combined for both on-street supply and off-street facilities. A shortfall of over 700 midday spaces is projected. Overnight, however, little increase in demand is anticipated as the development anticipated in the study area absent the proposed action would generate primarily weekday daytime parking demand.

Table 13.5-7: No-Action Parking Conditions

Time Period	Parking Supply	Existing Utilization	2018 Demand Increment	2018 Available Capacity
Midday	3,487	3,272	947	(732)
Overnight	3,585	2,453	123	1009

Source: PB Americas Field Survey, September 2008

3.15.4 PROBABLE IMPACTS OF THE PROPOSED ACTION

The assessment of potential adverse impacts associated with the proposed action begins with and is based upon the future No-Action conditions described in the preceding section. As with the future No-Action evaluation, 2018 is used as the analysis year for assessing project impacts, considered as when all projected developments defined in the RWCDS and described in Chapter 3.1 are assumed to be in-place.

Projected Development

If the proposed action is implemented, it is projected that 31 development sites within the rezoning area would be redeveloped, consisting by 2018 of a total aggregate of 3,416 residential dwelling units, including 591 affordable dwelling units; 841,535 square feet of commercial space; 95,500 square feet of warehouse/manufacturing space; and 154,289 square feet of community facility space. However, the assessment of the potential impacts of the proposed action is measured in relation to the No-Action development level expected to occur in the rezoning area. Compared to the No-Action condition, by 2018 the proposed action is expected to generate a net change in development of approximately 3,414 residential dwelling units; 735,447 square feet of commercial space (571,162 square feet of retail space and 164,285 square feet of hotel space); 63,700 square feet of community facilities; a decrease of 598,351 square feet of office space; and a decrease of 308,872 square feet of warehouse/manufacturing space.

Trip Generation

The projection of future trips was developed based on trip generation and travel characteristics of the existing land uses that would be displaced within the rezoning area and those projected to be developed under No-Action and With Action conditions. The trip generation rates, temporal distributions and mode splits were based on accepted *CEQR Technical Manual* criteria, standard professional references, and studies that have been performed for similar uses in the Bronx and other outer New York City boroughs with similar levels of transit access, supplemented by 2000 Census journey-to-work and reverse journey-to-work data for census tracts in the study area. In addition, the trip generation characteristics of two existing facilities in the study area, a concrete recycling plant and school bus storage facility, were determined to be atypical special uses and trip generation characteristics were quantified by field survey.

The transportation planning factors developed and utilized for trip generation, temporal distribution and mode splits for the rezoning area land uses are provided in Table 3.15-8 (on the following page). Certain refinements in land uses were made from the aggregate totals stated above, such as disaggregating manufacturing/warehousing into manufacturing, warehousing, mini-warehouse and auto-care center, to more accurately represent the trip generation, temporal distribution, mode choice, etc. characteristics of these uses.

Table 3.15-8: Transportation Planning Factors

Land Use:	Residential		Local Retail		Supermarket		Public Open Space		Hotel		Academic	
Trip Generation:	(1)	(11)	(5)	(22)	(4) (24)	(4) (24)	(8)	(8)	(11)	(11)	(11)	(11)
	Weekday	**Saturday**	**Weekday**	**Saturday**	**Weekday**	**Saturday**	**Weekday**	**Saturday**	**Weekday**	**Saturday**	**Weekday**	**Saturday**
Daily Person Trips	8.075	7.678	82.56	82.56	97.5	98.25	139	158	5.82	8.61	26.60	10.87
	per dwelling unit		per 1,000 gsf		per 1,000 gsf		per acre		per room		per 1,000 gsf	
Temporal Distribution:	(1,11)		(5,11)		(4)		(8)		(11)		(11)	
AM	9.1%		3.1%		3.7%		n/a		6.6%		7.2%	
MD	4.7%		19.0%		6.4%		12.0%		8.3%		10.7%	
PM	10.7%		9.6%		6.8%		10.0%		7.7%		12.6%	
SAT MD	8.2%		9.5%		9.8%		20.0%		8.5%		12.6%	
In/Out Splits:	(1,11)		(5,11)		(4)		(8)		(11)		(5,11)	
	In	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**
AM	15%	85%	50%	50%	50%	50%	n/a	n/a	41%	59%	100%	0%
MD	50%	50%	50%	50%	50%	50%	45%	55%	68%	32%	52%	48%
PM	70%	30%	50%	50%	50%	50%	55%	45%	59%	41%	66%	34%
SAT MD	50%	50%	50%	50%	50%	50%	55%	45%	56%	44%	57%	43%
Modal Splits:	(2)		(5)		(4)		(8)		(8)		(5)	
Auto	22%		3%		70%		12%		70%		20%	
Taxi	0%		2%		2%		0%		15%		1%	
Bus	15%		10%		4%		5%		5%		47%	
Subway	51%		5%		1%		5%		5%		24%	
Walk	12%		80%		23%		78%		5%		8%	
	100.0%		100.0%		100.0%		100.0%		100.0%		100.0%	
Vehicle Occupancy:	(2, 4)		(5)		(4)		(8)		(11)		(5)	
Auto	1.50		1.60		1.30		2.80		1.60		1.10	
Taxi	1.40		1.20		1.40		n/a		1.40		1.10	
Truck Trip Generation:	(4)	(23)	(5)	(23)	(6)	(19)			(11)	(23)	(5)	(19)
	Weekday	**Saturday**	**Weekday**	**Saturday**	**Weekday**	**Saturday**	**Weekday**	**Saturday**	**Weekday**	**Saturday**	**Weekday**	**Saturday**
	0.07	0.01	0.45	0.02	0.52	0.03	n/a	n/a	0.10	0.01	0.03	0.00
	per dwelling unit		per 1,000 gsf		per 1,000 gsf				per room		per 1,000 gsf	
	(9,10)		(5,17)		(6,10)				(11,24)		(5,10)	
AM	12.2%		9.7%		14.0%		n/a		14.0%		9.7%	
MD	8.7%		7.8%		8.6%		n/a		8.6%		7.8%	
PM	1.0%		5.1%		1.0%		n/a		1.0%		7.8%	
SAT MD	8.7%		11.0%		8.6%		n/a		9.0%		7.8%	
	In	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**
	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	n/a	n/a	50.0%	50.0%	50.0%	50.0%

Sources:

(1) Pushkarev & Zupan, "Urban Space for Pedestrians," 1975.
(2) 2000 US Census Journey-to-Work "Residence of Worker" data for Tracts 47, 49, 53.01, and 57.
(3) No. 7 Subway Extension - Hudson Yards Rezoning and Development Program FGEIS, 2004.
(4) Hunts Point Rezoning EAS, 2007.
(5) Melrose Commons Urban Renewal Amendments DEIS, 2007.
(6) Plaza at the Hub EAS, 2005.
(7) Greenpoint-Williamsburg Rezoning FEIS, 2005.
(8) Gateway Center at Bronx Terminal Market FEIS, 2005.
(9) FHWA, "Curbside Pickup and Delivery and Arterial Traffic Impacts," 1981.
(10) Assumes weekday MD temporal distribution for SAT MD.
(11) The Jamaica Plan FEIS, 2007.
(12) Port Morris/Bruckner Boulevard Rezoning Study EAS, 2004.
(13) 2000 US Census Reverse Journey-to-Work "Place of Work" data for Tracts 47, 49, 53.01, and 57.
(14) ITE Trip Generation, 7th Edition, Land Use Code 151: Mini-Warehouse.
(15) ITE Trip Generation, 7th Edition, Land Use Code 945: Gasoline/Service Station with Convenience Market.
(16) Pass-by trips assumed to be 45% based on ITE Trip Generation Handbook (1998).
(17) ITE Trip Generation, 7th Edition, Land Use Code 840: Automobile Care Center.
(18) ITE Trip Generation, 7th Edition, Land Use Code 140: Manufacturing.
(19) Assumes 5% of weekday trip generation rate.
(20) ITE Trip Generation, 7th Edition, Land Use Code 150: Warehouse.
(21) Saturday rate based on ITE Trip Generation rate variation between weekday and Saturday.
(22) Weekday trip generation rate assumed for Saturday as per Jamaica Plan FEIS, 2007.
(23) Atlantic Yards Arena and Redevelopment Project FEIS, 2006.
(24) Assumes 25% pass by trips as per Dutch Kills Rezoning Transportation Planning Assumptions

Table 3.15-8: Transportation Planning Factors (Con't)

Land Use:	Manufacturing		Warehousing		Mini-Warehouse		Auto Care Center		Office		Gas Station (With Store)	
Trip Generation:	(12)	(21)	(12)	(21)	(14)	(14)	(7)	(7)	(4)	(4)	(15, 16)	(15, 16)
	Weekday	**Saturday**	**Weekday**	**Saturday**	**Weekday**	**Saturday**	**Weekday**	**Saturday**	**Weekday**	**Saturday**	**Weekday**	**Saturday**
Daily Person Trips	4.5	1.8	5.8	1.4	4.0	3.8	19.42	19.42	18.0	1.6	90.0	90.0
	per 1,000 gsf		per 1,000 gsf		per 1,000 gsf		per 1,000 gsf		per 1,000 gsf		vehicle trips per fueling position	
Temporal Distribution:	(4,12)		(4,12)		(3,4)		(7,10)		(1,4)		(3)	
AM	14.0%		17.0%		10.7%		13.2%		11.8%		6.2%	
MD	19.0%		14.0%		11.0%		11.0%		15.0%		5.5%	
PM	17.0%		13.0%		11.2%		14.2%		13.7%		8.2%	
`	11.4%		11.4%		11.4%		11.0%		15.0%		5.5%	
In/Out Splits:	(12,18)		(12,20)		(12)		(7,17)		(1,11)		(3)	
	In	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**
AM	77%	23%	83%	17%	59%	41%	65%	35%	96%	4%	50%	50%
MD	50%	50%	50%	50%	50%	50%	50%	50%	39%	61%	50%	50%
PM	36%	64%	25%	75%	51%	49%	50%	50%	5%	95%	50%	50%
SAT MD	50%	50%	50%	50%	50%	50%	50%	50%	60%	40%	50%	50%
Modal Splits:	(13)		(13)		(3)		(7)		(13)		(3)	
Auto	46%		46%		95%		85%		46%		100%	
Taxi	2%		2%		0%		5%		2%		n/a	
Bus	16%		16%		0%		1%		16%		n/a	
Subway	29%		29%		0%		1%		29%		n/a	
Walk	7%		7%		5%		8%		7%		n/a	
	100.0%		100.0%		100.0%		100.0%		100.0%		100.0%	
Vehicle Occupancy:	(12)		(12)		(14)		(7)		(4)		(3)	
Auto	1.04		1.04		1.55		1.30		1.30		1.00	
Taxi	2.00		2.00		n/a		1.30		1.40		n/a	
Truck Trip Generation:	(3)	(19)	(7)	(19)			(7)	(19)	(9)	(23)	(3)	(19)
	Weekday	**Saturday**	**Weekday**	**Saturday**	**Weekday**	**Saturday**	**Weekday**	**Saturday**	**Weekday**	**Saturday**	**Weekday**	**Saturday**
	0.52	0.03	0.67	0.03	n/a	n/a	0.89	0.05	0.15	0.01	0.35	0.02
	per 1,000 gsf		per 1,000 gsf				per 1,000 gsf		per 1,000 gsf		vehicle trips per fueling position	
	(3,10)		(3,10)				(7,10)		(3,24)		(3,10)	
AM	14.0%		14.0%		n/a		14.0%		9.6%		7.7%	
MD	8.6%		9.0%		n/a		9.0%		11.0%		11.0%	
PM	1.0%		1.0%		n/a		1.0%		1.0%		1.0%	
SAT MD	8.6%		9.0%		n/a		9.0%		11.0%		11.0%	
	In	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**
	50.0%	50.0%	50.0%	50.0%	n/a	n/a	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%

Sources:

(1) Pushkarev & Zupan, "Urban Space for Pedestrians," 1975.
(2) 2000 US Census Journey-to-Work "Residence of Worker" data for Tracts 47, 49, 53.01, and 57.
(3) No. 7 Subway Extension - Hudson Yards Rezoning and Development Program FGEIS, 2004.
(4) Hunts Point Rezoning EAS, 2007.
(5) Melrose Commons Urban Renewal Amendments DEIS, 2007.
(6) Plaza at the Hub EAS, 2005.
(7) Greenpoint-Williamsburg Rezoning FEIS, 2005.
(8) Gateway Center at Bronx Terminal Market FEIS, 2005.
(9) FHWA, "Curbside Pickup and Delivery and Arterial Traffic Impacts," 1981.
(10) Assumes weekday MD temporal distribution for SAT MD.
(11) The Jamaica Plan FEIS, 2007.
(12) Port Morris/Bruckner Boulevard Rezoning Study EAS, 2004.
(13) 2000 US Census Reverse Journey-to-Work "Place of Work" data for Tracts 47, 49, 53.01, and 57.
(14) ITE Trip Generation, 7th Edition, Land Use Code 151: Mini-Warehouse.
(15) ITE Trip Generation, 7th Edition, Land Use Code 945: Gasoline/Service Station with Convenience Market.
(16) Pass-by trips assumed to be 45% based on ITE Trip Generation Handbook (1998).
(17) ITE Trip Generation, 7th Edition, Land Use Code 840: Automobile Care Center.
(18) ITE Trip Generation, 7th Edition, Land Use Code 140: Manufacturing.
(19) Assumes 5% of weekday trip generation rate.
(20) ITE Trip Generation, 7th Edition, Land Use Code 150: Warehouse.
(21) Saturday rate based on ITE Trip Generation rate variation between weekday and Saturday.
(22) Weekday trip generation rate assumed for Saturday as per Jamaica Plan FEIS, 2007.
(23) Atlantic Yards Arena and Redevelopment Project FEIS, 2006.
(24) Assumes 25% pass by trips as per Dutch Kills Rezoning Transportation Planning Assumptions

The incremental difference in person trips by mode and vehicle trips expected to result from the proposed action by the 2018 study year was derived for the rezoning area. Table 3.15-9 provides the estimated incremental net change in peak hour person and vehicle trips (versus the No-Action condition) that would occur in 2018 with the implementation of the proposed action. This forecast represents the net difference of the trips generated on each of the 31 development sites less the trips generated by the land use displaced on each site. In total, the number of additional peak hour person trips that would be generated in 2018 by the proposed action ranges from a minimum of approximately 2,800 during the AM peak hour to nearly 8,200 during the weekday midday peak hour. The proposed action would generate a maximum of approximately 1,320 additional subway trips during the PM peak hour, and a maximum of approximately 800 additional bus trips during the midday peak hour. The maximum weekday increment of approximately 290 vehicle trips would occur during the PM peak hour, but the highest net increase in vehicle trips above No-Action levels would occur during the Saturday peak hour when approximately 944 additional vehicle trips would be generated. The maximum increment in vehicle trips occurs on Saturday due to the relative low level of travel generated on Saturday by the displaced land uses in the rezoning area under No-Action conditions and the projected Saturday trip patterns of the residential and retail components of the proposed action.

Table 3.15-9: 2018 With Action Trip Generation Increment

Peak Hour Person Trips													
Analysis Time Period	Auto		Taxi		Bus		Subway		Walk		Total		
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
AM Peak Hour	-416	543	-2	25	-39	384	-118	1,106	511	802	-64	2,860	2,796
Midday Peak Hour	160	-38	87	72	429	370	363	261	3,256	3,231	4,294	3,895	8,189
PM Peak Hour	649	-236	57	26	547	142	1,154	162	1,913	1,674	4,320	1,768	6,088
Saturday Peak Hour	567	559	66	62	381	381	639	644	1,819	1,815	3,472	3,460	6,932

Peak Hour Vehicle Trips									
Analysis Time Period	Auto		Taxi		Truck/Bus		Total		
	In	Out	In	Out	In	Out	In	Out	Total
AM Peak Hour	-348	351	19	19	-43	-35	-372	335	-37
Midday Peak Hour	75	-72	109	109	-14	-18	170	19	189
PM Peak Hour	430	-229	74	74	-51	-11	453	-166	287
Saturday Peak Hour	387	383	82	82	5	5	474	470	944

Trip Distribution and Assignment

Specific vehicle trip distributions were derived for residential, office/manufacturing and local retail land uses, representing the primary existing land uses and projected land uses under the proposed action, in the rezoning area. The residential distribution was derived from 2000 Census journey to work patterns for residential land uses in the south Bronx and assigned directionally to either highways or local streets based upon trip destination and length. The office/manufacturing distribution was derived from 2000 Census reverse journey to work patterns for trips into the south Bronx and similarly assigned. The retail distribution was based upon the relative proportion of households within one mile of the rezoning area, adjusted downward for retail trips into the rezoning area from Manhattan based upon several factors, including the availability of retail in Manhattan and the potential of delays that may be encountered at Harlem River crossings that would discourage such a trip. Since retail trips are expected to be

relatively short, minimal highway use was assumed. Trip distributions were also developed for taxi and truck trips. Taxi trips were assumed to reflect the general short trip distribution of local retail trips and truck trips were distributed based upon NYCDOT-designated truck routes in the study area, which include the Harlem River Bridges, the MDE/Bruckner Expressway, East 149th Street, East 138th Street, Third Avenue, River Avenue, Willis Avenue and Bruckner Boulevard. Based on this analysis, project-generated auto trips were distributed as follows:

- Most of the auto trips to and from residences located within the rezoning area were distributed to either the MDE to the north or east or to one of the Harlem River Bridges to Manhattan. Approximately 28 percent of the vehicle trips entering or leaving the area were distributed to the MDE to or from the north, and 18 percent to and from the east. Approximately 34 percent of the vehicle trips were distributed to one of the Harlem River Bridges to and from Manhattan, with most to the Third Avenue Bridge outbound and Willis Avenue Bridge inbound. The remaining approximately 20 percent were distributed on local streets to the north or east.

- Auto trips to and from office/manufacturing land uses located in the rezoning area were distributed in a generally similar pattern as that above with somewhat higher utilization of the MDE. Approximately 38 percent of the auto trips were assigned to the MDE to and from the north and 32 percent to and from the east. Approximately 20 percent of the auto trips to and from office/manufacturing land uses were assigned to the Harlem River Bridges to and from Manhattan, with the remaining 20 percent distributed on local streets to the north or east.

- The local retail auto trips distribution assigned was approximately 40 percent to and from Manhattan and 60 percent on local streets to and from the north and east.

Assignments of the net change in vehicle trips entering and leaving the study area relative to the No-Action condition, as indicated in Table 3.15-9, to specific roadways were developed for the weekday AM, midday, PM and Saturday midday analysis hours, and are illustrated on Figure 3.15-11 (A-C) through Figure 3.15-14 (A-C). Overall, the trip vehicle trip assignments at the study area cordons reflect the roadway network characteristics and usage in the study area. Since the land use characteristics of the rezoning area would change under the proposed action from primarily office/manufacturing to residential, inbound trips during the weekday morning and outbound trips in the evening would remain approximately the same as in the No-Action condition or decrease, reflecting the daily trip pattern between home and work either into or from the rezoning area. Therefore, a reduction in net vehicle trips is indicated on certain roadways during certain time periods. The greatest net changes in vehicle trips, either positive or negative, are projected to occur on the MDE/Bruckner Expressway, the four Harlem River Bridges (e.g., the two-way East 145th Street and Madison Avenue Bridges), the one-way Bronx-bound Willis Avenue Bridge and one-way Manhattan-bound Third Avenue Bridge, on the Grand Concourse and along East 149th Street.

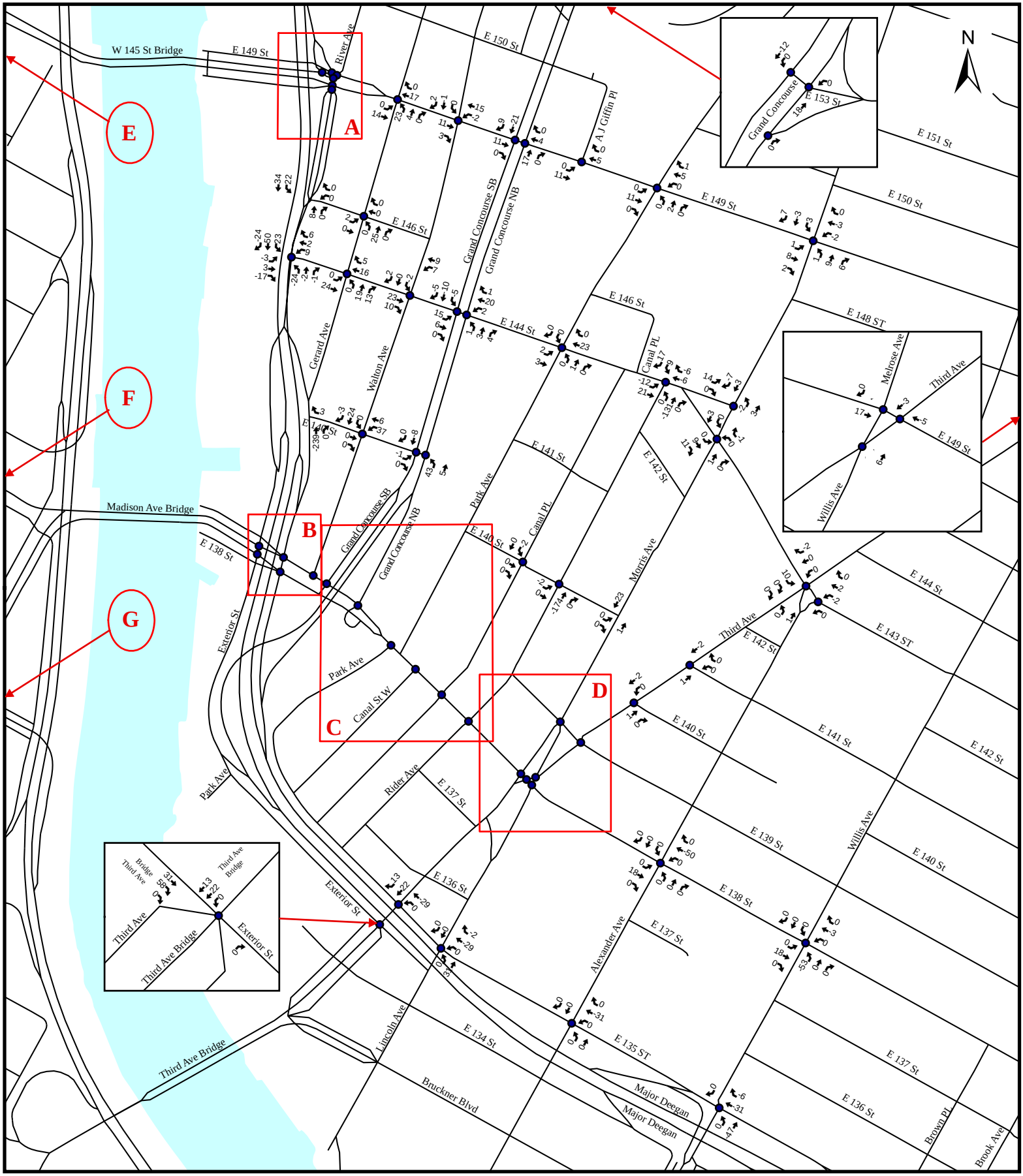


Figure 3.15-11A

2018 Build Increment Traffic
AM Peak Hour

180 0 180 360 540 720 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

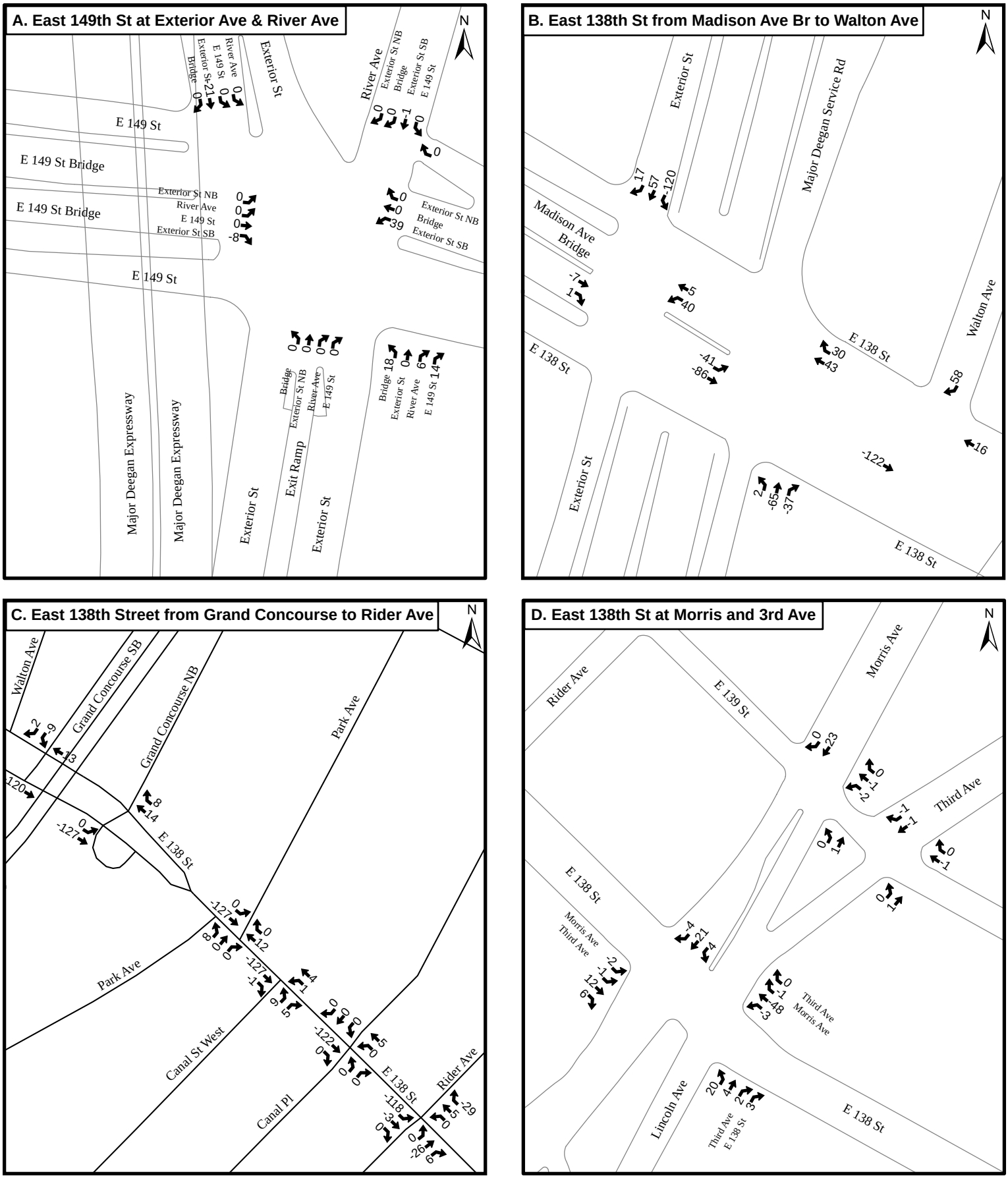


Figure 3.15-11B

2018 Build Increment Traffic
AM Peak Hour

40 0 40 80 120 160 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

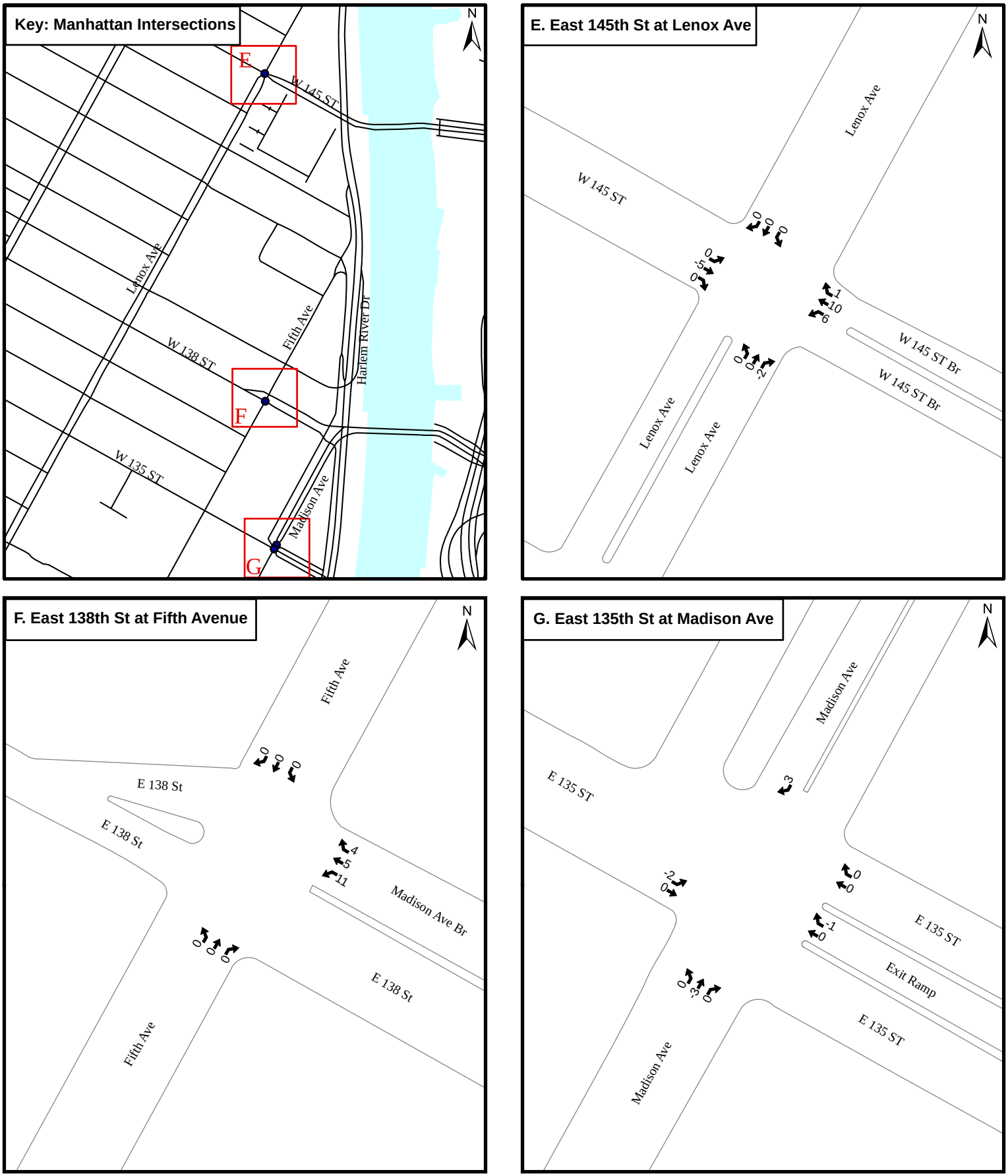


Figure 3.15-11C

2018 Build Increment Traffic
AM Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

70 0 70 140 210 280 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

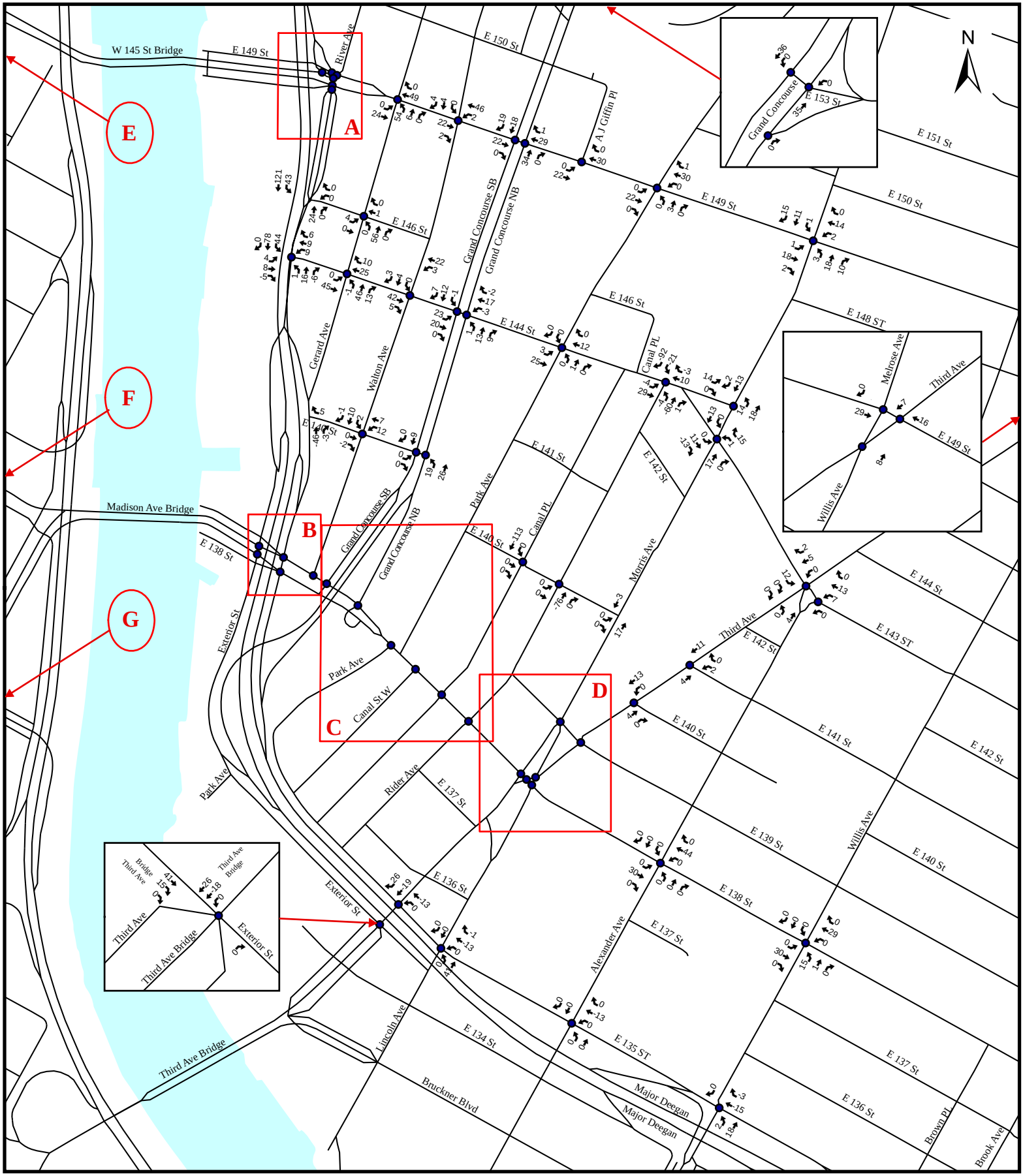


Figure 3.15-12A

2018 Build Increment Traffic
MD Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

180 0 180 360 540 720 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

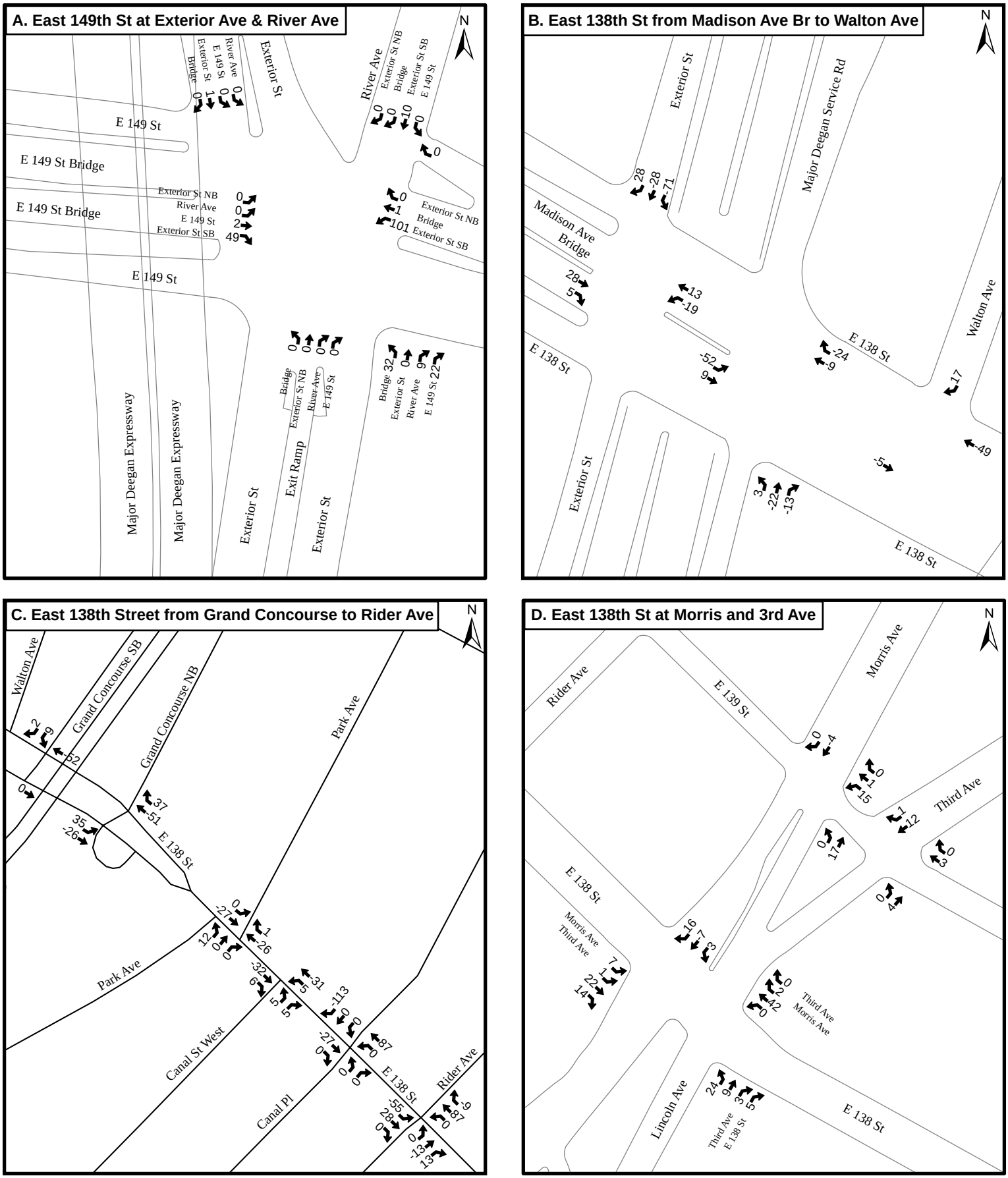


Figure 3.15-12B

2018 Build Increment Traffic
MD Peak Hour

40 0 40 80 120 160 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

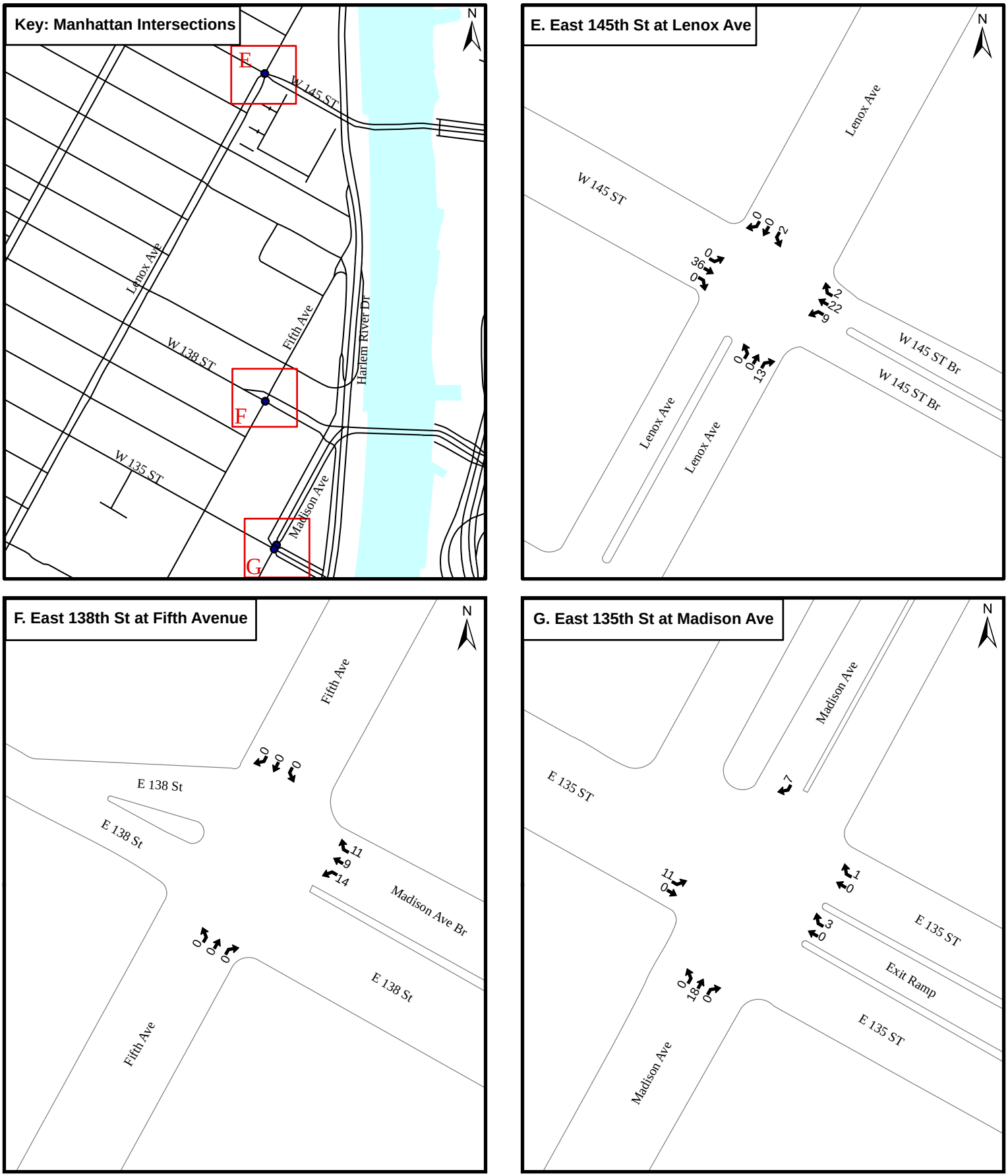


Figure 3.15-12C

2018 Build Increment Traffic
MD Peak Hour

70 0 70 140 210 280 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

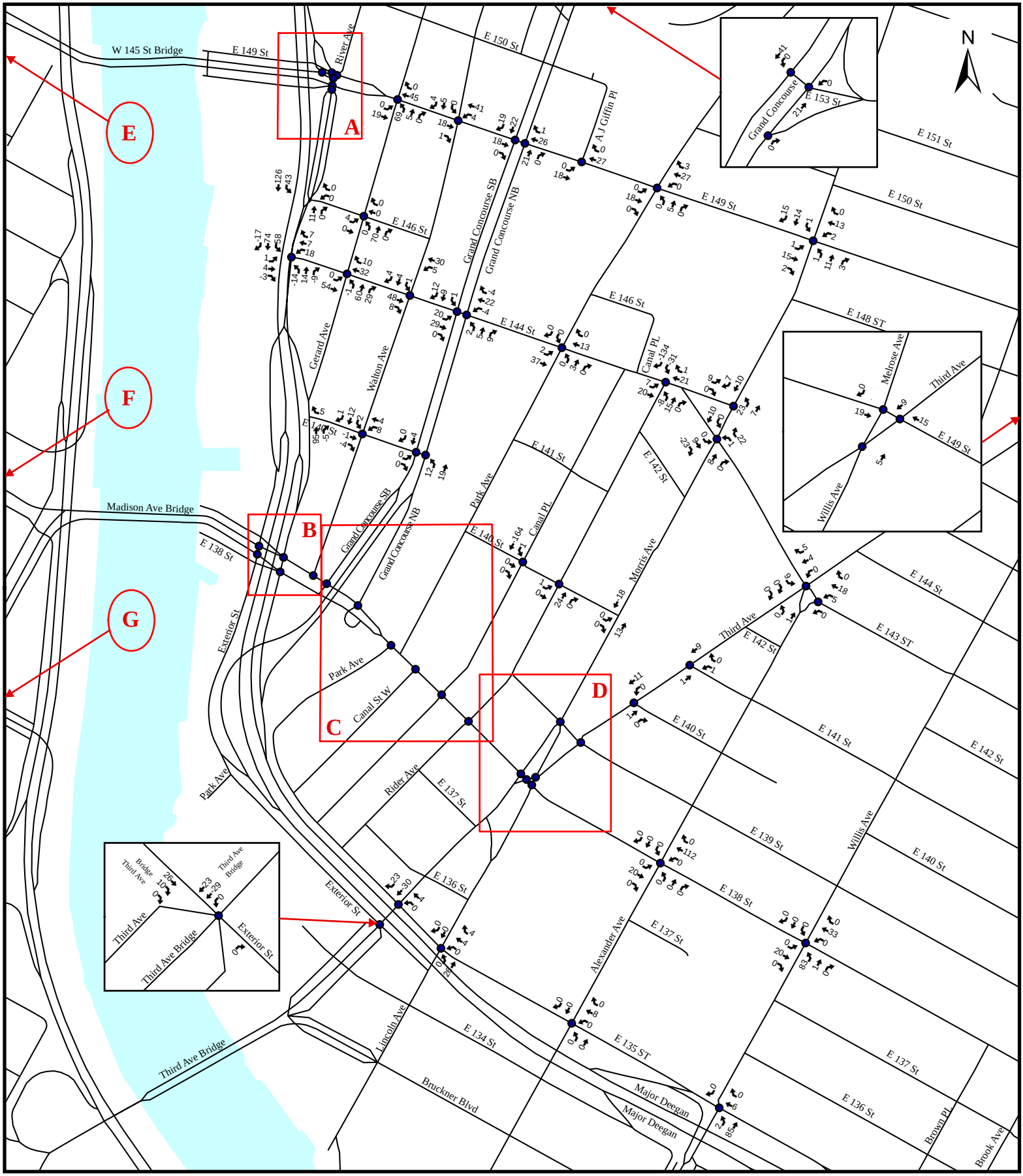


Figure 3.15-13A

2018 Build Increment Traffic
PM Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

180 0 180 360 540 720 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

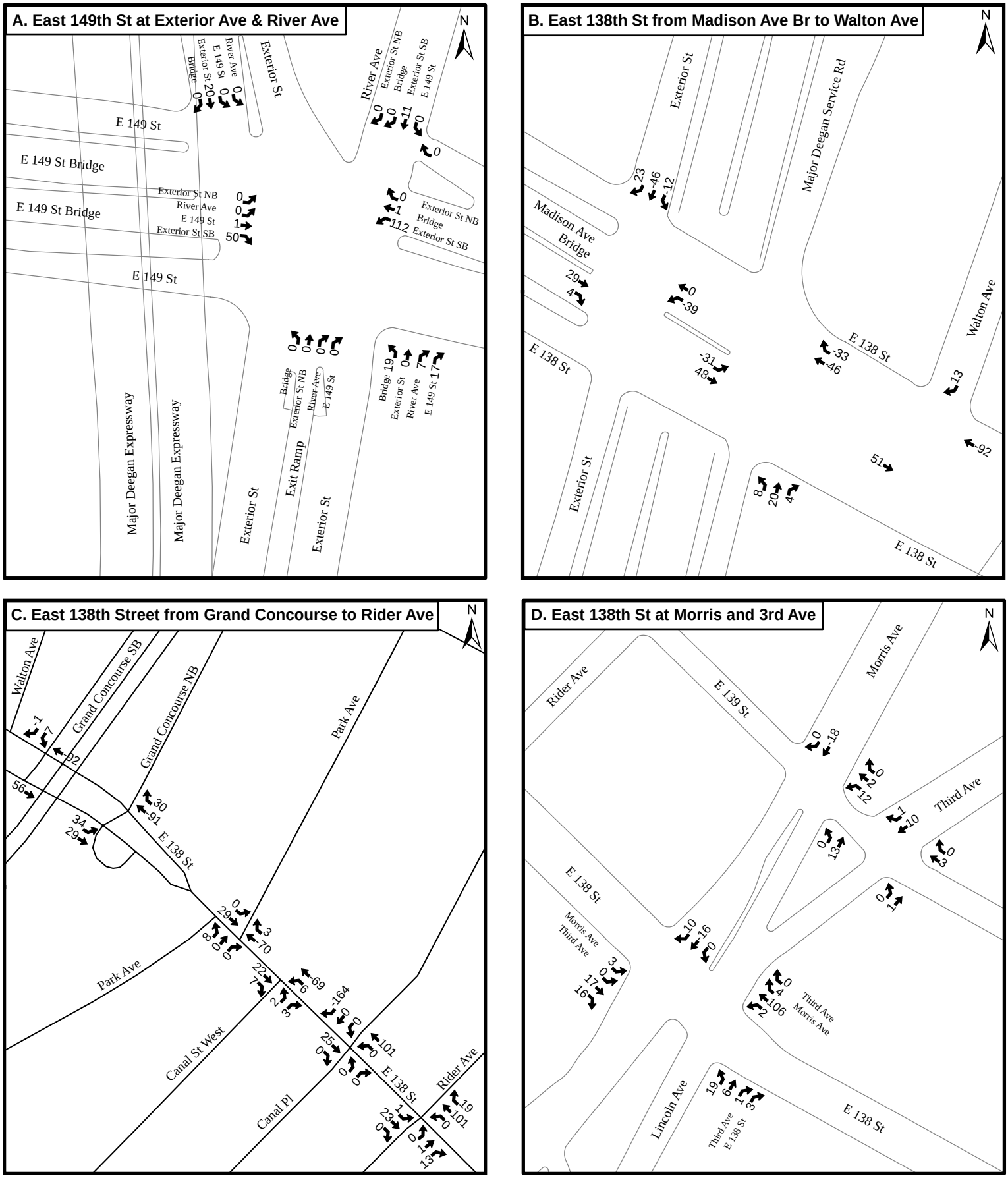


Figure 3.15-13B

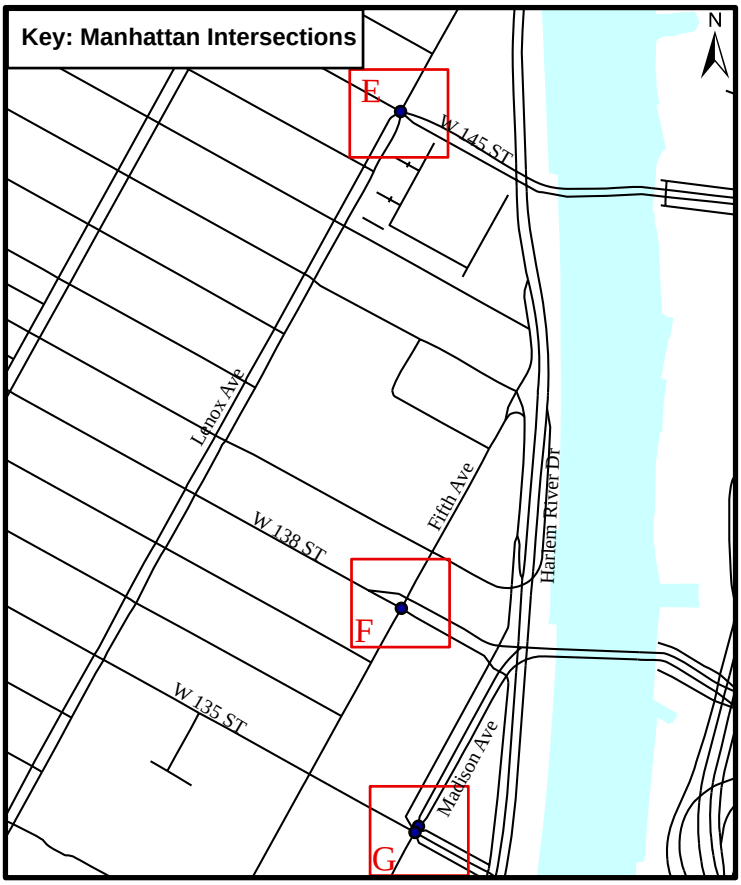
2018 Build Increment Traffic
PM Peak Hour

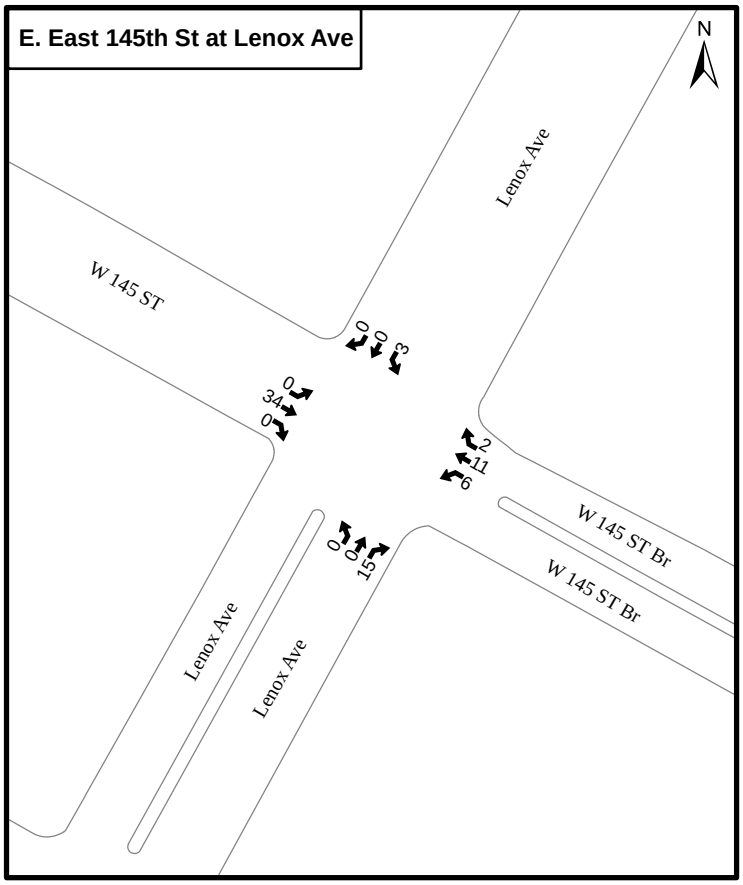
40 0 40 80 120 160 Feet

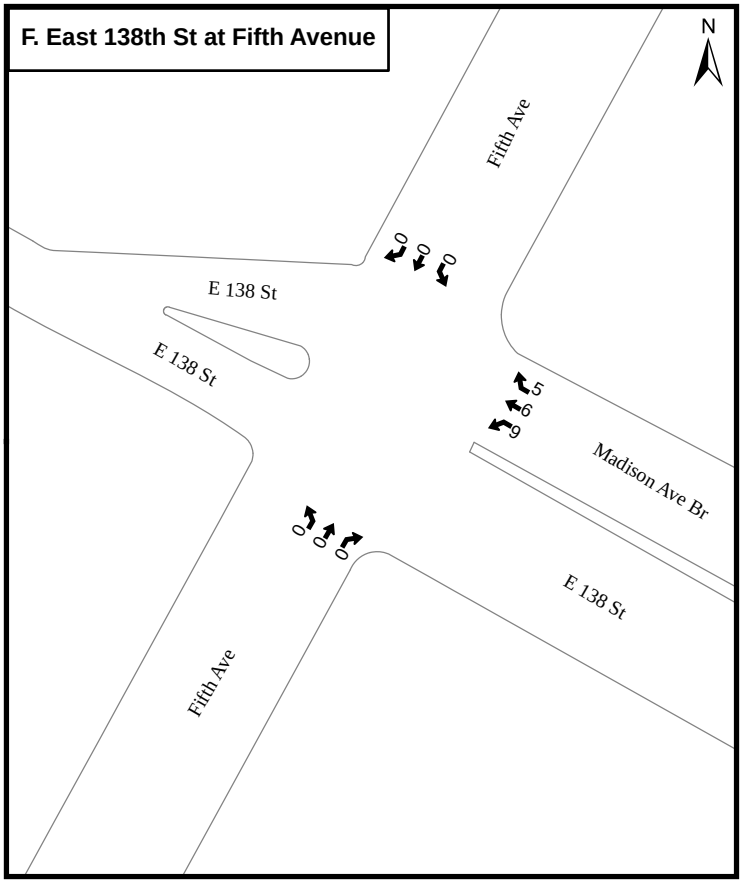
Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning







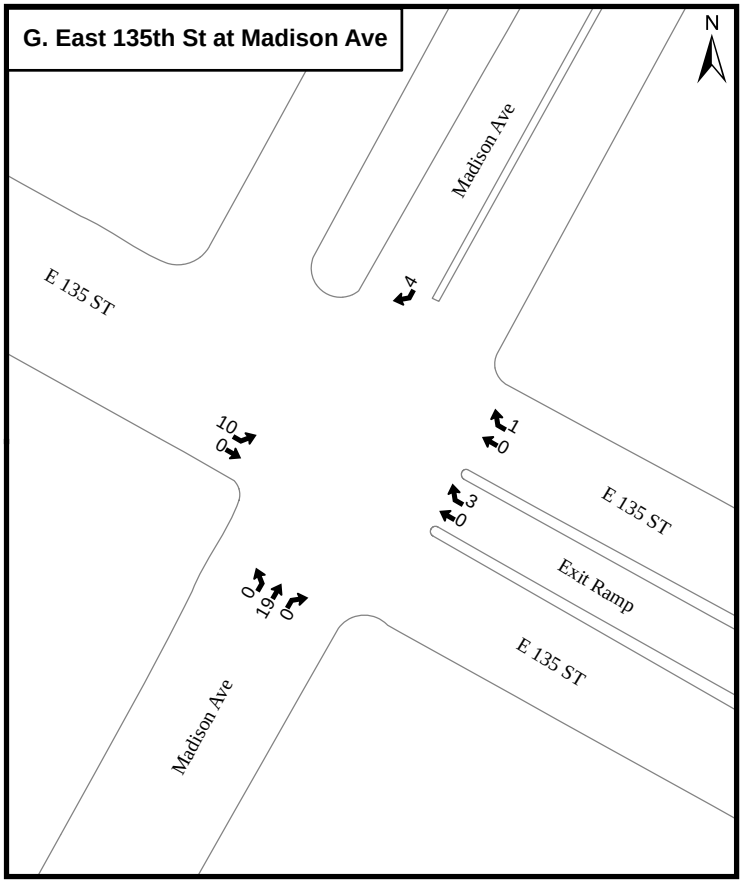


Figure 3.15-13C

2018 Build Increment Traffic
PM Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

70 0 70 140 210 280 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

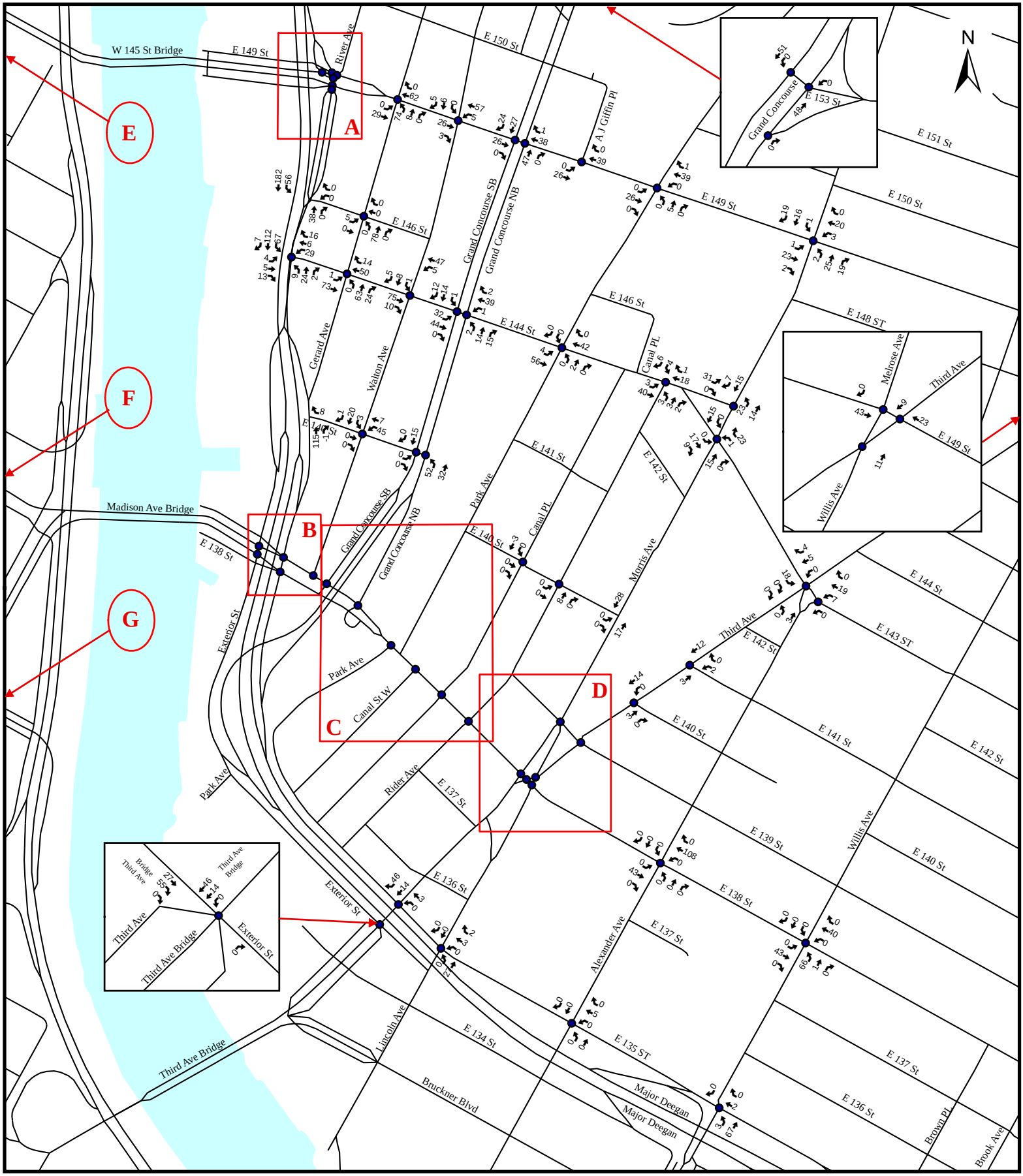


Figure 3.15-14A

2018 Build Increment Traffic
Saturday MD Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

390 0 390 780 1,170 1,560 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

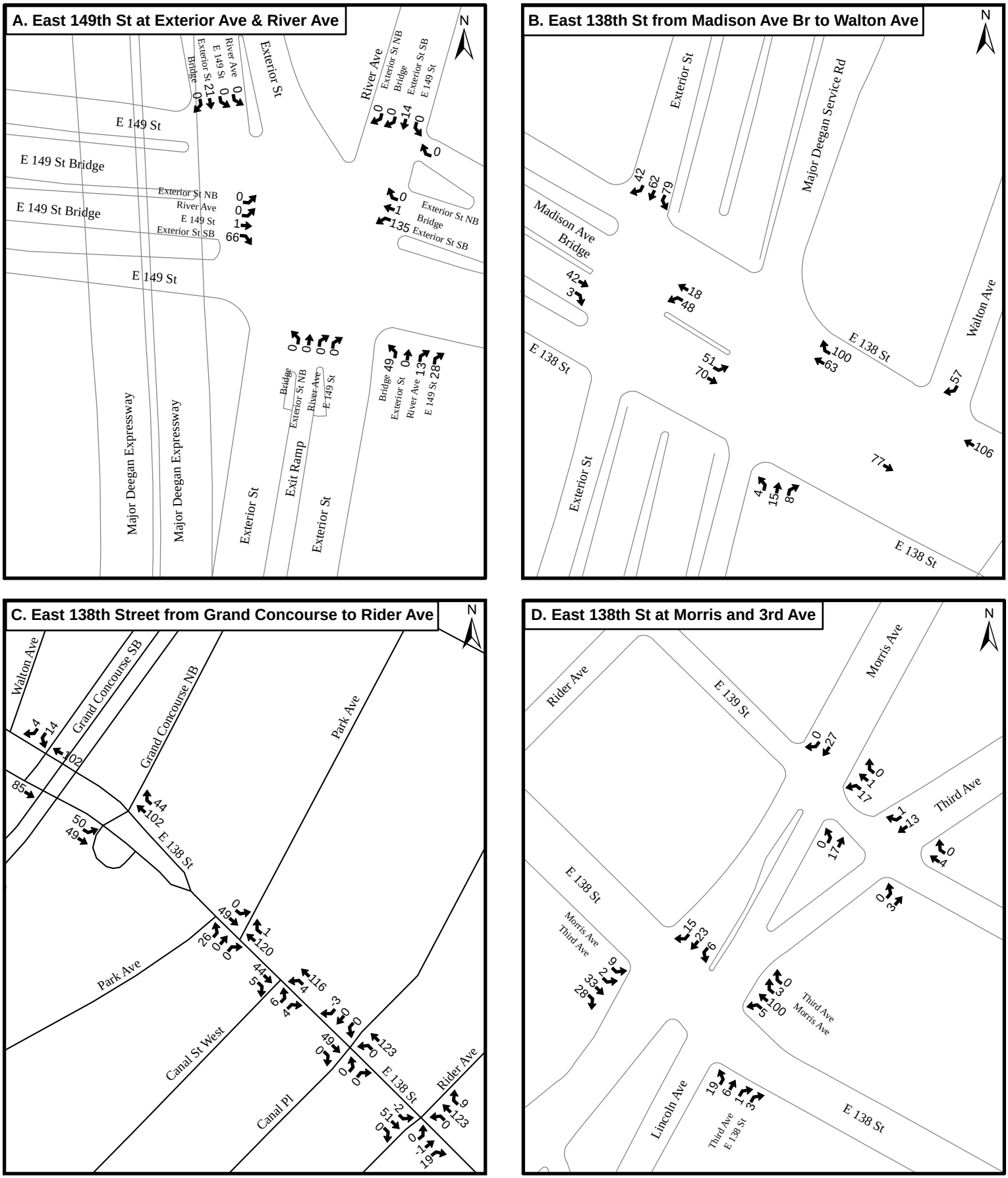


Figure 3.15-14B

2018 Build Increment Traffic
Saturday MD Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

40 0 40 80 120 160 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

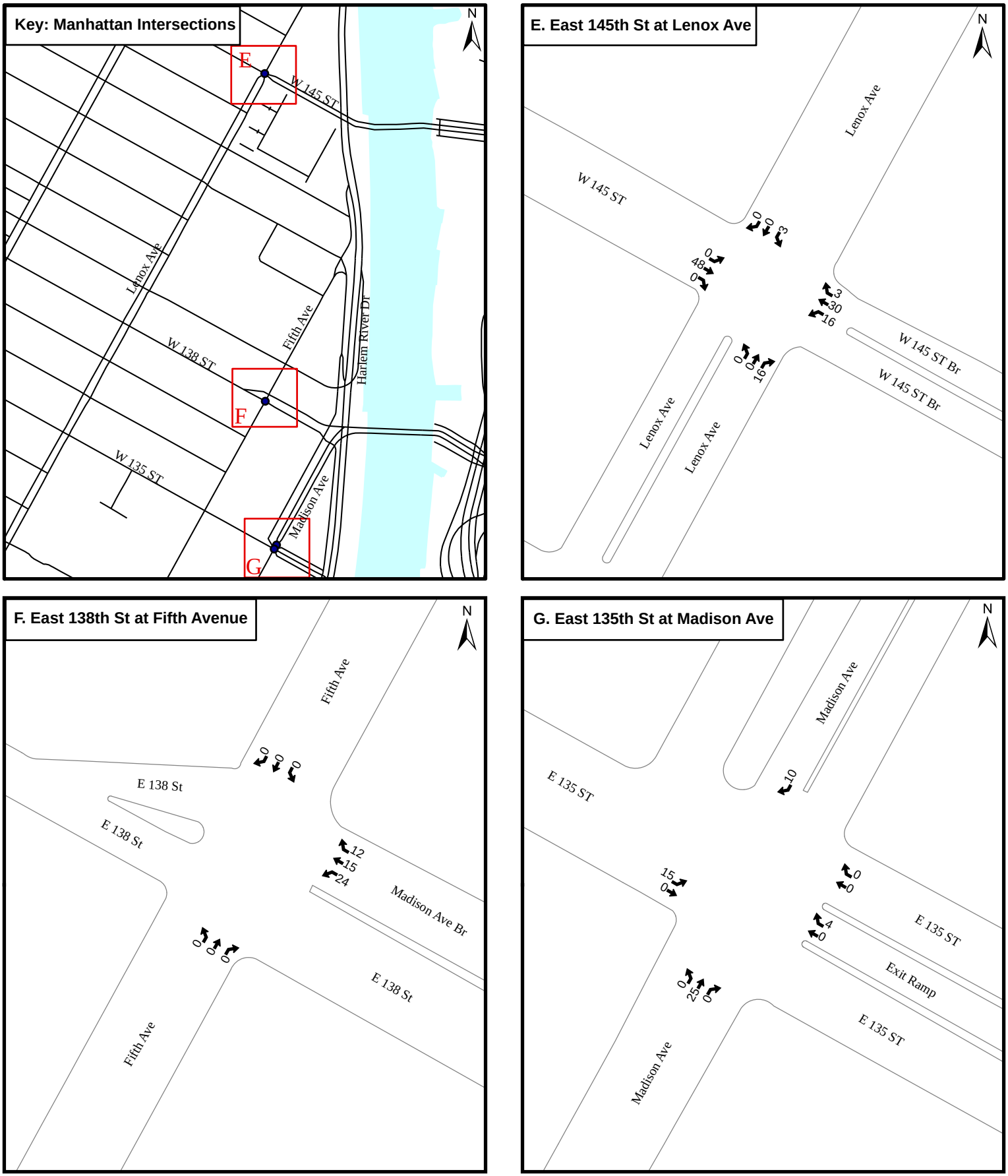


Figure 3.15-14C

2018 Build Increment Traffic
Saturday MD Peak Hour

70 0 70 140 210 280 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

Traffic Volumes

The 2018 With Action condition traffic volumes for typical weekday and Saturday peak hours were derived by applying the Project Increment traffic assignments illustrated above to the No-Action traffic volumes described in Section 3.15-3. On study area roadways, peak hour traffic volumes would increase or decrease relative to No-Action levels. The 2018 With Action condition typical AM, midday, PM and Saturday peak hour traffic volumes are shown in Figure 3.15-15 (A-C) to Figure 3.15-18 (A-C), respectively.

Levels of Service

Capacity and level of service analyses were performed for the study area intersections using the future With Action condition peak hour traffic volumes. Table 3.15-10 compares the No-Action and With Action service levels for these intersections under typical weekday and typical Saturday peak hour conditions. Roadway modifications assumed for No-Action conditions analyses were also assumed for With Action conditions analysis.

Significant Impacts

According to the criteria presented in the *CEQR Technical Manual*, impacts are considered significant and require mitigation if they result in an increase of 5 or more seconds of delay in a lane group over No-Action levels beyond mid-LOS D. For No-Action LOS E, a 4-second increase in delay is considered significant. For No-Action LOS F, a 3-second increase in delay is considered significant. Also, if the No-Action LOS F condition already corresponds with a delay in excess of 120 seconds, an increase of 1.0 or more seconds of delay is considered significant, unless a proposed action generates fewer than five vehicle trips through that intersection in the peak hour. In addition, impacts are considered significant if the LOS for a movement deteriorates from acceptable LOS A, B, or C in the No-Action condition to marginally unacceptable LOS D (a delay in excess of 45 seconds, the midpoint of the LOS D range of delay), or unacceptable LOS E or F in the future With Action condition.

Based on the above CEQR criteria, significantly impacted locations were identified and summarized by peak analysis period, as follows: during the AM peak hour, the proposed future action would result in 8 significantly impacted lane groups at 7 intersections; in the midday, 8 lane groups at 6 intersections would experience significant adverse impacts; during the PM peak hour, there would be 19 significantly impacted lane groups at 11 intersections; and on Saturday, there would be 13 significantly impacted lane groups at 9 intersections. Increases in average delay per vehicle are shown below in parentheses.

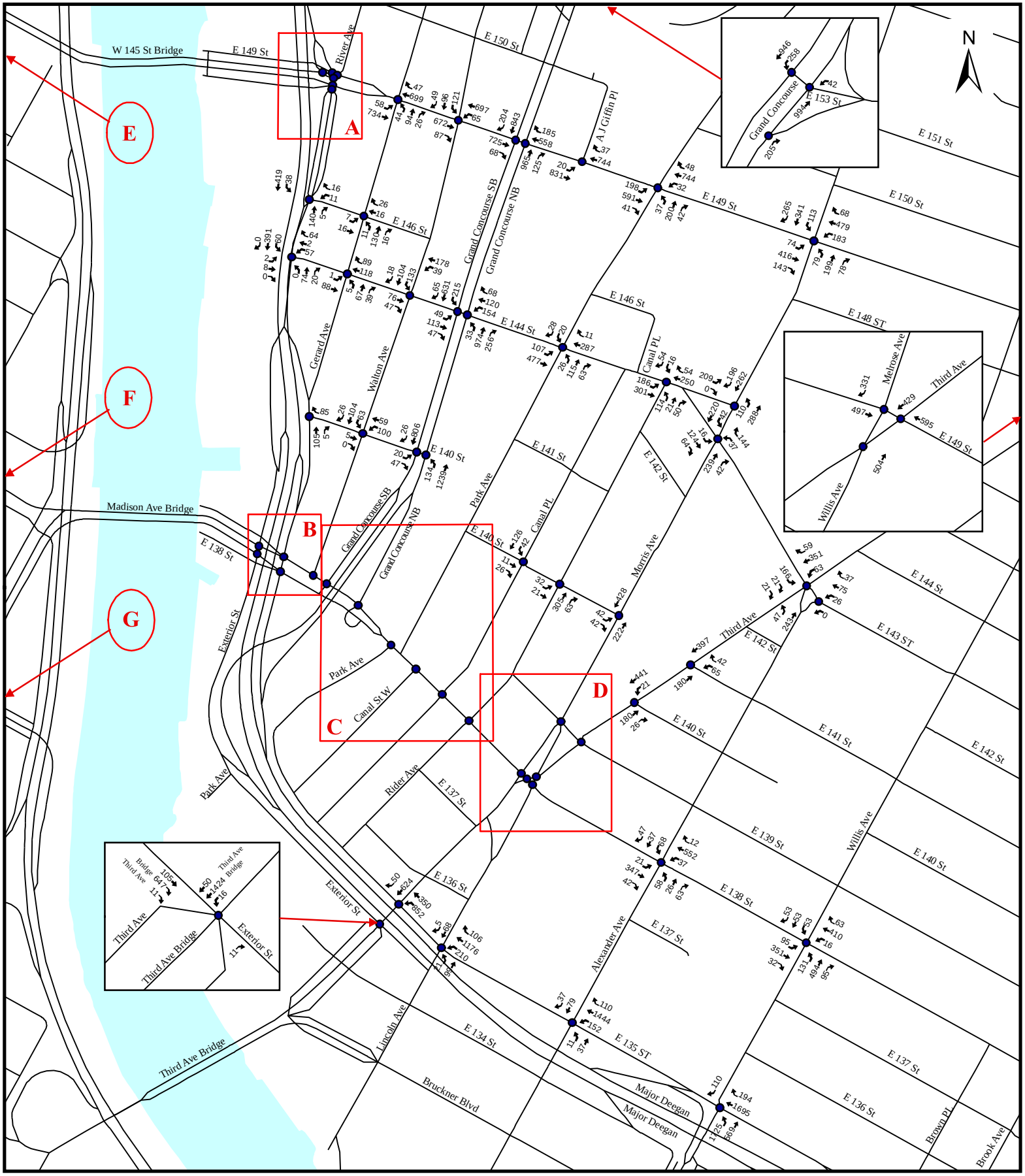


Figure 3.15-15A

**This figure has been modified for the FEIS*

2018 Build Traffic
Typical Day - AM Peak Hour

540 0 540 1,080 1,620 2,160 Feet

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

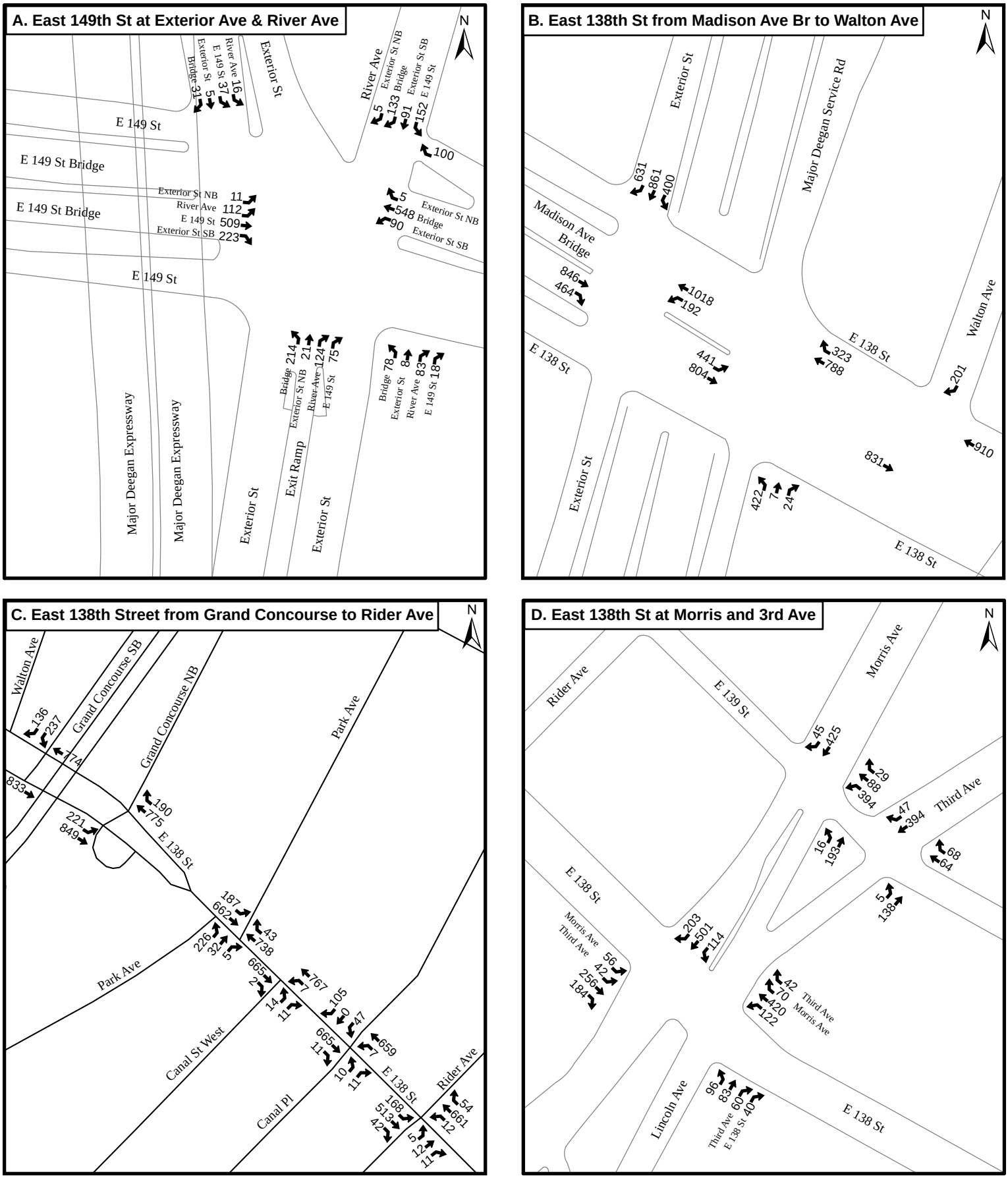


Figure 3.15-15B

2018 With-Action Traffic

Typical Day - AM Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

40 0 40 80 120 160 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

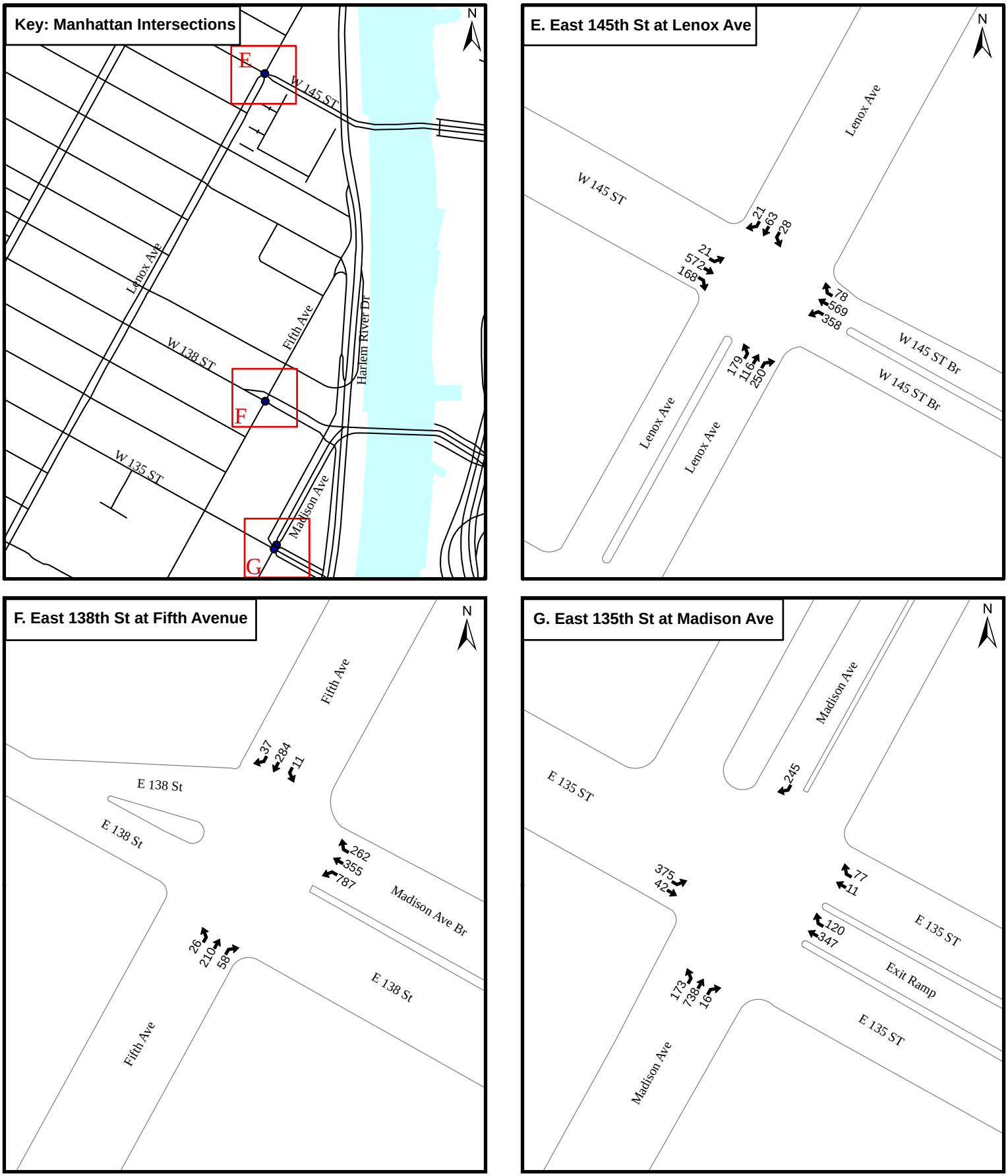


Figure 3.15-15C

2018 With-Action Traffic
Typical Day - AM Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

10 0 10 20 30 40
Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

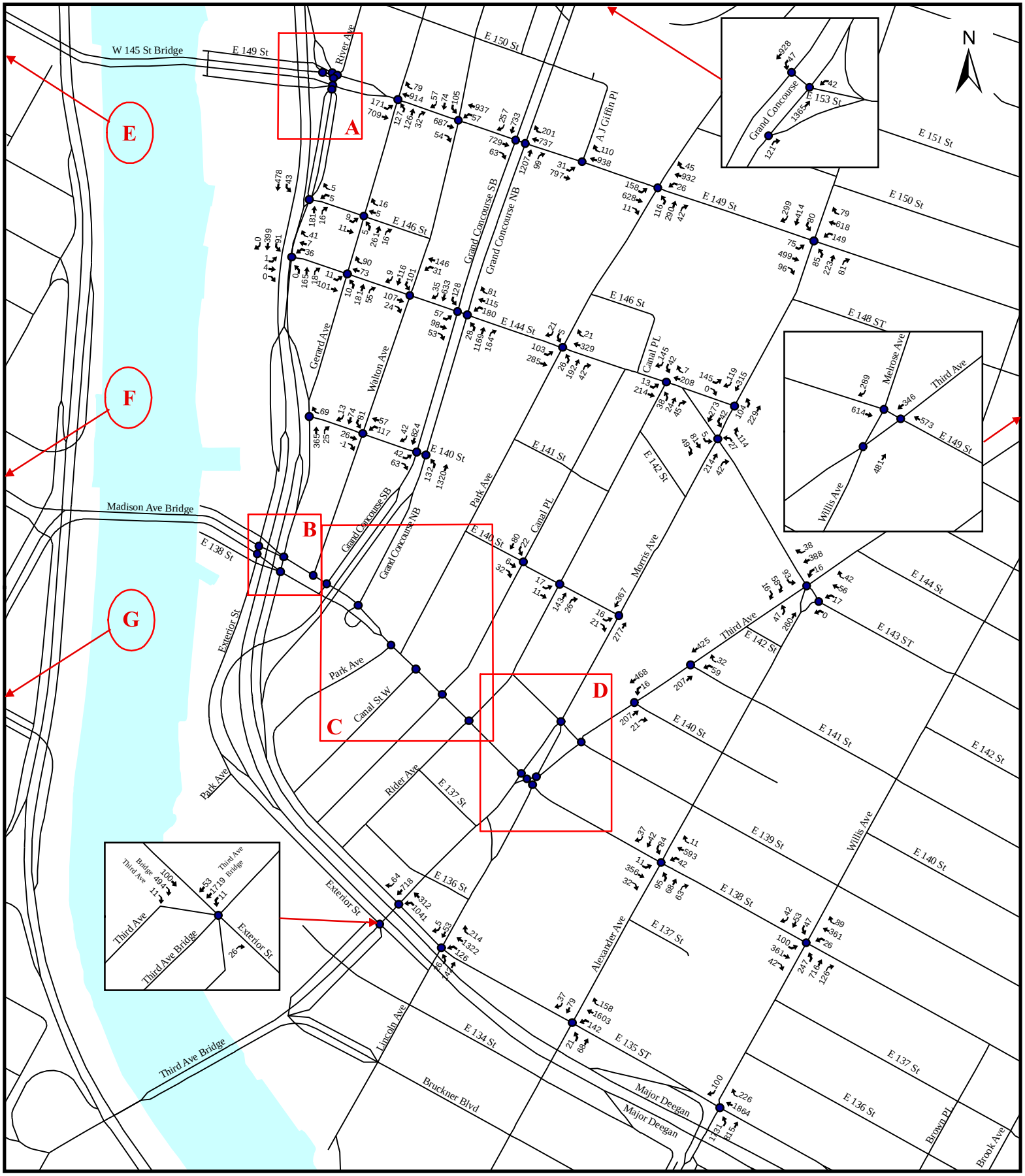


Figure 3.15-16A

**This figure has been modified for the FEIS*

2018 Build Traffic
Typical Day - MD Peak Hour

540 0 540 1,080 1,620 2,160 Feet

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

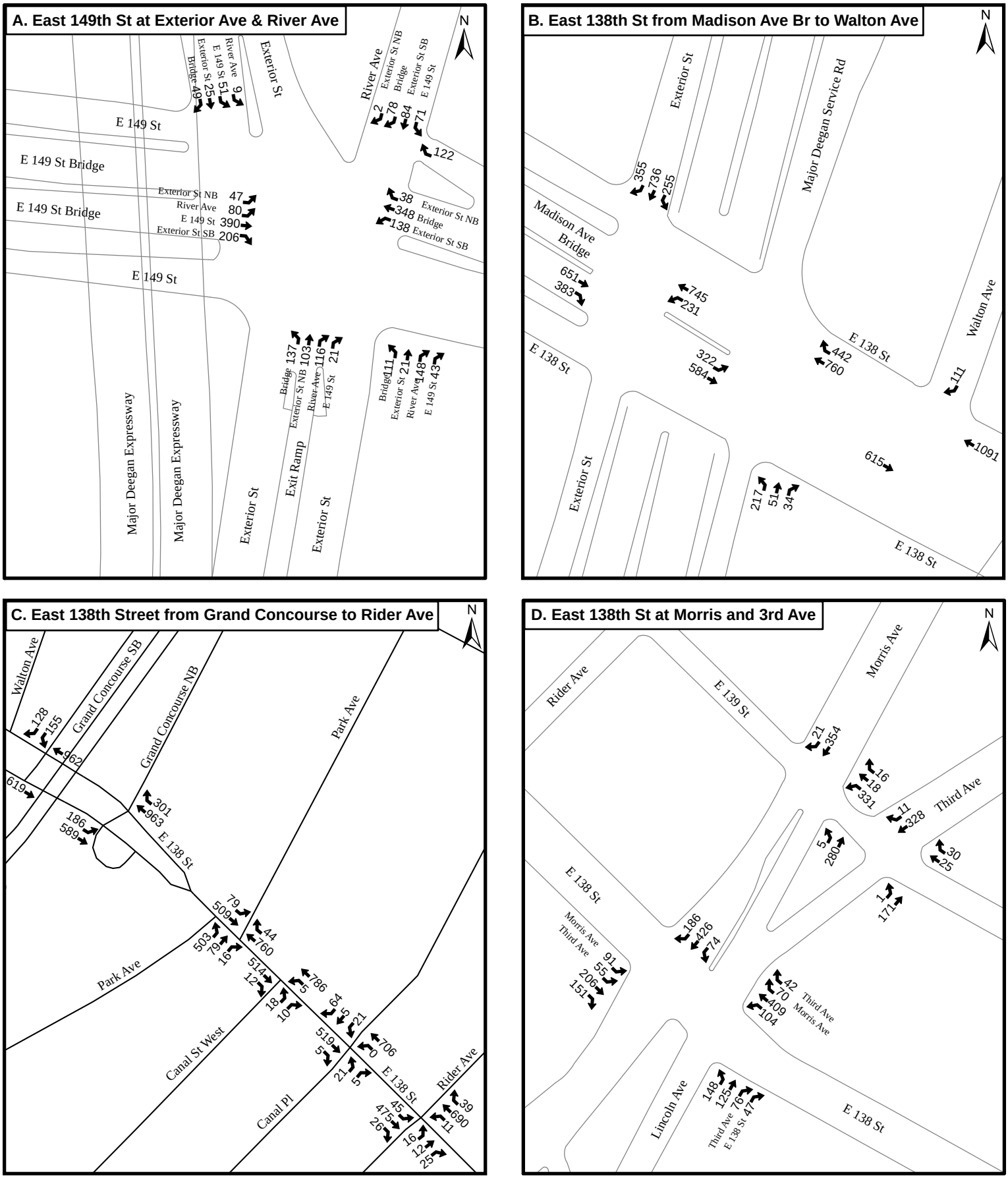


Figure 3.15-16B

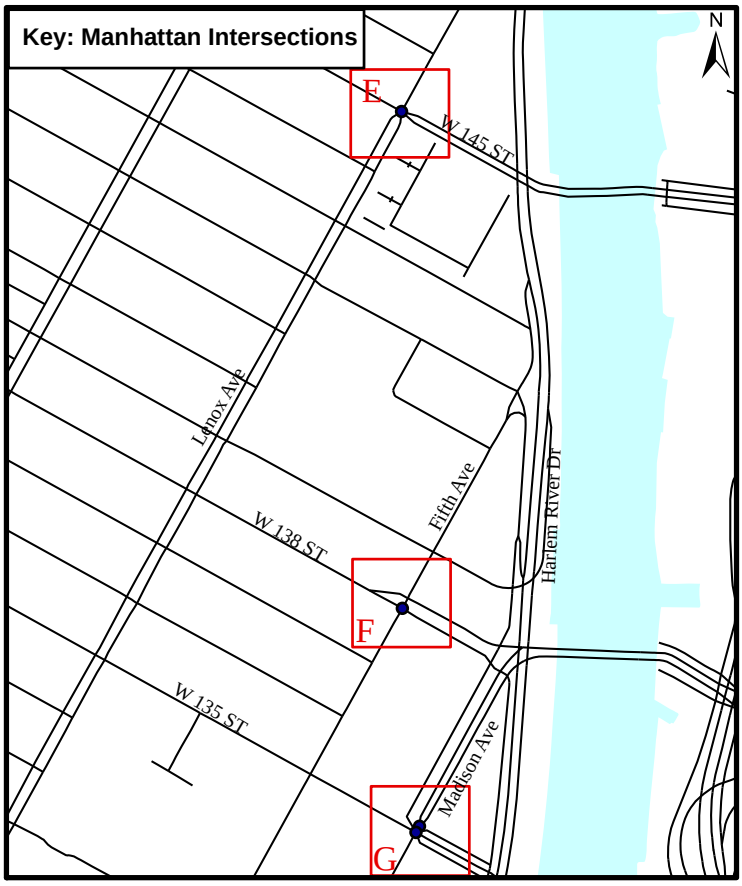
2018 With-Action Traffic
Typical Day - MD Peak Hour

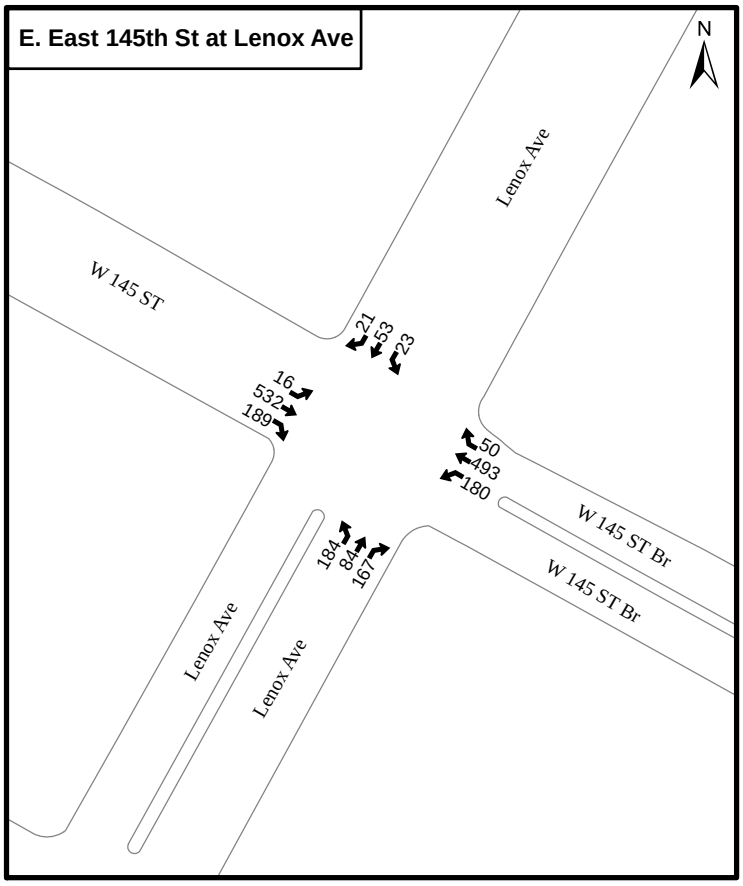
Lower Concourse Rezoning and Related Actions EIS

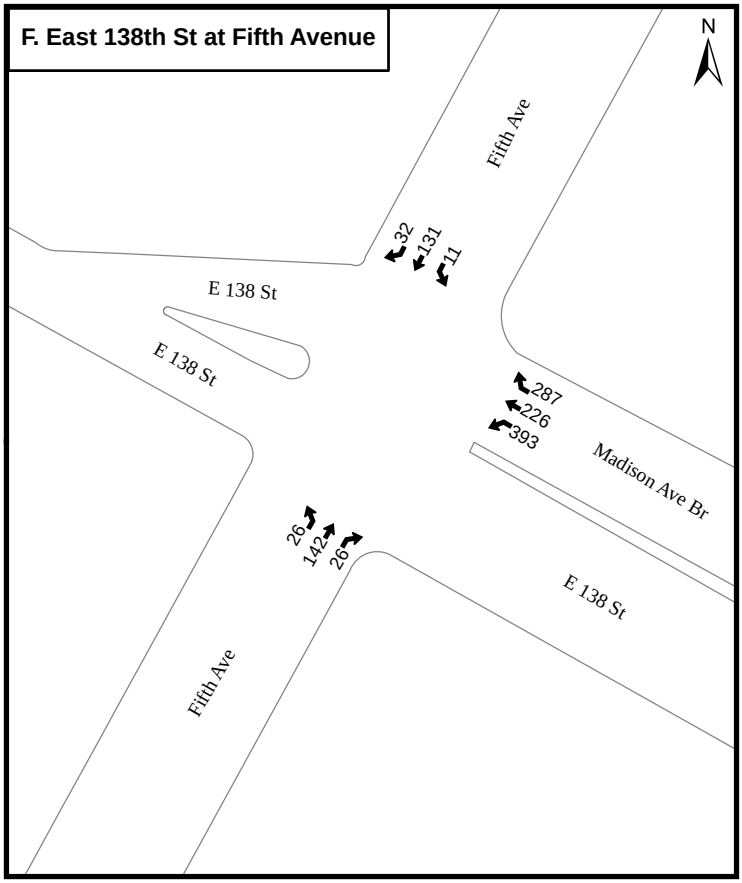
NYC Department of City Planning

40 0 40 80 120 160 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006







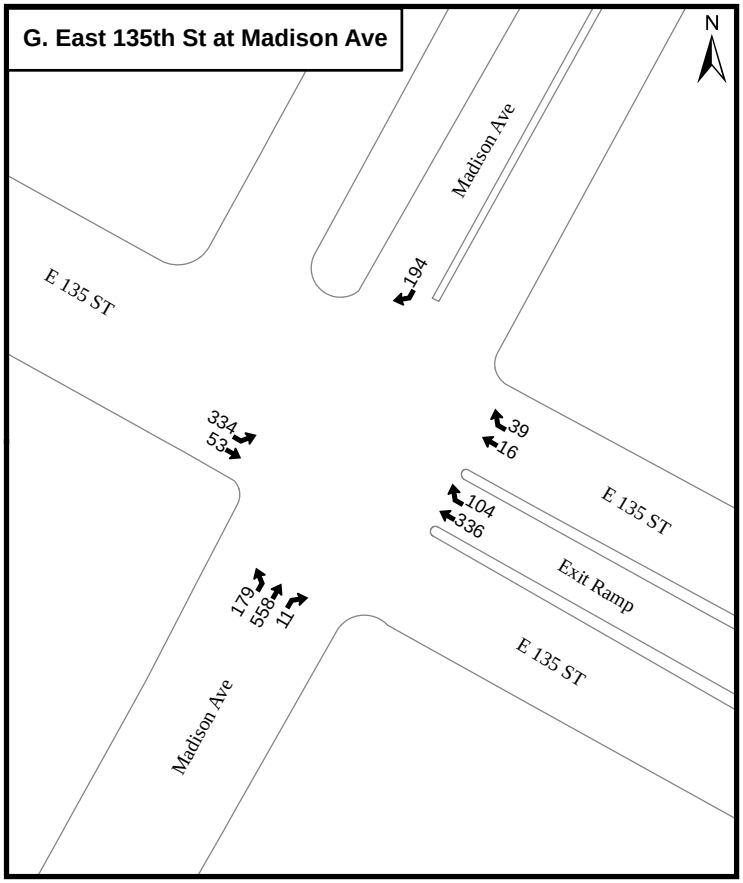


Figure 3.15-16C

2018 With-Action Traffic
Typical Day - MD Peak Hour

Lower Concourse Rezoning and Related Actions EIS

10 0 10 20 30 40
Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

NYC Department of City Planning

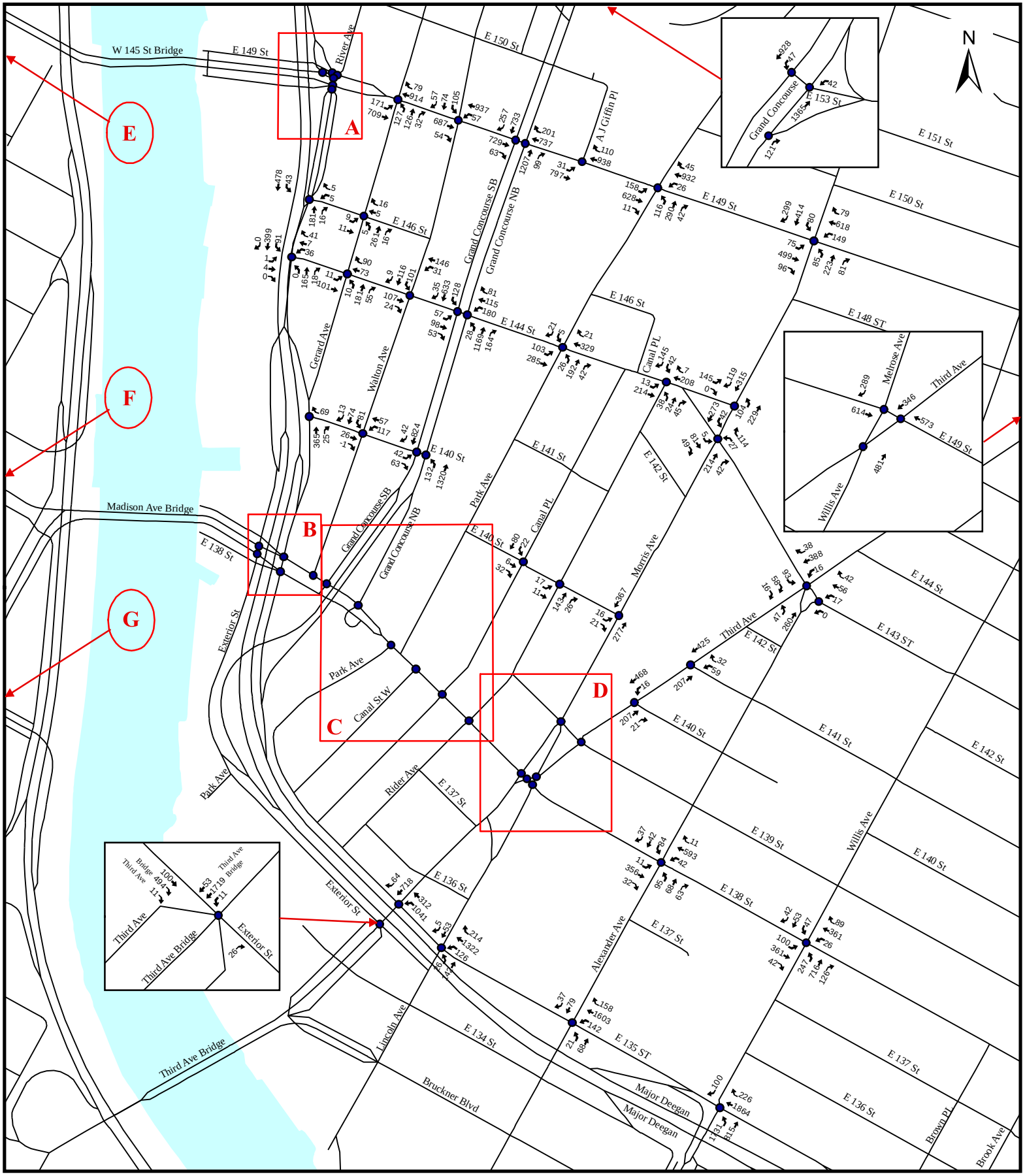


Figure 3.15-17A

**This figure has been modified for the FEIS*

2018 Build Traffic
Typical Day - PM Peak Hour

240 0 240 480 720 960 Feet

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

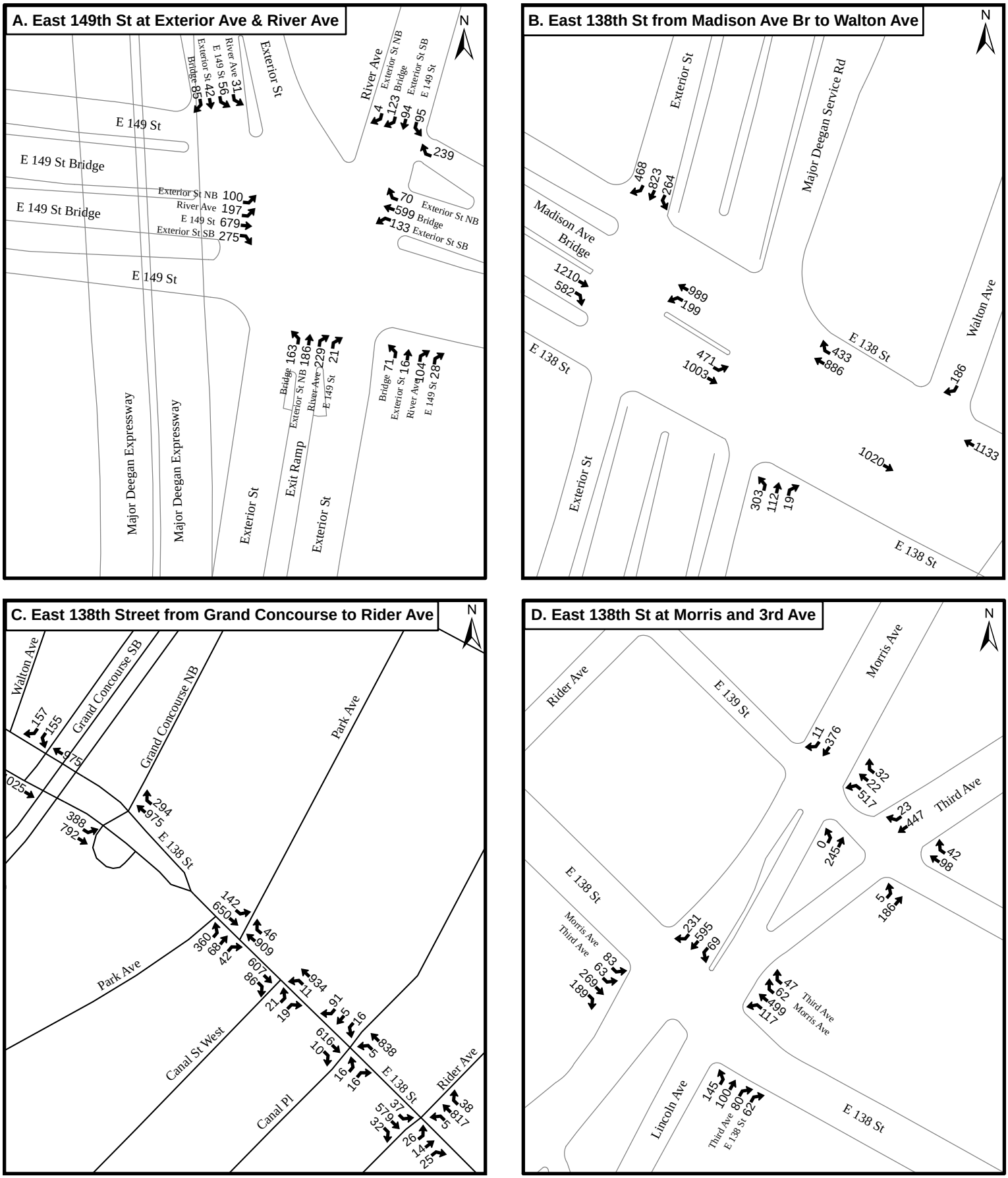


Figure 3.15-17B

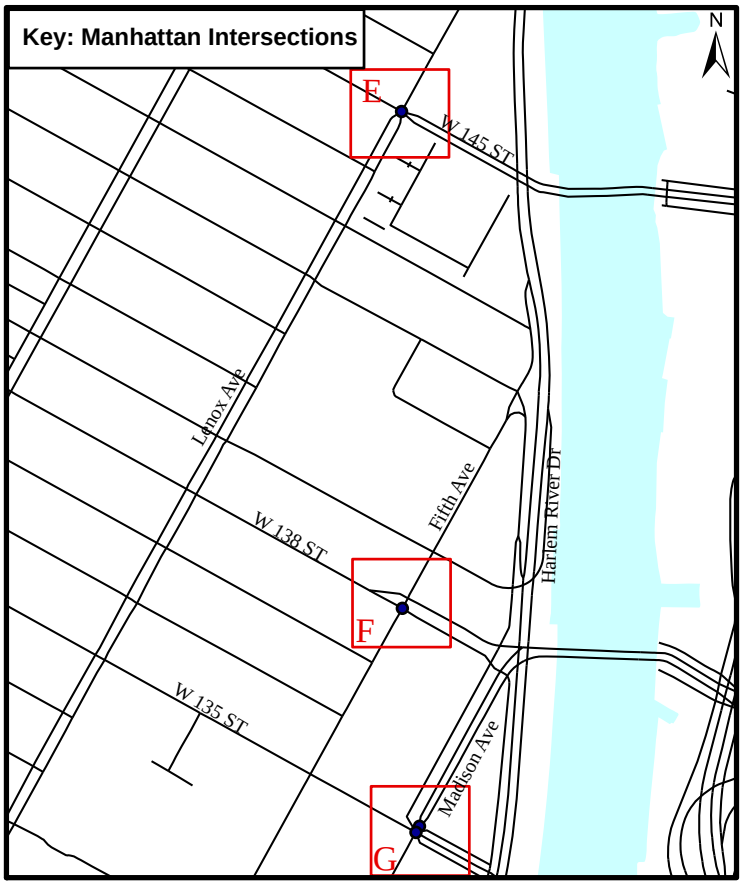
2018 With-Action Traffic
Typical Day - PM Peak Hour

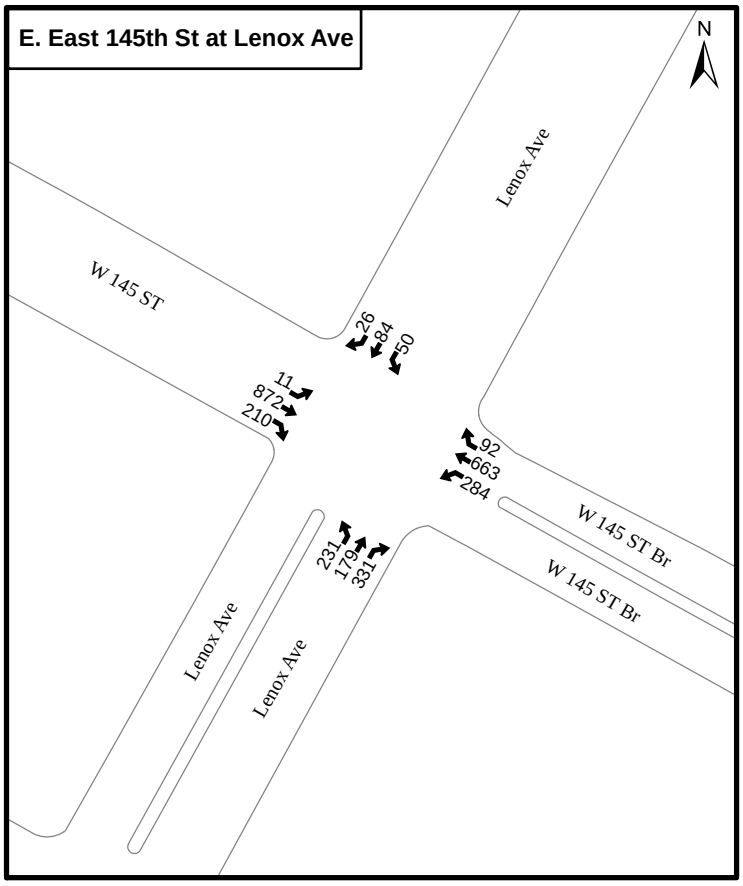
Lower Concourse Rezoning and Related Actions EIS

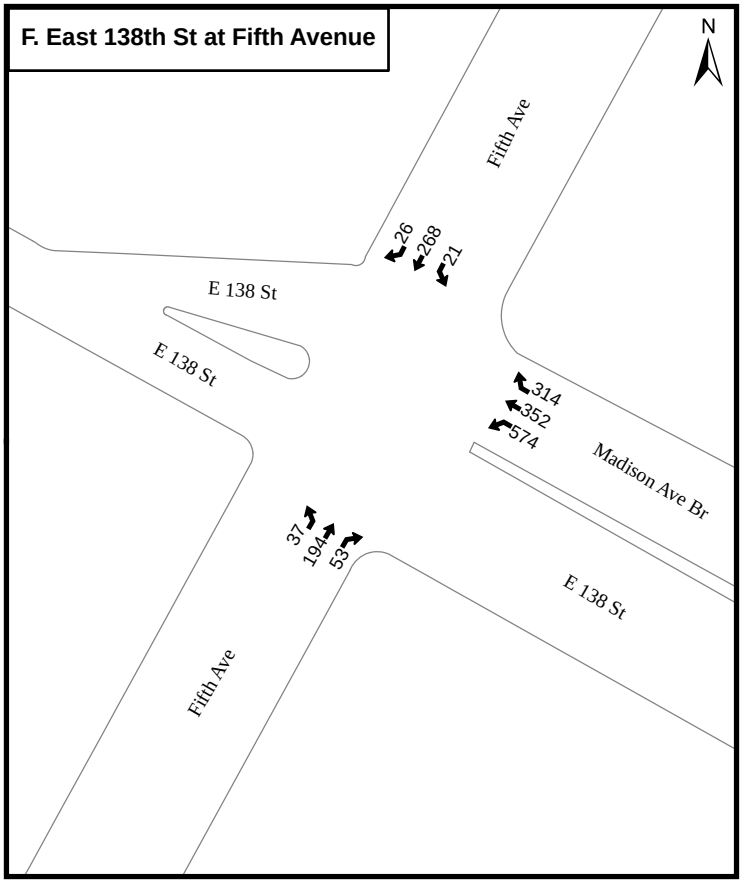
NYC Department of City Planning

40 0 40 80 120 160 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006







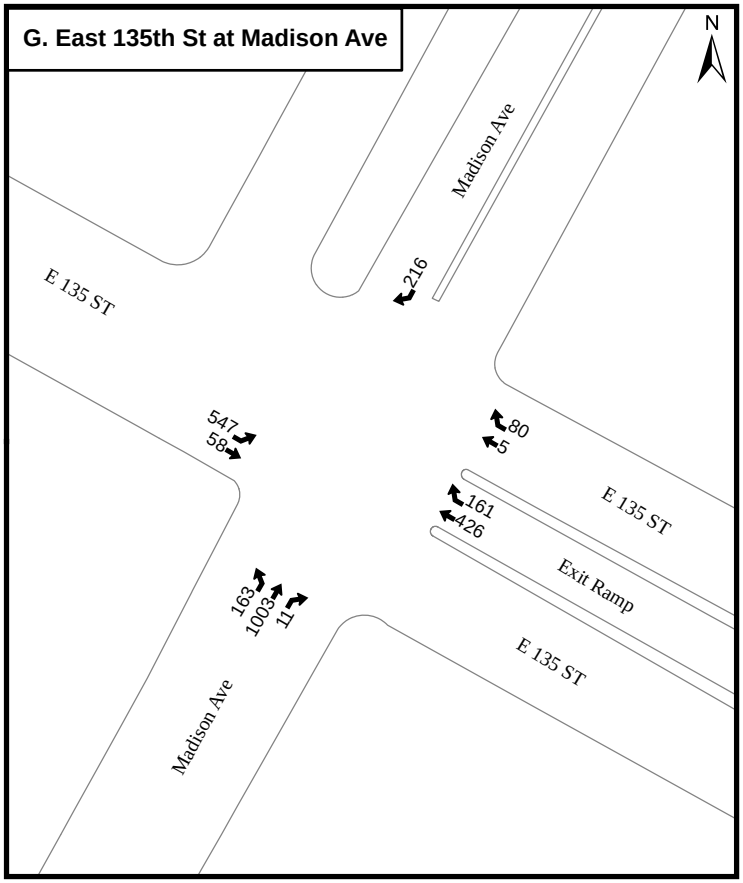


Figure 3.15-17C

2018 With-Action Traffic
Typical Day - PM Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

10 0 10 20 30 40
Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

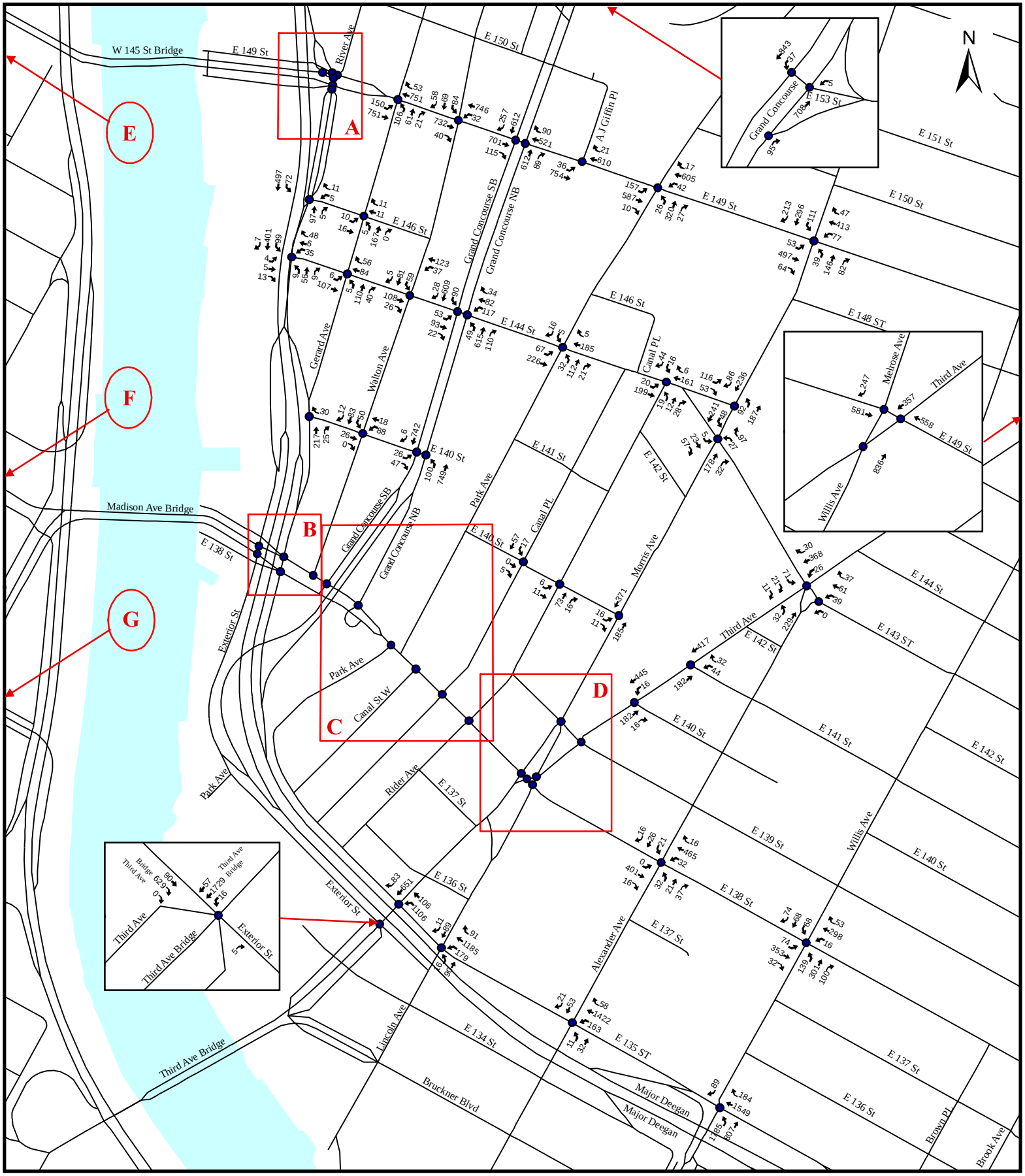


Figure 3.15-18A

**This figure has been modified for the FEIS*

2018 Build Traffic

Typical Day - Saturday MD Peak Hour

540 0 540 1,080 1,620 2,160 Feet

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

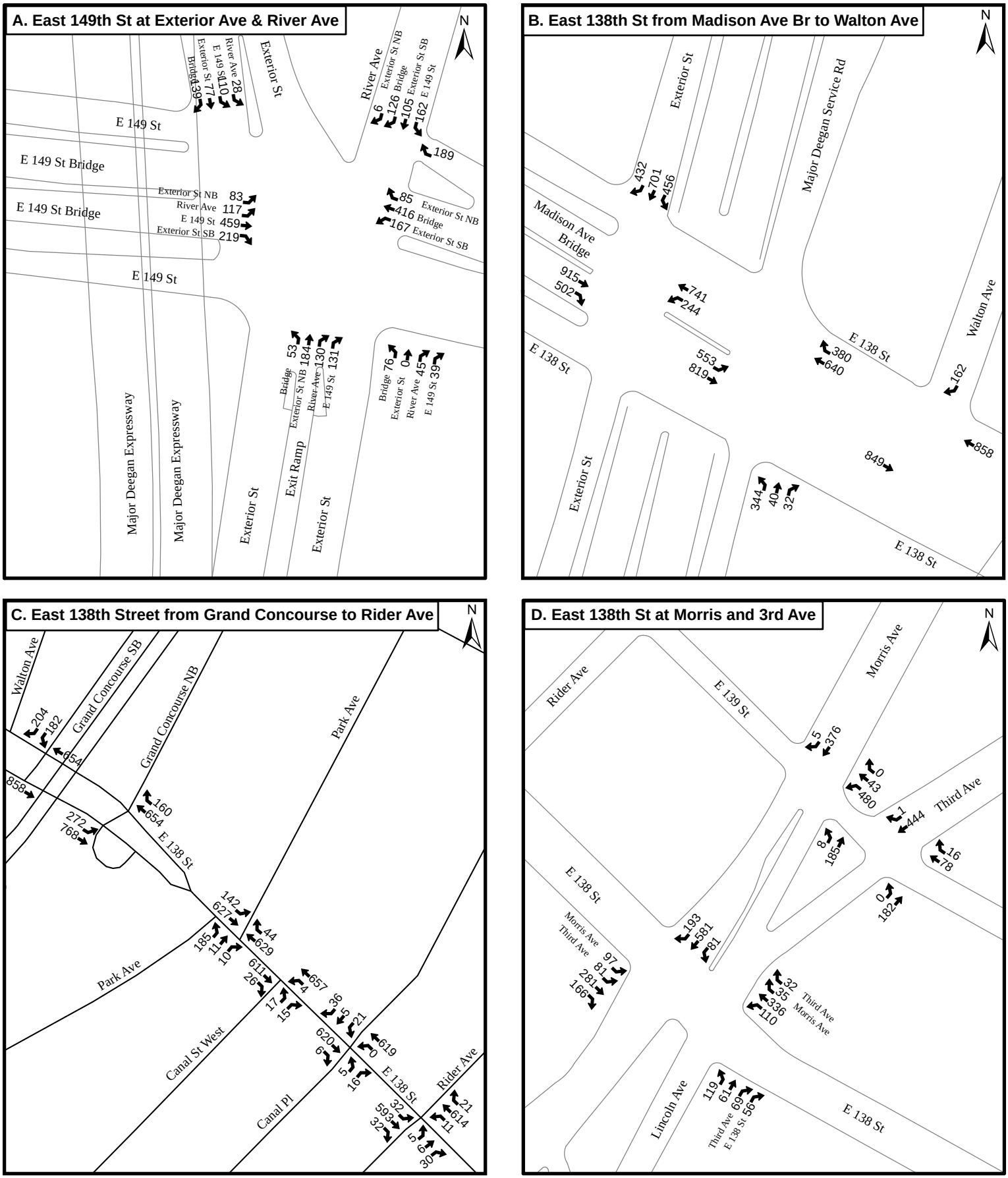


Figure 3.15-18B

2018 With-Action Traffic

Typical Day - Saturday MD Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

40 0 40 80 120 160 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

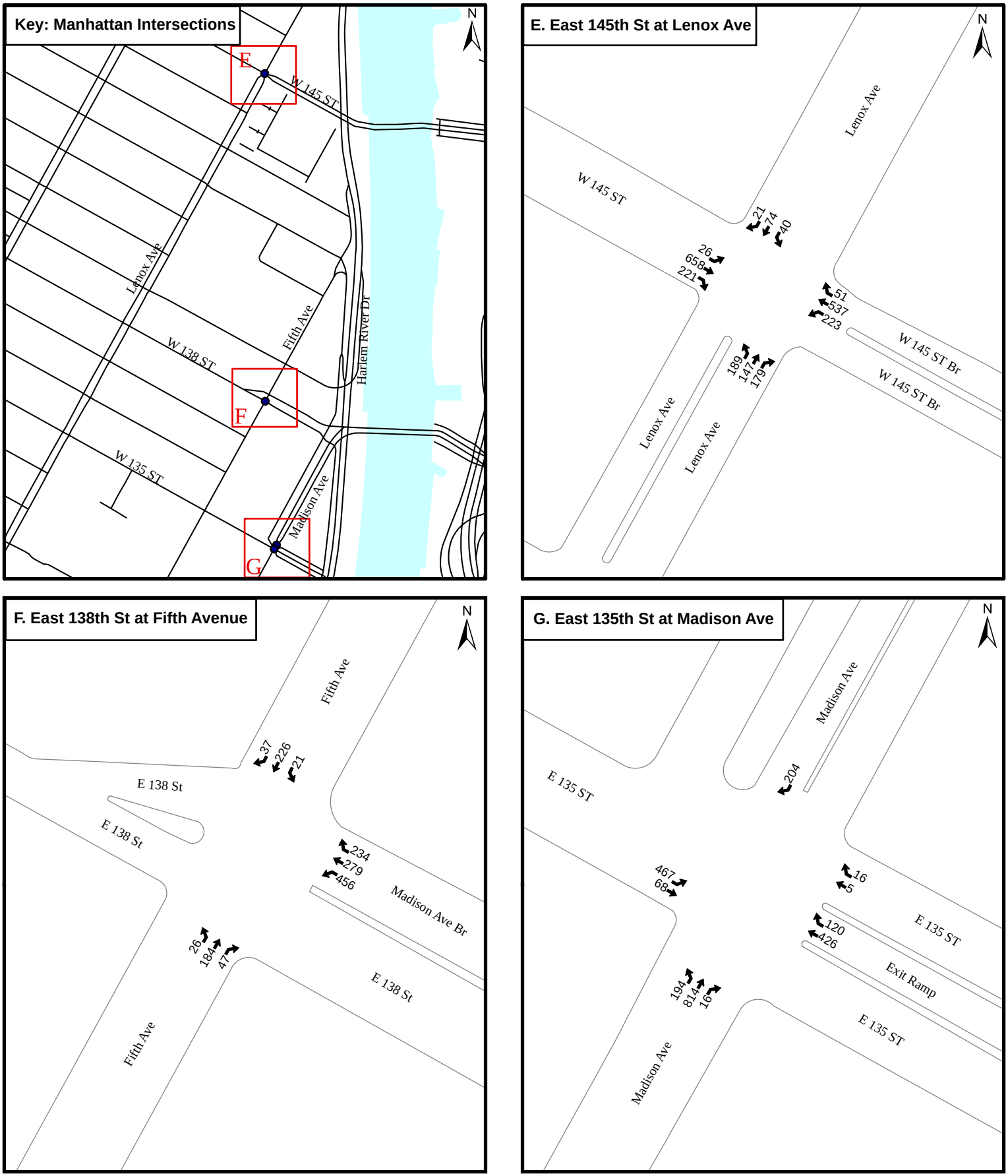


Figure 3.15-18C

2018 With-Action Traffic
Typical Day - Saturday MD Peak Hour

Lower Concourse Rezoning and Related Actions EIS

10 0 10 20 30 40
Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

NYC Department of City Planning

Table 3.15-10: 2018 With Action Conditions Level of Service Analysis – Typical Day

Signalized Intersection	Approach[1]	AM Peak Hour							MD Peak Hour							PM Peak Hour							SAT Peak Hour						
			NO BUILD			BUILD				NO BUILD			BUILD				NO BUILD			BUILD				NO BUILD			BUILD		
		Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS
East 153rd Street (E-W) @ Grand Concourse (N-S)	WB	L	0.11	30.0	C	0.11	30.0	C	L	0.04	26.5	C	0.04	26.5	C	L	0.09	29.8	C	0.09	29.8	C	L	0.01	26.1	C	0.01	26.1	C
	NB	T	0.32	16.0	B	0.33	16.1	B	T	0.32	17.1	B	0.33	17.2	B	T	0.45	16.5	B	0.46	16.6	B	T	0.22	16.0	B	0.24	16.1	B
	SB	L	0.87	37.3	D	0.89	39.8	D	L	0.29	12.5	B	0.30	12.8	B	L	0.28	12.7	B	0.28	13.0	B	L	0.13	10.0	A	0.13	10.2	B
		T	0.39	12.4	B	0.38	12.4	B	T	0.28	13.2	B	0.30	13.4	B	T	0.37	12.3	B	0.39	12.4	B	T	0.32	13.6	B	0.34	13.9	B
	Intersection			17.1	B		17.4	B			15.5	B		15.6	B			15.1	B		15.2	B			14.6	B		14.8	B
East 149th Street (E-W) @ Grand Concourse (N-S)	EB	TR	0.84	42.6	D	0.85	43.4	D	TR	0.56	30.0	C	0.58	30.5	C	TR	0.85	43.4	D	0.87	44.8	D	TR	0.77	36.1	D	0.79	37.2	D
	WB	TR	0.78	39.3	D	0.79	39.5	D	TR	0.55	29.6	C	0.58	30.1	C	TR	0.87	44.5	D	0.90	46.6	D	TR	0.50	28.4	C	0.53	29.0	C
	NB	TR	0.47	17.6	B	0.47	17.6	B	TR	0.47	19.9	B	0.49	20.2	C	TR	0.61	19.9	B	0.62	20.2	C	TR	0.35	18.1	B	0.38	18.5	B
	SB	TR	0.50	18.1	B	0.50	18.0	B	TR	0.40	18.8	B	0.43	19.3	B	TR	0.56	19.1	B	0.59	19.7	B	TR	0.47	19.8	B	0.50	20.3	C
	Intersection			27.9	C		28.2	C			23.5	C		24.0	C			30.0	C		30.9	C			25.5	C		26.0	C
East 149th Street (E-W) @ River Avenue (N-S) & Exterior Street (N-S)	EB	L	0.69	42.6	D	0.69	42.6	D	L	0.58	36.0	D	0.58	36.1	D	L	1.41	240.4	F	1.42	243.3	F	L	0.91	63.6	E	0.91	63.6	E
		TR	0.81	43.5	D	0.80	42.9	D	TR	0.60	35.8	D	0.66	37.5	D	TR	0.75	36.0	D	0.79	38.0	D	TR	0.60	33.8	C	0.69	36.1	D
	WB	L	1.10	173.9	F	1.10	174.7	F	L	0.37	45.8	D	1.02	127.7	F *	L	0.34	41.9	D	1.54	332.1	F *	L	0.23	39.2	D	1.40	264.5	F *
		TR	0.85	56.8	E	0.85	56.8	E	TR	0.72	49.2	D	0.72	49.2	D	TR	0.83	47.4	D	0.83	47.2	D	TR	0.84	53.2	D	0.83	52.3	D
	NB (Ext)																						LTR	0.21	40.3	D			
		DefL	0.71	70.8	E	0.94	111.1	F *	DefL	0.69	59.0	E	0.93	92.7	F *	DefL	0.93	110.3	F	1.25	211.0	F *	DefL				0.48	49.7	D *
		TR	0.33	39.7	D	0.44	42.1	D	TR	0.57	46.1	D	0.71	52.8	D *	TR	0.44	46.1	D	0.58	50.8	D *	TR				0.40	44.6	D
	NB (MD)	LTR							LTR	0.73	44.1	D	0.73	44.2	D	LTR	0.98	68.2	E	0.99	71.2	E	LTR	0.72	42.2	D	0.73	42.4	D
		DefL	0.70	48.1	D	0.68	46.7	D																					
		TR	0.59	42.2	D	0.59	42.2	D																					
	SB (Ext)	DefL	0.32	35.4	D	0.32	35.4	D	DefL	0.50	44.7	D	0.50	44.7	D	DefL	1.33	263.4	F	1.33	263.4	F	DefL	1.00	116.2	F	1.00	116.2	F
		T	0.07	30.3	C	0.01	29.6	C	T	0.08	30.4	C	0.08	30.4	C	T	0.07	31.0	C	0.14	32.0	C	T	0.13	30.4	C	0.18	31.2	C
		R	0.10	30.8	C	0.10	30.7	C	R	0.18	31.9	C	0.18	31.9	C	R	0.35	36.0	D	0.35	36.0	D	R	0.36	34.5	C	0.36	34.5	C
	SB (River)	LTR	0.88	61.0	E	0.89	62.5	E	LTR	0.51	42.5	D	0.55	43.6	D	LTR	0.85	63.2	E	0.89	68.5	E *	LTR	0.86	62.5	E			
																							L				0.83	73.5	E *
																							TR				0.77	59.9	E
	Intersection			52.0	D		55.5	E			42.7	D		50.8	D			74.4	E		88.5	F			46.1	D		62.7	E
East 149th Street (E-W) @ Gerard Avenue (N-S)	EB	LT	0.54	9.5	A	0.55	9.7	A	LT	0.48	8.9	A	0.50	9.3	A								LT	0.68	12.7	B	0.73	13.9	B
																DefL	0.73	24.8	C	0.77	29.7	C							
																T	0.70	13.9	B	0.72	14.5	B							
	WB	TR	0.35	7.2	A	0.36	7.3	A	TR	0.28	6.7	A	0.30	6.8	A	TR	0.42	7.8	A	0.44	8.0	A	TR	0.34	7.1	A	0.37	7.3	A
	NB	LTR	0.77	63.9	E	0.76	59.8	E	LTR	0.49	47.4	D	0.73	57.9	E *	LTR	0.80	63.5	E	0.92	79.6	E *	LTR	0.61	51.6	D	0.97	89.1	F *
	Intersection			14.3	B		14.9	B			11.9	B		15.2	B			17.8	B		21.0	C			14.2	B		21.9	C
East 149th Street (E-W) @ Walton Avenue (N-S)	EB	TR	0.42	7.9	A	0.43	8.0	A	TR	0.28	6.7	A	0.29	6.8	A	TR	0.37	7.4	A	0.38	7.5	A	TR	0.40	7.7	A	0.42	7.8	A
	WB	LT	0.49	8.8	A	0.49	8.9	A	LT	0.35	7.3	A	0.38	7.6	A	LT	0.58	10.0	A	0.61	10.5	B	LT	0.43	8.0	A	0.48	8.6	A
	SB	LTR	1.00	98.0	F	1.01	100.5	F	LTR	0.73	58.0	E	0.76	60.6	E	LTR	0.86	71.4	E	0.90	76.7	E *	LTR	0.78	62.2	E	0.82	66.3	E *
	Intersection			22.5	C		22.8	C			15.3	B		15.7	B			16.7	B		17.7	B			14.7	B		15.4	B
East 149th Street (E-W) @ Morris Avenue (N-S)	EB	L	0.33	21.8	C	0.33	21.8	C	L	0.23	19.5	B	0.25	19.8	B	L	0.57	33.3	C	0.60	35.0	C	L	0.30	21.0	C	0.31	21.3	C
		TR	0.45	21.0	C	0.46	21.1	C	TR	0.44	20.9	C	0.46	21.3	C	TR	0.45	21.0	C	0.47	21.2	C	TR	0.40	20.1	C	0.42	20.4	C
	WB	L	0.83	50.7	D	0.83	51.2	D	L	0.61	32.1	C	0.64	34.1	C	L	0.71	38.4	D	0.73	41.1	D	L	0.31	20.9	C	0.33	21.5	C
		TR	0.43	20.6	C	0.43	20.6	C	TR	0.39	20.0	B	0.40	20.2	C	TR	0.57	23.1	C	0.58	23.3	C	TR	0.39	20.0	B	0.40	20.2	C
	NB	LTR	1.16	137.3	F	1.22	160.2	F *	LTR	1.04	94.9	F	1.19	146.7	F *	LTR	1.15	131.6	F	1.20	150.5	F *	LTR	0.56	30.8	C	0.70	36.9	D
	SB	LTR	0.88	42.8	D	0.90	44.4	D	LTR	0.70	32.6	C	0.74	34.1	C	LTR	0.83	37.6	D	0.86	40.0	D	LTR	0.60	29.0	C	0.65	30.2	C
	Intersection			45.2	D		49.2	D			35.9	D		45.2	D			41.9	D		45.5	D			24.1	C		25.6	C
East 149th Street (E-W) @ Third Avenue (N-S) & Melrose Avenue (N-S)	EB	T	0.45	21.6	C	0.46	21.8	C	T	0.42	21.2	C	0.45	21.6	C	T	0.53	22.7	C	0.55	23.0	C	T	0.48	21.9	C	0.52	22.5	C
	WB	T	0.51	22.4	C	0.51	22.3	C	T	0.44	21.4	C	0.46	21.6	C	T	0.44	21.3	C	0.45	21.5	C	T	0.45	21.5	C	0.47	21.8	C
	NB	T	0.34	14.1	B	0.35	14.2	B	T	0.32	14.0	B	0.33	14.0	B	T	0.30	13.6	B	0.30	13.7	B	T	0.53	16.5	B	0.54	16.6	B
	SB (Third)	T	0.50	16.8	B	0.50	16.7	B	T	0.40	15.3	B	0.41	15.4	B	T	0.38	14.9	B	0.39	15.1	B	T	0.37	14.8	B	0.38	14.9	B
	SB (M)	R	0.70	23.7	C	0.70	23.7	C	R	0.67	22.9	C	0.67	22.9	C	R	0.68	23.7	C	0.68	23.7	C	R	0.48	17.5	B	0.48	17.5	B
	Intersection			19.6	B		19.6	B			18.9	B		19.1	B			19.5	B		19.7	B			18.6	B		18.9	B
East 144th Street (E-W) @ Gerard Avenue (N-S)	EB	LT	0.13	14.1	B	0.17	14.4	B	LT	0.09	13.8	B	0.18	14.5	B	LT	0.17	14.5	B	0.27	15.4	B	LT	0.09	13.7	B	0.24	15.1	B
	WB	TR	0.54	20.2	C	0.57	20.5	C	TR	0.33	16.6	B	0.38	17.0	B	TR	0.39	17.3	B	0.49	18.8	B	TR	0.21	14.9	B	0.39	17.1	B
	NB	LTR	0.16	7.5	A	0.19	7.6	A	LTR	0.30	8.6	A	0.34	8.9	A	LTR	0.27	8.2	A	0.39	9.4	A	LTR	0.13	7.1	A	0.29	8.4	A
	Intersection			16.1	B		15.9	B			12.3	B		12.8	B			12.9	B		14.0	B			11.6	B		13.2	B
East 144th Street (E-W) @ Walton Avenue (N-S)	EB	TR	0.23	15.0	B	0.30	15.7	B	TR	0.17	14.5	B	0.26	15.3	B	TR	0.14	14.2	B	0.24	15.1	B	TR	0.12	14.0	B	0.33	16.0	B
	WB	LT	0.48	18.8	B	0.53	19.8	B	LT	0.30	16.1	B	0.34	16.5	B	LT	0.34	16.5	B	0.43	17.7	B	LT	0.29	15.8	B	0.44	18.0	B
	SB	LTR	0.36	9.1	A	0.35	9.0	A	LTR	0.29	8.4	A	0.30	8.5	A	LTR	0.34	8.8	A	0.36	9.1	A	LTR	0.20	7.6	A	0.25	8.0	A
	Intersection			13.9	B		14.5	B			12.0	B		12.8	B			12.2	B		13.3	B			12.0	B		14.2	B
East 144th Street (E-W) @ Grand Concourse (N-S)	EB	LTR	0.55	40.9	D	0.67	45.9	D *	LTR	0.46	37.4	D	0.64	43.4	D	LTR	0.59	46.4	D	0.82	60.6	E *	LTR	0.24	32.8	C	0.48	37.6	D
	WB	LTR	0.96	78.4	E	1.03	95.9	F *	LTR	0.81	55.4	E	0.85	59.2	E	LTR	1.16	145.5	F	1.20	161.3	F *	LTR	0.56	40.8	D	0.69	46.1	D *
	NB	LTR	0.73	25.9	C	0.73	26.0	C	LTR	0.57	23.4	C	0.60	23.9	C	LTR	0.72	22.7	C	0.74	23.4	C	LTR	0.42	20.7	C	0.44	21.1	C
	SB	DefL	0.97	76.9	E	0.95	73.1	E	DefL	0.56	19.8	B	0.56	20.5	C	DefL	0.76	41.8	D	0.78	46.6	D	DefL	0.28	12.4	B	0.29	12.6	B
		TR	0.40	11.9	B	0.39	11.8	B	TR	0.33	12.0	B	0.34	12.1	B	TR	0.36	9.3	A	0.38	9.5	A	TR	0.33	12.0	B	0.35	12.1	B
	Intersection			33.5	C		36.4	D			25.8	C		27.5	C			36.9	D		41.0	D			20.6	C		23.0	C
East 144th Street (E-W) @ Park Avenue (N-S)	EB	LT	1.05	74.2	E	1.09	88.0	F *	LT	0.40	17.6	B	0.44	18.1	B	LT	0.74	28.0	C	0.83	34.8	C	LT	0.30	16.1	B	0.38	17.3	B
	WB	TR	0.39	17.3	B	0.39	17.2	B	TR	0.30	16.0	B	0.31	16.2	B	TR	0.47	18.3	B	0.50	18.9	B	TR	0.19	14.8	B	0.25	15.4	B
	NB	LTR	0.36	17.1	B	0.35	17.0	B	LTR	0.40	17.8	B	0.38	17.4	B	LTR	0.49	19.2	B	0.49	19.1	B	LTR	0.26	15.8	B	0.27	15.9	B
	SB	LR	0.13	14.4	B	0.12	14.4	B	LR	0.06	13.6	B	0.06	13.7	B	LR	0.08	13.9	B	0.07	13.8	B	LR	0.05	13.6	B	0.05	13.6	B
	Intersection			46.6	D		53.0	D			17.0	B		17.1	B			21.7	C		24.4	C			15.5	B		16.2	B
East 144th Street (E-W) @ Morris Avenue (N-S)	EB	LR	0.38	16.7	B	0.41	17.0	B	LR	0.16	14.3	B	0.18	14.5	B	LR	0.23	15.0	B	0.25	15.2	B	LR	0.27	15.4	B	0.32	16.0	B
	NB	LT	0.75	18.7	B	0.73	17.8	B	LT	0.54	11.3	B	0.61	12.8	B	LT	0.46	10.4	B	0.58	13.0	B	LT	0.31	8.6	A	0.39	9.4	A
	SB	TR	0.66	14.0	B	0.65	13.8	B	TR	0.43	9.9	A	0.45	10.2	B	TR	0.62	12.9	B	0.65	13.5	B	TR	0.43	9.7	A	0.46	10.1	B
	Intersection			16.3	B		16.0	B			11.1	B		12.0	B			12.4	B		13.6	B			10.5	B		11.1	B

Table 3.15-10: 2018 With Action Conditions Level of Service Analysis – Typical Day (Con't)

Signalized Intersection	Approach[1]	AM Peak Hour							MD Peak Hour							PM Peak Hour							SAT Peak Hour						
			NO BUILD			BUILD				NO BUILD			BUILD				NO BUILD			BUILD				NO BUILD			BUILD		
		Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS
East 143rd Street (E-W) @ Morris Avenue (N-S)	EB	LTR	0.38	17.1	B	0.43	17.8	B	LTR	0.35	16.7	B	0.33	16.4	B	LTR	0.46	18.4	B	0.38	17.1	B	LTR	0.19	14.8	B	0.29	15.9	B
	WB	LR	0.56	21.3	C	0.56	21.2	C	LR	0.35	17.0	B	0.39	17.6	B	LR	0.40	17.8	B	0.47	19.0	B	LR	0.33	16.6	B	0.41	17.9	B
	NB	TR	0.45	10.1	B	0.45	10.1	B	TR	0.44	9.9	A	0.46	10.2	B	TR	0.34	8.8	A	0.35	8.9	A	TR	0.26	8.1	A	0.28	8.3	A
	SB	LT	0.37	9.3	A	0.38	9.3	A	LT	0.33	8.8	A	0.35	9.1	A	LT	0.42	9.7	A	0.43	9.9	A	LT	0.36	9.1	A	0.38	9.3	A
	Intersection			13.6	B		13.8	B			12.1	B		12.3	B			12.7	B		12.7	B			10.9	B		11.9	B
East 143rd Street (E-W) @ Third Avenue (N-S) & Alexander Avenue (N-S)	EB	LTR	0.41	13.2	B	0.41	13.1	B	LTR	0.38	12.6	B	0.39	12.7	B	LTR	0.49	14.4	B	0.49	14.5	B	LTR	0.31	11.7	B	0.32	11.8	B
	WB	LTR	0.78	22.5	C	0.78	22.4	C	LTR	0.41	12.9	B	0.42	13.0	B	LTR	0.59	16.0	B	0.60	16.3	B	LTR	0.53	14.8	B	0.54	15.0	B
	NB	LTR	0.44	26.3	C	0.44	26.2	C	LTR	0.25	23.0	C	0.31	24.0	C	LTR	0.24	22.9	C	0.31	23.9	C	LTR	0.37	25.0	C	0.45	26.6	C
	SB	LTR	0.65	35.1	D	0.68	37.1	D	LTR	0.50	28.2	C	0.56	30.3	C	LTR	0.50	28.0	C	0.55	29.7	C	LTR	0.24	23.1	C	0.31	24.4	C
	Intersection			22.8	C		23.1	C			17.2	B		18.1	B			18.3	B		19.0	B			16.5	B		17.4	B
East 140th Street (E-W) @ Grand Concourse (N-S)	EB	LR	0.21	36.8	D	0.21	36.8	D	LR	0.26	37.7	D	0.26	37.7	D	LR	0.46	41.9	D	0.46	41.9	D	LR	0.27	38.0	D	0.27	38.0	D
	NB	LT	0.61	12.9	B	0.68	14.3	B	LT	0.36	9.6	A	0.41	10.1	B	LT	0.77	16.9	B	0.80	17.9	B	LT	0.43	10.3	B			
																							DefL				0.53	16.2	B
																							R				0.45	10.7	B
	SB	TR	0.30	9.0	A	0.30	9.0	A	TR	0.25	8.6	A	0.26	8.7	A	TR	0.30	9.0	A	0.30	9.0	A	TR	0.27	8.8	A	0.28	8.8	A
	Intersection			12.2	B		13.1	B			10.8	B		11.0	B			16.0	B		16.6	B			11.2	B		11.8	B
East 140th Street (E-W) @ Morris Avenue (N-S)	EB	LR	0.30	18.4	B	0.30	18.4	B	LR	0.13	16.4	B	0.13	16.4	B	LR	0.14	16.5	B	0.14	16.5	B	LR	0.12	16.2	B	0.12	16.2	B
	NB	T	0.13	5.6	A	0.13	5.6	A	T	0.17	5.8	A	0.18	5.8	A	T	0.14	5.6	A	0.14	5.7	A	T	0.09	5.4	A	0.10	5.4	A
	SB	T	0.25	6.2	A	0.26	6.3	A	T	0.22	6.1	A	0.21	6.0	A	T	0.21	6.0	A	0.20	6.0	A	T	0.18	5.9	A	0.20	5.9	A
	Intersection			7.9	A		7.9	A			6.7	A		6.7	A			6.7	A		6.7	A			6.7	A		6.6	A
East 139th Street (E-W) @ Morris Avenue (N-S)	WB	LTR	0.50	11.9	B	0.50	11.9	B	LTR	0.34	9.8	A	0.36	9.9	A	LTR	0.53	12.5	B	0.55	12.7	B	LTR	0.44	10.9	B	0.45	11.1	B
	NB	LT	0.40	38.7	D	0.42	39.0	D	LT	0.41	38.5	D	0.43	38.9	D	LT	0.29	36.5	D	0.30	36.7	D	LT	0.26	36.1	D	0.30	36.7	D
	SB	TR	0.81	51.0	D	0.85	54.0	D	TR	0.55	41.2	D	0.54	41.1	D	TR	0.57	41.7	D	0.55	41.1	D	TR	0.52	40.5	D	0.56	41.4	D
	Intersection			32.5	C		34.2	C			29.0	C		28.9	C			26.7	C		26.4	C			25.9	C		26.8	C
East 139th Street (E-W) @ Third Avenue (N-S)	WB	TR	0.37	28.1	C	0.37	28.0	C	TR	0.19	31.5	C	0.19	31.5	C	TR	0.40	35.8	D	0.41	35.9	D	TR	0.32	33.7	C	0.33	34.0	C
	NB	LT	0.24	35.8	D	0.24	35.8	D	LT	0.23	35.7	D	0.24	35.9	D	LT	0.30	36.8	D	0.31	26.9	C	LT	0.28	36.4	D	0.28	36.4	D
	SB	TR	0.85	37.9	D	0.85	37.6	D	TR	0.49	15.5	B	0.51	15.8	B	TR	0.68	20.3	C	0.70	21.1	C	TR	0.60	17.8	B	0.62	18.3	B
	Intersection			35.5	D		35.3	D			23.2	C		23.6	C			27.2	C		27.6	C			25.4	C		25.7	C
East 138th Street (E-W) @ Major Deegan Expwy Off-Ramp NB (N-S)	EB	L	0.75	32.4	C	0.69	29.1	C	L	0.64	26.7	C	0.55	23.2	C	L	0.84	43.0	D	0.79	38.6	D	L	0.69	22.1	C	0.79	32.2	C
		T	0.30	7.1	A	0.27	6.8	A	T	0.18	4.2	A	0.18	4.2	A	T	0.28	4.2	A	0.30	4.3	A	T	0.21	4.3	A	0.23	4.4	A
	WB	TR	1.00	76.6	E	1.08	100.5	F *	TR	0.93	49.8	D	0.91	47.4	D	TR	0.90	46.8	D	0.84	43.3	D	TR	0.59	34.1	C	0.71	37.2	D
	NB	LTR	1.06	104.4	F	0.82	62.1	E	LTR	0.86	68.1	E	0.78	60.6	E	LTR	1.20	168.2	F	1.34	225.9	F *	LTR	0.91	73.1	E	1.03	97.3	F *
	Intersection			55.0	D		57.1	E			39.0	D		35.9	D			50.6	D		58.6	E			29.9	C		37.3	D
East 138th Street (E-W) @ Exterior Street SB (N-S)	EB	TR	1.00	69.2	E	1.00	68.4	E	TR	0.63	29.2	C	0.64	29.7	C	TR	0.85	34.9	C	0.86	35.8	D	TR	0.78	33.4	C	0.80	34.3	C
	WB	L	0.74	56.9	E	0.94	84.5	F *	L	1.05	103.4	F	0.98	83.0	F	L	1.04	108.0	F	0.87	67.3	E	L	0.75	45.8	D	0.95	74.6	E *
		T	0.83	52.9	D	0.83	53.1	D	T	0.50	32.4	C	0.51	32.6	C	T	0.59	35.0	C	0.59	35.0	C	T	0.46	31.7	C	0.47	31.9	C
	SB	LTR	1.04	69.4	E	0.98	55.6	E	LTR	1.19	133.5	F	1.09	94.2	F	LTR	1.33	203.0	F	1.28	178.8	F	LTR	1.01	67.4	E	1.12	103.9	F *
		R	0.62	16.5	B	0.64	17.0	B	R	0.44	16.3	B	0.47	17.0	B	R	0.56	22.8	C	0.59	23.7	C	R	0.46	16.5	B	0.51	17.5	B
	Intersection			58.9	E		55.6	E			69.1	E		52.9	D			83.1	F		73.1	E			42.0	D		55.6	E
East 138th Street (E-W) @ Grand Concourse SB (N-S)	EB	T	0.41	13.2	B	0.36	12.6	B	T	0.25	11.5	B	0.25	11.5	B	T	0.37	12.8	B	0.40	13.0	B	T	0.34	12.4	B	0.37	12.7	B
	WB	T	0.29	11.9	B	0.30	12.0	B	T	0.40	13.0	B	0.38	12.8	B	T	0.41	13.2	B	0.38	12.8	B	T	0.21	11.2	B	0.25	11.5	B
	SB	L	0.56	39.7	D	0.54	39.1	D	L	0.33	34.3	C	0.35	34.7	C	L	0.32	34.0	C	0.33	34.3	C	L	0.34	34.5	C	0.37	35.1	D
		R	0.38	35.7	D	0.39	35.9	D	R	0.31	34.3	C	0.32	34.4	C	R	0.51	38.8	D	0.51	38.7	D	R	0.56	40.4	D	0.57	40.8	D
	Intersection			17.5	B		17.3	B			15.7	B		15.8	B			16.5	B		16.5	B			17.4	B		17.4	B
East 138th Street (E-W) @ Park Avenue (N-S)	EB	LT	1.04	66.4	E				LT	0.62	21.1	C	0.59	20.3	C	LT				0.87	33.0	C	LT	0.65	21.6	C	0.75	25.0	C
		DefL				0.91	63.4	E								DefL	0.99	92.5	F										
		T				0.77	27.3	C								T	0.69	23.6	C										
	WB	TR	0.52	18.2	B	0.53	18.4	B	TR	0.57	19.2	B	0.56	18.9	B	TR	0.65	20.8	C	0.61	19.9	B	TR	0.36	15.7	B	0.45	17.0	B
	NB	L	0.76	44.0	D	0.78	45.9	D	L	0.92	59.4	E	0.94	63.0	E	L	0.98	72.0	E	1.01	77.5	E *	L	0.43	32.2	C	0.50	33.8	C
		TR	0.10	26.7	C	0.10	26.7	C	TR	0.20	28.1	C	0.20	28.1	C	TR	0.36	30.7	C	0.36	30.7	C	TR	0.06	26.1	C	0.06	26.1	C
	Intersection			44.6	D		30.8	C			29.4	C		30.3	C			37.4	D		37.5	D			21.2	C		23.2	C
East 138th Street (E-W) @ Canal Place (N-S)	EB	TR	0.55	18.7	B	0.47	17.3	B	TR	0.37	15.9	B	0.35	15.6	B	TR	0.39	16.1	B	0.40	16.3	B	TR	0.37	15.8	B	0.40	16.3	B
	WB	LT	0.47	17.4	B	0.48	17.6	B	LT	0.41	16.4	B	0.47	17.3	B	LT	0.50	17.8	B	0.56	19.0	B	LT	0.31	15.2	B	0.39	16.2	B
	NB	LR	0.13	27.2	C	0.12	27.1	C	LR	0.12	27.1	C	0.09	26.6	C	LR	0.19	28.3	C	0.14	27.2	C	LR	0.08	26.4	C	0.08	26.4	C
	SB	LTR	0.56	36.3	D	0.56	36.3	D	LTR	0.54	35.8	D	0.24	28.9	C	LTR	0.79	47.8	D	0.33	30.5	C	LTR	0.23	28.7	C	0.22	28.5	C
	Intersection			20.8	C		20.4	C			19.5	B		17.8	B			23.4	C		19.3	B			17.0	B		17.4	B
East 138th Street (E-W) @ Rider Avenue (N-S)	EB								LTR	0.70	24.0	C	0.55	19.2	B	LTR	0.50	18.1	B	0.56	19.2	B	LTR	0.46	17.3	B	0.50	18.0	B
		DefL	1.23	160.3	F	0.75	38.9	D																					
		TR	0.79	29.5	C	0.79	29.2	C																					
	WB	LTR	0.58	19.5	B	0.55	19.0	B	LTR	0.51	18.2	B	0.56	19.1	B	LTR	0.50	17.9	B	0.59	19.6	B	LTR	0.37	15.9	B	0.46	17.2	B
	NB	LTR	0.25	29.0	C	0.16	27.5	C	LTR	0.17	27.7	C	0.18	27.9	C	LTR	0.20	28.2	C	0.26	29.2	C	LTR	0.09	26.5	C	0.16	27.5	C
	Intersection			45.3	D		25.2	C			21.3	C		19.6	B			18.6	B		20.1	C			17.0	B		18.1	B
East 138th Street (E-W) @ Third Avenue (N-S) & Morris Avenue (N-S)	EB	LTR	0.81	31.1	C	0.80	30.3	C								LTR	0.89	37.8	D	1.01	61.2	E *							
									DefL	0.54	19.2	B	0.61	22.8	C	DefL							DefL	0.59	18.1	B	0.82	34.4	C
									TR	0.42	13.0	B	0.46	13.7	B	TR							TR	0.58	15.8	B	0.68	18.4	B
	WB	LTR	0.97	47.5	D	0.92	40.1	D	LTR	0.54	14.2	B	0.58	14.9	B	LTR	0.80	29.3	C	0.93	41.2	D							
																							DefL	0.30	12.4	B	0.46	13.2	B
																							TR	0.35	12.1	B	0.46	13.2	B
	NB	DefL	0.43	22.8	C	0.55	27.7	C	DefL	0.90	75.4	E	1.10	129.9	F *	DefL	0.85	56.3	E	1.01	91.8	F *	DefL	1.02	117.4	F	1.32	224.5	F *
		TR	0.18	15.4	B	0.19	15.5	B	TR	0.28	22.7	C	0.30	22.9	C	TR	0.19	15.5	B	0.20	15.6	B	TR	0.20	21.9	C	0.21	22.0	C
	SB	L	0.34	18.5	B	0.35	18.8	B	L	0.29	24.5	C	0.31	24.9	C	L	0.19	16.1	B	0.20	16.2	B	L	0.24	23.4	C	0.27	23.9	C
		TR	0.39	17.4	B	0.40	17.5	B	TR	0.49	25.1	C	0.50	25.2	C	TR	0.45	18.0	B	0.45	18.0	B	TR	0.59	26.6	C	0.62	27.1	C
	Intersection			30.0	C		27.3	C			22.5	C		27.2	C			27.5	C		39.2	D			24.9	C		33.1	C

Table 3.15-10: 2018 With Action Conditions Level of Service Analysis – Typical Day (Con't)

Signalized Intersection	Approach[1]	AM Peak Hour							MD Peak Hour							PM Peak Hour							SAT Peak Hour						
			NO BUILD			BUILD				NO BUILD			BUILD				NO BUILD			BUILD				NO BUILD			BUILD		
		Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS
East 138th Street (E-W) @	EB	LTR	0.90	51.4	D	0.93	54.7	D	LTR	0.72	28.5	C	0.84	37.1	D	LTR	1.09	99.9	F	1.16	123.8	F *	LTR	0.80	31.8	C	0.88	39.0	D
Willis Avenue (N-S)	WB	LTR	0.77	34.7	C	0.76	34.4	C	LTR	0.90	41.2	D	0.95	42.0	D	LTR	0.77	35.2	D	0.82	39.0	D	LTR	0.56	21.7	C	0.62	23.2	C
	NB	LTR	0.70	29.1	C	0.63	27.2	C	LTR	0.70	23.5	C	0.72	24.1	C	LTR	0.89	39.6	D	0.91	41.5	D *	LTR	0.47	18.9	B	0.56	20.6	C
	SB	LTR	0.59	30.8	C	0.56	29.4	C	LTR	0.43	20.3	C	0.43	20.5	C	LTR	0.63	34.3	C	0.64	34.5	C	LTR	0.66	27.5	C	0.71	30.3	C
	Intersection			35.8	D		36.0	D			29.2	C		33.9	C			52.4	D		60.0	E			24.7	C		28.0	C
East 135th Street WB (E-W) @	WB	L	0.54	13.0	B	0.54	13.0	B	L	0.40	10.5	B	0.40	10.5	B	L	0.58	13.5	B	0.58	13.5	B	L	0.61	14.1	B	0.61	14.2	B
Third Avenue (N-S)		LT	0.44	10.6	B	0.42	10.4	B	LT	0.40	10.1	A	0.40	10.0	A	LT	0.44	10.4	B	0.44	10.5	B	LT	0.27	8.8	A	0.27	8.8	A
	SB	T	0.43	37.9	D	0.44	38.1	D	T	0.35	36.8	D	0.34	36.7	D	T	0.48	38.7	D	0.46	38.4	D	T	0.42	37.8	D	0.43	37.9	D
		R	0.17	35.7	D	0.23	36.9	D	R	0.12	34.8	C	0.22	36.4	C	R	0.15	35.3	C	0.23	36.7	C	R	0.18	35.9	D	0.40	40.6	D
	Intersection			20.6	C		21.2	C			18.3	B		18.5	B			21.1	C		21.0	C			21.4	C		22.3	C
East 135th Street EB (E-W) @	EB	TR	0.43	32.4	C	0.53	34.8	C	TR	0.24	28.8	C	0.35	30.7	C	TR	0.38	31.0	C	0.44	32.4	C	TR	0.39	31.3	C	0.48	33.3	C
Third Avenue (N-S)		R	0.61	35.6	D	0.67	37.4	D	R	0.39	30.7	C	0.41	31.0	C	R	0.48	32.3	C	0.49	32.5	C	R	0.56	34.0	C	0.61	35.3	D
	NB	R	0.05	33.1	C	0.05	33.1	C	R	0.07	33.3	C	0.07	33.3	C	R	0.10	33.8	C	0.10	33.8	C	R	0.02	32.6	C	0.02	32.6	C
	SB	LT	0.45	15.5	B	0.46	15.7	B	LT	0.38	14.6	B	0.38	14.7	B	LT	0.50	16.2	B	0.50	16.2	B	LT	0.49	16.0	B	0.51	16.3	B
	Intersection			21.8	C		23.0	C			18.7	B		19.4	B			20.5	C		20.8	C			20.9	C		21.9	C
East 135th Street (E-W) @	WB	LTR	0.94	30.9	C	0.93	28.9	C	LTR	0.74	20.1	C	0.73	20.0	B	LTR	0.91	26.8	C	0.92	27.3	C	LTR	0.79	21.4	C	0.80	21.5	C
Lincoln Avenue (N-S)	NB	LT	0.11	7.2	A	0.15	7.4	A	LT	0.07	7.0	A	0.10	7.2	A	LT	0.14	7.3	A	0.16	7.5	A	LT	0.08	7.0	A	0.10	7.1	A
	SB	TR	0.05	6.9	A	0.05	6.9	A	TR	0.09	7.0	A	0.09	7.0	A	TR	0.04	6.8	A	0.04	6.8	A	TR	0.07	7.0	A	0.07	7.0	A
	Intersection			27.9	C		25.6	C			18.4	B		18.0	B			24.3	C		24.3	C			19.5	B		19.4	B
East 135th Street (E-W) @	WB	TR	0.67	11.8	B	0.66	11.6	B	TR	0.60	10.7	B	0.60	10.6	B	TR	0.71	12.6	B	0.71	12.6	B	TR	0.60	10.6	B	0.60	10.6	B
Willis Avenue (N-S)	NB	T	0.67	45.7	D	0.62	44.5	D	T	0.47	41.8	D	0.49	42.1	D	T	0.74	47.8	D	0.83	51.6	D	T	0.79	49.9	D	0.87	54.1	D
	SB	R	0.51	46.6	D	0.51	46.6	D	R	0.36	42.7	D	0.36	42.7	D	R	0.39	43.2	D	0.39	43.2	D	R	0.39	43.2	D	0.39	43.2	D
	Intersection			21.8	C		21.0	C			18.4	B		18.6	B			22.7	C		24.4	C			23.7	C		25.8	C
West 145th Street (E-W) @	EB	LTR	0.75	28.2	C	0.75	28.0	C	LTR	0.69	26.3	C	0.72	27.2	C	LTR	1.01	55.8	E	1.04	64.1	E *	LTR	0.86	34.0	C	0.91	38.0	D
Lenox Avenue (N-S)	WB	DefL	1.17	120.2	F	1.19	145.7	F *	DefL	0.58	19.8	B	0.63	22.3	C	DefL	1.15	128.5	F	1.17	135.6	F *	DefL	0.78	34.3	C	0.89	52.5	D *
		TR	0.73	20.4	C	0.75	21.1	C	TR	0.61	16.8	B	0.64	17.5	B	TR	0.88	29.1	C	0.89	30.6	C	TR	0.64	17.5	B	0.68	18.6	B
	NB	L	0.55	30.5	C	0.43	26.8	C	L	0.46	28.1	C	0.46	28.1	C	L	0.62	35.1	D	0.62	35.3	D	L	0.57	38.8	D	0.59	33.6	C
		LTR	0.53	26.0	C	0.60	27.6	C	LTR	0.46	25.0	C	0.48	25.3	C	LTR	0.60	26.6	C	0.61	27.0	C	LTR	0.56	27.0	C	0.58	27.4	C
	SB	LTR	0.19	21.2	C	0.19	21.2	C	LTR	0.16	20.8	C	0.16	20.9	C	LTR	0.31	22.8	C	0.33	23.1	C	LTR	0.24	21.7	C	0.25	21.9	C
	Intersection			37.8	D		41.7	D			22.7	C		23.5	C			46.4	D		50.4	D			27.9	C		31.4	C
West 138th Street (E-W) @	WB	L	0.68	25.2	C	0.69	25.5	C	L	0.33	18.1	B	0.35	18.3	B	L	0.48	20.4	C	0.49	20.6	C	L	0.35	18.3	B	0.37	18.6	B
Fifth Avenue (N-S)		LTR	0.75	25.0	C	0.76	25.4	C	LTR	0.57	20.8	C	0.59	21.2	C	LTR	0.72	24.3	C	0.73	24.6	C	LTR	0.54	20.3	C	0.57	20.9	C
	NB	LTR	0.36	21.1	C	0.36	21.1	C	LTR	0.24	19.7	B	0.24	19.7	B	LTR	0.38	21.5	C	0.38	21.5	C	LTR	0.30	20.4	C	0.30	20.4	C
	SB	LTR	0.34	20.8	C	0.34	20.8	C	LTR	0.22	19.5	B	0.22	19.5	B	LTR	0.37	21.2	C	0.37	21.2	C	LTR	0.34	20.8	C	0.34	20.8	C
	Intersection			23.7	C		24.0	C			20.0	B		20.2	C			22.5	C		22.8	C			20.1	C		20.4	C
East 135th Street (E-W) @	EB	L	0.81	53.2	D	0.80	52.9	D	L	0.74	47.6	D	0.77	49.6	D	L	1.10	117.3	F	1.13	125.2	F *	L	1.04	96.9	F	1.07	106.7	F *
Madison Avenue (N-S)		LT	0.69	43.5	D	0.68	43.4	D	LT	0.72	45.6	D	0.74	46.6	D	LT	0.90	64.8	E	0.92	67.0	E	LT	0.91	65.9	E	0.93	69.9	E *
	WB (SR)	TR	0.40	33.9	C	0.40	33.9	C	TR	0.27	31.1	C	0.27	31.3	C	TR	0.39	33.8	C	0.40	34.0	C	TR	0.13	28.9	C	0.13	28.9	C
	WB (Ramp)	TR	0.89	51.5	D	0.89	51.5	D	TR	0.76	41.9	D	0.77	42.1	D	TR	0.94	57.0	E	0.94	57.7	E	TR	0.90	51.6	D	0.91	52.6	D
	NB	L	0.47	31.1	C	0.47	31.1	C	L	0.48	31.4	C	0.48	31.4	C	L	0.45	30.7	C	0.45	30.7	C	L	0.48	31.3	C	0.48	31.3	C
		TR	1.02	69.0	E	1.02	67.2	E	TR	0.71	34.6	C	0.74	35.3	D	TR	1.10	95.3	F	1.12	102.7	F *	TR	0.95	52.4	D	0.98	58.4	E *
	SB	R	0.39	28.6	C	0.40	28.6	C	R	0.28	27.1	C	0.29	27.3	C	R	0.32	27.6	C	0.33	27.7	C	R	0.38	28.4	C	0.40	28.7	C
	Intersection			52.2	D		51.5	D			37.7	D		38.3	D			74.9	E		79.2	E			54.9	D		59.0	E

Unsignalized Intersection	Approach[1]	AM Peak Hour							MD Peak Hour							PM Peak Hour							SAT Peak Hour						
			NO BUILD			BUILD				BUILD			NO BUILD				NO BUILD			BUILD				NO BUILD			BUILD		
		Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group2	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS
East 138th Street (E-W) @	NB	LR	0.11	20.9	C	0.25	21.8	C	LR	0.16	17.9	C	0.24	18.4	C	LR	0.17	22.0	C	0.21	23.8	C	LR	0.07	14.6	B	0.13	17.4	C
Canal Street (N-S)	Intersection			-	-		-	-			-	-		-	-			-	-		-	-			-	-		-	-
East 140th Street (E-W) @	WB	R	0.15	12.0	B	0.11	9.8	A	R	0.07	12.4	B	0.07	12.0	B	R	0.10	10.7	B	0.12	11.6	B	R	0.02	8.9	A	0.04	9.7	A
Exterior St NB (N-S)	Intersection			-	-		-	-			-	-		-	-			-	-		-	-			-	-		-	-
East 144th Street (E-W) @	EB	LTR	0.14	21.6	C	0.10	19.0	C	LTR	0.02	11.9	B	0.13	25.8	D	LTR	0.00	0.0	A	0.03	25.8	D	LTR	0.00	0.0	A	0.07	16.4	C
Exterior Street (N-S)	WB	LTR	0.44	20.1	C	0.55	24.9	C	LTR	0.23	14.6	B	0.42	22.8	C	LTR	0.14	12.9	B	0.39	24.5	C	LTR	0.09	9.8	A	0.43	21.2	C
	Intersection			-	-		-	-			-	-		-	-			-	-		-	-			-	-		-	-
East 146th Street (E-W) @	NB	TR	0.21	10.6	B	0.20	10.2	B	TR	0.40	13.1	B	0.42	13.1	B	TR	0.30	11.0	B	0.31	10.8	B	TR	0.10	9.6	A	0.16	9.8	A
Exterior Street (N-S)	SB	LT	0.65	17.9	C	0.78	23.0	C	LT	0.53	16.0	C	1.07	82.5	F *	LT	0.50	13.4	B	0.81	25.3	D	LT	0.45	12.5	B	0.79	22.7	C
	Intersection			-	-		-	-			-	-		-	-			-	-		-	-			-	-		-	-
East 146th Street (E-W) @	NB	LTR	0.23	10.8	B	0.26	11.0	B	LTR	0.28	10.8	B	0.36	11.8	B	LTR	0.29	11.0	B	0.39	12.2	B	LTR	0.17	10.2	B	0.31	11.7	B
Gerard Avenue (N-S)	Intersection			-	-		-	-			-	-		-	-			-	-		-	-			-	-		-	-

Notes:
1. EB - Eastbound, WB - Westbound, NB - Northbound, SB - Southbound
2. L - Left, T- Through, R - Right, DefL - De Facto Left Turn
Congested intersections are designated by shading.
*Significant Impact

AM Peak Hour

- East 149th Street with Exterior Street, River Avenue and the MDE NB Off-Ramp: The northbound Exterior Street de facto left turn movement would deteriorate from LOS E to LOS F and increase in average delay from 70.8 seconds per vehicle to 111.1 seconds per vehicle (40.3).

- East 149th Street and Morris Avenue: The northbound approach would deteriorate within LOS F and increase in average delay from 137.3 seconds per vehicle to 160.2 seconds per vehicle (22.9).

- East 144th Street and Grand Concourse: The eastbound East 144th Street approach would deteriorate within LOS D and increase in average delay from 40.9 seconds per vehicle to 45.9 seconds per vehicle (5.0). The westbound East 144th Street approach would deteriorate from LOS E to LOS F and increase in average delay from 78.4 seconds per vehicle to 95.9 seconds per vehicle (17.5).

- East 144th Street and Park Avenue: Eastbound East 144th Street would deteriorate from LOS E to LOS F and increase in average delay from 74.2 seconds per vehicle to 88.0 seconds per vehicle (13.8).

- East 138th Street and the MDE Northbound Off-Ramp: The westbound East 138th Street approach would deteriorate to LOS F and increase in average delay from 76.6 seconds per vehicle to 100.5 seconds per vehicle (23.9).

- East 138th Street and Exterior Street: The westbound exclusive left turn lane would deteriorate to LOS F and increase in average delay from 56.9 seconds per vehicle to 84.5 seconds per vehicle (27.6)

- West 145th Street and Lennox Avenue: The de facto left turn on the westbound approach from the 145th Street Bridge would deteriorate within LOS F and increase in average delay from 120.2 seconds per vehicle to 145.7 seconds per vehicle (25.5).

Midday Peak Hour

- East 149th Street with Exterior Street, River Avenue and the MDE NB Off-Ramp: The westbound left turn lane would deteriorate from LOS D to LOS F and increase in average delay from 45.8 seconds per vehicle to 127.7 seconds per vehicle (81.9). The northbound Exterior Street de facto left turn lane would deteriorate from LOS E to LOS F and increase in average delay from 59.0 seconds per vehicle to 92.7 seconds per vehicle (33.7). The northbound Exterior Street through and right turn lane group would deteriorate in LOS D and increase in average delay from 46.1 seconds per vehicle to 52.8 seconds per vehicle (6.7).

- East 149th Street and Gerard Avenue: Gerard Avenue would deteriorate from LOS D to LOS E and increase in average delay from 47.4 seconds per vehicle to 57.9 seconds per vehicle (10.5).

- East 149th Street and Morris Avenue: The northbound Morris Avenue approach would deteriorate within LOS F and increase in average delay from 94.9 seconds per vehicle to 146.7 seconds per vehicle (51.8).

- East 138th Street with Third Avenue and Morris Avenue: The northbound de facto left turn lane would deteriorate from LOS E to LOS F and increase in average delay from 75.4 seconds per vehicle to 129.9 seconds per vehicle (54.5).

- East 138th Street and Willis Avenue: The westbound East 138th Street approach would deteriorate within LOS D and increase in average delay from 40.8 seconds per vehicle to 49.2 seconds per vehicle (8.4).

- East 146th Street with Exterior Street: The southbound STOP controlled approach would deteriorate from LOS C to LOS F and increase in average delay from 16.0 seconds per vehicle to 82.5 seconds per vehicle (66.5).

PM Peak Hour

- East 149th Street with Exterior Street, River Avenue and the MDE NB Off-Ramp: The westbound East 149th Street left turn lane would deteriorate from LOS D to LOS F and increase in average delay from 41.9 seconds per vehicle to 332.1 seconds per vehicle (290.2). The northbound Exterior Street de facto left turn lane would deteriorate in LOS F and increase in average delay from 110.3 seconds per vehicle to 211.0 seconds per vehicle (100.7). The northbound Exterior Street through and right turn lane would deteriorate within LOS D and increase in average delay from 46.1 seconds per vehicle to 50.8 seconds per vehicle (4.7). Southbound River Road would deteriorate in LOS E and increase in average delay from 63.2 seconds per vehicle to 68.5 seconds per vehicle (5.3).

- East 149th Street and Gerard Avenue: Gerard Avenue would deteriorate in LOS E and increase in average delay from 63.5 seconds per vehicle to 79.6 seconds per vehicle (16.1).

- East 149th Street and Walton Avenue: Walton Avenue would deteriorate in LOS E and increase in average delay from 71.4 seconds per vehicle to 76.7 seconds per vehicle (5.3).

- East 149th Street and Morris Avenue: The northbound Morris Avenue approach would deteriorate further in LOS F and increase in average delay from 131.6 seconds per vehicle to 150.5 seconds per vehicle (18.9).

- East 144th Street and Grand Concourse: The eastbound East 144th Street approach would deteriorate from LOS D to LOS E and increase in average delay from 46.4 seconds per vehicle to 60.6 seconds per vehicle (14.2). The westbound East 144th Street approach would deteriorate further in LOS F and increase in average delay from 145.5 seconds per vehicle to 161.3 seconds per vehicle (15.8).

- East 138th Street and the MDE NB Off-Ramp: The northbound MDE off-ramp would deteriorate within LOS F and increase in average delay from 168.2 seconds per vehicle to 225.9 seconds per vehicle (57.7).

- East 138th Street and Park Avenue: The northbound left turn lane would deteriorate within LOS E and increase in average delay from 72.0 seconds per vehicle to 77.5 seconds per vehicle (5.5).

- East 138th Street with Morris Avenue and Third Avenue: The eastbound East 138th Street approach would deteriorate from LOS D to LOS E and increase in average delay from 37.8 seconds per vehicle to 61.2 seconds per vehicle (23.4). The northbound de facto left turn lane would deteriorate from LOS E to LOS F and increase in average delay from 56.3 seconds per vehicle to 91.8 seconds per vehicle (35.5).

- East 138th Street and Willis Avenue: The eastbound East 138th Street approach would deteriorate within LOS F and increase in average delay from 95.5 seconds per vehicle to 119.3 seconds per vehicle (23.8). The northbound Willis Avenue approach would deteriorate within LOS D and increase in average delay from 46.0 seconds per vehicle to 51.7 seconds per vehicle (5.7).

- West 145th Street and Lennox Avenue: The eastbound West 145th Street approach would deteriorate within LOS E and increase in average delay from 55.8 seconds per vehicle to 64.1 seconds per vehicle (8.3). The de facto left turn on the westbound approach from the 145th Street Bridge would deteriorate within LOS F and increase in average delay from 128.5 seconds per vehicle to 135.6 seconds per vehicle (7.1).

- East 135th Street and Madison Avenue: The exclusive eastbound East 135th Street left turn lane would deteriorate further in LOS F and increase in average delay from 117.3 seconds per vehicle to 125.2 seconds per vehicle (7.9). The northbound Madison Avenue through and right turn shared lane would deteriorate further in LOS F and increase in average delay from 95.3 seconds per vehicle to 102.7 seconds per vehicle (7.4).

Saturday Peak Hour

- East 149th Street with Exterior Street, River Avenue and the MDE NB Off-Ramp: The westbound East 149th Street left turn lane would deteriorate from LOS D to LOS F and increase in average delay from 39.2 seconds per vehicle to 264.5 seconds per vehicle (225.3). Northbound Exterior Street would deteriorate within LOS D and increase in average delay from 40.3 seconds per vehicle to 46.7 seconds per vehicle (6.4).

- East 149th Street and Gerard Avenue: Gerard Avenue would deteriorate from LOS D to LOS F and increase in average delay from 51.6 seconds per vehicle to 89.1 seconds per vehicle (37.5).

- East 149th Street and Walton Avenue: Walton Avenue would deteriorate in LOS E and increase in average delay from 62.2 seconds per vehicle to 66.3 seconds per vehicle (4.1).

- East 144th Street and Grand Concourse: The westbound East 144th Street approach would deteriorate in LOS D and increase in average delay from 40.8 seconds per vehicle to 46.1 seconds per vehicle (5.7).

- East 138th Street and the MDE NB Off-Ramp: The northbound MDE off-ramp would deteriorate from LOS E to LOS F and increase in average delay from 73.1 seconds per vehicle to 97.3 seconds per vehicle (24.2).

- East 138th Street and Exterior Street: The westbound East 138th Street left turn lane would deteriorate from LOS D to LOS E and increase in average delay from 45.8 seconds per vehicle to 74.6 seconds per vehicle (28.8). The southbound Exterior Street left turn, through and right turn lane group would deteriorate from LOS E to LOS F and increase in average delay from 67.4 seconds per vehicle to 103.9 seconds per vehicle (36.5).

- East 138th Street with Morris Avenue and Third Avenue: The northbound de facto left turn lane would deteriorate in LOS F and increase in average delay from 117.4 seconds per vehicle to 224.5 seconds per vehicle (107.1).

- West 145th Street and Lennox Avenue: The de facto left turn on the westbound approach from the 145th Street Bridge would deteriorate from LOS C to LOS E and increase in average delay from 34.3 seconds per vehicle to 52.5 seconds per vehicle (18.2).

- East 135th Street and Madison Avenue: The exclusive eastbound East 135th Street left turn lane would deteriorate further in LOS F and increase in average delay from 96.9 seconds per vehicle to 106.7 seconds per vehicle (9.8). The eastbound East 135th Street shared through and left turn lane would deteriorate further in LOS E and increase in average delay from 65.9 seconds per vehicle to 69.9 seconds per vehicle (4.0). The northbound Madison Avenue through and right turn shared lane would deteriorate from LOS D to LOS E and increase in average delay from 52.4 seconds per vehicle to 58.4 seconds per vehicle (6.0).

Parking

Implementation of the proposed action would, in comparison to the No-Action condition, primarily generate residential development in place of additional manufacturing, warehouse and office development, as well as displacing existing similar non-residential land uses. The character of future parking demand in the study area would therefore change relative to the No-Action condition with reduced midday demand and increased overnight demand. Work place land uses generate daytime parking demand but little overnight demand. Residential land uses generate maximum parking demand overnight and some demand during the daytime. Overnight, it is assumed that all the resident owned vehicles would be parked and that, beginning in the early morning, the residential based parking accumulation would begin to decrease as some residents leave for work. The resident based parking accumulation would begin to increase again in the afternoon.

It is proposed as part of the RWCDS that 1,147 accessory parking spaces would be provided as part of the projected residential development by 2018. However, applying auto ownership rates derived for areas of the Bronx with income levels, transit accessibility and densities comparable to that expected to occur in the study area indicates that a residential parking demand exceeding that provided as accessory parking would occur. Also, some projected sites are not anticipated to provide any accessory parking. It is projected that 667 resident owned vehicles would either park on-street or in nearby off-street parking facilities.

Table 13.5-11 provides a comparison of projected 2018 combined on-street and off-street parking conditions in the study area both with and without the proposed action, including the overflow residential parking demand, as well existing conditions. As in the existing and No-Action analysis, the effect of street cleaning and certain night regulations are not included. The 2018 midday parking shortfall would be reduced by approximately 350 spaces under the proposed action. Overnight demand would increase by 785 spaces, but it is projected that approximately 225 spaces would be available. Thus, the analysis indicates that additional off-street parking supply is needed in the study area with or without the proposed action.

Table 13.15-11: With Action Parking Conditions

Time Period	Parking Supply	Existing Utilization	2018 No Action Available Capacity	2018 With Action Increment	2018 With Action Available Capacity
Midday	3,487	3,272	(732)	(354)	(378)
Overnight	3,585	2,453	1009	785	224

Source: PB Americas Field Survey, September 2008

Safety

As discussed above in Section 3.15.2 and in Chapter 16, four intersections in the study area experienced between 20 and 25 accidents over the most recent three year period and two intersections experienced five pedestrian related accidents. While it is not apparent from this accident history that significant safety related issues are present in

the study area, certain pedestrian safety and traffic control measures will need to be considered in the future. Increased pedestrian levels in the study area that would be generated by the proposed action, especially in areas that today exhibit little or no pedestrian activity, such as along Exterior Street, will require crosswalks and consideration of the installation of traffic signals as may be appropriate. Also, as pedestrian levels increase in existing commercial areas, such as along East 149th Street, pedestrian safety measures such as lead pedestrian intervals will also need to be considered.

3.15.5 YANKEE GAME DAY CONDITIONS

In order to assess traffic conditions at those study locations where operations may be affected by traffic volumes associated with New York Yankee home games, a separate focused study area analysis was performed. The six study intersections along East 149th Street and the study intersection of East 153rd Street with the Grand Concourse were identified as those study locations that could most likely be affected by game day traffic, given their location in the northern portion of the study area in closest proximity to Yankee Stadium and also their location along primary access corridors to the stadium. The weekday PM peak hour (5:00–6:00 PM) and a Saturday midday hour (12:15–1:15 PM) were selected for game day analysis, coinciding with the presence of pre-game traffic traveling to the stadium.

Existing Conditions

Traffic counts were conducted at the following seven intersections on Thursday, September 18 and Saturday, September 20, 2008.

- East 153rd Street and Grand Concourse
- East 149th Street and Grand Concourse
- East 149th Street with River Avenue and Exterior Street
- East 149th Street and Gerard Avenue
- East 149th Street and Walton Avenue
- East 149th Street and Morris Avenue
- East 149th Street with Third Avenue and Melrose Avenue

Figures 3.15-19 and 3.15-20 illustrate existing pre-game traffic volumes along the focused East 149th Street study area corridor and at the intersection of East 153rd Street and Grand Concourse. In comparison to typical weekday PM peak hour and typical Saturday midday traffic levels, as shown on Figures 3.15-4 and 3.15-5, game day two-way traffic levels along East 149th Street are nearly the same during the PM peak hour and from 10 percent and 15 percent lower than typical day peak hour levels on Saturday, which is likely attributable to an earlier game day analysis hour, which was selected to precede the start time of a Saturday day game.

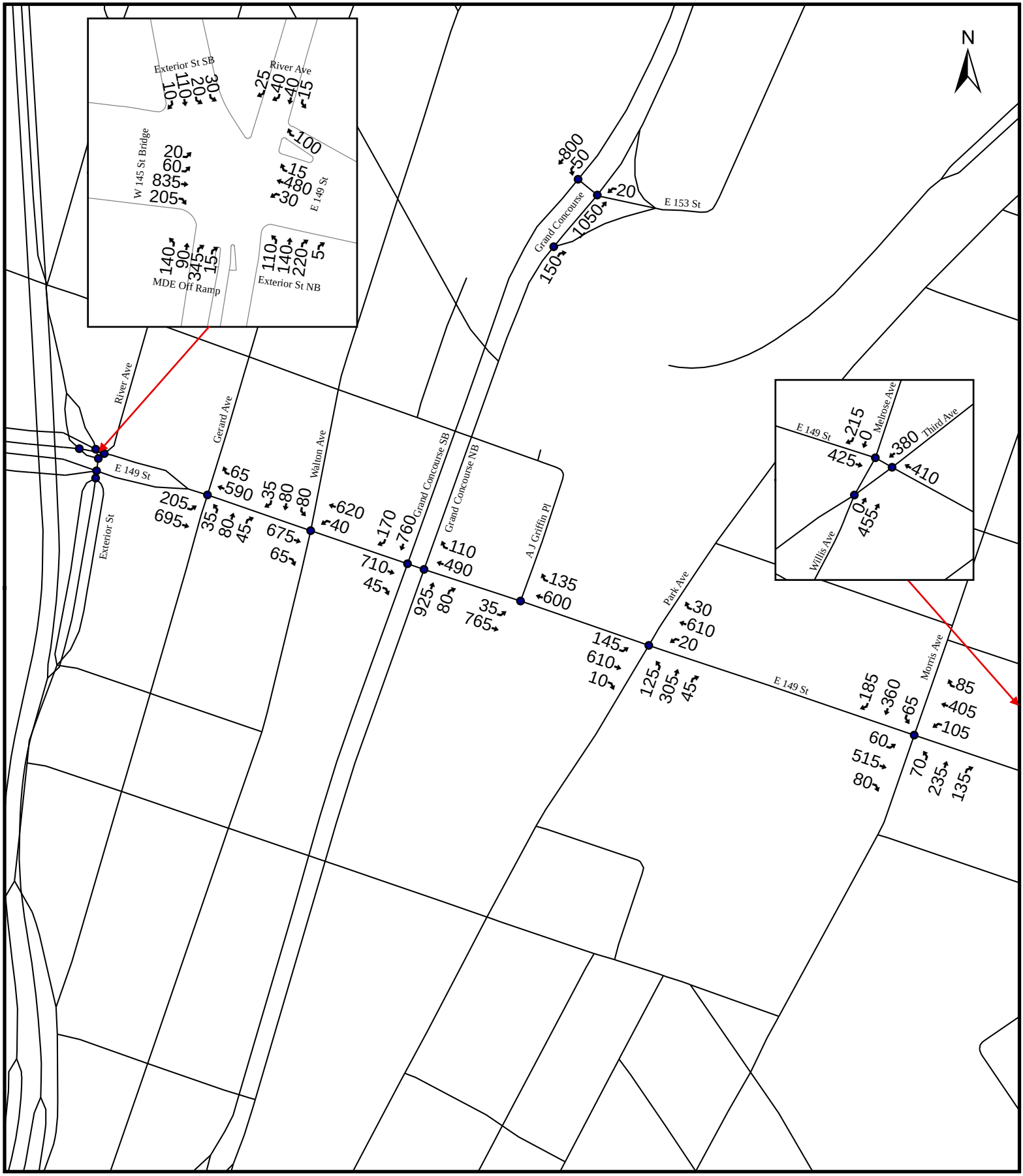


Figure 3.15-19

2008 Existing Game Day Traffic
PM Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

260 0 260 520 780 1,040 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

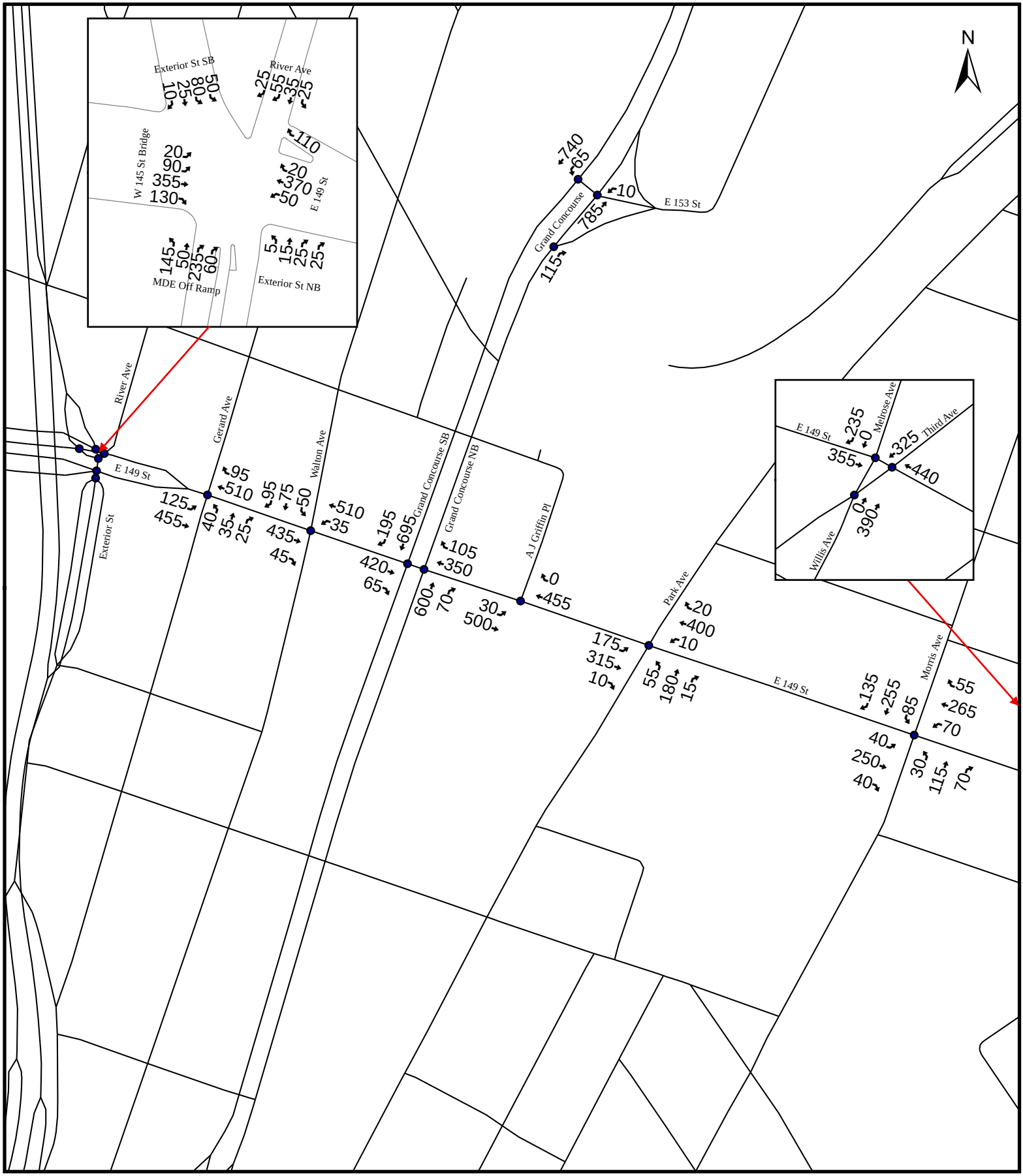


Figure 3.15-20

2008 Existing Game Day Traffic
Saturday MD Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

260 0 260 520 780 1,040 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

Eastbound PM peak-hour traffic levels across the 145th Street Bridge are approximately 10 percent higher on game day and slightly below typical day levels on Saturday. However, substantially higher game-day traffic volumes, two or more times relative to a typical day, occur on northbound Exterior Street during the PM peak hour and on the northbound MDE exit ramp during both the PM peak hour and Saturday analysis hours. These higher levels of game-day traffic are attributable to traffic movements from the MDE exit ramp and northbound Exterior Street to Exterior Street and River Avenue north of East 149th Street leading to the stadium.

Table 13.15-12 shows the results of the capacity analysis at the seven signalized focused study area intersections for the existing game day PM peak hour and Saturday midday conditions in comparison with typical day levels of service at these intersections. The following are the notable deteriorations in LOS in comparison to conditions on a typical weekday PM and Saturday midday.

PM Peak Hour

- East 149th Street with Exterior Street, River Avenue and the MDE NB Off-Ramp: During the pre-game PM peak hour, the MDE off-ramp operates at LOS F with 98.1 average seconds of delay and a v/c ratio of 1.05. The northbound Exterior Street de facto left turn lane operates at LOS F with 115.9 average seconds of delay and a v/c ratio of 1.05. Southbound Exterior Street operates as a two lane approach with a left turn lane and left turn, through and right turn lane group to satisfy game day demand at LOS F with 118.5 average seconds of delay for the left turn lane and a v/c ratio of 0.84 and at LOS E with 73.5 average seconds of delay and a v/c ratio of 0.85 for the left and through lane group. The overall intersection operates at LOS with 73.4 average seconds of delay.

Saturday Midday

- East 149th Street with Exterior Street, River Avenue and the MDE NB Off-Ramp: The eastbound approach operates at LOS F with 81.8 average seconds of delay and a v/c ratio of 1.06. The MDE off-ramp operates at LOS E with 78.9 average seconds of delay and a v/c ratio of 0.98. As during the PM pre-game peak hour, southbound Exterior Street operates as a two lane approach with a left turn lane and left turn, through and right turn lane group to satisfy game day demand at LOS F with 151.9 average seconds of delay and a v/c ratio of 1.05 and at LOS E with 56.7 average seconds of delay and a v/c ratio of 0.62, respectively. The overall intersection operates at LOS E with 67.0 average seconds of delay.

Future Without the Proposed Action

As was detailed in Section 3.15-3 for typical weekday and Saturday conditions, traffic operations in the future without the proposed actions are assessed to establish the No-Action condition, against which to evaluate potential project impacts. The development of future No-Action 2018 traffic volumes for the focused study area intersections under game day conditions followed the same process described in Section 3.15-3, and included traffic generated by development expected to occur absent the proposed actions. Conversely, however, existing game-day traffic volumes as presented above,

Table 3.15-12: Existing Conditions Level of Service Analysis – Game Day/Typical Day Comparison

		PM Peak Hour (Game Day)				PM Peak Hour (Non-Game Day)				SAT Peak Hour (Game Day)				SAT Peak Hour (Non-Game Day)			
Signalized Intersection	**Approach[1]**	**Lane Group[2]**	**V/C Ratio**	**Delay (sec.)**	**LOS**	**Lane Group[2]**	**V/C Ratio**	**Delay (sec.)**	**LOS**	**Lane Group[2]**	**V/C Ratio**	**Delay (sec.)**	**LOS**	**Lane Group[2]**	**V/C Ratio**	**Delay (sec.)**	**LOS**
East 153rd Street (E-W) @	WB	L	0.05	29.3	C	L	0.08	29.7	C	L	0.03	26.4	C	L	0.01	26.1	C
Grand Concourse (N-S)	NB	T	0.27	11.2	B	T	0.38	12.2	B	T	0.24	12.7	B	T	0.19	12.2	B
	SB	L	0.27	13.9	B	L	0.36	18.8	B	L	0.33	16.5	B	L	0.13	12.5	B
		T	0.30	11.5	B	T	0.31	11.6	B	T	0.31	13.5	B	T	0.27	13.1	B
	Intersection			11.7	B			12.5	B			13.4	B			12.7	B
East 149th Street (E-W) @	EB	TR	0.80	40.4	D	TR	0.74	37.7	D	TR	0.47	27.9	C	TR	0.66	32.4	C
Grand Concourse (N-S)	WB	TR	0.59	33.0	C	TR	0.78	38.8	D	TR	0.42	27.0	C	TR	0.42	27.1	C
	NB	TR	0.44	17.1	B	TR	0.57	19.1	B	TR	0.33	17.8	B	TR	0.33	17.9	B
	SB	TR	0.63	20.7	C	TR	0.46	17.4	B	TR	0.65	23.6	C	TR	0.37	18.4	B
	Intersection			26.5	C			26.8	C			23.5	C			23.6	C
East 149th Street (E-W) @	EB	LTR	1.05	75.8	E	LTR	1.04	73.3	E	LTR	1.06	81.8	F	LTR	0.69	32.8	C
River Avenue (N-S) &	WB	LTR	0.68	33.3	C	LTR	0.66	32.0	C	LTR	0.54	29.2	C	LTR	0.40	26.1	C
Exterior Street (N-S)	NB (Ext)					LTR	0.41	41.2	D	LTR	0.20	37.7	D	LTR	0.15	37.0	D
		DefL	1.05	115.9	F												
		TR	0.71	52.3	D												
	NB (MD)	LTR	1.05	98.1	F					LTR	0.98	78.9	E	LTR	0.48	43.6	D
						DefL	0.67	53.3	D								
						TR	0.60	49.0	D								
	SB (Ext)	L	0.84	118.5	F	DefL	0.23	40.7	D	L	1.05	151.9	F				
						TR	0.11	37.7	D								
		LTR	0.85	73.5	E					LTR	0.62	56.7	E	LTR	0.39	41.9	D
	SB (River)	L	0.11	37.4	D	L	0.41	44.6	D	L	0.16	38.0	D	L	0.53	47.6	D
		TR	0.46	43.5	D	TR	0.48	44.1	D	TR	0.38	41.7	D	TR	0.40	42.1	D
	Intersection			73.4	E			54.6	D			67.0	E			35.1	D
East 149th Street (E-W) @	EB	LT	0.74	14.1	B	LT	0.64	11.8	B	LT	0.45	8.5	A	LT	0.53	9.6	A
Gerard Avenue (N-S)	WB	TR	0.29	6.7	A	TR	0.34	7.1	A	TR	0.27	6.6	A	TR	0.26	6.5	A
	NB	LTR	0.63	52.4	D	LTR	0.75	59.4	E	LTR	0.50	47.7	D	LTR	0.58	50.2	D
	Intersection			15.3	B			15.7	B			11.9	B			13.0	B
East 149th Street (E-W) @	EB	TR	0.43	7.9	A	TR	0.33	7.0	A	TR	0.26	6.6	A	TR	0.35	7.2	A
Walton Avenue (N-S)	WB	LT	0.39	7.7	A	LT	0.46	8.4	A	LT	0.30	6.9	A	LT	0.32	7.0	A
	SB	LTR	0.74	58.7	E	LTR	0.81	65.3	E	LTR	0.98	93.8	F	LTR	0.74	58.9	E
	Intersection			14.2	B			15.8	B			24.4	C			14.6	B
East 149th Street (E-W) @	EB	L	0.33	21.8	C	L	0.45	26.2	C	L	0.18	18.3	B	L	0.25	19.7	B
Morris Avenue (N-S)		TR	0.47	21.3	C	TR	0.40	20.1	C	TR	0.25	18.1	B	TR	0.34	19.2	B
	WB	L	0.55	29.5	C	L	0.60	30.7	C	L	0.27	19.5	B	L	0.25	19.5	B
		TR	0.43	20.5	C	TR	0.49	21.7	C	TR	0.32	19.0	B	TR	0.32	19.0	B
	NB	LTR	1.05	92.6	F	LTR	1.04	94.1	F	LTR	0.57	30.7	C	LTR	0.51	29.1	C
	SB	LTR	0.68	31.4	C	LTR	0.78	35.1	D	LTR	0.47	26.3	C	LTR	0.57	28.2	C
	Intersection			36.3	D			35.4	D			23.0	C			23.4	C
East 149th Street (E-W) @	EB	T	0.35	20.3	C	T	0.58	41.1	D	T	0.35	20.2	C	T	0.49	39.1	D
Third Avenue (N-S) &	WB	T	0.34	20.1	C	T	0.52	39.5	D	T	0.36	20.3	C	T	0.49	39.0	D
Melrose Avenue (N-S)	NB	T	0.27	13.4	B	T	0.31	9.6	A	T	0.29	13.6	B	T	0.21	8.7	A
	SB (Third)	T	0.53	17.3	B	T	0.55	31.0	C	T	0.37	14.8	B	T	0.51	30.0	C
	SB (M)					TR	0.61	47.3	D					TR	0.47	43.4	D
		R	0.42	16.6	B					R	0.40	16.1	B				
	Intersection			17.6	B			30.7	C			17.1	B			31.0	C

Notes:
1. EB - Eastbound, WB - Westbound, NB - Northbound, SB - Southbound

rather than typical day traffic volumes, formed the basis of the derivation of future background-traffic levels under game day conditions. The resulting 2018 No-Action game day traffic volume levels for the weekday pre-game PM peak hour and Saturday midday hour are provided on Figure 3.15-21 and Figure 3.15-22.

Table 3.15-13 presents a comparison of the existing and No-Action levels of service for the study area intersections under game day pre-game weekday PM peak hour and Saturday midday conditions. The following are the notable deteriorations in LOS in comparison to existing game day conditions.

PM Peak Hour

- East 149th Street with Exterior Street, River Avenue and the MDE NB Off-Ramp: The MDE off-ramp would deteriorate further in LOS F with 131.7 average seconds of delay and a v/c ratio of 1.17. The de facto left turn lane on the northbound Exterior Street approach would deteriorate further in LOS F with 238.2 average seconds of delay and a v/c ratio of 1.36. The through and right turn lane group of the northbound Exterior Street approach would deteriorate to LOS E with 72.6 average seconds of delay and a v/c ratio of 0.88. The defacto left turn lane on southbound Exterior Street would deteriorate to LOS F with 815.7 average seconds of delay and a v/c ratio of 2.62. The westbound left turn lane would operate at LOS F with 125.8 average seconds of delay and a v/c ratio of 0.89. The overall intersection would deteriorate to LOS F with 103.2 average seconds of delay.

- East 149th Street and Walton Avenue: Walton Avenue would deteriorate further in LOS E with 62.0 average seconds of delay and a v/c ratio of 0.78.

- East 149th Street and Morris Avenue: The northbound Morris Avenue approach would deteriorate further in LOS E with 128.8 average seconds of delay and a v/c ratio of 1.16.

Saturday Midday

- East 149th Street with Exterior Street, River Avenue and the MDE NB Off-Ramp: The MDE off-ramp would deteriorate to LOS F with 117.7 average seconds of delay and a v/c ratio of 1.14. The de facto left turn lane on southbound Exterior Street would deteriorate further in LOS F with 282.8 average seconds of delay and a v/c ratio of 1.46. The westbound left turn lane would operate at LOS F with 534.4 average seconds of delay and a v/c ratio of 2.06. The overall intersection would deteriorate to LOS F with 125.3 average seconds of delay.

- East 149th Street and Walton Avenue: Walton Avenue would deteriorate further in LOS F with 108.8 average seconds of delay and a v/c ratio of 1.03.

Probable Impacts of the Proposed Action

The analysis presented in this section focuses on conditions in 2018, with the 31 projected development sites that comprise the RWCDS defined in Chapter 3.1 assumed fully developed. The development of future 2018 With Action traffic volumes under game day conditions for the focused study area locations followed

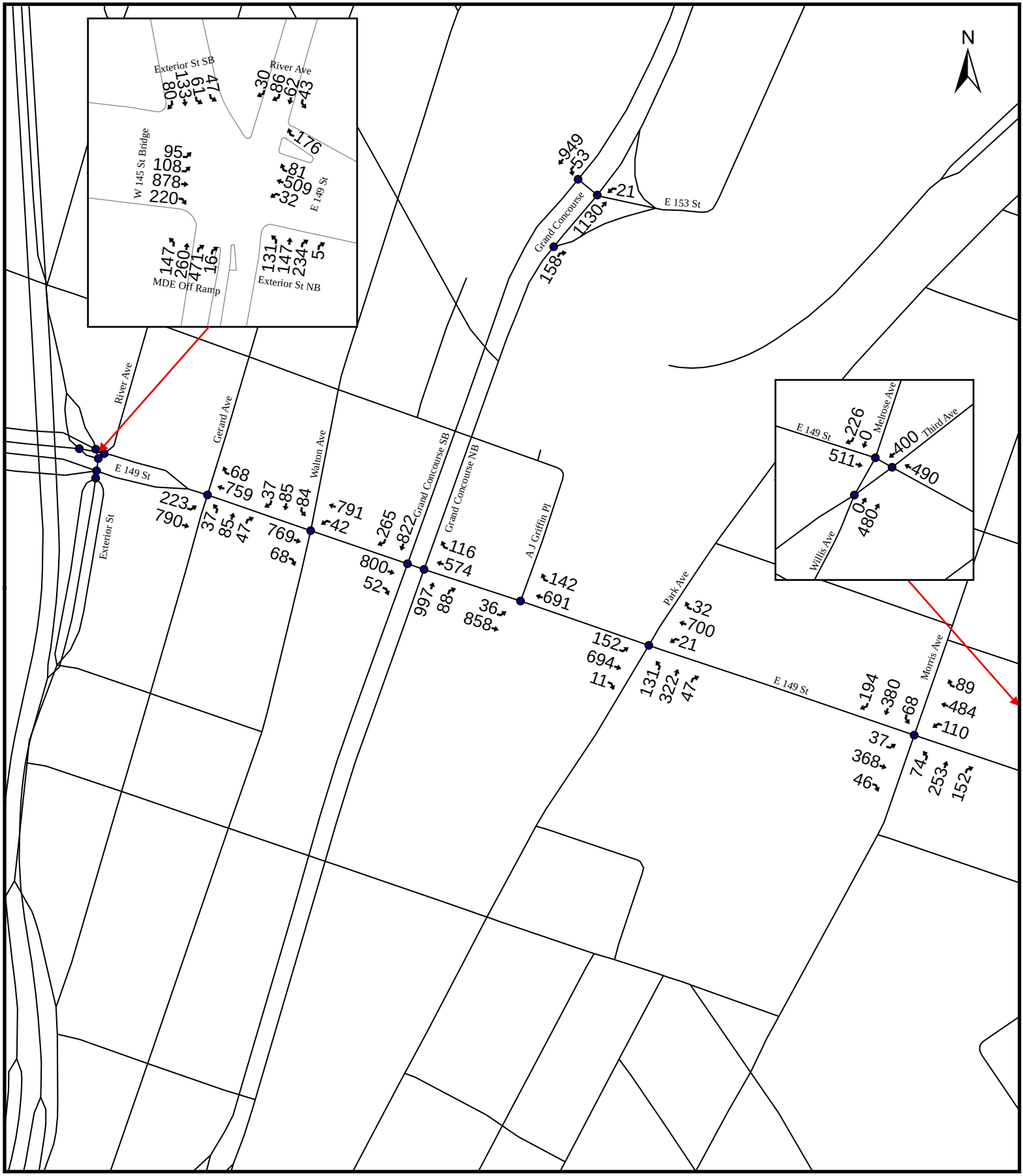


Figure 3.15-21

2018 No-Action Game Day Traffic
PM Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

260 0 260 520 780 1,040 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

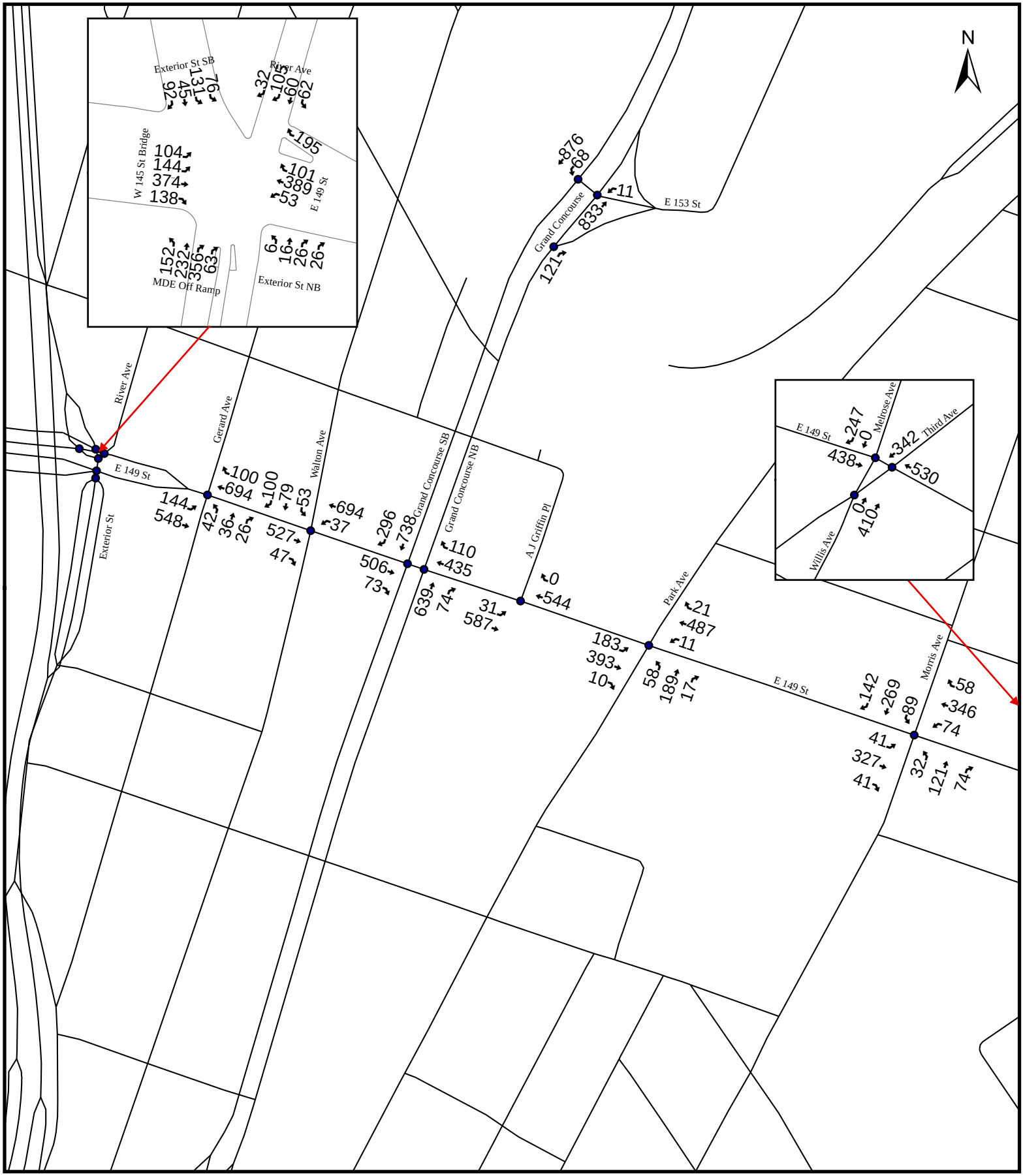


Figure 3.15-22

2018 No-Action Game Day Traffic
Saturday MD Peak Hour

Lower Concourse Rezoning and Related Actions EIS

260 0 260 520 780 1,040 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

NYC Department of City Planning

Table 3.15-13: 2018 No-Action Conditions Level of Service Analysis – Game Day

		PM Peak Hour							SAT Peak Hour						
			EXISTING			NO BUILD				EXISTING			NO BUILD		
Signalized Intersection	Approach[1]	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS
East 153rd Street (E-W) @	WB	L	0.05	29.3	C	0.05	29.3	C	L	0.03	26.4	C	0.03	26.4	C
Grand Concourse (N-S)	NB	T	0.27	11.2	B	0.33	15.0	B	T	0.24	12.7	B	0.28	16.6	B
	SB	L	0.27	13.9	B	0.25	10.5	B	L	0.33	16.5	B	0.30	12.3	B
		T	0.30	11.5	B	0.35	12.1	B	T	0.31	13.5	B	0.37	14.1	B
	Intersection			11.7	B		13.8	B			13.4	B		15.3	B
East 149th Street (E-W) @	EB	TR	0.80	40.4	D	0.91	49.1	D	TR	0.47	27.9	C	0.56	29.8	C
Grand Concourse (N-S)	WB	TR	0.59	33.0	C	0.68	35.2	D	TR	0.42	27.0	C	0.49	28.3	C
	NB	TR	0.44	17.1	B	0.47	17.6	B	TR	0.33	17.8	B	0.35	18.1	B
	SB	TR	0.63	20.7	C	0.76	24.3	C	TR	0.65	23.6	C	0.76	26.6	C
	Intersection			26.5	C		30.2	C			23.5	C		25.6	C
East 149th Street (E-W) @	EB	LTR	1.05	75.8	E				LTR	1.06	81.8	F			
River Avenue (N-S) &		L				0.85	54.3	D	L				2.06	534.7	F
Exterior Street (N-S)		TR				0.90	45.0	D	TR				0.59	33.5	C
	WB	LTR	0.68	33.3	C				LTR	0.54	29.2	C			
		L				0.89	125.8	F	L				0.39	44.2	D
		TR				0.74	43.3	D	TR				0.72	46.4	D
	NB (Ext)								LTR	0.20	37.7	D			
		DefL	1.05	115.9	F	1.36	238.2	F					0.31	45.3	D
		TR	0.71	52.3	D	0.88	72.6	E					0.24	41.3	D
	NB (MD)	LTR	1.05	98.1	F	1.17	131.7	F	LTR	0.98	78.9	E	1.14	117.7	F
	SB (Ext)	DefL				2.62	815.7	F	DefL				1.46	282.8	F
		L	0.84	118.5	F				L	1.05	151.9	F			
		LTR	0.85	73.5	E				LTR	0.62	56.7	E			
		T				0.44	37.5	D	T				0.18	31.1	C
		R				0.30	34.9	C	R				0.50	37.6	D
	SB (River)	LTR				0.77	57.6	E	LTR				0.65	49.7	D
		L	0.11	37.4	D				L	0.16	38.0	D			
		TR	0.46	43.5	D				TR	0.38	41.7	D			
	Intersection			73.4	E		103.2	F			67.0	E		125.3	F
East 149th Street (E-W) @	EB	LT	0.74	14.1	B	0.89	23.2	C	LT	0.45	8.5	A	0.58	10.6	B
Gerard Avenue (N-S)	WB	TR	0.29	6.7	A	0.36	7.3	A	TR	0.27	6.6	A	0.36	7.2	A
	NB	LTR	0.63	52.4	D	0.67	54.6	D	LTR	0.50	47.7	D	0.53	48.4	D
	Intersection			15.3	B		19.9	B			11.9	B		12.4	B
East 149th Street (E-W) @	EB	TR	0.43	7.9	A	0.48	8.5	A	TR	0.26	6.6	A	0.31	6.9	A
Walton Avenue (N-S)	WB	LT	0.39	7.7	A	0.50	8.9	A	LT	0.30	6.9	A	0.40	7.7	A
	SB	LTR	0.74	58.7	E	0.78	62.0	E	LTR	0.98	93.8	F	1.03	108.8	F
	Intersection			14.2	B		14.7	B			24.4	C		25.1	C
East 149th Street (E-W) @	EB	L	0.33	21.8	C	0.24	19.9	B	L	0.18	18.3	B	0.21	19.0	B
Morris Avenue (N-S)		TR	0.47	21.3	C	0.32	19.0	B	TR	0.25	18.1	B	0.31	18.9	B
	WB	L	0.55	29.5	C	0.44	23.8	C	L	0.27	19.5	B	0.32	20.8	C
		TR	0.43	20.5	C	0.50	21.7	C	TR	0.32	19.0	B	0.39	20.1	C
	NB	LTR	1.05	92.6	F	1.16	128.8	F	LTR	0.57	30.7	C	0.62	32.5	C
	SB	LTR	0.68	31.4	C	0.72	32.9	C	LTR	0.47	26.3	C	0.50	26.9	C
	Intersection			36.3	D		44.6	D			23.0	C		23.6	C
East 149th Street (E-W) @	EB	T	0.35	20.3	C	0.43	21.2	C	T	0.35	20.2	C	0.43	21.2	C
Third Avenue (N-S) &	WB	T	0.34	20.1	C	0.41	20.8	C	T	0.36	20.3	C	0.43	21.2	C
Melrose Avenue (N-S)	NB	T	0.27	13.4	B	0.29	13.5	B	T	0.29	13.6	B	0.30	13.7	B
	SB (Third)	T	0.53	17.3	B	0.56	17.8	B	T	0.37	14.8	B	0.39	15.1	B
	SB (M)	TR	0.42	16.6	B	0.44	17.0	B	TR	0.40	16.1	B	0.43	16.5	B
	Intersection			17.6	B		18.3	B			17.1	B		17.9	B

Notes:
1. EB - Eastbound, WB - Westbound, NB - Northbound, SB - Southbound
2. L - Left, T- Through, R - Right, DefL - De Facto Left Turn
Congested intersections are designated by shading.

the same process as described in Section 3.15-4, i.e. the application of the incremental difference in vehicle trips expected to result from the proposed actions by the 2018 study year to the No-Action game day traffic volumes projected to occur in 2018 without the implementation of the proposed action. The resulting 2018 With Action game day traffic volume levels for the weekday pre-game PM peak hour and Saturday midday hour are provided on Figure 3.15-23 and Figure 3.15-24.

Significant Impacts

Table 3.15-14 presents a comparison of No-Action and With Action levels of service for the study area intersections under game day pre-game weekday PM peak hour and Saturday midday conditions. Based on the CEQR criteria presented in Section 3.15.4, significantly impacted locations were identified and summarized under pre-game PM peak hour and pre-game Saturday midday conditions, for the seven intersections analyzed within the focused game-day study area as follows: during the pre-game PM peak hour, the proposed future action would result in nine significantly impacted lane groups at four intersections; and on Saturday, there would be five significantly impacted lane groups at three intersections. Increases in average delay per vehicle are shown below in parentheses.

PM Peak Hour

- East 149th Street with Exterior Street, River Avenue and the MDE NB Off-Ramp: The eastbound through and right-turn lane group would deteriorate within LOS D and increase in average delay from 45.0 seconds per vehicle to 51.0 seconds per vehicle (6.0). The westbound East 149th Street left turn lane would deteriorate within LOS F and increase in average delay from 125.8 seconds per vehicle to 1401.0 seconds per vehicle (1275.2). The northbound Exterior Street de facto left turn lane would deteriorate within LOS F and increase in average delay from 238.2 seconds per vehicle to 277.1 seconds per vehicle (38.9). The northbound Exterior Street through and right turn lane would deteriorate from LOS E to LOS F and increase in average delay from 72.6 seconds per vehicle to 104.0 seconds per vehicle (31.4). The MDE off-ramp would deteriorate within LOS F and increase in average delay from 131.7 seconds per vehicle to 142.8 seconds per vehicle (11.1). Southbound River Road would deteriorate within LOS E and increase in average delay from 57.6 seconds per vehicle to 62.8 seconds per vehicle (5.2).

- East 149th Street and Gerard Avenue: Gerard Avenue would deteriorate from LOS D to LOS F and increase in average delay from 54.6 seconds per vehicle to 83.4 seconds per vehicle (28.8).

- East 149th Street and Walton Avenue: Walton Avenue would deteriorate in LOS E and increase in average delay from 62.0 seconds per vehicle to 66.0 seconds per vehicle (4.0).

- East 149th Street and Morris Avenue: The northbound Morris Avenue approach would deteriorate further in LOS F and increase in average delay from 128.8 seconds per vehicle to 142.7 seconds per vehicle (13.9).

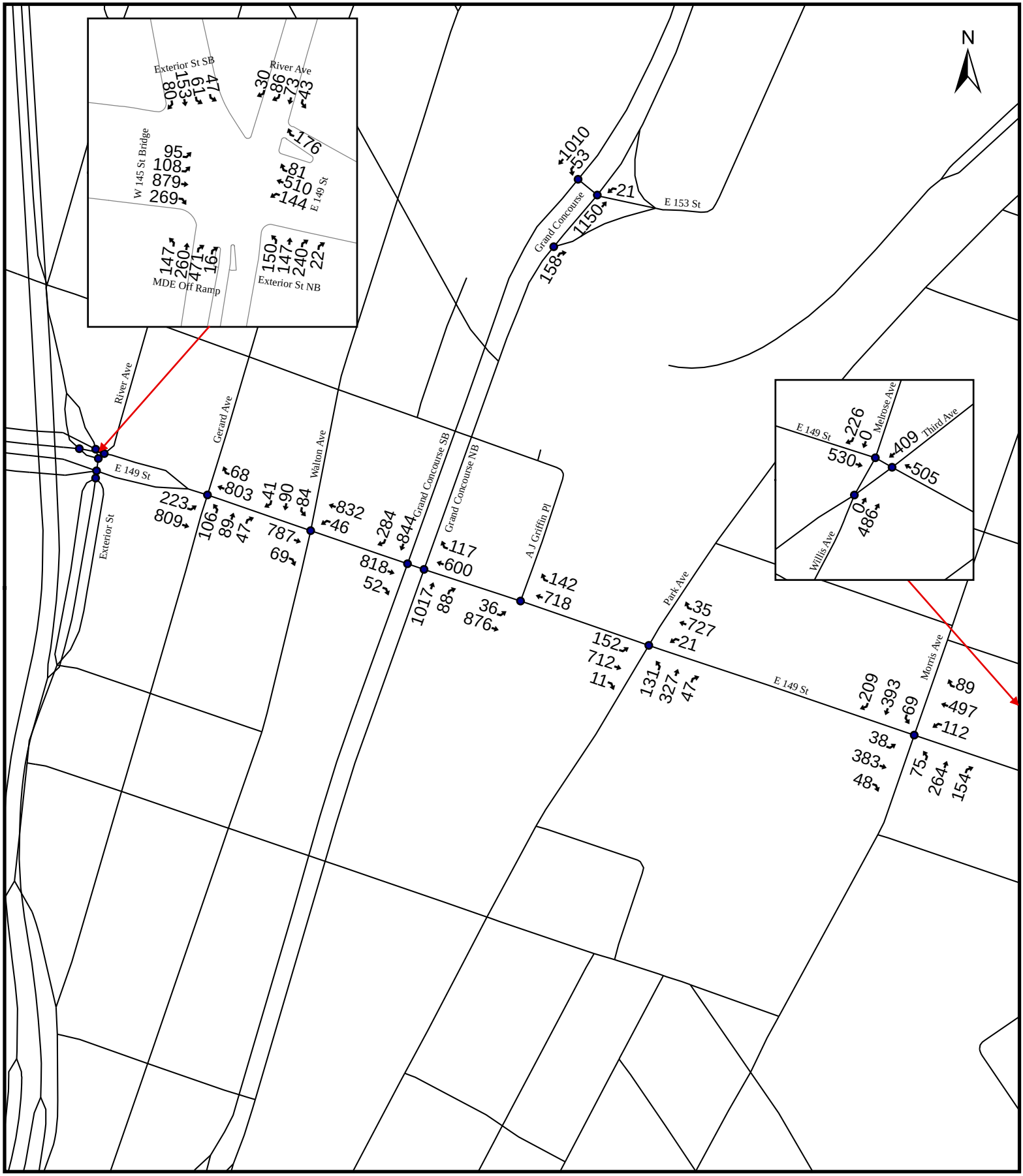


Figure 3.15-23

2018 With-Action Game Day Traffic
PM Peak Hour

260 0 260 520 780 1,040 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

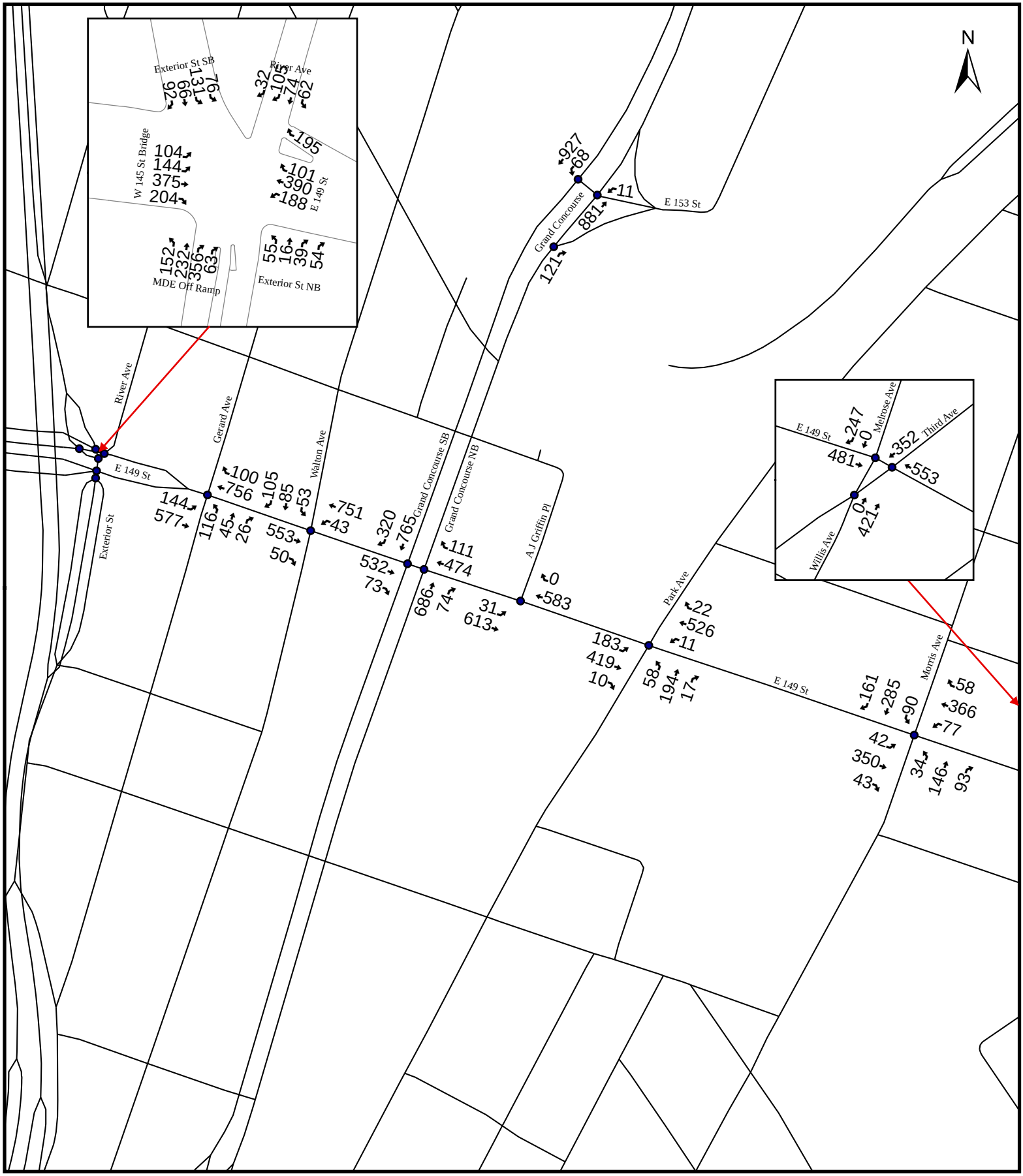


Figure 3.15-24

2018 With-Action Game Day Traffic
Saturday MD Peak Hour

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

260 0 260 520 780 1,040 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

Table 3.15-14: 2018 With Action Conditions Level of Service Analysis – Game Day

		PM Peak Hour								SAT Peak Hour							
			NO BUILD			BUILD					NO BUILD			BUILD			
Signalized Intersection	Approach[1]	Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS		Lane Group[2]	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	
East 153rd Street (E-W) @	WB	L	0.05	29.3	C	0.05	29.3	C		L	0.03	26.4	C	0.03	26.4	C	
Grand Concourse (N-S)	NB	T	0.33	15.0	B	0.33	15.1	B		T	0.28	16.6	B	0.29	16.8	B	
	SB	L	0.25	10.5	B	0.25	10.6	B		L	0.30	12.3	B	0.31	12.6	B	
		T	0.35	12.1	B	0.38	12.3	B		T	0.37	14.1	B	0.39	14.4	B	
	Intersection			13.8	B		13.9	B				15.3	B		15.5	B	
East 149th Street (E-W) @	EB	TR	0.91	49.1	D	0.93	51.3	D		TR	0.56	29.8	C	0.59	30.3	C	
Grand Concourse (N-S)	WB	TR	0.68	35.2	D	0.70	35.9	D		TR	0.49	28.3	C	0.53	29.0	C	
	NB	TR	0.47	17.6	B	0.48	17.8	B		TR	0.35	18.1	B	0.38	18.4	B	
	SB	TR	0.76	24.3	C	0.79	25.4	C		TR	0.76	26.6	C	0.80	28.5	C	
	Intersection			30.2	C		31.3	C				25.6	C		26.6	C	
East 149th Street (E-W) @	EB	L	0.85	54.3	D	0.85	54.3	D		L	2.06	534.7	F	2.06	534.7	F	
River Avenue (N-S) &		TR	0.90	45.0	D	0.95	51.0	D	*	TR	0.59	33.5	C	0.69	36.1	D	
Exterior Street (N-S)	WB	L	0.89	125.8	F	3.94	1401.0	F	*	L	0.39	44.2	D	1.71	395.8	F	*
		TR	0.74	43.3	D	0.74	43.3	D		TR	0.72	46.4	D	0.72	46.4	D	
	NB (Ext)	DefL	1.36	238.2	F	1.46	277.1	F	*	DefL	0.31	45.3	D	1.05	135.9	F	*
		TR	0.88	72.6	E	1.03	104.0	F	*	TR	0.24	41.3	D	0.44	45.7	D	
	NB (MD)	LTR	1.17	131.7	F	1.20	142.8	F	*	LTR	1.14	117.7	F	1.15	123.6	F	*
	SB (Ext)	DefL	2.62	815.7	F	2.62	815.7	F		DefL	1.46	282.8	F	1.46	282.8	F	
		T	0.44	37.5	D	0.51	39.2	D		T	0.18	31.1	C	0.26	32.4	C	
		R	0.30	34.9	C	0.30	34.9	C		R	0.50	37.6	D	0.50	37.6	D	
	SB (River)	LTR	0.77	57.6	E	0.83	62.8	E	*	LTR	0.65	49.7	D	0.69	51.3	D	
	Intersection			103.2	F		157.0	F				125.3	F		141.8	F	
East 149th Street (E-W) @	EB	LT	0.89	23.2	C	0.92	26.8	C		LT	0.58	10.6	B	0.62	11.3	B	
Gerard Avenue (N-S)	WB	TR	0.36	7.3	A	0.38	7.4	A		TR	0.36	7.2	A	0.38	7.5	A	
	NB	LTR	0.67	54.6	D	0.94	83.4	F	*	LTR	0.53	48.4	D	0.93	82.7	F	*
	Intersection			19.9	B		26.2	C				12.4	B		20.1	C	
East 149th Street (E-W) @	EB	TR	0.48	8.5	A	0.49	8.6	A		TR	0.31	6.9	A	0.33	7.1	A	
Walton Avenue (N-S)	WB	LT	0.50	8.9	A	0.54	9.4	A		LT	0.40	7.7	A	0.44	8.2	A	
	SB	LTR	0.78	62.0	E	0.82	66.0	E	*	LTR	1.03	108.8	F	1.08	123.1	F	*
	Intersection			14.7	B		15.5	B				25.1	C		27.4	C	
East 149th Street (E-W) @	EB	L	0.24	19.9	B	0.25	20.3	C		L	0.21	19.0	B	0.22	19.3	B	
Morris Avenue (N-S)		TR	0.32	19.0	B	0.34	19.2	B		TR	0.31	18.9	B	0.33	19.2	B	
	WB	L	0.44	23.8	C	0.45	24.4	C		L	0.32	20.8	C	0.35	21.5	C	
		TR	0.50	21.7	C	0.51	21.9	C		TR	0.39	20.1	C	0.41	20.3	C	
	NB	LTR	1.16	128.8	F	1.19	142.7	F	*	LTR	0.62	32.5	C	0.77	40.5	D	
	SB	LTR	0.72	32.9	C	0.76	34.3	C		LTR	0.50	26.9	C	0.55	27.9	C	
	Intersection			44.6	D		47.8	D				23.6	C		25.6	C	
East 149th Street (E-W) @	EB	T	0.43	21.2	C	0.44	21.4	C		T	0.43	21.2	C	0.47	21.8	C	
Third Avenue (N-S) &	WB	T	0.41	20.8	C	0.42	21.0	C		T	0.43	21.2	C	0.45	21.4	C	
Melrose Avenue (N-S)	NB	T	0.29	13.5	B	0.29	13.6	B		T	0.30	13.7	B	0.31	13.8	B	
	SB (Third)	T	0.56	17.8	B	0.57	18.0	B		T	0.39	15.1	B	0.40	15.2	B	
	SB (M)	TR	0.44	17.0	B	0.44	17.0	B		TR	0.43	16.5	B	0.43	16.5	B	
	Intersection			18.3	B		18.4	B				17.9	B		18.2	B	

Notes:
1. EB - Eastbound, WB - Westbound, NB - Northbound, SB - Southbound
2. L - Left, T- Through, R - Right, DefL - De Facto Left Turn
Congested intersections are designated by shading.
*Significant Impact

Saturday Midday

- East 149th Street with Exterior Street, River Avenue and the MDE NB Off-Ramp: The westbound East 149th Street left turn lane would deteriorate from LOS D to LOS F and increase in average delay from 44.2 seconds per vehicle to 395.8 seconds per vehicle (351.6). The northbound Exterior Street de facto left turn lane would deteriorate from LOS D to LOS F and increase in average delay from 45.3 seconds per vehicle to 135.9 seconds per vehicle (90.6). The MDE off-ramp would deteriorate within LOS F and increase in average delay from 117.7 seconds per vehicle to 123.6 seconds per vehicle (5.9).

- East 149th Street and Gerard Avenue: Gerard Avenue would deteriorate from LOS D to LOS F and increase in average delay from 48.4 seconds per vehicle to 82.7 seconds per vehicle (34.3).

- East 149th Street and Walton Avenue: Walton Avenue would deteriorate within LOS F and increase in average delay from 108.8 seconds per vehicle to 123.1 seconds per vehicle (14.3).