2. TRANSPORTATION

A. INTRODUCTION

As discussed in Chapter 1, "Project Description," the proposed action involves rezoning an area along East Fordham Road in the Bronx. The proposed rezoning would facilitate the development of new residential and commercial uses by replacing the existing C8-1 and R6 zoning districts (with C2-3 and C2-4 overlays) with a proposed C4-5D district and a R6B contextual district, and mapping a C2-4 overlay along several blocks. It is expected that the proposed action would result in redevelopment of 9 projected development sites that would include new residential units, commercial retail space, office space, and community facility space.

In the Future Without the Proposed Action, the projected development sites could be redeveloped As-of-Right (AOR) to include approximately 538 gross-square feet (gsf) of commercial office space, approximately 84,057 gsf of local retail space, approximately 20,000 gsf of destination retail space, approximately 17,322 gsf of medical office space, and approximately 68,857 gsf of Fordham University science classroom space. The proposed rezoning would increase residential use by approximately 352 dwelling units, office use by approximately 56,434 gsf, commercial use by approximately 119,000 gsf, and community facility use by approximately 32,168 gsf. Overall, in the Future With the Proposed Action, the projected development sites would be redeveloped to include 352 residential units, approximately 56,972 gsf of office space, approximately 115,590 gsf of local retail space, approximately 56,101 gsf of destination retail space, a 40,000 gsf supermarket, an approximately 11,318 gsf restaurant, approximately 49,940 gsf of medical office use, and approximately 62,194 gsf of university classroom space.

The assessment of the proposed action's potential transportation impacts is based on the methodologies set forth in the *2012 City Environmental Quality Review (CEQR) Technical Manual*. As detailed below, based on the analysis results, the proposed action would result in potential significant adverse traffic impacts at eleven intersections, one pedestrian crosswalk location, and one bus route. With the proposed mitigation measures in place, the potential significant adverse traffic, pedestrian, and transit (bus) impacts could be fully mitigated as detailed in Chapter 3, "Mitigation." In addition, the proposed action parking supply and utilization assessment shows that the proposed action would not result in potential significant adverse parking impacts in the study area.

PRINCIPAL CONCLUSIONS

TRAFFIC

Traffic conditions were evaluated at 13 intersections for the weekday AM, midday, and PM peak hours. Under the Build condition, there would be the potential for significant adverse impacts at 6 intersections during the weekday AM peak hour, 5 intersections during the weekday midday peak hour, and at 7 intersections during the weekday PM peak hour, as follows:

Weekday AM Peak Hour

- East Fordham Road and Webster Avenue – westbound through movement;
- East Fordham Road and Washington Avenue – westbound left-turn;
- East Fordham Road and Arthur Avenue – westbound left-turn;
- East Fordham Road and Hughes Avenue – northbound approach;

- East Fordham Road (westbound) and Southern Boulevard – westbound approach; and
- East 187th Street and Crotona Avenue – eastbound approach.

Weekday Midday Peak Hour

- East Fordham Road and Third Avenue intersection – westbound approach;
- East Fordham Road and Washington Avenue – westbound left-turn;
- East Fordham Road and Arthur Avenue – eastbound through movement;
- East Fordham Road and Arthur Avenue – westbound left-turn;
- East Fordham Road and Hughes Avenue – northbound approach;
- East Fordham Road and Hughes Avenue – southbound approach; and
- East 187th Street and Crotona Avenue – eastbound approach.

Weekday PM Peak Hour

- East Fordham Road and Bathgate Avenue intersection – northbound through/right-turn;
- East Fordham Road and Lorillard Place intersection – eastbound movement;
- East Fordham Road and Hoffman Street – northbound approach;
- East Fordham Road and Arthur Avenue – westbound left-turn;
- East Fordham Road and Hughes Avenue – northbound approach;
- East Fordham Road and Hughes Avenue – southbound approach;
- East Fordham Road and Cambreleng Avenue – northbound right-turn; and
- East 187th Street and Crotona Avenue – eastbound approach.

TRANSIT – SUBWAY

The project area is served by the No. 4, B and D subway lines at the two Fordham Road subway stations, and by the Pelham Parkway station on the 2 and 5 subway lines. The proposed project would result in a total of approximately 142, 199, and 203 person trips by subway during the weekday AM, midday, and PM peak hours, respectively. The project generated subway trips would generally be evenly distributed to the various subway lines serving the area, resulting in an increment of fewer than 200 peak hour trips at each of the three nearest subway stations. According to the general thresholds used by the MTA and specified in the CEQR Technical Manual, a detailed analysis of subway conditions is generally not required if a proposed project would not result in an increase in passengers at a single subway station or on a single subway line of 200 or more, as this level of new demand is considered unlikely to result in significant adverse impacts. As a result, the proposed project is not expected to result in any significant adverse impacts to subway service based on CEQR Technical Manual criteria, and a detailed subway line-haul or element analysis is not warranted.

TRANSIT – BUS

A bus line-haul analysis was conducted on the MTA Bx12 local and Select Bus Service (SBS) through the study area during each of the peak periods. There would be a significant impact in the westbound and eastbound directions in the AM peak period, and in the westbound direction in PM peak period.

PEDESTRIANS

Weekday peak period pedestrian conditions were evaluated at key sidewalk, corner reservoir, and crosswalk elements at 5 area intersections. In the Build condition, a significant adverse impact was identified for the south crosswalk of Arthur Avenue and East Fordham Road during the midday and PM peak periods.

Based on the analysis results presented in **Table 2.28**, under the Build condition, there would be the potential for significant adverse impacts at the south crosswalk of Arthur Avenue and East Fordham Road during the weekday midday and PM peak periods.

VEHICULAR AND PEDESTRIAN SAFETY

Crash data for the study area intersections were obtained from the New York State Department of Transportation (NYSDOT) for the time period between January 1, 2009 and December 31, 2011. During this time period, a total of 345 reportable and non-reportable accidents, zero fatalities, 436 injuries, and 64 pedestrian/bicyclist-related accidents occurred at the study area intersections. A rolling total of accident data identifies two study area intersections as high pedestrian accident locations in the 2009 to 2011 period. These locations are Webster Avenue at East Fordham Road and Third Avenue at East Fordham Road.

Measures to increase pedestrian safety at this location could include the installation of signs warning turning vehicles to yield to pedestrians in the crosswalk on all approaches. Restriping the fading western crosswalk should also be considered to increase pedestrian safety. With these measures in place, the projected increases in vehicular and pedestrian levels at the intersection of 3rd Avenue and E. Fordham Road are not anticipated to exacerbate any of the current causes of pedestrian-related accidents.

PARKING

The proposed action would provide 258 accessory parking spaces which would be dispersed across the various projected development sites. Accounting for the addition of these accessory parking spaces, and the parking demand generated from background growth, No Build projects, and the proposed action, the Build public parking supply and utilization analysis shows that there would not be a parking shortfall during within the ¼ mile on-street parking study area.

B. PRELIMINARY ANALYSIS METHODOLOGY

The *CEQR Technical Manual* describes a two-tier screening procedure for the preparation of a "preliminary analysis" to determine if quantified analyses of transportation conditions are warranted. As discussed below, the preliminary analysis begins with a trip generation analysis (Level 1) to estimate the volume of person and vehicle trips attributable to the proposed action. According to the *CEQR Technical Manual*, if the proposed action is expected to result in fewer than 50 peak hour vehicle trips and fewer than 200 peak hour transit or pedestrian trips, further quantified analyses are not warranted. When these thresholds are exceeded, detailed trip assignments (Level 2) are performed to estimate the incremental trips that could be incurred at specific transportation elements and to identify potential locations for further analyses. If the trip assignments show that the proposed action would generate 50 or more peak hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips traversing a pedestrian element, then further

quantified analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, parking, and vehicular and pedestrian safety.

C. LEVEL 1 SCREENING ASSESSMENT

A Level 1 trip generation screening assessment was conducted to estimate the volume of person and vehicle trips by mode expected to be generated by the proposed action during the weekday AM, midday, and PM peak hours. These estimates were then compared to the *CEQR Technical Manual* thresholds to determine if a Level 2 screening and/or quantified analyses would be warranted.

BACKGROUND

In the Future Without the Proposed Action ("No Build"), the projected development sites could be redeveloped As-of-Right (AOR) to include approximately 538 gross-square feet (gsf) of commercial office space, approximately 84,057 gsf of local retail space, approximately 20,000 gsf of destination retail space, approximately 17,322 gsf of medical office space, and approximately 68,857 gsf of Fordham University science classroom space. The proposed rezoning would increase residential use by approximately 352 dwelling units, office use by approximately 56,434 gsf, commercial use by approximately 119,000 gsf, and community facility use by approximately 32,168 gsf. Overall, in the Future With the Proposed Action ("Build"), the projected development sites would be redeveloped to include 352 residential units, approximately 56,972 gsf of office space, approximately 115,590 gsf of local retail space, approximately 56,101 gsf of destination retail space, a 40,000 gsf supermarket, an approximately 11,318 gsf restaurant, approximately 49,940 gsf of medical office use, and approximately 62,194 gsf of university classroom space. **Table 2.1** provides a comparison of the future without and with the proposed action.

TRAVEL DEMAND FACTORS

The transportation screening assessment begins with the identification of travel demand factors for each of the proposed development components for the critical peak periods. These periods—including the weekday AM, weekday midday, and weekday PM peak hours—were selected based on the proposed mix of uses and their typical travel characteristics.

Table 2.1
Comparison of the Future Without and With the Proposed Action

Development Components	Future Without the Proposed Action (AOR Development)	Future With the Proposed Action	Incremental Difference
Residential (dwelling units)	--	352	352
Office (gsf)	538	56,972	56,434
Local Retail (gsf)	84,057	115,590	31,533
Destination Retail (gsf)	20,000	56,101	36,101
FRESH Market (gsf)	--	40,000	40,000
Restaurant (gsf)	--	11,318	11,318
Medical Office (gsf)	17,322	49,490	32,168
Fordham University Classroom (gsf)	68,857	62,194	-6,663

The travel demand factors used in estimating the trip generation for each of the proposed development components were obtained from the *2012 CEQR Technical Manual*, the *Webster Avenue Rezoning FEIS* (2011) and the *West Harlem Rezoning FEIS* (2012) (see **Table 2.2**). Furthermore, where applicable, in-out distributions, modal splits, and vehicle occupancies were obtained from the 2007-2011 American Community Survey (ACS) and 2000 U.S. Census databases.

RESIDENTIAL

For the residential component, the person and delivery trip generation rates and temporal distributions were obtained from the 2012 *CEQR Technical Manual.* The latest U.S. Census American Community Survey (ACS) 2007-2011 journey-to-work data were used to develop the modal splits for all peak periods based on the information for census tracts 387, 389, 393, and 397. Auto occupancy rates from the journey-to-work data were used for all analysis time periods. The vehicle occupancy for taxi trips was obtained from the *Webster Avenue Rezoning FEIS* (2011).

The directional distributions for the residential component were based on the information from *Webster Avenue Rezoning FEIS* (2011). The temporal and directional distributions for delivery trip for all peak periods were based on the information from the 2012 *CEQR Technical Manual*.

OFFICE

For the office component, the person and delivery trip generation rates were obtained from the 2012 *CEQR Technical Manual.* The temporal and directional distributions for all peak periods were obtained from the 2012 *CEQR Technical Manual* and the *Webster Avenue Rezoning FEIS* (2011), respectively.

The modal splits and vehicle occupancies for the all peak periods were based on the reverse journey-to-work data from the 2000 U.S. Census database for the census tracts in the study area including tracts 387, 389, 393, and 397. The vehicle occupancy for taxi trips was obtained from the *Webster Avenue Rezoning FEIS* (2011).

DESTINATION RETAIL

The person and delivery trip generation rates and for the destination retail components were obtained from the 2012 *CEQR Technical Manual*. The temporal and directional distributions were obtained from the 2012 *CEQR Technical Manual* and *Gateway Center at Bronx Terminal Market FEIS* (2005), respectively. A 25-percent linked trip credit was also applied to the destination retail trip generation estimates.

Table 2.2
Travel Demand Factors

Use	Residential			Local Retail			Destination Retail			Fresh Market			Restaurant			Community Facility(Medical Office) Staff			Community Facility(Medical Office) Visitors			Community Facility (Science Classroom)			Office		
Daily Person Trip Generation Rate	(1) Weekday 8.075 Trips / Unit			(1) Weekday 205 Trips / KSF			(1) Weekday 78.2 Trips / KSF			(2) Weekday 205 Trips / KSF			(2) Weekday 173.0 Trips / KSF			(2) Weekday 10.0 Trips / KSF			(2) Weekday 33.6 Trips / KSF			(1) Weekday 26.6 Trips / KSF			(1) Weekday 18.0 Trips / KSF		
Net Daily Person trip Generation Rate	Weekday 8.1 Trips / Unit			Weekday 153.8 Trips / KSF			Weekday 58.7 Trips / KSF			Weekday 153.8 Trips / KSF			Weekday 129.8 Trips / KSF			Weekday 10.0 Trips / KSF			Weekday 33.6 Trips / KSF			Weekday 26.6 Trips / KSF			Weekday 18.0 Trips / KSF		
	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM
Temporal	(1)			(1)			(1)			(2)			(2)			(2)			(2)			(1,6)			(1)		
	10%	5%	11%	3%	19%	10%	3%	9%	9%	3.1%	12.0%	9.6%	1.0%	17.2%	7.7%	24.0%	17.0%	24.0%	6.0%	9.0%	5.0%	16.0%	10.7%	26.0%	12%	15%	14%
Direction	(2)			(2)			(4)			(2)			(2)			(2)			(2)			(6)			(2)		
In	15%	50%	70%	50%	50%	50%	51.8%	51.8%	51.8%	45%	46%	47%	94%	65%	65%	100%	50%	0%	92%	50%	31%	100%	52%	66%	96%	39%	5%
Out	85%	50%	30%	50%	50%	50%	48.2%	48.2%	48.2%	55%	54%	53%	6%	35%	35%	0%	50%	100%	8%	50%	69%	0%	48%	34%	4%	61%	95%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Modal	(3)			(2)			(5)			(2)			(2)			(5)			(2)			(6)			(5)		
Auto	18.0%	18.0%	18.0%	3%	3%	3%	51.0%	51.0%	51.0%	4%	4%	4%	40%	40%	40%	51.0%	51.0%	51.0%	25.0%	25.0%	25.0%	20.0%	20.0%	20.0%	51.0%	51.0%	51.0%
Taxi	3.0%	3.0%	3.0%	2%	2%	2%	2.0%	2.0%	2.0%	3%	3%	3%	5%	5%	5%	2.0%	2.0%	2.0%	15.0%	15.0%	15.0%	1.0%	1.0%	1.0%	2.0%	2.0%	2.0%
Subway	31.0%	31.0%	31.0%	5%	5%	5%	12.0%	12.0%	12.0%	5%	5%	5%	4%	4%	4%	12.0%	12.0%	12.0%	19.0%	19.0%	19.0%	24.0%	24.0%	24.0%	12.0%	12.0%	12.0%
Railroad	4.0%	4.0%	4.0%	0%	0%	0%	2.0%	2.0%	2.0%	0%	0%	0%	1%	1%	1%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	0.0%	0.0%	0.0%	2.0%	2.0%	2.0%
Bus	20.0%	20.0%	20.0%	10%	10%	10%	17.0%	17.0%	17.0%	5%	5%	5%	5%	5%	5%	17.0%	17.0%	17.0%	19.0%	19.0%	19.0%	47.0%	47.0%	47.0%	17.0%	17.0%	17.0%
Walk	24.0%	24.0%	24.0%	80%	80%	80%	16.0%	16.0%	16.0%	83%	83%	83%	45%	45%	45%	16.0%	16.0%	16.0%	20.0%	20.0%	20.0%	8.0%	8.0%	8.0%	16.0%	16.0%	16.0%
Work at Home	0.0%	0.0%	0.0%	0%	0%	0%	0.0%	0.0%	0.0%	0%	0%	0%	0%	0%	0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Vehicle Occupancy	(2)(3)			(2)			(2,4)			(2)			(2)			(2,5)			(2)			(6)			(2,5)		
Auto	1.19	1.19	1.19	1.60	1.60	1.60	2.20	2.20	2.20	1.65	1.65	1.65	2.20	2.20	2.20	1.14	1.14	1.14	1.65	1.65	1.65	1.10	1.10	1.10	1.14	1.14	1.14
Taxi	1.40	1.40	1.40	1.20	1.20	1.20	2.00	2.00	2.00	1.40	1.40	1.40	2.30	2.30	2.30	1.40	1.40	1.40	1.40	1.40	1.40	1.10	1.10	1.10	1.40	1.40	1.40
Daily Delivery Trip Generation Rate	(1) Weekday 0.06 Delivery Trips / Unit			(1) Weekday 0.35 Delivery Trips / KSF			(1) Weekday 0.35 Delivery Trips / KSF			(2) Weekday 0.35 Delivery Trips / KSF			(2) Weekday 3.60 Delivery Trips / KSF			(2) Weekday 0.45 Delivery Trips / KSF						(6) Weekday 0.03 Delivery Trips / KSF			(1) Weekday 0.35 Delivery Trips / KSF		
	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM
Delivery Temporal	(1)			(1)			(1)			(2)			(2)			(2)						(6)			(1)		
	12%	9%	2%	8%	11%	2%	8%	11%	2%	9.7%	7.8%	5.1%	6.0%	6.0%	1.0%	9.6%	1.0%	9.6%				9.7%	7.8%	7.8%	10%	11%	2%
Delivery Direction	(1)			(1)			(1)			(2)			(2)			(2)						(6)			(1)		
In	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%				50%	50%	50%	50%	50%	50%
Out	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%				50%	50%	50%	50%	50%	50%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%				100%	100%	100%	100%	100%	100%

Source
(1) 2012 CEQR Technical Manual
(2) Webster Avenue Rezoning FEIS, 2011. Subway and rail modal splits for restaurant and community facility visitor uses adjusted to account for local travel characteristics. Destination retail auto occupancy same as restaurant, as per DCP guidance.
(3) ACS 2007-2011 5-year Journey To Work estimates for Bronx Tracts 387, 389, 393, and 397
(4) Gateway Center at Bronx Terminal Market FEIS (2005), with adjusted subway and rail modal splits to account for local travel characteristics.
(5) 2000 Census Reverse Journey To Work for Bronx Tracts 387, 389, 393, and 397. Destination retail uses the same modal splits as per DCP guidance
(6) Lower Concourse Rezoning and Related Actions EIS (2009)
(7) A 25% link trip credit was applied to commercial uses.

The modal splits for the destination retail component were based on the reverse journey-to-work data from the 2000 U.S. Census database for the census tracts in the study area including tracts 387, 389, 393, and 397. The auto occupancy was assumed to be the same as that for the restaurant use, and was obtained from the *Webster Avenue Rezoning FEIS* (2011). The occupancy for taxi trips was also obtained from the *Webster Avenue Rezoning FEIS* (2011).

The temporal distributions for the delivery trips for all peak periods were obtained from the 2012 *CEQR Technical Manual*.

LOCAL RETAIL

The daily trip generation and delivery vehicle trip generation rates for the project's local neighborhood retail component were obtained from the 2012 *CEQR Technical Manual*. A 25-percent linked trip credit was applied to the local retail trip generation estimates. The modal splits and vehicle occupancies were obtained from the *Webster Avenue Rezoning FEIS* (2011).

The temporal and directional distributions for all peak periods were obtained from the 2012 *CEQR Technical Manual* and the *Webster Avenue Rezoning FEIS* (2011), respectively.

The temporal distributions for the delivery trips were obtained from the 2012 *CEQR Technical Manual*.

FRESH MARKET

The travel demand factors for the proposed FRESH market component were obtained from the *Webster Avenue Rezoning FEIS* (2011). Likewise local and destination retail components, a 25-percent linked trip credit were applied to the FRESH market trip generation estimates.

RESTAURANT

The travel demand factors for the proposed restaurant component were obtained from the *Webster Avenue Rezoning FEIS* (2011). A 25-percent linked trip credit was also applied to the restaurant trip generation estimates. .

COMMUNITY FACILITY (MEDICAL OFFICE USES)

Medical office staff modal splits were based on the reverse journey-to-work data from the 2000 U.S. Census database for tracts 387, 389, 393, and 397. All other travel demand factors for the project's community facility component were obtained from the *Webster Avenue Rezoning FEIS* (2011).

UNIVERSITY CLASSROOM

The person trip generation rates for the university classroom components were obtained from the 2012 *CEQR Technical Manual*. The temporal and directional distributions were obtained from the 2012 *CEQR Technical Manual* and *Lower Concourse Rezoning and Related Actions EIS* (2009).

Delivery trip rates, delivery temporal and directional distributions, modal splits, and vehicle occupancies were also obtained from the *Lower Concourse Rezoning and Related Actions EIS* (2009).

LEVEL 1 SCREENING

As per the criteria established in the *CEQR Technical Manual*, a quantified transportation analysis may be warranted if the proposed action is expected to result in 50 or more vehicle trips, 200 or more transit trips (200 or more peak hour transit riders at any given subway station or 50 or more peak hour

bus trips on a particular route in one direction), and/or 200 or more pedestrian trips during a given peak hour.

TRAFFIC

As shown in **2.3**, the As-of-Right scenario would generate approximately 794, 2,841, and 1,945 person trips including 105, 196, and 202 subway trips, and 197, 371, and 383 bus trips during the weekday AM, midday, and PM peak hours, respectively. The AOR scenario would also result in approximately 125, 232, and 223 vehicle trips including 93, 128, and 159 auto trips, 28, 100, and 62 taxi trips, and 4, 4, and 2 delivery trips during the weekday AM, midday, and PM peak hours, respectively.

Table 2.3

Trip Generation Summary: As-of-Right Scenario

Peak Hour	**AM**			**Midday**			**PM**		
Person Trip	In	Out	Total	In	Out	Total	In	Out	Total
Auto	104	15	119	99	96	195	112	105	217
Taxi	13	5	18	31	31	62	19	19	38
Subway	93	12	105	99	97	196	116	86	202
Bus	174	23	197	188	183	371	223	160	383
Railroad	2	0	2	2	2	4	1	2	3
Walk	195	158	353	1,007	1,006	2,013	553	549	1,102
Total	**581**	**213**	**794**	**1,426**	**1,415**	**2,841**	**1,024**	**921**	**1,945**
Peak Hour	**AM**			**Midday**			**PM**		
Vehicle Trip	In	Out	Total	In	Out	Total	In	Out	Total
Auto	85	8	93	65	63	128	83	76	159
Taxi	14	14	28	50	50	100	31	31	62
Delivery	2	2	4	2	2	4	1	1	2
Total	**101**	**24**	**125**	**117**	**115**	**232**	**115**	**108**	**223**

As shown in **Table 2.4**, the Future With the Proposed Action scenario would generate approximately 1,730, 5,374, and 3,866 person trips including 248, 395, and 405 subway trips, and 324, 620, and 591 bus trips during the weekday AM, midday, and PM peak hours, respectively. The With-Action scenario would also result in approximately 345, 601, and 540 vehicle trips including 255, 379, and 392 auto trips, 74, 208, and 142 taxi trips, and 16, 14, and 6 delivery trips during the weekday AM, midday, and PM peak hours, respectively.

Table 2.4

Trip Generation Summary: With-Action Scenario

Peak Hour	**AM**			**Midday**			**PM**		
Person Trip	In	Out	Total	In	Out	Total	In	Out	Total
Auto	247	85	332	310	293	603	252	318	570
Taxi	32	18	50	72	70	142	46	50	96
Subway	147	101	248	197	198	395	221	184	405
Bus	231	93	324	310	310	620	318	273	591
Railroad	9	11	20	11	11	22	13	13	26
Walk	387	369	756	1,787	1,805	3,592	1,080	1,098	2,178
Total	**1,053**	**677**	**1,730**	**2,687**	**2,687**	**5,374**	**1,930**	**1,936**	**3,866**
Peak Hour	**AM**			**Midday**			**PM**		
Vehicle Trip	In	Out	Total	In	Out	Total	In	Out	Total
Auto	196	59	255	190	189	379	164	228	392
Taxi	37	37	74	104	104	208	71	71	142
Delivery	8	8	16	7	7	14	3	3	6
Total	**241**	**104**	**345**	**301**	**300**	**601**	**238**	**302**	**540**

As shown in **Table 2.5**, the net difference in trips generated in the Future Without and With the Proposed Action would total 222, 369, and 318 vehicle trips during the weekday AM, midday, and PM peak hours, respectively. Since the net incremental vehicle trips would be greater than 50 during all three peak hours, a Level-2 screening assessment was conducted to determine the need for undertaking additional quantified analysis.

Table 2.5
Trip Generation Summary: Project Increments

Peak Hour	**AM**			**Midday**			**PM**		
Person Trip	In	Out	Total	In	Out	Total	In	Out	Total
Auto	144	70	214	211	196	407	139	214	353
Taxi	19	13	32	41	39	80	28	31	59
Subway	53	89	142	98	101	199	105	98	203
Bus	58	70	128	122	126	248	95	113	208
Railroad	8	10	18	9	9	18	12	11	23
Walk	192	210	402	780	799	1,579	528	549	1,077
Total	**474**	**462**	**936**	**1,261**	**1,270**	**2,531**	**907**	**1,016**	**1,923**
Peak Hour	**AM**			**Midday**			**PM**		
Vehicle Trip	In	Out	Total	In	Out	Total	In	Out	Total
Auto	111	51	162	125	126	251	81	153	234
Taxi	24	24	48	54	54	108	40	40	80
Delivery	6	6	12	5	5	10	2	2	4
Total	**141**	**81**	**222**	**184**	**185**	**369**	**123**	**195**	**318**

TRANSIT

As shown in **Table 2.5**, compared to the Future Without the Proposed Action, the proposed project would result in net increments of 142, 199, and 203 person trips by subway and 128, 248, and 208 person trips by bus during the weekday AM, midday, and PM peak hours, respectively. Since the project area is served by various transit options—including the No. 4, B and D subway lines at the two Fordham Road subway stations, the No.2 and No.5 subway service at the Pelham Parkway Station, and the Bx1, Bx2, Bx9, Bx12, Bx12-Select, Bx15, Bx17, Bx19, Bx22, Bx34, Bx41, and Bx55 bus routes—it is anticipated that no single subway station would experience trips in excess of CEQR recommended thresholds to undertake quantified transit analyses. However, since the subway stations are located approximately one-half mile to a mile from the rezoning area, a majority of the subway riders would be expected to take the Bx12 or Bx12-Select Bus Service (SBS) to and from the subway stations. The Bx12-SBS makes limited stops; within the rezoning area, the only Bx12-SBS stops (eastbound and westbound) are at East Fordham Road and Southern Boulevard. However, it is anticipated that the Bx12, which serves local stops along East Fordham Road, would experience more than 50 riders per direction and, therefore a quantitative bus line-haul analysis for the Bx12 route would be conducted for the weekday AM and PM peak hours.

PEDESTRIANS

All the person trips generated by the proposed action would traverse the pedestrian elements surrounding the projected development sites. A Level 2 screening assessment was conducted to select pedestrian elements (including corner reservoirs, sidewalks and crosswalks) which would experience 200 or more peak hour pedestrian trips during the critical peak periods for quantified analysis.

D. LEVEL 2 SCREENING ASSESSMENT

For the Level-2 screening assessment, projected trips were assigned to specific intersections, transit facilities, and pedestrian elements in the study area. Further quantified analyses to assess the potential impacts of the proposed action on the transportation system would be warranted if the trip assignments were to identify intersections incurring 50 or more peak hour vehicles trips or pedestrian elements incurring 200 or more peak hour pedestrian trips. Similarly, for transit elements, the projected trips were considered in determining the likely transit facilities requiring detailed analysis.

TRAFFIC

As shown above, incremental vehicle trips resulting from the proposed action would exceed the *CEQR* Level-1 screening threshold during all peak hours. These vehicle trips were assigned to area intersections based on the most likely travel routes to and from the projected development sites, prevailing travel patterns, commuter origin-destination summaries from the census data, the configuration of the roadway network, and the anticipated locations of site access and egress. For a conservative analysis, all auto trips were assigned directly to the projected development sites. Taxi trips were assigned to the block faces bordering the projected development sites. All delivery trips were assigned to the projected development sites via the New York City Department of Transportation (NYCDOT) designated truck routes.

Traffic assignments for autos, taxis, and deliveries for individual components are discussed as follows:

AUTOS

Residential

Residential auto assignments were based on the journey-to-work origin-destination information from the 2000 U.S. Census database. Based on this information, majority of residential trips would occur within the Bronx (approximately 70 percent) with the remaining trips being made to Brooklyn and Manhattan.

Overall, the vehicle trips generated by the residential component were distributed to the study area streets/roadways in the following manner: approximately 30 percent of project-generated vehicle trips were assumed to approach the projected development sites from southeast Bronx, 33 percent from southwest Bronx, 7 percent from northwest Bronx, 20 percent from Manhattan, and 10 percent from Brooklyn. Reverse auto trips are expected to return along the same general routes on which they departed.

Office

Auto trips generated by the office use were based on the 2000 U.S. Census reverse journey-to-work data. Most of the office trips would originate from within the Bronx (63 percent) and from upstate New York counties outside of the five boroughs (20 percent). The remaining trips would originate from Queens (12 percent) and Manhattan (5 percent).

Of the trips within the Bronx, approximately 41 percent were assigned from points southeast of the projected development sites, 22 percent were assigned from points northeast of the sites, 19 percent from southwest of the sites, and the remaining 18 percent were assigned from points northwest of the sites. The majority of trips traveling from Queens were assigned to the projected development sites via the Robert F. Kennedy Triborough Bridge and the Bronx-Whitestone Bridge, and subsequently along the Bruckner Expressway and the Bronx River Parkway. Trips from Manhattan are expected to use Harlem River crossings to enter the Bronx and will than approach the projected development sites via the most direct routes

available, primarily along the Major Deegan Expressway. Trips traveling from upstate New York were assigned to the projected development sites via the Bronx River Parkway or the Major Deegan Expressway.

Destination Retail

The destination retail component is expected to draw customers from within a three-mile radius of the projected development sites; therefore, a majority of the auto trips are expected to come from within the Bronx (65 percent) with some trips expected to come from Manhattan (25 percent) and Queens (10 percent).

Overall, the vehicle trips generated by the destination retail component were distributed to the study area streets/roadways in the following manner: approximately 50 percent of project generated trips were assumed to approach the projected development sites from the east, 25 percent from the north and west, and the remaining 25 percent from the south. Departing trips were assigned along the same routes as arrivals.

Local Retail

The local retail uses are expected to serve the immediate surrounding area. Therefore, auto trips were generally assigned from local origins within the neighborhood and adjacent residential areas.

Overall, the vehicle trips generated by the local retail component were distributed to the study area streets/roadways in the following manner: approximately 82 percent of project generated trips were assumed to approach the projected development sites from the south, 16 percent from the north and west, and the remaining 2 percent from the east. Departing trips were assigned along the same routes as arrivals.

Medical Office - Staff

Auto trips generated by the medical office use for staff were based on U.S. Census 2000 reverse journey-to-work data and will follow the same pattern as identified for the general office use above.

Medical Office - Visitors

For medical office visitor trips, half of the trips were assigned locally to reflect neighborhood medical facilities (for e.g., neighborhood physician's office or local medical clinic), and the remaining half were assigned more regionally—similar to destination retail—to account for specialist offices or other facilities that would draw trips from beyond the local area.

Overall, the vehicle trips generated by the medical office visitors were distributed to the study area streets/roadways in the following manner: approximately 50 percent of project generated trips were assumed to approach the projected development sites from the east, 25 percent from the north and west, and the remaining 25 percent from the south.

FRESH Market and Restaurant

The FRESH market and restaurant components are expected to draw customers from within a three-mile radius of the projected development sites; therefore, a majority of the auto trips are expected to come from within the Bronx (65 percent) with some trips expected to come from Manhattan (25 percent) and Queens (10 percent).

Overall, the vehicle trips generated by these components were distributed to the study area streets/roadways in the following manner: approximately 57 percent of project generated trips were

assumed to approach the projected development sites from the south, 40 percent of project generated trips were assumed to approach the projected development sites from the north and west, and the remaining 3 percent from the south. Departing trips were assigned along the same routes as arrivals.

University Classroom

The university classroom component is expected to draw patrons from within a three-mile radius of the projected development sites; therefore, a majority of the auto trips are expected to come from within the Bronx (65 percent) with some trips expected to come from Manhattan (25 percent) and Queens (10 percent).

Overall, the vehicle trips generated by the university classroom component were distributed to the study area streets/roadways in the following manner: approximately 50 percent of project generated trips were assumed to approach the projected development sites from the east, 25 percent from the north and west, and the remaining 25 percent from the south. Departing trips were assigned along the same routes as arrivals.

TAXIS

Taxi pick-ups and drop-offs for all development components were assigned to pick up and drop off along the projected development site frontages.

DELIVERIES

Truck delivery trips for all land uses were assigned to NYCDOT-designated truck routes. Trucks were assigned to the study area from regional origins via Webster Avenue, East Fordham Road, Third Avenue, and Southern Boulevard. Trucks were assigned along regional and local truck routes as long as possible until reaching the projected development sites.

The total weekday AM, midday, and PM peak hour vehicle trip assignments for the As-Of-Right scenario are presented in **Figures 1** through **3**, the proposed project generated trips in **Figures 4** through **6**, and the net incremental trips in **Figures 7** through **9.**

According to the *CEQR Technical Manual*, intersections expected to incur 50 or more incremental peak hour vehicle trips as a result of a proposed action would have the potential for significant adverse traffic impacts and should be assessed in a quantified traffic impact analysis. As summarized in **Table 2.6** and depicted in **Figure 10**, the following 13 intersections, together comprising the traffic study area, were included for the weekday AM, midday, and PM peak hour traffic impact analysis.

- East Fordham Road and Webster Avenue;
- East Fordham Road and Third Avenue;
- East Fordham Road and Washington Avenue;
- East Fordham Road and Bathgate Avenue;
- East Fordham Road and Lorillard Place;
- East Fordham Road and Arthur Avenue;
- East Fordham Road and Hoffman Street;
- East Fordham Road and Hughes Avenue;
- East Fordham Road and Cambreleng Avenue;
- East Fordham Road (Eastbound & Westbound) and Crotona Avenue;

- East Fordham Road (Eastbound & Westbound) and Southern Boulevard;
- Crotona Avenue and East 187th Street; and
- Crotona Avenue and East 189th Street.

Table 2.6
Traffic Locations Exceeding the CEQR Analysis Threshold

Intersection	AM	MD	PM	Analysis Location
East Fordham Rd North and Southern Blvd	**66**	**74**	40	✓
East Fordham Rd South and Southern Blvd	43	**115**	**118**	✓
East Fordham Rd North and Crotona Ave	**70**	**75**	43	✓
East Fordham Rd South and Crotona Ave	**111**	**156**	**113**	✓
East 189th St and Crotona Ave	**51**	**118**	**94**	✓
East 187th St and Crotona Ave	27	**128**	**104**	✓
East Fordham Rd and Cambreleng Ave	29	**65**	**60**	✓
East Fordham Rd and Belmont Ave	39	**60**	38	
East Fordham Rd and Hughes Ave	**63**	**111**	**94**	✓
East Fordham Rd and Arthur Ave	**62**	**103**	**93**	✓
East Fordham Rd and Hoffman St	**60**	**99**	**89**	✓
East Fordham Rd and Lorillard Pl	**82**	**101**	**82**	✓
East Fordham Rd and Bathgate Ave	**91**	**115**	**108**	✓
East Fordham Rd and Washington Ave	**81**	**109**	**99**	✓
East Fordham Rd and 3rd Ave	**81**	**109**	**99**	✓
East Fordham Rd and Webster Ave	**81**	**109**	**99**	✓
Note: Trip estimates shown above that are 50 or greater are bolded and highlighted.				

TRANSIT

SUBWAY

As summarized in **Table 2.5**, the proposed action is expected to generate 142, 199, and 203 person trips by subway during the weekday AM, midday, and PM peak hours, respectively. These trips were assigned to the Fordham Road Station at Jerome Avenue (No. 4 line), the Fordham Road Station at Grand Concourse (B and D lines), and the Pelham Parkway Station (No. 2 and No. 5 lines). Based on a preliminary distribution of subway trips, the project-generated peak hour subway trips are not expected to add 200 or more riders per line per direction or to a station during the weekday morning and evening peak hours; therefore, detailed subway line-haul and station analyses are not required.

BUS

As presented in **Table 2.5**, the proposed action is expected to generate 128, 248, and 208 person trips by bus during the AM, midday, and PM peak hours, respectively. There are twelve bus routes (Bx1, Bx2, Bx9, Bx12, Bx12-SBS, Bx15, Bx17, Bx19, Bx22, Bx34, Bx41 and Bx55) with stops adjacent to or near the projected development sites. In addition, there are expected to be subway-to-bus transfer trips from the above mentioned subway stations. Allocation of these trips to the bus routes serving the stops near the subway stations (i.e., Bx12 and Bx12-SBS) shows that the Bx12 route would incur 50 or more peak hour riders in a single direction. Therefore, quantified bus line-haul analysis of the Bx12 was performed for potential bus impacts for the weekday AM and PM peak hours.

PEDESTRIANS

As shown in **Table 2.5**, the projected peak hour pedestrian trips would exceed the CEQR analysis threshold of 200 pedestrians during all peak hours. Level 2 pedestrian trip assignments were individually developed for all the proposed development components and are discussed as follows:

- Auto Trips –Motorists would park at on-site parking facilities or at the nearest available public parking facilities and would walk to-and-from the projected development sites.
- Taxi Trips – Taxi patrons would get dropped off and picked up along East Fordham Road, Crotona Avenue, and Arthur Avenue.
- Bus Trips – Bus riders would use the Bx1, Bx2, Bx9, Bx12, Bx12-SBS, Bx15, Bx17, Bx19, Bx22, Bx34, Bx41, and Bx55 bus routes and would get on and off at the bus stops nearest to the projected development sites. It is anticipated that the riders on the north-south bus routes such as Bx1, Bx2, Bx15, Bx34, Bx41, and Bx55 would transfer to the bus routes serving stops along East Fordham Road and get off near the projected development sites.
- Subway Trips – Subway riders were assigned to the Fordham Road Station at Jerome Avenue (No. 4 line), the Fordham Road Station at Grand Concourse (B and D lines), and the Pelham Parkway Station (No. 2 and No. 5 lines.) It is anticipated that a majority of the subway riders would transfer to the Bx12 or Bx12-SBS to reach the projected development sites.
- Walk-Only Trips – Pedestrian walk-only trip assignments were developed by distributing project-generated person trips to surrounding pedestrian facilities (i.e., sidewalks, corner reservoirs, and crosswalks) based on the origin and destination (OD) data as well as the land use characteristics and population distribution of the surrounding neighborhood.

The total weekday AM, midday, and PM peak hour pedestrian trip assignments for the As-Of-Right program are presented in **Figures 11** through **13**, the proposed project generated trips in **Figures 14** through **16**, and the net incremental trips in **Figures 17** through **19.** Based on the above assignment of pedestrian trips and the Level 2 assessment criteria, 13 sidewalks, 5 crosswalks, and 10 corners were analyzed, as shown in **Figure 20** and summarized in **Table 2.7.**

Table 2.7

Pedestrian Locations Exceeding the CEQR Analysis Threshold

Pedestrian Elements	AM	MD	PM	Analysis Locations
E. Fordham Rd and Southern Blvd				
South Sidewalk between Southern Blvd and Crotona Ave	91	**277**	**218**	✓
E. Fordham Rd and Crotona Ave				
South Crosswalk	130	**456**	**319**	✓
Southeast Corner	188	**729**	**491**	✓
Southwest Corner	183	**571**	**403**	✓
East Sidewalk between E. Fordham Road and E.189th Street (North of Bx17 Bus Stop)	131	**436**	**326**	✓
South Sidewalk between Crotona Ave and Southern Blvd.	120	**588**	**352**	✓
East Sidewalk between E. Fordham Road and E.189th Street (South of Bus Stop)	**204**	**815**	**619**	✓
E. Fordham Rd and Cambreleng Ave				
South Crosswalk	108	**249**	**206**	✓
Southeast Corner	131	**385**	**279**	✓
Southwest Corner	163	**433**	**317**	✓
South Sidewalk between Cambreleng Ave and Crotona Ave	127	**385**	**278**	✓
South Sidewalk between Cambreleng Ave and Belmont Ave	**212**	**585**	**414**	✓
E. Fordham Road and Belmont Ave				
South Sidewalk between Belmont Ave and Cambreleng Ave	**239**	**764**	**505**	✓
E. Fordham Rd and Hughes Ave				
South Crosswalk	77	**283**	**182**	✓
Southeast Corner	164	**622**	**401**	✓
Southwest Corner	158	**617**	**392**	✓

South Sidewalk between Hughes Ave and Belmont Ave	171	**624**	**409**	✓

Table 2.7 (cont'd)
Pedestrian Locations Exceeding the CEQR Analysis Threshold

Pedestrian Elements	AM	MD	PM	Analysis Locations
E. Fordham Rd and Arthur Ave				
South Crosswalk	99	**371**	**235**	✓
Southeast Corner	103	**382**	**242**	✓
Southwest Corner	101	**406**	**250**	✓
South Sidewalk between Hughes Ave and Arthur Ave	107	**383**	**247**	✓
South sidewalk between Arthur Ave and Hoffman St	90	**380**	**231**	✓
E. Fordham Rd and Hoffman St				
South Crosswalk	87	**321**	**206**	✓
Southeast Corner	101	**316**	**227**	✓
Southwest Corner	89	**308**	**206**	✓
E. Fordham Rd and Lorillard Pl				
South Sidewalk between Lolillard Pl and Hoffman St	79	**300**	188	✓
E.189th Street and Cambreleng Ave				
North Sidewalk between Cambreleng Ave and Beaumont Ave	80	**401**	**264**	✓
North Sidewalk between Crotona Ave and Beaumont Ave	188	**599**	**455**	✓

Notes:
✓ denotes pedestrian elements analyzed.
Pedestrian trip estimates shown above that are 200 or greater are bolded and highlighted.

E. TRANSPORTATION ANALYSIS METHODOLOGIES

TRAFFIC OPERATIONS

The operation of all of the signalized intersections and unsignalized intersections in the study area were assessed using methodologies presented in the *2000 Highway Capacity Manual (HCM)* using the *Highway Capacity Software (HCS+ 5.5)*. The *HCM* procedure evaluates the levels of service (LOS) for signalized and unsignalized intersections using average stop control delay, in seconds per vehicle, as described below.

SIGNALIZED INTERSECTIONS

The average control delay per vehicle is the basis for LOS determination for individual lane groups (grouping of movements in one or more travel lanes), the approaches, and the overall intersection. The levels of service are defined in **Table 2.8**.

Table 2.8
LOS Criteria for Signalized Intersections

LOS	Average Control Delay
A	≤ 10.0 seconds
B	>10.0 and ≤ 20.0 seconds
C	>20.0 and ≤ 35.0 seconds
D	>35.0 and ≤ 55.0 seconds
E	>55.0 and ≤ 80.0 seconds
F	>80.0 seconds
Source:	Transportation Research Board. *Highway Capacity Manual*, 2000.

Although the HCM methodology calculates a volume-to-capacity (v/c) ratio, there is no strict relationship between v/c ratios and LOS as defined in the *HCM*. A high v/c ratio indicates substantial traffic passing through an intersection, but a high v/c ratio combined with low average delay actually represents the most efficient condition in terms of traffic engineering standards, where an approach or the whole intersection processes traffic close to its theoretical maximum capacity with minimal delay. However, very high v/c ratios—especially those approaching or greater than 1.0—are often correlated with a deteriorated LOS. Other important variables affecting delay include cycle length, progression, and green time. LOS A and B indicate good operating conditions with minimal delay. At LOS C, the number of vehicles stopping is higher, but congestion is still fairly light. LOS D describes a condition where congestion levels are more noticeable and individual cycle failures (a condition where motorists may have to wait for more than one green phase to clear the intersection) can occur. Conditions at LOS E and F reflect poor service levels, and cycle breakdowns are frequent. The *HCM* methodology also provides for a summary of the total intersection operating conditions. The analysis chooses the two critical movements (the worst case from each roadway) and calculates a summary critical v/c ratio. The overall intersection delay, which determines the intersection's LOS, is based on a weighted average of control delays of the individual lane groups. Within New York City, the midpoint of LOS D (45 seconds of delay) is generally considered as the threshold between acceptable and unacceptable operations.

Significant Impact Criteria

According to the criteria presented in the *CEQR Technical Manual*, impacts are considered significant and require examination of mitigation if they result in an increase in the Build condition of 5 or more seconds of delay in a lane group over No Build levels beyond mid-LOS D. For No Build LOS E, a 4-second increase in delay is considered significant. For No Build LOS F, a 3-second increase in delay is considered significant. In addition, impacts are considered significant if levels of service deteriorate from acceptable A, B, or C in the No Build condition to marginally unacceptable LOS D (a delay in excess of 45 seconds, the midpoint of LOS D), or unacceptable LOS E or F in the Build condition.

UNSIGNALIZED INTERSECTIONS

For unsignalized intersections, the average control delay is defined as the total elapsed time from which a vehicle stops at the end of the queue until the vehicle departs from the stop line. This includes the time required for the vehicle to travel from the last-in-queue to the first-in-queue position. The average control delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation. The LOS criteria for unsignalized intersections are summarized in **Table 2.9**.

Table 2.9
LOS Criteria for Unsignalized Intersections

LOS	Average Control Delay
A	□ 10.0 seconds
B	□ 10.0 and □□15.0 seconds
C	□ 15.0 and □□25.0 seconds
D	□ 25.0 and □□35.0 seconds
E	□ 35.0 and □□50.0 seconds
F	□ 50.0 seconds

Source: Transportation Research Board. *Highway Capacity Manual*, 2000.

The LOS thresholds for unsignalized intersections are different from those for signalized intersections. The primary reason is that drivers expect different levels of performance from different types of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an unsignalized intersection; hence, the corresponding control delays are higher at a signalized intersection than at an unsignalized intersection for the same LOS. In addition, certain driver behavioral considerations combine to make delays at signalized intersections less onerous than at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, whereas drivers on minor approaches to unsignalized intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized intersections. For these reasons, the corresponding delay thresholds for unsignalized intersections are lower than those of signalized intersections. As with signalized intersections, within New York City, the midpoint of LOS D (30 seconds of delay) is generally perceived as the threshold between acceptable and unacceptable operations.

Significant Impact Criteria

The same sliding scale of significant delays described for signalized intersections applies for unsignalized intersections. For the minor street to trigger significant impacts, at least 90 passenger car equivalents (PCE) must be identified in the Build condition in any peak hour.

TRANSIT OPERATIONS

BUS LINE-HAUL ANALYSIS

The assessment of bus line-haul conditions involves analyzing bus routes at their peak load points and, if necessary, also their bus stops closest to the project site to identify the potential for the analyzed routes to exceed their guideline (or practical) capacities. NYCT and the MTA Bus Company operate three types of buses: standard and articulated buses, and over-the-road coaches. During peak hours, standard buses operate with up to 54 passengers per bus, articulated buses operate with up to 85 passengers per bus, and over-the-road coaches operate with up to 55 passengers per bus.

Significant Impact Criteria

An increase in bus load levels greater than the maximum capacity at any load point is defined as a significant adverse impact. While subject to operational and fiscal constraints, bus impacts can typically be mitigated by increasing service frequency. Therefore, mitigation of bus line-haul capacity impacts, where appropriate, would be recommended for NYCT's approval.

PEDESTRIAN OPERATIONS

The adequacy of the study area's sidewalks, crosswalks, and corner reservoir capacities in relation to the demand imposed on them is evaluated based on the methodologies presented in the 2010 *Highway Capacity Manual* (HCM), pursuant to procedures detailed in the *CEQR Technical Manual*.

Sidewalks are analyzed in terms of pedestrian flow. The calculation of the average pedestrians per minute per foot (PMF) of effective walkway width is the basis for a sidewalk level-of-service (LOS) analysis. The determination of walkway LOS is also dependent on whether the pedestrian flow being analyzed is best described as "non-platoon" or "platoon." Non-platoon flow occurs when pedestrian volume within the peak 15-minute period is relatively uniform, whereas, platoon flow occurs when pedestrian volumes vary significantly with the peak 15-minute period. Such variation typically occurs

near bus stops, subway stations, and/or where adjacent crosswalks account for much of the walkway's pedestrian volume. Crosswalks and street corners are not easily measured in terms of free pedestrian flow, as they are influenced by the effects of traffic signals. Street corners must be able to provide sufficient space for a mix of standing pedestrians (queued to cross a street) and circulating pedestrians (crossing the street or moving around the corner). The HCM methodologies apply a measure of time and space availability based on the area of the corner, the timing of the intersection signal, and the estimated space used by circulating pedestrians.

The total "time-space" available for these activities, expressed in square feet-second, is calculated by multiplying the net area of the corner (in square feet) by the signal's cycle length. The analysis then determines the total circulation time for all pedestrian movements at the corner per signal cycle (expressed as pedestrians per second). The ratio of net time-space divided by the total pedestrian circulation volume per signal cycle provides the LOS measurement of square feet per pedestrian (SFP).

Crosswalk LOS is also a function of time and space. Similar to the street corner analysis, crosswalk conditions are first expressed as a measurement of the available area (the crosswalk width multiplied by the width of the street) and the permitted crossing time. This measure is expressed in square feet-second. The average time required for a pedestrian to cross the street is calculated based on the width of the street and an assumed walking speed. The ratio of time-space available in the crosswalk to the total crosswalk pedestrian occupancy time is the LOS measurement of available square feet per pedestrian. The LOS analysis also accounts for vehicular turning movements that traverse the crosswalk. The LOS standards for sidewalks, corner reservoirs, and crosswalks are summarized in **Table 2.10**. The *CEQR Technical Manual* specifies that acceptable LOS in non-Central Business District (CBD) areas is LOS C or better.

Table 2.10
Level of Service Criteria for Pedestrian Elements

LOS	Sidewalks		Corner Reservoirs and Crosswalks
	Non-Platoon Flow	Platoon Flow	
A	≤ 5 PMF	≤ 0.5 PMF	> 60 SFP
B	> 5 and ≤ 7 PMF	> 0.5 and ≤ 3 PMF	> 40 and ≤ 60 SFP
C	> 7 and ≤ 10 PMF	> 3 and ≤ 6 PMF	> 24 and ≤ 40 SFP
D	> 10 and ≤ 15 PMF	> 6 and ≤ 11 PMF	> 15 and ≤ 24 SFP
E	> 15 and ≤ 23 PMF	> 11 and ≤ 18 PMF	> 8 and ≤ 15 SFP
F	> 23 PMF	> 18 PMF	≤ 8 SFP

Notes: PMF = pedestrians per minute per foot; SFP = square feet per pedestrian.
Source: New York City Mayor's Office of Environmental Coordination, *CEQR Technical Manual* (2012).

SIGNIFICANT IMPACT CRITERIA

The determination of significant pedestrian impacts considers the level of predicted deterioration in pedestrian flow or decrease in pedestrian space between the No Action and With Action conditions. For different pedestrian elements, flow conditions, and area types, the CEQR procedure for impact determination corresponds with various sliding-scale formulas, as further detailed below.

Sidewalks

There are two sliding-scale formulas for determining significant sidewalk impacts. For non-platoon flow, the increase in average pedestrian flow rate (Y) in PMF needs to be greater or equal to 3.5 minus X divided by 8.0 (where X is the No Action pedestrian flow rate in PMF [$Y \geq 3.5 - X/8.0$]) for it to be a

significant impact. For platoon flow, the sliding-scale formula is Y ≥ 3.0 – X/8.0. Since deterioration in pedestrian flow within acceptable levels would not constitute a significant impact, these formulas would apply only if the With Action pedestrian flow exceeds LOS C in non-CBD areas or mid-LOS D in CBD areas. **Table 2.11** summarizes the sliding scale guidance provided by the *CEQR Technical Manual* for determining potential significant sidewalk impacts.

Table 2.11
Significant Impact Guidance for Sidewalks

Non-Platoon Flow				Platoon Flow			
Sliding Scale Formula: ***Y ≥ 3.5 – X/8.0***				**Sliding Scale Formula:** ***Y ≥ 3.0 – X/8.0***			
Non-CBD Areas		**CBD Areas**		**Non-CBD Areas**		**CBD Areas**	
No Action Ped. Flow (X, PMF)	**Action Ped. Flow Incr. (Y, PMF)**	**No Action Ped. Flow (X, PMF)**	**Action Ped. Flow Incr. (Y, PMF)**	**No Action Ped. Flow (X, PMF)**	**Action Ped. Flow Incr. (Y, PMF)**	**No Action Ped. Flow (X, PMF)**	**Action Ped. Flow Incr. (Y, PMF)**
7.5 to 7.8	≥ 2.6	–	–	3.5 to 3.8	≥ 2.6	–	–
7.9 to 8.6	≥ 2.5	–	–	3.9 to 4.6	≥ 2.5	–	–
8.7 to 9.4	≥ 2.4	–	–	4.7 to 5.4	≥ 2.4	–	–
9.5 to 10.2	≥ 2.3	–	–	5.5 to 6.2	≥ 2.3	–	–
10.3 to 11.0	≥ 2.2	10.4 to 11.0	≥ 2.2	6.3 to 7.0	≥ 2.2	6.4 to 7.0	≥ 2.2
11.1 to 11.8	≥ 2.1	11.1 to 11.8	≥ 2.1	7.1 to 7.8	≥ 2.1	7.1 to 7.8	≥ 2.1
11.9 to 12.6	≥ 2.0	11.9 to 12.6	≥ 2.0	7.9 to 8.6	≥ 2.0	7.9 to 8.6	≥ 2.0
12.7 to 13.4	≥ 1.9	12.7 to 13.4	≥ 1.9	8.7 to 9.4	≥ 1.9	8.7 to 9.4	≥ 1.9
13.5 to 14.2	≥ 1.8	13.5 to 14.2	≥ 1.8	9.5 to 10.2	≥ 1.8	9.5 to 10.2	≥ 1.8
14.3 to 15.0	≥ 1.7	14.3 to 15.0	≥ 1.7	10. to 11.0	≥ 1.7	10. to 11.0	≥ 1.7
15.1 to 15.8	≥ 1.6	15.1 to 15.8	≥ 1.6	11.1 to 11.8	≥ 1.6	11.1 to 11.8	≥ 1.6
15.9 to 16.6	≥ 1.5	15.9 to 16.6	≥ 1.5	11.9 to 12.6	≥ 1.5	11.9 to 12.6	≥ 1.5
16.7 to 17.4	≥ 1.4	16.7 to 17.4	≥ 1.4	12.7 to 13.4	≥ 1.4	12.7 to 13.4	≥ 1.4
17.5 to 18.2	≥ 1.3	17.5 to 18.2	≥ 1.3	13.5 to 14.2	≥ 1.3	13.5 to 14.2	≥ 1.3
18.3 to 19.0	≥ 1.2	18.3 to 19.0	≥ 1.2	14.3 to 15.0	≥ 1.2	14.3 to 15.0	≥ 1.2
19.1 to 19.8	≥ 1.1	19.1 to 19.8	≥ 1.1	15.1 to 15.8	≥ 1.1	15.1 to 15.8	≥ 1.1
19.9 to 20.6	≥ 1.0	19.9 to 20.6	≥ 1.0	15.9 to 16.6	≥ 1.0	15.9 to 16.6	≥ 1.0
20.7 to 21.4	≥ 0.9	20.7 to 21.4	≥ 0.9	16.7 to 17.4	≥ 0.9	16.7 to 17.4	≥ 0.9
21.5 to 22.2	≥ 0.8	21.5 to 22.2	≥ 0.8	17.5 to 18.2	≥ 0.8	17.5 to 18.2	≥ 0.8
22.3 to 23.0	≥ 0.7	22.3 to 23.0	≥ 0.7	18.3 to 19.0	≥ 0.7	18.3 to 19.0	≥ 0.7
> 23.0	≥ 0.6	> 23.0	≥ 0.6	> 19.0	≥ 0.6	> 19.0	≥ 0.6

Notes: PMF = pedestrians per minute per foot; Y = increase in average pedestrian flow rate in PMF; X = No Action pedestrian flow rate in PMF.

Sources: New York City Mayor's Office of Environmental Coordination, *CEQR Technical Manual* (2012).

Corner Reservoirs and Crosswalks

The determination of significant corner and crosswalk impacts is also based on a sliding scale using the following formula: $Y \geq X/9.0 - 0.3$, where Y is the decrease in pedestrian space in SFP and X is the No Action pedestrian space in SFP. Since a decrease in pedestrian space within acceptable levels would not constitute a significant impact, this formula would apply only if the With Action pedestrian space falls short of LOS C in non-CBD areas or mid-LOS D in CBD areas. **Table 2.12** summarizes the sliding scale guidance provided by the *CEQR Technical Manual* for determining potential significant corner reservoir and crosswalk impacts.

Table 2.12
Significant Impact Guidance for Corners and Crosswalks

Sliding Scale Formula: ***Y ≥ X/9.0 – 0.3***			
Non-CBD Areas		**CBD Areas**	
No Action Pedestrian Space (X, SFP)	**Action Pedestrian Space Reduction (Y, SFP)**	**No Action Pedestrian Space (X, SFP)**	**Action Pedestrian Space Reduction (Y, SFP)**
25.8 to 26.6	≥ 2.6	–	–
24.9 to 25.7	≥ 2.5	–	–
24.0 to 24.8	≥ 2.4	–	–
23.1 to 23.9	≥ 2.3	–	–
22.2 to 23.0	≥ 2.2	–	–
21.3 to 22.1	≥ 2.1	21.3 to 21.5	≥ 2.1
20.4 to 21.2	≥ 2.0	20.4 to 21.2	≥ 2.0
19.5 to 20.3	≥ 1.9	19.5 to 20.3	≥ 1.9
18.6 to 19.4	≥ 1.8	18.6 to 19.4	≥ 1.8
17.7 to 18.5	≥ 1.7	17.7 to 18.5	≥ 1.7
16.8 to 17.6	≥ 1.6	16.8 to 17.6	≥ 1.6
15.9 to 16.7	≥ 1.5	15.9 to 16.7	≥ 1.5
15.0 to 15.8	≥ 1.4	15.0 to 15.8	≥ 1.4
14.1 to 14.9	≥ 1.3	14.1 to 14.9	≥ 1.3
13.2 to 14.0	≥ 1.2	13.2 to 14.0	≥ 1.2
12.3 to 13.1	≥ 1.1	12.3 to 13.1	≥ 1.1
11.4 to 12.2	≥ 1.0	11.4 to 12.2	≥ 1.0
10.5 to 11.3	≥ 0.9	10.5 to 11.3	≥ 0.9
9.6 to 10.4	≥ 0.8	9.6 to 10.4	≥ 0.8
8.7 to 9.5	≥ 0.7	8.7 to 9.5	≥ 0.7
7.8 to 8.6	≥ 0.6	7.8 to 8.6	≥ 0.6
6.9 to 7.7	≥ 0.5	6.9 to 7.7	≥ 0.5
6.0 to 6.8	≥ 0.4	6.0 to 6.8	≥ 0.4
5.1 to 5.9	≥ 0.3	5.1 to 5.9	≥ 0.3
< 5.1	≥ 0.2	< 5.1	≥ 0.2

Notes: SFP = square feet per pedestrian; Y = decrease in pedestrian space in SFP; X = No Action pedestrian space in SFP.

Sources: New York City Mayor's Office of Environmental Coordination, *CEQR Technical Manual* (2012).

VEHICULAR AND PEDESTRIAN SAFETY EVALUATION

An evaluation of vehicular and pedestrian safety is necessary for locations within the traffic and pedestrian study areas that have been identified as high accident locations, where 48 or more total reportable and non-reportable crashes or five (5) or more pedestrian/bicyclist injury crashes occurred

in any consecutive 12 months of the most recent 3-year period for which data are available. For these locations, accident trends are identified to determine whether projected vehicular and pedestrian traffic would further impact safety at these locations. The determination of potential significant safety impacts depends on the type of area where the project site is located, traffic volumes, accident types and severity, and other contributing factors. Where appropriate, measures to improve traffic and pedestrian safety are identified and coordinated with NYCDOT.

PARKING CONDITIONS ASSESSMENT

The parking analysis identifies the extent to which on-street parking is available and utilized under existing and future conditions. It takes into consideration anticipated changes in area parking supply and provides a comparison of parking needs versus availability to determine if a parking shortfall is likely to result from parking displacement attributable to or additional demand generated by a proposed action. Typically, this analysis encompasses a study area within ¼ mile of the project site. If the analysis concludes a shortfall in parking within the ¼ mile study area, the study area could sometimes be extended to ½ mile to identify additional parking supply.

For proposed actions located in Manhattan or other CBD areas, the inability of the proposed action or the surrounding area to accommodate the project's future parking demand is considered a parking shortfall, but is generally not considered significant due to the magnitude of available alternative modes of transportation. For other areas in New York City, a parking shortfall that exceeds more than half of the available on-street and off-street parking spaces within ¼ mile of the project site may be considered significant. Additional factors, such as the availability and extent of transit in the area, proximity of the project to such transit, and patterns of automobile usage by area residents, could be considered to determine the significance of the identified parking shortfall. In some cases, if there is adequate parking supply within ½ mile of the project site, the projected parking shortfall may also not necessarily be considered significant.

F. TRAFFIC

2013 EXISTING CONDITIONS

ROADWAY NETWORK

The roadway network around the project site is generally a grid of local streets which connect to East Fordham Road, a primarily commercial east-west arterial. East Fordham Road provides access points to major roadways, including Pelham Parkway, Bronx River Parkway and Grand Concourse. Key north-south roadways within the study area include Webster Avenue, Crotona Avenue, and Southern Boulevard. East Fordham Road is the key east-west roadway in the study area.

East Fordham Road extends east-west between the Bronx River Parkway and Jerome Avenue, where it becomes West Fordham Road until it reaches the Major Deegan Expressway. The East Fordham Road/West Fordham Road corridor extends through the Belmont and University Heights neighborhoods and functions as a major traffic route along an important commercial strip. East Fordham Road is a two-way street of generally consistent width in the study area; the curb lane on both sides of the street are reserved for buses from 7AM to 7PM during weekdays, with some locations allowing deliveries for two hour windows during the day. In the study area, East Fordham Road typically contains either two general travel lanes and a bus-only lane or three general travel lanes and a bus-only lane in each direction.

Webster Avenue is a north-south major roadway which spans most of the length of the Bronx. It provides two to three lanes of traffic in each direction, with curbside parking on both sides of the street.

Crotona Avenue and Southern Boulevard are two major north-south roadways which merge on the east side of the study area after traversing much of the middle section of the Bronx. In the study area, Crotona Avenue provides one travel lane in each direction while Southern Boulevard provides two travel lanes in each direction. Both roads provide curbside parking on each side of the street.

Other streets serving the study area include Washington Avenue, Bathgate Avenue, Arthur Avenue, Hughes Avenue, and Cambreleng Avenue.

TRAFFIC CONDITIONS

Existing traffic volumes for the study area intersections were established based on field counts (including manual turning movement counts and Automatic Traffic Recorder [ATR] counts) conducted from March 18 to March 25, 2013.

During the traffic counts, the northbound lanes of Third Avenue at East Fordham Road were closed to general traffic for construction; one northbound lane was open to buses only, and southbound lanes were also bus only. For analysis purposes, this closure was assumed to be a permanent change—continuing into the future conditions—since this construction activity is part of a planned roadway reconfiguration of Fordham Plaza[1] sponsored by the New York City Economic Development Corporation (EDC) and NYCDOT. As part of the master plan, an existing bus terminal will be expanded to include Third Avenue between East 189th Street and East Fordham Road. This section of Third Avenue will be designated bus only. In addition to this change, an extended left-turn lane will be added to Webster Avenue at its East Fordham Road approach, and left turns will be restricted for eastbound and westbound traffic on East Fordham Road at Webster Avenue.

The 2013 Existing traffic volumes for the study area intersections are shown in **Figures 21** to **23**.

LEVELS OF SERVICE

For the length of East Fordham Road in the study area, curb lanes are designated as bus only, which allow for general traffic that is making the next right-turn at an intersection approach. Therefore, at each intersection along East Fordham Road, curbside approach lanes have been analyzed as right-turn only in all analysis conditions (existing through build).

Table 2.13 presents the service conditions for existing traffic study area intersections. The analysis results indicate that most of the study area's intersection approaches/lane groups operate acceptably—at mid-LOS D (delays of 45 seconds per vehicle [spv] or less for signalized intersections and 30 spv or less for unsignalized intersections) or better for the analysis peak hours. Approaches/lane groups operating at worse than mid-LOS D and those with v/c ratios of 0.90 or greater are listed below.

- The eastbound left-turn at the East Fordham Road and Webster Avenue intersection, with LOS D (45.7 seconds of delay) during the weekday AM peak hour;

[1] Fordham Plaza is located at the west end of the study area on the block bounded by East Fordham Road to the north, Third Avenue to the east, East 189th Street to the south, and Webster Avenue to the west.

- The northbound left-turn at the East Fordham Road and Webster Avenue intersection, with LOS F and v/c ratios of 1.05 and delays of 122.5 seconds, 99.6 seconds, and 110.7 seconds during the weekday AM, midday, and PM peak hours, respectively;
- The northbound through/right-turn at the East Fordham Road and Webster Avenue intersection, with LOS E (v/c ratio of 0.96, 79.3 seconds of delay), LOS D (45.7 seconds of delay), and LOS F (v/c ratio of 1.01, 86.2 seconds of delay) during the weekday AM, midday, and PM peak hours, respectively;
- The southbound left-turn at the East Fordham Road and Webster Avenue intersection, with LOS F during the weekday AM and PM peak hours with v/c ratios of 0.98 and 1.01, and delays of 102.0 and 119.6 seconds respectively, and LOS E (57.2 seconds of delay) during the midday peak hour;
- The southbound through/right-turn at the East Fordham Road and Webster Avenue intersection, with LOS F (v/c ratio of 1.01, 89.5 seconds of delay) during the weekday AM peak hour and LOS D (45.3 seconds of delay) during the weekday PM peak hour;
- The westbound left-turn/through at the East Fordham Road and Third Avenue intersection, with LOS E during the AM and midday peak hours, with v/c ratios of 1.00 and 1.05 and delays of 55.6 and 71.3 seconds, respectively;
- The northbound through/right-turn at the East Fordham Road and Bathgate Avenue intersection, with LOS F (v/c ratio of 1.03, 105.2 seconds of delay) during the weekday PM peak hour;
- The eastbound through at the East Fordham Road and Lorillard Place intersection, with LOS D (a v/c ratio of 0.95) during the weekday PM peak hour;
- The westbound left-turn at the East Fordham Road and Lorillard Place intersection, with LOS D (46.2 seconds of delay) during the weekday PM peak hour;
- The northbound approach at the East Fordham Road and Hoffman Street intersection, with LOS E (64.2 seconds of delay) and LOS F (v/c ratio of 1.04, 103.7 seconds of delay) during the weekday AM and PM peak hours, respectively;
- The westbound left-turn at the East Fordham Road and Arthur Avenue intersection, with LOS E during the weekday AM and midday peak hours with v/c ratios of 0.94 and 0.91 and delays of 66.0 seconds and 59.1 seconds, respectively, and LOS F (v/c ratio of 1.02, 97.8 seconds of delay) during the weekday PM peak hour;
- The northbound approach at the East Fordham Road and Hughes Avenue intersection, with LOS E (69.2 seconds of delay), LOS E (v/c ratio of 0.93, 60.9 seconds of delay), and LOS F (v/c ratio of 1.05, 106.4 seconds of delay) during the weekday AM, midday, and PM peak hours, respectively;
- The southbound approach at the East Fordham Road and Hughes Avenue intersection, with LOS D (48.9 seconds of delay) during the weekday AM peak hour, and LOS F (v/c ratio of 1.05, 138.8 seconds of delay) during the weekday PM peak hour;
- The northbound right-turn at the East Fordham Road and Cambreleng Avenue intersection, with LOS E (66.5 seconds of delay) during the weekday PM peak hour;
- The westbound approach at the East Fordham Road (westbound) and Southern Boulevard intersection, with LOS D (v/c ratio of 0.99, 53.1 seconds of delay) during the weekday AM peak hour;

Table 2.13

2013 Existing Conditions Level of Service Analysis Signalized Intersections

	Weekday AM				Weekday Midday				Weekday PM			
	2013 Existing				2013 Existing				2013 Existing			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
East Fordham Road and Webster Avenue												
Eastbound	L	0.54	45.7	D	L	0.25	21.1	C	L	0.34	28.8	C
	T	0.67	26.1	C	T	0.72	27.2	C	T	0.71	27.5	C
	R	0.19	18.8	B	R	0.27	21.5	C	R	0.24	19.9	B
Westbound	L	0.45	32.7	C	L	0.39	26.0	C	L	0.38	31.2	C
	T	0.81	31.6	C	T	0.71	27.2	C	T	0.66	25.9	C
	R	0.17	18.3	B	R	0.31	21.7	C	R	0.25	19.8	B
Northbound	L	1.05	122.5	F	L	1.05	99.6	F	L	1.05	110.7	F
	TR	0.96	79.3	E	TR	0.83	45.7	D	TR	1.01	86.2	F
Southbound	L	0.98	102.0	F	L	0.83	57.2	E	L	1.05	119.6	F
	TR	1.01	89.5	F	TR	0.68	37.8	D	TR	0.50	45.3	D
	Intersection		53.1	D	Intersection		39.5	D	Intersection		50.1	D
East Fordham Road and Third Avenue												
Eastbound	TR	0.74	18.3	B	TR	0.76	21.2	C	TR	0.70	17.2	B
Westbound	LT	1.00	55.6	E	LT	1.05	71.3	E	LT	0.88	36.4	D
Northbound	LR	0.07	31.1	C	LR	0.02	17.7	B	LR	0.03	30.5	C
	Intersection		36.3	D	Intersection		44.9	D	Intersection		26.2	C
East Fordham Road and Washington Avenue												
Eastbound	T	0.71	23.7	C	T	0.72	20.1	C	T	0.78	26.5	C
	R	0.29	16.5	B	R	0.19	12.5	B	R	0.22	15.5	B
Westbound	L	0.64	35.3	D	L	0.54	27.1	C	L	0.48	30.6	C
	T	0.67	11.50	B	T	0.58	10.5	B	T	0.54	8.5	A
	Intersection		18.6	B	Intersection		16.1	B	Intersection		18.5	B
East Fordham Road and Bathgate Avenue												
Eastbound	L	0.18	12.1	B	L	0.25	15.8	B	L	0.11	9.3	A
	T	0.64	14.3	B	T	0.70	18.4	B	T	0.61	13.6	B
Westbound	T	0.82	20.0-	B	T	0.72	19.0	B	T	0.68	15.3	B
	R	0.01	7.4	A	R	0.01	9.9	A	R	0.02	7.5	A
Northbound	L	0.32	38.0	D	L	0.12	20.0+	C	L	0.31	37.5	D
	TR	0.53	44.6	D	TR	0.33	23.4	C	TR	1.03	105.2	F
Southbound	LR	0.01	32.4	C	LR	0.11	20.2	C	LR	0.23	38.9	D
	Intersection		19.5	B	Intersection		18.9	B	Intersection		25.2	C
East Fordham Road and Lorillard Place												
Eastbound	T	0.79	26.8	C	T	0.76	21.5	C	T	0.95	39.7	D
	R	0.11	14.2	B	R	0.07	11.4	B	R	0.06	13.6	B
Westbound	L	0.52	32.1	C	L	0.46	24.4	C	L	0.65	46.2	D
	T	0.74	11.8	B	T	0.62	11.1	B	T	0.64	9.6	A
	Intersection		19.0	B	Intersection		16.5	B	Intersection		26.4	C
East Fordham Road and Hoffman Street												
Eastbound	L	0.04	6.0	A	L	0.01	9.1	A	L	0.01	8.7	A
	T	0.57	9.7	A	T	0.68	16.7	B	T	0.78	20.0-	B
Westbound	T	0.81	15.6	B	T	0.79	19.9	B	T	0.82	21.5	C
	R	0.02	5.2	A	R	0.04	9.2	A	R	0.02	8.6	A
Northbound	LTR	0.73	64.2	E	LTR	0.42	26.4	C	LTR	1.04	103.7	F
	Intersection		15.8	B	Intersection		18.9	B	Intersection		29.4	C
East Fordham Road and Arthur Avenue												
Eastbound	T	0.81 ~~0.83~~	32.0 ~~32.9~~	C	T	0.85 ~~0.87~~	29.1 ~~30.3~~	C	T	0.82 ~~0.84~~	25.4 ~~26.3~~	C
	R	0.04	17.0	B	R	0.12	15.0 ~~15.1~~	B	R	0.06	11.8	B
Westbound	L	0.94	66.0	E	L	0.91	59.1	E	L	1.02	97.8	F
	T	0.70	10.6	B	T	0.62	10.9	B	T	0.64	9.4	A
	Intersection		25.9 ~~26.3~~	C	Intersection		24.4 ~~24.8~~	C	Intersection		25.4 ~~25.7~~	C

Table 2.13 (cont'd)
2013 Existing Conditions Level of Service Analysis
Signalized Intersections

	Weekday AM				Weekday Midday				Weekday PM			
	2013 Existing				2013 Existing				2013 Existing			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
East Fordham Road and Hughes Avenue												
Eastbound	LT	0.59	11.4	B	LT	0.66	15.0	B	LT	0.77	15.5	B
Westbound	T	0.64	11.6	B	T	0.55	12.6	B	T	0.58	10.7	B
	R	0.02	6.2	A	R	0.04	8.3	A	R	0.01	6.1	A
Northbound	LTR	0.83	69.2	E	LTR	0.93	60.9	E	LTR	1.05	106.4	F
Southbound	LR	0.46	48.9	D	LR	0.58	38.2	D	LR	1.05	138.8	F
	Intersection		15.7	B	Intersection		19.8	B	Intersection		26.2	C
East Fordham Road and Cambreleng Avenue												
Eastbound	T	0.23	15.7	B	T	0.22	13.0	B	T	0.20	7.2	A
Northbound	R	0.34	27.3	C	R	0.45	22.9	C	R	0.85	66.5	E
	Intersection		19.6	B	Intersection		17.3	B	Intersection		31.0	C
East Fordham Road (Westbound) and Crotona Avenue												
Westbound	LT	0.62	24.1	C	LT	0.31	10.0+	B	LT	0.32	17.0	B
Northbound	L	0.37	31.4	C	L	0.33	28.5	C	L	0.21	26.4	C
Southbound	TR	0.56	34.4	C	TR	0.43	27.7	C	TR	0.41	29.5	C
	Intersection		28.1	C	Intersection		18.2	B	Intersection		23.1	C
East Fordham Road (Eastbound) and Crotona Avenue												
Eastbound	LT	0.22	15.1	B	LT	0.27	9.3	A	LT	0.34	16.4	B
	R	0.23	16.0	B	R	0.18	9.1	A	R	0.20	15.3	B
Northbound	TR	0.46	30.8	C	TR	0.49	30.1	C	TR	0.61	35.2	D
Southbound	LT	0.50	29.6	C	LT	0.42	26.5	C	LT	0.35	27.2	C
	Intersection		24.5	C	Intersection		18.0	C	Intersection		23.3	C
East Fordham Road (Westbound) and Southern Boulevard												
Westbound	LTR	0.99	53.1	D	LTR	0.62	22.4	C	LTR	0.70	29.4	C
Northbound	L	0.59	34.0	C	L	0.40	20.0	C	L	0.40	26.3	C
	T	0.27	20.5	C	T	0.19	14.8	B	T	0.31	21.0	C
Southbound	TR	0.33	21.1	C	TR	0.27	15.5	B	TR	0.35	21.5	C
	Intersection		38.6	D	Intersection		18.9	B	Intersection		24.9	C
East Fordham Road (Eastbound) and Southern Boulevard												
Eastbound	LT	0.22	20.4	C	LT	0.28	17.4	B	LT	0.33	21.8	C
	R	0.29	22.2	C	R	0.30	18.5	B	R	0.27	21.8	C
Northbound	TR	0.68	44.0	D	TR	0.55	30.2	C	TR	0.73	45.4	D
Southbound	L	0.70	47.7	D	L	0.74	38.6	D	L	1.05	95.8	F
	T	0.55	24.7	C	T	0.42	17.2	B	T	0.42	22.6	C
	Intersection		32.0	C	Intersection		23.8	C	Intersection		41.3	D
East 189th Street and Crotona Avenue												
Northbound	LT	0.33	9.6	A	LT	0.36	9.9	A	LT	0.41	10.4	B
Southbound	TR	0.87	25.4	C	TR	0.58	13.1	B	TR	0.64	14.4	B
	Intersection		21.3	C	Intersection		12.0	B	Intersection		12.8	B
East 187th Street and Crotona Avenue												
Eastbound	LTR	0.91	51.8	D	LTR	0.94	53.5	D	LTR	1.00	66.9	E
Westbound	LTR	0.96	57.3	E	LTR	0.57	22.7	C	LTR	0.44	19.6	B
Northbound	LTR	0.28	9.3	A	LTR	0.34	9.8	A	LTR	0.43	11.1	B
Southbound	LTR	0.63	14.3	B	LTR	0.42	10.7	B	LTR	0.43	10.8	B
	Intersection		33.3	C	Intersection		26.1	C	Intersection		30.0	C

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service

- The northbound approach at the East Fordham Road (eastbound) and Southern Boulevard intersection, with LOS D (v/c ratio of 0.73, 45.4 seconds of delay) during the weekday peak hour;
- The southbound left-turn at the East Fordham Road (eastbound) and Southern Boulevard intersection, with LOS D (47.7 seconds of delay) and LOS F (v/c ratio of 1.05, 95.8 seconds of delay) during the weekday AM and PM peak hours, respectively;
- The southbound through at the East Fordham Road (eastbound) and Southern Boulevard intersection, with LOS E (v/c ratio of 1.04, 72.3 seconds of delay) during the weekday AM peak hour;
- The eastbound approach at the East 187th Street and Crotona Avenue intersection, with LOS D (v/c ratio of 0.91, 51.8 seconds of delay), LOS D (v/c ratio of 0.94, 53.5 seconds of delay), and LOS E (v/c ratio of 1.00) during the weekday AM, midday, and PM peak hours, respectively; and
- The westbound approach at the East 187th Street and Crotona Avenue intersection, with LOS E (v/c ratio of 0.96, 57.3 seconds of delay) during the weekday AM peak hour.

THE FUTURE WITHOUT THE PROPOSED ACTION

The No Build condition was developed by increasing existing (2013) traffic levels by the expected growth in overall travel through and within the study area. As per *CEQR* guidelines, an annual background growth rate of 0.25 percent was assumed for the first five years (i.e., 2013 to 2018) and 0.125 percent for the remaining five years (i.e., 2018 to 2023).

As mentioned above in the 2013 Existing Conditions, an existing bus terminal at Fordham Plaza is currently being expanded to include Third Avenue between East 189th Street and East Fordham Road. This section of Third Avenue will be designated bus only. In addition, left-turns will be restricted for eastbound and westbound traffic on East Fordham Road at Webster Avenue. These changes are planned to be fully implemented in Spring 2014, and are reflected in both the No Build and Build conditions analyses.

In addition, NYCDOT, in coordination with EDC released the Fordham Plaza Conceptual Master Plan in summer 2010, introducing measures to improve traffic flows and increase transit and operational efficiencies around Fordham Plaza. Final designs, which include roadway geometry changes, left-turn bans, and signal timing changes, were included in the No Build and Build conditions traffic analyses. Specifically, the plan calls for prohibiting left turns from East Fordham Road onto Webster Avenue, and shifting green time from the eastbound/westbound signal phase to the northbound/southbound signal phase.

In terms of development projects, two potential projects are expected to be completed in the No Build condition. These two No Build projects were identified in coordination with the New York City Department of City Planning (DCP) for the study area (see **Figure 24**). Person and vehicle trips generated by these projects, as well as the trips associated with the as-of-right projected development sites were then developed and incorporated into the No Build traffic analysis. Mitigation measures described in the *Webster Avenue Rezoning FEIS* for the intersection of Webster Avenue and East Fordham Road were also incorporated into the No Build and Build traffic analyses. **Table 2.14** summarizes the projects that were accounted for in this future 2023 condition.

Table 2.14
Planned Projects Within or Near the Study Area by 2023

Map No.	Location	Description	Transportation Assumptions	Build Year
1	Webster Avenue Rezoning	Rezoning of the an area along Webster Avenue to permit residential and medium-density commercial uses	Assumptions from the *Webster Avenue Rezoning FEIS*	2020
2	Third Avenue/East Tremont Avenue Rezoning	Rezoning of the areas along Third Avenue and East Tremont Avenue to allow for additional mid-density commercial uses, and to incorporate inclusionary housing and add mixed-use districts	Assumptions from the *Third Avenue/East Tremont Avenue EAS*	2020
Sources: New York City Department of City Planning				

TRAFFIC OPERATIONS

The No Build condition traffic volumes are shown in **Figures 25** to **27** for the weekday AM, midday, and PM peak hours**. Table 2.15** presents a comparison of the Existing and the No Build level of service conditions at the traffic study area intersections. The analysis results indicate that, for the analysis peak hours in 2023 No Build condition, most of the study area's intersection approaches/lane groups continue to operate at the same LOS as existing conditions or within acceptable levels—at mid-LOS D (delays of 45 seconds per vehicle [spv] or less for signalized intersections and 30 spv or less for unsignalized intersections) or better except:

- The westbound through at the East Fordham Road and Webster Avenue intersection, which would deteriorate to LOS E with a v/c ratio of 0.99 and 57.6 seconds of delay during the weekday AM peak hour;
- The westbound left-turn at the East Fordham Road and Washington Avenue intersection, which would deteriorate to LOS F with a v/c ratio of 1.01 and 85.6 seconds of delay, and a v/c ratio of 1.03 and 90.9 seconds of delay during the weekday AM and midday peak hours, respectively, and to LOS D with a v/c ratio of 0.79 and 51.7 seconds of delay during the PM peak hour;
- The northbound through/right-turn at the East Fordham Road and Bathgate Avenue intersection, which would deteriorate within LOS D with a v/c ratio of 0.57 and 46.4 seconds of delay during the weekday AM peak hour;
- The eastbound through at the East Fordham Road and Lorillard Place intersection, which would deteriorate within LOS D with a v/c ratio of 1.01 and 52.7 seconds of delay during the weekday PM peak hour;
- The westbound left-turn at the East Fordham Road and Arthur Avenue intersection, which would deteriorate to LOS F with a v/c ratio of 1.00 and 81.7 seconds of delay during the weekday AM peak hour;

Table 2.15
2013 Existing and 2023 No Build Conditions Level of Service Analysis
Signalized Intersections

	Weekday AM								Weekday Midday								Weekday PM							
	2013 Existing				2023 No Build				2013 Existing				2023 No Build				2013 Existing				2023 No Build			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
East Fordham Road and Webster Avenue																								
Eastbound	L	0.54	45.7	D					L	0.25	21.1	C					L	0.34	28.8	C				
	T	0.67	26.1	C	T	0.81	36.6	D	T	0.72	27.2	C	T	0.71	32.4	C	T	0.71	27.5	C	T	0.86	39.6	D
	R	0.19	18.8	B	R	0.23	24.1	C	R	0.27	21.5	C	R	0.23	24.4	C	R	0.24	19.9	B	R	0.28	25.3	C
Westbound	L	0.45	32.7	C					L	0.39	26.0	C					L	0.38	31.2	C				
	T	0.81	31.6	C	T	0.99	57.6	E	T	0.71	27.2	C	T	0.71	32.6	C	T	0.66	25.9	C	T	0.81	36.8	D
	R	0.17	18.3	B	R	0.26	24.6	C	R	0.31	21.7	C	R	0.42	28.8	C	R	0.25	19.8	B	R	0.40	28.1	C
Northbound	L	1.05	122.5	F	L	0.61	36.9	D	L	1.05	99.6	F	L	0.90	59.2	E	L	1.05	110.7	F	L	0.82	45.3	D
	TR	0.96	79.3	E	TR	0.65	38.7	D	TR	0.83	45.7	D	TR	0.66	38.9	D	TR	1.01	86.2	F	TR	0.70	39.8	D
Southbound	L	0.98	102.0	F	L	0.63	39.1	D	L	0.83	57.2	E	L	0.76	49.5	D	L	1.05	119.6	F	L	0.77	50.8	D
	TR	1.01	89.5	F	T	0.50	34.5	C	TR	0.68	37.8	D	T	0.38	32.5	C	TR	0.50	45.3	D	T	0.23	30.0	C
					R	0.47	37.4	D					R	0.48	38.2	D					R	0.42	36.4	D
	Intersection		53.1	D	Intersection		42.6	D	Intersection		39.5	D	Intersection		37.4	D	Intersection		50.1	D	Intersection		38.9	D
East Fordham Road and Third Avenue																								
Eastbound	TR	0.74	18.3	B	TR	0.77	19.5	B	TR	0.76	21.2	C	TR	0.83	24.2	C	TR	0.70	17.2	B	TR	0.76	18.9	B
Westbound	LT	1.00	55.6	E	LT	0.95	46.0	D	LT	1.05	71.3	E	LT	1.04	66.3	E	LT	0.88	36.4	D	LT	0.87	35.6	D
Northbound	LR	0.07	31.1	C	LR	0.07	31.1	C	LR	0.02	17.7	B	LR	0.03	17.7	B	LR	0.03	30.5	C	LR	0.04	30.7	C
	Intersection		36.3	D	Intersection		31.5	C	Intersection		44.9	D	Intersection		42.9	D	Intersection		26.2	C	Intersection		26.3	C
East Fordham Road and Washington Avenue																								
Eastbound	T	0.71	23.7	C	T	0.77	25.8	C	T	0.72	20.1	C	T	0.80	23.1	C	T	0.78	26.5	C	T	0.85	29.9	C
	R	0.29	16.5	B	R	0.38	18.0	B	R	0.19	12.5	B	R	0.20	12.7	B	R	0.22	15.5	B	R	0.21	15.5	B
Westbound	L	0.64	35.3	D	L	1.01	85.6	F	L	0.54	27.1	C	L	1.03	90.9	F	L	0.48	30.6	C	L	0.79	51.7	D
	T	0.67	11.5	B	T	0.64	11.0	B	T	0.58	10.5	B	T	0.57	10.4	B	T	0.54	8.5	A	T	0.54	8.4	A
	Intersection		18.6	B	Intersection		26.8	C	Intersection		16.1	B	Intersection		25.6	C	Intersection		18.5	B	Intersection		23.0	C
East Fordham Road and Bathgate Avenue																								
Eastbound	L	0.18	12.1	B	L	0.22	14.1	B	L	0.25	15.8	B	L	0.38	21.8	C	L	0.11	9.3	A	L	0.15	10.4	B
	T	0.64	14.3	B	T	0.69	15.5	B	T	0.70	18.4	B	T	0.78	21.0	C	T	0.61	13.6	B	T	0.66	14.7	B
Westbound	T	0.82	20.0-	B	T	0.86	22.1	C	T	0.72	19.0	B	T	0.78	20.7	C	T	0.68	15.3	B	T	0.73	16.6	B
	R	0.01	7.4	A	R	0.01	7.5	A	R	0.01	9.9	A	R	0.02	9.9	A	R	0.02	7.5	A	R	0.02	7.5	A
Northbound	L	0.32	38.0	D	L	0.35	38.6	D	L	0.12	20.0+	C	L	0.17	20.7	C	L	0.31	37.5	D	L	0.35	38.7	D
	TR	0.53	44.6	D	TR	0.57	46.4	D	TR	0.33	23.4	C	TR	0.37	24.4	C	TR	1.03	105.2	F	TR	1.11	131.6	F
Southbound	LR	0.01	32.4	C	LR	0.01	32.5	C	LR	0.11	20.2	C	LR	0.14	20.6	C	LR	0.23	38.9	D	LR	0.27	40.6	D
	Intersection		19.5	B	Intersection		21.1	C	Intersection		18.9	B	Intersection		21.0	C	Intersection		25.2	C	Intersection		28.7	C

Table 2.15 (cont'd)
2013 Existing and 2023 No Build Conditions Level of Service Analysis
Signalized Intersections

	Weekday AM								Weekday Midday								Weekday PM							
	2013 Existing				2023 No Build				2013 Existing				2023 No Build				2013 Existing				2023 No Build			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
East Fordham Road and Lorillard Place																								
Eastbound	T	0.79	26.8	C	T	0.85	30.1	C	T	0.76	21.5	C	T	0.83	24.6	C	T	0.95	39.7	D	T	1.01	52.7	D
	R	0.11	14.2	B	R	0.12	14.3	B	R	0.07	11.4	B	R	0.10	11.7	B	R	0.06	13.6	B	R	0.08	13.8	B
Westbound	L	0.52	32.1	C	L	0.56	36.9	D	L	0.46	24.4	C	L	0.51	29.5	C	L	0.65	46.2	D	L	0.67	50.1	D
	T	0.74	11.8	B	T	0.78	12.8	B	T	0.62	11.1	B	T	0.67	12.0	B	T	0.64	9.6	A	T	0.68	10.4	B
	Intersection		19.0	B	Intersection		21.2	C	Intersection		16.5	B	Intersection		18.6	B	Intersection		26.4	C	Intersection		33.0	C
East Fordham Road and Hoffman Street																								
Eastbound	L	0.04	6.0	A	L	0.04	6.2	A	L	0.01	9.1	A	L	0.03	9.8	A	L	0.01	8.7	A	L	0.04	9.4	A
	T	0.57	9.7	A	T	0.61	10.4	B	T	0.68	16.7	B	T	0.74	18.3	B	T	0.78	20.0-	B	T	0.83	22.2	C
Westbound	T	0.81	15.6	B	T	0.85	17.3	B	T	0.79	19.9	B	T	0.85	22.5	C	T	0.82	21.5	C	T	0.87	24.3	C
	R	0.02	5.2	A	R	0.02	5.2	A	R	0.04	9.2	A	R	0.04	9.3	A	R	0.02	8.6	A	R	0.02	8.6	A
Northbound	LTR	0.73	64.2	E	LTR	0.76	67.3	E	LTR	0.42	26.4	C	LTR	0.47	27.9	C	LTR	1.04	103.7	F	LTR	1.13	132.0	F
	Intersection		15.8	B	Intersection		17.1	B	Intersection		18.9	B	Intersection		21.0	C	Intersection		29.4	C	Intersection		34.4	C
East Fordham Road and Arthur Avenue																								
Eastbound	T	0.81 ~~0.83~~	32.0 ~~32.9~~	C	T	0.88 ~~0.89~~	36.0 ~~37.5~~	D	T	0.85 ~~0.87~~	~~29.1~~ 30.3	C	T	0.93 ~~0.95~~	36.3 ~~39.0~~	D	T	0.82 ~~0.84~~	25.4 ~~26.3~~	C	T	0.90 ~~0.92~~	30.5 ~~32.2~~	C
	R	0.04	17.0	B	R	0.04	17.0	B	R	0.12	15.0 ~~15.1~~	B	R	0.12	15.1	B	R	0.06	11.8	B	R	0.06 ~~0.07~~	11.8 ~~11.9~~	B
Westbound	L	0.94	66.0	E	L	1.00	81.7	F	L	0.91	59.1	E	L	0.98	73.6	E	L	1.02	97.8	F	L	1.18	153.5	F
	T	0.70	10.6	B	T	0.74	11.3	B	T	0.62	10.9	B	T	0.67	11.7	B	T	0.64	9.4	A	T	0.68	10.1	B
	Intersection		25.9 ~~26.3~~	C	Intersection		29.8 ~~30.3~~	C	Intersection		24.4 ~~24.8~~	C	Intersection		29.5 ~~30.6~~	C	Intersection		25.4 ~~25.7~~	C	Intersection		33.9 ~~34.6~~	C
East Fordham Road and Hughes Avenue																								
Eastbound	LT	0.59	11.4	B	LT	0.64	12.2	B	LT	0.66	15.0	B	LT	0.72	16.5	B	LT	0.77	15.5	B	LT	0.82	17.3	B
Westbound	T	0.64	11.6	B	T	0.66	12.0	B	T	0.55	12.6	B	T	0.59	13.1	B	T	0.58	10.7	B	T	0.61	11.2	B
	R	0.02	6.2	A	R	0.02	6.2	A	R	0.04	8.3	A	R	0.05	8.4	A	R	0.01	6.1	A	R	0.01	6.1	A
Northbound	LTR	0.83	69.2	E	LTR	0.98	101.8	F	LTR	0.93	60.9	E	LTR	1.12	116.2	F	LTR	1.05	106.4	F	LTR	1.18	152.2	F
Southbound	LR	0.46	48.9	D	LR	0.51	52.1	D	LR	0.58	38.2	D	LR	0.67	45.9	D	LR	1.05	138.8	F	LR	1.15	171.7	F
	Intersection		15.7	B	Intersection		18.1	B	Intersection		19.8	B	Intersection		27.4	C	Intersection		26.2	C	Intersection		33.1	C
East Fordham Road and Cambreleng Avenue																								
Eastbound	T	0.23	15.7	B	T	0.28	16.2	B	T	0.22	13.0	B	T	0.28	13.6	B	T	0.20	7.2	A	T	0.24	7.5	A
Northbound	R	0.34	27.3	C	R	0.36	27.5	C	R	0.45	22.9	C	R	0.49	23.6	C	R	0.85	66.5	E	R	0.93	78.5	E
	Intersection		19.6	B	Intersection		19.7	B	Intersection		17.3	B	Intersection		17.5	B	Intersection		31.0	C	Intersection		34.2	C
East Fordham Road (Westbound) and Crotona Avenue																								
Westbound	LT	0.62	24.1	C	LT	0.68	25.9	C	LT	0.31	10.0+	B	LT	0.34	10.3	B	LT	0.32	17.0	B	LT	0.37	17.7	B

Northbound	L	0.37	31.4	C	L	0.56	39.8	D	L	0.33	28.5	C	L	0.44	32.1	C	L	0.21	26.4	C	L	0.35	29.8	C
Southbound	TR	0.56	34.4	C	TR	0.58	34.9	C	TR	0.43	27.7	C	TR	0.45	28.3	C	TR	0.41	29.5	C	TR	0.42	29.8	C
	Intersection		28.1	C	Intersection		30.1	C	Intersection		18.2	B	Intersection		18.9	B	Intersection		23.1	C	Intersection		23.8	C

Table 2.15 (cont'd)

2013 Existing and 2023 No Build Conditions Level of Service Analysis

Signalized Intersections

	Weekday AM								Weekday Midday								Weekday PM							
	2013 Existing				2023 No Build				2013 Existing				2023 No Build				2013 Existing				2023 No Build			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
East Fordham Road (Eastbound) and Crotona Avenue																								
Eastbound	LT	0.22	15.1	B	LT	0.26	15.5	B	LT	0.27	9.3	A	LT	0.32	9.8	A	LT	0.34	16.4	B	LT	0.39	17.2	B
	R	0.23	16.0	B	R	0.26	16.4	B	R	0.18	9.1	A	R	0.22	9.5	A	R	0.20	15.3	B	R	0.23	15.9	B
Northbound	TR	0.46	30.8	C	TR	0.51	31.9	C	TR	0.49	30.1	C	TR	0.55	31.6	C	TR	0.61	35.2	D	TR	0.68	38.0	D
Southbound	LT	0.50	29.6	C	LT	0.52	30.1	C	LT	0.42	26.5	C	LT	0.44	26.8	C	LT	0.35	27.2	C	LT	0.37	27.4	C
	Intersection		24.5	C	Intersection		24.8	C	Intersection		18.0	C	Intersection		18.1	B	Intersection		23.3	C	Intersection		24.1	C
East Fordham Road (Westbound) and Southern Boulevard																								
Westbound	LTR	0.99	53.1	D	LTR	1.04	66.0	E	LTR	0.62	22.4	C	LTR	0.65	23.0	C	LTR	0.70	29.4	C	LTR	0.74	30.6	C
Northbound	L	0.59	34.0	C	L	0.62	35.8	D	L	0.40	20.0	C	L	0.43	20.8	C	L	0.40	26.3	C	L	0.43	27.6	C
	T	0.27	20.5	C	T	0.28	20.6	C	T	0.19	14.8	B	T	0.19	14.9	B	T	0.31	21.0	C	T	0.32	21.1	C
Southbound	TR	0.33	21.1	C	TR	0.33	21.2	C	TR	0.27	15.5	B	TR	0.27	15.5	B	TR	0.35	21.5	C	TR	0.36	21.5	C
	Intersection		38.6	D	Intersection		45.8	D	Intersection		18.9	B	Intersection		19.3	B	Intersection		24.9	C	Intersection		25.6	C
East Fordham Road (Eastbound) and Southern Boulevard																								
Eastbound	LT	0.22	20.4	C	LT	0.25	20.8	C	LT	0.28	17.4	B	LT	0.33	18.0	B	LT	0.33	21.8	C	LT	0.38	22.4	C
	R	0.29	22.2	C	R	0.31	22.6	C	R	0.30	18.5	B	R	0.34	19.1	B	R	0.27	21.8	C	R	0.31	22.4	C
Northbound	TR	0.68	44.0	D	TR	0.70	44.4	D	TR	0.55	30.2	C	TR	0.57	30.5	C	TR	0.73	45.4	D	TR	0.75	46.0	D
Southbound	L	0.70	47.7	D	L	0.72	49.1	D	L	0.74	38.6	D	L	0.76	40.3	D	L	1.05	95.8	F	L	1.07	102.9	F
	T	0.55	24.7	C	T	0.56	24.9	C	T	0.42	17.2	B	T	0.43	17.3	B	T	0.42	22.6	C	T	0.43	22.7	C
	Intersection		32.0	C	Intersection		32.2	C	Intersection		23.8	C	Intersection		24.0	C	Intersection		41.3	D	Intersection		42.3	D
East 189th Street and Crotona Avenue																								
Northbound	LT	0.33	9.6	A	LT	0.36	9.9	A	LT	0.36	9.9	A	LT	0.39	10.3	B	LT	0.41	10.4	B	LT	0.45	11.0	B
Southbound	TR	0.87	25.4	C	TR	0.92	31.1	C	TR	0.58	13.1	B	TR	0.63	14.1	B	TR	0.64	14.4	B	TR	0.67	15.2	B
	Intersection		21.3	C	Intersection		25.4	C	Intersection		12.0	B	Intersection		12.7	B	Intersection		12.8	B	Intersection		13.5	B
East 187th Street and Crotona Avenue																								
Eastbound	LTR	0.91	51.8	D	LTR	0.94	56.4	E	LTR	0.94	53.5	D	LTR	1.01	69.6	E	LTR	1.00	66.9	E	LTR	1.06	84.6	F
Westbound	LTR	0.96	57.3	E	LTR	0.98	62.9	E	LTR	0.57	22.7	C	LTR	0.59	23.5	C	LTR	0.44	19.6	B	LTR	0.47	20.1	C
Northbound	LTR	0.28	9.3	A	LTR	0.31	9.5	A	LTR	0.34	9.8	A	LTR	0.36	10.1	B	LTR	0.43	11.1	B	LTR	0.46	11.6	B
Southbound	LTR	0.63	14.3	B	LTR	0.65	14.6	B	LTR	0.42	10.7	B	LTR	0.44	10.9	B	LTR	0.43	10.8	B	LTR	0.45	11.0	B
	Intersection		33.3	C	Intersection		35.6	D	Intersection		26.1	C	Intersection		31.2	C	Intersection		30.0	C	Intersection		35.7	D

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service

- The northbound approach at the East Fordham Road and Hughes Avenue intersection, which would deteriorate to LOS F during the weekday AM and midday peak hours, with a v/c ratio of 0.98 and 101.8 seconds of delay, and a v/c ratio of 1.12 and 116.2 seconds of delay, respectively;
- The southbound approach at the East Fordham Road and Hughes Avenue intersection, which would deteriorate within LOS D with a v/c ratio of 0.67 and 45.9 seconds of delay during the weekday midday peak hour;
- The westbound approach at the East Fordham Road (westbound) and Southern Boulevard intersection, which would deteriorate to LOS E with a v/c ratio of 1.04 and 66.0 seconds of delay during the weekday AM peak hour; and
- The eastbound approach at the East 187th Street and Crotona Avenue intersection, which would deteriorate to LOS E during the weekday AM and midday peak hours, with a v/c ratio of 0.94 and 56.4 seconds of delay, and a v/c ratio of 1.01 and 69.6 seconds of delay, respectively; and to LOS F with a v/c ratio of 1.06 and 84.6 seconds of delay during the weekday PM peak hour.

FUTURE WITH THE PROPOSED ACTION

As discussed above in Section D, "Level 2 Screening Assessment," auto trips were assigned to and from accessory parking garages planned for the projected development sites or to on-street parking adjacent to the projected development sites. Taxi trips were assigned to the various site block fronts, and delivery trips were assigned to the sites via NYCDOT designated truck routes.

As mentioned above under the 2013 Existing Conditions, the bus terminal at Fordham Plaza is currently being expanded to include Third Avenue between East 189th Street and East Fordham Road. This segment of Third Avenue will be designated as bus-only. This change is planned to be fully implemented in spring 2014, and is reflected in both the No Build and Build conditions analyses.

In addition, improvements planned for Fordham Plaza, which include prohibiting left turns from East Fordham Road onto Webster Avenue and shifting green time from the eastbound/westbound signal phase to the northbound/southbound signal phase, are also reflected in both the No Build and Build conditions analyses.

Overall, the 2023 completion of the proposed action would result in approximately 222, 369, and 318 incremental vehicle trips during the weekday AM, midday, and PM peak hours, respectively. The related peak hour traffic assignments are discussed above in Section D, "Level 2 Screening Assessment," and the incremental peak hour trips resulting from the proposed action are shown in **Figures 7** to **9**.

TRAFFIC OPERATIONS

The Build condition traffic volumes are shown in **Figures 28** to **30** for the weekday AM, midday, and PM peak hours. **Table 2.16** shows the comparison of traffic levels of service for the No Build and Build conditions.

Based on the criteria presented in the *CEQR Technical Manual* and discussed previously in Section E, "Transportation Analysis Methodologies," significant adverse traffic impacts were identified and are denoted by the "+" symbol in **Table 2.16**.

Table 2.16
2023 No Build and Build Conditions Level of Service Analysis
Signalized Intersections

	Weekday AM								Weekday Midday								Weekday PM							
	2023 No Build				2023 Build				2023 No Build				2023 Build				2023 No Build				2023 Build			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
East Fordham Road and Webster Avenue																								
Eastbound	T	0.81	36.6	D	T	0.84	38.5	D	T	0.71	32.4	C	T	0.74	33.5	C	T	0.86	39.6	D	T	0.88	41.6	D
	R	0.23	24.1	C	R	0.23	24.1	C	R	0.23	24.4	C	R	0.23	24.4	C	R	0.28	25.3	C	R	0.28	25.3	C
Westbound	T	0.99	57.6	E	T	1.01	62.8	E+	T	0.71	32.6	C	T	0.75	34.1	C	T	0.81	36.8	D	T	0.86	39.5	D
	R	0.26	24.6	C	R	0.28	25.0	C	R	0.42	28.8	C	R	0.46	30.0	C	R	0.40	28.1	C	R	0.43	29.0	C
Northbound	L	0.61	36.9	D	L	0.61	36.9	D	L	0.90	59.2	E	L	0.90	59.2	E	L	0.82	45.3	D	L	0.82	45.3	D
	TR	0.65	38.7	D	TR	0.65	38.8	D	TR	0.66	38.9	D	TR	0.66	38.9	D	TR	0.70	39.8	D	TR	0.70	39.8	D
Southbound	L	0.63	39.1	D	L	0.67	41.1	D	L	0.76	49.5	D	L	0.80	53.4	D	L	0.77	50.8	D	L	0.79	52.7	D
	T	0.50	34.5	C	T	0.50	34.5	C	T	0.38	32.5	C	T	0.38	32.5	C	T	0.23	30.0	C	T	0.23	30.0	C
	R	0.47	37.4	D	R	0.47	37.5	D	R	0.48	38.2	D	R	0.48	38.2	D	R	0.42	36.4	D	R	0.42	36.4	D
	Intersection		42.6	D	Intersection		44.8	D	Intersection		37.4	D	Intersection		38.3	D	Intersection		38.9	D	Intersection		40.4	D
East Fordham Road and Third Avenue																								
Eastbound	TR	0.77	19.5	B	TR	0.80	20.7	C	TR	0.83	24.2	C	TR	0.87	26.3	C	TR	0.76	18.9	B	TR	0.78	19.6	B
Westbound	LT	0.95	46.0	D	LT	0.98	50.4	D	LT	1.04	66.3	E	LT	1.10	87.3	F+	LT	0.87	35.6	D	LT	0.92	40.2	D
Northbound	LR	0.07	31.1	C	LR	0.07	31.1	C	LR	0.03	17.7	B	LR	0.03	17.7	B	LR	0.04	30.7	C	LR	0.04	30.7	C
	Intersection		31.5	C	Intersection		34.1	C	Intersection		42.9	D	Intersection		53.6	D	Intersection		26.3	C	Intersection		28.9	C
East Fordham Road and Washington Avenue																								
Eastbound	T	0.77	25.8	C	T	0.80	27.4	C	T	0.80	23.1	C	T	0.84	24.9	C	T	0.85	29.9	C	T	0.87	31.8	C
	R	0.38	18.0	B	R	0.38	18.0	B	R	0.20	12.7	B	R	0.20	12.7	B	R	0.21	15.5	B	R	0.21	15.5	B
Westbound	L	1.01	85.6	F	L	1.05	97.3	F+	L	1.03	90.9	F	L	1.07	106.8	F+	L	0.79	51.7	D	L	0.81	54.7	D
	T	0.64	11.0	B	T	0.66	11.2	B	T	0.57	10.4	B	T	0.61	10.9	B	T	0.54	8.4	A	T	0.57	8.8	A
	Intersection		26.8	C	Intersection		28.9	C	Intersection		25.6	C	Intersection		28.1	C	Intersection		23.0	C	Intersection		24.1	C
East Fordham Road and Bathgate Avenue																								
Eastbound	L	0.22	14.1	B	L	0.24	15.3	B	L	0.38	21.8	C	L	0.43	25.3	C	L	0.15	10.4	B	L	0.21	12.2	B
	T	0.69	15.5	B	T	0.72	16.4	B	T	0.78	21.0	C	T	0.82	22.6	C	T	0.66	14.7	B	T	0.68	15.1	B
Westbound	T	0.86	22.1	C	T	0.87	22.8	C	T	0.78	20.7	C	T	0.81	22.0	C	T	0.73	16.6	B	T	0.75	17.3	B
	R	0.01	7.5	A	R	0.02	7.5	A	R	0.02	9.9	A	R	0.02	10.0-	A	R	0.02	7.5	A	R	0.02	7.5	A
Northbound	L	0.35	38.6	D	L	0.38	39.7	D	L	0.17	20.7	C	L	0.21	21.4	C	L	0.35	38.7	D	L	0.43	40.7	D
	TR	0.57	46.4	D	TR	0.59	47.8	D	TR	0.37	24.4	C	TR	0.38	24.3	C	TR	1.11	131.6	F	TR	1.26	186.7	F+

Southbound	LR	0.01	32.5	C	LR	0.08	33.9	C	LR	0.14	20.6	C	LR	0.15	20.8	C	LR	0.27	40.6	D	LR	0.33	43.3	D
	Intersection		21.1	C	Intersection		21.9	C	Intersection		21.0	C	Intersection		22.3	C	Intersection		28.7	C	Intersection		34.8	C

Table 2.16 (cont'd)
2023 No Build and Build Conditions Level of Service Analysis
Signalized Intersections

	Weekday AM								Weekday Midday								Weekday PM							
	2023 No Build				2023 Build				2023 No Build				2023 Build				2023 No Build				2023 Build			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
East Fordham Road and Lorillard Place																								
Eastbound	T	0.85	30.1	C	T	0.88	32.2	C	T	0.83	24.6	C	T	0.87	26.7	C	T	1.01	52.7	D	T	1.03	59.7	E+
	R	0.12	14.3	B	R	0.15	14.7	B	R	0.10	11.7	B	R	0.12	11.8	B	R	0.08	13.8	B	R	0.08	13.8	B
Westbound	L	0.56	36.9	D	L	0.58	38.7	D	L	0.51	29.5	C	L	0.53	32.1	C	L	0.67	50.1	D	L	0.68	50.7	D
	T	0.78	12.8	B	T	0.79	13.1	B	T	0.67	12.0	B	T	0.70	12.6	B	T	0.68	10.4	B	T	0.71	10.9	B
	Intersection		21.2	C	Intersection		22.4	C	Intersection		18.6	B	Intersection		19.9	B	Intersection		33.0	C	Intersection		36.5	D
East Fordham Road and Hoffman Street																								
Eastbound	L	0.04	6.2	A	L	0.06	6.6	A	L	0.03	9.8	A	L	0.04	10.0-	A	L	0.04	9.4	A	L	0.05	10.1	B
	T	0.61	10.4	B	T	0.63	10.8	B	T	0.74	18.3	B	T	0.77	19.4	B	T	0.83	22.2	C	T	0.85	23.4	C
Westbound	T	0.85	17.3	B	T	0.86	17.9	B	T	0.85	22.5	C	T	0.88	24.6	C	T	0.87	24.3	C	T	0.89	26.5	C
	R	0.02	5.2	A	R	0.02	5.2	A	R	0.04	9.3	A	R	0.04	9.3	A	R	0.02	8.6	A	R	0.03	8.7	A
Northbound	LTR	0.76	67.3	E	LTR	0.77	68.3	E	LTR	0.47	27.9	C	LTR	0.48	27.9	C	LTR	1.13	132.0	F	LTR	1.15	139.1	F+
	Intersection		17.1	B	Intersection		17.5	B	Intersection		21.0	C	Intersection		22.5	C	Intersection		34.4	C	Intersection		36.5	D
East Fordham Road and Arthur Avenue																								
Eastbound	T	0.88 ~~0.89~~	36.0 ~~37.5~~	D	T	0.91 ~~0.92~~	38.5 ~~40.5~~	D	T	0.93 ~~0.95~~	36.3 ~~39.0~~	D	T	0.97 ~~0.99~~	43.1 ~~47.3~~	D+	T	0.90 ~~0.92~~	30.5 ~~32.2~~	C	T	0.92 ~~0.93~~	31.7 ~~34.5~~	C
	R	0.04	17.0	B	R	0.04	17.0	B	R	0.12	15.1	B	R	0.12 ~~0.13~~	15.1	B	R	0.06 ~~0.07~~	11.8 ~~11.9~~	B	R	0.07	11.9	B
Westbound	L	1.00	81.7	F	L	1.02	88.2	F+	L	0.98	73.6	E	L	0.99	77.6	E+	L	1.18	153.5	F	L	1.20	163.2	F+
	T	0.74	11.3	B	T	0.74	11.6	B	T	0.67	11.7	B	T	0.69	12.2	B	T	0.68	10.1	B	T	0.70	10.5	B
	Intersection		29.8 ~~30.3~~	C	Intersection		31.7 ~~32.4~~	C	Intersection		29.5 ~~30.6~~	C	Intersection		32.9 ~~34.6~~	C	Intersection		33.9 ~~34.6~~	C	Intersection		35.8 ~~36.7~~	D
East Fordham Road and Hughes Avenue																								
Eastbound	LT	0.64	12.2	B	LT	0.66	12.6	B	LT	0.72	16.5	B	LT	0.75	17.3	B	LT	0.82	17.3	B	LT	0.83	18.1	B
Westbound	T	0.66	12.0	B	T	0.66	12.1	B	T	0.59	13.1	B	T	0.60	13.2	B	T	0.61	11.2	B	T	0.62	11.4	B
	R	0.02	6.2	A	R	0.02	6.2	A	R	0.05	8.4	A	R	0.05	8.4	A	R	0.01	6.1	A	R	0.01	6.1	A
Northbound	LTR	0.98	101.8	F	LTR	1.01	108.9	F+	LTR	1.12	116.2	F	LTR	1.30	186.2	F+	LTR	1.18	152.2	F	LTR	1.27	187.2	F+

Southbound	LR	0.51	52.1	D	LR	0.56	55.1	E	LR	0.67	45.9	D	LR	0.77	56.7	E+	LR	1.15	171.7	F	LR	1.27	215.9	F+
	Intersection		18.1	B	Intersection		18.9	B	Intersection		27.4	C	Intersection		37.0	D	Intersection		33.1	C	Intersection		39.4	D
East Fordham Road and Cambreleng Avenue																								
Eastbound	T	0.28	16.2	B	T	0.29	16.4	B	T	0.28	13.6	B	T	0.31	13.9	B	T	0.24	7.5	A	T	0.26	7.6	A
Northbound	R	0.36	27.5	C	R	0.38	28.0	C	R	0.49	23.6	C	R	0.53	24.5	C	R	0.93	78.5	E	R	1.03	102.3	F+
	Intersection		19.7	B	Intersection		20.0-	B	Intersection		17.5	B	Intersection		18.0	B	Intersection		34.2	C	Intersection		44.3	D

Table 2.16 (cont'd)
2023 No Build and Build Conditions Level of Service Analysis
Signalized Intersections

	Weekday AM								Weekday Midday								Weekday PM							
	2023 No Build				2023 Build				2023 No Build				2023 Build				2023 No Build				2023 Build			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
East Fordham Road (Westbound) and Crotona Avenue																								
Westbound	LT	0.68	25.9	C	LT	0.76	29.1	C	LT	0.34	10.3	B	LT	0.41	11.1	B	LT	0.37	17.7	B	LT	0.40	18.4	B
Northbound	L	0.56	39.8	D	L	0.59	41.2	D	L	0.44	32.1	C	L	0.50	35.3	D	L	0.35	29.8	C	L	0.36	30.1	C
Southbound	TR	0.58	34.9	C	TR	0.58	34.9	C	TR	0.45	28.3	C	TR	0.47	28.9	C	TR	0.42	29.8	C	TR	0.42	29.8	C
	Intersection		30.1	C	Intersection		31.9	C	Intersection		18.9	B	Intersection		19.1	B	Intersection		23.8	C	Intersection		23.9	C
East Fordham Road (Eastbound) and Crotona Avenue																								
Eastbound	LT	0.26	15.5	B	LT	0.27	15.7	B	LT	0.32	9.8	A	LT	0.34	10.0-	A	LT	0.39	17.2	B	LT	0.42	17.5	B
	R	0.26	16.4	B	R	0.33	18.0	B	R	0.22	9.5	A	R	0.41	13.1	B	R	0.23	15.9	B	R	0.39	19.5	B
Northbound	TR	0.51	31.9	C	TR	0.54	33.0	C	TR	0.55	31.6	C	TR	0.65	35.2	D	TR	0.68	38.0	D	TR	0.75	41.7	D
Southbound	LT	0.52	30.1	C	LT	0.59	31.4	C	LT	0.44	26.8	C	LT	0.55	28.9	C	LT	0.37	27.4	C	LT	0.43	28.5	C
	Intersection		24.8	C	Intersection		25.9	C	Intersection		18.1	B	Intersection		20.1	C	Intersection		24.1	C	Intersection		25.7	C
East Fordham Road (Westbound) and Southern Boulevard																								
Westbound	LTR	1.04	66.0	E	LTR	1.08	79.7	E+	LTR	0.65	23.0	C	LTR	0.69	23.9	C	LTR	0.74	30.6	C	LTR	0.76	31.2	C
Northbound	L	0.62	35.8	D	L	0.65	37.3	D	L	0.43	20.8	C	L	0.51	23.1	C	L	0.43	27.6	C	L	0.52	31.3	C
	T	0.28	20.6	C	T	0.28	20.6	C	T	0.19	14.9	B	T	0.19	14.9	B	T	0.32	21.1	C	T	0.32	21.1	C
Southbound	TR	0.33	21.2	C	TR	0.33	21.2	C	TR	0.27	15.5	B	TR	0.27	15.5	B	TR	0.36	21.5	C	TR	0.36	21.5	C
	Intersection		45.8	D	Intersection		53.8	D	Intersection		19.3	B	Intersection		20.0	C	Intersection		25.6	C	Intersection		26.1	C
East Fordham Road (Eastbound) and Southern Boulevard																								
Eastbound	LT	0.25	20.8	C	LT	0.27	21.0	C	LT	0.33	18.0	B	LT	0.37	18.3	B	LT	0.38	22.4	C	LT	0.41	22.9	C
	R	0.31	22.6	C	R	0.34	23.1	C	R	0.34	19.1	B	R	0.44	21.1	C	R	0.31	22.4	C	R	0.37	23.8	C
Northbound	TR	0.70	44.4	D	TR	0.71	44.7	D	TR	0.57	30.5	C	TR	0.60	31.2	C	TR	0.75	46.0	D	TR	0.81	48.5	D

Southbound	L	0.72	49.1	D	L	0.72	49.4	D	L	0.76	40.3	D	L	0.78	42.2	D	L	1.07	102.9	F	L	1.07	104.6	F
	T	0.56	24.9	C	T	0.56	24.9	C	T	0.43	17.3	B	T	0.43	17.3	B	T	0.43	22.7	C	T	0.43	22.7	C
	Intersection		32.2	C	Intersection		32.2	C	Intersection		24.0	C	Intersection		24.5	C	Intersection		42.3	D	Intersection		43.0	D
East 189th Street and Crotona Avenue																								
Northbound	LT	0.36	9.9	A	LT	0.40	10.4	B	LT	0.39	10.3	B	LT	0.50	11.9	B	LT	0.45	11.0	B	LT	0.52	12.1	B
Southbound	TR	0.92	31.1	C	TR	0.97	39.8	D	TR	0.63	14.1	B	TR	0.71	16.3	B	TR	0.67	15.2	B	TR	0.74	17.3	B
	Intersection		25.4	C	Intersection		31.8	C	Intersection		12.7	B	Intersection		14.6	B	Intersection		13.5	B	Intersection		15.1	B

Table 2.16 (cont'd)
2023 No Build and Build Conditions Level of Service Analysis
Signalized Intersections

	Weekday AM								**Weekday Midday**								**Weekday PM**							
	2023 No Build				**2023 Build**				**2023 No Build**				**2023 Build**				**2023 No Build**				**2023 Build**			
Intersection	**Lane Group**	**v/c Ratio**	**Delay (sec)**	**LOS**	**Lane Group**	**v/c Ratio**	**Delay (sec)**	**LOS**	**Lane Group**	**v/c Ratio**	**Delay (sec)**	**LOS**	**Lane Group**	**v/c Ratio**	**Delay (sec)**	**LOS**	**Lane Group**	**v/c Ratio**	**Delay (sec)**	**LOS**	**Lane Group**	**v/c Ratio**	**Delay (sec)**	**LOS**
East 187th Street and Crotona Avenue																								
Eastbound	LTR	0.94	56.4	E	LTR	1.00	72.1	E+	LTR	1.01	69.6	E	LTR	1.20	136.3	F+	LTR	1.06	84.6	F	LTR	1.18	125.9	F+
Westbound	LTR	0.98	62.9	E	LTR	0.99	66.3	E	LTR	0.59	23.5	C	LTR	0.68	26.6	C	LTR	0.47	20.1	C	LTR	0.52	21.3	C
Northbound	LTR	0.31	9.5	A	LTR	0.32	9.7	A	LTR	0.36	10.1	B	LTR	0.41	10.7	B	LTR	0.46	11.6	B	LTR	0.50	12.1	B
Southbound	LTR	0.65	14.6	B	LTR	0.66	15.0	B	LTR	0.44	10.9	B	LTR	0.52	12.3	B	LTR	0.45	11.0	B	LTR	0.55	12.8	B
	Intersection		35.6	D	Intersection		40.0	D	Intersection		31.2	C	Intersection		51.5	D	Intersection		35.7	D	Intersection		48.4	D

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service

+ Denotes a significant adverse traffic impact

- The westbound through at the East Fordham Road and Webster Avenue intersection, which would deteriorate within LOS E with a v/c ratio of 0.99 and 57.6 seconds of delay to a v/c ratio of 1.01 and 62.8 seconds of delay during the weekday AM peak hour;
- The westbound approach at the East Fordham Road and Third Avenue intersection, which would deteriorate from LOS E with a v/c ratio of 1.04 and a delay of 66.3 seconds to LOS F with a v/c ratio of 1.10 and a delay of 87.3 seconds during the weekday midday peak hour;
- The westbound left-turn at the East Fordham Road and Washington Avenue intersection, which would deteriorate within LOS F with a v/c ratio of 1.01 and 85.6 seconds of delay, to a v/c ratio of 1.05 and 97.3 seconds of delay during the weekday AM peak hour; and within LOS F with a v/c ratio of 1.03 and 90.9 seconds of delay to a v/c ratio of 1.07 and 106.8 seconds of delay during the weekday midday peak hour;
- The northbound through/right-turn at the East Fordham Road and Bathgate Avenue intersection, which would deteriorate within LOS F from a v/c ratio of 1.11 and 131.6 seconds of delay to a v/c ratio of 1.26 and a delay of 186.7 seconds during the weekday PM peak hour;
- The eastbound through at the East Fordham Road and Lorillard Place intersection, which would deteriorate from LOS D with a v/c ratio of 1.01 and a delay of 52.7 seconds to LOS E with a v/c ratio of 1.03 and a delay of 59.7 seconds during the weekday PM peak hour;
- The northbound approach at the East Fordham Road and Hoffman Street intersection, which would deteriorate within LOS F from a v/c ratio of 1.13 and 132.0 seconds of delay to a v/c ratio of 1.15 and a delay of 139.1 seconds during the weekday PM peak hour;
- The eastbound through at the East Fordham Road and Arthur Avenue intersection, which would deteriorate within LOS D (from a v/c ratio of ~~0.95~~ 0.93 and a delay of ~~39.0~~ 36.3 seconds to a v/c ratio of 0.97 ~~0.99~~ and a delay of 43.1 ~~47.3~~ seconds) during the weekday midday peak hour;
- The westbound left-turn at the East Fordham Road and Arthur Avenue intersection, which would deteriorate within LOS F from a v/c ratio of 1.00 and 81.7 seconds of delay to a v/c ratio of 1.02 and 88.2 seconds of delay during the weekday AM peak hour, within LOS E from a v/c ratio of 0.98 and 73.6 seconds of delay to a v/c ratio of 0.99 and 77.6 seconds of delay during the weekday midday peak hour, and within LOS F from a v/c ratio of 1.18 and 153.5 seconds of delay to a v/c ratio of 1.20 and 163.2 seconds of delay during the weekday PM peak hour;
- The northbound approach at the East Fordham Road and Hughes Avenue intersection, which would deteriorate within LOS F during all three peak hours, from a v/c ratio of 0.98 and a delay of 101.8 seconds to a v/c ratio of 1.01 and a delay of 108.9 seconds during the weekday AM peak hour, from a v/c ratio of 1.12 and a delay of 116.2 seconds to a v/c ratio of 1.30 and a delay of 186.2 seconds during the weekday midday peak hour, and from a v/c ratio of 1.18 and a delay of 152.2 seconds to a v/c ratio of 1.27 and a delay of 187.2 seconds during the weekday PM peak hour;
- The southbound approach at the East Fordham Road and Hughes Avenue intersection, which would deteriorate from LOS D with a v/c ratio of 0.67 and 45.9 seconds of delay to LOS E with a v/c ratio of 0.77 and 56.7 seconds of delay during the weekday midday peak hour, and within LOS F from a v/c ratio of 1.15 and 171.7 seconds of delay to a v/c ratio of 1.27 and 215.9 seconds of delay during the weekday PM peak hour;
- The northbound right-turn at the East Fordham Road and Cambreleng Avenue intersection, which would deteriorate from LOS E with a v/c ratio of 0.93 and 78.5 seconds of delay to LOS F with a v/c ratio of 1.03 and 102.3 seconds of delay during the weekday PM peak hour;

- The westbound approach at the East Fordham Road (westbound) and Southern Boulevard intersection, which would deteriorate within LOS E from a v/c ratio of 1.04 and 66.0 seconds of delay to a v/c ratio of 1.08 and 79.7 seconds of delay during the weekday AM peak hour; and
- The eastbound approach at the East 187th Street and Crotona Avenue intersection, which would deteriorate within LOS E from a v/c ratio of 0.94 and 56.4 seconds of delay to a v/c ratio of 1.00 and 72.1 seconds of delay during the weekday AM peak hour, from LOS E with a v/c ratio of 1.01 and 69.6 seconds of delay to LOS F with a v/c ratio of 1.20 and 136.3 seconds of delay during the weekday midday peak hour, and within LOS F from a v/c ratio of 1.06 and 84.6 seconds of delay to a v/c ratio of 1.18 and 125.9 seconds of delay during the weekday PM peak hour.

G. TRANSIT

BUS LINE-HAUL ANALYSIS

The assessment of bus line-haul conditions involves analyzing bus routes at their peak load points and, if necessary, also their bus stops closest to the project site to identify the potential for the analyzed routes to exceed their guideline (or practical) capacities. NYCT and the MTA Bus Company operate three types of buses: standard and articulated buses, and over-the-road coaches. During peak hours, standard buses operate with up to 54 passengers per bus and articulated buses operate with up to 85 passengers per bus.

Significant Impact Criteria

An increase in bus load levels greater than the maximum capacity at any load point is defined as a significant adverse impact. While subject to operational and fiscal constraints, bus impacts can typically be mitigated by increasing service frequency. Therefore, mitigation of bus line-haul capacity impacts, where appropriate, would be recommended for NYCT's approval.

BUS LINE-HAUL ANALYSIS

EXISTING CONDITIONS

To assess the potential impacts on the Bx12 routes, maximum load point data and passenger volumes gathered in November 2011 were obtained from the MTA NYC Transit. As shown in **Table 2.17**, under existing conditions, the Bx12 bus route currently operates within guideline capacity during the weekday AM, midday, and PM peak periods.

FUTURE WITHOUT THE PROPOSED PROJECT (2023 NO BUILD CONDITION)

Estimates of peak hour bus volumes in the No Build condition were developed by applying the *CEQR Technical Manual* recommended annual background growth rates as previously described. No other major projects are expected to be completed in the vicinity of the study area before 2023. As shown in **Table 2.18**, under the No Build condition, during the AM peak period, the westbound Bx12 SBS is expected to exceed guideline capacity (85 passengers per articulated bus).

PROBABLE IMPACTS OF THE PROPOSED PROJECT (2023 BUILD CONDITION)

Peak period bus ridership for the Build condition was generated by adding the incremental trips associated with the proposed project to the No Build bus line-haul volumes. Based on US Census Data (*2007-2011 American Community Survey population estimates* and *2000 Journey to Work statistics*) for census tracts in the immediate area, it was assumed that approximately 25 percent of projected bus-only riders would use the Bx12 routes. It was assumed that all subway riders would use the Bx12 routes to access the

Fordham Road station on the B and D lines, the Fordham Road station on the 4 line, and the Pelham Parkway station on the 2 and 5 lines. Bus trips were assigned specifically to the Bx12 SBS or Bx12 Local based on the relative frequencies of these routes and anticipated distribution of subway trips to the nearest stations. As shown in **Table 2.19**, under the Build condition, the westbound Bx12 SBS would exceed guideline capacity (85 passengers per articulated bus) during the AM and PM peak periods. In addition, the eastbound Bx12 SBS would exceed guideline capacity during the PM peak period. These projected increases in bus ridership beyond guideline capacities constitute significant adverse bus line-haul impacts.

Table2.17

2013 Existing Conditions: Bus Line-Haul Analysis

Bus Line	Peak Hour	Direction	Peak Load Point	Buses per Hour	Hourly Capacity[1]	Existing Volumes[2]	Average Volume per Bus	Hourly Available Capacity
Bx12 (Local)	AM	EB	E Fordham Rd @ Third Ave	8	680	510	64	170
		WB	Pelham Pkwy @ White Plains Rd	6	510	290	48	220
	MD	EB	E Fordham Rd @ Third Ave	5	425	193	39	232
		WB	E Fordham Rd @ Third Ave	6	510	265	44	245
	PM	EB	E Fordham Rd @ Third Ave	9	765	487	54	278
		WB	E Fordham Rd @ Third Ave	7	595	384	55	211
Bx12 (SBS)	AM	EB	E Fordham Rd @ Third Ave	15	1275	1150	77	125
		WB	Pelham Pkwy @ White Plains Rd	12	1020	1015	85	5
	MD	EB	E Fordham Rd @ Third Ave	9	765	477	53	288
		WB	E Fordham Rd @ Third Ave	10	850	480	48	370
	PM	EB	E Fordham Rd @ Third Ave	11	935	886	81	49
		WB	Pelham Pkwy @ White Plains Rd	11	935	898	82	37

Notes:

1. **Capacities are based on a maximum of 54 passengers for a standard 40-seat bus, and 85 passengers for an articulated bus as per DCP.**
2. **Volumes are based on 2009 MTA-New York City Transit ridership surveys adjusted to reflect 2013 conditions.**

Table 2.18
2023 No Build Conditions: Bus Line-Haul Analysis

Bus Line	Peak Hour	Direction	Peak Load Point	Buses per Hour	Hourly Capacity[1]	No-Action Volumes[2]	Average Volume per Bus	Hourly Available Capacity
Bx12 (Local)	AM	EB	E Fordham Rd @ Third Ave	8	680	519	65	161
		WB	Pelham Pkwy @ White Plains Rd	6	510	296	49	214
	MD	EB	E Fordham Rd @ Third Ave	5	425	197	39	228
		WB	E Fordham Rd @ Third Ave	6	510	270	45	240
	PM	EB	E Fordham Rd @ Third Ave	9	765	497	55	268
		WB	E Fordham Rd @ Third Ave	7	595	391	56	204
Bx12 (SBS)	AM	EB	E Fordham Rd @ Third Ave	15	1275	1171	78	104
		WB	Pelham Pkwy @ White Plains Rd	12	1020	1034	86	(14)
	MD	EB	E Fordham Rd @ Third Ave	9	765	486	54	279
		WB	E Fordham Rd @ Third Ave	10	850	489	49	361
	PM	EB	E Fordham Rd @ Third Ave	11	935	903	82	32
		WB	Pelham Pkwy @ White Plains Rd	11	935	915	83	20

Notes:
1. **Capacities are based on a maximum of 54 passengers for a standard 40-seat bus, and 85 passengers for an articulated bus as per DCP.**
2. **Volumes are based on 2009 MTA-New York City Transit ridership surveys adjusted to reflect 2013 conditions.**

Table 2.19
2023 Build Conditions: Bus Line-Haul Analysis

Bus Line	Peak Hour	Direction	Peak Load Point	Buses per Hour	Hourly Capacity[1]	No-Action Volumes	Project-Generated Volumes	Average Volume per Bus	Build Available Capacity
Bx12 (Local)	AM	EB	E Fordham Rd @ Third Ave	8	680	519	28	68	133
		WB	Pelham Pkwy @ White Plains Rd	6	510	296	31	55	183
	MD	EB	E Fordham Rd @ Third Ave	5	425	197	47	49	181
		WB	E Fordham Rd @ Third Ave	6	510	270	50	53	190
	PM	EB	E Fordham Rd @ Third Ave	9	765	497	59	62	209
		WB	E Fordham Rd @ Third Ave	7	595	391	49	63	155
Bx12 (SBS)	AM	EB	E Fordham Rd @ Third Ave	15	1275	1171	53	82	51
		WB	Pelham Pkwy @ White Plains Rd	12	1020	1034	63	91	(77)
	MD	EB	E Fordham Rd @ Third Ave	9	765	486	85	63	194
		WB	E Fordham Rd @ Third Ave	10	850	489	83	57	278
	PM	EB	E Fordham Rd @ Third Ave	11	935	903	72	89	(40)
		WB	Pelham Pkwy @ White Plains Rd	11	935	915	77	90	(58)

Notes:
1. **Capacities are based on a maximum of 54 passengers for a standard 40-seat bus, and 85 passengers for an articulated bus as per DCP.**

H. PEDESTRIANS

2012 EXISTING CONDITIONS

Pedestrian data were collected on March 20 and March 21, 2013 at key locations near the project sites during the weekday hours of 7:30 AM to 9:30 AM, 12:00 PM to 2:00 PM, and 4:00 PM to 6:00 PM.

Peak hours were determined by comparing rolling hourly averages and selecting the hours with the highest pedestrian volumes. Existing peak hour volumes are shown in **Figures 2.31** to **2.33**. As shown in **Tables 2.20** to **2.22**, all the sidewalk, corner reservoir, and crosswalk analysis locations operate acceptably at LOS C or better (maximum of 6.0 PMF platoon flows for sidewalks; minimum of 24.0 SFP for corners and crosswalks) in the existing conditions.

THE FUTURE WITHOUT THE PROPOSED ACTION

No Build pedestrian volumes were estimated by increasing existing pedestrian levels to reflect expected growth in overall travel through and within the study area. As per CEQR guidelines, an annual background growth rate of 0.25 percent was applied for the first five years between 2013 and 2018 and 0.125 percent for the remaining years from 2018 to 2023. Pedestrian trips generated by the No Build projects described above would be concentrated along Webster Avenue and Third Avenue. Only a small portion of these trips would reach intersections east of Lorillard Place where analysis intersections are located. Therefore, pedestrian trips generated by these No Build projects are treated as a part of the background growth. The resulting 2023 No Build pedestrian volumes are shown in **Figures 2.34** to **2.36**.

As shown in **Tables 2.23** to **2.25**, all the sidewalk, corner reservoir, and crosswalk analysis locations operate acceptably at LOS C or better (maximum of 6.0 PMF platoon flows for sidewalks; minimum of 24.0 SFP for corners and crosswalks) in the No Build conditions.

FUTURE WITH THE PROPOSED ACTION

The project-generated pedestrian volumes were assigned to the pedestrian network considering current land uses in the area, population distribution, available transit services, and surrounding pedestrian facilities. Peak hour incremental pedestrian volumes were developed based on the "Level 2 Screening Assessment" as discussed above in Section D (see **Figures 11** to **19**). These pedestrian volumes were added to the projected 2023 No Build volumes to generate the 2023 Build pedestrian volumes for analysis (see **Figures 2.37** to **2.39**).

As shown in **Tables 2.26** to **2.28**, all the sidewalk, corner reservoir, and crosswalk analysis locations operate acceptably at LOS C or better (maximum of 6.0 PMF platoon flows for sidewalks; minimum of 24.0 SFP for corners and crosswalks) or incur degradations that, when compared with the No Build condition, do not exceed the *CEQR Technical Manual* sliding scale impact thresholds, except at the following location:

- The south crosswalk of Arthur Avenue and East Fordham Road, which will operate at LOS D with 22.1 SFP and 19.5 SFP during the midday and PM peak 15-minute periods, respectively.

Table 2.20
2013 Existing Conditions: Sidewalk Analysis

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	PMF	Platoon LOS
AM Peak Period						
East Fordham Road between Crotona Avenue and Southern Blvd- West	South	6.5	281	0.85	0.85	B
East Fordham Road between Crotona Avenue and Southern Blvd- East	South	10.0	281	0.85	0.55	B
Crotona Avenue between East Fordham Road and 189th Street	East	13.0	335	0.81	0.53	B
189th Street between Beaumont Avenue and Crotona Avenue	North	7.0	87	0.80	0.26	A
189th Street between Cambreleng Avenue and Beaumont Avenue	North	3.0	250	0.80	1.74	B
East Fordham Road Between Crotona Ave and Cambreleng Avenue	South	10.0	454	0.88	0.86	B
East Fordham Road Between Cambreleng Avenue and Belmont Ave-East	South	8.0	280	0.80	0.73	B
East Fordham Road Between Cambreleng Avenue and Belmont Ave-West	South	9.0	280	0.80	0.65	B
East Fordham Road between Belmont Ave and Hughes Ave	South	8.0	147	0.80	0.38	A
East Fordham Road between Hughes Ave and Arthur Avenue	South	11.0	141	0.80	0.27	A
East Fordham Road between Arthur Ave and Hoffman Street - East of Bus stop	South	7.0	373	0.80	1.11	B
East Fordham Road between Arthur Ave and Hoffman Street - West of Bus stop	South	7.0	372	0.80	1.11	B
East Fordham Road between Hoffman Street and Lorillard Place	South	7.0	353	0.81	1.04	B
Midday Peak Period						
East Fordham Road between Crotona Avenue and Southern Blvd- West	South	6.5	217	0.80	0.70	B
East Fordham Road between Crotona Avenue and Southern Blvd- East	South	10.0	217	0.80	0.45	A
Crotona Avenue between E.Fordham Road and 189th Street	East	13.0	185	0.80	0.30	A
189th Street between Beaumont Avenue and Crotona Avenue	North	7.0	115	0.80	0.34	A
189th Street between Cambreleng Avenue and Beaumont Avenue	North	3.0	40	0.80	0.28	A
East Fordham Road Between Crotona Ave and Cambreleng Avenue	South	10.0	280	0.86	0.54	B
East Fordham Road Between Cambreleng Avenue and Belmont Ave-East	South	8.0	236	0.86	0.58	B
East Fordham Road Between Cambreleng Avenue and Belmont Ave-West	South	9.0	236	0.86	0.51	B
East Fordham Road between Belmont Ave and Hughes Ave	South	8.0	191	0.80	0.50	A
East Fordham Road between Hughes Ave and Arthur Avenue	South	11.0	295	0.96	0.47	A
East Fordham Road between Arthur Ave and Hoffman Street - East of Bus stop	South	7.0	500	0.81	1.47	B
East Fordham Road between Arthur Ave and Hoffman Street - West of Bus stop	South	7.0	388	0.91	1.02	B
East Fordham Road between Hoffman Street and Lorillard Place	South	7.0	442	0.82	1.28	B
PM Peak Period						
East Fordham Road between Crotona Avenue and Southern Blvd- West	South	6.5	280	0.82	0.87	B
East Fordham Road between Crotona Avenue and Southern Blvd- East	South	10.0	280	0.82	0.57	B
Crotona Avenue between E.Fordham Road and 189th Street	East	13.0	184	0.80	0.29	A
189th Street between Beaumont Avenue and Crotona Avenue	North	7.0	103	0.80	0.31	A
189th Street between Cambreleng Avenue and Beaumont Avenue	North	3.0	66	0.87	0.42	A
East Fordham Road Between Crotona Ave and Cambreleng Avenue	South	10.0	418	0.84	0.83	B
East Fordham Road Between Cambreleng Avenue and Belmont Ave-East	South	8.0	305	0.91	0.70	B
East Fordham Road Between Cambreleng Avenue and Belmont Ave-West	South	9.0	305	0.91	0.62	B
East Fordham Road between Belmont Ave and Hughes Ave	South	8.0	271	0.85	0.67	B
East Fordham Road between Hughes Ave and Arthur Avenue	South	11.0	310	0.92	0.51	B
East Fordham Road between Arthur Ave and Hoffman Street - East of Bus stop	South	7.0	538	0.90	1.42	B
East Fordham Road between Arthur Ave and Hoffman Street - West of Bus stop	South	7.0	512	0.80	1.52	B
East Fordham Road between Hoffman Street and Lorillard Place	South	7.0	410	0.80	1.22	B

Note: PMF = pedestrians per minute per foot

Table 2.21

2013 Existing Conditions: Corner Analysis

Location	Corner	AM Peak Period		Midday Peak Period		PM Peak Period	
		SFP	LOS	SFP	LOS	SFP	LOS
Crotona Avenue and E.Fordham Road	Southwest	233.8	A	469.4	A	345.6	A
	Southeast	394.4	A	828.5	A	560.3	A
Cambreleng Avenue and E.Fordham Road	Southwest	191.1	A	220.7	A	154.8	A
	Southeast	184.6	A	252.7	A	173.0	A
Hughes Avenue and E.Fordham Road	Southwest	292.0	A	213.3	A	369.4	A
	Southeast	206.9	A	131.1	A	204.7	A
Arthur Avenue and E.Fordham Road	Southwest	163.6	A	104.9	A	113.0	A
	Southeast	768.3	A	452.3	A	474.8	A
Hoffman Street and E.Fordham Road	Southwest	234.5	A	274.0	A	298.6	A
	Southeast	147.9	A	231.4	A	197.7	A

Note: SFP = square feet per pedestrian

Table 2.22

2013 Existing Conditions: Crosswalk Analysis

Location	Crosswalk	Crosswalk Length (ft)	Crosswalk Width (ft)	2-way Peak Hour Volume	SFP	LOS
AM Peak Hour						
Crotona Avenue and E.Fordham Road	South	43.0	15.0	341	128.3	A
Cambreleng Avenue and E.Fordham Road	South	30.0	14.0	310	150.3	A
Hughes Avenue and E.Fordham Road	South	30.0	14.0	212	311.1	A
Arthur Avenue and E.Fordham Road	South	38.0	17.0	162	78.9	A
Hoffman Street and E.Fordham Road	South	30.0	17.0	314	237.8	A
Midday Peak Hour						
Crotona Avenue and E.Fordham Road	South	43.0	15.0	178	301.1	A
Cambreleng Avenue and E.Fordham Road	South	30.0	14.0	261	178.0	A
Hughes Avenue and E.Fordham Road	South	30.0	14.0	292	185.3	A
Arthur Avenue and E.Fordham Road	South	38.0	17.0	284	59.5	B
Hoffman Street and E.Fordham Road	South	30.0	17.0	377	178.6	A
PM Peak Hour						
Crotona Avenue and E.Fordham Road	South	43.0	15.0	243	195.6	A
Cambreleng Avenue and E.Fordham Road	South	30.0	14.0	339	190.3	A
Hughes Avenue and E.Fordham Road	South	30.0	14.0	218	302.6	A
Arthur Avenue and E.Fordham Road	South	38.0	17.0	247	50.9	B
Hoffman Street and E.Fordham Road	South	30.0	17.0	357	207.0	A

Note: SFP = square feet per pedestrian

Table 2.23
2023 No Build Conditions: Sidewalk Analysis

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	PMF	Platoon LOS
AM Peak Period						
East Fordham Road between Crotona Avenue and Southern Blvd- West	South	6.5	307	0.85	0.93	B
East Fordham Road between Crotona Avenue and Southern Blvd- East	South	10.0	315	0.85	0.69	B
Crotona Avenue between E.Fordham Road and 189th Street	East	13.0	359	0.81	0.57	B
189th Street between Beaumont Avenue and Crotona Avenue	North	7.0	99	0.80	0.29	A
189th Street between Cambreleng Avenue and Beaumont Avenue	North	3.0	272	0.80	1.89	B
East Fordham Road Between Crotona Ave and Cambreleng Avenue	South	10.0	473	0.88	0.90	B
East Fordham Road Between Cambreleng Avenue and Belmont Ave-East	South	8.0	340	0.80	0.89	B
East Fordham Road Between Cambreleng Avenue and Belmont Ave-West	South	9.0	414	0.80	0.96	B
East Fordham Road between Belmont Ave and Hughes Ave	South	8.0	217	0.80	0.57	B
East Fordham Road between Hughes Ave and Arthur Avenue	South	11.0	217	0.80	0.41	A
East Fordham Road between Arthur Ave and Hoffman Street - East of Bus stop	South	7.0	540	0.80	1.61	B
East Fordham Road between Arthur Ave and Hoffman Street - West of Bus stop	South	7.0	385	0.80	1.15	B
East Fordham Road between Hoffman Street and Lorillard Place	South	7.0	363	0.81	1.07	B
Midday Peak Period						
East Fordham Road between Crotona Avenue and Southern Blvd- West	South	6.5	246	0.80	0.79	B
East Fordham Road between Crotona Avenue and Southern Blvd- East	South	10.0	294	0.80	0.68	B
Crotona Avenue between E.Fordham Road and 189th Street	East	13.0	264	0.80	0.42	A
189th Street between Beaumont Avenue and Crotona Avenue	North	7.0	177	0.80	0.53	B
189th Street between Cambreleng Avenue and Beaumont Avenue	North	3.0	144	0.80	1.00	B
East Fordham Road Between Crotona Ave and Cambreleng Avenue	South	10.0	312	0.86	0.60	B
East Fordham Road Between Cambreleng Avenue and Belmont Ave-East	South	8.0	381	0.86	0.93	B
East Fordham Road Between Cambreleng Avenue and Belmont Ave-West	South	9.0	869	0.86	1.88	B
East Fordham Road between Belmont Ave and Hughes Ave	South	8.0	574	0.80	1.49	B
East Fordham Road between Hughes Ave and Arthur Avenue	South	11.0	363	0.96	0.57	B
East Fordham Road between Arthur Ave and Hoffman Street - East of Bus stop	South	7.0	589	0.81	1.73	B
East Fordham Road between Arthur Ave and Hoffman Street - West of Bus stop	South	7.0	403	0.91	1.06	B
East Fordham Road between Hoffman Street and Lorillard Place	South	7.0	455	0.82	1.31	B
PM Peak Period						

East Fordham Road between Crotona Avenue and Southern Blvd- West	South	6.5	321	0.82	1.00	B
East Fordham Road between Crotona Avenue and Southern Blvd- East	South	10.0	347	0.82	0.78	B
Crotona Avenue between E.Fordham Road and 189th Street	East	13.0	245	0.80	0.39	A
189th Street between Beaumont Avenue and Crotona Avenue	North	7.0	139	0.80	0.41	A
189th Street between Cambreleng Avenue and Beaumont Avenue	North	3.0	125	0.87	0.80	B
East Fordham Road Between Crotona Ave and Cambreleng Avenue	South	10.0	446	0.84	0.88	B
East Fordham Road Between Cambreleng Avenue and Belmont Ave-East	South	8.0	418	0.91	0.96	B
East Fordham Road Between Cambreleng Avenue and Belmont Ave-West	South	9.0	678	0.91	1.38	B
East Fordham Road between Belmont Ave and Hughes Ave	South	8.0	503	0.85	1.24	B
East Fordham Road between Hughes Ave and Arthur Avenue	South	11.0	406	0.92	0.67	B
East Fordham Road between Arthur Ave and Hoffman Street - East of Bus stop	South	7.0	728	0.90	1.92	B
East Fordham Road between Arthur Ave and Hoffman Street - West of Bus stop	South	7.0	528	0.80	1.57	B
East Fordham Road between Hoffman Street and Lorillard Place	South	7.0	422	0.80	1.26	B
Note: PMF = pedestrians per minute per foot						

Table 2.24
2023 No Build Conditions: Corner Analysis

Location	Corner	AM Peak Period		Midday Peak Period		PM Peak Period	
		SFP	LOS	SFP	LOS	SFP	LOS
Crotona Avenue and E.Fordham Road	Southwest	215.6	A	386.4	A	289.0	A
	Southeast	352.4	A	546.4	A	423.3	A
Cambreleng Avenue and E.Fordham Road	Southwest	175.1	A	191.3	A	141.7	A
	Southeast	175.5	A	225.4	A	161.9	A
Hughes Avenue and E.Fordham Road	Southwest	207.6	A	120.4	A	190.2	A
	Southeast	136.9	A	69.2	A	100.9	A
Arthur Avenue and E.Fordham Road	Southwest	76.3	A	73.1	A	51.3	B
	Southeast	475.5	A	363.9	A	322.2	A
Hoffman Street and E.Fordham Road	Southwest	223.8	A	234.5	A	268.7	A
	Southeast	141.2	A	197.8	A	180.0	A
Note: SFP = square feet per pedestrian							

Table 2.25
2023 No Build Conditions: Crosswalk Analysis

Location	Crosswalk	Crosswalk Length (ft)	Crosswalk Width (ft)	2-way Peak Hour Volume	SFP	LOS
AM Peak Period						
Crotona Avenue and E.Fordham Road	South	43.0	15.0	374	116.3	A
Cambreleng Avenue and E.Fordham Road	South	30.0	14.0	327	142.2	A
Hughes Avenue and E.Fordham Road	South	30.0	14.0	289	226.4	A
Arthur Avenue and E.Fordham Road	South	38.0	17.0	262	47.7	B
Hoffman Street and E.Fordham Road	South	30.0	17.0	324	230.3	A
Midday Peak Period						
Crotona Avenue and E.Fordham Road	South	43.0	15.0	223	237.4	A
Cambreleng Avenue and E.Fordham Road	South	30.0	14.0	295	156.9	A
Hughes Avenue and E.Fordham Road	South	30.0	14.0	522	101.0	A
Arthur Avenue and E.Fordham Road	South	38.0	17.0	347	48.3	B
Hoffman Street and E.Fordham Road	South	30.0	17.0	391	172.0	A
PM Peak Period						
Crotona Avenue and E.Fordham Road	South	43.0	15.0	296	158.5	A
Cambreleng Avenue and E.Fordham Road	South	30.0	14.0	366	175.8	A
Hughes Avenue and E.Fordham Road	South	30.0	14.0	374	173.3	A
Arthur Avenue and E.Fordham Road	South	38.0	17.0	365	33.4	C
Hoffman Street and E.Fordham Road	South	30.0	17.0	370	199.5	A

Note: SFP = square feet per pedestrian

Table 2.26

2023 Build Conditions: Sidewalk Analysis

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	PMF	Platoon LOS
AM Peak Period						
East Fordham Road between Crotona Avenue and Southern Blvd- West	South	6.5	398	0.85	1.20	B
East Fordham Road between Crotona Avenue and Southern Blvd- East	South	10.0	435	0.85	0.95	B
Crotona Avenue between E.Fordham Road and 189th Street	East	13.0	490	0.81	0.78	B
189th Street between Beaumont Avenue and Crotona Avenue	North	7.0	287	0.80	0.85	B
189th Street between Cambreleng Avenue and Beaumont Avenue	North	3.0	352	0.80	2.44	B
East Fordham Road Between Crotona Ave and Cambreleng Avenue	South	10.0	600	0.88	1.14	B
East Fordham Road Between Cambreleng Avenue and Belmont Ave-East	South	8.0	552	0.80	1.44	B
East Fordham Road Between Cambreleng Avenue and Belmont Ave-West	South	9.0	653	0.80	1.51	B
East Fordham Road between Belmont Ave and Hughes Ave	South	8.0	388	0.80	1.01	B
East Fordham Road between Hughes Ave and Arthur Avenue	South	11.0	324	0.80	0.61	B
East Fordham Road between Arthur Ave and Hoffman Street - East of Bus stop	South	7.0	630	0.80	1.88	B
East Fordham Road between Arthur Ave and Hoffman Street - West of Bus stop	South	7.0	497	0.80	1.48	B
East Fordham Road between Hoffman Street and Lorillard Place	South	7.0	442	0.81	1.30	B
Midday Peak Period						
East Fordham Road between Crotona Avenue and Southern Blvd- West	South	6.5	523	0.80	1.68	B
East Fordham Road between Crotona Avenue and Southern Blvd- East	South	10.0	882	0.80	2.04	B
Crotona Avenue between E.Fordham Road and 189th Street	East	13.0	700	0.80	1.12	B
189th Street between Beaumont Avenue and Crotona Avenue	North	7.0	776	0.80	2.31	B
189th Street between Cambreleng Avenue and Beaumont Avenue	North	3.0	545	0.80	3.78	C
East Fordham Road Between Crotona Ave and Cambreleng Avenue	South	10.0	697	0.86	1.34	B
East Fordham Road Between Cambreleng Avenue and Belmont Ave-East	South	8.0	966	0.86	2.35	B
East Fordham Road Between Cambreleng Avenue and Belmont Ave-West	South	9.0	1633	0.86	3.54	C
East Fordham Road between Belmont Ave and Hughes Ave	South	8.0	1198	0.80	3.12	C
East Fordham Road between Hughes Ave and Arthur Avenue	South	11.0	746	0.96	1.18	B
East Fordham Road between Arthur Ave and Hoffman Street - East of Bus stop	South	7.0	969	0.81	2.84	B
East Fordham Road between Arthur Ave and Hoffman Street - West of Bus stop	South	7.0	778	0.91	2.04	B
East Fordham Road between Hoffman Street and Lorillard Place	South	7.0	755	0.82	2.18	B
PM Peak Period						
East Fordham Road between Crotona Avenue and Southern Blvd- West	South	6.5	539	0.82	1.68	B
East Fordham Road between Crotona Avenue and Southern Blvd- East	South	10.0	699	0.82	1.57	B
Crotona Avenue between E.Fordham Road and 189th Street	East	13.0	570	0.80	0.91	B
189th Street between Beaumont Avenue and Crotona Avenue	North	7.0	594	0.80	1.77	B
189th Street between Cambreleng Avenue and Beaumont Avenue	North	3.0	388	0.87	2.48	B
East Fordham Road Between Crotona Ave and Cambreleng Avenue	South	10.0	724	0.84	1.43	B
East Fordham Road Between Cambreleng Avenue and Belmont Ave-East	South	8.0	833	0.91	1.91	B
East Fordham Road Between Cambreleng Avenue and Belmont Ave-West	South	9.0	1184	0.91	2.42	B
East Fordham Road between Belmont Ave and Hughes Ave	South	8.0	912	0.85	2.24	B
East Fordham Road between Hughes Ave and Arthur Avenue	South	11.0	653	0.92	1.07	B
East Fordham Road between Arthur Ave and Hoffman Street - East of Bus stop	South	7.0	958	0.90	2.53	B
East Fordham Road between Arthur Ave and Hoffman Street - West of Bus stop	South	7.0	787	0.80	2.34	B
East Fordham Road between Hoffman Street and Lorillard Place	South	7.0	610	0.80	1.81	B

Note: PMF = pedestrians per minute per foot

Table 2.27
2023 Build Conditions: Corner Analysis

Location	Corner	AM Peak Period		Midday Peak Period		PM Peak Period	
		SFP	LOS	SFP	LOS	SFP	LOS
Crotona Avenue and E.Fordham Road	Southwest	175.6	A	180.2	A	175.0	A
	Southeast	241.8	A	155.3	A	178.4	A
Cambreleng Avenue and E.Fordham Road	Southwest	125.1	A	88.9	A	88.4	A
	Southeast	129.0	A	97.8	A	97.1	A
Hughes Avenue and E.Fordham Road	Southwest	150.8	A	62.5	A	101.2	A
	Southeast	98.5	A	37.9	C	58.4	B
Arthur Avenue and E.Fordham Road	Southwest	57.5	B	33.5	C	27.4	C
	Southeast	360.9	A	189.7	A	209.4	A
Hoffman Street and E.Fordham Road	Southwest	193.6	A	157.0	A	193.3	A
	Southeast	123.1	A	130.5	A	131.9	A

Note: SFP = square feet per pedestrian

Table 2.28
2023 Build Conditions: Crosswalk Analysis

Location	Crosswalk	Crosswalk Length (ft)	Crosswalk Width (ft)	2-way Peak Hour Volume	SFP	LOS
AM Peak Period						
Crotona Avenue and E.Fordham Road	South	43.0	15.0	504	84.9	A
Cambreleng Avenue and E.Fordham Road	South	30.0	14.0	435	105.3	A
Hughes Avenue and E.Fordham Road	South	30.0	14.0	426	151.3	A
Arthur Avenue and E.Fordham Road	South	38.0	17.0	361	34.0	C
Hoffman Street and E.Fordham Road	South	30.0	17.0	411	180.6	A
Midday Peak Period						
Crotona Avenue and E.Fordham Road	South	43.0	15.0	679	74.6	A
Cambreleng Avenue and E.Fordham Road	South	30.0	14.0	544	82.8	A
Hughes Avenue and E.Fordham Road	South	30.0	14.0	1041	47.9	B
Arthur Avenue and E.Fordham Road	South	38.0	17.0	718	22.1	D+
Hoffman Street and E.Fordham Road	South	30.0	17.0	712	92.3	A
PM Peak Period						
Crotona Avenue and E.Fordham Road	South	43.0	15.0	616	73.1	A
Cambreleng Avenue and E.Fordham Road	South	30.0	14.0	572	110.3	A
Hughes Avenue and E.Fordham Road	South	30.0	14.0	706	88.5	A
Arthur Avenue and E.Fordham Road	South	38.0	17.0	600	19.5	D+
Hoffman Street and E.Fordham Road	South	30.0	17.0	576	126.1	A

Note: SFP = square feet per pedestrian
+ Denotes a significant adverse pedestrian impact

I. VEHICULAR AND PEDESTRIAN SAFETY

Crash data for the study area intersections were obtained from the New York State Department of Transportation (NYSDOT) for the time period between January 1, 2009 and December 31, 2011. The data obtained quantify 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 vehicular crashes with pedestrians and bicycles at each location.

During the January 1, 2009 to December 31, 2011 3-year period, a total of 345 reportable and non-reportable accidents, zero fatalities, 436 injuries, and 64 pedestrian/bicyclist-related accidents occurred at the study area intersections. A rolling total of accident data identifies two study area intersections as high pedestrian accident locations in the 2009 to 2011 period. These locations are Webster Avenue at East Fordham Road and Third Avenue at East Fordham Road. **Table 2.29** depicts total accident characteristics by intersection during the study period, as well as a breakdown of pedestrian and bicycle accidents by year and location. **Table 2.30** shows a detailed description of each accident at the intersections of Webster Avenue at East Fordham Road and Third Avenue at East Fordham Road during the three year period.

Table 2.29
Accident Summary

Intersection		Study Period					Accidents by Year					
North-South Roadway	East-West Roadway	All Accidents by Year			Total Fatalities	Total Injuries	Pedestrian			Bicycle		
		2009	2010	2011			2009	2010	2011	2009	2010	2011
Webster Avenue	**E. Fordham Road**	31	24	14	0	71	6	3	4	1	1	2
Third Avenue	**E. Fordham Road**	15	11	8	0	45	7	3	2	0	0	0
Washington Ave	E. Fordham Road	7	5	2	0	15	3	0	0	0	0	0
Bathgate Avenue	E. Fordham Road	3	4	8	0	28	0	1	0	0	0	0
Lorillard Place	E. Fordham Road	3	6	4	0	9	0	1	1	0	0	0
Arthur Avenue	E. Fordham Road	4	7	3	0	31	1	1	0	0	0	0
Hoffman Street	E. Fordham Road	0	1	5	0	8	0	1	2	0	0	0
Hughes Avenue	E. Fordham Road	2	6	6	0	22	0	1	2	0	0	0
Cambreleng Ave	E. Fordham Road	2	1	2	0	5	0	0	0	1	0	0
Crotona Ave	E. Fordham Road	6	8	4	0	21	3	0	1	1	1	0
Southern Blvd	E. Fordham Road	39	40	35	0	145	2	1	1	1	1	1
Crotona Avenue	E. 187th Street	7	7	5	0	27	0	1	3	0	0	1
Crotona Avenue	E. 189th Street	6	2	2	0	9	2	0	0	0	0	0

Source: NYCDOT January 1, 2009 and December 31, 2011 accident data.
Bold intersections are high pedestrian accident locations.

Table 2.30
Vehicle and Pedestrian Accident Details

Intersection	Year	Date	Time	Accident Class		Action of Vehicle	Action of Pedestrian	Cause of Accident			
				Injured	Killed			Left / Right Turns	Pedestrian Error/ Confusion	Driver Inattention	Other
Webster Avenue @ E. Fordham Road	2009	1/23	19:10 PM	X		Making left turn – North	Crossing against signal	X			
		3/4	11:15 AM	X		Making left turn – East	Crossing against signal	X			
		4/27	14:25 PM	X		Making left turn – Southeast	Crossing with signal	X			Failure to yield R.O.W.
		5/1	13:00 PM	X		Making left turn – West	Crossing with signal	X		x	
		5/15	20:05 PM	X		Making right turn – North	Crossing with signal	X			
		6/18	14:27 PM	X		Unknown	Unknown				Unknown
		8/10	17:50 PM	X		Going straight – North	Unknown				Unknown
	2010	2/26	16:30 PM	X		Going straight – South	Crossing with signal				Unknown
		5/22	16:00 PM	X		Going straight – South	Along highway with traffic				Unknown
		7/3	20:15 PM	X		Going straight – North	Emerge from behind parked vehicle		X		
		8/4	20:30 PM	X		Going straight – North	Getting on/off vehicle				Unknown
	2011	1/18	N/A	X		Going straight – North	Crossing, no signal or crosswalk				Unknown
		3/6	N/A	X		Making left turn – West	Crossing with signal	X			
		3/25	N/A	X		Going straight – North	Unknown				Unknown
		7/30	N/A	X		Making right turn – East	Crossing with signal	X			
		8/24	N/A	X		Going straight – South	Crossing against signal		X		
		10/8	N/A	X		Going straight – North	Unknown				Unknown
3rd Avenue @ E. Fordham Road	2009	3/5	8:20 AM	X		Going straight – East	Crossing against signal		X		
		4/17	16:30 PM	X		Making left turn – Northwest	Crossing with signal	X			
		4/25	14:00 PM	X		Going straight – East	Emerge from behind parked vehicle		X		
		7/29	8:45 AM	X		Going straight – East	Crossing against signal		X		
		8/14	20:05 PM	X		Going straight – East	Crossing, no signal or crosswalk		X		
		10/15	20:15 PM	X		Unknown	Crossing with signal				Unknown
		10/30	19:50 PM	X		Unknown	Crossing with signal				Unknown
	2010	5/19	11:00 AM	X		Backing – East	Other actions in roadway				Backing unsafely
		7/12	13:26 PM	X		Unknown – East	Not in roadway		X		Oversize vehicle
		8/12	13:10 PM	X		Slowed or stopping – Northeast	Not in roadway				Unknown
	2011	2/9	N/A	X		Making right turn – North	Crossing against signal	X			
		6/13	N/A	X		Slowed or stopping - East	Crossing against signal		X		

Source: NYSDOT January 1, 2009 and December 31, 2011 accident data.

WEBSTER AVENUE AND EAST FORDHAM ROAD

Based on the review of the accident history at the intersection of Webster Avenue and East Fordham Road, no prevailing trends with regard to geometric deficiencies were identified as the primary cause of recorded accidents. With respect to geometric deficiencies that could potentially cause safety hazards, the intersection of Webster Avenue and East Fordham Road is signalized and provides three regular crosswalks and one school crosswalk to the North. In addition, countdown timers are present at all four approaches. With the proposed project, the intersection of Webster Avenue and East Fordham Road would experience increases in vehicular traffic of approximately 118, 181, and 164 vehicles during the AM, midday, and PM peak hours, respectively. In terms of pedestrian trips, the highest incremental pedestrian traffic is expected to traverse the north crosswalk with project generated trips of 62, 161, and 118 pedestrians during the AM, midday, and PM, respectively. All other crosswalks would experience fewer than 200 incremental pedestrian trips during all four analysis peak hours.

Measures to increase pedestrian safety at this location could include the installation of signs warning turning vehicles to yield to pedestrians in the crosswalk. Restriping the faded western crosswalk should also be considered to reduce pedestrian and vehicle conflicts within the intersection. With these measures in place, the projected increases in vehicular and pedestrian levels at the intersection of Webster Avenue and E. Fordham Road are not anticipated to exacerbate any of the current causes of pedestrian-related accidents.

THIRD AVENUE AND EAST FORDHAM ROAD

Based on the review of the accident history at the intersection of 3rd Avenue and E. Fordham Road, no prevailing trends with regard to geometric deficiencies were identified as the primary cause of recorded accidents. It is worth noting that half of the accidents recorded for this intersection are due to pedestrian error or confusion. With respect to geometric deficiencies that could potentially cause safety hazards, 3rd Avenue and E. Fordham Road is a signalized, three-way intersection with three regular crosswalks served by countdown timers. With the proposed project, the intersection of Third Avenue and East Fordham Road would experience increases in vehicular traffic of approximately 118, 182, and 166 vehicles during the AM, midday, and PM peak hours, respectively. In terms of pedestrian trips, the highest incremental pedestrian traffic is expected to traverse the south crosswalk with project generated trips of 30, 30, and 39 pedestrians during the AM, midday, and PM, respectively. All other crosswalks would experience fewer than 200 incremental pedestrian trips during all four analysis peak hours.

Measures to increase pedestrian safety at this location could include the installation of signs warning turning vehicles to yield to pedestrians in the crosswalk on all approaches. Restriping the fading western crosswalk should also be considered to increase pedestrian safety. With these measures in place, the projected increases in vehicular and pedestrian levels at the intersection of 3rd Avenue and E. Fordham Road are not anticipated to exacerbate any of the current causes of pedestrian-related accidents.

J. PARKING

2013 EXISTING CONDITIONS

An inventory of on- and off-street parking within a ¼-mile of the projected development sites was conducted in February and April 2013. The on-street survey involved recording curbside regulations

and performing general observations of daytime utilization. The off-street survey provided an inventory of the area's public parking facilities and their legal capacities and daytime utilization. It was determined that there are no off-street public parking facilities within a ¼-mile of the proposed project.

ON-STREET PARKING

The curbside regulations within a ¼-mile of the proposed project generally consist of alternate-side parking to accommodate street-cleaning, with the bulk of metered spaces in the study area lining East 187th Street. Based on field observations, on-street parking utilization in the area is moderately high (68 percent) during weekday overnight hours. Of 1,855 total on-street parking spaces counted, 588 were available during the early weekday AM survey period. During the weekday midday period, the availability of total on-street parking spaces is reduced to 1,655, mostly due to the presence of school-related parking regulations in the study area, which prohibit parking during school hours. Of the total on-street parking spaces, 80 were available during the weekday midday survey period.

THE FUTURE WITHOUT THE PROPOSED ACTION

Overall on-street public parking utilization is expected to experience the same growth as projected for traffic. No Build projects within the ¼-mile parking study area identified above in Section F "Traffic" include 2 development projects—the Webster Avenue Rezoning and the Third Avenue/East Tremont Avenue Rezoning. Because the Third Avenue/East Tremont Avenue Rezoning EAS had screened out traffic for analysis, and because the Webster Avenue Rezoning study area is at the western border of the parking study area for the proposed action (sharing only one traffic analysis location) parking effects caused by these No Build projects were considered to be covered by the added background growth incorporated into this parking analysis.

In addition, the as-of-right development would provide 203 accessory parking spaces. However, these spaces would be dispersed across the projected development sites. As shown in **Table 2.31**, there will be no overnight parking demand across all as-of-right development sites. However, during the midday peak period, parking would not be fully accommodated at sites C and D, resulting in a total parking shortfall at these sites of approximately 48 spaces.

Table 2.31
As-of-Right Parking Demand by Development Site

As-of-Right Development Site	Parking Spaces Provided	Overnight Parking Demand	Midday Parking Demand	Available Overnight Spaces (Shortfall)	Available Midday Spaces (Shortfall)
A	18	0	1	18	17
B	15	0	0	15	15
C	0	0	47	0	(47)
D	0	0	1	0	(1)
E	98	0	28	98	70
F	44	0	0	44	44
G	28	0	8	28	20
H	0	0	0	0	0
I	0	0	0	0	0

As per DCP guidance, it was assumed that development sites situated near each other would share parking spaces, and any available spaces on sites could accommodate demand from other adjacent sites. Therefore, based on their proximity to each other, sites A, B, and D were considered "clustered" in terms of parking availability, as were sites C, E, F, G, and H. As shown in **Table 2.36**, sites E, F, and G would have 134 spaces available in the as-of-right condition, which would be more than enough to accommodate the 47-space shortfall on site C. In addition, sites A and B would have 32 spaces available in the as-of-right condition, which would be more than enough to accommodate the 1-space shortfall on site D.

As presented in **Table 32**, accounting for the parking demand generated from background growth, and assuming all parking shortfalls from sites C and D would be accommodated by parking availability at adjacent sites, the No Build condition on-street parking utilization is expected to increase to 70 percent in the weekday AM period in the ¼-mile on-street parking study area. This represents a parking availability of 564 spaces during the weekday AM period. In the weekday midday period, the No Build condition on-street parking utilization is expected to increase to 97 percent. This represents a parking availability of 56 spaces during the weekday midday period.

Table 2.32

2023 No Build Conditions: On-Street Parking Utilization

2013 Existing Conditions	
Weekday AM Period	
Capacity (spaces)	1,855
Demand (spaces)	1,267
Available Spaces (Capacity minus Demand)	588
Utilization	68%
Weekday Midday Period	
Capacity (spaces)	1,655
Demand (spaces)	1,575
Available Spaces (Capacity minus Demand)	80
Utilization	95%
2023 No Build Conditions	
Weekday AM Period	
Capacity (spaces)	1,855
2013 Existing Demand	1,267
Demand due to Background Growth	24
Parking Demand from No Build Projects	0
Total Demand	1,291
Available Spaces (Capacity minus Demand)	564
Utilization	70%
Weekday Midday Period	
Capacity (spaces)	1,655
2013 Existing Demand	1,575
Demand due to Background Growth	24
Parking Demand from No Build Projects	0
Total Demand	1,599
Available Spaces (Capacity minus Demand)	56
Utilization	97%

THE FUTURE WITH THE PROPOSED ACTION

For the proposed action, overnight residential parking demand was estimated by applying the specific renter vehicle ownership rates from the 2007-2011 U.S. Census American Community Survey (ACS) estimates for Bronx County census tract numbers 387, 389, 393, and 397. Based on that information, the vehicle ownership rates for renter occupied units in the projected development sites were approximately 18 percent, resulting in a peak parking demand for approximately 239 spaces, with an overnight parking demand of 60 spaces. The proposed action would provide 258 accessory parking spaces. However, these spaces would be dispersed across the projected development sites. As shown in **Table 33**, the supply of parking provided by the proposed action is sufficient to accommodate overnight parking at all projected development sites. However, midday parking would not be fully accommodated at sites C, E, F, and I, resulting in a total parking shortfall at these sites of 98 spaces.

Table 2.33

Build Parking Demand by Projected Development Site

Projected Development Site	Parking Spaces Provided	Overnight Parking Demand	Midday Parking Demand	Available Overnight Spaces (Shortfall)	Available Midday Spaces (Shortfall)
A	38	15	1	23	37
B	21	9	1	12	20
C	0	0	43	0	(43)
D	29	11	23	18	6
E	64	7	81	57	(17)
F	9	0	45	0	(36)
G	34	12	13	22	21
H	63	6	29	57	34
I	0	0	2	0	(2)

As mentioned above, it was assumed that projected development sites situated near each other would share parking spaces with each other, and any available spaces on sites could accommodate excess demand from adjacent sites. As shown in **Table 2.32**, sites G and H would have 55 spaces available in the build condition, which would accommodate all but 41 spaces of the 96-space shortfall on sites C, E, and F. With the 2-space shortfall on site I (which is not part of any site cluster and cannot be accommodated by any other projected development site), this represents an overall shortfall of 43 spaces on sites C, E, F, and I.

The Build on-street parking utilization is expected to increase to 82 percent in the weekday AM period and to 99 percent during the weekday midday period in the ¼ mile on-street parking study area (see **Table 2.33)**. All weekday AM parking demand will be accommodated by spaces on the projected development sites. In the weekday midday period, the excess demand of 43 spaces would result in an on-street parking availability of 13 spaces. Therefore, with excess on-street parking availability in the build condition weekday AM and midday periods, the proposed action is not expected to result in significant adverse parking impacts in the study area.

Table 2.34
2023 Build Conditions: On-Street Parking Utilization

2013 Existing Conditions	
Weekday AM Period	
Capacity (spaces)	1,855
Demand (spaces)	1,267
Available Spaces (Capacity minus Demand)	588
Utilization	68%
Weekday Midday Period	
Capacity (spaces)	1,655
Demand (spaces)	1,575
Available Spaces (Capacity minus Demand)	80
Utilization	95%
2023 No Build Conditions (Not Including As-of-Right)	
Weekday AM Period	
Capacity (spaces)	1,855
2013 Existing Demand	1,267
Demand due to Background Growth	24
Parking Demand from No Build Projects	0
Total Demand	1,291
Available Spaces (Capacity minus Demand)	564
Utilization	70%
Weekday Midday Period	
Capacity (spaces)	1,655
2013 Existing Demand	1,575
Demand due to Background Growth	24
Parking Demand from No Build Projects	0
Total Demand	1,599
Available Spaces (Capacity minus Demand)	56
Utilization	97%
2023 Build Conditions	
Weekday AM Period	
On-Street Capacity (spaces)	1,855
2023 No Build Demand	1,291
Parking Demand from Build Project	
2023 Proposed Action, Total Demand	239
Total Parking Demand	1,530
Available On-street Parking Spaces (Capacity minus Demand) within a ¼-mile	325
Utilization	82%
Weekday Midday Period	
On-Street Capacity (spaces)	1,655
2023 No Build Demand (not including As-of-Right)	1,599
Parking Demand from Build Project	
2023 Proposed Action, Total Demand	238
Parking Shortfall at Projected Sites C, E, F, and I (after accounting for adjacent site parking supply)	43
Total On-street Parking Demand	1,642
Available On-street Parking Spaces (Capacity minus Demand) within a ¼-mile	13
Utilization	99%