

APPENDIX G
TECHNICAL MEMORANDUM:
MODIFIED PROJECT'S IMPLICATIONS ON
TRANSPORTATION ANALYSES



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Technical Memorandum

To: Robert Dobruskin, NYCDCP

From: Don Burrows, Chi K. Chan

Date: April 8, 2009

Re: Fordham University Lincoln Center Campus Master Plan FEIS: Modified Project's Implications on Transportation Analyses

cc: Diane McCarthy, Mehdi Amjadi, David Kucharsky; NYCDCP
Brian Byrne, Joseph Muriana, Thomas Dunne; Fordham
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INTRODUCTION

This technical memorandum summarizes the transportation-related issues associated with modifications to the proposed actions (the "modified project"), as analyzed in the Fordham University Lincoln Center Campus Master Plan (the "proposed project") FEIS. The modified project would yield slightly less total program space than the proposed project but the same population increments over the future No Build conditions as the proposed project. It would, however, result in 70 fewer dormitory beds and incorporate several changes to the project's allocation of accessory parking within the Fordham University Lincoln Center Campus superblock.

Compared to the proposed project, the modified project would, in general, result in lower incremental traffic volumes and vehicle delays at the study area analysis intersections. Projected impacts are also expected to be lower in magnitude or eliminated. The significant adverse traffic impacts identified for the 2014 midday peak hour under the proposed project would not occur under the modified project. During the other time periods (2014 PM, and 2032 AM, midday, PM, and pre-theater), projected impacts for the proposed project would largely be reduced or eliminated under the modified project. Where significant adverse impacts were determined to remain with the modified project, or, in one instance where a new impact was identified, mitigation measures recommended for the proposed project would similarly mitigate these impacts. Therefore, the modified project is not expected to result in the need for mitigation measures that had not been identified for the proposed project. For parking, although the modified project would yield a higher demand of the area's parking resources than would the proposed project, both would result in lower overall area parking utilization than the future without the proposed actions.

With regard to transit and pedestrians, there would be slightly higher use of the area's transit system and pedestrian facilities. However, when distributed among the various available transit options, the modified project would not, as with the proposed project, result in any significant adverse transit impacts. It would

also result in similar pedestrian impacts and require the same mitigation measures as those identified for the proposed project.

PROJECT MODIFICATIONS

DORMITORY BEDS

As stated in the FEIS, the total number of dormitory beds under the proposed project is expected to increase from 850 to 1,545 by the first analysis year of 2014 and to 2,300 by the project's final build-out in 2032. The FEIS analyzed the differences in trip-making characteristics between students residing on and off campus. With 70 fewer dormitory beds or approximately 3 percent of the total number projected for the project's final build-out, differences in overall travel characteristics under the modified project are expected to be minimal and not result in perceivable variations in vehicular, transit, and pedestrian volumes during peak analysis hours.

PARKING

The proposed project contains three parking facilities: a condominium accessory parking garage (Garage A in Table 1 below) containing 68 accessory parking spaces with an entrance on West 62nd Street; a university accessory parking garage on West 62nd Street for Fordham faculty/staff use (Garage B), which would contain 155 parking spaces in 2014 and 265 parking spaces in 2032; and a condominium accessory parking garage (Garage C) containing 137 parking spaces with an entrance on West 61st Street. Compared to the proposed project, the modified project would:

- Eliminate Garage B and replace below-grade space with academic programming to compensate for the space loss from various building height reductions.
- Reallocate up to half of the spaces in Garage C from accessory condominium parking to Fordham faculty/staff use.

With these modifications, Garage A would still provide 68 accessory parking spaces for use by occupants of the residential condominium building on Site 4. Garage B, containing up to 265 accessory parking spaces for use by Fordham faculty/staff, would be eliminated. Garage C would still contain 137 accessory parking spaces. However, instead of dedicating all 137 parking spaces for use by occupants of the residential condominium building on Site 3/3a under the proposed project, approximately half or 69 parking spaces would be allocated to Fordham faculty/staff use under the modified project. The remaining 68 parking spaces would be maintained for residential use. As shown in **Table 1**, the 69 Fordham University accessory parking spaces provided under the modified project would be 86 fewer than what would be provided by the proposed project in 2014 and 196 fewer in 2032.

Table 1
Comparison of Parking Allocations

Garage	Proposed Project			Modified Project		
	Residential	Fordham	Total	Residential	Fordham	Total
2014						
Garage A	68	0	68	68	0	68
Garage B	0	155	155	0	0	0
Garage C	137	0	137	68	69	137
Total	205	155	360	136	69	205
2032						
Garage A	68	0	68	68	0	68
Garage B	0	265	265	0	0	0
Garage C	137	0	137	68	69	137
Total	205	265	470	136	69	205

The parking allocations under the modified project would result in differences in travel patterns, and vehicular, transit, and pedestrian volumes, as compared to those described for the proposed project. These differences include a shift in modal split among Fordham faculty/staff personnel and a redistribution of traffic flow at the study area intersections. The analyses that follow demonstrate that the modified project is expected to have similar or fewer traffic, parking, transit, and pedestrian impacts as the proposed project and not result in new significant adverse impacts not previously identified for the proposed project. Furthermore, measures recommended to mitigate impacts of the proposed project would similarly mitigate those associated with the modified project.

TRIP GENERATION

For the proposed project, the provision of discounted on-site parking for Fordham faculty and staff was expected to induce a percentage of those who currently take public transit to drive to campus. Based on the responses to the stated-preference questions in the on-line faculty/staff survey, it was estimated that up to 13 to 14 percent of the projected faculty/staff subway and bus riders could switch to auto if subsidized on-campus parking was provided. This projected shift in modal split would raise the faculty/staff auto share from 15.3 percent to 24.2 percent and provide a condition for a conservative traffic impact analysis.

Under the proposed project, 78 percent of the projected faculty/staff parking demand (198 spaces) would be accommodated in the West 62nd Street university garage (Garage B) in 2014, and 100 percent (236 spaces) would be accommodated in 2032 when all 265 spaces became available. It was assumed that all faculty/staff parking demand, whether accommodated on-campus in Garage B or off-site, as needed for a portion of the total demand in 2014, would be subsidized by Fordham University.

For the modified project, prospective faculty/staff on-campus parking spaces would be reduced by 55 (155 vs. 69 spaces) and 74 (265 vs. 69 spaces) percent in the 2014 and 2032 analysis years, respectively. With only 69 spaces dedicated for Fordham use at Garage C, there would not be adequate on-campus supply to fully incentivize a shift of faculty/staff travel from transit to auto. Hence, it was assumed that the faculty/staff auto share would remain at 15.3 percent. The subway and bus shares would also remain at 62.3 and 4.4 percent, respectively. As shown in **Table 2**, the modified project would generate fewer vehicle trips but more subway and bus trips than the proposed project in 2014 and 2032. Total faculty/staff auto trips would decline by 15, 34, 29, and 9 vehicle trips during the AM, midday, PM, and pre-theater peak hours in 2014, from 43, 90, 78, and 24 vehicle trips under the proposed project to 28, 56, 49, and 15 under the modified project. In 2032, these trips would decline by 19, 39, 34, and 11 vehicle trips during the same time periods, from 51, 106, 91, and 29 vehicle trips under the proposed project to 32, 67, 57, and 18 under the modified project. The differences in projected transit trips are detailed later in this memo.

Table 2
Faculty / Staff Trip Generation-Total Faculty/Staff Trips

	Proposed Project				Modified Project			
	Faculty / Staff Mode Split							
Auto	24.2%				15.3%			
Subway	54.0%				62.3%			
Bus	3.8%				4.4%			
Peak Hour	AM	Midday	PM	Pre-Theater	AM	Midday	PM	Pre-Theater
	Faculty / Staff Trip Generation							
	2014							
Auto vehicle trips	43	90	78	24	28	56	49	15
Subway person trips	114	238	204	63	132	275	235	74
Bus person trips	8	17	14	4	9	20	16	5
	2032							
Auto vehicle trips	51	106	91	29	32	67	57	18
Subway person trips	134	281	240	76	155	325	277	87
Bus person trips	9	20	17	5	11	23	20	6

The projected parking accumulations under the modified project for Garage A (at West 62nd Street) and Garage C (at West 61st Street) are shown in **Tables 3** and **4**, respectively. A summary of parking utilization for the proposed and modified projects is provided in **Table 5**. As shown, the 69 remaining faculty/staff parking spaces under the modified project would accommodate only 54 and 44 percent of the projected faculty/staff parking demand at the lower auto share in 2014 and 2032, respectively, as opposed to 78 and 100 percent under the proposed project during the same years.

Table 3
Total Parking Accumulation, Garage A (W. 62nd St.)

Hour	Residential Spaces (total 68)		
	In	Out	Residential Accumulation
6 - 7 AM	0	1	66
7 - 8 AM	1	3	64
8 - 9 AM	1	8	57
9 - 10 AM	2	5	54
10 - 11 AM	2	3	53
11 AM -12 PM	2	3	52
12 - 1 PM	2	2	52
1 - 2 PM	2	3	51
2 - 3 PM	2	2	51
3 - 4 PM	3	3	51
4 - 5 PM	5	3	53
5 - 6 PM	8	3	58
6 - 7 PM	6	4	60
7 - 8 PM	7	1	66
8 - 9 PM	3	2	67
9 - 10 PM	2	2	67
10 - 11 PM	2	1	68
11 PM - 12 AM	1	1	68

Table 4
Total Parking Accumulation, Garage C (W. 61st St.)

Hour	Academic Spaces (total 69)						Residential Spaces (total 68)			COMBINED TOTAL 137			
	Visitors		Faculty		Total	Total	Academic Accumulation	In	Out	Residential Accumulation	In	Out	Total Garage Accumulation
	In	Out	In	Out	In	Out							
6 - 7 AM	0	0	1	0	1	0	1	0	1	66	1	1	67
7 - 8 AM	0	0	2	0	2	0	3	1	3	64	3	3	67
8 - 9 AM	1	0	13	0	14	0	17	1	8	57	15	8	74
9 - 10 AM	1	0	28	0	29	0	46	2	5	54	31	5	100
10 - 11 AM	0	0	16	1	16	1	61	2	3	53	18	4	114
11 AM -12 PM	0	0	10	6	10	6	65	2	3	52	12	9	117
12 - 1 PM	1	1	15	13	16	14	67	2	2	52	18	16	119
1 - 2 PM	1	1	9	7	10	8	69	2	3	51	12	11	120
2 - 3 PM	0	0	9	9	9	9	69	2	2	51	11	11	120
3 - 4 PM	0	0	6	6	6	6	69	3	3	51	9	9	120
4 - 5 PM	0	1	2	9	2	10	61	5	3	53	7	13	114
5 - 6 PM	0	1	2	22	2	23	40	8	3	58	10	26	98
6 - 7 PM	0	0	0	20	0	20	20	6	4	60	6	24	80
7 - 8 PM	0	0	0	7	0	7	13	7	1	66	7	8	79
8 - 9 PM	0	0	0	5	0	5	8	3	2	67	3	7	75
9 - 10 PM	0	0	0	4	0	4	4	2	2	67	2	6	71
10 - 11 PM	0	0	0	3	0	3	1	2	1	68	2	4	69
11 PM - 12 AM	0	0	0	1	0	1	0	1	1	68	1	2	68

Table 5
On-Site Parking Utilization Summary

Garage	Proposed Project				Modified Project			
	Capacity		Parking Demand	% Demand Served	Capacity		Parking Demand	% Demand Served
	Faculty / Staff	Residential			Faculty / Staff	Residential		
2014								
A - West 62nd Street - Residential	-	68	125	54%	-	68	189	36%
B - West 62nd Street - Faculty/Staff	155	-	198	78%	Not to be Constructed			
C - West 61st Street-Residential	-	137	253	54%	-	68	189	36%
C - West 61st Street-Faculty/Staff	Residential Use Only				69	-	128	54%
2032								
A - West 62nd Street - Residential	-	68	125	54%	-	68	189	36%
B - West 62nd Street	265	-	236	100%	Not to be Constructed			
C - West 61st Street-Residential	-	137	253	54%	-	68	189	36%
C - West 61st Street-Faculty/Staff	Residential Use Only				69	-	156	44%

Tables 6 and 7 compare the university-based 2006-2014 and 2006-2032 projected person trip increments under the proposed and modified projects, respectively, while **Tables 8 and 9** summarize the vehicle trip increments for the same periods. As shown, the total university-based increments, including truck trips, would decline from 35, 72, 82, and 36 vehicle trips during the AM, midday, PM, and pre-theater peak hours under the proposed project to 20, 38, 53, and 27 vehicle trips during the same time periods under the modified project in 2014. These increments would decline from 68, 111, 140, and 81 vehicle trips under the proposed project to 49, 72, 106, and 70 vehicle trips under the modified project in 2032.

In accordance with guidelines in the *CEQR Technical Manual*, the project-generated increments in the 2014 AM, midday, and pre-theater peak hours would be below the 50 vehicle-trip threshold for requiring detailed traffic analyses. Hence, no significant adverse traffic impacts would be expected for these time periods. For the 2032 AM peak hour, the 49 vehicle-trip increment, when converted to passenger car equivalents (PCE's), would exceed the 50 vehicle-trip threshold. Hence, detailed analyses for the modified project were prepared for intersections where mitigation measures have been proposed to address significant adverse impacts under the proposed project during the 2014 PM, and 2032 AM, midday, PM, and pre-theater peak hours.

TRIP ASSIGNMENTS

Faculty/Staff Trips: For the modified project, there would be fewer university-based auto trips and those remaining would be less concentrated, with approximately half of the faculty/staff trips traveling to and from several area garages, rather than converging at Garage B on West 62nd Street. The remainder of faculty/staff trips would be relocated to Garage C on West 61st Street. Under the proposed project, there would be 30, 70, 56, and 17 faculty/staff auto trips entering or exiting the 155-space Fordham University Garage B during the AM, midday, PM, and pre-theater peak hours, respectively, in 2014.

There would be 46, 106, 84, and 28 entering and exiting faculty/staff auto trips during the same periods in 2032, when this garage would have 265 spaces. With these trips no longer beginning or terminating along West 62nd Street between Columbus and Amsterdam Avenues, there would be a reduction in vehicle trips at the adjacent intersections.

Condo Trips: Auto ownership for the condominium units was projected at 43 percent based on Census 2000 data, yielding a total of 378 cars for the 876 dwelling units analyzed. While the condominium dwelling units could be built as-of-right, various modifications and the accessory parking incorporated in Garages A and C would occur as part of the proposed or modified project. Therefore, under the 2014 and 2032 No Build conditions, the condominium parking demand would all be accommodated at area garages. For the proposed project, the 205 condominium accessory parking spaces (68 at Garage A and 137 at Garage C) would accommodate 54 percent of the condominium parking demand, with the balance remaining at area garages.

Table 6
2014 Comparison of Projected Person Trip Increments

Analysis Period and Use			Auto		Taxi		Subway		Bus		Shuttle		Walk		Dorm		Total		
			In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	
Proposed Project	AM Peak Hour	Undergrad Day	2	1	1	0	45	14	8	2	7	3	19	7	66	22	148	49	
		Undergrad Night	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Graduate Day	0	0	0	0	1	0	0	0	0	0	0	1	0	4	2	6	2
		Graduate Night	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Faculty	23	1	0	0	4	0	0	0	2	0	5	0	0	0	0	34	1
		Visitors	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	2	0
		External Dorm Trips	3	3	1	2	10	16	2	4	0	0	6	14	0	0	0	22	39
	Total	28	5	2	2	61	30	10	6	9	3	32	21	70	24	212	91		
	Midday Peak Hour	Undergrad Day	3	3	2	2	69	48	12	9	11	8	29	21	106	70	232	161	
		Undergrad Night	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Graduate Day	0	0	0	0	2	1	0	0	0	0	0	0	8	6	10	7	
		Graduate Night	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Faculty		28	23	0	0	5	4	0	1	2	1	6	3	0	0	41	32		
Visitors		0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1		
External Dorm Trips		5	5	2	3	21	20	5	4	0	0	15	15	0	0	48	47		
Total	36	31	4	5	98	74	17	14	13	9	50	39	114	76	332	248			
PM Peak Hour	Undergrad Day	2	2	3	3	26	41	4	5	15	23	19	29	56	85	125	188		
	Undergrad Night	0	0	-1	0	-4	0	0	0	-2	0	-3	-1	0	0	-10	-1		
	Graduate Day	0	0	0	0	1	1	0	0	0	0	1	0	4	7	6	8		
	Graduate Night	1	0	0	0	10	0	2	0	1	0	4	1	0	0	18	1		
	Faculty	4	40	0	0	1	7	0	0	1	3	-1	7	0	0	5	57		
	Visitors	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	2		
	External Dorm Trips	8	7	5	5	35	30	7	6	0	0	27	24	0	0	82	72		
Total	15	49	7	8	69	80	13	11	15	26	47	61	60	92	226	327			
Pre-Theater Peak Hour	Undergrad Day	1	2	1	2	11	31	2	4	6	17	8	22	24	65	53	143		
	Undergrad Night	0	0	0	0	-1	-1	0	0	-1	-1	-2	-2	0	0	-4	-4		
	Graduate Day	0	1	0	0	0	1	0	0	0	0	0	0	2	5	2	7		
	Graduate Night	1	1	0	0	4	4	0	1	0	0	2	2	0	0	7	8		
	Faculty	0	13	0	0	0	1	0	0	0	1	1	3	0	0	1	18		
	Visitors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	External Dorm Trips	5	4	4	3	23	19	5	4	0	0	18	16	0	0	55	46		
Total	7	21	5	5	37	55	7	9	5	17	27	41	26	70	114	218			
Modified Project	AM Peak Hour	Undergrad Day	2	1	1	0	45	14	8	2	7	3	19	7	66	22	148	49	
		Undergrad Night	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Graduate Day	0	0	0	0	1	0	0	0	0	0	1	0	4	2	6	2	
		Graduate Night	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Faculty	4	1	0	0	22	0	1	0	2	0	5	0	0	0	34	1	
		Visitors	0	0	0	0	1	0	0	0	0	0	1	0	0	0	2	0	
		External Dorm Trips	3	3	1	2	10	16	2	4	0	0	6	14	0	0	22	39	
	Total	9	5	2	2	79	30	11	6	9	3	32	21	70	24	212	91		
	Midday Peak Hour	Undergrad Day	3	3	2	2	69	48	12	9	11	8	29	21	106	70	232	161	
		Undergrad Night	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Graduate Day	0	0	0	0	2	1	0	0	0	0	0	0	8	6	10	7	
		Graduate Night	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Faculty		6	5	0	0	25	21	2	2	2	1	6	3	0	0	41	32		
Visitors		0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1		
External Dorm Trips		5	5	2	3	21	20	5	4	0	0	15	15	0	0	48	47		
Total	14	13	4	5	118	91	19	15	13	9	50	39	114	76	332	248			
PM Peak Hour	Undergrad Day	2	2	3	3	26	41	4	5	15	23	19	29	56	85	125	188		
	Undergrad Night	0	0	-1	0	-4	0	0	0	-2	0	-3	-1	0	0	-10	-1		
	Graduate Day	0	0	0	0	1	1	0	0	0	0	1	0	4	7	6	8		
	Graduate Night	1	0	0	0	10	0	2	0	1	0	4	1	0	0	18	1		
	Faculty	2	9	0	0	3	36	0	2	1	3	-1	7	0	0	5	57		
	Visitors	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	2		
	External Dorm Trips	8	7	5	5	35	30	7	6	0	0	27	24	0	0	82	72		
Total	13	18	7	8	71	109	13	13	15	26	47	61	60	92	226	327			
Pre-Theater Peak Hour	Undergrad Day	1	2	1	2	11	31	2	4	6	17	8	22	24	65	53	143		
	Undergrad Night	0	0	0	0	-1	-1	0	0	-1	-1	-2	-2	0	0	-4	-4		
	Graduate Day	0	1	0	0	0	1	0	0	0	0	0	0	2	5	2	7		
	Graduate Night	1	1	0	0	4	4	0	1	0	0	2	2	0	0	7	8		
	Faculty	-1	2	0	0	1	11	0	1	0	1	1	3	0	0	1	18		
	Visitors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	External Dorm Trips	5	4	4	3	23	19	5	4	0	0	18	16	0	0	55	46		
Total	6	10	5	5	38	65	7	10	5	17	27	41	26	70	114	218			

Table 7
2032 Comparison of Projected Person Trip Increments

Analysis Period and Use			Auto		Taxi		Subway		Bus		Shuttle		Walk		Dorm		Total	
			In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Proposed Project	AM Peak Hour	Undergrad Day	1	0	0	0	8	2	2	0	1	1	3	1	124	42	139	46
		Undergrad Night	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Graduate Day	0	0	0	0	3	1	0	0	1	1	2	0	21	7	27	9
		Graduate Night	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Faculty	32	1	0	0	24	0	1	0	4	0	10	0	0	0	71	1
		Visitors	1	0	0	0	2	0	0	0	0	0	2	0	0	0	5	0
		External Dorm Trips	5	7	2	5	20	34	5	8	0	0	14	29	0	0	46	83
		Total	39	8	2	5	57	37	8	8	6	2	31	30	145	49	288	139
	Midday Peak Hour	Undergrad Day	1	1	1	0	11	7	2	2	2	1	5	4	197	136	219	151
		Undergrad Night	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Graduate Day	1	1	0	1	6	4	1	1	0	0	2	1	33	22	43	30
		Graduate Night	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Faculty	38	32	1	0	29	23	2	2	4	3	11	8	0	0	85	68
		Visitors	0	0	0	0	2	2	0	0	0	0	1	1	0	0	3	3
		External Dorm Trips	10	9	6	6	42	41	9	9	0	0	33	33	0	0	100	98
		Total	50	43	8	7	90	77	14	14	6	4	52	47	230	158	450	350
PM Peak Hour	Undergrad Day	0	1	1	1	4	6	0	0	2	3	3	5	108	161	118	177	
	Undergrad Night	1	0	2	0	21	1	3	1	12	0	15	1	0	0	54	3	
	Graduate Day	0	0	0	0	2	3	0	1	1	2	2	1	19	29	24	36	
	Graduate Night	7	0	4	1	140	7	25	1	22	2	61	3	0	0	259	14	
	Faculty	5	55	0	1	4	40	0	3	1	6	1	14	0	0	11	119	
	Visitors	0	1	0	0	0	2	0	0	0	0	0	2	0	0	0	5	
	External Dorm Trips	16	14	11	10	73	63	16	14	0	0	56	50	0	0	172	151	
	Total	29	71	18	13	244	122	44	20	38	13	138	76	127	190	638	505	
Pre-Theater Peak Hour	Undergrad Day	0	1	1	0	1	5	1	0	1	2	1	4	45	123	50	135	
	Undergrad Night	1	1	1	1	9	9	1	1	5	5	4	5	0	0	21	22	
	Graduate Day	0	1	0	0	1	2	0	0	1	1	0	1	8	22	10	27	
	Graduate Night	9	9	2	3	57	59	5	6	1	1	24	24	0	0	98	102	
	Faculty	1	18	0	0	1	13	0	1	0	2	0	5	0	0	2	39	
	Visitors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	External Dorm Trips	11	9	7	6	48	40	11	9	0	0	39	31	0	0	116	95	
	Total	22	39	11	10	117	128	18	17	8	11	68	70	53	145	297	420	
Modified Project	AM Peak Hour	Undergrad Day	1	0	0	0	8	2	2	0	1	1	3	1	124	42	139	46
		Undergrad Night	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Graduate Day	0	0	0	0	3	1	0	0	1	1	2	0	21	7	27	9
		Graduate Night	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Faculty	9	1	0	0	45	0	3	0	4	0	10	0	0	0	71	1
		Visitors	1	0	0	0	2	0	0	0	0	0	2	0	0	0	5	0
		External Dorm Trips	5	7	2	5	20	34	5	8	0	0	14	29	0	0	46	83
		Total	16	8	2	5	78	37	10	8	6	2	31	30	145	49	288	139
	Midday Peak Hour	Undergrad Day	1	1	1	0	11	7	2	2	2	1	5	4	197	136	219	151
		Undergrad Night	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Graduate Day	1	1	0	1	6	4	1	1	0	0	2	1	33	22	43	30
		Graduate Night	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Faculty	12	11	1	0	53	43	4	3	4	3	11	8	0	0	85	68
		Visitors	0	0	0	0	2	2	0	0	0	0	1	1	0	0	3	3
		External Dorm Trips	10	9	6	6	42	41	9	9	0	0	33	33	0	0	100	98
		Total	24	22	8	7	114	97	16	15	6	4	52	47	230	158	450	350
PM Peak Hour	Undergrad Day	0	1	1	1	4	6	0	0	2	3	3	5	108	161	118	177	
	Undergrad Night	1	0	2	0	21	1	3	1	12	0	15	1	0	0	54	3	
	Graduate Day	0	0	0	0	2	3	0	1	1	2	2	1	19	29	24	36	
	Graduate Night	7	0	4	1	140	7	25	1	22	2	61	3	0	0	259	14	
	Faculty	1	19	0	1	7	74	1	5	1	6	1	14	0	0	11	119	
	Visitors	0	1	0	0	0	2	0	0	0	0	0	2	0	0	0	5	
	External Dorm Trips	16	14	11	10	73	63	16	14	0	0	56	50	0	0	172	151	
	Total	25	35	18	13	247	156	45	22	38	13	138	76	127	190	638	505	
Pre-Theater Peak Hour	Undergrad Day	0	1	1	0	1	5	1	0	1	2	1	4	45	123	50	135	
	Undergrad Night	1	1	1	1	9	9	1	1	5	5	4	5	0	0	21	22	
	Graduate Day	0	1	0	0	1	2	0	0	1	1	0	1	8	22	10	27	
	Graduate Night	9	9	2	3	57	59	5	6	1	1	24	24	0	0	98	102	
	Faculty	1	6	0	0	1	24	0	2	0	2	0	5	0	0	2	39	
	Visitors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	External Dorm Trips	11	9	7	6	48	40	11	9	0	0	39	31	0	0	116	95	
	Total	22	27	11	10	117	139	18	18	8	11	68	70	53	145	297	420	

Table 8
2014 Comparison of Projected Vehicle Trip Increments

Analysis Hour and User	Proposed Project									Modified Project								
	Auto		Taxi		Truck		Total			Auto		Taxi		Truck		Total		
	In	Out	In	Out	In	Out	In	Out	Total	In	Out	In	Out	In	Out	In	Out	Total
AM Peak																		
Undergrad Day/FT	1	1	1	1	0	0	2	2	4	1	1	1	1	0	0	2	2	4
Undergrad Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Graduate Day/FT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Graduate Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Faculty/Staff	19	1	0	0	0	0	19	1	20	4	1	0	0	0	0	4	1	5
Visitors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
External Dorm Trips	2	3	1	1	0	0	3	4	7	2	3	1	1	0	0	3	4	7
Delivery Trips	0	0	0	0	2	2	2	2	4	0	0	0	0	2	2	2	2	4
Total	22	5	2	2	2	2	26	9	35	7	5	2	2	2	2	11	9	20
Midday Peak																		
Undergrad Day/FT	3	2	3	3	0	0	6	5	11	3	2	3	3	0	0	6	5	11
Undergrad Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Graduate Day/FT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Graduate Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Faculty/Staff	24	19	0	0	0	0	24	19	43	5	4	0	0	0	0	5	4	9
Visitors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
External Dorm Trips	5	5	2	2	0	0	7	7	14	5	5	2	2	0	0	7	7	14
Delivery Trips	0	0	0	0	2	2	2	2	4	0	0	0	0	2	2	2	2	4
Total	32	26	5	5	2	2	39	33	72	13	11	5	5	2	2	20	18	38
PM Peak																		
Undergrad Day/FT	1	1	5	5	0	0	6	6	12	1	1	5	5	0	0	6	6	12
Undergrad Night/PT	0	0	-1	-1	0	0	-1	-1	-2	0	0	-1	-1	0	0	-1	-1	-2
Graduate Day/FT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Graduate Night/PT	1	0	0	0	0	0	1	0	1	1	0	0	0	0	0	1	0	1
Faculty/Staff	4	34	0	0	0	0	4	34	38	1	8	0	0	0	0	1	8	9
Visitors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
External Dorm Trips	7	6	8	8	0	0	15	14	29	7	6	8	8	0	0	15	14	29
Delivery Trips	0	0	0	0	2	2	2	2	4	0	0	0	0	2	2	2	2	4
Total	13	41	12	12	2	2	27	55	82	10	15	12	12	2	2	24	29	53
Pre-Theater Peak																		
Undergrad Day/FT	1	1	3	3	0	0	4	4	8	1	1	3	3	0	0	4	4	8
Undergrad Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Graduate Day/FT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Graduate Night/PT	1	1	0	0	0	0	1	1	2	1	1	0	0	0	0	1	1	2
Faculty/Staff	0	11	0	0	0	0	0	11	11	0	2	0	0	0	0	0	2	2
Visitors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
External Dorm Trips	5	4	3	3	0	0	8	7	15	5	4	3	3	0	0	8	7	15
Delivery Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	7	17	6	6	0	0	13	23	36	7	8	6	6	0	0	13	14	27

Table 9
2032 Comparison of Projected Vehicle Trip Increments

Analysis Hour and User	Proposed Project									Modified Project								
	Auto		Taxi		Truck		Total			Auto		Taxi		Truck		Total		
	In	Out	In	Out	In	Out	In	Out	Total	In	Out	In	Out	In	Out	In	Out	Total
AM Peak																		
Undergrad Day/FT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Undergrad Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Graduate Day/FT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Graduate Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Faculty/Staff	27	1	0	0	0	0	27	1	28	8	1	0	0	0	0	8	1	9
Visitors	1	0	0	0	0	0	1	0	1	1	0	0	0	0	0	1	0	1
External Dorm Trips	4	7	5	5	0	0	9	12	21	4	7	5	5	0	0	9	12	21
Delivery Trips	0	0	0	0	9	9	9	9	18	0	0	0	0	9	9	9	9	18
Total	32	8	5	5	9	9	46	22	68	13	8	5	5	9	9	27	22	49*
Midday Peak																		
Undergrad Day/FT	1	0	1	1	0	0	2	1	3	1	0	1	1	0	0	2	1	3
Undergrad Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Graduate Day/FT	1	1	1	1	0	0	2	2	4	1	1	1	1	0	0	2	2	4
Graduate Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Faculty/Staff	32	27	0	0	0	0	32	27	59	11	9	0	0	0	0	11	9	20
Visitors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
External Dorm Trips	9	8	7	7	0	0	16	15	31	9	8	7	7	0	0	16	15	31
Delivery Trips	0	0	0	0	7	7	9	9	18	0	0	0	0	7	7	9	9	18
Total	43	36	9	9	7	7	59	52	111	22	18	9	9	7	7	38	34	72
PM Peak																		
Undergrad Day/FT	0	0	2	2	0	0	2	2	4	0	0	2	2	0	0	2	2	4
Undergrad Night/PT	0	0	2	2	0	0	2	2	4	0	0	2	2	0	0	2	2	4
Graduate Day/FT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Graduate Night/PT	6	0	4	4	0	0	10	4	14	6	0	4	4	0	0	10	4	14
Faculty/Staff	5	46	1	1	0	0	6	47	53	2	15	1	1	0	0	3	16	19
Visitors	0	1	0	0	0	0	0	1	1	0	1	0	0	0	0	0	1	1
External Dorm Trips	14	12	14	14	0	0	28	26	54	14	12	14	14	0	0	28	26	54
Delivery Trips	0	0	0	0	5	5	9	9	18	0	0	0	0	5	5	9	9	18
Total	25	59	23	23	5	5	53	87	140	22	28	23	23	5	5	50	56	106
Pre-Theater Peak																		
Undergrad Day/FT	0	1	1	1	0	0	1	2	3	0	1	1	1	0	0	1	2	3
Undergrad Night/PT	1	1	1	1	0	0	2	2	4	1	1	1	1	0	0	2	2	4
Graduate Day/FT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Graduate Night/PT	8	8	4	4	0	0	12	12	24	8	8	4	4	0	0	12	12	24
Faculty/Staff	1	15	0	0	0	0	1	15	16	0	5	0	0	0	0	0	5	5
Visitors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
External Dorm Trips	10	8	8	8	0	0	18	16	34	10	8	8	8	0	0	18	16	34
Delivery Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	20	33	14	14	0	0	34	42	81	19	23	14	14	0	0	33	37	70

* The 49 vehicle-trip increment, when converted to passenger car equivalents (PCE's), would exceed the 50 vehicle-trip CEQR Technical Manual threshold for a detailed analysis.

Under the modified project, the 136 condominium accessory parking spaces (68 each at Garages A and C) would only accommodate 36 percent of the condominium parking demand. While there would be no reduction in total auto trips generated by the condominium units, they would be evenly split between Garage A on West 62nd Street and Garage C on West 61st Street. The remaining 64 percent would remain at study area parking locations. The slightly different distribution of condominium-generated auto trips would have minimum effects on traffic volumes at the study area intersections.

TRAFFIC VOLUMES

As described above under “Trip Generation,” the projected vehicle-trip increments for the modified project are below the 50-vehicle CEQR threshold to warrant a detailed traffic analysis or have the potential to result in significant adverse traffic impacts for the AM, midday, and pre-theater peak hours in 2014. Hence, the discussion below focuses on comparisons of traffic volumes between the proposed and modified projects during the PM peak hour in 2014, and the AM, midday, PM, and pre-theater peak hours for the 2032 Build conditions.

In all cases, the differences would be attributed primarily to the anticipated shift in auto share for Fordham faculty/staff and the redistribution of the related auto trips from Garage B on West 62nd Street under the proposed project to Garage C on West 61st Street and other area parking facilities for the modified project. There would also be slight decreases in vehicle trips generated by the condominiums at Sites 3/3a and 4 for the modified project because only 68 parking spaces in Garage C would be allocated for condominium use and more of these trips would be dispersed to other area parking facilities.

2014 COMPARISON

- At Columbus Avenue and West 60th Street, total faculty/staff auto trips under the modified project would be approximately 9 vehicle trips fewer than projected for the proposed project during the PM peak hour (17 vs. 26).

2032 COMPARISON

- At Tenth Avenue and West 57th Street, total faculty/staff auto trips under the modified project would be approximately 5, 7, 5, and 2 vehicle trips fewer than projected for the proposed project during the AM, midday, PM, and pre-theater peak hours (10, 13, 3, and 1 vs. 15, 20, 8, and 3).
- At Amsterdam Avenue and West 60th Street, total faculty/staff auto trips under the modified project would be approximately 10, 20, 19, and 6 vehicle trips fewer than projected for the proposed project during the AM, midday, PM, and pre-theater peak hours (16, 22, 6, and 2 vs. 26, 42, 25, and 8).
- At Amsterdam Avenue and West 62nd Street, total faculty/staff auto trips under the modified project would be approximately 25, 38, 22, and 8 vehicle trips fewer than projected for the proposed project during the AM, midday, PM, and pre-theater peak hours (2, 18, 27, and 8 vs. 27, 56, 49, and 16).
- At Ninth Avenue and West 57th Street, total faculty/staff auto trips under the modified project would be approximately 0, 9, 13, and 4 vehicle trips fewer than projected for the proposed project during the AM, midday, PM, and pre-theater peak hours (0, 7, 14, and 5 vs. 0, 16, 27, and 9).
- At Columbus Avenue and West 60th Street, total faculty/staff auto trips under the modified project would be approximately 11 and 8 vehicle trips more than projected for the proposed project during the AM, and midday peak hours (11 and 24 vs. 0 and 16) and 5 and 2 vehicle trips fewer during the PM and pre-theater peak hours (22 and 7 vs. 27 and 9).
- At Columbus Avenue and West 62nd Street, total faculty/staff auto trips under the modified project would be approximately 11, 14, 3, and 1 vehicle trips fewer than projected for the proposed project during the AM, midday, PM, and pre-theater peak hours (14, 36, 39, and 12 vs. 25, 50, 42, and 13).
- At Broadway/Columbus Avenue and West 65th Street, total faculty/staff auto trips under the modified project would be approximately 8 and 8 vehicle trips fewer than projected for the proposed project during the AM and midday peak hours (14 and 20 vs. 22 and 28), 1 vehicle trip more during the PM peak hour (8 vs. 7), and the same as projected for the proposed project during the pre-theater peak hour (2 vehicle trips under both scenarios).

Volume differences for both analysis years at Amsterdam Avenue and West 61st Street between the proposed and modified projects are largely determined by changes in parking activity at Garage C on West 61st Street, since all trips associated with that garage enter and exit using the West 61st Street cul-

de-sac. At this garage, the faculty/staff auto trips allocated to the Fordham University parking spaces would be partly offset by a decrease in condominium auto trips.

Under the proposed project, 19, 10, 23, and 18 combined in and out auto trips, all residential, were projected at this garage during the AM, midday, PM, and pre-theater peak hours, respectively. The modified project would yield approximately 14, 30, 25, and 7 in/out faculty/staff auto trips during the same peak hours during both analysis years. At the same time, with the number of spaces available for condominium parking at this garage reduced from 137 to 68 spaces, the number of condominium-based auto trips entering or exiting the West 61st Street cul-de-sac would decline to 9, 4, 11, and 8 in/out auto trips during both analysis years. In total, the modified project would result in approximately 6, 38, and 12 more in/out auto trips than projected for the proposed project during the AM, midday, and PM peak hours and 3 fewer auto trips during the pre-theater peak hour.

CAPACITY ANALYSES AND MITIGATION MEASURES

For the proposed project, significant adverse traffic impacts were identified for the following:

2014 Midday Peak Hour

- Amsterdam Avenue and West 60th Street
- Ninth Avenue and West 57th Street

2014 PM Peak Hour

- Columbus Avenue and West 60th Street

2032 AM Peak Hour

- Amsterdam Avenue and West 60th Street

2032 Midday Peak Hour

- Amsterdam Avenue and West 60th Street
- Ninth Avenue and West 57th Street

2032 PM Peak Hour

- Tenth Avenue and West 57th Street
- Ninth Avenue and West 57th Street
- Columbus Avenue and West 60th Street
- Columbus Avenue and West 62nd Street

2032 Pre-Theater Peak Hour

- Tenth Avenue and West 57th Street
- Ninth Avenue and West 57th Street
- Broadway/Columbus Avenue and West 65th Street

Compared to the proposed project, the modified project would, in general, result in lower incremental traffic volumes and vehicle delays at the study area analysis intersections. Projected impacts are also expected to be lower in magnitude or eliminated. Based on the "Trip Generation" discussion presented above, the modified project would not result in the significant adverse traffic impacts identified for the 2014 midday peak hour, because its projected increments for these analysis time periods would be below the CEQR analysis threshold.

During the other time periods (2014 PM, and 2032 AM, midday, PM, and pre-theater), projected impacts for the proposed project would largely be reduced or eliminated under the modified project. Where significant adverse impacts were determined to remain with the modified project, or, in one instance where a new impact was identified, mitigation measures recommended for the proposed project would similarly mitigate these impacts. Therefore, the modified project is not expected to result in the need for mitigation measures that had not been identified for the proposed project.

- At Tenth Avenue and West 57th Street, the proposed project was determined to result in significant adverse impacts on the westbound approach during the 2032 PM and pre-theater peak hour. The projected reductions in faculty/staff trips under the modified project would be on the eastbound and northbound approaches. But there would be a slight reduction in westbound right turning condominium auto trips that would, instead of parking at Garage C on West 61st Street, travel to and from other area parking facilities. The combined reductions in volumes under the modified project would eliminate the impact identified at this location for the proposed project during the PM peak. The pre-theater impacts would remain and require the same mitigation measures as those identified for the proposed project.
- At Amsterdam Avenue and West 60th Street, the proposed project was determined to result in significant adverse impacts on the eastbound approach during the 2032 AM and midday peak hours. Under the modified project, there would be a reduction in faculty/staff trips making eastbound left turns at this location, thereby reducing the impact that would otherwise occur under the proposed project during the AM, and eliminating it during the midday peak hours, respectively. There would also be higher faculty/staff trips bound for Garage C making a westbound right-turn at this location. However, this increase would be partially offset by projected reductions in garage-bound condominium trips. The net projected volume increase for this movement would result in a new significant adverse impact during the AM peak hour, but not during the midday peak hour. It is important to note that the new westbound impact during the AM peak hour would be mitigated by the same one second signal timing shift needed to eliminate the eastbound impact. This is the same mitigation proposed at that location during the AM peak hour under the proposed project. There would be no impacts at this intersection during the midday peak hour under the modified project.
- At Ninth Avenue and West 57th Street, the proposed project was determined to result in significant adverse impacts on the southbound approach during the 2032 midday and pre-theater peak hours. In addition, the westbound approach would be impacted during the 2032 PM peak hour. Although the modified project would yield fewer faculty/staff trips on the southbound approach and condominium trips on the westbound approach, it would result in comparable impacts and require the same mitigation measures as those identified for the proposed project.
- At Columbus Avenue and West 60th Street, the proposed project was determined to result in significant adverse impacts on the eastbound approach during the 2014 and 2032 PM peak hours. The modified project is not expected to yield any changes in traffic volumes on this approach, with impacts and mitigation measures expected to remain the same as the proposed project.
- At Columbus Avenue and West 62nd Street, the proposed project was determined to result in significant adverse impacts on the eastbound approach during the 2032 PM peak hour. The projected reductions in faculty/staff trips under the modified project are expected to eliminate the impacts identified at this location for the proposed project.
- At Broadway/Columbus Avenue and West 65th Street, the proposed project was determined to result in significant adverse impacts on the southbound Columbus Avenue approach during the 2032 pre-theater peak hour. The modified project is not expected to yield any changes in traffic volumes on this approach, with impacts and mitigation expected to remain the same as the proposed project.
- At Amsterdam Avenue and West 61st Street, all approaches under the proposed project were determined to operate at favorable LOS C or better during all 2032 analysis time periods. The slightly higher traffic volumes projected for the modified project are not expected to result in the potential for new significant adverse traffic impacts at this location.

Tables 10 and 11 below present the mitigation measures required for the modified project and the corresponding LOS analysis results, respectively.

Table 10
Recommended Mitigation Measures for the Modified Project

Build Year	Intersection	Mitigation Measure			
		AM Peak Hour	Midday Peak Hour	PM Peak Hour	Pre-Theater Peak Hour
2014	Columbus Avenue & West 60th Street	Not required	Not required	Shift 1 second of green time from SB to EB/WB	Not required
2032	Tenth Avenue & West 57th Street	Not required	Not required	Not required	Daylight north curb lane on westbound approach for 100 feet to create exclusive right-turn lane
	Amsterdam Avenue & West 60th Street	Shift 1 second of green time from NB to EB/WB	Not required	Not required	Not required
	Ninth Avenue & West 57th Street	Not required	Daylight west curb lane on southbound approach for 100 feet to create exclusive right-turn lane	Shift 1 second of green time from SB to EB/WB	Daylight west curb lane on southbound approach for 100 feet to create exclusive right-turn lane and shift 1 second of green time from SB to EB/WB
	Columbus Avenue & West 60th Street	Not required	Not required	Shift 1 second of green time from SB to EB/WB	Not required
	Broadway/Columbus Avenue & West 65th Street	Not required	Not required	Not required	Extend No Standing 7 AM-7 PM regulation to 8 PM along the west curb of the SB Columbus Avenue approach.

**Table 11
Comparison of No Build, Build, and
Mitigated Build Conditions Level of Service Analysis for the Modified Project**

Build Year / Peak Hour	Intersection/ Approach	No Build				Build			Mitigated Build				
		Lane Group	V/C Ratio	Delay (sec)	LOS	V/C Ratio	Delay (sec)	LOS	Lane Group	V/C Ratio	Delay (sec)	LOS	
2014 PM	Columbus Avenue and West 60th Street												
	Eastbound	R	0.98	77.1	E	1.00	82.1	F+	R	0.97	72.1	E	
	Westbound	L	0.66	35.5	D	0.66	35.1	D	L	0.63	33.0	C	
		LT	0.67	34.0	C	0.66	33.6	C	LT	0.64	31.8	C	
	Southbound	TR	0.73	11.7	B	0.74	11.8	B	TR	0.75	12.8	B	
	Intersection			22.5	C		23.1	C			22.5	C	
2032 AM	Amsterdam Avenue and West 60th Street												
	Eastbound	LT	1.06	93.5	F	1.08	98.5	F+	LT	1.04	85.4	F	
	Westbound	R	0.88	56.4	E	0.93	63.7	E+	R	0.89	55.7	E	
	Northbound	T	0.57	10.3	B	0.58	10.3	B	T	0.59	11.1	B	
		R	0.57	19.0	B	0.58	19.3	B	R	0.60	20.6	C	
	Intersection			30.1	C		32.0	C			29.6	C	
2032 Midday	Ninth Avenue and West 57th Street												
	Eastbound	T	0.87	46.9	D	0.87	46.9	D	T	0.87	46.9	D	
		R	0.85	71.3	E	0.85	71.3	E	R	0.85	71.3	E	
	Westbound	DefL	1.17	125.4	F	1.17	125.4	F	DefL	1.17	125.4	F	
		T	1.27	155.9	F	1.27	158.6	F	T	1.27	158.6	F	
Southbound	LTR	1.30	166.8	F	1.30	170.2	F+	LT	1.07	73.1	E		
		R	1.06	109.7	F			R	1.06	109.7	F		
	Intersection			138.4	F		140.8	F			93.1	F	
2032 PM	Ninth Avenue and West 57th Street												
	Eastbound	T	0.89	50.4	D	0.89	50.4	D	T	0.85	45.2	D	
		R	0.75	58.6	E	0.75	58.6	E	R	0.71	53.4	D	
	Westbound	DefL	1.00	70.8	E	1.00	70.8	E	DefL	0.98	63.1	E	
		T	1.25	147.6	F	1.26	150.0	F+	T	1.23	137.3	F	
	Southbound	L	0.68	35.9	D	0.71	37.2	D	L	0.73	40.4	D	
		T	0.92	36.5	D	0.93	37.4	D	T	0.96	42.8	D	
		R	0.67	36.6	D	0.69	37.6	D	R	0.71	40.6	D	
		Intersection			65.2	E		66.1	E			64.6	E
	Columbus Avenue and West 60th Street												
	Eastbound	R	1.05	95.6	F	1.08	104.6	F+	R	1.04	91.8	F	
	Westbound	L	0.71	38.4	D	0.72	38.7	D	L	0.69	36.1	D	
		LT	0.72	36.6	D	0.74	37.8	D	LT	0.72	35.4	D	
	Southbound	TR	0.79	12.9	B	0.80	13.2	B	TR	0.82	14.4	B	
		Intersection			25.7	C		27.1	C			26.2	C
2032 Pre-Theater	Tenth Avenue and West 57th Street												
	Eastbound	DefL	1.46	291.7	F	1.48	296.7	F	LT	1.05	79.9	E	
		T	0.99	67.1	E	0.99	67.1	E					
	Westbound	TR	1.16	111.0	F	1.17	115.0	F+	T	0.71	26.9	C	
		R	0.91	58.2	E			R	0.91	58.2	E		
	Northbound	LTR	1.01	38.5	D	1.01	39.4	D	LTR	1.01	39.4	D	
		Intersection			68.3	E		70.2	E			44.1	D
	Ninth Avenue and West 57th Street												
	Eastbound	T	0.89	50.4	D	0.89	50.4	D	T	0.85	45.2	D	
		R	0.96	95.8	F	0.96	95.8	F	R	0.92	83.3	F	
	Westbound	DefL	0.94	57.6	E	0.94	57.6	E	DefL	0.92	51.2	D	
		T	1.24	144.3	F	1.25	148.3	F+	T	1.22	136.2	F	
	Southbound	LTR	1.20	124.2	F	1.21	128.9	F+	LT	1.01	52.4	D	
			R	1.07	107.7	F			R	1.07	107.7	F	
		Intersection			110.3	F		113.7	F			73.2	E
Broadway, Columbus Avenue* and West 65th Street													
Eastbound	TR	0.84	44.2	D	0.85	44.3	D	TR	0.85	44.3	D		
	R	0.61	42.5	D	0.61	42.5	D	R	0.61	42.5	D		
Northbound	TR	1.01	65.3	E	1.01	64.7	E	TR	1.01	64.7	E		
Southbound	T	1.17	119.0	F	1.17	120.1	F	T	1.17	120.1	F		
Southbound*	L	0.72	42.7	D	0.72	42.7	D	L	0.72	42.7	D		
	T	1.22	138.7	F	1.23	141.7	F+	T	1.17	115.7	F		
	Intersection			98.8	F		100.1	F			91.8	F	

Notes: L = Left Turn; T = Through; R = Right Turn; DefL = Defacto Left Turn; + Significant Traffic Impact.

STUDY AREA OFF-STREET PARKING

Due to the higher faculty/staff and condominium parking demand that would be exerted onto off-street parking facilities in the area, the modified project would result in slightly higher areawide off-street parking utilization levels in both 2014 and 2032. Because of the provision of on-site condominium and Fordham University parking supply, both the proposed and modified projects would result in a reduction of areawide parking demand over No Build conditions. The degree of reduction, however, would be less with the modified project, which would provide fewer on-site parking spaces than would the proposed project. **Tables 12 and 13** summarize the areawide off-street parking utilization levels for the modified project in 2014 and 2032, respectively.

Table 12
2014 Modified Project Off-Street Parking Utilization

No.	Company Name	Address	License No.	AM Capacity	Weekday Utilization				Utilized Spaces				Available Spaces			
					AM	Midday	P/T	O/N	AM	Midday	P/T	O/N	AM	Midday	P/T	O/N
1	165 W. 66th St. Parking Corp.	165 W. 66th St.	368337	77	21%	52%	78%	30%	16	40	60	23	61	37	17	54
2	Icon Parking	101 West End Ave.	1061198	166	26%	88%	31%	31%	43	146	52	52	123	20	114	114
3	Performance Parking Corp.	127-137 Amsterdam	858712	375	62%	83%	73%	52%	233	311	272	195	142	64	103	180
4	Icon Parking	2 Lincoln Plaza	1127924	80	83%	88%	83%	83%	66	70	66	66	14	10	14	14
5	10 W. 65th St. Parking Corp.	10 W. 65th St.	883451	195	47%	83%	83%	52%	91	161	161	101	104	34	34	94
6	Lincoln Center Park & Lock	140 W.65th St.	1079021	721	27%	74%	55%	29%	192	531	394	209	529	190	327	512
7	Icon Parking	110 West End Ave.	761016	106	41%	92%	73%	41%	43	98	77	43	63	8	29	63
8	West End Towers Garage	35-101 West End Ave.	948832	441	41%	85%	60%	19%	182	375	264	84	259	66	177	357
9	Edison Broadway & 64th Parking LLC	1900-1916 Broadway	1213869	400	26%	73%	52%	26%	104	290	207	104	296	110	193	296
10	Edison Parking Management	1886-1896 Broadway	1200481	75	32%	93%	68%	27%	24	70	51	20	51	5	24	55
11	Garage Management Corp.	44 W. 62nd St.	1013719	143	45%	81%	26%	29%	65	116	37	41	78	27	106	102
12	Eagle Trump International	One Central Park West	1125528	88	31%	89%	67%	22%	27	78	59	19	61	10	29	69
13	Prior Parking LLC	40-50 W. 61st St.	1033066	205	30%	92%	68%	31%	62	188	140	64	143	17	65	141
14	Central Parking System	10 Columbus Circle	1105005	662	42%	89%	52%	40%	276	586	342	266	386	76	320	396
15	Central Parking System	910-924 9th Ave.	1113135	318	73%	82%	85%	65%	231	260	271	208	87	58	47	110
16	John Jay College Parking	425 W. 59th St.	813398	125	15%	74%	42%	16%	19	92	53	20	106	33	72	105
17	LHL Parking Corporation	161 W. 61st St.	898520	100	52%	88%	83%	29%	52	88	83	29	48	12	17	71
18	Concerto Garage Corp.	200 W. 60th St.	884653	265	26%	85%	49%	29%	68	225	130	77	197	40	135	188
19	Propark America	515 W. 59th St.	1171649	190	26%	69%	49%	19%	49	132	94	37	141	58	96	153
20	Central Parking System	115 West End Ave.	964023	0	0%	0%	0%	0%	0	0	0	0	0	0	0	0
21	Kinney Systems	838-852 11th Ave.	1137953	84	92%	93%	85%	39%	77	78	71	33	7	6	13	51
22	Effective Parking LLC	435 W. 57th St.	368157	55	62%	42%	47%	20%	34	23	26	11	21	32	29	44
23	1 Columbus Place Garage	1 Columbus Place	960635	294	20%	73%	52%	52%	59	214	154	152	235	80	140	142
24	Icon Parking	330 W. 58th St.	1118641	95	67%	94%	62%	53%	64	89	59	50	31	6	36	45
25	Champion Parking	316-328 W. 57th St.	1093313	372	16%	65%	40%	16%	58	240	148	58	314	132	224	314
26	330 W. 56th Street Corp.	330 W. 56th St.	1234691	115	21%	47%	47%	29%	24	54	54	33	91	61	61	82
27	Sydney Parking LLC	408 W. 57th St.	1113944	80	83%	73%	63%	31%	66	58	50	25	14	22	30	55
28	Epsilon Parking	409 W. 56th St.	1195834	20	50%	100%	25%	Closed	10	20	5	0	10	0	15	0
29	Apex Parking LLC	440 W. 57th St.	368300	378	67%	85%	80%	81%	254	320	303	307	124	58	75	71
30	Element Condominium			190	37%	86%	59%	32%	71	163	113	60	119	27	77	130
31	Algin West 61st Street			160	37%	86%	59%	31%	59	137	94	50	101	23	66	110
32	15 Central Park West			162	32%	74%	51%	28%	52	120	83	45	110	42	79	117
33	Riverside South (Parcel N)			442	38%	88%	60%	32%	168	389	267	142	274	53	175	300
34	2 West End Avenue			150	37%	86%	59%	31%	56	129	89	47	94	21	61	103
Total:				7329	40%	80%	59%	37%	2,895	5,891	4,329	2,671	4,434	1,438	3,000	4,638

Table 13
2032 Modified Project Off-Street Parking Utilization

No.	Company Name	Address	License No.	AM Capacity	Weekday Utilization				Utilized Spaces				Available Spaces			
					AM	Midday	P/T	O/N	AM	Midday	P/T	O/N	AM	Midday	P/T	O/N
1	165 W. 66th St. Parking Corp.	165 W. 66th St.	368337	77	22%	57%	84%	32%	17	44	65	25	60	33	12	52
2	Icon Parking	101 West End Ave.	1061198	166	28%	96%	34%	34%	47	159	56	56	119	7	110	110
3	Performance Parking Corp.	127-137 Amsterdam	858712	375	67%	90%	79%	57%	253	338	296	212	122	37	79	163
4	Icon Parking	2 Lincoln Plaza	1127924	80	90%	96%	90%	90%	72	77	72	72	8	3	8	8
5	10 W. 65th St. Parking Corp.	10 W. 65th St.	883451	195	51%	90%	90%	56%	99	176	176	110	96	19	19	85
6	Lincoln Center Park & Lock	140 W.65th St.	1079021	721	29%	80%	60%	31%	209	580	429	227	512	141	292	494
7	Icon Parking	110 West End Ave.	761016	106	44%	100%	78%	44%	47	106	83	47	59	0	23	59
8	West End Towers Garage	35-101 West End Ave.	948832	441	44%	91%	64%	20%	196	403	284	90	245	38	157	351
9	Edison Broadway & 64th Parking LLC	1900-1916 Broadway	1213869	400	28%	90%	56%	28%	113	360	225	113	287	40	175	287
10	Edison Parking Management	1886-1896 Broadway	1200481	75	35%	100%	73%	28%	26	75	55	21	49	0	20	54
11	Garage Management Corp.	44 W. 62nd St.	1013719	143	50%	89%	50%	31%	72	127	72	45	71	16	71	98
12	Eagle Trump International	One Central Park West	1125528	88	33%	95%	73%	23%	29	84	64	20	59	4	24	68
13	Prior Parking LLC	40-50 W. 61st St.	1033066	205	34%	99%	74%	34%	69	203	152	70	136	2	53	135
14	Central Parking System	10 Columbus Circle	1105005	662	44%	89%	54%	42%	288	587	359	275	374	75	303	387
15	Central Parking System	910-924 9th Ave.	1113135	318	77%	87%	86%	69%	245	278	272	220	73	40	46	98
16	John Jay College Parking	425 W. 59th St.	813398	125	16%	79%	46%	17%	20	99	57	21	105	26	68	104
17	LHL Parking Corporation	161 W. 61st St.	898520	100	56%	96%	90%	32%	56	96	90	32	44	4	10	68
18	Concerto Garage Corp.	200 W. 60th St.	884653	265	28%	91%	52%	31%	73	241	139	83	192	24	126	182
19	Propark America	515 W. 59th St.	1171649	190	28%	74%	53%	21%	53	141	101	40	137	49	89	150
20	Central Parking System	115 West End Ave.	964023	0	0%	0%	0%	0%	0	0	0	0	0	0	0	0
21	Kinney Systems	838-852 11th Ave.	1137953	84	98%	93%	92%	43%	82	78	77	36	2	6	7	48
22	Effective Parking LLC	435 W. 57th St.	368157	55	67%	51%	51%	22%	37	28	28	12	18	27	27	43
23	1 Columbus Place Garage	1 Columbus Place	960635	294	22%	83%	56%	56%	65	245	165	165	229	49	129	129
24	Icon Parking	330 W. 58th St.	1118641	95	74%	100%	67%	57%	70	95	64	54	25	0	31	41
25	Champion Parking	316-328 W. 57th St.	1093313	372	17%	87%	39%	17%	63	323	146	63	309	49	226	309
26	330 W. 56th Street Corp.	330 W. 56th St.	1234691	115	23%	94%	51%	31%	26	108	59	36	89	7	56	79
27	Sydney Parking LLC	408 W. 57th St.	1113944	80	90%	100%	68%	34%	72	80	54	27	8	0	26	53
28	Epsilon Parking	409 W. 56th St.	1195834	20	55%	100%	30%	Closed	11	20	6	0	9	0	14	0
29	Apex Parking LLC	440 W. 57th St.	368300	378	73%	97%	87%	88%	276	365	327	333	102	13	51	45
30	Element Condominium			190	46%	93%	73%	38%	87	177	138	72	103	13	52	118
31	Algin West 61st Street			160	46%	94%	72%	37%	73	151	115	59	87	9	45	101
32	15 Central Park West			162	35%	80%	56%	30%	57	130	91	49	105	32	71	113
33	Riverside South (Parcel N)			442	48%	95%	75%	39%	211	419	331	174	231	23	111	268
34	2 West End Avenue			150	46%	94%	73%	37%	69	141	109	56	81	9	41	94
Total:				7329	43%	89%	65%	40%	3,183	6,534	4,757	2,915	4,146	795	2,572	4,394

In 2014, the numbers of available parking spaces with the proposed project were projected to be 4,494, 1,500, 3,072, and 4,706 during the AM, midday, PM, and overnight time periods, respectively, whereas with the modified project, these figures would decrease to 4,434, 1,438, 3,000 and 4,638 over the same time periods. In 2032, there would be fewer available parking spaces overall. The numbers of available parking spaces with the proposed project were projected to be 4,217, 861, 2,645, and 4,462 during the AM, midday, PM, and overnight time periods, respectively, whereas with the modified project, these figures would decrease to 4,146, 795, 2,572, and 4,394 over the same time periods. Although the modified project would yield a higher demand of the area's parking resources than would the proposed project, both would result in lower overall area parking utilization than the future without the proposed actions.

TRANSIT AND PEDESTRIANS

With the faculty/staff auto share remaining at 15.3 percent under the modified project, the corresponding bus and subway shares would also remain at 4.4 and 62.3 percent, respectively, instead of decreasing to 3.8 and 54.0 percent under the proposed project. Projected trip increments by travel mode, including bus and subway trips, are presented in **Tables 6** and **7** for 2014 and 2032, respectively. In 2014, these differences in mode choice would result in the modified project generating approximately 19, 40, 33, and 12 more faculty/staff transit riders during the AM, midday, PM, and pre-theater peak hours, respectively. When added to combined total bus and subway increments of 107, 203, 173, and 108 under the proposed project, the modified project would result in combined bus and subway increments of 126, 243, 206, and 120 riders during the four analysis peak hours. In 2032, the differences in faculty/staff transit riders would be 23, 47, 40, and 12 additional transit riders. When added to combined total bus and subway increments of 110, 195, 430, and 280 under the proposed project, the modified project would result in combined bus and subway increments of 133, 242, 470 and 292 transit riders during the four analysis periods. **Table 14** summarizes the derivation of faculty/staff subway and bus ridership, as well as the total transit increments for the proposed and modified projects. These moderate differences, when distributed among the various bus and subway lines and station elements serving the study area would not, as with the proposed project, result in any significant adverse transit impacts.

Table 14
Comparison of Transit Ridership Levels

	2014				2032			
	AM	MD	PM	PT	AM	MD	PM	PT
	Faculty/Staff Subway Riders							
Modified Project Faculty/Staff Subway Riders	132	275	235	74	155	325	277	87
Proposed Project Faculty/Staff Subway Riders	114	238	204	63	134	281	240	76
Additional Faculty/Staff Subway Riders	18	37	31	11	21	44	37	11
	Faculty/Staff Bus Riders							
Modified Project Faculty/Staff Bus Riders	9	20	16	5	11	23	20	6
Proposed Project Faculty/Staff Bus Riders	8	17	14	4	9	20	17	5
Additional Faculty/Staff Bus Riders	1	3	2	1	2	3	3	1
	Total Transit Increments							
Proposed Project Total Transit Increment	107	203	173	108	110	195	430	280
Additional Faculty Staff Subway and Bus Riders	19	40	33	12	23	47	40	12
Modified Project Total Transit Increment	126	243	206	120	133	242	470	292

The modified project would also result in a slight increase in pedestrian traffic over the proposed project due to the increase in faculty/staff subway and bus riders walking to their respective bus stops and subway stations, and increased numbers of faculty/staff and condominium residents walking to and from area garages. Based on the proportion of faculty/staff trips not accommodated by the remaining on-campus faculty/staff parking spaces in Garage C and the overflow condominium parking demand from the reduction of its parking supply at Garage C, the modified project is estimated to result in approximately 5, 7, 7, and 2 additional faculty/staff pedestrian trips to and from area garages during the AM, midday, PM, and pre-theater peak hours in 2014, and 21, 45, 38, and 12 such trips in 2032, as compared to the proposed project. The increase in pedestrian trips attributable to additional condominium

residents parking at area garages would be approximately 11, 7, 14, and 11 trips during the AM, midday, PM, and pre-theater peak hours, respectively, for both 2014 and 2032. **Table 15** summarizes the derivation of these pedestrian trips to and from area garages for the proposed and modified projects. When added to the additional transit riders walking to and from nearby bus stops and subway stations, the modified project would result in 35, 54, 54, and 25 additional pedestrian trips in 2014, and 55, 99, 92, and 35 additional pedestrian trips in 2032 during the four analysis peak hours over the proposed project.

Table 15
Comparison of Auto-Related Pedestrian Volumes

	2014				2032			
	AM	MD	PM	PT	AM	MD	PM	PT
	Faculty/Staff Trips							
Modified Project Totals	28	56	49	15	32	67	57	18
Proportion to Area Garages	46%				56%			
Modified Project Autos to Area Garages	13	26	23	7	18	38	32	10
Proposed Project Totals	43	90	78	24	51	106	91	29
Proportion to Area Garages	22%				0%			
Proposed Project Autos to Area Garages	9	20	17	5	0	0	0	0
Area Garage Parking Increase	4	6	6	2	18	38	32	10
Vehicle Occupancy	1.19							
Additional Pedestrian Trips to Area Garages	5	7	7	2	21	45	38	12
	Condo Trips							
Condo Parkers to Area Garages-Proposed Project	25	12	29	22	25	12	29	22
Condo Parkers to Area Garages- Modified Project	35	18	41	32	35	18	41	32
Condo Increase in Area Garage Parkers	10	6	12	10	10	6	12	10
Vehicle Occupancy	1.13							
Additional Pedestrian Trips to Area Garages	11	7	14	11	11	7	14	11
Total of Additional Pedestrians	16	14	21	13	32	52	52	23

Under the proposed project, significant adverse pedestrian impacts were identified for the north crosswalk at Columbus Avenue and West 60th Street during the 2032 PM and pre-theater peak hours, as all subway riders associated with the proposed project accessing the 59th Street/Columbus Circle subway station and approximately half of those parking at garages on West 60th Street between Broadway and Columbus Avenue were assigned to this crosswalk. As depicted in **Table 16**, the modified project is expected to add 17, 27, 27, and 13 faculty/staff and condo pedestrians to this crosswalk during the AM, midday, PM, and pre-theater peak hours in 2014, and 22, 38, 36, and 15 faculty/staff and condo pedestrians in 2032. These small differences would not yield substantially different service levels or greater impacts than those identified for the proposed project.

During the PM peak hour, the proposed project would require a two-second shift in signal timing from the southbound phase to the east-west phase to mitigate the traffic impacts on the eastbound approach of West 60th Street at Columbus Avenue and an additional one-second shift to fully mitigate the pedestrian impacts on the north crosswalk. During the pre-theater peak hour, when no traffic impacts and mitigation measures were identified, the proposed project would require a three-second shift in signal timing to mitigate the pedestrian impacts at the same north crosswalk. These signal timing changes would similarly mitigate the pedestrian impacts on this crosswalk under the modified project. At other pedestrian analysis locations, the minimal increases identified for the modified project would also not result in new significant adverse impacts. **Tables 17, 18, and 19** show the pedestrian analysis results for crosswalks at the Columbus Avenue and West 60th Street intersection under the No Build, Build, and mitigated Build conditions, respectively. **Table 20** shows the level-of-service results for traffic operations at this intersection under No Build, Build and mitigated build conditions with the additional pedestrian mitigation measures applied.

Table 16
Modified Project Pedestrian Volume Increases Across Columbus Avenue at West 60th Street

	2014				2032			
	AM	MD	PM	PT	AM	MD	PM	PT
Mod. Proj. Faculty/Staff Subway Passenger Increase	18	37	31	11	21	44	37	11
Subway Pedestrian Trips Across Columbus Avenue	11	22	19	7	13	26	22	7
Mod. Proj. Faculty/Staff Garage Pedestrian Increase	5	7	7	2	21	45	38	12
Parker Pedestrian Trips Across Columbus Avenue	2	3	3	1	8	18	15	5
Mod. Proj. Condo Garage Pedestrian Increase	11	7	14	11	11	7	14	11
Condo Pedestrian Trips Across Columbus Avenue	11	7	14	11	11	7	14	11
Total Add'l Pedestrians Across Columbus Avenue	24	32	36	19	32	51	51	23
North Crosswalk	17	27	27	13	22	38	36	15
South Crosswalk	7	5	9	6	10	13	15	8

Table 17
2032 No Build Crosswalk LOS Analysis for Columbus Avenue and W. 60th Street

Location	Crosswalk	Street Width (feet)	Crosswalk Width (feet)	Conditions with Conflicting Vehicles			
				PM		Pre-theater	
				SFP	LOS	SFP	LOS
Columbus Avenue and W.60th Street	North	67.0	15.0	11.8	E	12.7	E
	East	49.0	19.5	82.1	A	81.8	A
	South	60.5	12.0	9.5	E	9.8	E
	West	51.5	13.0	54.7	B	29.5	C

Notes: SFP = square feet per pedestrian, + Significant Pedestrian Impact.

Table 18
2032 Modified Project Build Crosswalk LOS Analysis for Columbus Avenue and West 60th Street

Location	Crosswalk	Street Width (feet)	Crosswalk Width (feet)	Conditions with Conflicting Vehicles			
				PM		Pre-theater	
				SFP	LOS	SFP	LOS
Columbus Avenue and W.60th Street	North	67.0	15.0	10.5	E+	11.4	E+
	East	49.0	19.5	82.4	A	82.8	A
	South	60.5	12.0	9.4	E	9.7	E
	West	51.5	13.0	50.0	B	27.6	C

Notes: SFP = square feet per pedestrian, + Significant Pedestrian Impact.

Table 19
2032 Modified Project Mitigated Build Crosswalk LOS Analysis for Columbus Avenue and West 60th Street

Location	Crosswalk	Street Width (feet)	Crosswalk Width (feet)	Conditions with Conflicting Vehicles			
				PM		Pre-theater	
				SFP	LOS	SFP	LOS
Columbus Avenue and W.60th Street	North	67.0	15.0	12.1	E	13.0	E
	East	49.0	19.5	76.6	A	76.9	A
	South	60.5	12.0	11.8	E	11.9	E
	West	51.5	13.0	46.2	B	25.4	C

Note: SFP = square feet per pedestrian

**Table 20
Comparison of 2032 No Build, Build, and Mitigated Build Conditions Level of Service
Analysis with Pedestrian Mitigation**

Peak Hour	Intersection/ Approach	No Build				Build			Mitigated Build (Including Pedestrian Mitigation)				
		Lane Group	V/C Ratio	Delay (sec)	LOS	V/C Ratio	Delay (sec)	LOS	Lane Group	V/C Ratio	Delay (sec)	LOS	
PM	Columbus Avenue and West 60th Street												
	Eastbound	R	1.05	95.6	F	1.08	104.6	F +	R	0.97	70.5	E	
	Westbound	L	0.71	38.4	D	0.72	38.7	D	L	0.65	32.0	C	
		LT	0.72	36.6	D	0.74	37.8	D	LT	0.67	31.4	C	
	Southbound	TR	0.79	12.9	B	0.80	13.2	B	TR	0.85	17.2	B	
	Intersection			25.7	C		27.1	C			25.3	C	
Pre-Theater	Columbus Avenue and West 60th Street												
	Eastbound	R	0.85	51.9	D	0.86	54.1	D	R	0.78	41.1	D	
	Westbound	L	0.62	33.6	C	0.62	33.6	C	L	0.56	28.6	C	
		LT	0.60	31.2	C	0.60	31.4	C	LT	0.55	27.2	C	
	Southbound	TR	0.69	11.1	B	0.70	11.2	B	TR	0.74	14.2	B	
	Intersection			18.6	B		18.9	B			19.1	B	

Notes: L = Left Turn; T = Through; R = Right Turn; DefL = Defacto Left Turn; + Significant Traffic Impact.

CONSTRUCTION TRAFFIC

Construction activities for the modified project would be substantially the same, occurring in two phases, as those for the proposed project. Buildings would be built in the same order and phasing, although with the modified project the construction schedule might be slightly shorter due to the smaller buildings. As with the proposed project, the modified project would result in one significant adverse traffic impact from peak 2011 construction in Phase I during the early afternoon peak traffic hour. In 2021, significant adverse traffic impacts at one intersection and five intersections could occur during the early afternoon and afternoon peak traffic hours, respectively. In 2031, significant adverse impacts at two intersections and five intersections could occur during the early afternoon and afternoon peak traffic hours, respectively.

Unlike the proposed project, however, the modified project would not require mitigation measures for the 2014 midday peak hour. It would also not require mitigation measures at a few intersections during the 2032 midday and PM peak hours that would otherwise be required with the proposed project. Therefore, mitigating the construction-related traffic impacts would require an early implementation of either mitigation measures recommended for the modified project or those previously identified under the proposed project. In addition, as with the proposed project, variations of these measures, such as the additional two or three-second shift in green time at two locations during the 2021 and 2031 construction analysis years, have been identified. The need for these variations on proposed mitigation measures would be determined by NYCDOT during those years. Table 21 below summarizes the mitigation measures recommended for the construction-related traffic impacts under the modified project.

**Table 21
Recommended Construction Mitigation Measures for the Modified Project**

Build Year	Intersection	Mitigation Measure		
		6–7 AM Peak Hour	3–4 PM Peak Hour	5–6 PM Peak Hour
2011	Ninth Avenue & West 57th Street	Not required	Daylight west curb lane on southbound approach for 100 feet to create exclusive right-turn lane	Not required
2021	Tenth Avenue & West 57th Street	Not required	Not required	Shift 1 second of green time from northbound to eastbound/westbound
	Amsterdam Avenue & West 62nd Street	Not required	Not required	Shift 1 second of green time from northbound to westbound
	Ninth Avenue & West 57th Street	Not required	Daylight west curb lane on southbound approach for 100 feet to create exclusive right-turn lane	Shift 1 second of green time from southbound to eastbound/westbound
	Columbus Avenue & West 60th Street	Not required	Not required	Shift 1 second of green time from southbound to eastbound/westbound
	Columbus Avenue & West 62nd Street	Not required	Not required	Shift 4 seconds of green time from southbound to eastbound/westbound
2031	Tenth Avenue & West 57th Street	Not required	Not required	Shift 3 seconds of green time from northbound to eastbound/westbound
	Amsterdam Avenue & West 62nd Street	Not required	Not required	Shift 2 seconds of green time from northbound to westbound
	Ninth Avenue & West 57th Street	Not required	Daylight west curb lane on southbound approach for 100 feet to create exclusive right-turn lane; shift 1 second of green time from southbound to eastbound/westbound	Shift 1 second of green time from southbound to eastbound/westbound
	Columbus Avenue & West 60th Street	Not required	Shift 1 second of green time from southbound to eastbound/westbound	Shift 1 second of green time from southbound to eastbound/westbound
	Columbus Avenue & West 62nd Street	Not required	Not required	Shift 4 seconds of green time from southbound to eastbound/westbound

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