

A. INTRODUCTION

PRINCIPAL CONCLUSIONS

COMMUNITY FACILITIES

As discussed in Chapter 4, “Community Facilities,” the proposed actions are expected to result in significant adverse impacts to child care centers.

The proposed actions would be expected to introduce 27 children under the age of six who would be eligible for publicly funded child care programs to the 1.5 mile study area. With the addition of these children, child care facilities in the study area would operate at a 162 percent utilization rate, which represents an increase in the utilization rate of 7.9 percentage points over conditions in the future without the proposed actions. This increase exceeds the 5 percent threshold in the *CEQR Technical Manual* for a significant adverse impact. In order to avoid a significant adverse impact, the number of affordable units introduced by the proposed actions would need to be reduced to 152, which would generate 17 eligible children. Thus, the difference between the proposed actions and the *CEQR Technical Manual* threshold for significance is a shortfall of ten child care slots. ~~Possible mitigation measures to avoid address this significant adverse impact have been identified could include adding capacity to existing facilities if determined feasible~~ through consultation with the Administration of Children’s Services (ACS) ~~Mitigation measures will be further explored in consultation with DCP and ACS~~ between the Draft and Final EIS and will be included in the Restrictive Declaration to be recorded. As described below, mitigation would include funding to be provided by the applicant for a specified number of publicly-provided child care slots based on the number of low-income units in the building to be constructed. This would partially mitigate the significant adverse impact on child care facilities. The mitigation is considered partial mitigation because ACS advised in consultation on this project in February 2014 between the Draft and Final EIS that it would be administratively infeasible and potentially legally infeasible to distribute funds only to applicants living in the study area. Therefore, the funding, rather than fully mitigating the potential significant adverse impacts, will provide partial mitigation by increasing the overall availability of vouchers City-wide.

~~Absent the implementation of mitigation measures, the proposed actions could have an unmitigated significant adverse impact on child care facilities.~~

TRANSPORTATION

As discussed in Chapter 11, “Transportation,” traffic conditions were evaluated at 15 intersections for the weekday AM, midday and PM peak hours, and the Saturday peak hour. The proposed actions would result in significant adverse traffic impacts at 7 intersections during the weekday AM peak hour, 10 intersections during the weekday midday peak hour, 13 intersections

during the weekday PM peak hour, and 8 intersections during the Saturday peak hour. All of the locations where significant adverse traffic impacts are predicted to occur could be fully mitigated with the implementation of standard mitigation measures (including signal timing changes, approach daylighting, changing parking regulations, channelizing, etc.) during the weekday AM and midday peak hours. However, the significant adverse traffic impacts at the intersection of Eleventh Avenue and West 57th Street would remain unmitigated during the weekday PM and Saturday peak hours.

The proposed actions would also result in potential significant adverse bus line haul impacts on the eastbound M57 during the AM peak period and the westbound M31 and westbound M57 during the PM peak hour. NYCT and MTA Bus routinely monitor changes in bus ridership and, subject to the agencies' fiscal and operational constraints, makes necessary service adjustments where warranted. These impacts would be mitigated if increased service adjustments are made.

In addition, the proposed actions would result in a significant adverse pedestrian impact at one crosswalk location: the south crosswalk of 57th Street and Eleventh Avenue during all analysis time periods. The impacts at this crosswalk could not be fully mitigated with standard a crosswalk widening and a signal ~~light~~ timing changes during the ~~weekday PM~~ four analysis peak hours.

~~Between the Draft and Final EIS, the transportation and transportation related analyses may be updated to reflect background changes associated with other projects or other changes. These changes could result in new, different, or worsened significant adverse impacts, all of which will be further detailed in the FEIS. If the updated analyses identify new, different, or worsened impacts that cannot be fully mitigated, they will be identified as unmitigated in the FEIS.~~

B. COMMUNITY FACILITIES

As discussed in Chapter 4, "Community Facilities," the proposed actions would introduce up to 238 new low- to moderate-income units by 2017, which would generate approximately 27 children under the age of six who would be eligible for publicly funded child care programs. With the addition of these children, child care facilities in the study area would operate at a 163 percent utilization rate, which represents an increase in the utilization rate of 7.9 percentage points over conditions in the future without the proposed actions. This increase exceeds the 5 percent threshold in the *CEQR Technical Manual* for a significant adverse impact. Therefore, the proposed actions would result in a significant adverse impact on child care facilities.

In order for the applicant to avoid a significant adverse impact, the number of affordable units introduced by the proposed actions would need to be reduced to 152, which would generate 17 children eligible for public child care services. An increase of 17 eligible children would increase child care center utilization in the 1.5-mile study area by less than five percent, and would therefore not result in a significant adverse impact. With the ~~DEIS's~~ assumption of 238 affordable units, the proposed actions would generate 27 eligible children. Thus, the difference between the proposed actions and the *CEQR Technical Manual* threshold for significance is a shortfall of ten child care slots.

Since the publication of the DEIS, mitigation has been identified in consultation with the Administration for Children's Services. Since the publication of the DEIS, the New York City Department of City Planning (DCP), New York City Administration for Children's Services (ACS), and the applicant have identified mitigation to address the potential significant adverse child care impact. Mitigation would include funding to be provided by the applicant for a

specified number of publicly-provided child care slots based on the number of low-income units in the building in excess of 152. A schedule of child care slots that will be funded, corresponding to the number of low-income units that may be constructed, is shown in **Table 19-1**. Prior to requesting a temporary or permanent certificate of occupancy from the Department of Buildings, the applicant will notify DCP and ACS and verify the actual number of low-income units being constructed and the number of child care slots that will be funded. A temporary or permanent certificate of occupancy will not be applied for or accepted until funding has been received. This requirement will be included in the Restrictive Declaration to be recorded. In the event that, based upon the review of subsequent availability of publicly funded day care slots, utilization and demand, DCP and ACS determine that the child care funding obligations should not apply or could be reduced, the terms of the Restrictive Declaration may be modified to be consistent with such DCP and ACS determination.

With this mitigation, the significant adverse impacts of the proposed actions on publicly funded child care would be partially mitigated. The mitigation is considered partial mitigation because ACS advised in consultation on this project in February 2014 between the Draft and Final EIS that it would be administratively infeasible and potentially legally infeasible to distribute funds only to applicants living in the study area. Therefore, the funding, rather than fully mitigating the potential significant adverse impacts, will provide partial mitigation by increasing the overall availability of vouchers City-wide.

**Table 19-1
Child Care Mitigation**

Number of Low-Income Units Provided	Number of Child Care Slots In Excess of Impact Threshold to be Funded
0 - 152	0
153 - 160	1
161 - 169	2
170 - 178	3
179 - 186	4
187 - 195	5
196 - 204	6
205 - 213	7
214 - 221	8
222 - 230	9
231 - 238	10
Note: This table is new to the FEIS.	

Mitigation measures to address this significant adverse impact have been identified through consultation with ACS between the Draft and Final EIS and

~~At this point, it is not possible to know exactly which type of mitigation would be most appropriate or when its implementation would be necessary, because the demand for publicly funded child care depends not only on the amount of residential development in the area but on the proportion of new residents who are children of low income families (not all children meet the social and income eligibility criteria). Furthermore, several factors may limit the number of children in need of publicly funded child care slots. For example, families in the study area could make use of alternatives to publicly funded group child care facilities. There are slots at homes licensed to provide family child care that families of eligible children could elect to use instead of publicly funded group child care facilities. Additionally, parents of eligible children~~

~~are not restricted to enrolling their children in child care facilities in a specific geographical area, and could make use of public and private child care providers beyond the study area (some parent/guardians choose a child care center close to their employment rather than their residence).~~

~~Possible mitigation measures for this significant adverse impact include adding capacity to existing facilities if determined feasible through consultation with ACS. As a city agency, ACS does not directly provide new child care facilities, instead it contracts with providers in areas of need. ACS is also working to create public/private partnerships to facilitate the development of new child care facilities where there is an area of need. As part of that initiative, ACS may be able to contribute capital funding, if it is available, towards such projects to facilitate the provision of new facilities. The project sponsor will work with ACS to develop appropriate measures to provide additional capacity, if needed, as the project is completed; this will be included in the Restrictive Declaration to be recorded.~~

~~Between Draft and Final EIS, the New York City Administration for Children's Services (ACS) will review the specific has reviewed measures proposed for to address the significant adverse childcare impacts. to confirm adequacy and feasibility of their implementation and recommend changes as necessary.~~

~~If it is determined that a specific measure is not feasible, the Applicant in consultation with ACS will explore other mitigation measures to mitigate impacts. However, if it is determined that other measures are not available to mitigate the identified impacts, either in part or in whole, the impact would be identified in the FEIS as unmitigated. If any impacts are determined to be unmitigated between Draft and Final EIS, they will be identified as such and a discussion will be included in Chapter 20, "Unavoidable Adverse Impacts."~~

C. TRANSPORTATION

TRAFFIC

As discussed in Chapter 11, "Transportation," traffic conditions were evaluated at 15 intersections for the weekday AM, midday, and PM peak hours, and the Saturday peak hour. The proposed actions would result in significant adverse traffic impacts at 7 intersections during the weekday AM peak hour, 10 intersections during the weekday midday peak hour, 13 intersections during the weekday PM peak hour, and 8 intersections during the Saturday peak hour. **Tables 19-2 and 19-2A to 19-2D** summarize the recommended mitigation measures. ~~that are subject to review and approval by the New York City Department of Transportation (NYCDOT).~~

Subsequent to the issuance of the DEIS, the New York City Department of Transportation (NYCDOT) reviewed the specific mitigation measures to assess the feasibility of their implementation. Based on NYCDOT's review and recommendation, the measures recommended to mitigate significant adverse traffic impacts at the intersection of Eleventh Avenue and West 57th Street were revised. Based on these revisions, it was determined that all of the locations where significant adverse traffic impacts are predicted to occur could be fully mitigated with the implementation of standard mitigation measures (including signal timing changes, approach daylighting, changing parking regulations, channelizing, etc.) during the weekday AM and midday peak hours. However, the significant adverse traffic impacts at the intersection of Eleventh Avenue and West 57th Street would remain unmitigated during the weekday PM and Saturday peak hours.

As discussed in Chapter 11, “Transportation,” the traffic analysis considers RWCDS 2 in its assessment of future traffic levels in the study area. In fact, the total number of vehicles generated by the Mixed-Use RWCDS would be much higher than those generated by RWCDS 1 by approximately a factor of 2-to-1. Hence, in the future conditions with RWCDS 1, the traffic levels would be lower than those forecasted for the RWCDS 2. Taking into account the lower traffic levels that could occur under RWCDS 1, the magnitude of mitigation required to fully mitigate the traffic impacts could be less than what is forecasted for RWCDS 2. Therefore, there is a possibility that under RWCDS 1 the significant adverse unmitigated traffic impacts at the intersection of Eleventh Avenue and West 57th Street could be mitigated with standard traffic engineering measures during the weekday PM and Saturday peak hours, subject to NYCDOT approval.

~~Between Draft and Final EIS, NYCDOT will review the specific measures proposed for each intersection to confirm adequacy and feasibility of their implementation and recommend changes as necessary. If it is determined that a specific measure is not feasible at a particular location, the Applicant in consultation with DOT will explore other mitigation measures to mitigate impacts. However, if it is determined that other measures are not available to mitigate the identified impacts, either in part or in whole, the impact would be identified in the FEIS as unmitigated. If any impacts are determined to be unmitigated between Draft and Final EIS, they will be identified as such and a discussion will be included in Chapter 20, “Unavoidable Adverse Impacts.”~~

**Table 19-2
Summary of Significant Adverse Traffic Impacts**

Intersection		Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Peak Hour
EB/WB Street	NB/SB Street				
West 57th Street	Twelfth Avenue			WB-R	
West 56th Street	Twelfth Avenue			SB-L (Mainline)	SB-L (Mainline)
West 55th Street	Twelfth Avenue	WB-L	WB-L	WB-L	
West 58th Street	Eleventh Avenue			SB-L	
West 57th Street	Eleventh Avenue	EB-L WB-L WB-TR	WB-L	WB-L WB-TR SB-L	WB-L WB-TR NB-L
West 55th Street	Eleventh Avenue		WB-LTR	WB-LTR	
West 58th Street	Tenth Avenue		EB-LT	EB-LT	
West 57th Street	Tenth Avenue				EB-DefL
		EB-LT WB-TR	EB-LT WB-TR	EB-LT WB-TR	WB-TR
West 56th Street	Tenth Avenue	EB-LT	EB-LT	EB-LT	EB-LT
West 55th Street	Tenth Avenue		WB-TR	WB-T	WB-TR
West 57th Street	Ninth Avenue	EB-T EB-R	EB-T EB-R	EB-R WB-LT	EB-R
		WB-T	WB-T		WB-T
West 56th Street	Ninth Avenue	EB-TR	EB-TR	EB-TR	EB-TR
West 57th Street	Eighth Avenue	EB-LT WB-TR	WB-TR	WB-TR	WB-TR

Notes: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; L = Left Turn; T = Through; R = Right Turn; DefL = Defacto Left Turn

Table 19-2A
Recommended Mitigation Measures - Weekday AM Peak Hour

Intersection	No Build Signal Timing	Mitigation Measures	Build with Mitigation Signal Timing
Twelfth Avenue and West 55th Street	WB: Green = 29 s NB/SB: Green = 96 s	Shift 1 second of green time from the NB/SB phase to the WB phase.	WB: Green = 30 s NB/SB: Green = 95 s
Eleventh Avenue and West 57th Street	EB/WB left-turn: Green = 8 s NB/SB: Green = 40 s	<p>1) Shift the centerline on the EB approach 1 foot to the north to provide one (1) 10-foot left-turn lane and two (2) 10-foot moving lanes;</p> <p>2) Restripe the WB approach to provide one (1) 10-foot left-turn lane and two (2) 11-foot moving lanes;</p> <p>3) Install No Standing 7-10AM and 4-7PM Monday-Friday sign on the east side of the NB approach for approximately 100 feet from the intersection to provide a NB right-turn lane; <u>3) Restripe the SB approach to provide one (1) 11-foot left-turn lane, two (2) 10-foot moving lanes and one (1) 9-foot parking lane;</u></p> <p>4) Shift 1 second of green time from the NB/SB phase to the EB/WB left-turn phase.</p>	EB/WB left-turn: Green = 9 s NB/SB: Green = 39 s
Tenth Avenue and West 57th Street	EB/WB: Green = 35 s NB: Green = 45 s	Shift 2 seconds of green time from the NB phase to the EB/WB phase.	EB/WB: Green = 37 s NB: Green = 43 s
Tenth Avenue and West 56th Street	EB: Green = 30 s NB: Green = 50 s	Shift 1 second of green time from the NB phase to the EB phase.	EB: Green = 31 s NB: Green = 49 s
Ninth Avenue and West 57th Street	EB/WB: Green = 22 s SB: Green = 30 s	Shift 2 seconds of green time from the SB phase to the EB/WB phase.	EB/WB: Green = 24 s SB: Green = 28 s
Ninth Avenue and West 56th Street	EB: Green = 30 s SB: Green = 50 s	Shift 1 second of green time from the SB phase to the EB phase.	EB: Green = 31 s SB: Green = 49 s
Eighth Avenue and West 57th Street	EB/WB: Green = 35 s NB: Green = 45 s	Shift 1 second of green time from the NB phase to the EB/WB phase.	EB/WB: Green = 36 s NB: Green = 44 s
Notes: EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound			

Table 19-2B

Recommended Mitigation Measures - Weekday Midday Peak Hour

Intersection	No Build Signal Timing	Mitigation Measures	Build with Mitigation Signal Timing
Twelfth Avenue and West 55th Street	WB: Green = 29 s NB/SB: Green = 64 s	Shift 1 second of green time from the NB/SB phase to the WB phase.	WB: Green = 30 s NB/SB: Green = 63 s
Eleventh Avenue and West 57th Street	EB/WB left-turn: Green = 8 s NB/SB: Green = 40 s	1) Shift the centerline on the EB approach 1 foot to the north to provide one (1) 10-foot left-turn lane and two (2) 10-foot moving lanes; 2) Restripe the WB approach to provide one (1) 10-foot left-turn lane and two (2) 11-foot moving lanes; <u>3) Restripe the SB approach to provide one (1) 11-foot left-turn lane, two (2) 10-foot moving lanes and one (1) 9-foot parking lane;</u> 34) Shift 2 seconds of green time from the NB/SB phase to the EB/WB left-turn phase.	EB/WB left-turn: Green = 10 s NB/SB: Green = 38 s
Eleventh Avenue and West 55th Street	WB: Green = 26 s NB/SB: Green = 54 s	Shift 1 second of green time from the NB/SB phase to the WB phase.	WB: Green = 27 s NB/SB: Green = 53 s
Tenth Avenue and West 58th Street	EB: Green = 30 s NB: Green = 50 s	Shift 1 second of green time from the NB phase to the EB phase.	EB: Green = 31 s NB: Green = 49 s
Tenth Avenue and West 57th Street	EB/WB: Green = 35 s NB: Green = 45 s	Shift 3 seconds of green time from the NB phase to the EB/WB phase.	EB/WB: Green = 38 s NB: Green = 42 s
Tenth Avenue and West 56th Street	EB: Green = 30 s NB: Green = 50 s	Shift 2 seconds of green time from the NB phase to the EB phase.	EB: Green = 32 s NB: Green = 48 s
Tenth Avenue and West 55th Street	WB: Green = 30 s NB: Green = 50 s	Shift 2 seconds of green time from the NB phase to the WB phase.	WB: Green = 32 s NB: Green = 48 s
Ninth Avenue and West 57th Street	EB/WB: Green = 23 s SB: Green = 29 s	Shift 2 seconds of green time from the SB phase to the EB/WB phase.	EB/WB: Green = 25 s SB: Green = 27 s
Ninth Avenue and West 56th Street	EB: Green = 35 s SB: Green = 45 s	Shift 2 seconds of green time from the SB phase to the EB phase.	EB: Green = 37 s SB: Green = 43 s
Eighth Avenue and West 57th Street	EB/WB: Green = 35 s NB: Green = 45 s	Shift 1 second of green time from the NB phase to the EB/WB phase.	EB/WB: Green = 36 s NB: Green = 44 s

Notes: EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound

Table 19-2C
Recommended Mitigation Measures - Weekday PM Peak Hour

Intersection	No Build Signal Timing	Mitigation Measures	Build with Mitigation Signal Timing
Twelfth Avenue and West 57th Street	WB: Green = 38 s NB: Green = 101 s	Shift 1 second of green time from the NB phase to the WB phase.	WB: Green = 39 s NB: Green = 100 s
Twelfth Avenue and West 56th Street	NB: Green = 102 s SB left-turn: Green = 35 s	Shift 1 second of green time from the NB phase to the SB left-turn phase.	NB: Green = 101 s SB left-turn: Green = 36 s
Twelfth Avenue and West 55th Street	WB: Green = 29 s NB/SB: Green = 94 s	Shift 2 seconds of green time from the NB/SB phase to the WB phase.	WB: Green = 31 s NB/SB: Green = 92 s
Eleventh Avenue and West 58th Street	EB: Green = 31 s NB/SB: Green = 49 s	Shift 1 second of green time from the EB phase to the NB/SB phase.	EB: Green = 30 s NB/SB: Green = 50 s
Eleventh Avenue and West 57th Street	EB/WB: Green = 27 s NB/SB: Green = 40 s	<ol style="list-style-type: none"> 1) Shift the centerline on the EB approach 1 foot to the north to provide one (1) 10-foot left-turn lane and two (2) 10-foot moving lanes; 2) Restripe the WB approach to provide one (1) 10-foot left-turn lane and two (2) 11-foot moving lanes; 3) <u>Restripe the SB approach to provide one (1) 11-foot left-turn lane, two (2) 10-foot moving lanes and one (1) 9-foot parking lane.</u> 3) Install No Standing 7-10AM and 4-7PM Monday-Friday sign on the east side of the NB approach for approximately 100 feet from the intersection to provide a NB right-turn lane; 4) Install No Standing 4-7PM Monday-Friday sign on the west side of the SB approach for approximately 100 feet from the intersection to provide a SB right-turn lane; 5) Shift 2 seconds of green time from the NB/SB phase to the EB/WB phase. 	EB/WB: Green = 29 <u>27</u> s NB/SB: Green = 38 <u>40</u> s
Eleventh Avenue and West 55th Street	WB: Green = 26 s NB/SB: Green = 54 s	Shift 1 second of green time from the NB/SB phase to the WB phase.	WB: Green = 27 s NB/SB: Green = 53 s
Tenth Avenue and West 58th Street	EB: Green = 30 s NB: Green = 50 s	Shift 1 second of green time from the NB phase to the EB phase.	EB: Green = 31 s NB: Green = 49 s
Tenth Avenue and West 57th Street	EB/WB: Green = 35 s NB: Green = 45 s	Shift 3 seconds of green time from the NB phase to the EB/WB phase.	EB/WB: Green = 38 s NB: Green = 42 s
Tenth Avenue and West 56th Street	EB: Green = 30 s NB: Green = 50 s	Shift 2 seconds of green time from the NB phase to the EB phase.	EB: Green = 32 s NB: Green = 48 s
Tenth Avenue and West 55th Street	WB: Green = 30 s NB: Green = 50 s	Shift 1 second of green time from the NB phase to the WB phase.	WB: Green = 31 s NB: Green = 49 s
Ninth Avenue and West 57th Street	EB/WB: Green = 23 s SB: Green = 29 s	Shift 3 seconds of green time from the SB phase to the EB/WB phase.	EB/WB: Green = 26 s SB: Green = 26 s
Ninth Avenue and West 56th Street	EB: Green = 35 s SB: Green = 45 s	Shift 2 seconds of green time from the SB phase to the EB phase.	EB: Green = 37 s SB: Green = 43 s
Eighth Avenue and West 57th Street	EB/WB: Green = 35 s NB: Green = 45 s	Shift 1 second of green time from the NB phase to the EB/WB phase.	EB/WB: Green = 36 s NB: Green = 44 s

Notes: EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound

Table 19-2D
Recommended Mitigation Measures - Saturday Peak Hour

Intersection	No Build Signal Timing	Mitigation Measures	Build with Mitigation Signal Timing
Twelfth Avenue and West 56th Street	NB: Green = 81 s SB left-turn: Green = 26 s	Shift 1 second of green time from the NB phase to the SB left-turn phase.	NB: Green = 80 s SB left-turn: Green = 27 s
Eleventh Avenue and West 57th Street	EB/WB left-turn: Green = 8 s NB/SB: Green = 40 s	1) Shift the centerline on the EB approach 1 foot to the north to provide one (1) 10-foot left-turn lane and two (2) 10-foot moving lanes; 2) Restripe the WB approach to provide one (1) 10-foot left-turn lane and two (2) 11-foot moving lanes; 3) <u>Restripe the SB approach to provide one (1) 11-foot left-turn lane, two (2) 10-foot moving lanes and one (1) 9-foot parking lane.</u> 3) Install No Standing 1-4PM Saturday sign on the west side of the SB approach for approximately 100 feet from the intersection to provide a SB right-turn lane; 4) Shift 2 seconds of green time from the NB/SB phase to the EB/WB left-turn phase.	EB/WB left-turn: Green = 40 <u>8</u> s NB/SB: Green = 38 <u>40</u> s
Tenth Avenue and West 57th Street	EB/WB: Green = 35 s NB: Green = 45 s	Shift 2 seconds of green time from the NB phase to the EB/WB phase.	EB/WB: Green = 37 s NB: Green = 43 s
Tenth Avenue and West 56th Street	EB: Green = 30 s NB: Green = 50 s	Shift 2 seconds of green time from the NB phase to the EB phase.	EB: Green = 32 s NB: Green = 48 s
Tenth Avenue and West 55th Street	WB: Green = 30 s NB: Green = 50 s	Shift 2 seconds of green time from the NB phase to the WB phase.	WB: Green = 32 s NB: Green = 48 s
Ninth Avenue and West 57th Street	EB/WB: Green = 23 s SB: Green = 29 s	Shift 2 seconds of green time from the SB phase to the EB/WB phase.	EB/WB: Green = 25 s SB: Green = 27 s
Ninth Avenue and West 56th Street	EB: Green = 30 s SB: Green = 50 s	Shift 2 seconds of green time from the SB phase to the EB phase.	EB: Green = 32 s SB: Green = 48 s
Eighth Avenue and West 57th Street	EB/WB: Green = 35 s NB: Green = 45 s	Shift 1 second of green time from the NB phase to the EB/WB phase.	EB/WB: Green = 36 s NB: Green = 44 s

Notes: EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound

With implementation of the mitigation measures described in **Tables 19-2A to 19-2D**, all the majority of the significant adverse traffic impacts identified above could be fully mitigated. However, the significant adverse traffic impacts at the intersection of Eleventh Avenue and West 57th Street would remain unmitigated during the weekday PM and Saturday peak hours.

Tables 19-3 to 19-6 compare the level of service (LOS) conditions for the 2017 No Action, With Action, and Mitigation conditions for all four peak hours. In addition, a discussion of proposed mitigation for each affected intersection is provided below.

Table 19-3
2017 No Action, With Action, and Mitigation Conditions Level of Service Analysis
Weekday AM Peak Hour

Intersection	2017 No Action				2017 With Action				2017 Mitigation			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
12th Avenue (Route 9A) & West 55th Street												
WB	L	0.81	78.8	E	L	0.87	86.1	F +	L	0.84	80.6	F
	R	0.31	53.5	D	R	0.35	54.5	D	R	0.34	53.4	D
NB (Mainline)	L	0.84	132.7	F	L	0.84	132.7	F	L	0.84	132.7	F
	T	0.49	9.1	A	T	0.49	9.1	A	T	0.49	9.5	A
SB (Mainline)	T	1.00	26.6	C	T	1.00	26.6	C	T	1.01	30.1	C
NB (Service Road)	T	0.37	8.5	A	T	0.39	8.7	A	T	0.39	9.1	A
SB (Service Road)	T	0.29	5.9	A	T	0.29	5.9	A	T	0.29	6.4	A
	Int.		22.2	C	Int.		22.2	C	Int.		23.9	C
11th Avenue & West 57th Street												
EB	L	1.02	97.2	F	L	1.07	111.6	F +	L	0.96	79.7	E
	TR	0.71	33.0	C	TR	0.77	35.7	D	TR	0.77	35.7	D
WB	L	0.87	60.9	E	L	0.98	88.0	F +	L	0.89	63.1	E
	TR	0.92	49.5	D	TR	0.98	60.5	E +	TR	0.94	53.2	D
NB	L	0.28	21.2	C	L	0.31	22.7	C	L	0.33	24.2	C
	-	-	-	-	-	-	-	-	T	0.47	19.5	B
SB	TR	0.56	20.5	C	TR	0.59	21.1	C	TR	0.60	22.0	C
	-	-	-	-	-	-	-	-	R	0.25	17.9	B
	Int.		38.8	D	Int.		44.7	D	Int.		40.5	D
10th Avenue & West 57th Street												
EB	-	-	-	-	-	-	-	-	-	-	-	-
	LT	1.29	170.7	F	LT	1.39	215.4	F +	LT	1.28	165.9	F
WB	-	-	-	-	-	-	-	-	-	-	-	-
	TR	1.14	104.5	F	TR	1.18	119.9	F +	TR	1.11	91.9	F
NB	LTR	0.70	18.8	B	LTR	0.71	18.9	B	LTR	0.74	20.9	C
	Int.		73.3	E	Int.		88.5	F	Int.		71.2	E
10th Avenue & West 56th Street												
EB	LT	1.20	135.6	F	LT	1.24	152.7	F +	LT	1.20	135.4	F
	TR	0.60	14.2	B	TR	0.61	14.3	B	TR	0.62	15.0	B
NB	Int.		46.1	D	Int.		51.0	D	Int.		47.0	D
9th Avenue & West 57th Street												
EB	T	1.21	143.1	F	T	1.26	160.5	F +	T	1.15	115.3	F
	R	0.65	47.3	D	R	0.72	53.2	D +	R	0.65	45.0	D
WB	DefL	1.05	89.5	F	DefL	1.05	84.5	F	DefL	1.05	91.9	F
	-	-	-	-	-	-	-	-	-	-	-	-
SB	T	1.14	102.4	F	T	1.18	118.6	F +	T	1.13	96.3	F
	L	0.23	23.5	C	L	0.24	23.8	C	L	0.26	25.8	C
	Int.		80.0	F	Int.		88.4	F	Int.		73.2	E
9th Avenue & West 56th Street												
EB	TR	1.23	146.4	F	TR	1.26	160.7	F +	TR	1.22	141.2	F
	L	0.09	9.7	A	L	0.09	9.7	A	L	0.09	10.2	B
SB	T	0.42	12.0	B	T	0.42	12.0	B	T	0.43	12.6	B
	Int.		57.2	E	Int.		62.4	E	Int.		56.2	E
8th Avenue & West 57th Street												
EB	LT	0.96	48.1	D	LT	0.99	54.6	D +	LT	0.96	47.8	D
	TR	1.02	61.6	E	TR	1.04	69.6	E +	TR	1.01	59.7	E
WB	L	0.54	16.3	B	L	0.54	16.3	B	L	0.56	17.1	B
	LTR	0.54	16.3	B	LTR	0.54	16.3	B	LTR	0.56	17.1	B
	Int.		38.5	D	Int.		43.0	D	Int.		38.4	D

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound, Int. = Intersection
+ Denotes a significant adverse traffic impact

**Table 19-4
2017 No Action, With Action, and Mitigation Conditions Level of Service Analysis
Weekday Midday Peak Hour**

Intersection	2017 No Action				2017 With Action				2017 Mitigation					
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		
12th Avenue (Route 9A) & West 55th Street														
WB	L	0.93	78.3	E	L	0.99	90.5	F	+	L	0.95	81.4	F	
	R	0.24	37.7	D	R	0.30	38.6	D		R	0.29	37.6	D	
NB (Mainline)	L	0.85	101.6	F	L	0.85	101.6	F		L	0.85	101.6	F	
	T	0.56	11.6	B	T	0.56	11.6	B		T	0.56	12.2	B	
SB (Mainline)	T	0.76	23.8	C	T	0.76	23.8	C		T	0.77	24.8	C	
NB (Service Road)	T	0.48	11.8	B	T	0.51	12.3	B		T	0.52	12.9	B	
SB (Service Road)	T	0.23	15.2	B	T	0.24	15.3	B		T	0.24	15.8	B	
Int.			22.3	C	Int.			23.1	C	Int.			23.4	C
11th Avenue & West 57th Street														
EB	L	0.66	30.3	C	L	0.73	36.2	D		L	0.63	26.8	C	
	TR	0.46	27.4	C	TR	0.54	28.9	C		TR	0.54	28.9	C	
WB	L	0.86	50.6	D	L	0.98	78.4	E	+	L	0.86	49.9	D	
	TR	0.75	35.1	D	TR	0.85	41.3	D		TR	0.82	38.8	D	
NB	L	0.38	23.0	C	L	0.49	28.5	C		L	0.54	33.5	C	
	TR	0.52	19.7	B	TR	0.56	20.5	C		TR	0.59	22.4	C	
SB	L	0.52	26.4	C	L	0.57	29.6	C		L	0.59	32.7	C	
	TR	0.7	23.9	C	TR	0.76	25.8	C		TR	0.80	28.9	C	
Int.			28.5	C	Int.			33.7	C	Int.			31.6	C
11th Avenue & West 55th Street														
WB	LTR	0.86	43.9	D	LTR	0.94	54.1	D	+	LTR	0.90	47.6	D	
NB	L	0.14	9.4	A	L	0.15	9.8	A		L	0.16	10.4	B	
SB	T	0.37	9.9	A	T	0.39	10.1	B		T	0.39	10.6	B	
	TR	0.61	13.0	B	TR	0.65	13.7	B		TR	0.66	14.5	B	
Int.			20.3	C	Int.			23.4	C	Int.			22.2	C
10th Avenue & West 58th Street														
EB	LT	0.88	50.0	D	LT	0.92	56.4	E	+	LT	0.89	50.7	D	
NB	TR	0.63	14.8	B	TR	0.63	15.0	B		TR	0.65	15.8	B	
Int.			21.7	C	Int.			23.3	C	Int.			22.8	C
10th Avenue & West 57th Street														
EB	-	-	-	-	-	-	-	-	+	-	-	-	-	
	LT	1.18	126.6	F	LT	1.33	187.6	F		LT	1.18	122.9	F	
WB	-	-	-	-	-	-	-	-	+	-	-	-	-	
	TR	1.05	70.7	E	TR	1.11	93.4	F		TR	1.02	59.8	E	
NB	LTR	0.67	18.5	B	LTR	0.69	18.8	B		LTR	0.74	21.9	C	
Int.			57.0	E	Int.			79.0	E	Int.			55.9	E
10th Avenue & West 56th Street														
EB	LT	0.91	50.2	D	LT	0.98	64.0	E	+	LT	0.92	49.8	D	
NB	TR	0.72	16.5	B	TR	0.73	16.8	B		TR	0.76	18.8	B	
Int.			23.6	C	Int.			27.0	C	Int.			25.5	C
10th Avenue & West 55th Street														
WB	TR	0.90	50.8	D	TR	0.97	63.8	E	+	TR	0.91	50.2	D	
NB	LT	0.65	15.1	B	LT	0.66	15.3	B		LT	0.69	17.0	B	
Int.			22.2	C	Int.			25.4	C	Int.			23.9	C
9th Avenue & West 57th Street														
EB	T	0.91	50.7	D	T	0.96	58.3	E	+	T	0.88	45.1	D	
	R	0.56	41.4	D	R	0.69	52.3	D		R	0.62	43.8	D	
WB	DefL	0.97	65.4	E	DefL	0.97	67.5	E		DefL	0.96	61.4	E	
	-	-	-	-	-	-	-	-		-	-	-	-	
SB	T	1.07	78.6	E	T	1.12	96.9	F	+	T	1.08	78.2	E	
	L	0.29	25.6	C	L	0.30	25.8	C		L	0.32	27.9	C	
TR	0.84	34.2	C	TR	0.85	34.8	C		TR	0.91	41.2	D		
Int.			51.1	D	Int.			58.1	E	Int.			52.6	D
9th Avenue & West 56th Street														
EB	TR	0.88	42.9	D	TR	0.94	50.6	D	+	TR	0.88	41.1	D	
SB	L	0.14	12.7	B	L	0.15	12.7	B		L	0.16	14.0	B	
	T	0.53	16.1	B	T	0.53	16.2	B		T	0.56	17.7	B	
Int.			23.5	C	Int.			25.9	C	Int.			24.2	C
8th Avenue & West 57th Street														
EB	LT	0.86	35.2	D	LT	0.90	38.8	D		LT	0.87	35.5	D	
WB	TR	1.00	57.3	E	TR	1.03	65.3	E	+	TR	1.00	56.4	E	
NB	LTR	0.54	16.3	B	LTR	0.54	16.4	B		LTR	0.56	17.1	B	
Int.			34.2	C	Int.			37.9	D	Int.			34.5	C

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound, Int. = Intersection
+ Denotes a significant adverse traffic impact

Table 19-5
2017 No Action, With Action, and Mitigation Conditions Level of Service Analysis
Weekday PM Peak Hour

Intersection	2017 No Action				2017 With Action				2017 Mitigation				
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	
12th Avenue (Route 9A) & West 57th Street													
WB NB (Mainline)	R	0.96	76.2	E	R	1.00	87.2	F +	R	0.98	80.0	E	
	T	0.60	5.3	A	T	0.60	5.4	A	T	0.60	5.9	A	
		Int.	21.2	C	Int.		24.4	C	Int.		23.1	C	
12th Avenue (Route 9A) & West 56th Street													
NB (Mainline) SB (Mainline) NB (Service Road)	T	0.72	6.2	A	T	0.72	6.3	A	T	0.73	6.9	A	
	L	0.94	79.1	E	L	0.97	84.1	F +	L	0.94	78.0	E	
		TR	0.40	A	TR	0.43	4.4	A	TR	0.43	4.8	A	
		Int.	17.6	B	Int.		18.6	B	Int.		17.9	B	
12th Avenue (Route 9A) & West 55th Street													
WB NB (Mainline)	L	1.02	118.1	F	L	1.08	136.1	F +	L	1.01	112.5	F	
	R	0.63	61.8	E	R	0.68	64.1	E	R	0.64	60.4	E	
		L	0.50	83.6	F	L	0.50	83.6	F	L	0.50	83.6	F
		T	0.62	2.8	A	T	0.62	2.8	A	T	0.63	3.0	A
		T	0.78	22.1	C	T	0.78	22.1	C	T	0.79	23.7	C
		T	0.54	3.6	A	T	0.57	3.9	A	T	0.58	4.1	A
		T	0.22	12.4	B	T	0.23	12.4	B	T	0.23	13.3	B
		Int.	18.2	B	Int.		19.3	B	Int.		19.5	B	
11th Avenue & West 58th Street													
EB NB SB	LTR	0.46	24.6	C	LTR	0.47	24.8	C	LTR	0.49	25.7	C	
	TR	0.74	19.2	B	TR	0.77	20.1	C	TR	0.75	18.9	B	
		L	0.78	49.2	D	L	0.84	60.2	E +	L	0.80	52.6	D
		T	0.83	22.8	C	T	0.85	23.8	C	T	0.83	22.2	C
		Int.	22.8	C	Int.		24.0	C	Int.		22.7	C	
11th Avenue & West 57th Street													
EB WB	L	1.06	102.0	F	L	1.07	104.0	F	L	1.04	<u>95.6</u>	F	
	TR	0.45	27.3	C	TR	0.53	28.9	C	TR	<u>0.53</u>	<u>28.9</u>	C	
		L	0.80	43.0	D	L	0.91	61.5	E +	L	<u>0.88</u>	<u>54.9</u>	D*
		TR	1.16	119.4	F	TR	1.28	167.1	F +	TR	<u>1.24</u>	<u>148.5</u>	F*
		L	0.46	30.5	C	L	0.60	41.9	D	L	<u>0.60</u>	<u>41.9</u>	D
		-	-	-	-	-	-	-	-	TR	<u>0.48</u>	<u>20.2</u>	C
		TR	0.55	20.2	C	TR	0.58	20.8	C	TR	<u>0.58</u>	<u>20.8</u>	C
		-	-	-	-	-	-	-	-	R	<u>0.25</u>	<u>18.5</u>	B
		L	0.74	43.1	D	L	0.80	51.5	D +	L	<u>0.77</u>	<u>46.9</u>	D
		-	-	-	-	-	-	-	-	T	<u>0.76</u>	<u>26.7</u>	C
		TR	0.90	35.0	D	TR	0.94	39.2	D	TR	<u>0.94</u>	<u>39.2</u>	D
		-	-	-	-	-	-	-	-	R	<u>0.34</u>	<u>20.2</u>	C
		Int.	57.5	E	Int.		73.3	E	Int.		67.4	E	
11th Avenue & West 55th Street													
WB NB SB	LTR	0.90	47.0	D	LTR	0.96	55.8	E +	LTR	0.92	48.4	D	
	L	0.11	9.2	A	L	0.13	9.8	A	L	0.14	10.4	B	
		T	0.34	9.6	A	T	0.36	9.7	A	T	0.36	10.3	B
		TR	0.72	15.2	B	TR	0.75	16.3	B	TR	0.77	17.4	B
		Int.	22.4	C	Int.		25.2	C	Int.		23.9	C	
10th Avenue & West 58th Street													
EB NB	LT	0.91	55.4	E	LT	0.95	63.1	E +	LT	0.92	55.5	E	
	TR	0.47	12.5	B	TR	0.48	12.6	B	TR	0.49	13.2	B	
		Int.	20.4	C	Int.		22.2	C	Int.		21.2	C	
10th Avenue & West 57th Street													
EB WB NB	LT	1.10	98.5	F	LT	1.22	142.3	F +	LT	1.10	92.2	F	
	TR	1.14	102.8	F	TR	1.20	126.6	F +	TR	1.10	85.8	F	
		LTR	0.62	17.3	B	LTR	0.63	17.5	B	LTR	0.68	20.1	C
		Int.	56.6	E	Int.		72.7	E	Int.		52.8	D	
10th Avenue & West 56th Street													
EB NB	LT	1.01	71.6	E	LT	1.08	90.8	F +	LT	1.01	68.2	E	
	TR	0.43	11.9	B	TR	0.43	12.0	B	TR	0.45	13.2	B	
		Int.	25.5	C	Int.		30.4	C	Int.		26.1	C	
10th Avenue & West 55th Street													
WB NB	T	1.09	98.5	F	T	1.14	115.5	F +	T	1.10	101.2	F	
	R	0.51	29.4	C	R	0.56	32.0	C	R	0.54	30.3	C	
		LT	0.53	13.2	B	LT	0.54	13.3	B	LT	0.55	14.0	B
		Int.	31.4	C	Int.		35.6	D	Int.		33.0	C	

Table 19-5 (cont'd)
2017 No Action, With Action, and Mitigation Conditions Level of Service Analysis
Weekday PM Peak Hour

Intersection	2017 No Action				2017 With Action				2017 Mitigation				
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	
9th Avenue & West 57th Street													
EB WB SB	T	0.85	44.9	D	T	0.90	49.1	D		T	0.79	37.7	D
	R	0.70	52.9	D	R	0.86	76.9	E	+	R	0.73	52.3	D
	LT	1.11	86.1	F	LT	1.16	103.4	F	+	LT	1.09	74.1	E
	L	0.47	30.3	C	L	0.48	30.7	C		L	0.54	36.2	D
	TR	0.63	27.4	C	TR	0.63	27.5	C		LTR	0.71	31.0	C
	Int.		52.8	D	Int.		61.1	E		Int.		48.9	D
9th Avenue & West 56th Street													
EB SB	TR	1.06	82.7	F	TR	1.12	101.0	F	+	TR	1.05	77.3	E
	L	0.20	13.8	B	L	0.20	13.8	B		L	0.22	15.1	B
	T	0.45	14.9	B	T	0.45	15.0	B		T	0.47	16.4	B
	Int.		33.9	C	Int.		39.6	D		Int.		33.8	C
8th Avenue & West 57th Street													
EB WB NB	LT	0.77	30.4	C	LT	0.81	32.6	C		LT	0.78	30.0	C
	TR	1.11	92.1	F	TR	1.14	103.3	F	+	TR	1.11	90.0	F
	LTR	0.72	19.0	B	LTR	0.72	19.1	B		LTR	0.74	20.1	C
	Int.		41.3	D	Int.		45.2	D		Int.		41.5	D
Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound, Int. = Intersection + Denotes a significant adverse traffic impact * Denotes a partially mitigated significant adverse traffic impact													

Table 19-6
2017 No Action, With Action, and Mitigation Conditions Level of Service Analysis
Saturday Peak Hour

Intersection	2017 No Action				2017 With Action				2017 Mitigation			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
12th Avenue (Route 9A) & West 56th Street												
NB (Mainline)	T	0.74	14.0	B	T	0.74	14.0	B	T	0.75	14.8	B
SB (Mainline)	L	0.99	79.7	E	L	1.02	87.5	F +	L	0.98	76.9	E
NB (Service Road)	TR	0.32	8.5	A	TR	0.35	8.8	A	TR	0.35	9.2	A
	Int.		23.2	C	Int.		24.6	C	Int.		23.6	C
11th Avenue & West 57th Street												
EB	L	0.71	34.7	C	L	0.78	41.7	D	L	<u>0.75</u>	<u>38.4</u>	<u>D</u>
	TR	0.45	27.3	C	TR	0.54	28.9	C	TR	0.54	28.9	C
WB	L	1.13	119.8	F	L	1.27	173.6	F +	L	<u>1.22</u>	<u>155.4</u>	<u>F +</u>
	TR	0.84	39.8	D	TR	0.91	45.9	D +	TR	0.88	42.3	D
NB	L	0.82	62.7	E	L	0.94	88.2	F +	L	<u>0.94</u>	<u>88.2</u>	<u>F +</u>
	TR	0.45	18.6	B	TR	0.47	19.0	B	TR	<u>0.47</u>	<u>19.0</u>	<u>B</u>
SB	L	0.64	31.9	C	L	0.67	34.5	C	L	<u>0.65</u>	<u>32.3</u>	<u>C</u>
	-	-	-	-	-	-	-	-	T	<u>0.65</u>	<u>23.5</u>	<u>C</u>
	TR	0.81	28.2	C	TR	0.84	30.0	C	TR	<u>0.84</u>	<u>30.0</u>	<u>C</u>
	-	-	-	-	-	-	-	-	R	<u>0.38</u>	<u>21.0</u>	<u>C</u>
	Int.		41.1	D	Int.		50.2	D	Int.		47.1	D
10th Avenue & West 57th Street												
EB	DefL	1.16	160.9	F	DefL	1.31	221.3	F +	DefL	1.16	158.3	F
	-	-	-	-	-	-	-	-	-	-	-	-
WB	T	0.74	32.3	C	T	0.82	37.3	D	T	0.77	32.5	C
	TR	0.89	38.4	D	TR	0.94	45.3	D +	TR	0.89	36.6	D
NB	LTR	0.83	22.8	C	LTR	0.85	23.4	C	LTR	0.89	27.0	C
	Int.		33.2	C	Int.		38.4	D	Int.		35.2	D
10th Avenue & West 56th Street												
EB	LT	1.15	118.3	F	LT	1.22	146.0	F +	LT	1.14	112.0	F
	TR	0.73	16.7	B	TR	0.74	16.9	B	TR	0.77	18.8	B
NB	Int.		40.6	D	Int.		47.9	D	Int.		41.3	D
10th Avenue & West 55th Street												
WB	TR	1.08	94.8	F	TR	1.16	123.8	F +	TR	1.08	92.7	F
	LT	0.69	15.8	B	LT	0.70	16.0	B	LT	0.73	17.8	B
NB	Int.		32.0	C	Int.		38.6	D	Int.		33.5	C
9th Avenue & West 57th Street												
EB	T	0.72	36.5	D	T	0.76	37.9	D	T	0.70	34.0	C
	R	0.62	44.0	D	R	0.74	54.8	D +	R	0.66	45.2	D
WB	DefL	0.89	44.2	D	DefL	0.92	49.1	D	DefL	0.87	40.3	D
	-	-	-	-	-	-	-	-	-	-	-	-
SB	T	1.04	67.9	E	T	1.10	86.5	F +	T	1.05	68.9	E
	L	0.34	27.3	C	L	0.34	27.6	C	L	0.38	30.6	C
	TR	0.81	32.4	C	TR	0.81	32.6	C	TR	0.88	37.3	D
	Int.		43.1	D	Int.		49.2	D	Int.		44.9	D
9th Avenue & West 56th Street												
EB	TR	1.17	125.2	F	TR	1.23	148.2	F +	TR	1.15	114.4	F
	L	0.07	9.4	A	L	0.07	9.4	A	L	0.07	10.4	B
SB	T	0.52	13.1	B	T	0.52	13.2	B	T	0.54	14.5	B
	Int.		44.2	D	Int.		51.3	D	Int.		42.7	D
8th Avenue & West 57th Street												
EB	LT	0.63	25.2	C	LT	0.65	25.9	C	LT	0.64	24.8	C
	TR	0.96	47.9	D	TR	1.00	55.0	E +	TR	0.97	47.6	D
WB	L	0.73	20.0	B	L	0.74	20.1	C	L	0.76	21.2	C
	LTR	0.73	20.0	B	LTR	0.74	20.1	C	LTR	0.76	21.2	C
NB	Int.		29.5	C	Int.		32.0	C	Int.		30.1	C

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound, Int. = Intersection
+ Denotes a significant adverse traffic impact
* Denotes a partially mitigated significant adverse traffic impact

TWELFTH AVENUE AND WEST 57TH STREET

The significant adverse impact at the westbound right-turn of this intersection during the weekday PM peak hour could be fully mitigated by shifting 1 second of green time from the northbound phase to the westbound phase.

TWELFTH AVENUE AND WEST 56TH STREET

The significant adverse impact at the southbound (mainline) left-turn of this intersection during the weekday PM and Saturday peak hours could be fully mitigated by shifting 1 second of green time from the northbound phase to the southbound left-turn phase.

TWELFTH AVENUE AND WEST 55TH STREET

The significant adverse impact at the westbound left-turn of this intersection during the weekday AM, midday, and PM peak hours could be fully mitigated by shifting 1, 1, and 2 second of green time from the northbound/southbound phase to the westbound phase, respectively.

ELEVENTH AVENUE AND WEST 58TH STREET

The significant adverse impact at the southbound left-turn of this intersection during the weekday PM peak hour could be fully mitigated by shifting 1 second of green time from the eastbound phase to the northbound/southbound phase.

ELEVENTH AVENUE AND WEST 57TH STREET

The significant adverse impact at the eastbound left-turn, westbound left-turn, and westbound through/right-turn of this intersection during the weekday AM peak hour could be fully mitigated by ~~prohibiting parking/standing of vehicles with NYP plates (installing a No Standing 7—10AM and 4—7 PM Monday through Friday sign) on the east side of the northbound approach for approximately 100 feet from the intersection to provide a northbound right turn lane;~~ shifting the centerline on the eastbound approach 1 foot to the north to provide one (1) 10-foot left-turn lane and two (2) 10-foot moving lanes; restriping the westbound approach to provide one (1) 10-foot left-turn lane and two (2) 11-foot moving lanes; restriping the southbound approach to provide one (1) 11-foot left-turn lane, two (2) 10-foot moving lanes and one (1) 9-foot parking lane; and shifting 1 second of green time from the northbound/southbound phase to the eastbound/westbound left-turn phase.

The significant adverse impact at the westbound left-turn of this intersection during the weekday midday peak hour could be fully mitigated by shifting the centerline on the eastbound approach 1 foot to the north to provide one (1) 10-foot left-turn lane and two (2) 10-foot moving lanes; restriping the westbound approach to provide one (1) 10-foot left-turn lane and two (2) 11-foot moving lanes; restriping the southbound approach to provide one (1) 11-foot left-turn lane, two (2) 10-foot moving lanes and one (1) 9-foot parking lane; and shifting 2 seconds of green time from the northbound/southbound phase to the eastbound/westbound left-turn phase.

The significant adverse impact at the westbound left-turn, and westbound through/right-turn, and southbound left turn of this intersection during the weekday PM peak hour could not be fully mitigated. However, the significant adverse impact at the southbound left-turn could be fully mitigated by restriping the southbound approach to provide one (1) 11-foot left-turn lane, two (2) 10-foot moving lanes and one (1) 9-foot parking lane. Therefore, this intersection would remain unmitigated during the weekday PM peak hour. ~~by prohibiting parking/standing of vehicles with~~

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~~NYP plates (installing a No Standing 7-10AM and 4-7 PM Monday through Friday sign) on the east side of the northbound approach for approximately 100 feet from the intersection to provide a northbound right turn lane; prohibiting parking/standing of vehicles (installing a No Standing 4-7 PM Monday through Friday sign) on the west side of the southbound approach for approximately 100 feet from the intersection to provide a southbound right turn lane; shifting the centerline on the eastbound approach 1 foot to the north to provide one (1) 10-foot left turn lane and two (2) 10-foot moving lanes; restriping the westbound approach to provide one (1) 10-foot left turn lane and two (2) 11-foot moving lanes; and shifting 2 seconds of green time from the northbound/southbound phase to the eastbound/westbound phase.~~

The significant adverse impact at the westbound left-turn, ~~westbound through/right turn,~~ and northbound left-turn of this intersection during the Saturday peak hour could not be fully mitigated. However, the significant adverse impact at the westbound through/right-turn could be fully mitigated by restriping the westbound approach to provide one (1) 10-foot left-turn lane and two (2) 11-foot moving lanes. Therefore, this intersection would remain unmitigated during the weekday Saturday peak hour. ~~by prohibiting parking (installing a No Standing 1-4 PM Saturday sign) on the west side of the southbound approach for approximately 100 feet from the intersection to provide a southbound right turn lane; shifting the centerline on the eastbound approach 1 foot to the north to provide one (1) 10-foot left turn lane and two (2) 10-foot moving lanes; restriping the westbound approach to provide one (1) 10-foot left turn lane and two (2) 11-foot moving lanes; and shifting 2 seconds of green time from the northbound/southbound phase to the eastbound/westbound left turn phase.~~

ELEVENTH AVENUE AND WEST 55TH STREET

The significant adverse impact at the westbound approach of this intersection during the weekday midday and PM peak hours could be fully mitigated by shifting 1 second of green time from the northbound/southbound phase to the westbound phase.

TENTH AVENUE AND WEST 58TH STREET

The significant adverse impact at the eastbound approach of this intersection during the weekday midday and PM peak hours could be fully mitigated by shifting 1 second of green time from the northbound phase to the eastbound phase.

TENTH AVENUE AND WEST 57TH STREET

The significant adverse impacts at the eastbound and westbound approaches of this intersection during the weekday AM peak hour could be fully mitigated by shifting 2 seconds of green time from the northbound phase to the eastbound/westbound phase.

The significant adverse impacts at the eastbound and westbound approaches of this intersection during the weekday midday and PM peak hours could be fully mitigated by shifting 3 seconds of green time from the northbound phase to the eastbound/westbound phase.

The significant adverse impact at the eastbound defacto left-turn and westbound approach of this intersection during the Saturday peak hour could be fully mitigated by shifting 2 seconds of green time from the northbound phase to the eastbound/westbound phase.

TENTH AVENUE AND WEST 56TH STREET

The significant adverse impact at the eastbound approach of this intersection during the weekday AM peak hour could be fully mitigated by shifting 1 second of green time from the northbound phase to the eastbound phase.

The significant adverse impact at the eastbound approach of this intersection during the weekday midday, PM, and Saturday peak hours could be fully mitigated by shifting 2 seconds of green time from the northbound phase to the eastbound phase.

TENTH AVENUE AND WEST 55TH STREET

The significant adverse impact at the westbound approach of this intersection during the weekday midday and Saturday peak hours could be fully mitigated by shifting 2 seconds of green time from the northbound phase to the westbound phase.

The significant adverse impact at the westbound approach of this intersection during the weekday PM peak hour could be fully mitigated by shifting 1 second of green time from the northbound phase to the westbound phase.

NINTH AVENUE AND WEST 57TH STREET

The significant adverse impacts at the eastbound through, eastbound right-turn, and westbound through of this intersection during the weekday AM and midday peak hours could be fully mitigated by shifting 2 seconds of green time from the southbound phase to the eastbound/westbound phase.

The significant adverse impacts at the eastbound right-turn and westbound approach of this intersection during the weekday PM peak hour could be fully mitigated by shifting 3 seconds of green time from the southbound phase to the eastbound/westbound phase.

The significant adverse impacts at the eastbound right-turn and westbound through of this intersection during the Saturday peak hour could be fully mitigated by shifting 2 seconds of green time from the southbound phase to the eastbound/westbound phase.

NINTH AVENUE AND WEST 56TH STREET

The significant adverse impact at the eastbound approach of this intersection during the weekday AM peak hour could be fully mitigated by shifting 1 second of green time from the southbound phase to the eastbound phase.

The significant adverse impact at the eastbound approach of this intersection during the weekday midday, PM and Saturday peak hours could be fully mitigated by shifting 2 seconds of green time from the southbound phase to the eastbound phase.

EIGHTH AVENUE AND WEST 57TH STREET

The significant adverse impacts at the eastbound and westbound approach of this intersection during the weekday AM peak hour could be fully mitigated by shifting 1 second of green time from the northbound phase to the eastbound/westbound phase.

The significant adverse impact at the westbound approach of this intersection during the weekday midday, PM, and Saturday peak hours could be fully mitigated by shifting 1 second of green time from the northbound phase to the eastbound/westbound phase.

In order to verify the need and effectiveness of the proposed mitigation measures identified above, the applicant agrees to assess the feasibility of conducting a Traffic Monitoring Plan (TMP) between Draft and Final EIS.

If the TMP is identified as a necessary measure between the Draft and Final EISs, the applicant will agree to pay for all expenses associated with the TMP as well as the design and implementation of all mitigation measures recommended in the FEIS or in the monitoring plan including, but not limited to, geometric modifications, traffic signs, and pavement markings, etc. NYCDOT will participate in the review process relating to proposed improvement measures recommended in the FEIS or in the TMP including geometric modifications and other design changes. The applicant will submit all of the required drawings/design as per the American Association of State Highway Transportation Officials (AASHTO) and NYCDOT specifications for review and approval. Furthermore, the applicant will inform NYCDOT at the time of the first occupancy of the project building.

TRANSIT

As discussed in Chapter 11, “Transportation,” the proposed actions would result in potential significant adverse bus line haul impacts on the eastbound M57 during the AM peak period and the westbound M31 and westbound M57 during the PM peak hour. Potential measures to mitigate these impacts are described below.

BUS LINE HAUL

The proposed actions would result in potential significant adverse bus line haul impacts on the M31 and M57 bus routes as the projected passenger volumes in the future with the proposed project condition would exceed the NYCT guideline capacity during the following peak periods:

- Eastbound/Southbound M57 during the AM peak period;
- Westbound/Southbound M31 during the PM peak period; and
- Westbound/Northbound M57 during the PM peak period.

Table 19-7 provides a comparison of existing service and the number of buses required to fully mitigate the identified potential significant adverse line haul impacts along the M31 and M57 bus routes. While NYCT and MTA Bus routinely monitors changes in bus ridership and would make the necessary service adjustments where warranted, these service adjustments are subject to the agencies’ fiscal and operational constraints and, if implemented, are expected to take place over time.

**Table 19-7
2017 Mitigated Build Condition (Capacity Improvement)
Bus Line Haul Levels**

Route	Peak Period	Buses per Hour		
		Existing	No Build	Mitigation
M31—Westbound/Southbound	PM	9	9	12
M57—Eastbound/Southbound	AM	7	7	16
M57—Westbound/Northbound	PM	7	7	13
Notes: The M31 and M57 bus routes operate standard buses with a guideline capacity of 54 passengers per bus.				

PEDESTRIANS

As discussed in Chapter 11, “Transportation,” the proposed actions would result in significant adverse pedestrian impacts at one crosswalk location: the south crosswalk of 57th Street and Eleventh Avenue during all analysis time periods. ~~Potential measures to mitigate these significant adverse impacts are described below, and the mitigated conditions are summarized in Table 19-8. Implementation of these measures would be subject to review and approval by NYCDOT.~~

The DEIS included proposed mitigation at this crosswalk—including a crosswalk widening and a signal light timing change during the weekday PM peak hour—that would fully mitigate potential impacts. However, subsequent to the issuance of the DEIS, NYCDOT has further reviewed the proposed pedestrian mitigation to assess the feasibility of its implementation. Based on their review, NYCDOT determined that the proposed crosswalk widening, which goes beyond the building lines on Eleventh Avenue, is not feasible. Hence, the potential significant adverse crosswalk impact would remain unmitigated in all of the four analysis time periods.

As discussed in Chapter 11, “Transportation,” the pedestrian analysis conservatively considers the mixed-use RWCDS 2 in its assessment of future pedestrian levels in the study area. This RWCDS would generate a substantial level of additional pedestrian trips as compared to the trips generated by RWCDS 1. In the future with the proposed actions, if RWCDS 1 is built rather than RWCDS 2, the pedestrian levels would be lower than those forecasted in the analysis. Consequently, with the reduced pedestrian levels of RWCDS 1, the level of mitigation required to fully mitigate the pedestrian impacts at the south crosswalk could be less than forecasted for RWCDS 2.

ELEVENTH AVENUE AND WEST 57TH STREET—SOUTH CROSSWALK

The south crosswalk at this intersection would deteriorate from LOS C (39.8 SFP) to LOS E (12.3 SFP), LOS A (107.9 SFP) to LOS E (10.8 SFP), LOS A (123.8 SFP) to LOS E (11.6 SFP), and LOS A (61.6 SFP) to LOS E (10.1 SFP) during the weekday AM, midday, PM, and Saturday peak periods, respectively. The significant adverse pedestrian impacts could not be fully mitigated during all the analysis time periods. ~~by restriping the width of this crosswalk from 15.0 feet to 28.0 feet. With this measure in place, the proposed crosswalk widening would extend to beyond the building line.~~

EFFECTS OF TRAFFIC MITIGATION ON PEDESTRIAN OPERATIONS

As described above, intersection operations would be changed with the implementation of the recommended traffic mitigation measures. These measures would include changes to existing signal timings and lane utilizations. A review of the effects of these changes on pedestrian circulation and service levels at intersection corners and crosswalks showed that they would not alter the conclusions made for the pedestrian impact analyses, nor would they result in the potential for any additional significant adverse pedestrian impacts.

Table 19-8
2017 No Build, Build, and Mitigated Conditions
Pedestrian Level of Service Crosswalk Analysis

Location	Mitigation Measures	No-Build		Build		Mitigated-Build	
		SFP	LOS	SFP	LOS	SFP	LOS
Weekday AM Peak 15-Minutes							
Eleventh Avenue and West 57th Street-South Crosswalk	Restripe width of crosswalk from 15 feet to 28 feet.	39.8	C	12.3	E+	24.3	C
Weekday Midday Peak 15-Minutes							
Eleventh Avenue and West 57th Street-South Crosswalk	Restripe width of crosswalk from 15 feet to 28 feet.	107.9	A	40.8	E+	21.2	D
Weekday PM Peak 15-Minutes							
Eleventh Avenue and West 57th Street-South Crosswalk	Restripe width of crosswalk from 15 feet to 28 feet and shift 2 sec of green time from SB phase to EB/WB phase	123.8	A	41.6	E+	26.7	C
Saturday Peak 15-Minutes							
Eleventh Avenue and West 57th Street-South Crosswalk	Restripe width of crosswalk from 15 feet to 28 feet	61.6	A	40.4	E+	19.9	D
Note: SFP = square feet per pedestrian. + Denotes a significant adverse pedestrian impact							

Between Draft and Final EIS, DOT will review this specific measure proposed for the south crosswalk to confirm the adequacy and feasibility of its implementation, and could recommend changes as necessary. If it is determined by DOT that this specific measure of crosswalk widening is not feasible, DCP in consultation with DOT will explore other mitigation measures to mitigate this impact. However, if it is determined that other measures are not available to mitigate the identified significant adverse pedestrian impact, either in part or in whole, the impact would be identified in the FEIS as unmitigated. In such case, this impact will be identified as an unmitigated adverse impact, and a discussion will be included in the “Unavoidable Adverse Impacts” chapter for the FEIS.

TRAFFIC MONITORING PLAN

In order to verify the projected traffic conditions, any significant adverse traffic and pedestrian operational and safety impacts, and the need for traffic mitigation measures identified in the EIS, the applicant will develop and conduct a detailed Traffic Monitoring Plan (TMP) once the proposed project is built and operational. The requirement for a TMP will be included in the Restrictive Declaration to be recorded. The applicant will submit for DCP and NYCDOT’s review and approval a detailed scope of work that will include critical locations where significant traffic and pedestrian impacts have been identified in the EIS as well as other locations which could potentially be impacted. Data collection to be conducted for the monitoring plan will include nine days of 24-hour Automatic Traffic Recorder (ATR) machine counts along with one typical day of manual turning movement counts, vehicle classification counts, pedestrian and bicycle counts, intersection geometry, field verified signal timing, and any other relevant information necessary for conducting the traffic and pedestrian analysis following the CEQR Technical Manual guidelines. The TMP will also include field observations of intersection operations and queue lengths. Intersection capacity and level of service analyses will be performed using the Highway Capacity Software (HCS) and/or Synchro to determine whether actual future Action conditions have, in fact, resulted in significant traffic and pedestrian impacts at the same or new locations, and to verify and/or identify the need for mitigation measures through the TMP. In addition, the TMP will assess vehicular, pedestrian and cyclist safety and recommend safety improvements measures where warranted.

The applicant will obtain approval from DCP and NYCDOT regarding traffic and pedestrian analysis locations prior to initiating data collection, and will be responsible for all costs associated with the traffic monitoring plan including data collection and analysis. For any capital improvement measures, resulting as part of the monitoring plan, the applicant will be responsible for all costs associated with its design and implementation, and submit all of the required drawings/design as per American Association of State Highway Transportation Officials (AASHTO) and NYCDOT specifications for NYCDOT's review and approval. NYCDOT will participate in the review process relating to all future modifications to geometric alignment, striping and signage during the preliminary and final design phases. *