Chapter 19: Mitigation

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 a significant adverse impact 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 will be included in the Restrictive Declaration to be recorded. 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.).

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 be fully mitigated with a crosswalk widening and a signal light timing change during the weekday PM peak hour.

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.

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 measures proposed for 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 19-1 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).

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 19-1
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-LT WB-TR	 EB-LT WB-TR	 EB-LT WB-TR	EB-DefL 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 WB-T	EB-T EB-R WB-T	 EB-R WB-LT	 EB-R 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	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) 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) Shift 1 second of green time from the NB/SB phase to the EB/WB left-turn phase.	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; 3) 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	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) 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. phase.	EB/WB: Green = 29 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 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) 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 = 10 s NB/SB: Green = 38 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 of the significant adverse traffic impacts identified above could be fully mitigated. **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
	TR	0.56	20.5	C	TR	0.59	21.1	C		-	-	-	-
	-	-	-	-	-	-	-	-		R	0.25	17.9	B
SB	L	0.71	38.7	D	L	0.75	43.9	D		L	0.69	37.3	D
	TR	0.81	28.3	C	TR	0.84	30.0	C		TR	0.86	32.3	C
	Int.		38.8	D	Int.		44.7	D		Int.		39.7	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
NB	TR	0.60	14.2	B	TR	0.61	14.3	B		TR	0.62	15.0	B
	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
	-	-	-	-	-	-	-	-		-	-	-	-
	T	1.14	102.4	F	T	1.18	118.6	F	+	T	1.13	96.3	F
SB	L	0.23	23.5	C	L	0.24	23.8	C		L	0.26	25.8	C
	TR	0.68	27.9	C	TR	0.69	28.0	C		LTR	0.74	30.4	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
SB	L	0.09	9.7	A	L	0.09	9.7	A		L	0.09	10.2	B
	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
WB	TR	1.02	61.6	E	TR	1.04	69.6	E	+	TR	1.01	59.7	E
NB	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

	2017 No-Action				2017 With-Action					2017 Mitigation			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS
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	0.62	34.6	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
	T	0.37	9.9	A	T	0.39	10.1	B		T	0.39	10.6	B
SB	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
	-	-	-	-	-	-	-	-		-	-	-	-
	T	1.07	78.6	E	T	1.12	96.9	F	+	T	1.08	78.2	E
SB	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

	2017 No-Action				2017 With-Action					2017 Mitigation			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS
12th Avenue (Route 9A) & West 57th Street													
WB	R	0.96	76.2	E	R	1.00	87.2	F	+	R	0.98	80.0	E
NB (Mainline)	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)	T	0.72	6.2	A	T	0.72	6.3	A		T	0.73	6.9	A
SB (Mainline)	L	0.94	79.1	E	L	0.97	84.1	F	+	L	0.94	78.0	E
NB (Service Road)	TR	0.40	4.2	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	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
NB (Mainline)	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
SB (Mainline)	T	0.78	22.1	C	T	0.78	22.1	C		T	0.79	23.7	C
NB (Service Road)	T	0.54	3.6	A	T	0.57	3.9	A		T	0.58	4.1	A
SB (Service Road)	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	LTR	0.46	24.6	C	LTR	0.47	24.8	C		LTR	0.49	25.7	C
NB	TR	0.74	19.2	B	TR	0.77	20.1	C		TR	0.75	18.9	B
SB	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	L	1.06	102.0	F	L	1.07	104.0	F		L	1.04	95.8	F
	TR	0.45	27.3	C	TR	0.53	28.9	C		TR	0.50	26.7	C
WB	L	0.80	43.0	D	L	0.91	61.5	E	+	L	0.83	45.5	D
	TR	1.16	119.4	F	TR	1.28	167.1	F	+	TR	1.15	111.4	F
NB	L	0.46	30.5	C	L	0.60	41.9	D		L	0.53	34.9	C
	-	-	-	-	-	-	-	-		T	0.48	20.2	C
	TR	0.55	20.2	C	TR	0.58	20.8	C		-	-	-	-
	-	-	-	-	-	-	-	-		R	0.25	18.5	B
SB	L	0.74	43.1	D	L	0.80	51.5	D	+	L	0.76	46.3	D
	-	-	-	-	-	-	-	-		T	0.76	26.7	C
	TR	0.90	35.0	D	TR	0.94	39.2	D		-	-	-	-
	-	-	-	-	-	-	-	-		R	0.34	20.2	C
	Int.		57.5	E	Int.		73.3	E		Int.		53.1	D
11th Avenue & West 55th Street													
WB	LTR	0.90	47.0	D	LTR	0.96	55.8	E	+	LTR	0.92	48.4	D
NB	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
SB	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	LT	0.91	55.4	E	LT	0.95	63.1	E	+	LT	0.92	55.5	E
NB	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	LT	1.10	98.5	F	LT	1.22	142.3	F	+	LT	1.10	92.2	F
WB	TR	1.14	102.8	F	TR	1.20	126.6	F	+	TR	1.10	85.8	F
NB	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	LT	1.01	71.6	E	LT	1.08	90.8	F	+	LT	1.01	68.2	E
NB	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	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
NB	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

	2017 No-Action				2017 With-Action					2017 Mitigation			
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS
9th Avenue & West 57th Street													
EB	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
WB	LT	1.11	86.1	F	LT	1.16	103.4	F	+	LT	1.09	74.1	E
SB	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	TR	1.06	82.7	F	TR	1.12	101.0	F	+	TR	1.05	77.3	E
SB	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	LT	0.77	30.4	C	LT	0.81	32.6	C		LT	0.78	30.0	C
WB	TR	1.11	92.1	F	TR	1.14	103.3	F	+	TR	1.11	90.0	F
NB	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

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	0.65	29.1	C
	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	1.11	111.3	F
	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	0.81	59.3	E
	TR	0.45	18.6	B	TR	0.47	19.0	B		TR	0.50	20.6	C
SB	L	0.64	31.9	C	L	0.67	34.5	C		L	0.72	40.4	D
	-	-	-	-	-	-	-	-		T	0.65	23.5	C
	TR	0.81	28.2	C	TR	0.84	30.0	C		-	-	-	-
	-	-	-	-	-	-	-	-		R	0.38	21.0	C
	Int.		41.1	D	Int.		50.2	D		Int.		39.6	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
	-	-	-	-	-	-	-	-		-	-	-	-
	T	0.74	32.3	C	T	0.82	37.3	D		T	0.77	32.5	C
WB	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
NB	TR	0.73	16.7	B	TR	0.74	16.9	B		TR	0.77	18.8	B
	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
NB	LT	0.69	15.8	B	LT	0.70	16.0	B		LT	0.73	17.8	B
	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
	-	-	-	-	-	-	-	-		-	-	-	-
	T	1.04	67.9	E	T	1.10	86.5	F	+	T	1.05	68.9	E
SB	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
SB	L	0.07	9.4	A	L	0.07	9.4	A		L	0.07	10.4	B
	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
WB	TR	0.96	47.9	D	TR	1.00	55.0	E	+	TR	0.97	47.6	D
NB	LTR	0.73	20.0-	B	LTR	0.74	20.1	C		LTR	0.76	21.2	C
	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

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; 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; 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, westbound through/right-turn, and southbound left-turn of this intersection during the weekday PM 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; 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 be fully mitigated

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.

TRAFFIC MONITORING PLAN

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	Mitigation
M31—Westbound/Southbound	PM	9	12
M57—Eastbound/Southbound	AM	7	16
M57—Westbound/Northbound	PM	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.

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 be fully mitigated 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.

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	10.8	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	11.6	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	10.1	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.

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. ✷