Chapter 20: Mitigation

A. INTRODUCTION

The preceding chapters of this EIS discuss the potential for significant adverse impacts to result from the proposed action. Where such potential impacts are identified—specifically, in the assessment of the proposed action to result in adverse impacts due to the disturbance of hazardous materials and the vehicular traffic analysis in Chapter 14, "Traffic and Parking,"—measures have been examined to minimize or eliminate the anticipated impacts. These mitigation measures are discussed below.

B. HAZARDOUS MATERIALS

As discussed in Chapter 10, "Hazardous Materials," independent of the proposed action, the applicant is participating in the Brownfield Cleanup Program (BCP) administered by the New York State Department of Environmental Conservation (NYSDEC). The applicant was accepted into NYSDEC's BCP on April 19, 2005. An Interim Remedial Work Plan was approved on June 16, 2006, and a Remediation Work Plan was approved on July 5, 2006. On November 8, 2006, the applicant entered into a Restrictive Declaration that ensures that if the Brownfield Cleanup agreement is terminated, any development of the project site would proceed under the oversight of the New York City Department of Environmental Protection with respect to hazardous materials (see Appendix A: "Hazardous Materials"). In addition, the proposed action would include the placement of "(E) Designations" on Lots 58 and 61 to ensure that the potential for those sites to contain contaminated materials is addressed prior to any redevelopment.

C. TRAFFIC

As discussed in Chapter 14, the proposed actions would result in significant adverse impacts at a number of study area analysis locations. To alleviate these impacts, implementable mitigation measures were explored. The mitigation analysis results and recommendations are discussed below.

RECOMMENDED MITIGATION MEASURES

Measures studied to mitigate project-related impacts would primarily involve retiming signal controls to increase green time for impacted movements and daylighting at intersection approaches to provide additional travel lanes or turn pockets. The operational changes incorporated into the mitigation analyses are presented in Table 20-1 and discussed below.

Table 20-1
2008 No Build, Build, and Mitigated Build Level of Service Analyses

Intersection	Peak Hour	Approach	2008 No Build				2008 Build				Mitigation				Mitigation Measure
			Lane Group	V/C Ratio	Delay (spv)	LOS	Lane Group	V/C Ratio	Delay (spv)	LOS	Lane Group	V/C Ratio	Delay (spv)	LOS	
Columbus Ave & W 57th St	AM	Eastbound	T	0.98	64.9	E	T	0.98	64.9	E	T	0.98	64.9	E	Implement No Standing regulations between 7 AM and 10 AM for 100 feet on the west side of Columbus Avenue to create exclusive right-turn lane and shift 2 seconds of green time from southbound to westbound phase.
			R	0.59	46.1	D	R	0.59	46.1	D	R	0.59	46.1	D	
		Westbound	DefL	1.27	169.4	F	DefL	1.27	169.4	F	DefL	1.16	126.8	F	
			T	1.16	116.8	F	**T**	**1.22**	**137.4**	**+F**	T	1.16	113.5	F	
		Southbound	L	0.39	24.7	C	L	0.45	26.0	C	L	0.48	28.9	C	
			TR	1.07	71.5	E	**TR**	**1.09**	**78.2**	**+E**	T	0.95	41.2	D	
											R	0.70	40.7	D	
		Intersection			86.0	F			92.7	F			66.4	E	
	PM	Eastbound	T	0.88	49.0	D	T	0.88	49.0	D	T	0.88	49.0	D	Shift 1 second of green time from southbound to westbound phase.
			R	0.72	56.0	E	R	0.72	56.0	E	R	0.72	56.0	E	
		Westbound	DefL	0.96	61.1	E	DefL	0.96	61.1	E	DefL	0.91	51.3	D	
			T	1.15	110.0	F	**T**	**1.18**	**120.1**	**+F**	T	1.15	108.4	F	
		Southbound	L	0.55	29.0	C	L	0.58	29.9	C	L	0.60	31.9	C	
			T	0.78	28.3	C	T	0.79	28.5	C	T	0.82	30.4	C	
			R	0.66	34.6	C	R	0.66	34.6	C	R	0.69	37.5	D	
		Intersection			51.6	D			53.9	D			51.8	D	
Columbus Ave & W 60th St	Midday	Eastbound	R	1.16	132.0	F	**R**	**1.18**	**140.2**	**+F**	R	1.14	123.0	F	Shift 1 second of green time from southbound to eastbound/westbound phase.
		Westbound	L	0.52	30.3	C	L	0.52	30.3	C	L	0.50	28.9	C	
			LT	0.51	28.9	C	LT	0.52	29.0	C	LT	0.50	27.7	C	
		Southbound	TR	0.65	10.5	B	TR	0.66	10.6	B	TR	0.67	11.5	B	
		Intersection			31.1	C			32.4	C			30.3	C	
Amsterdam Ave & W 57th St	AM	Eastbound	LT	0.97	56.7	E	LT	0.99	60.6	E	LT	0.91	44.0	D	Shift 2 seconds of green time from northbound to eastbound/westbound phase.
		Westbound	TR	0.97	51.0	D	**TR**	**1.00**	**59.0**	**+E**	TR	0.94	44.8	D	
		Northbound	LT	0.79	17.1	B	LT	0.79	17.2	B	LT	0.83	20.1	C	
			R	0.46	14.6	B	R	0.46	14.6	B	R	0.49	16.8	B	
		Intersection			32.0	C			34.8	D			30.1	C	
	PM	Eastbound	LT	1.06	84.5	F	**LT**	**1.07**	**87.9**	**+F**	LT	1.03	73.0	E	Shift 1 second of green time from northbound to eastbound/westbound phase.
		Westbound	TR	0.98	53.8	D	TR	1.00	57.6	E	TR	0.97	49.6	D	
		Northbound	LT	0.72	15.2	B	LT	0.72	15.3	B	LT	0.74	16.4	B	
			R	0.60	19.3	B	R	0.60	19.3	B	R	0.61	20.8	C	
		Intersection			36.4	D			38.0	D			34.2	C	
Amsterdam Ave & W 59th St	Midday	Eastbound	L	0.94	86.9	F	**L**	**0.95**	**90.3**	**+F**	L	0.91	77.3	E	Shift 1 second of green time from northbound to eastbound/westbound phase.
		Westbound	T	0.54	28.5	C	T	0.56	29.0	C	T	0.54	27.7	C	
			R	0.37	26.2	C	R	0.37	26.2	C	R	0.35	25.0	C	
		Northbound	LT	0.63	11.0	B	LT	0.63	11.0	B	LT	0.64	11.9	B	
		Intersection			19.0	B			19.4	B			18.9	B	
West End Ave & W 59th St	AM	Eastbound	LT	0.79	61.5	E	LT	0.81	64.9	E	LT	0.76	55.8	E	Shift 1 second of green time from northbound/southbound to eastbound/westbound phase.
			R	0.30	28.4	C	R	0.30	28.4	C	R	0.29	27.4	C	
		Westbound	LT	1.04	98.2	F	**LT**	**1.06**	**103.2**	**+F**	LT	1.02	90.1	F	
			R	0.30	28.1	C	R	0.35	29.2	C	R	0.34	28.1	C	
		Northbound	L	0.18	9.8	A	L	0.18	9.9	A	L	0.19	10.6	B	
			TR	0.46	10.4	B	TR	0.49	10.8	B	TR	0.50	11.4	B	
		Southbound	L	0.03	7.1	A	L	0.03	7.1	A	L	0.03	7.5	A	
			TR	0.71	14.7	B	TR	0.72	15.1	B	TR	0.74	16.1	B	
		Intersection			26.5	C			27.4	C			26.0	C	
	PM	Eastbound	LT	1.15	145.8	F	**LT**	**1.18**	**156.3**	**+F**	LT	1.11	128.9	F	Shift 1 second of green time from northbound/southbound to eastbound/westbound phase.
			R	0.55	35.2	D	R	0.55	35.2	D	R	0.53	33.4	C	
		Westbound	LT	1.20	157.6	F	**LT**	**1.22**	**165.2**	**+F**	LT	1.15	139.2	F	
			R	0.45	31.4	C	R	0.50	33.1	C	R	0.48	31.6	C	
		Northbound	L	0.08	7.7	A	L	0.08	7.8	A	L	0.08	8.2	A	
			TR	0.60	12.4	B	TR	0.63	12.8	B	TR	0.64	13.6	B	
		Southbound	L	0.09	8.0	A	L	0.09	8.1	A	L	0.10	8.6	A	
			TR	0.55	11.6	B	TR	0.56	11.7	B	TR	0.57	12.3	B	
		Intersection			38.7	D			40.2	D			36.0	D	
West End Ave & W 66th St	PM	Eastbound	LR	0.05	20.0	B	LR	0.05	20.0	B	LR	0.05	19.3	B	Shift 1 second of green time from northbound/southbound to eastbound/westbound phase.
		Westbound	L	0.99	78.8	E	**L**	**1.01**	**82.9**	**+F**	L	0.96	69.7	E	
			LT	1.02	81.0	F	LT	1.03	83.0	F	LT	1.00	71.9	E	
			R	0.60	31.9	C	R	0.60	31.9	C	R	0.58	30.2	C	
		Northbound	L	0.31	20.0	B	L	0.31	20.3	C	L	0.33	21.7	C	
			T	0.53	18.0	B	T	0.53	18.0	B	T	0.55	18.8	B	
		Southbound	T	0.72	22.0	C	T	0.73	22.3	C	T	0.74	23.5	C	
			R	0.11	13.4	B	R	0.11	13.4	B	R	0.11	14.0	B	
		Intersection			37.0	D			38.0	D			35.3	D	

Notes: L = left turn; T = through; R = right turn; DefL = de facto left turn; V/C = volume to capacity; LOS = level of service.
+ = significant traffic impact.

COLUMBUS AVENUE AND WEST 57TH STREET

Curbside activities are currently permitted along the west side of the southbound approach during all hours except for the PM peak period (4 to 7 PM), when southbound right-turn vehicles are accommodated on the west curb lane. To mitigate the impacts identified for the AM peak hour, implementing no standing regulations on the west curb of Columbus Avenue for 100 feet (displacing four parking spaces at the intersection approach) is also required to provide a southbound exclusive right-turn lane during this period. In addition, a shift of 2 seconds of green time from the southbound phase to the westbound phase is required. During the PM peak hour, a one-second shift from southbound to westbound would suffice.

COLUMBUS AVENUE AND WEST 60TH STREET

The midday peak hour eastbound impact could be mitigated by shifting one second of green time from the southbound phase to the eastbound/westbound phase.

AMSTERDAM AVENUE AND WEST 57TH STREET

The westbound impact during the AM peak hour and the eastbound impact during the PM peak hour could be mitigated by shifting one and two seconds, respectively, of green time from the northbound phase to the eastbound/westbound phase.

AMSTERDAM AVENUE AND WEST 59TH STREET

The eastbound impact during the midday peak hour could be mitigated by shifting one second of green time from the northbound phase to the eastbound/westbound phase.

WEST END AVENUE AND WEST 59TH STREET

The eastbound left-through impact during the AM peak hour and the eastbound and westbound left-through impacts during the PM peak hour could be mitigated by shifting one second of green time from the northbound/southbound phase to the eastbound/westbound phase.

WEST END AVENUE AND WEST 66TH STREET

The westbound impact during the PM peak hour could be mitigated by shifting one second of green time from the northbound/southbound phase to the eastbound/westbound phase. ✷