

**A. INTRODUCTION**

This chapter considers mitigation measures to address significant adverse impacts generated by the proposed project. As described in Chapter 1, “Project Description,” the applicant is proposing a series of discretionary actions to facilitate a proposed retail development located near the intersection of Forest Avenue and South Avenue in Staten Island. The proposed project has the potential to result in significant adverse impacts with respect to traffic. Potential traffic mitigation measures are identified below.

**PRINCIPAL CONCLUSIONS**

As discussed in Chapter 7, “Transportation,” traffic conditions were evaluated at ten intersections for the weekday midday, PM, and Saturday peak hours. In the 2019 With Action condition, there would be the potential for significant adverse traffic impacts at four intersections during the weekday PM peak hour and seven intersections during the Saturday peak hour.

As summarized in **Table 13-1**, locations where significant adverse traffic impacts are predicted to occur could be fully mitigated with the implementation of standard traffic mitigation measures (e.g., signal timing changes and lane restriping), which are described below. No significant adverse impacts were identified for transit, pedestrians, vehicular and pedestrian safety, and parking.

**Table 13-1  
Summary of Significant Adverse Traffic Impacts**

Intersection		Weekday PM Peak Hour	Saturday Peak Hour
EB/WB Street	NB/SB Street		
Forest Avenue	Maple Parkway		WB-L
Forest Avenue	Richmond Avenue/Morningstar Road	EB-TR	EB-L EB-TR
Forest Avenue	Union Avenue	WB-L	WB-L
Forest Avenue	Willow Road West		EB-TR
South Avenue	Amador Street		NB-TR
South Avenue	Lisk Avenue	WB-LR	WB-LR
South Avenue	Goethals Road North	WB-LTR	WB-LTR
<b>Total Impacted Intersections/Lane Groups</b>		<b>4/4</b>	<b>7/8</b>
<b>Notes:</b> L = Left-Turn, T = Through, R = Right-Turn, DefL = Defacto Left-Turn, EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound.			

Although all significant adverse traffic impacts would be mitigated by the proposed traffic improvements, at the request of the New York City Department of Transportation (NYCDOT), has requested that the applicant conduct has committed to conducting a traffic monitoring program upon full occupancy of the proposed project to verify that the traffic mitigation

adequately addresses the projected traffic impacts. The monitoring program will assess the peak hour volume of traffic actually generated by the proposed project in comparison to the estimated peak hour traffic volumes. Should the actual peak hour traffic actually generated by the project ~~exceed~~ differ from the estimates herein, a traffic monitoring study will be conducted to assess ~~whether additional traffic improvements are required. The details~~ the effectiveness of the ~~traffic monitoring program~~ proposed mitigation measures identified in the FEIS and to determine the extent to which future volume projections actually occur. These results will be refined in the Final Environmental Impact Statement used to verify the need for the mitigation measures identified in the FEIS and/or modify the mitigation measures to respond to actual traffic conditions.

## **B. TRANSPORTATION**

### **TRAFFIC**

As described in Chapter 7, “Transportation,” traffic levels of service (LOS) at signalized and unsignalized intersections are evaluated using average stop control delay, in seconds per vehicle, for individual lane groups (grouping of movements in one or more travel lanes), the approaches, and the overall intersection. According to the criteria presented in the 2014 *CEQR Technical Manual*, impacts are considered significant and require examination of mitigation if they result in an increase in the With Action condition of five or more seconds of delay in a lane group over No Action levels beyond mid-LOS D. For No Action LOS E, a four-second increase in delay is considered significant. For No Action LOS F, a three-second increase in delay is considered significant. In addition, impacts are considered significant if levels of service deteriorate from acceptable A, B, or C in the No Action condition to marginally unacceptable LOS D (a delay in excess of 45 and 30 seconds, the midpoint of LOS D, for signalized and unsignalized intersections, respectively), or unacceptable LOS E or F in the With Action condition. For unsignalized intersections, for the minor street to trigger significant impacts, at least 90 passenger car equivalents (PCEs) must be identified in the With Action condition in any peak hour. A traffic impact is considered fully mitigated when the resulting degradation in the average control delay per vehicle under the Action-with-Mitigation condition compared to the No Action condition is no longer deemed significant following the impact criteria described above.

**Tables 13-2 and 13-3** itemize the recommended mitigation measures that address the identified impacts under the 2019 With Action condition. With the implementation of these standard traffic mitigation measures (including primarily signal timing changes and lane restriping), which are subject to review and approval by the New York City Department of Transportation (NYCDOT), the significant adverse traffic impacts identified above could be fully mitigated.

**Table 13-2**  
**Recommended Mitigation Measures Weekday PM Peak Hour**

Intersection	No Action Signal Timing	Recommended Mitigation Measures	Recommended Signal Timing
Forest Avenue and Richmond Avenue/Morningstar Road	Phase A: WB/NB Right Turn Overlap Green = 10 s Phase B: WB/EB Green = 28 s Phase C: NB Green = 7 s Phase D: NB/SB Green = 24 s	(1) Restripe the EB approach as one 7-foot striped median, one 11-foot left-turn lane and two 11-foot shared through/right-turn lanes. (2) Restripe the WB approach as one 12-foot left-turn lane and two 11-foot shared through/right-turn lanes (3) Restripe the NB approach as one 3-foot striped median, one 12-foot left-turn lane, one 11-foot through lane, and one 12-foot right-turn lane. (4) Shift 1 second of green time from Phase A and 1 second of green time from Phase C to Phase B.	Phase A: WB/NB Right Turn Overlap Green = 9 s Phase B: WB/EB Green = 30 s Phase C: NB Green = 6 s Phase D: NB/SB Green = 24 s
Forest Avenue and Union Avenue/Shopping Center	Phase A: EB/WB Green = 49 s Phase B: NB/SB Green = 31 s	Shift 2 seconds of green time from Phase B to Phase A	Phase A: EB/WB Green = 51 s Phase B: NB/SB Green = 29 s
South Avenue and Lisk Avenue	Phase A: WB Green = 15 s Phase B: NB/SB Green = 65 s	Shift 1 second of green time from Phase B to Phase A	Phase A: WB Green = 16 s Phase B: NB/SB Green = 64 s
South Avenue and Goethals Road North	Phase A: WB Green = 30 s Phase B: NB/SB Green = 30 s Phase C: NB Green = 15 s	Shift 1 second of green time from Phase C to Phase A	Phase A: WB Green = 31 s Phase B: NB/SB Green = 40 s Phase C: NB Green = 14 s
<b>Notes:</b> EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound			

**Table 13-3**  
**Recommended Mitigation Measures Saturday Peak Hour**

Intersection	No Action Signal Timing	Recommended Mitigation Measures	Recommended Signal Timing
Forest Avenue and Maple Parkway	Phase A: SB Green = 37 s Phase B: EB/WB Green = 43 s	Shift 1 second of green time from Phase A (SB Maple Parkway) to Phase B (EB/WB Forest Avenue)	Phase A: SB Green = 36 s Phase B: EB/WB Green = 44 s
Forest Avenue and Richmond Avenue/Morningstar Road	Phase A: WB/NB Right Turn Overlap Green = 10 s Phase B: WB/EB Green = 28 s Phase C: NB Green = 7 s Phase D: NB/SB Green = 24 s	(1) Restripe the EB approach as one 7-foot striped median, one 11-foot left-turn lane and two 11-foot shared through/right-turn lanes. (2) Restripe the WB approach as one 12-foot left-turn lane and two 11-foot shared through/right-turn lanes (3) Restripe the NB approach as one 3-foot striped median, one 12-foot left-turn lane, one 11-foot through lane, and one 12-foot right-turn lane. (4) Shift 1 second of green time from Phase A and 1 second of green time from Phase C to Phase B.	Phase A: WB/NB Right Turn Overlap Green = 9 s Phase B: WB/EB Green = 30 s Phase C: NB Green = 6 s Phase D: NB/SB Green = 24 s
Forest Avenue and Union Avenue/Shopping Center	Phase A: EB/WB Green = 49 s Phase B: NB/SB Green = 31 s	Shift 3 seconds of green time from Phase B to Phase A	Phase A: EB/WB Green = 52 s Phase B: NB/SB Green = 28 s
Forest Avenue and Willow Road West	Phase A: WB Green = 12 s Phase B: EB/WB Green = 38 s Phase C: SB Green = 25 s	Shift 1 second of green time from Phase C to Phase B	Phase A: WB Green = 12 s Phase B: EB/WB Green = 39 s Phase C: SB Green = 24 s
South Avenue and Amador Street	Phase A: WB Green = 22 s Phase B: NB/SB Green = 58 s	Shift 1 second of green time from Phase A to Phase B	Phase A: WB Green = 21 s Phase B: NB/SB Green = 59 s
South Avenue and Lisk Avenue	Phase A: WB Green = 15 s Phase B: NB/SB Green = 65 s	Shift 1 second of green time from Phase B to Phase A	Phase A: WB Green = 16 s Phase B: NB/SB Green = 64 s
South Avenue and Goethals Road North	Phase A: WB Green = 30 s Phase B: NB/SB Green = 30 s Phase C: NB Green = 15 s	Shift 1 second of green time from Phase C to Phase A	Phase A: WB Green = 31 s Phase B: NB/SB Green = 40 s Phase C: NB Green = 14 s
<b>Notes:</b> EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound			

**South Avenue Retail Development**

A discussion of the recommended mitigation measures is provided below. **Table 13-4** compares the levels of service (LOS) and lane group delays for the Forest Avenue and Richmond Avenue/Morningstar Road intersection under the 2019 No Action, With Action, and Mitigation conditions for the midday peak hour. Although this intersection was not impacted in the midday peak hour, the PM and Saturday mitigation measures described in **Tables 13-2 and 13-3** were tested on the midday peak hour to ensure it would not cause additional impacts. Since the geometric modification of lane restriping by itself would cause a new significant impact, similar signal timing shifts described in **Tables 13-2 and 13-3** were also applied to the midday peak hour to enable the geometric modifications to be implemented without causing an additional significant adverse impact. **Table 13-4** shows the mitigated LOS in the midday peak hour with the same mitigation measures as the PM and the Saturday peak hours for informational purposes. **Tables 13-5 and 13-6** compare the levels of service (LOS) and lane group delays for all of the impacted intersections under the 2019 No Action, With Action, and Mitigation conditions for the PM and Saturday peak hours, respectively.

**Table 13-4  
2019 No Action, With Action, and Mitigation Conditions  
Level of Service Analysis Weekday Midday Peak Hour**

Intersection	2019 No Action				2019 With Action				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
<b>Signalized Intersections</b>												
<b>Forest Avenue &amp; Richmond Avenue/Morningstar Road<sup>(1)</sup></b>												
Eastbound	L	0.52	35.2	D	L	0.52	35.1	D	L	0.48	32.3	C
	TR	1.14	104.7	F	TR	1.12	100.3	F	TR	1.08	84.7	F
Westbound	L	0.80	42.7	D	L	0.80	41.7	D	L	0.82	43.9	D
	TR	0.46	16.7	B	TR	0.46	16.6	B	TR	0.47	16.9	B
Northbound	L	0.64	31.7	C	L	0.64	31.7	C	L	0.60	28.7	C
	T	0.32	19.8	B	T	0.32	19.8	B	T	0.32	19.8	B
	R	0.22	9.8	A	R	0.22	9.8	A	R	0.24	10.3	B
Southbound	LTR	0.84	50.4	D	LTR	0.84	50.4	D	LTR	0.84	50.4	D
Eastbound	L	0.52	35.2	D	L	0.52	35.1	D	L	0.48	32.3	C
	Intersection		54.7	D	Intersection		53.0	D	Intersection		47.4	D
<b>Notes:</b> L = Left-Turn, T = Through, R = Right-Turn, DefL = Defacto Left-Turn; LOS = Level of Service; v/c = Volume to Capacity <sup>(1)</sup> Intersection not impacted during the weekday midday peak hour; analysis presented to demonstrate the proposed lane restriping mitigation measures would not result in additional significant adverse traffic impacts.												

**Table 13-5**  
**2019 No Action, With Action, and Mitigation Conditions Level of Service Analysis**  
**Weekday PM Peak Hour**

Intersection	2019 No Action				2019 With Action				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
<b>Signalized Intersections</b>												
<b>Forest Avenue &amp; Richmond Avenue/Morningstar Road</b>												
Eastbound	L	0.51	35.9	D	L	0.53	37.3	D	L	0.48	32.4	C
	TR	1.20	132.7	F	TR	<b>1.24</b>	<b>148.9</b>	<b>F+</b>	TR	1.16	112.3	F
Westbound	L	0.81	41.6	D	L	0.81	42.2	D	L	0.82	44.1	D
	TR	0.54	17.9	B	TR	0.55	18.0	B	TR	0.56	17.6	B
Northbound	L	0.61	29.7	C	L	0.61	29.7	C	L	0.61	31.0	C
	T	0.35	20.3	C	T	0.35	20.3	C	T	0.36	21.1	C
	R	0.28	10.4	B	R	0.28	10.4	B	R	0.29	11.5	B
Southbound	LTR	0.89	55.8	E	LTR	0.89	55.8	E	LTR	0.89	55.8	E
	Intersection	64.5	E	Intersection	71.0	E	Intersection	58.0	E			
<b>Forest Avenue &amp; Union Avenue/Shopping Center</b>												
Eastbound	L	0.43	17.6	B	L	0.44	18.3	B	L	0.42	16.1	B
	TR	0.55	14.5	B	TR	0.58	15.0	B	TR	0.56	13.5	B
Westbound	L	0.94	71.2	E	L	<b>1.02</b>	<b>95.6</b>	<b>F+</b>	L	0.95	71.5	E
	TR	0.52	14.1	B	TR	0.53	14.2	B	TR	0.50	12.8	B
Northbound	L	0.25	23.0	C	L	0.25	23.0	C	L	0.27	24.9	C
	TR	0.25	22.2	C	TR	0.25	22.2	C	TR	0.27	23.8	C
Southbound	LTR	0.59	29.5	C	LTR	0.59	29.6	C	LTR	0.66	33.8	C
	Intersection	20.3	C	Intersection	22.0	C	Intersection	19.9	B			
<b>South Avenue &amp; Lisk Avenue</b>												
Westbound	LR	1.03	102.3	F	LR	<b>1.05</b>	<b>109.3</b>	<b>F+</b>	LR	0.99	89.6	F
Northbound	T	0.57	7.5	A	T	0.69	9.6	A	T	0.70	10.4	B
	R	0.16	4.2	A	R	0.16	4.2	A	R	0.16	4.5	A
Southbound	LT	0.43	5.6	A	LT	0.50	6.3	A	LT	0.51	6.9	A
	Intersection	17.0	B	Intersection	18.2	B	Intersection	16.7	B			
<b>South Avenue &amp; Goethals Road North</b>												
Westbound	LTR	1.03	62.8	E	LTR	<b>1.07</b>	<b>76.3</b>	<b>E+</b>	LTR	1.04	63.6	E
Northbound	L	0.50	20.2	C	L	0.50	21.1	C	L	0.53	22.4	C
	T	0.60	15.7	B	T	0.60	15.9	B	T	0.62	16.7	B
Southbound	TR	0.95	45.5	D	TR	0.97	50.1	D	TR	0.97	50.1	D
	Intersection	46.2	D	Intersection	53.7	D	Intersection	48.4	D			
<b>Notes:</b>												
L = Left-Turn, T = Through, R = Right-Turn, DefL = Defacto Left-Turn; LOS = Level of Service; v/c = Volume to Capacity												
+ Denotes significant adverse impact												

**Table 13-6**  
**2019 No Action, With Action, and Mitigation Conditions Level of Service Analysis**  
**Saturday Peak Hour**

Intersection	2019 No Action				2019 With Action				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
<b>Signalized Intersections</b>												
<b>Forest Avenue &amp; Maple Parkway</b>												
Eastbound	L	0.6	41.2	D	L	0.65	<b>46.7</b>	<b>D+</b>	L	0.60	40.0	D
Westbound	T	0.64	19.4	B	T	0.67	20.0	B	T	0.65	19.1	B
	TR	0.74	22.1	C	TR	0.75	22.5	C	TR	0.74	21.3	C
Southbound	LR	0.19	17.5	B	LR	0.19	17.5	B	LR	0.19	18.2	B
	Intersection	21.1	C	Intersection	21.7	C	Intersection	20.6	C			
<b>Forest Avenue &amp; Richmond Avenue/Morningstar Road</b>												
Eastbound	L	0.65	146.5	F	L	<b>0.68</b>	<b>163.6</b>	<b>F+</b>	L	0.62	122.1	F
	TR	1.28	199.8	F	TR	<b>1.32</b>	<b>220.4</b>	<b>F+</b>	TR	1.23	177.4	F
Westbound	L	0.81	43.2	D	L	0.81	43.2	D	L	0.83	44.6	D
	TR	0.63	19.4	B	TR	0.64	19.5	B	TR	0.64	19.1	B
Northbound	L	0.88	53.8	D	L	0.89	54.7	D	L	0.87	54.2	D

**South Avenue Retail Development**

**Table 13-6 (cont'd)**  
**2019 No Action, With Action, and Mitigation Conditions Level of Service Analysis**  
**Saturday Peak Hour**

Intersection	2019 No Action				2019 With Action				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
<b>Signalized Intersections</b>												
<b>Forest Avenue &amp; Maple Parkway (cont'd)</b>												
	T	0.35	20.2	C	T	0.35	20.2	C	T	0.36	21.0	C
	R	0.28	10.4	B	R	0.28	10.4	B	R	0.29	11.5	B
Southbound	LTR	1.00	79.6	E	LTR	1.01	81.6	F	LTR	1.01	81.6	F
	Intersection		93.0	F	Intersection		93.0	F	Intersection		86.2	F
<b>Forest Avenue &amp; Union Avenue/Shopping Center</b>												
Eastbound	L	0.37	17.1	B	L	0.39	18.0	B	L	0.35	14.7	B
	TR	0.61	15.4	B	TR	0.64	15.9	B	TR	0.60	13.6	B
Westbound	L	1.29	191.1	F	L	<b>1.43</b>	<b>251.0</b>	<b>F+</b>	L	1.25	172.7	F
	TR	0.58	15.1	B	TR	0.59	15.2	B	TR	0.56	13.0	B
Northbound	L	0.28	23.5	C	L	0.29	23.6	C	L	0.32	26.6	C
	TR	0.28	22.5	C	TR	0.28	22.5	C	TR	0.30	25.1	C
Southbound	LTR	0.52	27.6	C	LTR	0.52	27.8	C	LTR	0.61	33.4	C
	Intersection		28.5	C	Intersection		32.3	C	Intersection		26.2	C
<b>Forest Avenue &amp; Willow Road West</b>												
Eastbound	TR	0.98	45.9	D	TR	<b>1.02</b>	<b>55.5</b>	<b>E+</b>	TR	0.99	47.8	D
Westbound	DefL	0.52	17.5	B	DefL	0.51	18.1	B	DefL	0.52	17.6	B
	T	1.00	42.7	D	T	1.01	45.7	D	T	0.99	40.4	D
Southbound	L	0.28	27.0	C	L	0.28	27.0	C	L	0.30	27.9	C
	T	0.28	26.9	C	T	0.28	26.9	C	T	0.29	27.8	C
	R	0.09	24.5	C	R	0.09	24.5	C	R	0.09	25.3	C
	Intersection		38.2	D	Intersection		38.2	D	Intersection		38.3	D
<b>South Avenue &amp; Amador Street</b>												
Westbound	LR	0.42	31.9	C	LR	0.45	32.4	C	LR	0.47	33.8	C
Northbound	TR	0.80	17.5	B	TR	<b>1.02</b>	<b>46.2</b>	<b>D+</b>	TR	1.00	41.2	D
Southbound	LT	0.47	8.9	A	LT	0.53	9.7	A	LT	0.52	9.1	A
	Intersection		14.6	B	Intersection		29.3	C	Intersection		26.6	C
<b>South Avenue &amp; Lisk Avenue</b>												
Westbound	LR	0.89	72.2	E	LR	<b>0.92</b>	<b>77.4</b>	<b>E+</b>	LR	0.87	65.8	E
Northbound	T	0.61	8.1	A	T	0.78	12.0	B	T	0.79	13.0	B
	R	0.08	3.8	A	R	0.08	3.8	A	R	0.08	4.1	A
Southbound	LT	0.44	5.7	A	LT	0.57	7.1	A	LT	0.59	7.9	A
	Intersection		13.2	B	Intersection		15.6	B	Intersection		15.3	B
<b>South Avenue &amp; Goethals Road North</b>												
Westbound	LTR	0.90	37.5	D	LTR	<b>0.98</b>	<b>48.7</b>	<b>D+</b>	LTR	0.95	42.3	D
Northbound	L	0.40	17.5	B	L	0.40	17.9	B	L	0.43	18.8	B
	T	0.63	16.3	B	T	0.64	16.6	B	T	0.65	17.6	B
Southbound	TR	0.87	36.8	D	TR	0.90	39.4	D	TR	0.90	39.4	D
	Intersection		31.9	C	Intersection		54.2	D	Intersection		35.1	D
<b>Notes:</b> L = Left-Turn, T = Through, R = Right-Turn, DefL = Defacto Left-Turn; LOS = Level of Service; v/c = Volume to Capacity + Denotes significant adverse impact												

**FOREST AVENUE AND MAPLE PARKWAY**

The significant adverse impact at the eastbound left-turn at this intersection during the Saturday peak hour could be fully mitigated by shifting one second of green time from the southbound phase to the eastbound/westbound phase. As shown in **Table 13-6**, the significant adverse impact could be fully mitigated.

*FOREST AVENUE AND RICHMOND AVENUE / MORNINGSTAR ROAD*

The significant adverse impacts at the eastbound through/right-turn of this intersection during the weekday PM and at the eastbound approach during the Saturday peak hours could be fully mitigated by (1) shifting one second of green time from the westbound phase with northbound right-turn overlap and one second of green time from the northbound phase to the westbound/eastbound phase, (2) restriping the eastbound approach from one 8-foot striped median, one 10-foot left-turn lane, and two 11-foot shared through/right-turn lanes to one 7-foot striped median, one 11-foot left-turn lane and two 11-foot shared through/right-turn lanes, (3) restriping the westbound approach from one 10-foot left-turn lane and two 12-foot shared through/right-turn lanes to one 12-foot left-turn lane and two 11-foot shared through/right-turn lanes, and (4) restriping the northbound approach from one 5-foot striped/raised median, one 10-foot left-turn lane, one 11-foot through lane, and one 12-foot right-turn lane to one 3-foot striped median, one 12-foot left-turn lane, one 11-foot through lane, and one 12-foot right-turn lane. As shown in **Tables 13-5 and 13-6**, the significant adverse impacts could be fully mitigated.

A shift of one second of green time from the westbound phase with northbound right-turn overlap to the westbound/eastbound phase would also be required during the weekday midday peak hour to avoid a significant adverse traffic impact on the eastbound through/right-turn under the new lane configuration described above. As shown in **Table 13-4**, the geometric modifications proposed as mitigation measures during the PM and Saturday peak hours combined with this signal timing shift would not cause a significant adverse impact at this intersection during the midday peak hour.

*FOREST AVENUE AND UNION AVENUE / SHOPPING CENTER*

The significant adverse impacts at the westbound left-turn movement of this intersection during the weekday PM and Saturday peak hours could be fully mitigated by shifting two and three seconds of green time, respectively from the northbound/southbound phase to the eastbound/westbound phase, as shown in **Table 13-5** and **Table 13-6**.

*FOREST AVENUE AND WILLOW ROAD WEST*

The significant adverse impact at the eastbound approach at this intersection during the Saturday peak hour could be fully mitigated by shifting one second of green time from the southbound phase to the eastbound/westbound phase, as shown in **Table 13-6**.

*SOUTH AVENUE AND AMADOR STREET*

The significant adverse impact at the northbound approach during the Saturday peak hour could be fully mitigated by shifting one second of green time from the westbound phase to the northbound/southbound phase, as shown in **Table 13-6**.

*SOUTH AVENUE AND LISK AVENUE*

The significant adverse impacts at the westbound approach during the weekday PM and Saturday peak hours could be fully mitigated by shifting one second of green time from the northbound/southbound phase to the westbound phase, as shown in **Tables 13-5 and 13-6**.

## South Avenue Retail Development

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### *SOUTH AVENUE AND GOETHALS ROAD NORTH*

The significant adverse impact at the westbound approach during the weekday PM and Saturday peak hours could be fully mitigated by shifting one second of green time from the northbound phase to the westbound phase, as shown in **Table 13-5** and **Table 13-6**.

Although all significant adverse traffic impacts would be mitigated by the proposed traffic improvements, at the request of the New York City Department of Transportation (NYCDOT), has requested that the applicant conduct has committed to conducting a traffic monitoring program (TMP) upon full occupancy of the proposed project to verify that the traffic mitigation adequately addresses the projected traffic impacts. ~~The monitoring program will assess the peak hour volume of traffic actually generated by the proposed project in comparison to the estimated peak hour traffic volumes. Should the actual peak hour traffic actually generated by the project exceed the estimates herein, a traffic study will be conducted to assess whether additional traffic improvements are required.~~ The details of the traffic monitoring program will be requested by NYCDOT have been refined in the Final Environmental Impact Statement (FEIS).

In order to verify the need and effectiveness of the proposed mitigation measures identified in the FEIS and to determine the extent to which future volume projections presented in the FEIS actually occur, the applicant has committed to conduct a traffic monitoring program (TMP). The TMP will address traffic resulting from project-generated development in the project area approximately six months after the proposed project is complete and operational, and consider changes that may occur in trip generation characteristics in addition to vehicular traffic levels in the study area. The initial phase of the TMP will consist of travel demand surveys conducted at the new commercial retail development to provide the most up-to date representation of site-generated trips. The applicant, in consultation with DCP and NYCDOT, will prepare a detailed scope of work and sample questionnaire prior to conducting the surveys. Based on a review of the survey findings, the applicant, DCP, and NYCDOT will then determine the extent to which additional monitoring and/or analysis is needed.

Then, the TMP will be determined based upon the results of the initial monitoring. Subsequent steps could include more extensive field data collection (e.g., Automatic Traffic Recorder (ATR) machine counts, manual counts, sample vehicle classification counts, pedestrian counts, physical inventories, field observations of intersection operations) that would be needed to perform detailed traffic analysis at critical intersections in the traffic study area where significant traffic impacts have been identified in the FEIS for which mitigations were identified. The findings of the TMP (i.e., actual volumes, and capacity and level of service analyses) will be used by the applicant, DCP, and NYCDOT as the basis for determining whether actual future Build conditions have, in fact, resulted in significant traffic impacts. These results will be used to verify the need for the mitigation measures identified in the FEIS and/or modify the mitigation measures to respond to actual traffic conditions. The applicant would be responsible for implementing the mitigation measures identified in the FEIS and verified or modified by the TMP. \*