FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE CATSKILL/DELAWARE UV FACILITY

THE FOLLOWING FIGURES ARE AT THE END OF THE SECTION

4.21. COMBINED IMPACTS

4.21.1. Introduction

This section summarizes the potential operational and construction impacts that could result from adding together the results of the impacts of both the proposed Catskill/Delaware Ultraviolet Light Disinfection Facility (UV Facility) and the Croton Water Treatment Plant (Croton project) being located at the Eastview Site. This section provides an alternative perspective to the environmental impact assessment in the preceding sections. By adding the predicted environmental consequences, particularly for those impact categories such as, traffic, air and noise that are expressed by numerical results, the environmental impacts attributable to these two New York City Department of Environmental Protection (NYCDEP) proposed projects can be evaluated. The baseline conditions (Existing Conditions and Future Without the UV Project) for the various technical impact analyses have been examined and discussed fully in the preceding sections of this Final EIS, and provide part of the basis for the analyses presented in this Combined Impacts section. (In this section, the "Without Croton Project at Eastview Site" scenario for the Future Without the UV Project is used for comparison purposes.) The various study areas defined in the individual technical analyses are the same for the analyses presented below, as for those presented in the preceding sections of this Final EIS. Additionally, the methodologies used to prepare the analyses in this section are the same as those presented in Section 3, Data Collection and Impact Methodologies.

While NYCDEP may undertake several projects at the Eastview Site, during the same general timeframe, the projects identified in this Final EIS are functionally independent and they are not part of the same plan. As identified in each preceding section, the potential projects include the proposed action (the UV Facility), the Croton project, a Police Precinct, an Administration/Laboratory building(s), and the Kensico-City Tunnel (KCT). As shown in Section 7, Alternatives, Figure 7-8, the Croton project may be located in the northwest corner of the north parcel and the Police Precinct would be located in the southwest corner of the north parcel. Similar to the proposed project, construction of the Croton project would take place over many years; it is anticipated that the construction process for the Croton project may start in 2005 and the plant would be placed into operation in 2010. The Police Precinct, a much smaller project, is anticipated to be completed by 2006. The Administration/Laboratory building(s) is less certain, however, the Eastview Site is one of several properties currently being considered as a possible site. In addition to these projects, the Kensico-City Tunnel may be under construction at the Eastview Site starting in 2009. Although this project would be regional in nature, it could include several subsurface structures and a temporary staging area at the Eastview Site.

All of these NYCDEP projects are analyzed in this Final EIS to the extent to which information is available. They are all separate actions from the proposed facility and are subject to their own independent environmental reviews. The NYCDEP could proceed with any of the proposed projects, subject to necessary approvals, irrespective of the outcome of any other project. The largest amount and more quantitative types of information is available for the Croton project, for which a Final Supplemental EIS was published in June 2004. In general, the following analysis focuses on the combined impacts of the proposed action and the Croton project, the largest of all of the projects proposed for the Eastview Site.

The consideration of potential combined impacts for both the proposed UV Facility and the Croton project together could worsen the predicted environmental consequences. The effects of this analysis on traffic and transportation, air quality, noise, and natural resources are described below. Where impacts have been identified, the discussion below describes the mitigation measures that have been identified to resolve or lessen these potential impacts.

4.21.2. Potential Project Impacts

In 2010, with both the Croton project and the proposed UV Facility in operation at the same time at the Eastview Site, there could be significant adverse impacts resulting from adding the potential operational impacts of both projects together. Below is an analysis of the potential adverse impacts that could result from the combined impacts of these two NYCDEP projects.

4.21.2.1. Traffic and Transportation

4.21.2.1.1. Traffic Conditions

This section examines the potential project impacts on the area's transportation system (including traffic, parking, pedestrian safety and mass transit) resulting from combined trips generated by both the proposed UV Facility and the Croton project operating at the Eastview Site. This section describes the operation of the various study area intersections (and their approaches and lane groups) based on their ability to process traffic as calculated using the HCM methodologies, described in Section 3.9, Data Collection and Impact Methodologies, Traffic and Transportation, for the combined effects of the UV Facility and the Croton project taken together.

The future "No Build" conditions (FNB) without the construction or operation of either the proposed UV Facility or the Croton project referred to in this section are those that have been fully examined and presented in Section 4.9, Traffic and Transportation. These "pure" FNB conditions serve as a "baseline" for the evaluation of the combined project-related impacts. The analysis year for project impacts/operations is 2010 because that is the first full year when both projects would be operational. Figures 4.21-1 and 4.21-2 show the total 2010 FNB traffic volumes at the study area intersections for the AM and PM peak hours, respectively.

Eighty-two vehicles per hour (vph) would be generated for the combined operations of the UV Facility and the Croton project (2010 Build condition) during the peak analysis periods. When distributed among the different ingress/egress routes to the site, very few of the study area intersections would receive greater than the 50 vph, the screening threshold recommended by the *CEQR Technical Manual*. The largest generated volumes were at the three intersections just to the south of the site along Grasslands Road (Route 100C).

TABLE 4.21-1. PURE NO BUILD VS. CROTON + CAT DEL LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2010 NO BUILD AND OPERATION CONDITIONS

				AM Peak Hour						PM Peak Hour					
				2010 No Build			2010 Operation			2010 No Build			2010 Operation		
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS
Saw Mill River Road (Rt.9A) (N-S) @	4	Eastbound	L	0.66	32.4	C	0.66	32.4	C	0.54	29.6	C	0.54	29.6	C
Saw Mill River Pkwy Ramp			LTR	0.14	25.0	C	0.14	25.0	C	0.15	25.8	C	0.15	25.8	C
		Westbound	L	0.15	32.4	C	0.15	32.4	C	0.14	34.2	C	0.14	34.2	C
			LT	0.10	32.1	C	0.10	32.1	C	0.09	33.8	C	0.09	33.8	C
			R	0.05	31.8	C	0.05	31.8	C	0.22	34.8	C	0.22	34.8	C
		Northbound	L	0.19	14.2	B	0.19	14.2	B	0.83	34.6	C	0.83	34.6	C
			TR	0.32	14.9	B	0.32	14.9	B	0.57	15.6	B	0.57	15.7	B
		Southbound	L	0.10	13.3	B	0.10	13.3	B	0.16	21.7	C	0.16	21.7	C
			TR	0.56	17.3	B	0.56	17.4	B	1.01	61.2	E	1.01	61.8	E
		Intersection			19.7	B		19.7	B		36.8	D		37.0	D
Grasslands Road (E-W) @	6	Eastbound	L	0.77	41.7	D	0.77	41.7	D	*	**	F	*	**	F
Bradhurst Avenue			T	1.06	84.2	F	1.06	84.2	F	0.60	22.7	C	0.61	22.8	C
			R	0.36	16.5	B	0.36	16.5	B	0.28	12.2	B	0.28	12.2	B
		Westbound	L	0.70	59.8	E	0.70	59.8	E	0.23	18.2	B	0.24	18.2	B
			TR	0.45	26.2	C	0.46	26.3	C	1.01	63.9	E	1.01	63.9	E
		Northbound	L	0.23	23.7	C	0.24	23.8	C	0.89	63.4	E	0.90	65.1	E
			TR	0.35	26.1	C	0.35	26.1	C	0.20	16.4	B	0.20	16.4	B
		Southbound	L	0.53	41.2	D	0.53	41.2	D	0.34	25.6	C	0.34	25.6	C
			TR	0.70	50.8	D	0.70	50.8	D	1.15	121.9	F	1.15	121.9	F
		Intersection			48.9	D		48.8	D		76.7	E		76.8	E
Knollwood Road (E-W) @	8	Westbound	LT	0.47	27.8	C	0.47	27.8	C	0.82	41.1	D	0.82	41.1	D
Cross Westchester Expy (I-287) WB Ramp			R	0.25	25.5	C	0.25	25.5	C	0.46	27.8	C	0.46	27.8	C
		Northbound	L	0.53	10.2	B	0.53	10.2	B	1.00	66.7	E	1.00	67.5	E
			T	0.52	10.5	B	0.52	10.5	B	0.54	10.7	B	0.54	10.7	B
		Southbound	T	0.31	13.5	B	0.31	13.5	B	0.46	14.9	B	0.46	15.0	B
			R	0.14	12.2	B	0.14	12.2	B	0.23	12.9	B	0.23	12.9	B
		Intersection			14.6	B		14.6	B		30.1	C		30.2	C
Knollwood Road (E-W) @	9	Eastbound	L	0.70	33.6	C	0.70	33.6	C	0.49	24.6	C	0.49	24.6	C
Cross Westchester Expy (I-287) EB Ramp			TR	0.01	23.6	C	0.01	23.6	C	0.00	20.0	C	0.00	20.0	C
			R	0.60	30.5	C	0.60	30.5	C	0.80	36.2	D	0.80	36.2	D
		Northbound	T	0.51	15.5	B	0.51	15.5	B	0.89	34.4	C	0.89	34.5	C
			R	0.54	16.2	B	0.54	16.2	B	0.65	21.5	C	0.65	21.5	C
		Southbound	L	0.41	10.0	B	0.41	10.0	B	0.84	35.5	D	0.84	35.5	D
			T	0.30	8.5	A	0.30	8.5	A	0.67	15.9	B	0.67	16.0	B
		Intersection			19.0	B		19.0	B		27.4	C		27.4	C
Tarrytown/White Plains Road (E-W) WB Ramp @	10	Westbound	LT	0.15	24.6	C	0.15	24.6	C	0.36	26.5	C	0.36	26.5	C
Knollwood Road (Rt.100A)			R	0.52	28.6	C	0.52	28.6	C	0.99	73.0	E	0.99	73.0	E
		Northbound	LT	0.42	10.3	B	0.42	10.3	B	0.62	13.0	B	0.62	13.0	B
		Southbound	T	0.21	15.3	B	0.21	15.3	B	0.45	17.5	B	0.45	17.5	B
			R	0.20	15.4	B	0.20	15.4	B	0.49	18.2	B	0.49	18.2	B
		Intersection			15.6	B		15.6	B		26.9	C		26.9	C
Tarrytown/White Plains Road (E-W) EB Ramp @	11	Eastbound	LT	0.73	35.1	D	0.73	35.1	D	0.81	40.2	D	0.81	40.2	D
Knollwood Road (Rt.100A)	12		R	0.16	24.8	C	0.16	24.8	C	0.36	26.6	C	0.36	26.6	C
		Northbound	TR	0.41	20.3	C	0.41	20.3	C	0.43	20.4	C	0.43	20.4	C
		Southbound	Def	0.32	12.3	B	0.32	12.3	B	0.49	15.3	B	0.49	15.3	B
			T	0.28	9.3	A	0.28	9.3	A	0.56	12.0	B	0.56	12.0	B
		Intersection			20.8	C		20.8	C		21.7	C		21.7	C
Saw Mill River Road (Rt.9A) @	13	Westbound	L	1.11	107.4	F	1.11	107.4	F	0.76	39.2	D	0.76	39.2	D
Cross Westchester Expy (I-287) WB Ramp			R	0.50	27.7	C	0.50	27.8	C	0.43	20.6	C	0.43	20.6	C
		Northbound	LTR	0.37	9.0	A	0.38	9.0	A	0.72	24.0	C	0.73	24.2	C
		Southbound	TR	0.48	9.9	A	0.49	9.9	A	0.88	24.2	C	0.88	24.7	C
		Intersection			36.7	D		36.5	D		25.6	C		25.9	C
Saw Mill River Road (Rt.9A) @	14	Northbound	TR	0.32	12.4	B	0.32	12.4	B	0.91	37.4	D	0.92	37.8	D
Cross Westchester Expy (I-287) EB Ramp		Southbound	L	0.51	2.0	A	0.52	2.1	A	0.76	25.0	C	0.77	25.4	C
			LT	0.16	0.2	A	0.17	0.2	A	0.55	0.5	A	0.55	0.5	A
		Intersection			5.1	A		5.2	A		18.9	B		19.0	B
Saw Mill River Road (Rt.9A) @	15	Eastbound	L	1.00	78.1	E	1.01	80.6	F	1.02	84.8	F	1.03	86.3	F
Tarrytown/White Plains Road (Rt.119)			TR	0.39	14.7	B	0.39	14.7	B	0.48	20.4	C	0.48	20.4	C
		Westbound	L	0.18	22.4	C	0.18	22.4	C	0.43	34.7	C	0.43	34.7	C
			TR	0.31	23.6	C	0.31	23.6	C	0.91	51.6	D	0.91	51.6	D
		Northbound	L	0.40	34.4	C	0.40	34.5	C	0.32	25.3	C	0.32	25.4	C
			TR	0.63	41.0	D	0.64	41.3	D	0.85	43.5	D	0.85	44.0	D
		Southbound	L	0.25	34.4	C	0.25	34.5	C	0.57	36.8	D	0.58	37.0	D
			T	0.43	35.1	D	0.44	35.2	D	0.27	22.9	C	0.27	23.0	C
			R	0.23	22.1	C	0.23	22.1	C	0.40	11.1	B	0.41	11.1	B
		Intersection			33.9	C		34.5	C		37.1	D		37.3	D
Saw Mill River Road (Rt.9A) @	16	Eastbound	LTR	0.01	29.1	C	0.01	29.1	C	0.01	32.9	C	0.01	32.9	C
Hunter Lane		Westbound	LT	0.32	32.5	C	0.32	32.5	C	0.83	59.5	E	0.83	59.5	E
			R	0.01	18.7	B	0.01	18.7	B	0.08	23.0	C	0.08	23.0	C
		Northbound	LTR	0.71	23.1	C	0.72	23.5	C	0.72	20.2	C	0.72	20.3	C
		Southbound	LTR	0.73	16.3	B	0.74	16.6	B	0.81	16.3	B	0.82	16.8	B
		Intersection			20.3	C		20.7	C		21.8	C		22.1	C

TABLE 4.21-1. PURE NO BUILD VS. CROTON + CAT DEL LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2010 NO BUILD AND OPERATION CONDITIONS

				AM Peak Hour						PM Peak Hour					
				2010 No Build			2010 Operation			2010 No Build			2010 Operation		
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS
Saw Mill River Road (Rt.9A) @	20	Eastbound	LT	0.07	25.5	C	0.07	25.5	C	0.31	27.8	C	0.32	27.9	C
Dana Road			R	0.08	25.6	C	0.08	25.6	C	0.24	26.9	C	0.24	26.9	C
		Westbound	L	0.16	26.2	C	0.18	26.4	C	0.68	36.0	D	0.73	38.6	D
			TR	0.07	25.5	C	0.08	25.6	C	0.48	29.3	C	0.49	29.4	C
		Northbound	L	0.12	30.5	C	0.12	30.5	C	0.39	32.7	C	0.39	32.7	C
			TR	0.71	27.0	C	0.72	27.4	C	0.87	34.4	C	0.88	34.9	C
		Southbound	L	0.46	33.4	C	0.47	33.6	C	0.17	30.8	C	0.17	30.9	C
			TR	0.61	24.4	C	0.61	24.4	C	0.76	28.5	C	0.76	28.5	C
		Intersection			26.5	C		26.7	C		31.6	C		32.1	C
Old Saw Mill River Road @	21	Eastbound	LT	0.92	34.2	C	0.92	34.9	C	1.10	92.7	F	1.11	94.2	F
Saw Mill River Pkwy SB Off Ramp		Westbound	TR	0.25	4.8	A	0.25	4.8	A	0.50	9.8	A	0.50	9.9	A
		Southbound	L	0.70	37.9	D	0.70	37.9	D	0.29	23.2	C	0.29	23.2	C
			LR	0.17	28.3	C	0.17	28.3	C	0.22	22.6	C	0.22	22.6	C
		Intersection			24.1	C		24.3	C		40.8	D		41.1	D
Old Saw Mill River Road @	22	Eastbound	T	0.50	17.7	B	0.50	17.7	B	0.42	13.4	B	0.42	13.4	B
Saw Mill River Pkwy NB Off Ramp		Westbound	T	0.21	7.8	A	0.21	7.8	A	0.33	4.4	A	0.34	4.4	A
		Northbound	LR	0.54	26.1	C	0.55	26.3	C	0.48	31.8	C	0.49	31.8	C
			R	0.51	25.5	C	0.52	25.8	C	0.46	31.7	C	0.47	31.8	C
		Intersection			17.3	B		17.4	B		11.9	B		11.9	B
Grassland Road (Rt.100C) @	24	Eastbound	L	0.16	3.1	A	0.19	3.2	A	0.16	10.3	B	0.20	10.7	B
Clearbrook Road/Walker Road			TR	0.38	3.8	A	0.38	3.8	A	0.75	17.9	B	0.75	17.9	B
		Westbound	L	0.39	4.1	A	0.39	4.1	A	*	**	F	*	**	F
			TR	0.40	3.9	A	0.43	4.1	A	0.72	17.2	B	0.74	17.8	B
		Northbound	LT	0.22	33.8	C	0.22	33.8	C	0.21	20.1	C	0.21	20.1	C
		Southbound	LT	0.21	33.8	C	0.32	35.0	D	0.24	20.4	C	0.23	21.2	C
			R	0.08	32.7	C	0.10	32.8	C	0.19	19.9	B	0.21	20.0	C
		Intersection			5.5	A		5.9	A		50.5	D		49.8	D
Grassland Road (Rt.100C) @	25	Eastbound	L	0.30	7.9	A	0.32	8.4	A	0.35	14.5	B	0.35	14.7	B
Woods Drive/Taylor Road			TR	0.27	5.3	A	0.28	5.3	A	0.58	12.7	B	0.60	13.0	B
		Westbound	L	0.00	9.3	A	0.00	9.3	A	0.01	12.6	B	0.01	12.6	B
			TR	0.59	14.4	B	0.61	14.7	B	0.75	21.9	C	0.76	22.1	C
		Northbound	LTR	0.01	32.9	C	0.01	32.9	C	0.01	24.6	C	0.01	24.6	C
		Southbound	LT	0.56	39.7	D	0.56	39.7	D	0.81	43.5	D	0.81	43.5	D
			R	0.09	21.2	C	0.09	21.2	C	0.12	17.2	B	0.12	17.2	B
		Intersection			13.0	B		13.2	B		20.2	C		20.3	C
Grassland Road (Rt.100C) @	26	Eastbound	TR	0.28	7.6	A	0.29	7.6	A	0.69	12.0	B	0.71	12.4	B
Sprain Brook Pkwy SB Ramp		Westbound	T	0.33	7.9	A	0.34	8.0	A	0.54	9.7	A	0.54	9.7	A
		Southbound	L	0.56	34.4	C	0.56	34.4	C	0.18	29.7	C	0.18	29.7	C
			R	0.34	31.2	C	0.37	31.5	C	0.13	29.2	C	0.14	29.3	C
		Intersection			13.2	B		13.3	B		11.8	B		12.1	B
Grassland Road (Rt.100C) @	27	Eastbound	L	0.09	14.8	B	0.11	14.9	B	0.51	15.6	B	0.55	16.3	B
Sprain Brook Pkwy NB Ramp	30		T	0.51	18.2	B	0.51	18.2	B	0.33	9.0	A	0.33	9.0	A
		Westbound	TR	0.48	24.8	C	0.48	24.8	C	1.09	79.6	E	1.09	80.2	F
		Northbound	LT	1.03	76.4	E	1.07	89.0 +	F	0.71	30.2	C	0.73	30.8	C
			R	1.05	84.7	F	1.05	84.7	F	0.37	23.2	C	0.37	23.2	C
		Intersection			48.2	D		51.4	D		48.7	D		48.9	D
Virginia Road @	31	Eastbound	LT	1.17	145.3	F	1.17	145.3	F	1.21	162.4	F	1.21	162.4	F
Bronx River Pkwy			R	0.22	19.7	B	0.22	19.7	B	0.41	34.8	C	0.41	34.8	C
		Westbound	LTR	0.43	35.1	D	0.43	35.1	D	1.40	**	F	1.40	**	F
		Northbound	L	0.06	46.4	D	0.06	46.4	D	0.06	11.1	B	0.06	11.1	B
			TR	0.27	20.2	C	0.27	20.2	C	0.64	25.8	C	0.64	25.8	C
		Southbound	L	1.14	153.1	F	1.14	153.1	F	0.14	12.0	B	0.14	12.0	B
			T	0.72	27.9	C	0.72	27.9	C	0.61	25.1	C	0.61	25.1	C
		Intersection			58.3	E		58.3	E		72.6	E		72.6	E
Grassland Road (Rt.100C) @	34	Eastbound	T	0.42	7.8	A	0.42	7.8	A	0.75	17.9	B	0.75	17.9	B
WCC East Gate		Westbound	L	0.27	5.3	A	0.27	5.3	A	0.22	11.6	B	0.22	11.6	B
			T	0.25	3.2	A	0.25	3.2	A	0.59	8.2	A	0.59	8.2	A
		Northbound	L	0.07	45.8	D	0.07	45.8	D	0.64	31.3	C	0.64	31.3	C
		Intersection			6.4	A		6.4	A		15.2	B		15.3	B
Old Saw Mill River Road @	46	Eastbound	LTR	0.81	11.1	B	0.82	11.5	B	0.60	6.4	A	0.61	6.4	A
Landmark West Driveway		Westbound	LTR	0.27	4.2	A	0.28	4.2	A	0.51	5.4	A	0.52	5.5	A
		Northbound	LTR	0.02	21.0	C	0.02	21.0	C	0.08	21.2	C	0.08	21.2	C
		Southbound	LTR	0.04	21.1	C	0.04	21.1	C	0.03	21	C	0.03	21.0	C
		Intersection			9.5	A		9.8	A		6.2	A		6.2	A

Notes:

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts.

" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

TABLE 4.21-1. PURE NO BUILD VS. CROTON + CAT DEL LEVEL-OF-SERVICE ANALYSIS RESULTS FOR UNSIGNALIZED INTERSECTIONS: 2010 NO

				AM Peak Hour						PM Peak Hour					
				2010 No Build			2010 Operation			2010 No Build			2010 Operation		
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS
Sprain Pkwy SB On Ramp (N-S) @ Broadway (Rt.9A)/Bradhurst Avenue	1	Westbound	LT	0.12	10.8	B	0.12	10.8	B	0.20	9.6	A	0.20	9.7	A
Saw Mill River Road (Rt.9A) (N-S) @ Beverly Road	2	Northbound	LT	0.01	10.4	B	0.01	10.5	B	0.03	13.3	B	0.03	13.4	B
		Eastbound	LR	0.07	21.9	C	0.07	22.0	C	0.06	31.5	D	0.06	31.7	D
Saw Mill River Road (Rt.9A) @ Stevens Avenue North	3N	Northbound	LT	0.02	11.0	B	0.02	11.1	B	0.01	9.9	A	0.01	9.9	A
		Southbound	LT	0.03	9.2	A	0.03	9.2	A	0.02	10.6	B	0.02	10.6	B
		Eastbound	LTR	0.03	37.1	E	0.03	37.1	E	0.14	25.2	D	0.14	25.3	D
		Westbound	LTR	0.04	17.1	C	0.04	17.2	C	0.08	16.1	C	0.08	16.1	C
Saw Mill River Road (Rt.9A) @ Stevens Avenue South	3S	Southbound	LT	0.00	8.8	A	0.00	8.8	A	0.00	10.5	B	0.00	10.6	B
		Westbound	LR	0.04	22.6	C	0.04	22.7	C	0.16	36.2	E	0.16	36.5	E
Bradhurst Avenue @ Lakeview Avenue	5	Southbound	LT	0.02	8.3	A	0.02	8.3	A	0.01	8.1	A	0.01	8.1	A
		Westbound	LR	0.28	15.8	C	0.28	15.8	C	0.48	20.2	C	0.48	20.2	C
Knollwood Road (Rt.100A) @ Hevelyne Road	7	Northbound	LT	0.01	8.3	A	0.01	8.3	A	0.00	8.0	A	0.00	8.0	A
		Eastbound	LR	0.04	13.4	B	0.04	13.4	B	0.01	10.9	B	0.01	10.9	B
Saw Mill River Road (Rt.9A) @ Ramada Inn/Broadway Plaza	17	Northbound	L	0.10	10.2	B	0.10	10.2	B	0.17	10.8	B	0.17	10.9	B
		Southbound	LT	0.01	9.0	A	0.01	9.0	A	0.01	9.6	A	0.01	9.6	A
		Eastbound	L	0.02	36.0	E	0.02	37.1	E	0.01	59.5	F	0.02	61.2	F
			T	0.02	42.9	E	0.02	44.6	E	0.12	102.0	F	0.13	107.5 +	F
		Westbound	LT	0.12	38.9	E	0.12	40.6	E	0.14	69.1	F	0.14	71.4	F
			TR	0.01	10.9	B	0.01	11.0	B	0.03	18.7	C	0.03	19.1	C
Dana Road @ Walker Road	18	Northbound	LR	0.23	12.1	B	0.26	12.5	B	0.09	11.7	B	0.15	13.7	B
		Westbound	LT	0.02	8.7	A	0.02	8.8	A	0.11	8.1	A	0.11	8.2	A
Saw Mill River Road @ Grasslands Road (Rt.100C)	19A	Northbound	L	1.00	152.7	F	1.02	159.2 +	F	1.31	**	F	1.35	** +	F
			R	0.24	18.6	C	0.24	18.9	C	0.30	16.5	C	0.30	16.6	C
		Westbound	L	0.17	12.2	B	0.17	12.2	B	0.19	11.6	B	0.19	11.6	B
Grasslands Road (E-W) @ Saw Mill River Road NB Ramp (N-S)	19B	Northbound	LT	0.07	29.2	D	0.07	29.5	D	0.06	28.8	D	0.06	29.2	D
			TR	0.08	15.1	C	0.08	15.3	C	0.18	14.7	B	0.18	14.8	B
		Eastbound	L	0.22	10.3	B	0.22	10.3	B	0.19	11.3	B	0.20	11.4	B
Grasslands Road @ Virginia Road	32	Southbound	LT	0.24	8.4	A	0.24	8.4	A	0.39	10.6	B	0.39	10.6	B
		Westbound	LR	0.58	17.8	C	0.58	17.8	C	1.35	203.0	F	1.35	203.0	F
Grasslands Road @ Legion Drive	33	Southbound	L	0.46	32.9	D	0.46	33.2	D	1.42	**	F	1.42	**	F
			R	0.21	12.4	B	0.21	12.5	B	0.49	20.9	C	0.49	20.9	C
		Eastbound	LT	0.07	8.6	A	0.07	8.6	A	0.25	10.9	B	0.25	10.9	B
Grasslands Road @ WCC West Gate	35	Northbound	L	0.06	21.4	C	0.06	21.5	C	0.31	57.9	F	0.31	57.9	F
			R	0.01	13.9	B	0.01	13.9	B	0.53	19.9	C	0.53	20.0	C
		Westbound	LT	0.00	10.1	B	0.00	10.1	B	0.13	9.2	A	0.13	9.2	A
Old Saw Mill River Road @ Landmark East Driveway	47	Northbound	LTR	0.09	19.6	C	0.09	19.9	C	0.13	37.7	E	0.14	38.6	E
		Southbound	LTR	0.01	10.5	B	0.01	10.5	B	0.09	20.5	C	0.09	20.9	C
		Eastbound	LTR	0.01	8.1	A	0.01	8.2	A	0.01	9.0	A	0.01	9.1	A
		Westbound	LTR	0.02	10.7	B	0.02	10.7	B	0.01	9.3	A	0.01	9.3	A

Notes:

L = Left Turn, T = Through, R = Right Turn; LOS = Level of Service. "+" indicates significant impacts.

" ** " indicates a calculated delay greater than 240 seconds.

The traffic generated by operation of the proposed UV Facility with the concurrent operation of the Croton project at the Eastview Site is shown in Figures 4.21-3 and 4.21-4 for the AM and PM peak hours, respectively. Figures 4.21-5 and 4.21-6 show the total combined traffic under 2010 Build conditions for the AM and PM peak hours, respectively. Table 4.21-1 shows a comparison of the 2010 Future No Build (FNB) conditions and the 2010 Combined Build conditions; highlighting potential significant adverse traffic impacts from the simultaneous operation of the combined projects. Applying the *CEQR Technical Manual* impact criteria to the analyses of 2010 Combined Build conditions shows that the addition of project-generated traffic from both projects taken together would result in potential significant adverse traffic impacts. There would be a total of four potential significant adverse traffic impacts at intersections in the primary study area under 2010 Combined Build conditions (two during the AM peak hour and two during the PM peak hour).

The following is a summary of the potential significant adverse traffic impacts associated with the concurrent operation of the proposed UV Facility and Croton project at the Eastview Site. All increases in delay described below are given in comparison to the 2010 "pure" FNB conditions (without the traffic from any proposed NYCDEP projects included in the FNB volumes).

Potential Significant Adverse Impacts Occurring at Signalized Intersections

- At the intersection of Grasslands Road (Route 100C) and the Sprain Brook Parkway Northbound Ramp, the northbound left/through movement would be significantly impacted during the AM peak hour. The delay would increase from 76.4 seconds (LOS E) to 89.0 seconds (LOS F).

Potential Significant Adverse Impacts Occurring at Unsignalized Intersections

- At the intersection of Saw Mill River Road (Route 9A) and Grasslands Road (Route 100C), the northbound left-turn movement would be significantly impacted during the AM peak hour, where the delay would increase from 152.7 seconds (LOS F) to 159.2 seconds (LOS F).

- At the intersection of Saw Mill River Road (Route 9A) and Grasslands Road (Route 100C), the northbound left-turn movement would also be significantly impacted during the PM peak hour, remaining at LOS F, with the delay increasing well beyond 240.0 seconds.

- At the intersection of Saw Mill River Road (Route 9A) and Ramada Inn/Broadway Plaza, the northbound left-turn movement would be significantly impacted during the PM peak hour, where the delay would increase from 102.0 seconds (LOS F) to 107.5 seconds (LOS F).

Measures have been identified that would mitigate these potential combined project-related significant adverse traffic impacts. A description of the measures and an analysis showing the resulting effects of implementing the measures are provided below, in Section 4.21.4, Mitigation

of Potential Combined Impacts. Once the proposed UV Facility and Croton project are built and operational, the various agencies responsible for maintaining traffic flow and roadways in the study area would conduct field inspections of the operations of the various intersections to determine if the proposed mitigation measures are actually warranted (particularly because traffic from anticipated No Build projects or background growth may be less than analyzed in this report).

Figure 4.21-6A provides a summary of the potential mitigation measures that are included in this section for combined impacts and Section 6, Mitigation of Potential Significant or Temporary Adverse Impacts, for the impacts from the UV Facility. This figure summarizes the types of mitigation measures suggested for the 22 conditions analyzed and provides a comparison of the operational and construction impacts for the UV Facility alone with the combined operational and construction impacts of both projects.

4.21.2.1.2. Parking

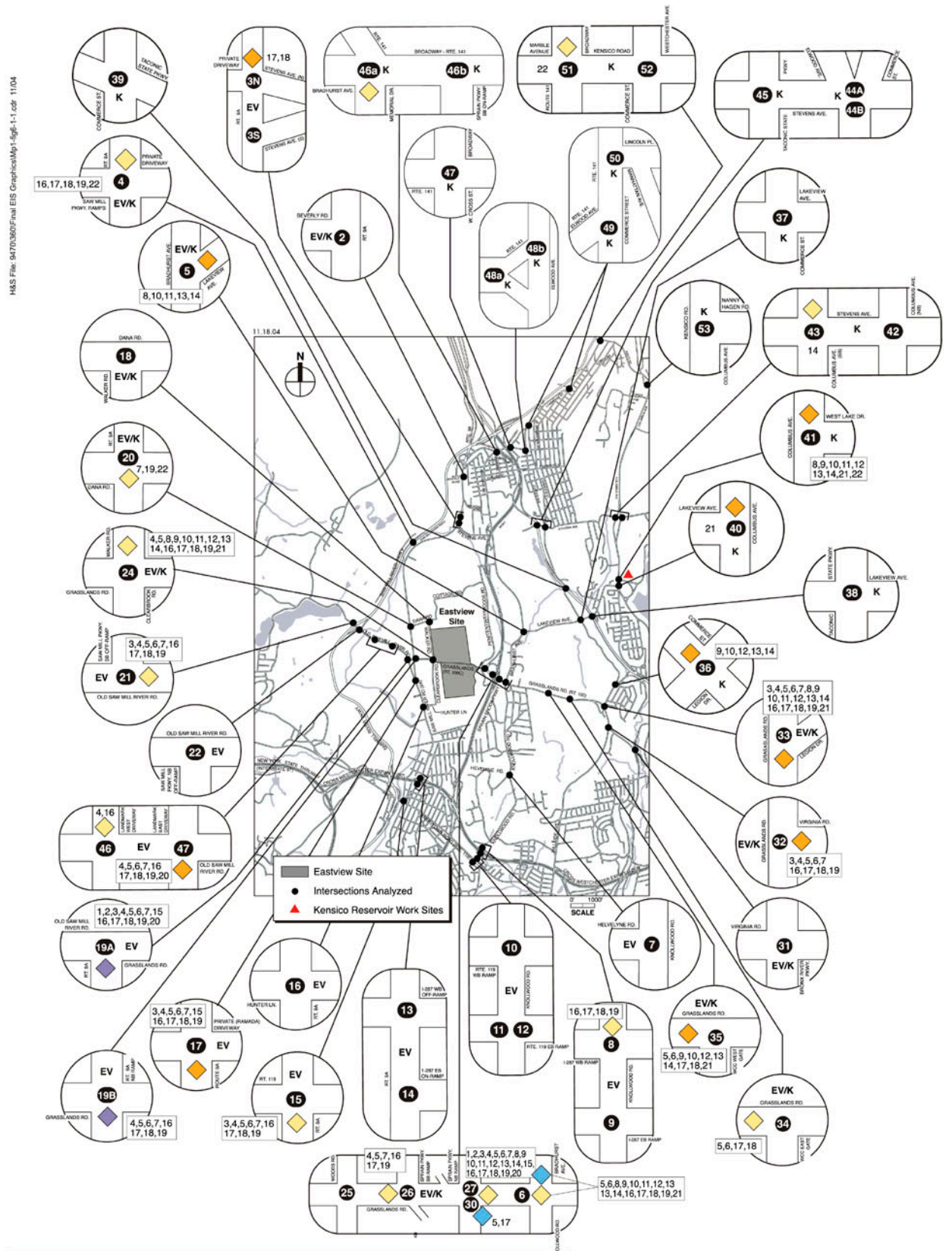
Sufficient on-site parking would be provided as part of each of the proposed projects to accommodate all employees and visitors to both the UV Facility and the Croton project. Therefore, no significant adverse parking impacts would be anticipated in 2010 as a result of the combined operation of the proposed UV Facility and Croton project.

4.21.2.1.3. Safety

No additional accidents are anticipated given the low combined traffic volumes that would be generated by operation of the proposed UV Facility and Croton project; therefore, no significant adverse traffic safety impacts are anticipated.

4.21.2.1.4. Transit

Neither project would generate any transit trips. In addition because of the low generation of trips from the UV Facility, the Croton project, and the Bee-Line Bus Facility, the combined operation of the UV Facility and Croton project would not be anticipated to impact bus operations. Approximately 25 buses per hour in the morning and afternoon peak hours would either leave or enter the Bee-Line Bus Facility. At the bus and employee entrances to the Bus Facility, a center lane is provide on Walker Road for left turns into the Facility's driveways. It was observed that at the Bus Facility, the street widths on Walker Road are wide enough to accommodate bus maneuvers, and no safety issues were observed in the field. Therefore, no significant adverse transit-related impacts would be anticipated under the 2010 Combined Build conditions.



Summary of Proposed Traffic Mitigation

Catskill/Delaware UV Facility

Figure 4.21-6A

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MITIGATION MEASURES / CONDITION ANALYZED →	1	2	3	4	5	6	7	8	9	10	11	12	13	14*	15	16	17	18	19	20	21	22
Proposed Signalization	1	1	1	2	2	2	2	0	0	0	0	0	0	0	1	2	2	2	2	2	0	0
Proposed Pavement Restriping Changes	0	0	0	0	2	1	0	1	1	1	1	1	1	1	0	1	1	1	1	0	1	0
Proposed Retiming/Rephasing Changes	1	1	4	6	9	6	6	3	3	3	3	3	3	3	1	10	10	10	10	1	3	4
Proposed Geometric/Physical Changes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance and Protection of Traffic (MPT) Plan	0	0	3	4	4	4	4	2	4	5	2	4	5	2-5	1	4	6	6	4	1	4	1
Total Number of Proposed Traffic Mitigation Measures**	2	2	8	12	17	13	12	6	8	9	6	8	9	6-9	3	17	19	19	17	3	7	5

*NOTE: Impacts Would be Similar to Numbers 8, 9, 10, 11, 12, 13 with One Additional Impact.

**NOTE: Total Number of Poposed Mitigation Measures Do Not Necessarily Equal the Nuber of Intersections Impacted. Some Intersections Have Multiple Mitigation Measures (e.g. Retiming and Restriping).

LEGEND

1 2010 Operation without Croton Project
2 2010 Operation with Croton Project
3 2008 Construction without Croton Project
4 2008 Construction Option A
5 2008 Construction Option B
6 2008 Construction Option C
7 2008 Construction Option D
8 2006 Off-Site Option A without Croton Project
9 2006 Off-Site Option B without Croton Project
10 2006 Off-Site Option C without Croton Project
11 2006 Off-Site Option A with Croton Project
12 2006 Off-Site Option B with Croton Project
13 2006 Off-Site Option C with Croton Project
14 2010 Off-Site Construction
15 2010 Operation Combined
16 2008 Construction Option A Combined
17 2008 Construction Option B Combined
18 2008 Construction Option C Combined
19 2008 Construction Option D Combined
20 2006 Extended Work Hours Alternative
21 2006 Off-Site Option D without Croton Project
22 2006 Off-Site Option E without Croton Project

2008: Parking Options

OPTION A: Construction Workers Park at the Landmark at Eastview

OPTION B: Construction Workers Park at Westchester Community Collage

OPTION C: Construction Workers Split Parking Evenly at the Landmark at Eastview and Westchester Community College

OPTION D: Construction Workers Park at the Landmark at Eastview and Home Depot

2006: Truck Route Options

OPTION A: Grasslands Road/Lakeview Avenue/ Columbus Avenue

OPTION B: Grasslands Road/Commerce street/ Columbus Avenue

OPTION C: Combination 50/50 Split Between Option A and B

OPTION D: Circular Route - Lakeview Avenue to Kensico/Commerce Street to Eastview (Preferred Alternative)

OPTION E: Route 9A/Route 141/Kensico Road/Columbus Avenue

Summary of Estimated Traffic Mitigation Measures

Catskill/Delaware UV Facility

Figure 4.21-6B

4.21.2.2. Air Quality

4.21.2.2.1. Mobile Sources

For the combined condition (with the UV Facility and the Croton project), a mobile source air quality analysis of carbon monoxide (CO) was conducted at the Eastview Site for the build year of 2010. Concentrations were determined for the 1-hour and 8-hour averaging times for CO. Particulate Matter analyses were not conducted because in the build year 2010, all intersections were projected to be under the CEQR diesel truck trip threshold for fine particulate matter.

Carbon Monoxide.

As indicated in Table 4.21-2, the predicted concentrations of CO for the build year 2010, are below the corresponding ambient air quality standards. Both 1-hour and 8-hour averaging periods for each modeled intersection are in compliance with the standards.

TABLE 4.21-2. PREDICTED 1-HOUR AND 8-HOUR CO CONCENTRATIONS FOR COMBINED OPERATIONAL ACTIVITY (UV FACILITY AND CROTON PROJECT) (PPM)

Intersection	Averaging Period	Ambient AQ Background	Model Results		Total Predicted Conc.[1]		Air Quality Standard
			AM	PM	AM	PM	
Build Year 2010							
Route 100C at Sprain Brook Parkway Interchange	1-hour	5.9	2.3	2.5	8.2	8.4	35
	8-hour	2.0	1.6	1.8	3.6	3.8	9
Route 100C at Clearbrook Rd/Walker Road	1-hour	5.9	0.8	1.5	6.7	7.4	35
	8-hour	1.5	0.6	1.1	2.6	3.1	9
Route 100C at Bradhurst Avenue	1-hour	5.9	1.9	2.6	7.8	8.5	35
	8-hour	2.0	1.3	1.8	3.3	3.8	9

Notes: [1]Ambient AQ Background + Model Results = Total Predicted Concentration.

In addition, the CEQR *de minimis* criteria were calculated for the 8-hour period as described in Section 3.10, Data Collection and Impact Methodologies, Air Quality. As indicated in Table 4.21-3, the CEQR *de minimis* criteria for the 8-hour period were not exceeded. Therefore, no significant impacts for CO were predicted from the combined operations of the UV Facility and the Croton project at Eastview.

TABLE 4.21-3. 8-HOUR CO CONCENTRATIONS AND CEQR *DE MINIMIS* CRITERIA[a] FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT)

Intersection	Averaging Period	No Build Conc.[a]		Build Conc.[a]		Proj. Increment[b]		*De minimis* Criteria[c]	
		AM	PM	AM	PM	AM	PM	AM	PM
Build Year 2010									
Route 100C at Sprain Brook Parkway Interchange	8-hour	3.6	3.8	3.6	3.8	0.0	0.0	2.7	2.6
Route 100C at Clearbrook Rd/Walker Rd	8-hour	2.5	3.1	2.6	3.1	0.1	0.0	3.25	2.95
Route 100C at Bradhurst Avenue	8-hour	3.3	3.8	3.3	3.8	0.0	0.0	2.85	2.6

Notes:
[a] Includes Background. No build is without the UV Facility or Croton Project (i.e., Pure No build)
[b] The project increment is defined as the project build value minus the no build value. The project increment is below the *de minimis* criteria.
[c] See Section 3.10, Data Collection and Impact Methodologies, Air Quality, for details on how this value is calculated.

4.21.2.2.2. Stationary Sources

The source descriptions and emission rates are the same as those described in Section 4.10, Air Quality for each source included at the Croton project and at the proposed UV Facility. The sources were combined into a single multiple source modeling scenario and the results are present below in Tables 4.21-4, 4.21-5 and 4.21-6.

TABLE 4.21-4. COMBINED CONDITION: MODELING RESULTS OF CRITERIA POLLUTANTS WITH SOURCES FROM UV FACILITY AND CROTON PROJECT BUILD YEAR 2010

Pollutant	Averaging Time	Predicted Conc. All Sources µg/m^3	Background Conc. Mg/m^3	Total Conc. µg/m^3	Ambient Air Quality Standards µg/m^3
NO_X	Annual	3.8	58	62	100
CO	1-hour	1,152	6,858	8,010	40,000
	8-hourl	126	4,572	4,698	10,000
PM_{10}	24-hourl	8.2	45	53	150
	Annual	0.53	21	22	50
SO_2	3-hour	362	183	545	1,300
	24-hours	155	120	275	365
	Annual	2.9	26	29	80

TABLE 4.21-5. COMBINED CONDITION: TOTAL CONCENTRATIONS OF TACS WITH SOURCES FROM THE UV FACILITY AND THE CROTON PROJECT MULTIPLE SOURCE MODELING SCENARIO - BUILD YEAR 2010

Pollutant	Maximum 1-hr Conc. µg/m^3	NYSDEC SGC[1] µg/m^3	Maximum Annual Concentration µg/m^3	NYSDEC AGC[1] µg/m^3
Benzene (HAP)	9.95E-02	1,300	6.69E-04	0.13
Toluene (HAP)	1.70E-01	37,000	8.00E-04	400
Xylenes (HAP)	2.56E-02	4,300	1.45E-04	700
Ethylbenzene	1.39E-03	54,000	4.48E-06	1,000
1,1,1 Trichloroethane	5.06E-03	NL	1.63E-05	NL
Formaldehyde (HAP)	1.22E+00	30	8.85E-03	0.06
Fluorene	9.80E-05	NL	4.49E-07	NL
Naphthalene (HAP)	4.04E-02	7,900	2.02E-04	3
Acenaphthylene (HAP)	1.11E-03	NL	6.68E-06	0.02
Acenaphthene (HAP)	1.02E-03	NL	4.91E-06	0.02
Phenanthrene (HAP)	5.13E-03	NL	3.06E-05	0.02
Anthracene (HAP)	1.74E-04	NL	1.08E-06	0.02
Fluoranthene (HAP)	5.90E-04	NL	3.36E-06	0.02
Pyrene (HAP)	5.39E-04	NL	3.18E-06	0.02
Benzo(a)anthracene (HAP)	1.63E-04	NL	8.12E-07	0.02
Chrysene (HAP)	2.36E-04	NL	1.34E-06	0.02
Benzo(b)fluoranthene (HAP)	1.05E-02	NL	5.75E-05	0.02
Benzo(k)fluoranthene (HAP)	2.09E-03	NL	1.14E-05	0.02
Benzo(a)pyrene (HAP)	2.43E-03	NL	1.33E-05	0.02
Indeno(1,2,3-cd)pyrene (HAP)	3.95E-03	NL	2.16E-05	0.02
Dibenz(a,h)anthracene (HAP)	3.29E-03	NL	1.80E-05	0.02
Benzo(g,h,l)perylene (HAP)	5.29E-03	NL	2.89E-05	0.02
2-Methylnaphthalene (HAP)	7.19E-05	NL	1.15E-06	0.02
3-Methylchloranthrene (HAP)	5.39E-06	NL	8.66E-08	0.02
7,12-Dimethylbenz(a)anthracene (HAP)	4.79E-05	NL	7.70E-07	0.02
Dichlorobenzene (HAP)	3.60E-03	NL	5.77E-05	0.09
Butane	6.29E+00	NL	1.01E-01	45,000
Pentane	7.79E+00	NL	1.25E-01	4,200
Propane	4.79E+00	NL	7.70E-02	110,000
Hexane (HAP)	5.39E+00	NL	8.66E-02	200
Arsenic (HAP)	1.22E-02	NL	4.89E-05	0.00023
Beryllium (HAP)	9.18E-03	1	3.01E-05	0.00042
Cadmium (HAP)	9.18E-03	NL	8.24E-05	0.0005
Chromium (HAP)	9.18E-03	NL	9.68E-05	1.2
Cobalt (HAP)	2.52E-04	NL	4.04E-06	0.005
Manganese (HAP)	1.84E-02	NL	7.72E-05	0.05
Mercury (HAP)	1.84E-02	1.8	7.72E-05	0.3
Nickel (HAP)	9.18E-03	6	1.31E-04	0.004

TABLE 4.21-5. COMBINED CONDITION: TOTAL CONCENTRATIONS OF TACS WITH SOURCES FROM THE UV FACILITY AND THE CROTON PROJECT MULTIPLE SOURCE MODELING SCENARIO - BUILD YEAR 2010

Pollutant	Maximum 1-hr Conc. µg/m^3	NYSDEC SGC[1] µg/m^3	Maximum Annual Concentration µg/m^3	NYSDEC AGC[1] µg/m^3
Selenium (HAP)	4.59E-02	NL	1.49E-04	20
Lead (HAP)	2.75E-02	NL	1.13E-04	0.75
Barium	1.32E-02	NL	2.12E-04	1.2
Copper	1.84E-02	100	9.99E-05	0.02
Molybdenum	3.30E-03	NL	5.29E-05	12
Vanadium	6.89E-03	NL	1.11E-04	0.2
Zinc	8.69E-02	NL	1.43E-03	50

Notes:
1. NL represents "Not Listed."

TABLE 4.21-6. COMBINED CONDITION: MODELING RESULTS OF $PM_{2.5}$ WITH SOURCES FROM UV FACILITY AND CROTON PROJECT BUILD YEAR 2010

Pollutant	Total Predicted Conc.[1] µg/m^3	Interim Guidance Criteria µg/m^3	Promulgated Standard µg/m^3
$PM_{2.5}$ 24-Hour	4.15	5.0	65
$PM_{2.5}$ Annual (Discrete)	0.23	0.3	15
$PM_{2.5}$ Annual (Neighborhood)	0.05	0.1	15

Notes:
[1] Total combined concentration of boilers and emergency generators

As indicated in the tables, maximum predicted off-site concentrations from the combined emissions of all UV Facility and Croton project sources are below applicable ambient air quality standards and guidance thresholds. Since the maximum predicted concentrations from all combustion emission sources at the Eastview Site are in compliance with the standards/guidance, the impacts are not considered significant.

4.21.2.3. Noise

This section examines the potential noise impacts due to operations on the noise-sensitive receptors resulting from the combined operation-induced noise generated by both the proposed UV Facility and the Croton project at the Eastview Site. The combined noise effects during operations were calculated using the methodologies described in Section 3.11, Data Collection and Impact Methodologies, Noise. Both a stationary source noise analysis and mobile source noise analysis (2010) were performed.

The future without the construction/operation of either the proposed UV Facility or the Croton project referred to in this section are those that have been fully examined and presented in Section 4.11, Noise. This "baseline" condition evaluates the combined project-related impacts. The analysis year for the combined project impact analysis for operations is 2010.

4.21.2.3.1. Mobile Sources

A preliminary noise screening using passenger car equivalent (PCE) values was performed to determine whether receptors located near the identified noise-sensitive route segments would experience an increase in noise levels of 3 decibels (dBA) or more as a result of the additional vehicular traffic generated by the project. The preliminary noise screening was performed by comparing the existing PCEs with existing PCEs plus the addition of the future project-generated PCEs with the proposed UV Facility and the Croton project. The AM time period representing the largest increase in future PCEs resulting from both the UV Facility and the Croton project operations was used for the comparative analysis. For the PM time period, the largest increase in future PCEs resulting from the UV Facility was the hour of 3:30 PM to 4:30 PM, while for the Croton project the peak PM hour was 5:00 PM to 6:00 PM. The combined impact analyses was performed for the 3:30 PM to 4:30 PM since this is the time period with the lower traffic volumes, and thus results in a more conservative analysis. The analysis year for the project impact analysis for operations is 2010, the first full year of operation for both projects.

The roadways considered for the mobile source noise analysis at the Eastview Site are the 11 route segments presented in Section 4.11, Noise. The roadways considered for analysis were those local routes identified as possible transportation routes that connect the major thoroughfares to the UV Facility and Croton project site where sensitive receptors along the proposed transportation routes were identified.

Table 4.21-7 presents the comparison of future PCEs from the proposed UV Facility and the Croton project to existing PCEs along route segments for operations.

As shown in Table 4.21-7, none of the noise-sensitive route segments would experience a doubling of PCEs from the combined operation of the UV Facility and Croton project. It was concluded that the noise-sensitive route segments in the vicinity of the project site would not exceed the 3 to 5 dBA impact threshold established in the *CEQR Technical Manual*. Therefore, noise-sensitive route segments associated with the Eastview Site were not examined further.

TABLE 4.21-7: COMPARISON OF EXISTING PCES TO ANTICIPATED FUTURE WITH THE UV FACILITY AND CROTON PROJECT PCES DURING OPERATIONS (2010)

	Route Segment	Period of Analysis (Weekday)	Pure No Build (without Croton) PCEs	Time	New Passenger Car (Croton)	New Trucks (Croton)	New Passenger Car (CatDel)	New Trucks (CatDel)	New PCEs	PCE Ratio	Incremental Change in dBA	Further Analysis Required?
1	Saw Mill River Road btw Tarrytown Rd & I-287	AM Peak	12743	8:00-9:00	5	0	4	0	9	1.00	0.00	No
		PM Peak	5863	3:30-4:30	5	0	3	0	8	1.00	0.01	No
2	Saw Mill River Rd. btw Hunter Ln and Grasslands Rd.	AM Peak	14355	8:00-9:00	0	0	0	0	0	1.00	0.00	No
		PM Peak	6061	3:30-4:30	0	0	0	0	0	1.00	0.00	No
3	Knollwood Rd btw Tarrytown Rd and I287	AM Peak	6792	8:00-9:00	0	0	0	0	0	1.00	0.00	No
		PM Peak	2622	3:30-4:30	0	0	0	0	0	1.00	0.00	No
4	Knollwood Rd. btw I-287 and Hevelyne Rd	AM Peak	2593	8:00-9:00	0	0	0	1	47	1.02	0.08	No
		PM Peak	1155	3:30-4:30	0	0	0	1	47	1.04	0.17	No
5	Knollwood Rd. btw Hevelyne rd. and Grasslands Rd.	AM Peak	2594	8:00-9:00	0	0	0	1	47	1.02	0.08	No
		PM Peak	896	3:30-4:30	0	0	0	1	47	1.05	0.22	No
6	Bradhurst btw Grasslands and Lakeview	AM Peak	3258	8:00-9:00	0	0	0	0	0	1.00	0.00	No
		PM Peak	1171	3:30-4:30	0	0	0	0	0	1.00	0.00	No
7	Grasslands Rd. btw Bradhurst and Sprain Brook Pkwy	AM Peak	7021	8:00-9:00	1	0	1	1	49	1.01	0.03	No
		PM Peak	2451	3:30-4:30	1	0	1	1	49	1.02	0.09	No
8	Grasslands Rd. btw Sprain Brook Pkwy and Walker Road	AM Peak	6937	8:00-9:00	25	0	17	0	42	1.01	0.03	No
		PM Peak	2422	3:30-4:30	25	0	17	0	42	1.02	0.07	No
9	Saw Mill River rd. btw Dana Rd. and Stevens Ave	AM Peak	14603	8:00-9:00	3	0	2	1	52	1.00	0.02	No
		PM Peak	6075	3:30-4:30	3	0	2	1	52	1.01	0.04	No
10	Saw Mill River Rd. bw Stevens Ave. and Saw Mill River Pkwy	AM Peak	12836	8:00-9:00	3	0	2	2	99	1.01	0.03	No
		PM Peak	5702	3:30-4:30	3	0	2	2	99	1.02	0.07	No
11	Dana Rd./Cottage Rd btw Saw Mill River Rd and Penitentiary Rd.	AM Peak	5455	8:00-9:00	0	0	0	0	0	1.00	0.00	No
		PM Peak	558	3:30-4:30	0	0	0	0	0	1.00	0.00	No

Notes:

New PCEs = (no. of cars + no. of trucks(47))

PCE ratio = (Existing PCEs + Project generated PCEs) / Existing PCEs

Incremental change in dBA = 10 log (PCE ratio)

4.21.2.3.2. Stationary Sources

The total future noise levels due to operation of proposed UV Facility with the concurrent operation of the Croton project at the Eastview Site are summarized in Table 4.21-8. The noise due to combined project operations at Receptors EV-S5 (eastern edge of south parcel) and EV-S6 (Taylor Road residence No. 29) would be primarily a function of noise resulting from operations of the proposed UV Facility as opposed to the Croton project, since the proposed UV Facility would be located closer to the receptors and would shield any potential noise from the Croton project. Therefore, the monthly total noise levels at Receptors EV-S5 and EV-S6 would remain the same as described in Section 4.11, Noise. Predicted noise levels were calculated by the noise prediction algorithms at each identified sensitive receptor with both projects for operations. The predicted noise levels at each receptor are summarized in Table 4.21-8.

Table 4.21-8 compares future baseline noise levels from the combined operation of the UV Facility and the Croton project with the future anticipated normal operations noise levels at each receptor during the noisiest and quietest weekday hours (daytime/nighttime hours, whichever the quietest/noisiest time periods fall into). The greatest incremental change would be 0.4 dBA at receptor EV-S1 (County Laboratory). Therefore, the contribution of stationary source noise to the total noise generated from normal operations and experienced at sensitive receptors during weekdays would not exceed the 3 to 5 dBA threshold.

TABLE 4.21-8. MAXIMUM NOISE LEVELS FROM OPERATIONS (UV FACILITY AND CROTON PROJECT, 2010) AT RECEPTORS NEAR EASTVIEW SITE DURING WEEKDAY (L_{EQ}, dBA)

Proximate Receptor	Monitoring Period	Future Without Projects Noise Level (2010)	Predicted Operational Noise Level	Total Future Operations Noise Level[1] (2010)	Incremental Change	Impact Threshold	Exceed Threshold (Y/N)
EV-S1	Quietest (3-5 am)	52.2	41.5	52.6	0.4	3.0	No
	Noisiest (7-9 pm)	58.4	41.5	58.5	0.1	5.0	No
EV-S2	Quietest (3-5 am)	53.4	31.7	53.4	0.0	3.0	No
	Noisiest (1-2 pm)	56.6	31.7	56.6	0.0	5.0	No
EV-S3	Quietest (3-5 am)	47.0	31.9	47.1	0.1	3.0	No
	Noisiest (7-9 pm)	60.6	31.9	60.6	0.0	5.0	No
EV-S4	Quietest (3-5 am)	51.1	36.2	51.2	0.1	3.0	No
	Noisiest (1-2 pm)	58.7	36.2	58.7	0.0	5.0	No
EV-S5[2]	Quietest (4-5 pm)	52.8	21.1	52.8	0.0	5.0	No
	Noisiest (7-8 am)	58.2	21.1	58.2	0.0	5.0	No

TABLE 4.21-8. MAXIMUM NOISE LEVELS FROM OPERATIONS (UV FACILITY AND CROTON PROJECT, 2010) AT RECEPTORS NEAR EASTVIEW SITE DURING WEEKDAY (L_{EQ}, dBA)

Proximate Receptor	Monitoring Period	Future Without Projects Noise Level (2010)	Predicted Operational Noise Level	Total Future Operations Noise Level[1] (2010)	Incremental Change	Impact Threshold	Exceed Threshold (Y/N)
EV-S6[2]	Quietest (7-8 am)	59.0	19.1	59.0	0.0	5.0	No
	Noisiest (3-4 pm)	62.1	19.1	62.1	0.0	3.0	No

Notes:
[1]Total Noise Level During Normal Weekday Operations based on logarithmic addition of Future Baseline (without UV Facility or Croton project) and Predicted Operational Noise Levels for UV Facility and Croton project.
[2]Predicted operational noise levels for Croton project not available. Predicted UV Facility noise levels shown above.

4.21.3. Potential Construction Impacts

In 2008, the peak year when both the UV Facility and the Croton project would be under construction at the same time on the Eastview Site, there could be adverse impacts resulting in several areas from the projects being constructed simultaneously. Below is an analysis of these potential adverse impacts that could result from the combined impacts of these two NYCDEP projects.

4.21.3.1. Traffic and Transportation

This section examines the potential construction impacts on the area's transportation system (including traffic, parking, pedestrian safety and mass transit) resulting from combined trips generated by both the proposed UV Facility and the Croton project at the Eastview Site. The operation of the various study area intersections (and their approaches and lane groups) based on their ability to process traffic as calculated using the HCM methodologies, described in Section 3.9, Data Collection and Impact Methodologies, Traffic and Transportation, for the combined effects of the UV Facility and the Croton project are described here.

The future "No Build" conditions (FNB) without the construction of either the proposed UV Facility or the Croton project referred to in this section are those that have been fully examined and presented in Section 4.9, Traffic and Transportation. These "pure" FNB conditions serve as a "baseline" for the evaluation of the combined project-related impacts. The construction analysis year is 2008. Figures 4.21-7 and 4.21-8 show the total 2008 FNB traffic volumes at the study area intersections for the AM and PM peak hours, respectively.

The 2008 Combined construction conditions include four options, based on where the construction workers for both facilities would park. This is because if both the Croton project and the proposed UV Facility were to be under construction at the Eastview Site at the same time, there would not be enough space on-site for all of the workers for both projects to park, as most of the available land area would either be under construction, or in use as construction lay-down or staging areas. These construction worker parking options have been selected for analysis purposes, as representative of the types of routings that worker vehicles could use for

off-site parking. Each of the four construction worker parking options also includes an additional assignment for shuttle buses that would transport the workers between the Eastview Site and the parking areas. These are the same Options (A, B, C, and D) that were explained and examined in the 2008 construction discussion in Section 4.9, Traffic and Transportation, and are briefly reiterated below.

- *Option A:* All of the construction workers for both the proposed UV Facility and the Croton project would park at the Landmark at Eastview office park (Landmark property), west of the project site, and would be shuttled to the site in buses or vans.

- *Option B:* All of the construction workers for both the proposed UV Facility and the Croton project would park at the Westchester Community College (WCC) Campus, east of the project site, and would be shuttled to the site in buses or vans.

- *Option C:* Parking for all of the construction workers for both the UV Facility and the Croton project would be split evenly between the Landmark property and WCC, and would be shuttled to the site in buses or vans.

- *Option D:* All of the construction workers for the Croton project would park at the Landmark property, west of the project site, and all of the construction workers for the proposed UV Facility would park at the new Home Depot off Dana Road, just northwest of the project site. Rather than simply splitting the workers between the two sites, workers from the proposed UV Facility were assigned to the Home Depot site because the property owner indicated that they anticipated that the parking that would be available would be just enough to accommodate the projected number of UV Facility construction worker vehicles, but would not be sufficient to accommodate the projected number of Croton project worker vehicles. All workers for either project would be shuttled to the site from their respective parking areas in buses or vans.

It is important to note that these 2008 Construction (Options A through D) conditions, reflect the maximum number of worker trips that would be anticipated at the peak of the concurrent construction of the UV Facility and the Croton project, anticipated to occur for approximately 16 months (from the end of 2007 through the beginning of 2009). During other times during the five-year construction period, the numbers of total workers traveling to and from the Eastview Site would be substantially lower than for peak conditions in 2008. It may be possible to accommodate construction workers on-site during the non-peak construction periods. During these times with fewer workers and the ability to accommodate the parking for construction workers on the north parcel of the Eastview Site, the impacts would be less than those discussed in the subsections below, and would be likely to occur at locations similar to conditions outlined for Option A. This is because the routing of construction worker vehicles parking on the north parcel would be very similar to the routing examined for Option A.

The analyses for 2008 combined construction conditions examines a peak 2008 combined construction condition that adds onto a "pure" 2008 FNB that only includes background growth and traffic from known discrete No Build projects (as described in Section 4.9, Traffic and Transportation.) As mentioned previously, under 2008 conditions with both the proposed UV

Facility and the Croton project under construction, construction workers would be required to park off-site. This led to the analysis of the four construction worker parking options (Options A, B, C, and D) outlined above. It is important to note that under these conditions, not only are the workers associated with the proposed UV Facility's construction routed to one or more off-site locations, but the construction workers associated with the Croton project have also been routed to one or more of the same off-site parking locations as the UV Facility's workers.

Under all 2008 combined construction conditions (Options A through D), tunnels and conduits would have to be dug under Route 100C, which would require closing part of this roadway on two occasions for periods on the order of two months each. During these time periods, NYCDEP would provide temporary roadway pavement alongside the permanent Grasslands Road (Route 100C) roadbed to accommodate a comparable number of lanes of through traffic. This temporary roadway to carry diverted Route 100C traffic would require the approval of NYSDOT.

The anticipated volumes and conditions, including the identification of 2008 Combined Construction period potential significant adverse impacts for each of the worker parking Options, are outlined and summarized below.

4.21.3.1.1. Option A – Parking at the Landmark Property

The traffic generated by the concurrent construction of the proposed UV Facility and the Croton project on the site for Option A is shown in Figures 4.21-9 and 4.21-10, for the AM and PM peak hours, respectively. Figures 4.21-11 and 4.21-12 show the total resulting 2008 Combined Construction Option A traffic volumes. Table 4.21-9 shows a comparison of the results of the HCM analyses for the 2008 FNB conditions and the 2008 Combined Construction (Option A) conditions.

Option A Traffic. The following is a summary of the potential significant adverse impacts that have been identified during 2008, associated with the combined effects of the UV Facility's peak construction activities and the Croton project construction at the Eastview Site under worker parking Option A conditions. There would be a total of 31 potential significant adverse impacts at intersections in the primary study area under 2008 combined construction Option A conditions (15 at signalized intersections, 4 during the AM peak hour and 11 during the PM peak hour, and 16 at unsignalized intersections, 6 during the AM peak hour and 10 during the PM peak hour).

Potential Significant Adverse Impacts Occurring at Signalized Intersections

- Saw Mill River Road (Route 9A)/Saw Mill River Parkway Ramp Intersection. During the PM peak hour, the southbound through/right movement would deteriorate from LOS D to LOS E, with delays increasing from 54.3 to 58.5 seconds.

- Grasslands Road (Route 100C)/Bradhurst Avenue (Route 100) Intersection. During the PM peak hour, the northbound left-turn movement would remain at LOS E, with delays increasing from 58.7 to 64.9 seconds.

- Knollwood Road (Route 100A)/Cross Westchester Expressway (I-287) Westbound Ramp Intersection. During the PM peak hour, the northbound left-turn movement would deteriorate from LOS D to LOS E, with delays increasing from 52.6 to 58.2 seconds.

- Saw Mill River Road (Route 9A)/Tarrytown-White Plains Road (Route 119) Intersection. During the AM peak hour, the eastbound left-turn movement would deteriorate from LOS E to LOS F, with delays increasing from 66.8 to 113.5 seconds. During the PM peak hour the eastbound left-turn movement would deteriorate from LOS E to LOS F, with delays increasing from 76.6 to 83.3 seconds.

- Old Saw Mill River Road/Saw Mill River Parkway Southbound Off-Ramp Intersection. During the PM peak hour, the eastbound approach would deteriorate from LOS E to LOS F, with delays increasing from 70.0 to 86.2 seconds.

- Grasslands Road (Route 100C)/Clearbrook Road/Walker Road Intersection. During the PM peak hour, the eastbound through/right lane group would deteriorate from LOS B to LOS F, with delays increasing from 17.2 to 133.1 seconds. The westbound left-turn movement would remain at LOS F, with delays increasing from 230.4 to well beyond 240.0 seconds, during the PM peak hour.

- Grasslands Road (Route 100C)/Sprain Brook Parkway Southbound Ramp Intersection. During the AM peak hour, the southbound right-turn movement would deteriorate from LOS C to LOS D, with delays increasing from 31.0 to 48.4 seconds.

- Grasslands Road (Route 100)/Virginia Road Intersection. During the PM peak hour, the westbound approach would remain at LOS F (delay increasing from 155.8 to 166.5 seconds).

- Grasslands Road (Route 100C)/Sprain Brook Parkway Northbound Ramp Intersection. During the AM peak hour, the northbound left/through lane group would deteriorate from LOS E to LOS F, with delays increasing from 68.7 to well beyond 240.0 seconds. During the PM peak hour, the eastbound left-turn movement would deteriorate from LOS B to LOS F, with delays increasing from 15.4 to 104.4 seconds.

- Virginia Road/Bronx River Parkway Intersection. During the AM and PM peak hours, the eastbound left/through movement would remain at LOS F, with delays increasing from 126.9 to 130.6 seconds during the AM peak hour, and from 139.6 to 144.9 seconds during the PM peak hour. During the PM peak hour, the westbound approach would also remain at LOS F, with delays increasing from 185.8 to 193.5 seconds.

- Old Saw Mill River Road/Landmark Property West Driveway Intersection. During the PM peak hour, the northbound approach would deteriorate from LOS C to LOS E, with delays increasing from 21.2 to 63.3 seconds.

TABLE 4.21-9. PURE NO BUILD VS. CROTON + CAT DEL, PARKING AT THE LANDMARK EASTVIEW SITE LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION A) CONDITIONS

				AM Peak Hour						PM Peak Hour					
				2008 No Build			2008 Construction			2008 No Build			2008 Construction		
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS
Saw Mill River Road (Rt.9A) (N-S) @	4	Eastbound	L	0.64	31.6	C	0.64	31.6	C	0.52	29.3	C	0.52	29.3	C
Saw Mill River Pkwy Ramp			LTR	0.14	25.0	C	0.14	25.0	C	0.14	25.8	C	0.14	25.8	C
		Westbound	L	0.14	32.4	C	0.14	32.4	C	0.14	34.1	C	0.14	34.1	C
			LT	0.10	32.1	C	0.10	32.1	C	0.09	33.8	C	0.09	33.8	C
			R	0.02	31.6	C	0.02	31.6	C	0.04	33.6	C	0.04	33.6	C
		Northbound	L	0.18	14.1	B	0.20	14.3	B	0.81	31.5	C	0.81	31.6	C
			TR	0.31	14.8	B	0.34	15.0	B	0.55	15.4	B	0.61	16.3	B
		Southbound	L	0.05	13.0	B	0.05	13.0	B	0.13	21.4	C	0.14	21.6	C
			TR	0.54	17.1	B	0.60	17.9	B	0.98	54.3	D	1.00	58.5 +	E
		Intersection			19.5	B		19.7	B		33.7	C		35.1	D
Grasslands Road (E-W) @	6	Eastbound	L	0.71	36.6	D	0.75	39.9	D	*	**	F	*	**	F
Bradhurst Avenue			T	1.03	75.1	E	1.03	75.5	E	0.59	22.3	C	0.61	22.9	C
			R	0.35	16.3	B	0.36	16.5	B	0.27	12.1	B	0.30	12.3	B
		Westbound	L	0.68	56.6	E	0.68	56.6	E	0.22	18.0	B	0.23	18.1	B
			TR	0.43	25.8	C	0.45	26.2	C	0.98	55.5	E	0.98	55.9	E
		Northbound	L	0.23	23.3	C	0.26	23.9	C	0.87	58.7	E	0.90	64.9 +	E
			TR	0.34	25.9	C	0.34	25.9	C	0.20	16.3	B	0.20	16.3	B
		Southbound	L	0.50	40.1	D	0.50	40.1	D	0.30	25.1	C	0.00	25.1	C
			TR	0.68	49.7	D	0.68	49.7	D	1.12	109.2	F	1.12	109.2	F
		Intersection			45.2	D		45.2	D		70.0	E		70.0	E
Knollwood Road (E-W) @	8	Westbound	LT	0.46	27.6	C	0.46	27.6	C	0.79	39.0	D	0.79	39.0	D
Cross Westchester Expy (I-287) WB Ramp			R	0.24	25.4	C	0.24	25.5	C	0.45	27.6	C	0.45	27.6	C
		Northbound	L	0.50	9.8	A	0.51	10.0	A	0.95	52.6	D	0.97	58.2 +	E
			T	0.51	10.3	B	0.53	10.6	B	0.52	10.5	B	0.53	10.6	B
		Southbound	T	0.30	13.4	B	0.31	13.5	B	0.44	14.8	B	0.46	15.0	B
			R	0.13	12.1	B	0.14	12.2	B	0.23	12.8	B	0.23	12.9	B
		Intersection			14.4	B		14.5	B		26.7	C		27.7	C
Knollwood Road (E-W) @	9	Eastbound	L	0.67	32.7	C	0.68	32.9	C	0.48	24.4	C	0.48	24.5	C
Cross Westchester Expy (I-287) EB Ramp			TR	0.01	23.6	C	0.01	23.6	C	0.00	20.0	C	0.00	20.0	C
			R	0.58	30.0	C	0.58	30.0	C	0.77	34.2	C	0.77	34.2	C
		Northbound	T	0.49	15.3	B	0.51	15.5	B	0.86	31.6	C	0.87	32.4	C
			R	0.52	15.9	B	0.52	15.9	B	0.62	20.9	C	0.62	20.9	C
		Southbound	L	0.39	9.8	A	0.40	10.0	A	0.79	29.3	C	0.81	31.3	C
			T	0.29	8.4	A	0.30	8.5	A	0.65	15.4	B	0.66	15.8	B
		Intersection			18.6	B		18.6	B		25.6	C		26.0	C
Tarrytown/White Plains Road (E-W) WB Ramp @	10	Westbound	LT	0.14	24.6	C	0.14	24.6	C	0.35	26.4	C	0.35	26.4	C
Knollwood Road (Rt.100A)			R	0.51	28.3	C	0.51	28.3	C	0.96	64.3	E	0.96	65.3	E
		Northbound	LT	0.40	10.1	B	0.41	10.2	B	0.60	12.6	B	0.60	12.6	B
		Southbound	T	0.20	15.3	B	0.20	15.3	B	0.43	17.4	B	0.44	17.4	B
			R	0.19	15.3	B	0.20	15.4	B	0.47	18.0	B	0.48	18.2	B
		Intersection			15.5	B		15.5	B		25.0	C		25.3	C
Tarrytown/White Plains Road (E-W) EB Ramp @	11	Eastbound	LT	0.71	34.2	C	0.73	35.1	D	0.78	38.4	D	0.79	38.7	D
Knollwood Road (Rt.100A)	12		R	0.16	24.8	C	0.16	24.8	C	0.35	26.5	C	0.35	26.5	C
		Northbound	TR	0.40	20.1	C	0.41	20.2	C	0.41	20.3	C	0.41	20.3	C
		Southbound	Def	0.31	11.9	B	0.32	12.1	B	0.47	14.7	B	0.48	14.8	B
			T	0.28	9.2	A	0.28	9.2	A	0.54	11.8	B	0.55	11.9	B
		Intersection			20.4	C		20.8	C		21.1	C		21.2	C
Saw Mill River Road (Rt.9A) @	13	Westbound	L	1.09	97.9	F	1.09	97.9	F	0.74	38.2	D	0.74	38.2	D
Cross Westchester Expy (I-287) WB Ramp			R	0.48	27.5	C	0.61	29.6	C	0.42	20.4	C	0.43	20.6	C
		Northbound	LTR	0.36	8.9	A	0.43	9.4	A	0.69	22.8	C	0.77	25.8	C
		Southbound	TR	0.47	9.7	A	0.51	10.2	B	0.85	22.5	C	0.96	34.4	C
		Intersection			34.3	C		33.0	C		24.4	C		30.8	C
Saw Mill River Road (Rt.9A) @	14	Northbound	TR	0.31	12.3	B	0.36	12.8	B	0.89	34.7	C	0.90	36.4	D
Cross Westchester Expy (I-287) EB Ramp		Southbound	L	0.50	1.7	A	0.55	3.6	A	0.74	23.2	C	0.82	28.7	C
			LT	0.16	0.2	A	0.17	0.2	A	0.53	0.5	A	0.59	0.6	A
		Intersection			5.0	A		6.0	A		17.5	B		18.8	B
Saw Mill River Road (Rt.9A) @	15	Eastbound	L	0.97	66.8	E	1.12	113.5 +	F	0.99	76.6	E	1.02	83.3 +	F
Tarrytown/White Plains Road (Rt.119)			TR	0.38	14.5	B	0.38	14.5	B	0.46	20.2	C	0.46	20.2	C
		Westbound	L	0.17	22.3	C	0.17	22.3	C	0.42	34.4	C	0.42	34.4	C
			TR	0.30	23.5	C	0.31	23.6	C	0.88	48.6	D	0.89	49.7	D
		Northbound	L	0.38	34.2	C	0.39	34.4	C	0.30	25.0	C	0.34	25.8	C
			TR	0.62	40.3	D	0.72	44.9	D	0.82	41.0	D	0.83	42.1	D
		Southbound	L	0.24	33.9	C	0.29	36.6	D	0.54	35.0	C	0.58	36.5	D
			T	0.42	34.9	C	0.44	35.3	D	0.26	22.8	C	0.34	23.8	C
			R	0.23	22.1	C	0.24	22.2	C	0.39	11.0	B	0.43	11.3	B
		Intersection			31.8	C		42.3	D		35.0	C		35.9	D
Saw Mill River Road (Rt.9A) @	16	Eastbound	LTR	0.01	29.1	C	0.01	29.1	C	0.01	32.9	C	0.01	32.9	C
Hunter Lane		Westbound	LT	0.31	32.4	C	0.31	32.4	C	0.81	56.6	E	0.81	56.6	E
			R	0.01	18.7	B	0.01	18.7	B	0.07	22.9	C	0.07	22.9	C
		Northbound	LTR	0.64	21.3	C	0.81	27.0	C	0.69	19.4	B	0.71	20.1	C
		Southbound	LTR	0.67	14.5	B	0.78	18.3	B	0.73	13.3	B	0.87	19.8	B
		Intersection			18.6	B		23.3	C		20.1	C		23.0	C

TABLE 4.21-9. PURE NO BUILD VS. CROTON + CAT DEL, PARKING AT THE LANDMARK EASTVIEW SITE LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION A) CONDITIONS

				AM Peak Hour						PM Peak Hour					
				2008 No Build			2008 Construction			2008 No Build			2008 Construction		
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS
Saw Mill River Road (Rt.9A) @	20	Eastbound	LT	0.07	25.5	C	0.07	25.5	C	0.28	27.4	C	0.29	27.6	C
Dana Road			R	0.08	25.6	C	0.08	25.6	C	0.24	26.9	C	0.24	26.9	C
		Westbound	L	0.12	25.9	C	0.28	27.3	C	0.44	29.1	C	0.55	31.1	C
			TR	0.06	25.4	C	0.15	26.1	C	0.40	28.4	C	0.42	28.7	C
		Northbound	L	0.12	30.5	C	0.12	30.5	C	0.39	32.7	C	0.39	32.7	C
			TR	0.63	25.1	C	0.67	26.0	C	0.84	31.9	C	0.93	40.5	D
		Southbound	L	0.38	32.6	C	0.41	33.0	C	0.15	30.7	C	0.18	31.0	C
			TR	0.59	24.1	C	0.64	25.2	C	0.74	27.7	C	0.74	27.8	C
		Intersection			25.4	C		26.3	C		29.8	C		33.6	C
Old Saw Mill River Road @	21	Eastbound	LT	0.87	28.2	C	0.90	31.7	C	1.04	70.0	E	1.09	86.2 +	F
Saw Mill River Pkwy SB Off Ramp		Westbound	TR	0.23	4.7	A	0.24	4.7	A	0.42	9.2	A	0.54	10.3	B
		Southbound	L	0.68	36.9	D	0.72	39.0	D	0.29	23.1	C	0.29	23.1	C
			LR	0.16	28.2	C	0.16	28.2	C	0.21	22.6	C	0.21	22.6	C
		Intersection			21.2	C		23.2	C		33.9	C		37.1	D
Old Saw Mill River Road @	22	Eastbound	T	0.48	17.5	B	0.50	17.7	B	0.41	13.3	B	0.41	13.3	B
Saw Mill River Pkwy NB Off Ramp		Westbound	T	0.19	7.7	A	0.20	7.8	A	0.28	4.2	A	0.36	4.6	A
		Northbound	LR	0.44	24.7	C	0.64	28.7	C	0.45	31.5	C	0.46	31.6	C
			R	0.41	24.3	C	0.61	28.1	C	0.41	31.1	C	0.43	31.4	C
		Intersection			16.5	B		18.7	B		12.0	B		11.4	B
Grassland Road (Rt.100C) @	24	Eastbound	L	0.01	2.6	A	0.29	4.2	A	0.04	9.2	A	0.04	9.3	A
Clearbrook Road/Walker Road			TR	0.37	3.8	A	0.39	3.8	A	0.73	17.2	B	1.23	133.1 +	F
		Westbound	L	0.38	4.0	A	0.39	4.1	A	1.40	230.4	F	*	** +	F
			TR	0.39	3.9	A	0.81	10.5	B	0.70	16.7	B	0.73	17.5	B
		Northbound	LT	0.21	33.7	C	0.21	33.7	C	0.19	19.9	B	0.19	19.9	B
		Southbound	LT	0.21	33.8	C	0.21	33.8	C	0.23	20.3	C	0.23	20.3	C
			R	0.00	32.2	C	0.00	32.2	C	0.01	18.5	B	0.08	19.0	B
		Intersection			5.3	A		8.5	A		42.3	D		144.3	F
Grassland Road (Rt.100C) @	25	Eastbound	L	0.28	7.5	A	0.40	18.7	B	0.33	13.8	B	0.34	14.5	B
Woods Drive/Taylor Road			TR	0.26	5.2	A	0.28	5.3	A	0.57	12.5	B	0.84	19.4	B
		Westbound	L	0.00	9.3	A	0.00	9.3	A	0.01	12.5	B	0.01	12.7	B
			TR	0.57	14.1	B	0.91	26.0	C	0.73	21.2	C	0.75	22.0	C
		Northbound	LTR	0.01	32.9	C	0.01	32.9	C	0.01	24.6	C	0.01	24.6	C
		Southbound	LT	0.55	39.2	D	0.55	39.2	D	0.79	41.6	D	0.79	41.6	D
			R	0.08	21.2	C	0.08	21.2	C	0.11	17.2	B	0.11	17.2	B
		Intersection			12.8	B		21.1	C		19.6	B		22.3	C
Grassland Road (Rt.100C) @	26	Eastbound	TR	0.27	7.5	A	0.29	7.6	A	0.67	11.7	B	0.95	26.0	C
Sprain Brook Pkwy SB Ramp		Westbound	T	0.32	7.8	A	0.48	9.0	A	0.52	9.5	A	0.54	9.7	A
		Southbound	L	0.55	34.0	C	0.55	34.0	C	0.17	29.6	C	0.17	29.6	C
			R	0.32	31.0	C	0.82	48.4 +	D	0.12	29.2	C	0.16	29.4	C
		Intersection			13.1	B		16.8	B		11.5	B		20.3	C
Grassland Road (Rt.100C) @	27	Eastbound	L	0.09	14.7	B	0.14	15.2	B	0.50	15.4	B	1.11	104.4 +	F
Sprain Brook Pkwy NB Ramp	30		T	0.50	18.0	B	0.51	18.1	B	0.32	9.0	A	0.34	9.1	A
		Westbound	TR	0.47	24.6	C	0.51	25.1	C	1.06	67.9	E	1.07	71.4	E
		Northbound	LT	1.00	68.7	E	*	** +	F	0.69	29.4	C	0.73	30.8	C
			R	1.02	74.8	E	1.02	74.8	E	0.35	23.1	C	0.35	23.1	C
		Intersection			44.0	D		132.9	F		42.6	D		53.2	D
Virginia Road @	31	Eastbound	LT	1.12	126.9	F	1.13	130.6 +	F	1.16	139.6	F	1.17	144.9 +	F
Bronx River Pkwy			R	0.21	19.6	B	0.21	19.6	B	0.39	34.6	C	0.40	34.7	C
		Westbound	LTR	0.40	34.6	C	0.40	34.7	C	1.26	185.8	F	1.28	193.5 +	F
		Northbound	L	0.04	46.3	D	0.06	46.4	D	0.06	10.9	B	0.06	10.9	B
			TR	0.26	20.1	C	0.26	20.1	C	0.62	25.3	C	0.62	25.3	C
		Southbound	L	1.10	141.5	F	1.10	141.5	F	0.13	11.7	B	0.13	11.7	B
			T	0.70	27.3	C	0.70	27.3	C	0.59	24.7	C	0.59	24.7	C
		Intersection			53.9	D		54.5	D		61.7	E		63.5	E
Grassland Road (Rt.100C) @	34	Eastbound	T	0.41	7.7	A	0.41	7.7	A	0.72	16.6	B	0.74	17.4	B
WCC East Gate		Westbound	L	0.26	5.2	A	0.26	5.2	A	0.21	11.1	B	0.22	11.4	B
			T	0.24	3.2	A	0.25	3.2	A	0.58	7.9	A	0.58	7.9	A
		Northbound	L	0.07	45.8	D	0.07	45.8	D	0.62	30.6	C	0.62	30.6	C
		Intersection			6.3	A		6.3	A		14.5	B		14.9	B
Old Saw Mill River Road @	46	Eastbound	LTR	0.74	8.7	A	0.88	14.6	B	0.57	6.0	A	0.58	6.1	A
Landmark West Driveway		Westbound	LTR	0.26	4.1	A	0.26	4.1	A	0.43	4.9	A	0.43	4.9	A
		Northbound	LTR	0.02	21.0	C	0.07	21.2	C	0.08	21.2	C	0.92	63.3 +	E
		Southbound	LTR	0.04	21.1	C	0.04	21.1	C	0.03	21.0	C	0.03	21.0	C
		Intersection			7.7	A		12.4	B		5.8	A		13.2	B

Notes:

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts.

" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

TABLE 4.21-9. PURE NO BUILD VS. CROTON + CAT DEL, PARKING AT THE LANDMARK EASTVIEW SITE LEVEL-OF-SERVICE ANALYSIS RESULTS FOR UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION A) CONDITIONS

				AM Peak Hour						PM Peak Hour					
				2008 No Build			2008 Construction			2008 No Build			2008 Construction		
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS
Sprain Pkwy SB On Ramp (N-S) @ Broadway (Rt.9A)/Bradhurst Avenue	1	Westbound	LT	0.12	10.6	B	0.12	10.8	B	0.19	9.5	A	0.21	9.9	A
Saw Mill River Road (Rt.9A) (N-S) @ Beverly Road	2	Northbound	LT	0.01	10.3	B	0.01	10.6	B	0.03	13.1	B	0.03	13.2	B
		Eastbound	LR	0.07	21.1	C	0.08	23.0	C	0.05	29.7	D	0.06	32.1	D
Saw Mill River Road (Rt.9A) @ Stevens Avenue North	3N	Northbound	LT	0.02	10.9	B	0.02	11.3	B	0.01	9.8	A	0.01	9.8	A
		Southbound	LT	0.03	9.2	A	0.03	9.3	A	0.02	10.5	B	0.02	10.9	B
		Eastbound	LTR	0.02	35.0	D	0.03	40.6	E	0.13	24.1	C	0.15	26.2	D
		Westbound	LTR	0.03	16.7	C	0.04	18.1	C	0.07	15.7	C	0.08	16.9	C
Saw Mill River Road (Rt.9A) @ Stevens Avenue South	3S	Southbound	LT	0.00	8.8	A	0.00	8.9	A	0.00	10.4	B	0.00	10.8	B
		Westbound	LR	0.03	21.4	C	0.03	23.5	C	0.14	34.0	D	0.17	38.9	E
Bradhurst Avenue @ Lakeview Avenue	5	Southbound	LT	0.02	8.2	A	0.02	8.2	A	0.01	8.1	A	0.01	8.1	A
		Westbound	LR	0.26	15.1	C	0.26	15.1	C	0.45	18.8	C	0.45	18.8	C
Knollwood Road (Rt.100A) @ Hevelyne Road	7	Northbound	LT	0.01	8.3	A	0.01	8.3	A	0.00	8.0	A	0.00	8.0	A
		Eastbound	LR	0.03	13.1	B	0.03	13.4	C	0.01	10.9	B	0.01	11.0	B
Saw Mill River Road (Rt.9A) @ Ramada Inn/Broadway Plaza	17	Northbound	L	0.09	10.0	A	0.20	11.0	B	0.15	10.3	B	0.16	10.5	B
		Southbound	LT	0.01	8.7	A	0.01	9.1	A	0.01	9.4	A	0.01	9.6	A
		Eastbound	L	0.01	31.9	D	0.03	54.3 +	F	0.01	48.4	E	0.01	53.6 +	F
			T	0.02	36.9	E	0.03	66.0 +	F	0.08	79.9	F	0.09	92.7 +	F
		Westbound	LT	0.10	33.1	D	0.19	65.7 +	F	0.11	56.3	F	0.13	63.9 +	F
			TR	0.01	10.6	B	0.01	11.2	B	0.03	17.0	C	0.03	18.0	C
Dana Road @ Walker Road	18	Northbound	LR	0.09	10.5	B	0.24	12.1	B	0.04	10.5	B	0.14	11.9	B
		Westbound	LT	0.00	8.3	A	0.00	8.5	A	0.01	7.8	A	0.01	7.9	A
Saw Mill River Road @ Grasslands Road (Rt.100C)	19A	Northbound	L	0.78	85.3	F	*	** +	F	0.99	145.4	F	*	** +	F
			R	0.20	16.3	C	0.22	17.9	C	0.28	15.7	C	0.68	57.2 +	F
		Westbound	L	0.15	11.3	B	0.16	11.9	B	0.17	11.2	B	0.39	23.5	C
Grasslands Road (E-W) @ Saw Mill River Road NB Ramp (N-S)	19B	Northbound	LT	0.06	25.7	D	*	** +	F	0.05	25.0	C	0.16	58.5 +	F
			TR	0.07	13.7	B	0.07	14.7	B	0.16	14.2	B	0.35	29.6	D
		Eastbound	L	0.21	10.1	B	0.37	16.1	C	0.17	10.5	B	0.29	11.8	B
Grasslands Road @ Virginia Road	32	Southbound	LT	0.23	8.3	A	0.23	8.4	A	0.36	10.3	B	0.37	10.4	B
		Westbound	LR	0.55	16.6	C	0.56	17.1	C	1.23	155.8	F	1.26	166.5 +	F
Grasslands Road @ Legion Drive	33	Southbound	L	0.42	29.8	D	0.43	31.0	D	1.27	210.8	F	1.31	227.1 +	F
			R	0.20	12.1	B	0.21	12.4	B	0.47	19.7	C	0.47	19.7	C
		Eastbound	LT	0.07	8.5	A	0.07	8.6	A	0.24	10.7	B	0.24	10.7	B
Grasslands Road @ WCC West Gate	35	Northbound	L	0.06	20.5	C	0.06	20.9	C	0.26	50.2	F	0.27	52.5	F
			R	0.01	13.7	B	0.01	13.7	B	0.49	18.4	C	0.51	19.2	C
		Westbound	LT	0.00	9.9	A	0.00	9.9	A	0.12	9.1	A	0.12	9.2	A
Old Saw Mill River Road @ Landmark East Driveway	47	Northbound	LTR	0.07	17.5	C	0.21	19.7	C	0.11	30.0	D	1.08	103.2 +	F
		Southbound	LTR	0.01	10.3	B	*	** +	F	0.07	17.4	C	*	** +	F
		Eastbound	LTR	0.01	8.1	A	0.02	9.3	A	0.01	8.7	A	0.01	8.8	A
		Westbound	LTR	0.02	10.2	B	0.55	16.1	C	0.01	9.2	A	0.06	9.4	A

Notes:

L = Left Turn, T = Through, R = Right Turn; LOS = Level of Service. "+" indicates significant impacts.

" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

Potential Significant Adverse Impacts Occurring at Unsignalized Intersections

- Saw Mill River Road (Route 9A)/Ramada Inn/Broadway Plaza Intersection. During the AM peak hour, the eastbound left-turn lane group would deteriorate from LOS D (31.9 seconds delay) to LOS F (54.3 seconds delay), the eastbound through movement would deteriorate from LOS E (36.9 seconds delay) to LOS F (66.0 seconds delay), and the westbound left/through lane group would deteriorate from LOS D (33.1 seconds delay) to LOS F (65.7 seconds delay). During the PM peak hour, the eastbound left-turn lane group would deteriorate from LOS E (48.4 seconds delay) to LOS F (53.6 seconds delay), the eastbound through movement would remain at LOS F (delay increasing from 79.9 to 92.7 seconds), and the westbound left/through lane group would remain at LOS F (delay increasing from 56.3 to 63.9 seconds).

- Saw Mill River Road (Route 9A)/Grasslands Road (Route 100C) Intersection. During both the AM and PM peak hours, the northbound left-turn movement would remain at LOS F, with delays increasing from 85.3 seconds to well beyond 240.0 seconds during the AM peak, and with delays increasing from 145.4 to well beyond 240.0 seconds during the PM peak. The northbound right-turn movement would deteriorate from LOS C (15.7 seconds delay) to LOS F (57.2 seconds delay) during the PM peak hour.

- Grasslands Road (Route 100C)/Saw Mill River Road (Route 9A) Northbound Ramp Intersection. During the AM peak hour, the northbound left/through lane group would deteriorate from LOS D (25.7 seconds delay) to LOS F (with over 240.0 seconds delay). During the PM peak hour, the northbound left/through lane group would deteriorate from LOS C (25.0 seconds delay) to LOS F (58.5 seconds delay).

- Grasslands Road (Route 100)/Legion Drive Intersection. During the PM peak hour, the southbound left-turn movement would remain at LOS F (delay increasing from 210.8 to 227.1 seconds).

- Old Saw Mill River Road/Landmark Property East Driveway Intersection. During both the AM PM peak hour, the southbound approach would deteriorate from LOS B to LOS F, with delays increasing from 10.3 seconds to well beyond 240.0 seconds. During the PM peak hour the southbound approach would deteriorate from LOS C to LOS F, with delays increasing from 17.4 seconds to well beyond 240.0 seconds. In addition, the northbound approach would deteriorate from LOS D (30.0 seconds delay) to LOS F (103.2 seconds delay) during the PM peak hour.

Although these potential significant adverse impacts would not be permanent, because they would only occur during the construction period, measures have been identified that could be used to mitigate the construction-related potential significant adverse traffic impacts predicted to occur under 2008 combined construction Option A conditions. A description of the measures and an analysis showing the resulting effects of implementing the measures are provided below, in Section 4.21.4, Mitigation of Potential Combined Impacts.

Parking. Nearly the entire Eastview Site would be unavailable for construction worker parking because of the concurrent construction of the proposed UV Facility and the Croton project under 2008 combined construction Option A conditions. As discussed in Section 3.9, Data Collection and Impact Methodologies, Traffic and Transportation, an off-site parking facility has been identified at the Landmark property for construction vehicles and workers during combined project construction, under Option A conditions. Based on the transportation data and planning assumptions presented in Section 3.9, this off-site parking facility would need to accommodate 400 construction worker vehicles from the UV Facility's construction, as well as 543 worker vehicles related to the concurrent construction of the Croton project. It is anticipated that this off-site parking facility would be able to accommodate these parked vehicles, therefore; no significant adverse parking impacts are anticipated to occur to the public and private parking facilities in the vicinity of the Eastview Site under 2008 combined construction Option A conditions.

Safety. The combined construction activities would increase the study area traffic volumes by 1 to 40 percent at key study area intersections during peak-hour operating conditions. This projected traffic growth can be anticipated to translate to between 1 and 15 additional accidents per year along the roadway corridors during the construction period. These additional accidents could be considered significant, depending on the intersection. However, with mitigation in place and a traffic management plan, the projected accident rate would likely be lower and not significant. See Section 4.21.4, Mitigation of Potential Combined Impacts, for a description of the recommended traffic mitigation measures.

Transit. The combined construction of the proposed UV Facility and the Croton project under 2008 Construction Option A conditions is not anticipated to generate any considerable transit ridership. In addition, because the Bee-Line Bus Facility generates very few trips during the combined peak construction hours, the combined construction of the UV Facility and the Croton project is not anticipated to affect bus operations. Therefore, no significant adverse transit-related impacts would be anticipated to occur under these 2008 Construction Option A conditions.

Pavement Infrastructure. Roadway pavements deteriorate with traffic loads, environmental conditions and time. Highways are typically able to carry higher traffic loads than arterials and other lower volume roadways. The principal measure of traffic loading is "equivalent 18,000 pounds single axle loads" (18 kip Equivalent Single Axle Load [ESAL]) over the useful life of the pavement, typically 20 years. As these loads are applied over time, the pavement's serviceability declines to the point where it must be repaired. Different types of trucks affect pavement differently. Trucks that have concentrated wheel loads (e.g., full concrete trucks) would cause worse pavement effects than a flat-bed tractor-trailer combination carrying steel reinforcing rods. Highways can have design loads of 10,000,000 to 80,000,000 (or more) ESAL, arterials generally between 2,000,000 to 5,000,000 ESAL, and low-volume roadways 50,000 to 500,000 ESAL (or more).

The combined construction of the proposed UV Facility and Croton project is anticipated to generate a total of approximately 199,382 entering/exiting truck trips over the approximately four and one-half-year construction period, anticipated to run from April 2005 through

September 2009. These truck trips equate to a total of approximately 135,580 ESAL inbound and 135,580 ESAL outbound, over the duration of combined construction for the proposed UV Facility and Croton project. This would translate to a predicted truck load over the duration of construction of approximately 271,160 ESAL on the proposed truck routes to and from the site (e.g., about 80 percent of the trips using Grasslands Road to Route 9A – 216,930 EASL, and about 20 percent of the trips using Knollwood Road to Route 119 – 54,230 ESAL). The peak construction truck generation is anticipated to occur in 2007, when the combined construction of the proposed UV Facility and the Croton project would generate an annual total of approximately 61,160 entering/exiting truck trips. These truck trips translate to a total of approximately 41,600 ESAL inbound and 41,600 ESAL outbound in 2007. Comparing the predicted truck loads with the range of designed loads for arterial roadways, the anticipated loads generated from the combined construction of the proposed UV Facility and the Croton project would represent between 5.4 and 13.6 percent of the design load of an arterial roadway. However, this trucking activity would be temporary and would not constitute a significant adverse impact.

4.21.3.1.2. Option B – Parking at the Westchester Community College (WCC) Campus

The traffic generated by the concurrent construction of the UV Facility and the Croton project on the site for Option B is shown in Figures 4.21-13 and 4.21-14, for the AM and PM peak hours, respectively. Figures 4.21-15 and 4.21-16 show the total resulting 2008 Combined Construction Option B traffic volumes. Table 4.21-10 shows a comparison of the results of the HCM analyses for the 2008 FNB conditions and the 2008 Combined Construction (Option B) conditions.

TABLE 4.21-10. PURE NO BUILD VS. CROTON + CAT DEL, PARKING AT WCC LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION B) CONDITIONS

				AM Peak Hour						PM Peak Hour					
				2008 No Build			2008 Construction			2008 No Build			2008 Construction		
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS
Saw Mill River Road (Rt.9A) (N-S) @	4	Eastbound	L	0.64	31.6	C	0.64	31.6	C	0.52	29.3	C	0.52	29.3	C
Saw Mill River Pkwy Ramp			LTR	0.14	25.0	C	0.14	25.0	C	0.14	25.8	C	0.14	25.8	C
		Westbound	L	0.14	32.4	C	0.14	32.4	C	0.14	34.1	C	0.14	34.1	C
			LT	0.10	32.1	C	0.10	32.1	C	0.09	33.8	C	0.09	33.8	C
			R	0.02	31.6	C	0.02	31.6	C	0.04	33.6	C	0.04	33.6	C
		Northbound	L	0.18	14.1	B	0.20	14.3	B	0.81	31.5	C	0.81	31.6	C
			TR	0.31	14.8	B	0.34	15.0	B	0.55	15.4	B	0.60	16.1	B
		Southbound	L	0.05	13.0	B	0.05	13.0	B	0.13	21.4	C	0.14	21.5	C
			TR	0.54	17.1	B	0.60	17.9	B	0.98	54.3	D	1.00	58.5 +	E
		Intersection			19.5	B		19.7	B		33.7	C		35.2	D
Grasslands Road (E-W) @	6	Eastbound	L	0.71	36.6	D	0.90	64.3 +	E	*	**	F	*	**	F
Bradhurst Avenue			T	1.03	75.1	E	*	** +	F	0.59	22.3	C	0.69	25.2	C
			R	0.35	16.3	B	0.36	16.5	B	0.27	12.1	B	0.29	12.2	B
		Westbound	L	0.68	56.6	E	0.68	56.6	E	0.22	18.0	B	0.32	19.4	B
			TR	0.43	25.8	C	0.55	27.9	C	0.98	55.5	E	*	** +	F
		Northbound	L	0.23	23.3	C	0.25	23.6	C	0.87	58.7	E	0.90	64.9 +	E
			TR	0.34	25.9	C	0.36	26.2	C	0.20	16.3	B	0.20	16.3	B
		Southbound	L	0.50	40.1	D	0.52	40.8	D	0.30	25.1	C	0.30	25.1	C
			TR	0.68	49.7	D	0.68	49.7	D	1.12	109.2	F	1.12	109.2	F
		Intersection			45.2	D		**	F		70.0	E		**	F
Knollwood Road (E-W) @	8	Westbound	LT	0.46	27.6	C	0.46	27.6	C	0.79	39.0	D	0.79	39.0	D
Cross Westchester Expy (I-287) WB Ramp			R	0.24	25.4	C	0.24	25.5	C	0.45	27.6	C	0.45	27.6	C
		Northbound	L	0.50	9.8	A	0.51	10.0	A	0.95	52.6	D	0.97	58.2 +	E
			T	0.51	10.3	B	0.53	10.6	B	0.52	10.5	B	0.53	10.6	B
		Southbound	T	0.30	13.4	B	0.31	13.5	B	0.44	14.8	B	0.46	15.0	B
			R	0.13	12.1	B	0.14	12.2	B	0.23	12.8	B	0.23	12.9	B
		Intersection			14.4	B		14.5	B		26.7	C		27.7	C
Knollwood Road (E-W) @	9	Eastbound	L	0.67	32.7	C	0.68	32.9	C	0.48	24.4	C	0.48	24.5	C
Cross Westchester Expy (I-287) EB Ramp			TR	0.01	23.6	C	0.01	23.6	C	0.00	20.0	C	0.00	20.0	C
			R	0.58	30.0	C	0.58	30.0	C	0.77	34.2	C	0.77	34.2	C
		Northbound	T	0.49	15.3	B	0.51	15.5	B	0.86	31.6	C	0.87	32.4	C
			R	0.52	15.9	B	0.52	15.9	B	0.62	20.9	C	0.62	20.9	C
		Southbound	L	0.39	9.8	A	0.40	10.0	A	0.79	29.3	C	0.81	31.3	C
			T	0.29	8.4	A	0.30	8.5	A	0.65	15.4	B	0.66	15.8	B
		Intersection			18.6	B		18.6	B		25.6	C		26.0	C
Tarrytown/White Plains Road (E-W) WB Ramp @	10	Westbound	LT	0.14	24.6	C	0.14	24.6	C	0.35	26.4	C	0.35	26.4	C
Knollwood Road (Rt.100A)			R	0.51	28.3	C	0.51	28.3	C	0.96	64.3	E	0.96	65.3	E
		Northbound	LT	0.40	10.1	B	0.41	10.2	B	0.60	12.6	B	0.60	12.6	B
		Southbound	T	0.20	15.3	B	0.20	15.3	B	0.43	17.4	B	0.44	17.4	B
			R	0.19	15.3	B	0.20	15.4	B	0.47	18.0	B	0.48	18.2	B
		Intersection			15.5	B		15.5	B		25.0	C		25.3	C
Tarrytown/White Plains Road (E-W) EB Ramp @	11	Eastbound	LT	0.71	34.2	C	0.73	35.1	D	0.78	38.4	D	0.79	38.7	D
Knollwood Road (Rt.100A)	12		R	0.16	24.8	C	0.16	24.8	C	0.35	26.5	C	0.35	26.5	C
		Northbound	TR	0.40	20.1	C	0.41	20.2	C	0.41	20.3	C	0.41	20.3	C
		Southbound	Def	0.31	11.9	B	0.32	12.1	B	0.47	14.7	B	0.48	14.8	B
			T	0.28	9.2	A	0.28	9.2	A	0.54	11.8	B	0.55	11.9	B
		Intersection			20.4	C		20.8	C		21.1	C		21.2	C
Saw Mill River Road (Rt.9A) @	13	Westbound	L	1.09	97.9	F	1.09	97.9	F	0.74	38.2	D	0.74	38.2	D
Cross Westchester Expy (I-287) WB Ramp			R	0.48	27.5	C	0.61	29.6	C	0.42	20.4	C	0.43	20.6	C
		Northbound	LTR	0.36	8.9	A	0.43	9.4	A	0.69	22.8	C	0.76	25.5	C
		Southbound	TR	0.47	9.7	A	0.51	10.2	B	0.85	22.5	C	0.95	32.6	C
		Intersection			34.3	C		33.0	C		24.4	C		29.9	C
Saw Mill River Road (Rt.9A) @	14	Northbound	TR	0.31	12.3	B	0.36	12.8	B	0.89	34.7	C	0.90	36.4	D
Cross Westchester Expy (I-287) EB Ramp		Southbound	L	0.50	1.7	A	0.55	3.6	A	0.74	23.2	C	0.81	27.9	C
			LT	0.16	0.2	A	0.17	0.2	A	0.53	0.5	A	0.58	0.6	A
		Intersection			5.0	A		6.0	A		17.5	B		18.7	B
Saw Mill River Road (Rt.9A) @	15	Eastbound	L	0.97	66.8	E	1.12	113.5 +	F	0.99	76.6	E	1.02	83.3 +	F
Tarrytown/White Plains Road (Rt.119)			TR	0.38	14.5	B	0.38	14.5	B	0.46	20.2	C	0.46	20.2	C
		Westbound	L	0.17	22.3	C	0.17	22.3	C	0.42	34.4	C	0.42	34.4	C
			TR	0.30	23.5	C	0.31	23.6	C	0.88	48.6	D	0.89	49.7	D
		Northbound	L	0.38	34.2	C	0.39	34.4	C	0.30	25.0	C	0.34	25.8	C
			TR	0.62	40.3	D	0.72	44.9	D	0.82	41.0	D	0.83	42.1	D
		Southbound	L	0.24	33.9	C	0.29	36.6	D	0.54	35.0	C	0.57	36.4	D
			T	0.42	34.9	C	0.44	35.3	D	0.26	22.8	C	0.34	23.7	C
			R	0.23	22.1	C	0.24	22.2	C	0.39	11.0	B	0.43	11.3	B
		Intersection			31.8	C		42.3	D		35.0	C		35.9	D
Saw Mill River Road (Rt.9A) @	16	Eastbound	LTR	0.01	29.1	C	0.01	29.1	C	0.01	32.9	C	0.01	32.9	C
Hunter Lane		Westbound	LT	0.31	32.4	C	0.31	32.4	C	0.81	56.6	E	0.81	56.6	E
			R	0.01	18.7	B	0.01	18.7	B	0.07	22.9	C	0.07	22.9	C
		Northbound	LTR	0.64	21.3	C	0.81	27.0	C	0.69	19.4	B	0.71	20.1	C
		Southbound	LTR	0.67	14.5	B	0.78	18.3	B	0.73	13.3	B	0.85	18.9	B
		Intersection			18.6	B		23.3	C		20.1	C		22.6	C

TABLE 4.21-10. PURE NO BUILD VS. CROTON + CAT DEL, PARKING AT WCC LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION B) CONDITIONS

				AM Peak Hour						PM Peak Hour					
				2008 No Build			2008 Construction			2008 No Build			2008 Construction		
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS
Saw Mill River Road (Rt.9A) @	20	Eastbound	LT	0.07	25.5	C	0.07	25.5	C	0.28	27.4	C	0.29	27.6	C
Dana Road			R	0.08	25.6	C	0.08	25.6	C	0.24	26.9	C	0.24	26.9	C
		Westbound	L	0.12	25.9	C	0.28	27.3	C	0.44	29.1	C	0.55	31.1	C
			TR	0.06	25.4	C	0.15	26.1	C	0.40	28.4	C	0.42	28.7	C
		Northbound	L	0.12	30.5	C	0.12	30.5	C	0.39	32.7	C	0.39	32.7	C
			TR	0.63	25.1	C	0.67	26.0	C	0.84	31.9	C	0.91	38.3	D
		Southbound	L	0.38	32.6	C	0.60	36.5	D	0.15	30.7	C	0.19	31.0	C
			TR	0.59	24.1	C	0.59	24.1	C	0.74	27.7	C	0.74	27.7	C
		Intersection			25.4	C		26.5	C		29.8	C		32.6	C
Old Saw Mill River Road @	21	Eastbound	LT	0.87	28.2	C	0.90	31.7	C	1.04	70.0	E	1.08	83.6 +	F
Saw Mill River Pkwy SB Off Ramp		Westbound	TR	0.23	4.7	A	0.23	4.7	A	0.42	9.2	A	0.52	10.1	B
		Southbound	L	0.68	36.9	D	0.72	39.0	D	0.29	23.1	C	0.29	23.1	C
			LR	0.16	28.2	C	0.16	28.2	C	0.21	22.6	C	0.21	22.6	C
		Intersection			21.2	C		23.3	C		33.9	C		36.6	D
Old Saw Mill River Road @	22	Eastbound	T	0.48	17.5	B	0.50	17.7	B	0.41	13.3	B	0.41	13.3	B
Saw Mill River Pkwy NB Off Ramp		Westbound	T	0.19	7.7	A	0.20	7.8	A	0.28	4.2	A	0.35	4.5	A
		Northbound	LR	0.44	24.7	C	0.61	27.9	C	0.45	31.5	C	0.46	31.5	C
			R	0.41	24.3	C	0.59	27.4	C	0.41	31.1	C	0.43	31.4	C
		Intersection			16.5	B		18.3	B		12.0	B		11.5	B
Grassland Road (Rt.100C) @	24	Eastbound	L	0.01	2.6	A	0.01	2.6	A	0.04	9.2	A	0.07	9.7	A
Clearbrook Road/Walker Road			TR	0.37	3.8	A	0.61	5.5	A	0.73	17.2	B	0.74	17.8	B
		Westbound	L	0.38	4.0	A	0.68	11.1	B	1.40	230.4	F	*	** +	F
			TR	0.39	3.9	A	0.44	4.1	A	0.70	16.7	B	1.1	79.6 +	E
		Northbound	LT	0.21	33.7	C	0.30	34.8	C	0.19	19.9	B	0.20	20.0	C
		Southbound	LT	0.21	33.8	C	0.68	48.5 +	D	0.23	20.3	C	0.34	21.4	C
			R	0.00	32.2	C	0.00	32.2	C	0.01	18.5	B	0.01	18.5	B
		Intersection			5.3	A		8.4	A		42.3	D		71.9	E
Grassland Road (Rt.100C) @	25	Eastbound	L	0.28	7.5	A	0.30	8.4	A	0.33	13.8	B	0.37	20.9	C
Woods Drive/Taylor Road			TR	0.26	5.2	A	0.46	6.4	A	0.57	12.5	B	0.60	13.0	B
		Westbound	L	0.00	9.3	A	0.00	9.3	A	0.01	12.5	B	0.01	12.6	B
			TR	0.57	14.1	B	0.61	14.8	B	0.73	21.2	C	0.98	41.6	D
		Northbound	LTR	0.01	32.9	C	0.01	32.9	C	0.01	24.6	C	0.01	24.6	C
		Southbound	LT	0.55	39.2	D	0.55	39.2	D	0.79	41.6	D	0.79	41.6	D
			R	0.08	21.2	C	0.08	21.2	C	0.11	17.2	B	0.11	17.2	B
		Intersection			12.8	B		12.3	B		19.6	B		29.8	C
Grassland Road (Rt.100C) @	26	Eastbound	TR	0.27	7.5	A	0.44	8.7	A	0.67	11.7	B	0.70	12.3	B
Sprain Brook Pkwy SB Ramp		Westbound	T	0.32	7.8	A	0.35	8.0	A	0.52	9.5	A	0.72	12.6	B
		Southbound	L	0.55	34.0	C	0.88	53.9 +	D	0.17	29.6	C	0.19	29.8	C
			R	0.32	31.0	C	0.32	31.0	C	0.12	29.2	C	0.12	29.2	C
		Intersection			13.1	B		17.1	B		11.5	B		13.1	B
Grassland Road (Rt.100C) @	27	Eastbound	L	0.09	14.7	B	0.10	15.4	B	0.50	15.4	B	0.50	15.4	B
Sprain Brook Pkwy NB Ramp	30		T	0.50	18.0	B	0.92	33.4	C	0.32	9.0	A	0.36	9.2	A
		Westbound	TR	0.47	24.6	C	0.56	26.0	C	1.06	67.9	E	*	** +	F
		Northbound	LT	1.00	68.7	E	1.00	68.7	E	0.69	29.4	C	0.69	29.4	C
			R	1.02	74.8	E	*	** +	F	0.35	23.1	C	0.38	23.3	C
		Intersection			44.0	D		93.1	F		42.6	D		206.8	F
Virginia Road @	31	Eastbound	LT	1.12	126.9	F	1.17	145.7 +	F	1.16	139.6	F	1.47	** +	F
Bronx River Pkwy			R	0.21	19.6	B	0.22	19.8	B	0.39	34.6	C	0.67	41.5	D
		Westbound	LTR	0.40	34.6	C	0.43	35.0	D	1.26	185.8	F	*	** +	F
		Northbound	L	0.04	46.3	D	0.70	59.8 +	E	0.06	10.9	B	0.07	11.0	B
			TR	0.26	20.1	C	0.26	20.1	C	0.62	25.3	C	0.62	25.3	C
		Southbound	L	1.10	141.5	F	1.10	141.5	F	0.13	11.7	B	0.13	11.7	B
			T	0.70	27.3	C	0.70	27.3	C	0.59	24.7	C	0.59	24.7	C
		Intersection			53.9	D		57.0	E		61.7	E		113.1	F
Grassland Road (Rt.100C) @	34	Eastbound	T	0.41	7.7	A	0.41	7.7	A	0.72	16.6	B	0.72	16.6	B
WCC East Gate		Westbound	L	0.26	5.2	A	0.53	7.7	A	0.21	11.1	B	0.24	11.3	B
			T	0.24	3.2	A	0.24	3.2	A	0.58	7.9	A	0.58	7.9	A
		Northbound	L	0.07	45.8	D	0.56	52.0 +	D	0.62	30.6	C	*	** +	F
		Intersection			6.3	A		10.4	B		14.5	B		**	F
Old Saw Mill River Road @	46	Eastbound	LTR	0.74	8.7	A	0.86	13.6	B	0.57	6.0	A	0.58	6.1	A
Landmark West Driveway		Westbound	LTR	0.26	4.1	A	0.26	4.1	A	0.43	4.9	A	0.55	5.7	A
		Northbound	LTR	0.02	21.0	C	0.02	21.0	C	0.08	21.2	C	0.08	21.2	C
		Southbound	LTR	0.04	21.1	C	0.04	21.1	C	0.03	21.0	C	0.03	21.0	C
		Intersection			7.7	A		11.5	B		5.8	A		6.2	A

Notes:
L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts.
" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

TABLE 4.21-10. PURE NO BUILD VS. CROTON + CAT DEL, PARKING AT WCC LEVEL-OF-SERVICE ANALYSIS RESULTS FOR UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION B) CONDITIONS

				AM Peak Hour						PM Peak Hour					
				2008 No Build			2008 Construction			2008 No Build			2008 Construction		
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS
Sprain Pkwy SB On Ramp (N-S) @ Broadway (Rt.9A)/Bradhurst Avenue	1	Westbound	LT	0.12	10.6	B	0.12	10.8	B	0.19	9.5	A	0.20	9.9	A
Saw Mill River Road (Rt.9A) (N-S) @ Beverly Road	2	Northbound	LT	0.01	10.3	B	0.01	10.6	B	0.03	13.1	B	0.03	13.2	B
		Eastbound	LR	0.07	21.1	C	0.08	23.0	C	0.05	29.7	D	0.06	31.7	D
Saw Mill River Road (Rt.9A) @ Stevens Avenue North	3N	Northbound	LT	0.02	10.9	B	0.02	11.3	B	0.01	9.8	A	0.01	9.8	A
		Southbound	LT	0.03	9.2	A	0.03	9.3	A	0.02	10.5	B	0.02	10.8	B
		Eastbound	LTR	0.02	35.0	D	0.03	40.6 +	E	0.13	24.1	C	0.14	25.8	D
		Westbound	LTR	0.03	16.7	C	0.04	18.1	C	0.07	15.7	C	0.08	16.6	C
Saw Mill River Road (Rt.9A) @ Stevens Avenue South	3S	Southbound	LT	0.00	8.8	A	0.00	8.9	A	0.00	10.4	B	0.00	10.7	B
		Westbound	LR	0.03	21.4	C	0.03	23.5	C	0.14	34.0	D	0.16	37.7	E
Bradhurst Avenue @ Lakeview Avenue	5	Southbound	LT	0.02	8.2	A	0.02	8.2	A	0.01	8.1	A	0.01	8.1	A
		Westbound	LR	0.26	15.1	C	0.26	15.1	C	0.45	18.8	C	0.45	18.8	C
Knollwood Road (Rt.100A) @ Hevelyne Road	7	Northbound	LT	0.01	8.3	A	0.01	8.3	A	0.00	8.0	A	0.00	8.0	A
		Eastbound	LR	0.03	13.1	B	0.03	13.4	C	0.01	10.9	B	0.01	11.0	B
Saw Mill River Road (Rt.9A) @ Ramada Inn/Broadway Plaza	17	Northbound	L	0.09	10.0	A	0.10	10.3	B	0.15	10.3	B	0.16	10.5	B
		Southbound	LT	0.01	8.7	A	0.02	9.4	A	0.01	9.4	A	0.01	9.6	A
		Eastbound	L	0.01	31.9	D	0.02	41.0 +	E	0.01	48.4	E	0.01	53.0 +	F
			T	0.02	36.9	E	0.03	52.4 +	F	0.08	79.9	F	0.09	90.6 +	F
		Westbound	LT	0.10	33.1	D	0.15	50.5 +	F	0.11	56.3	F	0.13	63.9 +	F
			TR	0.01	10.6	B	0.01	11.6	B	0.03	17.0	C	0.03	18.0	C
Dana Road @ Walker Road	18	Northbound	LR	0.09	10.5	B	0.25	12.4	B	0.04	10.5	B	0.14	11.9	B
		Westbound	LT	0.00	8.3	A	0.00	8.7	A	0.01	7.8	A	0.01	7.9	A
Saw Mill River Road @ Grasslands Road (Rt.100C)	19A	Northbound	L	0.78	85.3	F	1.10	195.5 +	F	0.99	145.4	F	*	** +	F
			R	0.20	16.3	C	0.26	20.4	C	0.28	15.7	C	0.28	15.8	C
		Westbound	L	0.15	11.3	B	0.19	12.8	B	0.17	11.2	B	0.43	14.0	B
Grasslands Road (E-W) @ Saw Mill River Road NB Ramp (N-S)	19B	Northbound	LT	0.06	25.7	D	0.07	30.5	D	0.05	25.0	C	0.08	37.4 +	E
			TR	0.07	13.7	B	0.63	32.1 +	D	0.16	14.2	B	0.19	14.5	B
		Eastbound	L	0.21	10.1	B	0.21	10.2	B	0.17	10.5	B	0.24	13.5	B
Grasslands Road @ Virginia Road	32	Southbound	LT	0.23	8.3	A	0.24	8.4	A	0.36	10.3	B	0.57	12.8	B
		Westbound	LR	0.55	16.6	C	0.81	27.3	D	1.23	155.8	F	*	** +	F
Grasslands Road @ Legion Drive	33	Southbound	L	0.42	29.8	D	0.58	50.3 +	F	1.27	210.8	F	*	** +	F
			R	0.20	12.1	B	0.26	15.3	C	0.47	19.7	C	0.47	20.1	C
		Eastbound	LT	0.07	8.5	A	0.08	9.3	A	0.24	10.7	B	0.24	10.8	B
Grasslands Road @ WCC West Gate	35	Northbound	L	0.06	20.5	C	0.24	84.1 +	F	0.26	50.2	F	1.04	** +	F
			R	0.01	13.7	B	0.04	36.0 +	E	0.49	18.4	C	0.56	22.1	C
		Westbound	LT	0.00	9.9	A	0.01	16.3	C	0.12	9.1	A	0.13	9.5	A
Old Saw Mill River Road @ Landmark East Driveway	47	Northbound	LTR	0.07	17.5	C	0.09	21.0	C	0.11	30.0	D	0.14	39.2 +	E
		Southbound	LTR	0.01	10.3	B	0.01	10.3	B	0.07	17.4	C	0.09	21.4	C
		Eastbound	LTR	0.01	8.1	A	0.01	8.1	A	0.01	8.7	A	0.01	9.2	A
		Westbound	LTR	0.02	10.2	B	0.02	11.0	B	0.01	9.2	A	0.01	9.2	A

Notes:
L = Left Turn, T = Through, R = Right Turn; LOS = Level of Service. "+" indicates significant impacts.
" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

Option B Traffic. The following is a summary of the potential significant adverse impacts that have been identified during 2008, associated with the combined effects of the UV Facility's peak construction activities and the Croton project construction at the Eastview Site under worker parking Option B conditions. There would be a total of 39 potential significant adverse impacts at intersections in the primary study area under 2008 combined construction Option B conditions (21 at signalized intersections, 9 during the AM peak hour and 12 during the PM peak hour, and 18 at unsignalized intersections, 9 during the AM peak hour and 9 during the PM peak hour).

Potential Significant Adverse Impacts Occurring at Signalized Intersections

- Saw Mill River Road (Route 9A)/Saw Mill River Parkway Ramp Intersection. During the PM peak hour, the southbound through/right movement would deteriorate from LOS D to LOS E, with delays increasing from 54.3 to 58.5 seconds.

- Grasslands Road (Route 100C)/Bradhurst Avenue (Route 100) Intersection. During the AM peak hour, the eastbound left-turn movement would deteriorate from LOS D to LOS E, with delays increasing from 36.6 to 64.3 seconds; the eastbound through movement would deteriorate from LOS E to LOS F, with delays increasing from 75.1 seconds to greater than 240.0 seconds. During the PM peak hour, the westbound through/right movement would deteriorate from LOS E to LOS F, with delays increasing from 55.5 seconds to well above 240.0 seconds; the northbound left-turn movement would remain at LOS E, with delays increasing from 58.7 to 64.9 seconds.

- Knollwood Road (Route 100A)/Cross Westchester Expressway (I-287) Westbound Ramp Intersection. During the PM peak hour, the northbound left-turn movement would deteriorate from LOS D to LOS E, with delays increasing from 52.6 to 58.2 seconds.

- Saw Mill River Road (Route 9A)/Tarrytown-White Plains Road (Route 119) Intersection. During the AM peak hour, the eastbound left-turn movement would deteriorate from LOS E to LOS F, with delays increasing from 66.8 to 113.5 seconds. During the PM peak hour, the eastbound left-turn movement would deteriorate from LOS E to LOS F, with delays increasing from 76.6 to 83.3 seconds.

- Old Saw Mill River Road/Saw Mill River Parkway Southbound Off-Ramp Intersection. During the PM peak hour, the eastbound approach would deteriorate from LOS E to LOS F, with delays increasing from 70.0 to 83.6 seconds.

- Grasslands Road (Route 100C)/Clearbrook Road/Walker Road Intersection. During the AM peak hour, the southbound left/through land group would deteriorate from LOS C to LOS D, with delays increasing from 33.8 to 48.5 seconds. During the PM peak hour, the westbound left-turn movement would remain at LOS F, with delays increasing from 230.4 seconds to greater than 240.0 seconds, and the westbound through/right land group would deteriorate from LOS B to LOS E, with delays increasing from 16.7 to 79.6 seconds.

- Grasslands Road (Route 100C)/Sprain Brook Parkway Southbound Ramp Intersection. During the AM peak hour, the southbound left-turn movement would deteriorate from LOS C to LOS D, with delays increasing from 34.0 to 53.9 seconds.

- Grasslands Road (Route 100C)/Sprain Brook Parkway Northbound Ramp Intersection. During the AM peak hour, the northbound right-turn movement would deteriorate from LOS E to LOS F, with delays increasing from 74.8 seconds to greater than 240.0 seconds. During the PM peak hour, the westbound approach would deteriorate from LOS E to LOS F, with delays increasing from 67.9 seconds to well above 240.0 seconds.

- Virginia Road/Bronx River Parkway Intersection. During the AM peak hour, the eastbound left/through lane group would remain at LOS F, with delays increasing from 126.9 to 145.7 seconds, and the northbound left-turn movement would deteriorate from LOS D to LOS E, with delays increasing from 46.3 to 59.8 seconds. During the PM peak hour, the eastbound left/through lane group would remain at LOS F, with delays increasing from 139.6 seconds to greater than 240.0 seconds, and the westbound approach would remain at LOS F, with delays increasing from 185.8 seconds to well above 240.0 seconds.

- Grasslands Road (Route 100)/WCC East Gate Intersection. During the AM peak hour, the northbound left-turn movement would remain at LOS D, with delays increasing from 45.8 to 52.0 seconds. During the PM peak hour, the northbound left-turn movement would deteriorate from LOS C to LOS F, with delays increasing from 30.6 seconds to well above 240.0 seconds.

Potential Significant Adverse Impacts Occurring at Unsignalized Intersections

- Saw Mill River Road (Route 9A)/Stevens Avenue North Intersection. During the AM peak hour, the eastbound approach would deteriorate from LOS D to LOS E, with delays increasing from 35.0 to 40.6 seconds.

- Saw Mill River Road (Route 9A)/Ramada Inn/Broadway Plaza Intersection. During the AM peak hour, the eastbound left-turn movement would deteriorate from LOS D to LOS E, with delays increasing from 31.9 to 41.0 seconds, the eastbound through movement would deteriorate from LOS E to LOS F, with delays increasing from 36.9 to 52.4 seconds, and the westbound left/through land group would deteriorate from LOS D to LOS F, with delays increasing from 33.1 to 50.5 seconds. During the PM peak hour, the eastbound left-turn movement would deteriorate from LOS E to LOS F, with delays increasing from 48.4 to 53.0 seconds, the eastbound through movement would remain at LOS F, with delays increasing from 79.9 to 90.6 seconds, and the westbound left/through land group would remain at LOS F, with delays increasing from 56.3 to 63.9 seconds.

- Saw Mill River Road (Route 9A)/Grasslands Road (Route 100C) Intersection. During the AM peak hour, the northbound left-turn movement would remain at LOS F, with delays increasing from 85.3 to 195.5 seconds. During the PM peak hour, the northbound left-

turn movement would remain at LOS F, with delays increasing from 145.4 seconds to much greater than 240.0 seconds.

- Grasslands Road (Route 100C)/Saw Mill River Road (Route 9A) Northbound Ramp Intersection. During the AM peak hour, the northbound through/right lane group would deteriorate from LOS B to LOS D, with delays increasing from 13.7 to 32.1 seconds. During the PM peak hour, the northbound left/through lane group would deteriorate from LOS C to LOS E, with delays increasing from 25.0 to 37.4 seconds.

- Grasslands Road (Route 100)/Virginia Road Intersection. During the PM peak hour, the westbound approach would remain at LOS F, with delays increasing from 155.8 seconds to well above 240.0 seconds.

- Grasslands Road (Route 100)/Legion Drive intersection. During the AM peak hour, the southbound left-turn movement would deteriorate from LOS D to LOS F, with delays increasing from 29.8 to 50.3 seconds. During the PM peak hour, the southbound left-turn movement would remain at LOS F, with delays increasing from 210.8 seconds to well above 240.0 seconds.

- Grasslands Road (Route 100)/WCC East Gate Intersection. During the AM peak hour, the northbound left-turn movement would deteriorate from LOS C to LOS F, with delays increasing from 20.5 to 84.1 seconds, and the northbound right-turn movement would deteriorate from LOS B to LOS E, with delays increasing from 13.7 to 36.0 seconds. During the PM peak hour, the northbound left-turn movement would remain at LOS F, with delays increasing from 50.2 to well above 240.0 seconds.

- Old Saw Mill River Road/Landmark Property East Driveway Intersection. During the PM peak hour, the northbound approach would deteriorate from LOS D to LOS E, with delays increasing from 30.0 to 39.2 seconds.

Although these impacts would not be permanent, because they would only occur during the construction period, measures have been identified that could be used to mitigate the construction-related significant adverse traffic impacts predicted to occur under 2008 Combined Construction Option B conditions. A description of the measures and an analysis showing the resulting effects of implementing the measures are provided below, in Section 4.21.4, Mitigation of Potential Combined Impacts.

Parking. Nearly the entire Eastview Site would be unavailable for construction worker parking because of the concurrent construction of the proposed UV Facility and the Croton project under 2008 Combined Construction Option B conditions. As discussed in Section 3.9, Data Collection and Impact Methodologies, Traffic and Transportation, an off-site parking facility has been identified at the WCC Campus for construction vehicles and workers during combined project construction, under Option B conditions. Based on the transportation data and planning assumptions presented in Section 3.9, this off-site parking facility would need to accommodate 400 construction worker vehicles from the UV Facility's construction, as well as 543 worker vehicles related to the concurrent construction of the Croton project. It is anticipated

that this off-site parking facility would be able to accommodate these parked vehicles; therefore, no significant adverse parking impacts are anticipated to occur to the public and private parking facilities in the vicinity of the Eastview Site under 2008 combined construction Option B conditions.

Safety. The combined construction activities would increase the study area traffic volumes by 1 to 40 percent at key study area intersections during peak-hour operating conditions. This projected traffic growth can be anticipated to translate to between 1 and 15 additional accidents per year along the roadway corridors during the construction period. These additional accidents could be considered significant, depending on the intersection. However, with mitigation in place and a traffic management plan, the projected accident rate would likely be lower and not significant. See Section 4.21.4 for a description of the recommended traffic mitigation measures.

Transit. The combined construction of the proposed UV Facility and the Croton project under 2008 combined construction Option B conditions is not anticipated to generate any considerable transit ridership. In addition, because the Bee-Line Bus Facility generates very few trips during the combined peak construction hours, the construction of the proposed UV Facility and the Croton project is not anticipated to affect bus operations. Therefore, no significant adverse transit-related impacts would be anticipated to occur under 2008 combined construction Option B conditions.

Pavement Infrastructure. Under Option B, the potential combined effects on pavement infrastructure would be the same as those projected for Option A, discussed above. Comparing the predicted truck loads with the range of designed loads for arterial roadways, the anticipated loads generated from the combined construction of the proposed UV Facility and the Croton project would represent between 5.4 and 13.6 percent of the design load of an arterial roadway. However, this trucking activity would be temporary and would not constitute a significant adverse impact

4.21.3.1.3. Option C – Parking at both the Landmark Property and the WCC Campus

The traffic generated by the concurrent construction of the UV Facility and the Croton project on the site for Option C is shown in Figures 4.21-17 and 4.21-18, for the AM and PM peak hours, respectively. Figures 4.21-19 and 4.21-20 show the total resulting 2008 Combined Construction Option C traffic volumes. Table 4.21-11 shows a comparison of the results of the HCM analyses for the 2008 FNB conditions and the 2008 Combined Construction (Option C) conditions.

Option C Traffic. The following is a summary of the potential significant adverse impacts that have been identified during 2008, associated with the combined effects of the UV Facility's peak construction activities and the Croton project construction at the Eastview Site under worker parking Option C conditions. There would be a total of 33 potential significant adverse impacts at intersections in the primary study area under 2008 combined construction Option C conditions (15 at signalized intersections, 5 during the AM peak hour and 10 during the

PM peak hour, and 18 at unsignalized intersections, 9 during the AM peak hour and 9 during the PM peak hour).

Potential Significant Adverse Impacts Occurring at Signalized Intersections

- Saw Mill River Road (Route 9A)/Saw Mill River Parkway Ramp Intersection. During the PM peak hour, the southbound through/right movement would deteriorate from LOS D to LOS E, with delays increasing from 54.3 to 58.5 seconds.
- Grasslands Road (Route 100C)/Bradhurst Avenue (Route 100) Intersection. During the AM peak hour, the eastbound through movement would remain at LOS F, with delays increasing from 75.1 to 311.2 seconds. During the PM peak hour, the westbound through/right lane group would deteriorate from LOS E to LOS F, with delays increasing from 55.5 seconds to greater than 240.0 seconds.

- Knollwood Road (Route 100A)/Cross Westchester Expressway (I-287) Westbound Ramp Intersection. During the PM peak hour, the northbound left-turn movement would deteriorate from LOS D to LOS E, with delays increasing from 52.6 to 58.2 seconds.

- Saw Mill River Road (Route 9A)/Tarrytown-White Plains Road (Route 119) Intersection. During the AM peak hour, the eastbound left-turn movement would deteriorate from LOS E to LOS F, with delays increasing from 66.8 to 113.5 seconds. During the PM peak hour, the eastbound left-turn movement would deteriorate from LOS E to LOS F, with delays increasing from 76.6 to 83.2 seconds.

- Old Saw Mill River Road/Saw Mill River Parkway Southbound Off-Ramp Intersection. During the PM peak hour, the eastbound approach would deteriorate from LOS E to LOS F, with delays increasing from 70.0 to 86.1 seconds.

- Grasslands Road/Clearbrook Road/Walker Road Intersection. During the PM peak hour, the westbound left-turn movement would remain at LOS F, with delays increasing from 230.4 seconds to well beyond 240.0 seconds.

- Grasslands Road (Route 100C)/Sprain Brook Parkway Northbound Ramp Intersection. During the AM peak hour, the northbound left/through movement would deteriorate from LOS E to LOS F, with delays increasing from 68.7 to 187.6 seconds, and the northbound right-turn movement would deteriorate from LOS E to LOS F, with delays increasing from 74.8 to 165.4 seconds. During the PM peak hour, the westbound approach would deteriorate from LOS E to LOS F, with delays increasing from 67.9 to 199.0 seconds.

TABLE 4.21-11. PURE NO BUILD VS. CROTON + CAT DEL, PARKING AT LANDMARK AND WCC LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION C) CONDITIONS

				AM Peak Hour						PM Peak Hour					
				2008 No Build			2008 Construction			2008 No Build			2008 Construction		
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS
Saw Mill River Road (Rt.9A) (N-S) @	4	Eastbound	L	0.64	31.6	C	0.64	31.6	C	0.52	29.3	C	0.52	29.3	C
Saw Mill River Pkwy Ramp			LTR	0.14	25.0	C	0.14	25.0	C	0.14	25.8	C	0.14	25.8	C
		Westbound	L	0.14	32.4	C	0.14	32.4	C	0.14	34.1	C	0.14	34.1	C
			LT	0.10	32.1	C	0.10	32.1	C	0.09	33.8	C	0.09	33.8	C
			R	0.02	31.6	C	0.02	31.6	C	0.04	33.6	C	0.04	33.6	C
		Northbound	L	0.18	14.1	B	0.20	14.3	B	0.81	31.5	C	0.81	31.6	C
			TR	0.31	14.8	B	0.34	15.0	B	0.55	15.4	B	0.61	16.2	B
		Southbound	L	0.05	13.0	B	0.05	13.0	B	0.13	21.4	C	0.14	21.6	C
			TR	0.54	17.1	B	0.60	17.9	B	0.98	54.3	D	1.00	58.5 +	E
		Intersection			19.5	B		19.7	B		33.7	C		35.1	D
Grasslands Road (E-W) @	6	Eastbound	L	0.71	36.6	D	0.82	48.0	D	*	**	F	*	**	F
Bradhurst Avenue			T	1.03	75.1	E	*	** +	F	0.59	22.3	C	0.65	23.9	C
			R	0.35	16.3	B	0.36	16.5	B	0.27	12.1	B	0.29	12.3	B
		Westbound	L	0.68	56.6	E	0.68	56.6	E	0.22	18.0	B	0.28	18.7	B
			TR	0.43	25.8	C	0.50	26.9	C	0.98	55.5	E	1.48	** +	F
		Northbound	L	0.23	23.3	C	0.26	23.8	C	0.87	58.7	E	0.90	64.9	E
			TR	0.34	25.9	C	0.35	26.1	C	0.20	16.3	B	0.20	16.3	B
		Southbound	L	0.50	40.1	D	0.51	40.5	D	0.30	25.1	C	0.30	25.1	C
			TR	0.68	49.7	D	0.68	49.7	D	1.12	109.2	F	1.12	109.2	F
		Intersection			45.2	D		147.5	F		70.0	E		137.0	F
Knollwood Road (E-W) @	8	Westbound	LT	0.46	27.6	C	0.46	27.6	C	0.79	39.0	D	0.79	39.0	D
Cross Westchester Expy (I-287) WB Ramp			R	0.24	25.4	C	0.25	25.5	C	0.45	27.6	C	0.45	27.6	C
		Northbound	L	0.50	9.8	A	0.51	10.0	A	0.95	52.6	D	0.97	58.2 +	E
			T	0.51	10.3	B	0.53	10.6	B	0.52	10.5	B	0.53	10.6	B
		Southbound	T	0.30	13.4	B	0.31	13.5	B	0.44	14.8	B	0.46	15.0	B
			R	0.13	12.1	B	0.14	12.2	B	0.23	12.8	B	0.23	12.9	B
		Intersection			14.4	B		14.5	B		26.7	C		27.7	C
Knollwood Road (E-W) @	9	Eastbound	L	0.67	32.7	C	0.68	32.9	C	0.48	24.4	C	0.48	24.5	C
Cross Westchester Expy (I-287) EB Ramp			TR	0.01	23.6	C	0.01	23.6	C	0.00	20.0	C	0.00	20.0	C
			R	0.58	30.0	C	0.58	30.0	C	0.77	34.2	C	0.77	34.2	C
		Northbound	T	0.49	15.3	B	0.51	15.5	B	0.86	31.6	C	0.87	32.4	C
			R	0.52	15.9	B	0.52	15.9	B	0.62	20.9	C	0.62	20.9	C
		Southbound	L	0.39	9.8	A	0.40	10.0	A	0.79	29.3	C	0.81	31.3	C
			T	0.29	8.4	A	0.30	8.5	A	0.65	15.4	B	0.66	15.8	B
		Intersection			18.6	B		18.6	B		25.6	C		26.0	C
Tarrytown/White Plains Road (E-W) WB Ramp @	10	Westbound	LT	0.14	24.6	C	0.14	24.6	C	0.35	26.4	C	0.35	26.4	C
Knollwood Road (Rt.100A)			R	0.51	28.3	C	0.51	28.3	C	0.96	64.3	E	0.97	65.9	E
		Northbound	LT	0.40	10.1	B	0.41	10.2	B	0.60	12.6	B	0.60	12.6	B
		Southbound	T	0.20	15.3	B	0.20	15.3	B	0.43	17.4	B	0.44	17.4	B
			R	0.19	15.3	B	0.20	15.4	B	0.47	18.0	B	0.48	18.2	B
		Intersection			15.5	B		15.5	B		25.0	C		25.4	C
Tarrytown/White Plains Road (E-W) EB Ramp @	11	Eastbound	LT	0.71	34.2	C	0.73	35.1	D	0.78	38.4	D	0.79	38.7	D
Knollwood Road (Rt.100A)	12		R	0.16	24.8	C	0.16	24.8	C	0.35	26.5	C	0.35	26.5	C
		Northbound	TR	0.40	20.1	C	0.41	20.2	C	0.41	20.3	C	0.41	20.3	C
		Southbound	Def	0.31	11.9	B	0.32	12.1	B	0.47	14.7	B	0.48	14.8	B
			T	0.28	9.2	A	0.28	9.2	A	0.54	11.8	B	0.55	11.9	B
		Intersection			20.4	C		20.8	C		21.1	C		21.2	C
Saw Mill River Road (Rt.9A) @	13	Westbound	L	1.09	97.9	F	1.09	97.9	F	0.74	38.2	D	0.74	38.2	D
Cross Westchester Expy (I-287) WB Ramp			R	0.48	27.5	C	0.62	29.9	C	0.42	20.4	C	0.44	20.6	C
		Northbound	LTR	0.36	8.9	A	0.43	9.4	A	0.69	22.8	C	0.76	25.7	C
		Southbound	TR	0.47	9.7	A	0.51	10.2	B	0.85	22.5	C	0.96	33.6	C
		Intersection			34.3	C		33.0	C		24.4	C		30.4	C
Saw Mill River Road (Rt.9A) @	14	Northbound	TR	0.31	12.3	B	0.36	12.8	B	0.89	34.7	C	0.90	36.4	D
Cross Westchester Expy (I-287) EB Ramp		Southbound	L	0.50	1.7	A	0.55	3.6	A	0.74	23.2	C	0.82	28.3	C
			LT	0.16	0.2	A	0.17	0.2	A	0.53	0.5	A	0.58	0.6	A
		Intersection			5.0	A		6.0	A		17.5	B		18.7	B
Saw Mill River Road (Rt.9A) @	15	Eastbound	L	0.97	66.8	E	1.12	113.5 +	F	0.99	76.6	E	1.02	83.2 +	F
Tarrytown/White Plains Road (Rt.119)			TR	0.38	14.5	B	0.38	14.5	B	0.46	20.2	C	0.46	20.2	C
		Westbound	L	0.17	22.3	C	0.17	22.3	C	0.42	34.4	C	0.42	34.4	C
			TR	0.30	23.5	C	0.31	23.6	C	0.88	48.6	D	0.89	49.3	D
		Northbound	L	0.38	34.2	C	0.39	34.4	C	0.30	25.0	C	0.34	25.8	C
			TR	0.62	40.3	D	0.72	44.9	D	0.82	41.0	D	0.83	42.1	D
		Southbound	L	0.24	33.9	C	0.29	36.6	D	0.54	35.0	C	0.57	36.4	D
			T	0.42	34.9	C	0.44	35.3	D	0.26	22.8	C	0.34	23.8	C
			R	0.23	22.1	C	0.24	22.2	C	0.39	11.0	B	0.43	11.3	B
		Intersection			31.8	C		42.3	D		35.0	C		35.8	D
Saw Mill River Road (Rt.9A) @	16	Eastbound	LTR	0.01	29.1	C	0.01	29.1	C	0.01	32.9	C	0.01	32.9	C
Hunter Lane		Westbound	LT	0.31	32.4	C	0.31	32.4	C	0.81	56.6	E	0.81	56.6	E
			R	0.01	18.7	B	0.01	18.7	B	0.07	22.9	C	0.07	22.9	C
		Northbound	LTR	0.64	21.3	C	0.81	27.0	C	0.69	19.4	B	0.71	20.1	C
		Southbound	LTR	0.67	14.5	B	0.78	18.3	B	0.73	13.3	B	0.86	19.4	B
		Intersection			18.6	B		23.3	C		20.1	C		22.8	C

TABLE 4.21-11. PURE NO BUILD VS. CROTON + CAT DEL, PARKING AT LANDMARK AND WCC LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION C) CONDITIONS

				AM Peak Hour						PM Peak Hour					
				2008 No Build			2008 Construction			2008 No Build			2008 Construction		
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS
Saw Mill River Road (Rt.9A) @	20	Eastbound	LT	0.07	25.5	C	0.07	25.5	C	0.28	27.4	C	0.29	27.6	C
Dana Road			R	0.08	25.6	C	0.08	25.6	C	0.24	26.9	C	0.24	26.9	C
		Westbound	L	0.12	25.9	C	0.28	27.3	C	0.44	29.1	C	0.55	31.1	C
			TR	0.06	25.4	C	0.15	26.1	C	0.40	28.4	C	0.42	28.7	C
		Northbound	L	0.12	30.5	C	0.12	30.5	C	0.39	32.7	C	0.39	32.7	C
			TR	0.63	25.1	C	0.67	26.0	C	0.84	31.9	C	0.92	39.3	D
		Southbound	L	0.38	32.6	C	0.51	34.1	C	0.15	30.7	C	0.19	31.0	C
			TR	0.59	24.1	C	0.62	24.6	C	0.74	27.7	C	0.74	27.8	C
		Intersection			25.4	C		26.3	C		29.8	C		33.1	C
Old Saw Mill River Road @	21	Eastbound	LT	0.87	28.2	C	0.90	31.7	C	1.04	70.0	E	1.08	86.1 +	F
Saw Mill River Pkwy SB Off Ramp		Westbound	TR	0.23	4.7	A	0.23	4.7	A	0.42	9.2	A	0.53	10.2	B
		Southbound	L	0.68	36.9	D	0.72	39.0	D	0.29	23.1	C	0.29	23.1	C
			LR	0.16	28.2	C	0.16	28.2	C	0.21	22.6	C	0.21	22.6	C
		Intersection			21.2	C		23.3	C		33.9	C		37.2	D
Old Saw Mill River Road @	22	Eastbound	T	0.48	17.5	B	0.50	17.7	B	0.41	13.3	B	0.41	13.3	B
Saw Mill River Pkwy NB Off Ramp		Westbound	T	0.19	7.7	A	0.20	7.8	A	0.28	4.2	A	0.36	4.5	A
		Northbound	LR	0.44	24.7	C	0.62	28.3	C	0.45	31.5	C	0.46	31.5	C
			R	0.41	24.3	C	0.60	27.7	C	0.41	31.1	C	0.43	31.4	C
		Intersection			16.5	B		18.5	B		12.0	B		11.4	B
Grassland Road (Rt.100C) @	24	Eastbound	L	0.01	2.6	A	0.08	2.9	A	0.04	9.2	A	0.07	9.7	A
Clearbrook Road/Walker Road			TR	0.37	3.8	A	0.50	4.4	A	0.73	17.2	B	0.99	43.7	D
		Westbound	L	0.38	4.0	A	0.50	5.1	A	1.40	230.4	F	*	**	F
			TR	0.39	3.9	A	0.63	5.8	A	0.70	16.7	B	0.92	30.5	C
		Northbound	LT	0.21	33.7	C	0.23	33.9	C	0.19	19.9	B	0.20	20.0	B
		Southbound	LT	0.21	33.8	C	0.44	36.4	D	0.23	20.3	C	0.29	20.9	C
			R	0.00	32.2	C	0.00	32.2	C	0.01	18.5	B	0.04	18.7	B
		Intersection			5.3	A		6.6	A		42.3	D		101.5	F
Grassland Road (Rt.100C) @	25	Eastbound	L	0.28	7.5	A	0.38	13.5	B	0.33	13.8	B	0.37	17.6	B
Woods Drive/Taylor Road			TR	0.26	5.2	A	0.37	5.8	A	0.57	12.5	B	0.72	15.4	B
		Westbound	L	0.00	9.3	A	0.00	9.3	A	0.01	12.5	B	0.01	12.6	B
			TR	0.57	14.1	B	0.76	18.2	B	0.73	21.2	C	0.86	27.0	C
		Northbound	LTR	0.01	32.9	C	0.01	32.9	C	0.01	24.6	C	0.01	24.6	C
		Southbound	LT	0.55	39.2	D	0.55	39.2	D	0.79	41.6	D	0.79	41.6	D
			R	0.08	21.2	C	0.08	21.2	C	0.11	17.2	B	0.11	17.2	B
		Intersection			12.8	B		14.9	B		19.6	B		22.8	C
Grassland Road (Rt.100C) @	26	Eastbound	TR	0.27	7.5	A	0.36	8.1	A	0.67	11.7	B	0.83	16.0	B
Sprain Brook Pkwy SB Ramp		Westbound	T	0.32	7.8	A	0.41	8.5	A	0.52	9.5	A	0.63	10.9	B
		Southbound	L	0.55	34.0	C	0.71	39.7	D	0.17	29.6	C	0.18	29.7	C
			R	0.32	31.0	C	0.57	34.8	C	0.12	29.2	C	0.14	29.3	C
		Intersection			13.1	B		15.1	B		11.5	B		14.4	B
Grassland Road (Rt.100C) @	27	Eastbound	L	0.09	14.7	B	0.12	15.3	B	0.50	15.4	B	0.80	32.8	C
Sprain Brook Pkwy NB Ramp	30		T	0.50	18.0	B	0.72	22.2	C	0.32	9.0	A	0.35	9.2	A
		Westbound	TR	0.47	24.6	C	0.53	25.6	C	1.06	67.9	E	1.38	199.0 +	F
		Northbound	LT	1.00	68.7	E	1.32	187.6 +	F	0.69	29.4	C	0.71	30.0	C
			R	1.02	74.8	E	1.27	165.4 +	F	0.35	23.1	C	0.37	23.2	C
		Intersection			44.0	D		93.0	F		42.6	D		116.2	F
Virginia Road @	31	Eastbound	LT	1.12	126.9	F	1.17	148.9 +	F	1.16	139.6	F	1.32	205.4 +	F
Bronx River Pkwy			R	0.21	19.6	B	0.22	19.7	B	0.39	34.6	C	0.53	36.9	D
		Westbound	LTR	0.40	34.6	C	0.44	35.2	D	1.26	185.8	F	*	** +	F
		Northbound	L	0.04	46.3	D	0.36	49.2	D	0.06	10.9	B	0.06	11.0	B
			TR	0.26	20.1	C	0.26	20.1	C	0.62	25.3	C	0.62	25.3	C
		Southbound	L	1.10	141.5	F	1.10	141.5	F	0.13	11.7	B	0.13	11.7	B
			T	0.70	27.3	C	0.70	27.3	C	0.59	24.7	C	0.59	24.7	C
		Intersection			53.9	D		57.0	E		61.7	E		87.5	F
Grassland Road (Rt.100C) @	34	Eastbound	T	0.41	7.7	A	0.41	7.7	A	0.72	16.6	B	0.73	17.0	B
WCC East Gate		Westbound	L	0.26	5.2	A	0.39	6.1	A	0.21	11.1	B	0.23	11.3	B
			T	0.24	3.2	A	0.24	3.2	A	0.58	7.9	A	0.58	7.9	A
		Northbound	L	0.07	45.8	D	0.31	47.8	D	0.62	30.6	C	*	** +	F
		Intersection			6.3	A		8.2	A		14.5	B		132.3	F
Old Saw Mill River Road @	46	Eastbound	LTR	0.74	8.7	A	0.81	10.8	B	0.57	6.0	A	0.58	6.0	A
Landmark West Driveway		Westbound	LTR	0.26	4.1	A	0.26	4.1	A	0.43	4.9	A	0.43	4.9	A
		Northbound	LTR	0.02	21.0	C	0.04	21.1	C	0.08	21.2	C	0.5	24.5	C
		Southbound	LTR	0.04	21.1	C	0.04	21.1	C	0.03	21.0	C	0.03	21.0	C
		Intersection			7.7	A		9.4	A		5.8	A		7.1	A

Notes:

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts.

" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

TABLE 4.21-11. PURE NO BUILD VS. CROTON + CAT DEL, PARKING AT LANDMARK(CROTON) AND HOME DEPOT(CAT DEL) LEVEL-OF-SERVICE ANALYSIS RESULTS FOR UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION C) CONDITIONS

				AM Peak Hour						PM Peak Hour					
				2008 No Build			2008 Construction			2008 No Build			2008 Construction		
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS
Sprain Pkwy SB On Ramp (N-S) @ Broadway (Rt.9A)/Bradhurst Avenue	1	Westbound	LT	0.12	10.6	B	0.12	10.8	B	0.19	9.5	A	0.20	9.9	A
Saw Mill River Road (Rt.9A) (N-S) @ Beverly Road	2	Northbound	LT	0.01	10.3	B	0.01	10.6	B	0.03	13.1	B	0.03	13.2	B
		Eastbound	LR	0.07	21.1	C	0.08	23.0	C	0.05	29.7	D	0.06	31.9	D
Saw Mill River Road (Rt.9A) @ Stevens Avenue North	3N	Northbound	LT	0.02	10.9	B	0.02	11.3	B	0.01	9.8	A	0.01	9.8	A
		Southbound	LT	0.03	9.2	A	0.03	9.3	A	0.02	10.5	B	0.02	10.9	B
		Eastbound	LTR	0.02	35.0	D	0.03	40.6 +	E	0.13	24.1	C	0.14	25.9	D
		Westbound	LTR	0.03	16.7	C	0.04	18.1	C	0.07	15.7	C	0.08	16.7	C
Saw Mill River Road (Rt.9A) @ Stevens Avenue South	3S	Southbound	LT	0.00	8.8	A	0.00	8.9	A	0.00	10.4	B	0.00	10.8	B
		Westbound	LR	0.03	21.4	C	0.03	23.5	C	0.14	34.0	D	0.16	38.3	E
Bradhurst Avenue @ Lakeview Avenue	5	Southbound	LT	0.02	8.2	A	0.02	8.2	A	0.01	8.1	A	0.01	8.1	A
		Westbound	LR	0.26	15.1	C	0.26	15.1	C	0.45	18.8	C	0.45	18.8	C
Knollwood Road (Rt.100A) @ Hevelyne Road	7	Northbound	LT	0.01	8.3	A	0.01	8.3	A	0.00	8.0	A	0.00	8.0	A
		Eastbound	LR	0.03	13.1	B	0.03	13.5	B	0.01	10.9	B	0.01	11.1	B
Saw Mill River Road (Rt.9A) @ Ramada Inn/Broadway Plaza	17	Northbound	L	0.09	10.0	A	0.15	10.6	B	0.15	10.3	B	0.16	10.5	B
		Southbound	LT	0.01	8.7	A	0.02	9.3	A	0.01	9.4	A	0.01	9.6	A
		Eastbound	L	0.01	31.9	D	0.02	47.4 +	E	0.01	48.4	E	0.01	53.0 +	F
			T	0.02	36.9	E	0.03	58.7 +	F	0.08	79.9	F	0.09	90.6 +	F
		Westbound	LT	0.10	33.1	D	0.17	57.7 +	F	0.11	56.3	F	0.13	63.9 +	F
			TR	0.01	10.6	B	0.01	11.4	B	0.03	17.0	C	0.03	18.0	C
Dana Road @ Walker Road	18	Northbound	LR	0.09	10.5	B	0.25	12.2	B	0.04	10.5	B	0.14	11.9	B
		Westbound	LT	0.00	8.3	A	0.00	8.6	A	0.01	7.8	A	0.01	7.9	A
Saw Mill River Road @ Grasslands Road (Rt.100C)	19A	Northbound	L	0.78	85.3	F	*	** +	F	0.99	145.4	F	*	** +	F
			R	0.20	16.3	C	0.24	19.1	C	0.28	15.7	C	0.44	26.2	D
		Westbound	L	0.15	11.3	B	0.17	12.3	B	0.17	11.2	B	0.45	18.7	C
Grasslands Road (E-W) @ Saw Mill River Road NB Ramp (N-S)	19B	Northbound	LT	0.06	25.7	D	0.51	64.4 +	F	0.05	25.0	C	0.11	45.0 +	E
			TR	0.07	13.7	B	0.34	19.6	C	0.16	14.2	B	0.25	19.9	C
		Eastbound	L	0.21	10.1	B	0.28	12.4	B	0.17	10.5	B	0.27	12.7	B
Grasslands Road @ Virginia Road	32	Southbound	LT	0.23	8.3	A	0.24	8.4	A	0.36	10.3	B	0.47	11.4	B
		Westbound	LR	0.55	16.6	C	0.69	20.6	C	1.23	155.8	F	*	** +	F
Grasslands Road @ Legion Drive	33	Southbound	L	0.42	29.8	D	0.50	39.1 +	E	1.27	210.8	F	1.46	** +	F
			R	0.20	12.1	B	0.23	13.7	B	0.47	19.7	C	0.47	19.9	C
		Eastbound	LT	0.07	8.5	A	0.08	8.9	A	0.24	10.7	B	0.24	10.8	B
Grasslands Road @ WCC West Gate	35	Northbound	L	0.06	20.5	C	0.12	38.9 +	E	0.26	50.2	F	0.54	136.4 +	F
			R	0.01	13.7	B	0.02	21.2	C	0.49	18.4	C	0.53	20.5	C
		Westbound	LT	0.00	9.9	A	0.01	12.4	B	0.12	9.1	A	0.13	9.3	A
Old Saw Mill River Road @ Landmark East Driveway	47	Northbound	LTR	0.07	17.5	C	0.14	18.5	C	0.11	30.0	D	0.59	28.0	D
		Southbound	LTR	0.01	10.3	B	0.55	174.1 +	F	0.07	17.4	C	*	** +	F
		Eastbound	LTR	0.01	8.1	A	0.02	8.6	A	0.01	8.7	A	0.01	8.7	A
		Westbound	LTR	0.02	10.2	B	0.28	12.1	B	0.01	9.2	A	0.03	9.3	A

Notes:

L = Left Turn, T = Through, R = Right Turn; LOS = Level of Service. "+" indicates significant impacts.

" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

- Virginia Road/Bronx River Parkway Intersection. During the AM peak hour, the eastbound left/through lane group would remain at LOS F, with delays increasing from 126.9 to 148.9 seconds. During the PM peak hour, the eastbound left/through lane group would remain at LOS F, with delays increasing from 139.6 to 205.4 seconds, and the westbound approach would remain at LOS F, with delays increasing from 185.8 seconds to greater than 240.0 seconds.

- Grasslands Road (Route 100)/WCC East Gate Intersection. During the PM peak hour, the northbound left-turn movement would deteriorate from LOS C to LOS F, with delays increasing from 30.6 seconds to well beyond 240.0 seconds.

Potential Significant Adverse Impacts Occurring at Unsignalized Intersections

- Saw Mill River Road (Route 9A)/Stevens Avenue North Intersection. During the AM peak hour, the eastbound approach would deteriorate from LOS D to LOS E, with delays increasing from 35.0 to 40.6 seconds.

- Saw Mill River Road (Route 9A)/Ramada Inn/Broadway Plaza Intersection. During the AM peak hour, the eastbound left-turn movement would deteriorate from LOS D to LOS E, with delays increasing from 31.9 to 47.4 seconds, the eastbound through movement would deteriorate from LOS E to LOS F, with delays increasing from 36.9 to 58.7 seconds, and the westbound left/through lane group would deteriorate from LOS D to LOS F, with delays increasing from 33.1 to 57.7 seconds. During the PM peak hour, the eastbound left-turn movement would deteriorate from LOS E to LOS F, with delays increasing from 48.4 to 53.0 seconds, the eastbound through movement would remain at LOS F, with delays increasing from 79.9 to 90.6 seconds, and the westbound left/through land group would remain at LOS F, with delays increasing from 56.3 to 63.9 seconds.

- Saw Mill River Road (Route 9A)/Grasslands Road (Route 100C) Intersection. During the AM peak hour, the northbound left-turn movement would remain at LOS F, with delays increasing from 85.3 seconds to well beyond 240.0 seconds. During the PM peak hour, the northbound left-turn movement would remain at LOS F, with delays increasing from 145.4 seconds to well beyond 240.0 seconds.

- Grasslands Road (Route 100C)/Saw Mill River Road (Route 9A) Northbound Ramp Intersection. During the AM peak hour, the northbound left/through lane group would deteriorate from LOS D to LOS F, with delays increasing from 25.7 to 64.4 seconds. During the PM peak hour, the northbound left/through lane group would deteriorate from LOS C to LOS E, with delays increasing from 25.0 to 45.0 seconds.

- Grasslands Road (Route 100)/Virginia Road Intersection. During the PM peak hour, the westbound approach would remain at LOS F, with delays increasing from 155.8 seconds to greater than 240.0 seconds.

- Grasslands Road (Route 100)/Legion Drive intersection. During the AM peak hour, the southbound left-turn movement would deteriorate fro LOS D to LOS E, with delays increasing from 29.8 to 39.1 seconds. During the PM peak hour, the southbound left-turn movement would remain at LOS F, with delays increasing from 210.8 to greater than 240.0 seconds.

- Grasslands Road (Route 100)/WCC East Gate Intersection. During the AM peak hour, the northbound left-turn movement would deteriorate from LOS C to LOS E, with delays increasing from 20.5 to 39.8 seconds. During the PM peak hour, the northbound left-turn movement would remain at LOS F, with delays increasing from 50.2 to 136.4 seconds.

- Old Saw Mill River Road/Landmark Property East Driveway Intersection. During the AM peak hour, the southbound approach would deteriorate from LOS B to LOS F, with delays increasing from 10.3 to 174.1 seconds. During the PM peak hour, the southbound approach would deteriorate from LOS C to LOS F, with delays increasing from 17.4 seconds to well beyond 240.0 seconds.

Although these potential significant adverse impacts would not be permanent, because they would only occur during the construction period, measures have been identified that could be used to mitigate the construction-related potential significant adverse traffic impacts predicted to occur under 2008 combined construction Option C conditions. A description of the measures and an analysis showing the resulting effects of implementing the measures are provided below, in Section 4.21.4, Mitigation of Potential Combined Impacts.

Parking. Nearly the entire Eastview Site would be unavailable for construction worker parking because of the concurrent construction of the proposed UV Facility and the Croton project under 2008 combined construction Option C conditions. As discussed in Section 3.9, Data Collection and Impact Methodologies, Traffic and Transportation, two off-site parking facilities have been identified for construction vehicles and workers during project construction, under Combined Option C conditions. One facility is located at the Landmark property, west on the project site; the other is located at the WCC Campus, east of the project site. Based on the transportation data and planning assumptions presented in Section 3.9, these two off-site parking facilities would each need to accommodate half of the estimated 400 construction worker vehicles from the UV Facility's construction, as well as half of the estimated 543 worker vehicles related to the concurrent construction of the Croton project. It is anticipated that these off-site parking facilities would be able to accommodate these parked vehicles, therefore; no significant adverse parking impacts are anticipated to occur to the public and private parking facilities in the vicinity of the Eastview Site under 2008 Combined Construction Option C conditions.

Safety. The combined construction activities would increase the study area traffic volumes by 1 to 40 percent at key study area intersections during peak-hour operating conditions. This projected traffic growth can be anticipated to translate to between 1 and 15 additional accidents per year along the roadway corridors during the construction period. These additional accidents could be considered significant, depending on the intersection. However, with mitigation in place and a traffic management plan, the projected accident rate would likely

be lower and not significant. See Section 4.21.4 for a description of the recommended traffic mitigation measures.

Transit. The combined construction of the proposed UV Facility and the Croton project under 2008 Combined Construction Option C conditions is not anticipated to generate any considerable transit ridership. In addition, because the Bee-Line Bus Facility generates very few trips during the combined peak construction hours, the construction of the proposed UV Facility and the Croton project is not anticipated to affect bus operations. Therefore, no significant adverse transit-related impacts would be anticipated to occur under 2008 Combined Construction Option C conditions.

Pavement Infrastructure. Under Option C, the potential combined effects on pavement infrastructure would be the same as those projected for Option A, discussed above. Comparing the predicted truck loads with the range of designed loads for arterial roadways, the anticipated loads generated from the combined construction of the proposed UV Facility and the Croton project would represent between 5.4 and 13.6 percent of the design load of an arterial roadway. However, this trucking activity would be temporary and would not constitute a significant adverse impact.

4.21.3.1.4. Option D – Parking at the Landmark Property and Home Depot

The traffic generated by the concurrent construction of the proposed UV Facility and the Croton project on the site for Option D is shown in Figures 4.21-21 and 4.21-22, for the AM and PM peak hours, respectively. Figures 4.21-23 and 4.21-24 show the total resulting 2008 Combined Construction Option D traffic volumes. Table 4.21-12 shows a comparison of the results of the HCM analyses for the 2008 FNB conditions and the 2008 combined construction Option D conditions.

Option D Traffic. The following is a summary of the potential significant adverse impacts that have been identified during 2008, associated with the combined effects of the proposed UV Facility's peak construction activities and the Croton project construction at the Eastview Site under worker parking Option D conditions. There would be a total of 32 potential significant adverse impacts at intersections in the primary study area under 2008 Combined Construction Option D conditions (16 at signalized intersections, 4 during the AM peak hour and 12 during the PM peak hour, and 16 at unsignalized intersections, 6 during the AM peak hour and 10 during the PM peak hour).

Potential Significant Adverse Impacts Occurring at Signalized Intersections

- Saw Mill River Road (Route 9A)/Saw Mill River Parkway Ramp Intersection. During the PM peak hour, the southbound through/right movement would deteriorate from LOS D to LOS E, with delays increasing from 54.3 to 58.5 seconds.

- Grasslands Road (Route 100C)/Bradhurst Avenue (Route 100) Intersection. During the PM peak hour, the northbound left-turn movement would remain at LOS E, with delays increasing from 58.7 to 64.9 seconds.

- Knollwood Road (Route 100A)/Cross Westchester Expressway (I-287) Westbound Ramp Intersection. During the PM peak hour, the northbound left-turn movement would deteriorate from LOS D to LOS E, with delays increasing from 52.6 to 58.2 seconds.

- Saw Mill River Road (Route 9A)/Tarrytown-White Plains Road (Route 119) Intersection. During the AM peak hour, the eastbound left-turn movement would deteriorate from LOS E to LOS F, with delays increasing from 66.8 to 113.5 seconds. During the PM peak hour the eastbound left-turn movement would deteriorate from LOS E to LOS F, with delays increasing from 76.6 to 83.3 seconds.

- Saw Mill River Road (Route 9A)/Dana Road Intersection. During the PM peak hour, the eastbound left/through movement would deteriorate from LOS C to LOS F, with delays increasing from 27.4 to 81.2 seconds. During the PM peak hour the westbound left-turn movement would also deteriorate from LOS C to LOS F, with delays increasing from 29.1 seconds to greater than 240.0 seconds.

- Old Saw Mill River Road/Saw Mill River Parkway Southbound Off-Ramp Intersection. During the PM peak hour, the eastbound approach would deteriorate from LOS E to LOS F, with delays increasing from 70.0 to 86.2 seconds.

- Grasslands Road (Route 100C)/Clearbrook Road/Walker Road Intersection. During the PM peak hour, the eastbound through/right lane group would deteriorate from LOS B to LOS E, with delays increasing from 17.2 to 55.4 seconds. The westbound left-turn movement would remain at LOS F, with delays increasing from 230.4 seconds to well beyond 240.0 seconds, during the PM peak hour.

- Grasslands Road (Route 100C)/Sprain Brook Parkway Southbound Ramp Intersection. During the AM peak hour, the southbound right-turn movement would deteriorate from LOS C to LOS D, with delays increasing from 31.0 to 48.4 seconds.

- Grasslands Road (Route 100C)/Sprain Brook Parkway Northbound Ramp Intersection. During the AM peak hour, the northbound left/through lane group would deteriorate from LOS E to LOS F, with delays increasing from 68.7 seconds to beyond 240.0 seconds. During the PM peak hour, the eastbound left-turn movement would deteriorate from LOS B to LOS F, with delays increasing from 15.4 to 104.4 seconds.

- Virginia Road/Bronx River Parkway Intersection. During the AM and PM peak hours, the eastbound left/through movement would remain at LOS F, with delays increasing from 126.9 to 130.6 seconds during the AM peak hour, and from 139.6 to 144.9 seconds during the PM peak hour. During the PM peak hour, the westbound approach would also remain at LOS F, with delays increasing from 185.8 to 193.5 seconds.

TABLE 4.21-12. PURE NO BUILD VS. CROTON + CAT DEL, PARKING AT LANDMARK(CROTON) AND HOME DEPOT(CAT DEL) LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION D) CONDITIONS

				AM Peak Hour						PM Peak Hour					
				2008 No Build			2008 Construction			2008 No Build			2008 Construction		
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS
Saw Mill River Road (Rt.9A) (N-S) @	4	Eastbound	L	0.64	31.6	C	0.64	31.6	C	0.52	29.3	C	0.52	29.3	C
Saw Mill River Pkwy Ramp			LTR	0.14	25.0	C	0.14	25.0	C	0.14	25.8	C	0.14	25.8	C
		Westbound	L	0.14	32.4	C	0.14	32.4	C	0.14	34.1	C	0.14	34.1	C
			LT	0.10	32.1	C	0.10	32.1	C	0.09	33.8	C	0.09	33.8	C
			R	0.02	31.6	C	0.02	31.6	C	0.04	33.6	C	0.04	33.6	C
		Northbound	L	0.18	14.1	B	0.20	14.3	B	0.81	31.5	C	0.81	31.6	C
			TR	0.31	14.8	B	0.34	15.0	B	0.55	15.4	B	0.61	16.3	B
		Southbound	L	0.05	13.0	B	0.05	13.0	B	0.13	21.4	C	0.14	21.6	C
			TR	0.54	17.1	B	0.60	17.9	B	0.98	54.3	D	1.00	58.5 +	E
		Intersection			19.5	B		19.7	B		33.7	C		35.1	D
Grasslands Road (E-W) @	6	Eastbound	L	0.71	36.6	D	0.75	39.9	D	*	**	F	*	**	F
Bradhurst Avenue			T	1.03	75.1	E	1.03	75.5	E	0.59	22.3	C	0.61	22.9	C
			R	0.35	16.3	B	0.36	16.5	B	0.27	12.1	B	0.30	12.3	B
		Westbound	L	0.68	56.6	E	0.68	56.6	E	0.22	18.0	B	0.23	18.1	B
			TR	0.43	25.8	C	0.45	26.2	C	0.98	55.5	E	0.98	55.9	E
		Northbound	L	0.23	23.3	C	0.26	23.9	C	0.87	58.7	E	0.90	64.9 +	E
			TR	0.34	25.9	C	0.34	25.9	C	0.20	16.3	B	0.20	16.3	B
		Southbound	L	0.50	40.1	D	0.50	40.1	D	0.30	25.1	C	0.00	25.1	C
			TR	0.68	49.7	D	0.68	49.7	D	1.12	109.2	F	1.12	109.2	F
		Intersection			45.2	D		45.2	D		70.0	E		70.0	E
Knollwood Road (E-W) @	8	Westbound	LT	0.46	27.6	C	0.46	27.6	C	0.79	39.0	D	0.79	39.0	D
Cross Westchester Expy (I-287) WB Ramp			R	0.24	25.4	C	0.24	25.5	C	0.45	27.6	C	0.45	27.6	C
		Northbound	L	0.50	9.8	A	0.51	10.0	A	0.95	52.6	D	0.97	58.2 +	E
			T	0.51	10.3	B	0.53	10.6	B	0.52	10.5	B	0.53	10.6	B
		Southbound	T	0.30	13.4	B	0.31	13.5	B	0.44	14.8	B	0.46	15.0	B
			R	0.13	12.1	B	0.14	12.2	B	0.23	12.8	B	0.23	12.9	B
		Intersection			14.4	B		14.5	B		26.7	C		27.7	C
Knollwood Road (E-W) @	9	Eastbound	L	0.67	32.7	C	0.68	32.9	C	0.48	24.4	C	0.48	24.5	C
Cross Westchester Expy (I-287) EB Ramp			TR	0.01	23.6	C	0.01	23.6	C	0.00	20.0	C	0.00	20.0	C
			R	0.58	30.0	C	0.58	30.0	C	0.77	34.2	C	0.77	34.2	C
		Northbound	T	0.49	15.3	B	0.51	15.5	B	0.86	31.6	C	0.87	32.4	C
			R	0.52	15.9	B	0.52	15.9	B	0.62	20.9	C	0.62	20.9	C
		Southbound	L	0.39	9.8	A	0.40	10.0	A	0.79	29.3	C	0.81	31.3	C
			T	0.29	8.4	A	0.30	8.5	A	0.65	15.4	B	0.66	15.8	B
		Intersection			18.6	B		18.6	B		25.6	C		26.0	C
Tarrytown/White Plains Road (E-W) WB Ramp @	10	Westbound	LT	0.14	24.6	C	0.14	24.6	C	0.35	26.4	C	0.35	26.4	C
Knollwood Road (Rt.100A)			R	0.51	28.3	C	0.51	28.3	C	0.96	64.3	E	0.96	65.3	E
		Northbound	LT	0.40	10.1	B	0.41	10.2	B	0.60	12.6	B	0.60	12.6	B
		Southbound	T	0.20	15.3	B	0.20	15.3	B	0.43	17.4	B	0.44	17.4	B
			R	0.19	15.3	B	0.20	15.4	B	0.47	18.0	B	0.48	18.2	B
		Intersection			15.5	B		15.5	B		25.0	C		25.3	C
Tarrytown/White Plains Road (E-W) EB Ramp @	11	Eastbound	LT	0.71	34.2	C	0.73	35.1	D	0.78	38.4	D	0.79	38.7	D
Knollwood Road (Rt.100A)	12		R	0.16	24.8	C	0.16	24.8	C	0.35	26.5	C	0.35	26.5	C
		Northbound	TR	0.40	20.1	C	0.41	20.2	C	0.41	20.3	C	0.41	20.3	C
		Southbound	Def	0.31	11.9	B	0.32	12.1	B	0.47	14.7	B	0.48	14.8	B
			T	0.28	9.2	A	0.28	9.2	A	0.54	11.8	B	0.55	11.9	B
		Intersection			20.4	C		20.8	C		21.1	C		21.2	C
Saw Mill River Road (Rt.9A) @	13	Westbound	L	1.09	97.9	F	1.09	97.9	F	0.74	38.2	D	0.74	38.2	D
Cross Westchester Expy (I-287) WB Ramp			R	0.48	27.5	C	0.61	29.6	C	0.42	20.4	C	0.43	20.6	C
		Northbound	LTR	0.36	8.9	A	0.43	9.4	A	0.69	22.8	C	0.77	25.8	C
		Southbound	TR	0.47	9.7	A	0.51	10.2	B	0.85	22.5	C	0.96	34.4	C
		Intersection			34.3	C		33.0	C		24.4	C		30.8	C
Saw Mill River Road (Rt.9A) @	14	Northbound	TR	0.31	12.3	B	0.36	12.8	B	0.89	34.7	C	0.90	36.4	D
Cross Westchester Expy (I-287) EB Ramp		Southbound	L	0.50	1.7	A	0.55	3.6	A	0.74	23.2	C	0.82	28.7	C
			LT	0.16	0.2	A	0.17	0.2	A	0.53	0.5	A	0.59	0.6	A
		Intersection			5.0	A		6.0	A		17.5	B		18.8	B
Saw Mill River Road (Rt.9A) @	15	Eastbound	L	0.97	66.8	E	1.12	113.5 +	F	0.99	76.6	E	1.02	83.3 +	F
Tarrytown/White Plains Road (Rt.119)			TR	0.38	14.5	B	0.38	14.5	B	0.46	20.2	C	0.46	20.2	C
		Westbound	L	0.17	22.3	C	0.17	22.3	C	0.42	34.4	C	0.42	34.4	C
			TR	0.30	23.5	C	0.31	23.6	C	0.88	48.6	D	0.89	49.7	D
		Northbound	L	0.38	34.2	C	0.39	34.4	C	0.30	25.0	C	0.34	25.8	C
			TR	0.62	40.3	D	0.72	44.9	D	0.82	41.0	D	0.83	42.1	D
		Southbound	L	0.24	33.9	C	0.29	36.6	D	0.54	35.0	C	0.58	36.5	D
			T	0.42	34.9	C	0.44	35.3	D	0.26	22.8	C	0.34	23.8	C
			R	0.23	22.1	C	0.24	22.2	C	0.39	11.0	B	0.43	11.3	B
		Intersection			31.8	C		42.3	D		35.0	C		35.9	D
Saw Mill River Road (Rt.9A) @	16	Eastbound	LTR	0.01	29.1	C	0.01	29.1	C	0.01	32.9	C	0.01	32.9	C
Hunter Lane		Westbound	LT	0.31	32.4	C	0.31	32.4	C	0.81	56.6	E	0.81	56.6	E
			R	0.01	18.7	B	0.01	18.7	B	0.07	22.9	C	0.07	22.9	C
		Northbound	LTR	0.64	21.3	C	0.81	27.0	C	0.69	19.4	B	0.71	20.1	C
		Southbound	LTR	0.67	14.5	B	0.78	18.3	B	0.73	13.3	B	0.87	19.8	B
		Intersection			18.6	B		23.3	C		20.1	C		23.0	C

TABLE 4.21-12. PURE NO BUILD VS. CROTON + CAT DEL, PARKING AT LANDMARK(CROTON) AND HOME DEPOT(CAT DEL) LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION D) CONDITIONS

				AM Peak Hour						PM Peak Hour					
				2008 No Build			2008 Construction			2008 No Build			2008 Construction		
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS
Saw Mill River Road (Rt.9A) @	20	Eastbound	LT	0.07	25.5	C	0.15	26.1	C	0.28	27.4	C	0.99	81.2 +	F
Dana Road			R	0.08	25.6	C	0.11	25.8	C	0.24	26.9	C	0.61	32.2	C
		Westbound	L	0.12	25.9	C	0.29	27.4	C	0.44	29.1	C	1.50	** +	F
			TR	0.06	25.4	C	0.74	38.3	D	0.40	28.4	C	0.48	29.3	C
		Northbound	L	0.12	30.5	C	0.56	35.3	D	0.39	32.7	C	0.41	32.9	C
			TR	0.63	25.1	C	0.67	26.0	C	0.84	31.9	C	0.91	37.4	D
		Southbound	L	0.38	32.6	C	0.41	33.0	C	0.15	30.7	C	0.18	31.0	C
			TR	0.59	24.1	C	0.65	25.2	C	0.74	27.7	C	0.74	27.8	C
		Intersection			25.4	C		28.5	C		29.8	C		53.0	D
Old Saw Mill River Road @	21	Eastbound	LT	0.87	28.2	C	0.90	31.7	C	1.04	70.0	E	1.09	86.2 +	F
Saw Mill River Pkwy SB Off Ramp		Westbound	TR	0.23	4.7	A	0.24	4.7	A	0.42	9.2	A	0.54	10.3	B
		Southbound	L	0.68	36.9	D	0.72	39.0	D	0.29	23.1	C	0.29	23.1	C
			LR	0.16	28.2	C	0.16	28.2	C	0.21	22.6	C	0.21	22.6	C
		Intersection			21.2	C		23.2	C		33.9	C		37.1	D
Old Saw Mill River Road @	22	Eastbound	T	0.48	17.5	B	0.50	17.7	B	0.41	13.3	B	0.41	13.3	B
Saw Mill River Pkwy NB Off Ramp		Westbound	T	0.19	7.7	A	0.20	7.8	A	0.28	4.2	A	0.36	4.6	A
		Northbound	LR	0.44	24.7	C	0.64	28.7	C	0.45	31.5	C	0.46	31.6	C
			R	0.41	24.3	C	0.61	28.1	C	0.41	31.1	C	0.43	31.4	C
		Intersection			16.5	B		18.7	B		12.0	B		11.4	B
Grassland Road (Rt.100C) @	24	Eastbound	L	0.01	2.6	A	0.19	3.6	A	0.04	9.2	A	0.04	9.3	A
Clearbrook Road/Walker Road			TR	0.37	3.8	A	0.38	3.8	A	0.73	17.2	B	1.03	55.4 +	E
		Westbound	L	0.38	4.0	A	0.38	4.1	A	1.40	230.4	F	*	** +	F
			TR	0.39	3.9	A	0.84	11.7	B	0.70	16.7	B	0.73	17.7	B
		Northbound	LT	0.21	33.7	C	0.22	33.7	C	0.19	19.9	B	0.30	21.1	C
		Southbound	LT	0.21	33.8	C	0.31	34.8	C	0.23	20.3	C	0.78	34.5	C
			R	0.00	32.2	C	0.00	32.2	C	0.01	18.5	B	0.05	18.8	B
		Intersection			5.3	A		9.4	A		42.3	D		102.4	F
Grassland Road (Rt.100C) @	25	Eastbound	L	0.28	7.5	A	0.40	18.7	B	0.33	13.8	B	0.34	14.5	B
Woods Drive/Taylor Road			TR	0.26	5.2	A	0.28	5.3	A	0.57	12.5	B	0.84	19.4	B
		Westbound	L	0.00	9.3	A	0.00	9.3	A	0.01	12.5	B	0.01	12.7	B
			TR	0.57	14.1	B	0.91	26.0	C	0.73	21.2	C	0.75	22.0	C
		Northbound	LTR	0.01	32.9	C	0.01	32.9	C	0.01	24.6	C	0.01	24.6	C
		Southbound	LT	0.55	39.2	D	0.55	39.2	D	0.79	41.6	D	0.79	41.6	D
			R	0.08	21.2	C	0.08	21.2	C	0.11	17.2	B	0.11	17.2	B
		Intersection			12.8	B		21.1	C		19.6	B		22.3	C
Grassland Road (Rt.100C) @	26	Eastbound	TR	0.27	7.5	A	0.29	7.6	A	0.67	11.7	B	0.95	26.0	C
Sprain Brook Pkwy SB Ramp		Westbound	T	0.32	7.8	A	0.48	9.0	A	0.52	9.5	A	0.54	9.7	A
		Southbound	L	0.55	34.0	C	0.55	34.0	C	0.17	29.6	C	0.17	29.6	C
			R	0.32	31.0	C	0.82	48.4 +	D	0.12	29.2	C	0.16	29.4	C
		Intersection			13.1	B		16.8	B		11.5	B		20.3	C
Grassland Road (Rt.100C) @	27	Eastbound	L	0.09	14.7	B	0.14	15.2	B	0.50	15.4	B	1.11	104.4 +	F
Sprain Brook Pkwy NB Ramp	30		T	0.50	18.0	B	0.51	18.1	B	0.32	9.0	A	0.34	9.1	A
		Westbound	TR	0.47	24.6	C	0.51	25.1	C	1.06	67.9	E	1.07	71.4	E
		Northbound	LT	1.00	68.7	E	*	** +	F	0.69	29.4	C	0.73	30.8	C
			R	1.02	74.8	E	1.02	74.8	E	0.35	23.1	C	0.35	23.1	C
		Intersection			44.0	D		132.9	F		42.6	D		53.2	D
Virginia Road @	31	Eastbound	LT	1.12	126.9	F	1.13	130.6 +	F	1.16	139.6	F	1.17	144.9 +	F
Bronx River Pkwy			R	0.21	19.6	B	0.21	19.6	B	0.39	34.6	C	0.40	34.7	C
		Westbound	LTR	0.40	34.6	C	0.40	34.7	C	1.26	185.8	F	1.28	193.5 +	F
		Northbound	L	0.04	46.3	D	0.06	46.4	D	0.06	10.9	B	0.06	10.9	B
			TR	0.26	20.1	C	0.26	20.1	C	0.62	25.3	C	0.62	25.3	C
		Southbound	L	1.10	141.5	F	1.10	141.5	F	0.13	11.7	B	0.13	11.7	B
			T	0.70	27.3	C	0.70	27.3	C	0.59	24.7	C	0.59	24.7	C
		Intersection			53.9	D		54.5	D		61.7	E		63.5	E
Grassland Road (Rt.100C) @	34	Eastbound	T	0.41	7.7	A	0.41	7.7	A	0.72	16.6	B	0.74	17.4	B
WCC East Gate		Westbound	L	0.26	5.2	A	0.26	5.2	A	0.21	11.1	B	0.22	11.4	B
			T	0.24	3.2	A	0.25	3.2	A	0.58	7.9	A	0.58	7.9	A
		Northbound	L	0.07	45.8	D	0.07	45.8	D	0.62	30.6	C	0.62	30.6	C
		Intersection			6.3	A		6.3	A		14.5	B		14.9	B
Old Saw Mill River Road @	46	Eastbound	LTR	0.74	8.7	A	0.87	14.0	B	0.57	6.0	A	0.58	6.1	A
Landmark West Driveway		Westbound	LTR	0.26	4.1	A	0.26	4.1	A	0.43	4.9	A	0.48	5.2	A
		Northbound	LTR	0.02	21.0	C	0.04	21.1	C	0.08	21.2	C	0.59	27.0	C
		Southbound	LTR	0.04	21.1	C	0.04	21.1	C	0.03	21.0	C	0.03	21.0	C
		Intersection			7.7	A		11.9	B		5.8	A		7.5	A

Notes:

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts.

" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

TABLE 4.21-12. PURE NO BUILD VS. CROTON + CAT DEL, PARKING AT LANDMARK(CROTON) AND HOME DEPOT(CAT DEL) LEVEL-OF-SERVICE ANALYSIS RESULTS FOR UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION D) CONDITIONS

				AM Peak Hour						PM Peak Hour					
				2008 No Build			2008 Construction			2008 No Build			2008 Construction		
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS
Sprain Pkwy SB On Ramp (N-S) @ Broadway (Rt.9A)/Bradhurst Avenue	1	Westbound	LT	0.12	10.6	B	0.12	10.8	B	0.19	9.5	A	0.21	9.9	A
Saw Mill River Road (Rt.9A) (N-S) @ Beverly Road	2	Northbound	LT	0.01	10.3	B	0.01	10.6	B	0.03	13.1	B	0.03	13.2	B
		Eastbound	LR	0.07	21.1	C	0.08	23.0	C	0.05	29.7	D	0.06	32.1	D
Saw Mill River Road (Rt.9A) @ Stevens Avenue North	3N	Northbound	LT	0.02	10.9	B	0.02	11.3	B	0.01	9.8	A	0.01	9.8	A
		Southbound	LT	0.03	9.2	A	0.03	9.3	A	0.02	10.5	B	0.02	10.9	B
		Eastbound	LTR	0.02	35.0	D	0.03	40.6	E	0.13	24.1	C	0.15	26.2	D
		Westbound	LTR	0.03	16.7	C	0.04	18.1	C	0.07	15.7	C	0.08	16.9	C
Saw Mill River Road (Rt.9A) @ Stevens Avenue South	3S	Southbound	LT	0.00	8.8	A	0.00	8.9	A	0.00	10.4	B	0.00	10.8	B
		Westbound	LR	0.03	21.4	C	0.03	23.5	C	0.14	34.0	D	0.17	38.9	E
Bradhurst Avenue @ Lakeview Avenue	5	Southbound	LT	0.02	8.2	A	0.02	8.2	A	0.01	8.1	A	0.01	8.1	A
		Westbound	LR	0.26	15.1	C	0.26	15.1	C	0.45	18.8	C	0.45	18.8	C
Knollwood Road (Rt.100A) @ Hevelyne Road	7	Northbound	LT	0.01	8.3	A	0.01	8.3	A	0.00	8.0	A	0.00	8.0	A
		Eastbound	LR	0.03	13.1	B	0.03	13.4	C	0.01	10.9	B	0.01	11.0	B
Saw Mill River Road (Rt.9A) @ Ramada Inn/Broadway Plaza	17	Northbound	L	0.09	10.0	A	0.16	10.7	B	0.15	10.3	B	0.17	10.9	B
		Southbound	LT	0.01	8.7	A	0.02	9.3	A	0.01	9.4	A	0.01	9.6	A
		Eastbound	L	0.01	31.9	D	0.02	48.4 +	E	0.01	48.4	E	0.02	60.4 +	F
			T	0.02	36.9	E	0.03	60.4 +	F	0.08	79.9	F	0.10	102.1 +	F
		Westbound	LT	0.10	33.1	D	0.17	59.3 +	F	0.11	56.3	F	0.14	69.1 +	F
			TR	0.01	10.6	B	0.01	11.3	B	0.03	17.0	C	0.03	19.0	C
Dana Road @ Walker Road	18	Northbound	LR	0.09	10.5	B	0.64	19.7	C	0.04	10.5	B	0.22	13.6	B
		Westbound	LT	0.00	8.3	A	0.00	8.6	A	0.01	7.8	A	0.01	8.6	A
Saw Mill River Road @ Grasslands Road (Rt.100C)	19A	Northbound	L	0.78	85.3	F	*	** +	F	0.99	145.4	F	*	** +	F
			R	0.20	16.3	C	0.24	19.0	C	0.28	15.7	C	0.48	30.1 +	D
		Westbound	L	0.15	11.3	B	0.16	12.2	B	0.17	11.2	B	0.28	16.6	C
Grasslands Road (E-W) @ Saw Mill River Road NB Ramp (N-S)	19B	Northbound	LT	0.06	25.7	D	0.99	202.6 +	F	0.05	25.0	C	0.10	40.3 +	E
			TR	0.07	13.7	B	0.07	14.3	B	0.16	14.2	B	0.26	21.2	C
		Eastbound	L	0.21	10.1	B	0.43	14.8	B	0.17	10.5	B	0.25	11.3	B
Grasslands Road @ Virginia Road	32	Southbound	LT	0.23	8.3	A	0.23	8.4	A	0.36	10.3	B	0.37	10.4	B
		Westbound	LR	0.55	16.6	C	0.56	17.1	C	1.23	155.8	F	1.26	166.5 +	F
Grasslands Road @ Legion Drive	33	Southbound	L	0.42	29.8	D	0.43	31.0	D	1.27	210.8	F	1.31	227.1 +	F
			R	0.20	12.1	B	0.21	12.4	B	0.47	19.7	C	0.47	19.7	C
		Eastbound	LT	0.07	8.5	A	0.07	8.6	A	0.24	10.7	B	0.24	10.7	B
Grasslands Road @ WCC West Gate	35	Northbound	L	0.06	20.5	C	0.06	20.9	C	0.26	50.2	F	0.27	52.5	F
			R	0.01	13.7	B	0.01	13.7	B	0.49	18.4	C	0.51	19.2	C
		Westbound	LT	0.00	9.9	A	0.00	9.9	A	0.12	9.1	A	0.12	9.2	A
Old Saw Mill River Road @ Landmark East Driveway	47	Northbound	LTR	0.07	17.5	C	0.18	20.5	C	0.11	30.0	D	0.71	35.9 +	E
		Southbound	LTR	0.01	10.3	B	1.18	** +	F	0.07	17.4	C	*	** +	F
		Eastbound	LTR	0.01	8.1	A	0.02	8.8	A	0.01	8.7	A	0.01	9.0	A
		Westbound	LTR	0.02	10.2	B	0.36	13.5	B	0.01	9.2	A	0.04	9.3	A

Notes:

L = Left Turn, T = Through, R = Right Turn; LOS = Level of Service. "+" indicates significant impacts.

" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

Potential Significant Adverse Impacts Occurring at Unsignalized Intersections

- Saw Mill River Road (Route 9A)/Ramada Inn/Broadway Plaza Intersection. During the AM peak hour, the eastbound left-turn lane group would deteriorate from LOS D (31.9 seconds delay) to LOS E (48.4 seconds delay), the eastbound through movement would deteriorate from LOS E (36.9 seconds delay) to LOS F (60.4 seconds delay), and the westbound left/through lane group would deteriorate from LOS D (33.1 seconds delay) to LOS F (59.3 seconds delay). During the PM peak hour, the eastbound left-turn lane group would deteriorate from LOS E (48.4 seconds delay) to LOS F (60.4 seconds delay), the eastbound through movement would remain at LOS F (delay increasing from 79.9 to 102.1 seconds), and the westbound left/through lane group would remain at LOS F (delay increasing from 56.3 to 69.1 seconds).

- Saw Mill River Road (Route 9A)/Grasslands Road (Route 100C) Intersection. During both the AM and PM peak hours, the northbound left-turn movement would remain at LOS F, with delays increasing from 85.3 seconds to well beyond 240.0 seconds during the AM peak, and with delays increasing from 145.4 seconds to well beyond 240.0 seconds during the PM peak). The northbound right-turn movement would deteriorate from LOS C (15.7 seconds delay) to LOS D (30.1 seconds delay) during the PM peak hour.

- Grasslands Road (Route 100C)/Saw Mill River Road (Route 9A) Northbound Ramp Intersection. During the AM peak hour, the northbound left/through lane group would deteriorate from LOS D (25.7 seconds delay) to LOS F (202.6 seconds delay). During the PM peak hour, the northbound left/through lane group would deteriorate from LOS C (25.0 seconds delay) to LOS E (40.3 seconds delay).

- Grasslands Road (Route 100)/Virginia Road Intersection. During the PM peak hour, the westbound approach would remain at LOS F (delay increasing from 155.8 to 166.5 seconds).

- Grasslands Road (Route 100)/Legion Drive Intersection. During the PM peak hour, the southbound left-turn movement would remain at LOS F (delay increasing from 210.8 to 227.1 seconds).

- Old Saw Mill River Road/Landmark Property East Driveway Intersection. During both the AM peak hour, the northbound approach would deteriorate from LOS D (30.0 seconds delay) to LOS E (35.9 seconds delay). The southbound approach would deteriorate from LOS B (10.3 seconds delay) to LOS F (with well beyond 240.0 seconds delay) during the AM peak hour, and this approach would deteriorate from LOS C (17.4 seconds delay) to LOS F (well beyond 240.0 seconds delay) during the PM peak hour.

Although these potential significant adverse impacts would not be permanent, because they would only occur during the construction period, measures have been identified that could be

used to mitigate the construction-related potential significant adverse traffic impacts predicted to occur under 2008 Combined Construction Option D conditions. A description of the measures, and an analysis showing the resulting effects of implementing the measures suggested as mitigation for these impacts, are fully discussed below, in Section 4.21.4, Mitigation of Potential Combined Impacts.

Parking. Nearly the entire Eastview Site would be unavailable for construction worker parking because of the concurrent construction of the UV Facility and the Croton project under 2008 Construction Option D conditions. As discussed in Section 3.9, Data Collection and Impact Methodologies, Traffic and Transportation, two off-site parking facilities have been identified for use by construction workers. One is at the Landmark property, which would be used for parking construction worker vehicles related to the Croton project's construction, the other is at the Home Depot off Dana Road that is currently under construction, and anticipated to be completed sometime in 2005. The Home Depot parking lot would be used to accommodate the construction worker vehicles from the proposed UV Facility construction, under Option D conditions. Rather than simply splitting the workers between the two sites, workers from the proposed UV Facility were assigned to the Home Depot site because the property owner indicated that it anticipates that the available parking would be just enough to accommodate the projected number of UV Facility construction worker vehicles, but would not be sufficient to accommodate the projected peak number of Croton project worker vehicles. Based on the transportation data and planning assumptions presented in Section 3.9, these off-site parking facilities would need to accommodate 400 construction worker vehicles from the UV Facility's construction (at Home Depot), as well as 543 worker vehicles related to the concurrent construction of the Croton project (at the Landmark property). It is anticipated that these off-site parking facilities would be able to accommodate these parked vehicles, therefore; no significant adverse parking impacts are anticipated to occur to the public and private parking facilities in the vicinity of the Eastview Site under 2008 Option D conditions.

Safety. The combined construction activities would increase the study area traffic volumes by 1 to 40 percent at key study area intersections during peak-hour operating conditions. This projected traffic growth can be anticipated to translate to between 1 and 15 additional accidents per year along the roadway corridors during the construction period. These additional accidents could be considered significant, depending on the intersection. However, with mitigation in place and a traffic management plan, the projected accident rate would likely be lower and not significant. See Section 4.21.4 for a description of the recommended traffic mitigation measures.

Transit. The combined construction of the proposed UV Facility and the Croton project under 2008 combined construction Option D conditions is not anticipated to generate any considerable transit ridership. In addition, because the Bee-Line Bus Facility generates very few trips during the combined peak construction hours, the construction of the proposed UV Facility and the Croton project is not anticipated to affect bus operations. Therefore, no significant adverse transit-related impacts would be anticipated to occur under 2008 Combined Construction Option D conditions.

Pavement Infrastructure. Under Option D, the potential combined effects on pavement infrastructure would be the same as those projected for Option A, discussed above. Comparing the predicted truck loads with the range of designed loads for arterial roadways, the anticipated loads generated from the combined construction of the proposed UV Facility and the Croton project would represent between 5.4 and 13.6 percent of the design load of an arterial roadway. However, this trucking activity would be temporary and would not constitute a significant adverse impact.

4.21.3.2. Air Quality

Mobile Sources. For the combined scenario, a mobile source air quality analysis was conducted for to assess the total impacts of the UV Facility and the Croton project being constructed simultaneously at the Eastview Site in the peak construction year 2008. Concentrations were determined for the 1-hour and 8-hour averaging times for CO. Concentrations were determined for the 24-hour and annual averaging times for PM_{10} and $PM_{2.5}$.

Carbon Monoxide. As indicated in Tables 4.21-13 to 4.21-16 the predicted concentrations of CO for the peak construction year 2008 for each separate parking option are below the corresponding ambient air quality standards. Both 1-hour and 8-hour averaging periods for each modeled intersection are in compliance with the standards.

TABLE 4.21-13. PREDICTED 1-HOUR AND 8-HOUR CO CONCENTRATIONS FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) LANDMARK PARKING (OPTION A)

Intersection	Averaging Period	Ambient AQ Background	Model Results		Total Predicted Conc.[a]		Air Quality Standard
			AM	PM	AM	PM	
Peak Year 2008							
Route 100C at Sprain Brook Parkway Interchange	1-hour	5.9	2.5	3.0	8.4	8.9	35
	8-hour	2.0	1.8	2.1	3.8	4.1	9
Route 100C at Clearbrook Rd/Walker Rd	1-hour	5.9	1.1	2.3	7.0	8.2	35
	8-hour	2.0	0.8	1.6	2.8	3.6	9
Route 100C at Bradhurst Avenue	1-hour	5.9	2.1	2.5	8.0	8.4	35
	8-hour	2.0	1.5	1.8	3.5	3.8	9
Rout 100C at Route 9A	1-hour	5.9	1.2	1.8	7.1	7.7	35
	8-hour	2.0	0.8	1.3	2.8	3.3	9

Notes: [a] Total Predicted Concentration = Ambient AQ Background + Model Results.

TABLE 4.21-14. PREDICTED 1-HOUR AND 8-HOUR CO CONCENTRATIONS FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) WCC PARKING (OPTION B)

Intersection	Averaging Period	Ambient AQ Background	Model Results		Total Predicted Conc.[a]		Air Quality Standard
			AM	PM	AM	PM	
Peak Year 2008							
Route 100C at Sprain Brook Parkway Interchange	1-hour	5.9	3.0	3.7	8.9	9.6	35
	8-hour	2.0	2.1	2.6	4.1	4.6	9
Route 100C at Clearbrook Rd/Walker Rd	1-hour	5.9	1.1	2.3	7.0	8.2	35
	8-hour	2.0	0.8	1.6	2.8	3.6	9
Route 100C at Bradhurst Avenue	1-hour	5.9	2.6	4.2	8.5	10.1	35
	8-hour	2.0	1.8	2.9	3.8	4.9	9
Route 100C at Route 9A	1-hour	5.9	0.9	1.2	6.8	7.1	35
	8-hour	2.0	0.6	0.8	2.6	2.8	9

Notes: [a] Total Predicted Concentration = Ambient AQ Background + Model Results.

TABLE 4.21-15. PREDICTED 1-HOUR AND 8-HOUR CO CONCENTRATIONS FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) WCC AND LANDMARK SPLIT PARKING (OPTION C)

Intersection	Averaging Period	Ambient AQ Background	Model Results		Total Predicted Conc.[a]		Air Quality Standard
			AM	PM	AM	PM	
Peak Year 2008							
Route 100C at Sprain Brook Parkway Interchange	1-hour	5.9	2.8	3.4	8.7	9.3	35
	8-hour	2.0	2.0	2.4	4.0	4.4	9
Route 100C at Clearbrook Rd/Walker Rd	1-hour	5.9	0.9	2.1	6.8	8.0	35
	8-hour	2.0	0.6	1.5	2.6	3.5	9
Route 100C at Bradhurst Avenue	1-hour	5.9	2.4	3.8	8.3	9.7	35
	8-hour	2.0	1.7	2.7	3.7	4.7	9
Rout 100C at Route 9A	1-hour	5.9	1.1	1.5	7.0	7.4	35
	8-hour	2.0	0.8	1.1	2.8	3.1	9

Notes: [a] Total Predicted Concentration = Ambient AQ Background + Model Results.

TABLE 4.21-16. PREDICTED 1-HOUR AND 8-HOUR CO CONCENTRATIONS FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) LANDMARK AND HOME DEPOT PARKING (OPTION D)

Intersection	Averaging Period	Ambient AQ Background	Model Results		Total Predicted Conc.[a]		Air Quality Standard
			AM	PM	AM	PM	
Peak Year 2008							
Route 100C at Sprain Brook Parkway Interchange	1-hour	5.9	2.5	3.0	8.4	8.9	35
	8-hour	2.0	1.8	2.1	3.8	4.1	9
Route 100C at Clearbrook Road/Walker Road	1-hour	5.9	1.1	2.0	7.0	7.9	35
	8-hour	2.0	0.8	1.4	2.8	3.4	9
Route 100C at Bradhurst Avenue	1-hour	5.9	2.1	2.5	8.0	8.4	35
	8-hour	2.0	1.5	1.8	3.5	3.8	9
Rout 100C at Route 9A	1-hour	5.9	1.1	1.5	7.0	7.4	35
	8-hour	2.0	0.8	1.1	2.8	3.1	9

Notes: [a] Total Predicted Concentration = Ambient AQ Background + Model Results.

In addition, the projected CEQR *de minimis* values were calculated for the 8-hour period as described in Section 3.10, Data Collection and Impact Methodologies, Air Quality. As indicated in Tables 4.21-17 to 4.21-20, the CEQR *de minimis* values for the 8-hour period for each separate parking option were not exceeded. The combined construction activity for the UV Facility and the Croton project at the Eastview Site would not result in significant CO impacts.

TABLE 4.21-17. 8-HOUR CO CONCENTRATIONS AND CEQR *DE MINIMIS* CRITERIA FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) LANDMARK PARKING (OPTION A)

Intersection	Averaging Period	No Build Conc.[a]		Build Conc.[a]		Proj. Increment[b]		*De minimis* Criteria[c]	
		AM	PM	AM	PM	AM	PM	AM	PM
Peak Traffic Year 2008									
Route 100C at Sprain Brook Parkway Interchange	8-hour	3.6	3.9	3.8	4.1	0.2	0.2	2.7	2.5
Route 100C at Clearbrook Rd/Walker Rd	8-hour	2.6	3.1	2.8	3.6	0.2	0.5	3.2	2.9

TABLE 4.21-17. 8-HOUR CO CONCENTRATIONS AND CEQR *DE MINIMIS* CRITERIA FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) LANDMARK PARKING (OPTION A)

		No Build Conc.[a]		Build Conc.[a]		Proj. Increment[b]		*De minimis* Criteria[c]	
Route 100C at Bradhurst Avenue	8-hour	3.5	3.7	3.5	3.8	0.0	0.1	2.7	2.6
Route 100C at Route 9A	8-hour	2.6	2.8	2.8	3.3	0.2	0.5	3.2	3.1

Notes:
[a] Includes Background. No build is without the UV Facility or Croton Project (i.e., Pure No build).
[b] The project increment is defined as the project build value minus the no build value. The project increment is below the *de minimis* criteria.
[c] See Section 3.10, Data Collection and Impact Methodologies, Air Quality, for details on how this value is calculated.

TABLE 4.21-18. 8-HOUR CO CONCENTRATIONS AND CEQR *DE MINIMIS* CRITERIA F FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) WCC PARKING (OPTION B)

Intersection	Averaging Period	No Build Conc.[a]		Build Conc.[a]		Proj. Increment[b]		*De minimis* Criteria[c]	
		AM	PM	AM	PM	AM	PM	AM	PM
Peak Traffic Year 2008									
Route 100C at Sprain Brook Parkway Interchange	8-hour	3.6	3.9	4.1	4.6	0.5	0.7	2.7	2.5
Route 100C at Clearbrook Road/Walker Road	8-hour	2.6	3.1	2.8	3.6	0.2	0.5	3.2	2.9
Route 100C at Bradhurst Avenue	8-hour	3.5	3.7	3.8	4.9	0.3	1.2	2.7	2.6
Route 100C at Route 9A	8-hour	2.6	2.8	2.6	2.8	0.0	0.0	3.2	3.1

Notes:
[a] Includes Background. No build is without the UV Facility or Croton Project (i.e., Pure No build).
[b] The project increment is defined as the project build value minus the no build value. The project increment is below the *de minimis* criteria.
[c] See Section 3.10, Data Collection and Impact Methodologies, Air Quality, for details on how this value is calculated.

TABLE 4.21-19. 8-HOUR CO CONCENTRATIONS AND CEQR *DE MINIMIS* CRITERIA FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) WCC AND LANDMARK SPLIT PARKING (OPTION C)

Intersection	Averaging Period	No Build Conc.[a]		Build Conc.[a]		Proj. Increment[b]		*De minimis* Criteria[c]	
		AM	PM	AM	PM	AM	PM	AM	PM
Peak Traffic Year 2008									
Route 100C at Sprain Brook Parkway Interchange	8-hour	3.6	3.9	4.0	4.4	0.4	0.5	2.7	2.5
Route 100C at Clearbrook Rd/Walker Rd	8-hour	2.6	3.1	2.6	3.5	0.0	0.4	3.2	2.9
Route 100C at Bradhurst Avenue	8-hour	3.5	3.7	3.7	4.7	0.2	1.0	2.7	2.6
Route 100C at Route 9A	8-hour	2.6	2.8	2.8	3.1	0.2	0.3	3.2	3.1

Notes:
[a] Includes Background. No build is without the UV Facility or Croton Project (i.e., Pure No build)
[b] The project increment is defined as the project build value minus the no build value. The project increment is below the *de minimis* criteria.
[c] See Section 3.10, Data Collection and Impact Methodologies, Air Quality, for details on how this value is calculated.

TABLE 4.21-20. 8-HOUR CO CONCENTRATIONS AND CEQR *DE MINIMIS* CRITERIA FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) LANDMARK AND HOME DEPOT PARKING (OPTION D)

Intersection	Averaging Period	No Build Conc.[a]		Build Conc.[a]		Proj. Increment[b]		*De minimis* Criteria[c]	
		AM	PM	AM	PM	AM	PM	AM	PM
Peak Traffic Year 2008									
Route 100C at Sprain Brook Parkway Interchange	8-hour	3.6	3.9	3.8	4.1	0.2	0.2	2.7	2.5
Route 100C at Clearbrook Rd/Walker Rd	8-hour	2.6	3.1	2.8	3.4	0.2	0.3	3.2	2.9
Route 100C at Bradhurst Avenue	8-hour	3.5	3.7	3.5	3.8	0.0	0.1	2.7	2.6
Route 100C at Route 9A	8-hour	2.6	2.8	2.8	3.1	0.2	0.3	3.2	3.1

TABLE 4.21-20. 8-HOUR CO CONCENTRATIONS AND CEQR *DE MINIMIS* CRITERIA FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT)
LANDMARK AND HOME DEPOT PARKING (OPTION D)

		No Build Conc.[a]	Build Conc.[a]	Proj. Increment[b]	*De minimis* Criteria[c]

Notes:
[a] Includes Background. No build is without the UV Facility or Croton Project (i.e., Pure No build)
[b] The project increment is defined as the project build value minus the no build value. The project increment is below the *de minimis* criteria.
[c] See Section 3.10, Data Collection and Impact Methodologies, Air Quality, for details on how this value is calculated.

Particulate Matter (PM_{10}). As indicated in Tables 4.21-21 to 4.21-24, the predicted concentrations of PM_{10}, for the combined construction activity in the year 2008 for each separate parking option, are below the corresponding ambient air quality standards. Both the 24-hour and annual averaging periods for each modeled intersection are in compliance with the standard. Therefore, there would be no significant PM_{10} impacts from the combined construction activity for the UV Facility and the Croton project at the Eastview Site.

TABLE 4.21-21. PREDICTED 24-HOUR AND ANNUAL PM_{10} CONCENTRATIONS FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) ($\mu g/m^3$)
LANDMARK PARKING (OPTION A)

Intersection	Averaging Period	Ambient AQ Background	Model Results	Total Predicted Conc.[1]	Air Quality Standard
Peak Traffic Year 2008					
Route 100C at Sprain Brook Parkway Interchange	24 hour	45	36	81	150
	Annual	21	13	34	50
Route 100C at Clearbrook Road/Walker Road	24 hour	45	33	78	150
	Annual	21	12	33	50
Route 100C at Bradhurst Avenue	24 hour	45	45	90	150
	Annual	21	14	35	50
Route 100C at Route 9A	24 hour	45	28	73	150
	Annual	21	10	31	50

Notes: [1] Total Predicted Concentration = Ambient AQ Background + Model Results.

TABLE 4.21-22. PREDICTED 24-HOUR AND ANNUAL PM_{10} CONCENTRATIONS FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) ($\mu g/m^3$)
WCC PARKING (OPTION B)

Intersection	Averaging Period	Ambient AQ Background	Model Results	Total Predicted Conc.[1]	Air Quality Standard
Peak Traffic Year 2008					
Route 100C at Sprain Brook Parkway Interchange	24 hour	45	36	81	150
	Annual	21	13	34	50
Route 100C at Clearbrook Rd/Walker Road	24 hour	45	33	78	150
	Annual	21	12	33	50
Route 100C at Bradhurst Avenue	24 hour	45	45	90	150
	Annual	21	15	36	50
Route 100C at Route 9A	24 hour	45	27	73	150
	Annual	21	9	31	50

Notes: [1] Total Predicted Concentration = Ambient AQ Background + Model Results.

TABLE 4.21-23. PREDICTED 24-HOUR AND ANNUAL PM_{10} CONCENTRATIONS I FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) ($\mu g/m^3$)
WCC AND LANDMARK SPLIT PARKING (OPTION C)

Intersection	Averaging Period	Ambient AQ Background	Model Results	Total Predicted Conc.[1]	Air Quality Standard
Peak Traffic Year 2008					
Route 100C at Sprain Brook Parkway Interchange	24 hour	45	36	81	150
	Annual	21	13	34	50
Route 100C at Clearbrook Rd/Walker Road	24 hour	45	33	78	150
	Annual	21	12	33	50
Route 100C at Bradhurst Avenue	24 hour	45	45	90	150
	Annual	21	14	35	50
Route 100C at Route 9A	24 hour	45	28	73	150
	Annual	21	10	31	50

Notes: [1] Total Predicted Concentration = Ambient AQ Background + Model Results.

TABLE 4.21-24. PREDICTED 24-HOUR AND ANNUAL PM_{10} CONCENTRATIONS FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) ($\mu g/m^3$)
LANDMARK AND HOME DEPOT PARKING (OPTION D)

Intersection	Averaging Period	Ambient AQ Background	Model Results	Total Predicted Conc.[1]	Air Quality Standard
Peak Traffic Year 2008					
Route 100C at Sprain Brook Parkway Interchange	24 hour	45	36	81	150
	Annual	21	13	34	50
Route 100C at Clearbrook Rd/Walker Road	24 hour	45	33	78	150
	Annual	21	12	33	50
Route 100C at Bradhurst Avenue	24 hour	45	45	90	150
	Annual	21	14	35	50
Route 100C at Route 9A	24 hour	45	28	73	150
	Annual	21	10	31	50

Notes: [1] Total Predicted Concentration = Ambient AQ Background + Model Results.

To estimate the annual neighborhood concentration, receptors were located at a distance of 15 meters (49 feet) from the roadways. The microscale analysis for 24-hour averaging periods was conducted with the same receptors used in the CO models.

Particulate Matter ($PM_{2.5}$). As indicated in Tables 4.21-25 to 4.21-28, the predicted concentrations of $PM_{2.5}$ for the combined construction activity in the year 2008 for each separate parking option are below the corresponding ambient air quality interim guidance levels. No significant impacts for $PM_{2.5}$ were predicted as a result of the combined construction activity of the UV Facility and the Croton project at Eastview.

TABLE 4.21-25. PREDICTED 24-HOUR AND ANNUAL $PM_{2.5}$ CONCENTRATIONS FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) ($\mu G/M^3$)
LANDMARK PARKING (OPTION A)

Intersection	Averaging Time	Predicted Conc.[1]		Project Increment[2]	Interim Guidance
		With Project	Without Project		
Peak Traffic Year 2008					
Grasslands Road (Rt. 100C) at Sprain Brook Parkway Interchange	24-hour	6.07	5.96	0.11	5
	Annual	0.29	0.28	0.01	0.1
Grasslands Road (Rt. 100C) at Clearbrook Rd/Walker Rd	24-hour	5.69	5.52	0.17	5
	Annual	0.22	0.22	0.00	0.1

TABLE 4.21-25. PREDICTED 24-HOUR AND ANNUAL $PM_{2.5}$ CONCENTRATIONS FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) ($\mu G/M^3$)
LANDMARK PARKING (OPTION A)

		Predicted Conc.[1]			
Grasslands Road (Rt. 100C) at Bradhurst Avenue	24-hour	7.74		0.07	5
	Annual	0.30		0.01	0.1
Grasslands Road (Rt. 100C) at Sawmill River Road (Rt. 9A)	24-hour	4.70	4.59	0.11	5
	Annual	0.18	0.17	0.01	0.1

Notes:
[1]Annual impacts are for neighborhood receptors.
[2] The increment was calculated by subtracting $PM_{2.5}$ concentrations for the Future Without the Project and without the Croton project from the $PM_{2.5}$ concentrations for the Future With the Project and with the Croton project.

TABLE 4.21-26. PREDICTED 24-HOUR AND ANNUAL $PM_{2.5}$ CONCENTRATIONS FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) ($\mu g/m^3$)
WCC PARKING (OPTION B)

Intersection	Averaging Time	Predicted Conc.[1]		Project Increment[2]	Interim Guidance
		With Project	Without Project		
Peak Traffic Year 2008					
Grasslands Road (Rt. 100C) at Sprain Brook Parkway Interchange	24-hour	6.07	5.96	0.11	5
	Annual	0.29	0.28	0.01	0.1
Grasslands Road (Rt. 100C) at Clearbrook Rd/Walker Rd	24-hour	5.62	5.52	0.10	5
	Annual	0.22	0.22	0.00	0.1
Grasslands Road (Rt. 100C) at Bradhurst Avenue	24-hour	7.87	7.67	0.20	5
	Annual	0.31	0.29	0.02	0.1
Grasslands Road (Rt. 100C) at Sawmill River Road (Rt. 9A)	24-hour	4.6	4.59	0.01	5
	Annual	017	0.17	0.0	0.1

Notes:
[1]Annual impacts are for neighborhood receptors.
[2] The increment was calculated by subtracting $PM_{2.5}$ concentrations for the Future Without the Project and without the Croton project from the $PM_{2.5}$ concentrations for the Future With the Project and with the Croton project.

TABLE 4.21-27. PREDICTED 24-HOUR AND ANNUAL $PM_{2.5}$ CONCENTRATIONS FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) ($\mu g/m^3$)
WCC AND LANDMARK SPLIT PARKING (OPTION C)

Intersection	Averaging Time	Predicted Conc.[1]		Project Increment[2]	Interim Guidance
		With Project	Without Project		
Peak Traffic Year 2008					
Grasslands Road (Rt. 100C) at Sprain Brook Parkway Interchange	24-hour	6.07	5.96	0.11	5
	Annual	0.29	0.28	0.01	0.1
Grasslands Road (Rt. 100C) at Clearbrook Rd/Walker Rd	24-hour	5.67	5.52	0.15	5
	Annual	0.23	0.22	0.01	0.1
Grasslands Road (Rt. 100C) at Bradhurst Avenue	24-hour	7.81	7.67	0.14	5
	Annual	0.30	0.29	0.01	0.1
Grasslands Road (Rt. 100C) at Sawmill River Road (Rt. 9A)	24-hour	4.67	4.59	0.08	5
	Annual	0.17	0.17	0.00	0.1

Notes:
[1]Annual impacts are for neighborhood receptors.
[2] The increment was calculated by subtracting $PM_{2.5}$ concentrations for the Future Without the Project and without the Croton project from the $PM_{2.5}$ concentrations for the Future With the Project and with the Croton project.

TABLE 4.21-28. PREDICTED 24-HOUR AND ANNUAL $PM_{2.5}$ CONCENTRATIONS FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) ($\mu g/m^3$)
LANDMARK AND HOME DEPOT SPLIT PARKING (OPTION D)

Intersection	Averaging Time	Predicted Conc.[1]		Project Increment[2]	Interim Guidance
		With Project	Without Project		
Peak Traffic Year 2008					
Grasslands Road (Rt. 100C) at Sprain Brook Parkway Interchange	24-hour	6.07	5.96	0.11	5
	Annual	0.29	0.28	0.01	0.1
Grasslands Road (Rt. 100C) at Clearbrook Rd/Walker Rd	24-hour	5.66	5.52	0.14	5
	Annual	0.22	0.22	0.00	0.1
Grasslands Road (Rt. 100C) at Bradhurst Avenue	24-hour	7.74	7.67	0.07	5
	Annual	0.30	0.29	0.01	0.1
Grasslands Road (Rt. 100C) at Sawmill River Road (Rt. 9A)	24-hour	4.66	4.59	0.07	5
	Annual	0.17	0.17	0.00	0.1

TABLE 4.21-28. PREDICTED 24-HOUR AND ANNUAL $PM_{2.5}$ CONCENTRATIONS FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) ($\mu g/m^3$)
LANDMARK AND HOME DEPOT SPLIT PARKING (OPTION D)

Intersection	Averaging Time	Predicted Conc.[1]		Project Increment[2]	Interim Guidance
		With Project	Without Project		
Peak Traffic Year 2008					

Notes:
[1]Annual impacts are for neighborhood receptors.
[2] The increment was calculated by subtracting $PM_{2.5}$ concentrations for the Future Without the Project and without the Croton project from the $PM_{2.5}$ concentrations for the Future With the Project and with the Croton project.

Construction Equipment Sources.

The source descriptions and emission rates are the same as those described in Section 4.10, Air Quality, for each source included in the individual construction analyses for the Croton project and proposed UV Facility. The sources were combined into a single multiple source modeling scenario and the results are presented below in Tables 4.21-29 and 4.21-30.

TABLE 4.21-29. UV FACILITY: RESULTS OF DISPERSION ANALYSIS FOR CONSTRUCTION ACTIVITIES – WITH CROTON PROJECT

Modeled Pollutant	Averaging Period	Units	Maximum Predicted Conc.		Background Conc. $\mu g/m^3$	Total Concentration		Ambient Air Quality Standards
			All Modeled Receptors[a]	All Sensitive Receptors		All Modeled Receptors[a]	All Sensitive Receptors	
NO_2	Annual	$\mu g/m^3$	5.26	4.60	58	63.3	62.6	100
SO_2	3-Hour	$\mu g/m^3$	0.53	0.45	183	183.5	183.5	1,300
	24-Hour	$\mu g/m^3$	0.13	0.08	120	12.8	120	365
	Annual	$\mu g/m^3$	0.01	0.007	26	2.6	26	80
CO	1-Hour	$\mu g/m^3$	931	615	6,858	7,789	7,473	40,000
	8-Hour	$\mu g/m^3$	239	162	4,572	4,811	4,734	10,000
PM_{10}	24-Hour	$\mu g/m^3$	31.4	20.9	45	76	66	150
	Annual	$\mu g/m^3$	2.08	1.11	21	23	22	50

Notes: [a] Includes fenceline receptors. NO_X emissions are based on a NO_2 to NO_X ratio of 59%.

As indicated in Table 4.21-30, the maximum predicted concentrations (including background) of each criteria pollutant for each averaging period are below the corresponding air quality standards. No significant impacts from the concurrent construction of the UV Facility and Croton project at the Eastview Site were predicted for these criteria pollutants.

TABLE 4.21-30. UV FACILITY: PREDICTED $PM_{2.5}$ CONCENTRATIONS WITH CROTON

Modeled Pollutant	Averaging Period	Units	Maximum Predicted Concentration		Interim Guidance
			All Modeled Receptors[a]	All Sensitive Receptors	
$PM_{2.5}$	24-Hours	$\mu g/m^3$	9.74	6.45	5[b]
	Annual (Discrete)	$\mu g/m^3$	0.49	0.41	0.3[b]
	Annual (Neighborhood)	$\mu g/m^3$	0.08	N/A	0.1[c]

Notes: [a] Includes fenceline receptors.
[b] Values for a discrete location.
[c] Values for a neighborhood analysis.

The NAAQS for $PM_{2.5}$ is not presented in Table 5.11-30. This is because the New York State Department of Environmental Conservation (NYCDEC) and the U.S. Environmental Protection Agency (USEPA) have not made compliance determinations with respect to the NAAQS for $PM_{2.5}$. However, NYCDEP is employing interim guidance criteria for evaluating the significance of potential $PM_{2.5}$ concentrations from NYCDEP projects under environmental review. The interim guidance criteria for determining the potential for significant adverse impacts from $PM_{2.5}$ are as follows:

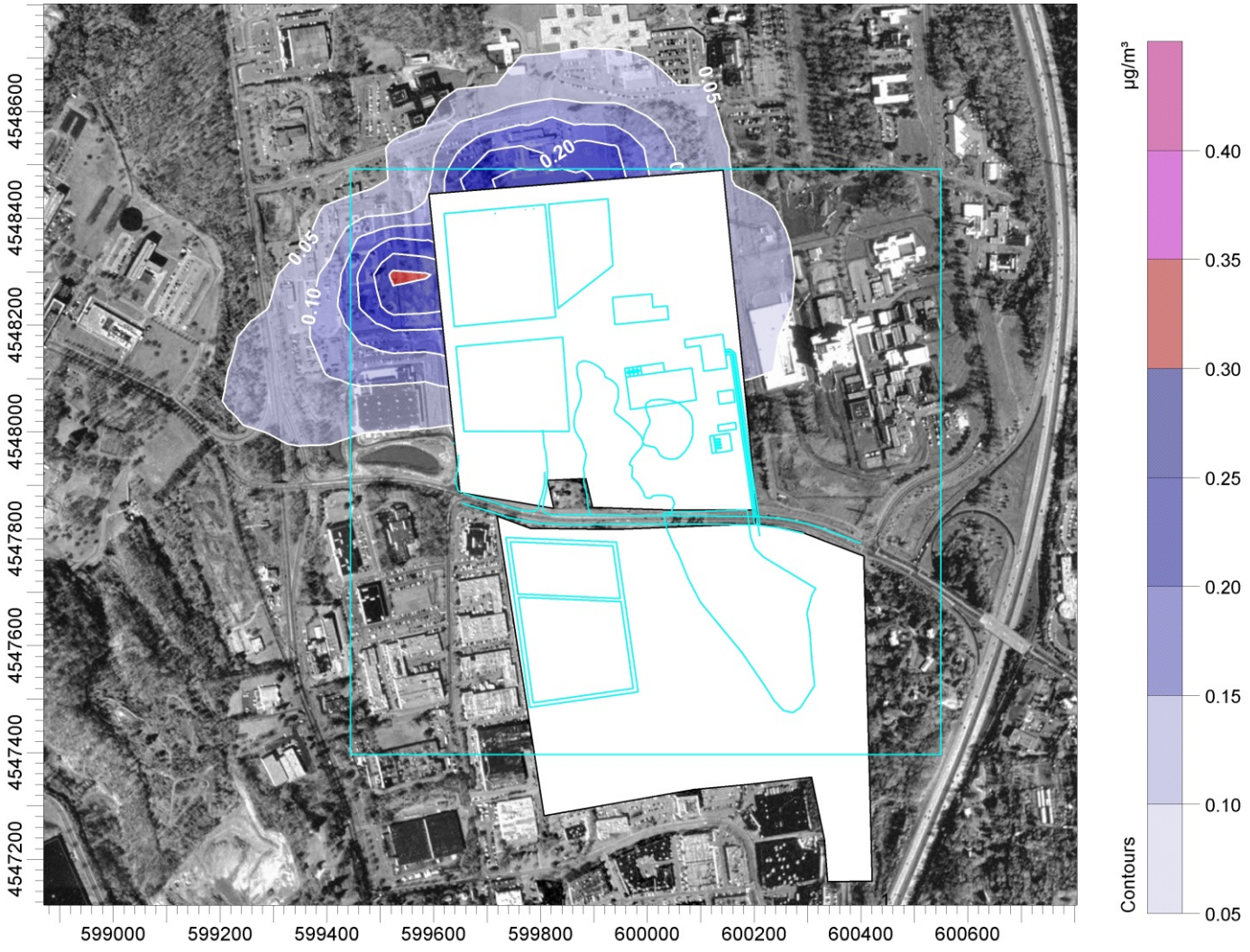
- Predicted incremental impacts of $PM_{2.5}$ greater than 5 µg/m3 averaged over a 24-hour (daily) period at a discrete location of public access, either at ground or elevated levels (microscale analysis); or
- Predicted incremental ground-level impacts of $PM_{2.5}$ greater than 0.1 µg/m3 on an annual average neighborhood-scale basis (i.e., the computed annual concentration averaged over receptors placed over a one kilometer by one kilometer grid, centered around the location where the maximum impact is predicted).
- In addition, NYSDEC consider incremental impacts of $PM_{2.5}$ greater than 0.3 µg/m3 from stationary sources at any discrete ground-level or elevated locations as having potential for a significant impact.

The air quality modeling analysis determined the highest predicted increase in the 24-hour $PM_{2.5}$ concentrations to be 6.45 $\mu g/m^3$ at the Westchester County Department of Laboratories and Research building (County Laboratory). The highest predicted annual increase was equal to 0.41$\mu g/m^3$. These predicted concentrations would exceed the maximum 24-hour and the maximum annual impact thresholds. The annual predicted incremental impact of $PM_{2.5}$ is 0.08 $\mu g/m^3$ for the neighborhood scale analysis, which is less than the NYCDEP interim guidance of 0.1 $\mu g/m^3$.

While the highest predicted increase of $PM_{2.5}$ concentration at the County Laboratory is slightly greater than the interim guidance criteria for maximum 24-hour and annual values, the effect of the construction levels off quickly with the distance, as shown in Figures 4.21-24A and 24B, the isopleths of the construction impacts. For example, the effect of combined construction at the

Juvenile Detention Center, located north of the County Laboratory, would fall below the threshold values of 5.0 ug/m^3 and 0.3ug/m^3 for 24-hour and annual periods, respectively.

In addition, the maximum 24-hour $PM_{2.5}$ concentration from construction of the UV Facility and the Croton project was based on the month when the construction emissions are anticipated to be highest of the entire construction period. Furthermore, conservative assumptions, such as assuming only 50 percent efficiency for hourly watering of the interior roads, were applied to the analysis. The actual increase in $PM_{2.5}$ concentration is anticipated to be lower than the predicted values. In addition, NYCDEP would consider using all the practicable emission control measures/best available technology (BAT) at the site.



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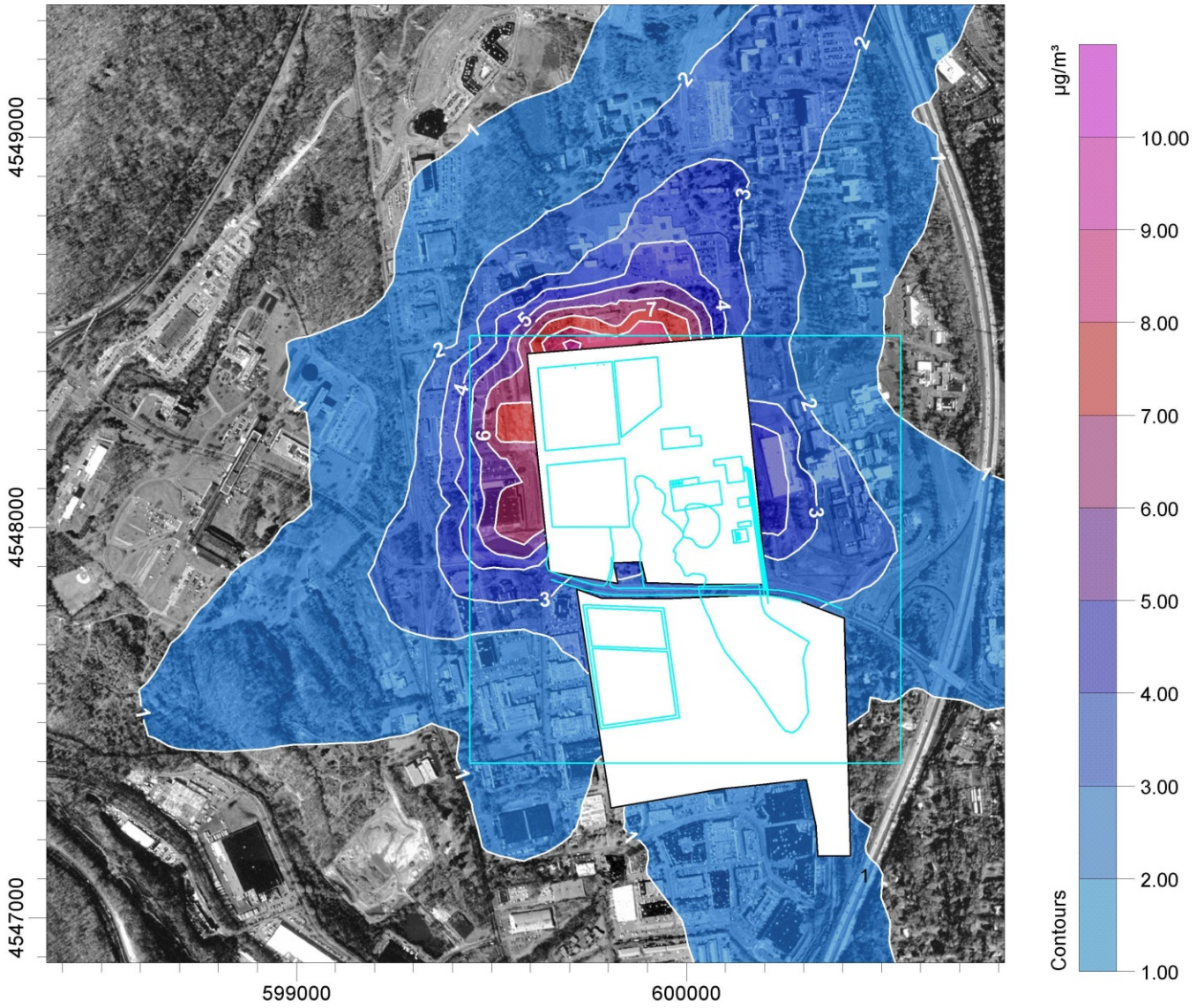
Isopleths of the Incremental PM*2.5* Combined Concentrations from On Site Construction - Annual

Catskill/Delaware UV Facility

Figure 4.21-24A



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Isopleths of the Incremental PM*2.5* Combined Concentrations from On Site Construction - 24 Hours

Catskill/Delaware UV Facility

Figure 4.21-24B

4.21.3.3. Noise

This section examines the potential construction impacts on the noise-sensitive receptors resulting from combined construction-induced noise generated by both the proposed UV Facility and the Croton project at the Eastview Site. The combined noise effects during construction of the proposed UV Facility and the Croton project were calculated using the methodologies described in Section 3.11, Data Collection and Impact Methodologies, Noise. Both a mobile source noise analysis (2008) and a stationary source noise analysis (2006) were performed.

The future without the construction of either the proposed UV Facility or the Croton project referred to in this section are those that have been fully examined and presented in Section 4.11, Noise. This "baseline" condition evaluates the combined project-related impacts for the 2008 construction analysis year.

4.21.3.3.1. Mobile Sources (2008)

A preliminary noise screening using passenger car equivalent (PCE) values was performed to determine whether receptors located near the identified noise-sensitive route segments would experience an increase in noise levels of 3 decibels (dBA) or more as a result of the additional vehicular traffic generated by the project. The preliminary noise screening was performed by comparing the existing PCEs with existing PCEs plus the addition of the future project-generated PCEs with the UV Facility and Croton project. The two time periods representing the largest increase in future PCEs resulting from the proposed construction activities were used for the comparative analysis. The anticipated construction-related peak mobile source year (2008) was selected for the construction analysis.

The roadways considered for the mobile source noise analysis at the Eastview Site are the eleven route segments presented in Section 4.11, Noise. The roadways considered for analysis were those local routes identified as possible transportation routes that connect the major thoroughfares to the UV Facility and Croton project sites where sensitive receptors along the proposed transportation routes were identified.

Tables 4.21-31 through 4.21-34, respectively, present the comparison of future PCEs from the proposed UV Facility and Croton project to existing PCEs along route segments for construction with the four different construction worker parking Options which are as follows:

Option A: All of the construction workers for both the UV Facility and the Croton project would park at the Landmark property, west of the project site, and would be shuttled to the construction site in buses or vans.

Option B: All of the construction workers for both the UV Facility and the Croton project would park at the WCC Campus, east of the project site, and would be shuttled to the construction site in buses or vans.

Option C: Parking for all the construction workers for both the UV Facility and the Croton project would be split evenly between the Landmark property and WCC, and would be shuttled to the construction site in buses or vans.

Option D: Construction workers for the Croton project would park at the Landmark property, and construction workers for the UV Facility would park at the Home Depot, and both would be shuttled to the construction site in buses or vans.

As shown in Tables 4.21-31 through 4.21-34, none of the noise-sensitive route segments would experience a doubling of PCEs from the combined construction activity of the proposed UV Facility and Croton project. It was concluded that the noise-sensitive route segments in the vicinity of the project site for the four parking options would not exceed the 3 to 5 dBA impact threshold established in the *CEQR Technical Manual*. Therefore, noise-sensitive route segments associated with the Eastview Site were not examined further.

TABLE 4.21-31. COMPARISON OF ANTICIPATED FUTURE PCES WITH THE UV FACILITY AND CROTON PROJECT DURING CONSTRUCTION (2008) TO FUTURE PCES WITHOUT THE PROJECTS (CONSTRUCTION WORKER PARKING OPTION A)

	Route Segment	Period of Analysis (Weekday)	Pure No Build (without Croton) PCEs	Time	New Passenger Car (Croton)	New Trucks (Croton)	New Shuttle Buses (Croton)	New Passenger Car (CatDel)	New Trucks (CatDel)	New Shuttle Buses (CatDel)	New PCEs	PCE Ratio	Incremental Change in dBA	Further Analysis Performed?
1	Saw Mill River Road btw Tarrytown Rd & I-287	AM Peak	4428	6:30-7:30	43	9	2	29	9	2	981	1.22	0.87	No
		PM Peak	5863	3:30-4:30	54	9	2	36	9	2	999	1.17	0.68	No
2	Saw Mill River Rd. btw Hunter Ln and Grasslands Rd.	AM Peak	6541	6:30-7:30	46	0	0	31	0	0	77	1.01	0.05	No
		PM Peak	6061	3:30-4:30	2	0	0	2	0	0	4	1.00	0.00	No
3	Knollwood Rd btw Tarrytown Rd and I287	AM Peak	2392	6:30-7:30	5	2	0	3	2	0	196	1.08	0.34	No
		PM Peak	2622	3:30-4:30	3	3	1	4	2	0	251	1.10	0.40	No
4	Knollwood Rd. btw I-287 and Hevelyne Rd	AM Peak	1022	6:30-7:30	5	5	0	3	5	0	478	1.47	1.67	No
		PM Peak	1155	3:30-4:30	5	5	0	3	5	0	478	1.41	1.50	No
5	Knollwood Rd. btw Hevelyne rd. and Grasslands Rd.	AM Peak	1249	6:30-7:30	5	5	0	3	5	0	478	1.38	1.41	No
		PM Peak	896	3:30-4:30	5	5	0	3	5	0	478	1.53	1.86	No
6	Bradhurst btw Grasslands and Lakeview	AM Peak	1197	6:30-7:30	0	0	0	0	0	0	0	1.00	0.00	No
		PM Peak	1171	3:30-4:30	0	0	0	0	0	0	0	1.00	0.00	No
7	Grasslands Rd. btw Bradhurst and Sprain Brook Pkwy	AM Peak	2904	6:30-7:30	16	5	0	11	5	0	497	1.17	0.69	No
		PM Peak	2451	3:30-4:30	16	5	0	11	5	0	497	1.20	0.80	No
8	Grasslands Rd. btw Sprain Brook Pkwy and Walker Road	AM Peak	2399	6:30-7:30	309	0	0	204	0	0	513	1.21	0.84	No
		PM Peak	2422	3:30-4:30	309	0	0	204	0	0	513	1.21	0.83	No
9	Saw Mill River rd. btw Dana Rd. and Stevens Ave	AM Peak	7473	6:30-7:30	33	5	6	21	5	4	686	1.09	0.38	No
		PM Peak	6075	3:30-4:30	33	5	6	21	5	4	686	1.11	0.46	No
10	Saw Mill River Rd. bw Stevens Ave. and Saw Mill River Pkwy	AM Peak	8852	6:30-7:30	33	5	6	21	5	4	686	1.08	0.32	No
		PM Peak	5702	3:30-4:30	33	5	6	21	5	4	686	1.12	0.49	No
11	Dana Rd./Cottage Rd btw Saw Mill River Rd and Penitentiary Rd.	AM Peak	536	6:30-7:30	0	0	0	0	0	0	0	1.00	0.00	No
		PM Peak	558	3:30-4:30	0	0	0	0	0	0	0	1.00	0.00	No

Notes:

New PCEs = (no. of cars + no. of trucks(47)+ no. of buses(18))

PCE ratio = (Existing PCEs + Project generated PCEs) / Existing PCEs

Incremental change in dBA = 10 log (PCE ratio)

TABLE 4.21-32. COMPARISON OF ANTICIPATED FUTURE PCES WITH THE UV FACILITY AND CROTON PROJECT DURING CONSTRUCTION (2008) TO FUTURE PCES WITHOUT THE PROJECTS (CONSTRUCTION WORKER PARKING OPTION B)

	Route Segment	Period of Analysis (Weekday)	Pure No Build (without Croton) PCEs	Time	New Passenger Car (Croton)	New Trucks (Croton)	New Shuttle Buses (Croton)	New Passenger Car (CatDel)	New Trucks (CatDel)	New Shuttle Buses (CatDel)	New PCEs	PCE Ratio	Incremental Change in dBA	Further Analysis Performed?
1	Saw Mill River Road btw Tarrytown Rd & I-287	AM Peak	4428	6:30-7:30	43	9	2	29	9	2	981	1.22	0.87	No
		PM Peak	5863	3:30-4:30	54	9	0	36	9	0	936	1.16	0.64	No
2	Saw Mill River Rd. btw Hunter Ln and Grasslands Rd.	AM Peak	6541	6:30-7:30	88	0	0	58	0	0	146	1.02	0.10	No
		PM Peak	6061	3:30-4:30	5	0	0	3	0	0	8	1.00	0.01	No
3	Knollwood Rd btw Tarrytown Rd and I287	AM Peak	2392	6:30-7:30	5	2	0	3	2	0	196	1.08	0.34	No
		PM Peak	2622	3:30-4:30	6	2	0	4	2	0	198	1.08	0.32	No
4	Knollwood Rd. btw I-287 and Hevelyne Rd	AM Peak	1022	6:30-7:30	5	5	0	3	5	0	478	1.47	1.67	No
		PM Peak	1155	3:30-4:30	5	5	0	3	5	0	478	1.41	1.50	No
5	Knollwood Rd. btw Hevelyne rd. and Grasslands Rd.	AM Peak	1249	6:30-7:30	5	5	0	3	5	0	478	1.38	1.41	No
		PM Peak	896	3:30-4:30	5	5	0	3	5	0	478	1.53	1.86	No
6	Bradhurst btw Grasslands and Lakeview	AM Peak	1197	6:30-7:30	0	0	0	0	0	0	0	1.00	0.00	No
		PM Peak	1171	3:30-4:30	0	0	0	0	0	0	0	1.00	0.00	No
7	Grasslands Rd. btw Bradhurst and Sprain Brook Pkwy	AM Peak	2904	6:30-7:30	429	5	11	283	5	7	1506	1.52	1.81	No
		PM Peak	2451	3:30-4:30	428	5	11	283	5	7	1505	1.61	2.08	No
8	Grasslands Rd. btw Sprain Brook Pkwy and Walker Road	AM Peak	2399	6:30-7:30	223	0	11	146	0	7	693	1.29	1.10	No
		PM Peak	2422	3:30-4:30	223	0	11	146	0	7	693	1.29	1.09	No
9	Saw Mill River rd. btw Dana Rd. and Stevens Ave	AM Peak	7473	6:30-7:30	33	5	6	21	5	4	686	1.09	0.38	No
		PM Peak	6075	3:30-4:30	33	5	0	21	5	0	524	1.09	0.36	No
10	Saw Mill River Rd. bw Stevens Ave. and Saw Mill River Pkwy	AM Peak	8852	6:30-7:30	33	5	6	21	5	4	686	1.08	0.32	No
		PM Peak	5702	3:30-4:30	33	5	0	21	5	0	524	1.09	0.38	No
11	Dana Rd./Cottage Rd btw Saw Mill River Rd and Penitentiary Rd.	AM Peak	536	6:30-7:30	0	0	0	0	0	0	0	1.00	0.00	No
		PM Peak	558	3:30-4:30	0	0	0	0	0	0	0	1.00	0.00	No

Notes:

New PCEs = (no. of cars + no. of trucks(47)+ no. of buses(18))

PCE ratio = (Existing PCEs + Project generated PCEs) / Existing PCEs

Incremental change in dBA = 10 log (PCE ratio)

TABLE 4.21-33. COMPARISON OF ANTICIPATED FUTURE PCES WITH THE UV FACILITY AND CROTON PROJECT DURING CONSTRUCTION (2008) TO FUTURE PCES WITHOUT THE PROJECTS (CONSTRUCTION WORKER PARKING OPTION C)

	Route Segment	Period of Analysis (Weekday)	Pure No Build (without Croton) PCEs	Time	New Passenger Car (Croton)	New Trucks (Croton)	New Shuttle Buses (Croton)	New Passenger Car (CatDel)	New Trucks (CatDel)	New Shuttle Buses (CatDel)	New PCEs	PCE Ratio	Incremental Change in dBA	Further Analysis Performed?
1	Saw Mill River Road btw Tarrytown Rd & I-287	AM Peak	4428	6:30-7:30	46	9	3	28	9	1	992	1.22	0.88	No
		PM Peak	5863	3:30-4:30	52	9	2	36	9	1	970	1.17	0.66	No
2	Saw Mill River Rd. btw Hunter Ln and Grasslands Rd.	AM Peak	6541	6:30-7:30	67	0	0	44	0	0	111	1.02	0.07	No
		PM Peak	6061	3:30-4:30	3	0	0	3	0	0	6	1.00	0.00	No
3	Knollwood Rd btw Tarrytown Rd and I287	AM Peak	2392	6:30-7:30	6	2	0	4	2	0	198	1.08	0.35	No
		PM Peak	2622	3:30-4:30	4	2	0	4	2	0	196	1.07	0.31	No
4	Knollwood Rd. btw I-287 and Hevelyne Rd	AM Peak	1022	6:30-7:30	6	5	0	4	5	0	480	1.47	1.67	No
		PM Peak	1155	3:30-4:30	6	5	0	4	5	0	480	1.42	1.51	No
5	Knollwood Rd. btw Hevelyne rd. and Grasslands Rd.	AM Peak	1249	6:30-7:30	6	5	0	4	5	0	480	1.38	1.41	No
		PM Peak	896	3:30-4:30	6	5	0	4	5	0	480	1.54	1.86	No
6	Bradhurst btw Grasslands and Lakeview	AM Peak	1197	6:30-7:30	0	0	0	0	0	0	0	1.00	0.00	No
		PM Peak	1171	3:30-4:30	0	0	0	0	0	0	0	1.00	0.00	No
7	Grasslands Rd. btw Bradhurst and Sprain Brook Pkwy	AM Peak	2904	6:30-7:30	222	5	6	146	5	4	1000	1.34	1.29	No
		PM Peak	2451	3:30-4:30	223	5	6	152	3	4	889.5	1.36	1.34	No
8	Grasslands Rd. btw Sprain Brook Pkwy and Walker Road	AM Peak	2399	6:30-7:30	266	0	6	166	0	4	594	1.25	0.96	No
		PM Peak	2422	3:30-4:30	267	0	6	176	0	4	605	1.25	0.97	No
9	Saw Mill River rd. btw Dana Rd. and Stevens Ave	AM Peak	7473	6:30-7:30	32	5	5	22	5	4	686	1.09	0.38	No
		PM Peak	6075	3:30-4:30	32	5	3	22	5	2	605	1.10	0.41	No
10	Saw Mill River Rd. bw Stevens Ave. and Saw Mill River Pkwy	AM Peak	8852	6:30-7:30	32	5	5	22	5	4	686	1.08	0.32	No
		PM Peak	5702	3:30-4:30	32	5	3	22	5	2	605	1.11	0.44	No
11	Dana Rd./Cottage Rd btw Saw Mill River Rd and Penitentiary Rd.	AM Peak	536	6:30-7:30	0	0	0	0	0	0	0	1.00	0.00	No
		PM Peak	558	3:30-4:30	0	0	0	0	0	0	0	1.00	0.00	No

Notes:

New PCEs = (no. of cars + no. of trucks(47)+ no. of buses(18))

PCE ratio = (Existing PCEs + Project generated PCEs) / Existing PCEs

Incremental change in dBA = 10 log (PCE ratio)

TABLE 4.21-34. COMPARISON OF ANTICIPATED FUTURE PCES WITH THE UV FACILITY AND CROTON PROJECT DURING CONSTRUCTION (2008) TO FUTURE PCES WITHOUT THE PROJECTS (CONSTRUCTION WORKER PARKING OPTION D)

	Route Segment	Period of Analysis (Weekday)	Pure No Build (without Croton) PCEs	Time	New Passenger Car (Croton)	New Trucks (Croton)	New Shuttle Buses (Croton)	New Passenger Car (CatDel)	New Trucks (CatDel)	New Shuttle Buses (CatDel)	New PCEs	PCE Ratio	Incremental Change in dBA	Further Analysis Performed?
1	Saw Mill River Road btw Tarrytown Rd & I-287	AM Peak	4428	6:30-7:30	43	9	2	29	9	2	981	1.22	0.87	No
		PM Peak	5863	3:30-4:30	54	9	2	36	9	2	999	1.17	0.68	No
2	Saw Mill River Rd. btw Hunter Ln and Grasslands Rd.	AM Peak	6541	6:30-7:30	46	0	0	0	0	0	46	1.01	0.03	No
		PM Peak	6061	3:30-4:30	2	0	0	0	0	0	2	1.00	0.00	No
3	Knollwood Rd btw Tarrytown Rd and I287	AM Peak	2392	6:30-7:30	5	2	0	3	2	0	196	1.08	0.34	No
		PM Peak	2622	3:30-4:30	3	3	1	4	2	0	251	1.10	0.40	No
4	Knollwood Rd. btw I-287 and Hevelyne Rd	AM Peak	1022	6:30-7:30	5	5	0	3	5	0	478	1.47	1.67	No
		PM Peak	1155	3:30-4:30	5	5	0	3	5	0	478	1.41	1.50	No
5	Knollwood Rd. btw Hevelyne rd. and Grasslands Rd.	AM Peak	1249	6:30-7:30	5	5	0	3	5	0	478	1.38	1.41	No
		PM Peak	896	3:30-4:30	5	5	0	3	5	0	478	1.53	1.86	No
6	Bradhurst btw Grasslands and Lakeview	AM Peak	1197	6:30-7:30	0	0	0	0	0	0	0	1.00	0.00	No
		PM Peak	1171	3:30-4:30	0	0	0	0	0	0	0	1.00	0.00	No
7	Grasslands Rd. btw Bradhurst and Sprain Brook Pkwy	AM Peak	2904	6:30-7:30	16	5	0	11	5	0	497	1.17	0.69	No
		PM Peak	2451	3:30-4:30	16	5	0	11	5	0	497	1.20	0.80	No
8	Grasslands Rd. btw Sprain Brook Pkwy and Walker Road	AM Peak	2399	6:30-7:30	309	0	0	204	0	0	513	1.21	0.84	No
		PM Peak	2422	3:30-4:30	309	0	0	204	0	0	513	1.21	0.83	No
9	Saw Mill River rd. btw Dana Rd. and Stevens Ave	AM Peak	7473	6:30-7:30	33	5	6	1	5	4	666	1.09	0.37	No
		PM Peak	6075	3:30-4:30	33	5	6	20	5	4	685	1.11	0.46	No
10	Saw Mill River Rd. bw Stevens Ave. and Saw Mill River Pkwy	AM Peak	8852	6:30-7:30	33	5	6	21	5	4	686	1.08	0.32	No
		PM Peak	5702	3:30-4:30	33	5	6	21	5	4	686	1.12	0.49	No
11	Dana Rd./Cottage Rd btw Saw Mill River Rd and Penitentiary Rd.	AM Peak	536	6:30-7:30	0	0	0	0	0	0	0	1.00	0.00	No
		PM Peak	558	3:30-4:30	0	0	0	0	0	0	0	1.00	0.00	No

Notes:

New PCEs = (no. of cars + no. of trucks(47)+ no. of buses(18))

PCE ratio = (Existing PCEs + Project generated PCEs) / Existing PCEs

Incremental change in dBA = 10 log (PCE ratio)

4.21.3.3.2. Stationary Source Noise (2006)

The construction-induced noise at Receptors EV-S5 (eastern edge of south parcel) and EV-S6 (Taylor Road residence no. 29) would be primarily a function of construction-induced noise resulting from the proposed UV Facility as opposed to the Croton project since the receptors are in close proximity to the UV Facility's construction activity zone. Therefore, the monthly total noise levels at Receptors EV-S5 and EV-S6 would remain the same as described in Section 4.11, Noise. Predicted noise levels were calculated by the noise prediction algorithms at each identified sensitive receptor for the full duration of the construction phase for both projects. The predicted noise levels at each receptor are summarized in Table 4.21-35.

An analysis was performed to determine the total distance beyond each receptor that noise levels exceeding the 3 to 5 dBA threshold would extend. This was performed to determine the distance that these unacceptable noise level increases would extend and to what extent local noise-sensitive receptors would be affected.

Noise levels that exceed the 3 to 5 dBA threshold would extend from the north end of the site to a maximum distance of approximately 3,800 feet to the north of the County Laboratory, and extend approximately 1,425 feet to the east of the County Penitentiary. The noise levels that exceed the 3 to 5 dBA threshold would extend approximately 1,225 feet to the south of the Hammond House. At receptors EV-S5 and EV-S6, the dominant noise source would be the UV Facility construction noise; therefore, refer to Section 4.11, for a discussion of the lateral extents at these receptors.

The noise levels at receptor EV-S1 (County Laboratory) would exceed the 3 to 5 dBA threshold for the entire time period the UV Facility and Croton project are under construction. At receptor EV-S2 (Penitentiary), the duration of the noise level exceedances would occur through the construction periods of the UV Facility and Croton project together, with the exception of August 2006. At receptor EV-S3 (Hammond House), the noise level exceedances would occur throughout the duration of construction activities, with the exception of August and September of 2009. The noise levels at receptor EV-S4 (Juvenile Detention Center) would exceed the 3 to 5 dBA threshold from September 2005 through July 2006, and sporadically from November 2006 through June 2008. Duration of exceedances at receptors EV-S5 and EV-S6 are discussed in Section 4.11, Noise.

TABLE 4.21-35. MAXIMUM NOISE LEVELS FROM COMBINED CONSTRUCTION ACTIVITIES (UV FACILITY AND CROTON PROJECT) AT RECEPTORS NEAR EASTVIEW SITE WITHOUT MITIGATION (L_{eq}, dBA)

Proximate Receptor	Monitoring Period	Future Without Projects Noise Level (2006)	Predicted Construction Noise Level (Croton Project) (2005)	Predicted Construction Noise Level (UV Facility) (2006)	Total Noise Level During Construction[1] (2006)	Incremental Change	Impact Threshold	Exceed Threshold? (Y/N)
EV-S1	Quietest (2-3 pm)	52.8	77.4	69.3	78.1	25.3	5.0	Yes
	Noisiest (1-2 pm)	57.5	77.4	69.3	78.1	20.6	5.0	Yes
EV-S2	Quietest (2-3 pm)	56.3	76.8	64.9	78.0	21.7	5.0	Yes
	Noisiest (1-2 pm)	56.6	76.8	64.9	78.0	21.4	5.0	Yes
EV-S3	Quietest (2-3 pm)	54.6	61.6	63.9	66.4	11.8	5.0	Yes
	Noisiest (1-2 pm)	56.2	61.6	63.9	66.6	10.4	5.0	Yes
EV-S4	Quietest (2-3 pm)	56.7	67.5	60.0	68.8	12.1	5.0	Yes
	Noisiest (1-2 pm)	58.7	67.5	60.0	69.0	10.3	5.0	Yes
EV-S5[2]	Quietest (11-12 pm)	52.8	NA	59.4	60.3	7.5	5.0	Yes
	Noisiest (7-8 am)	58.2	NA	59.4	61.9	3.7	5.0	No
EV-S6[2]	Quietest (7-8 am)	59.0	NA	51.0	59.6	0.6	5.0	No
	Noisiest (3-4 pm)	62.1	NA	51.0	62.4	0.3	3.0	No

Notes:
[1]Total Noise Level During Construction based on logarithmic addition of Future Baseline (without UV Facility or Croton project) and Predicted Construction Noise Levels for UV Facility and Croton project. Note, predicted construction noise levels for Croton project peak construction year (2005) used.
[2]Predicted construction noise levels for Croton project not available. Predicted UV Facility noise levels shown above.

Noise levels due to construction activities are predicted to violate the Town of Mount Pleasant noise ordinance that governs daytime construction activities toward the north construction boundary limit, as shown in Table 4.21-36. During the 7:00 AM – 8:00 AM time period, construction activities are predicted to violate the nighttime noise limits for residential zones established by the Town of Mount Pleasant toward the north, south and east construction boundary limits. The predicted L_{10} construction-induced noise levels were calculated by the noise prediction algorithms in Section 3.11, Data Collection and Impact Methodologies, Noise. Measures to ensure compliance with Town of Mount Pleasant code under this scenario could include installing temporary noise barriers, fitting air compressors and cranes with silencers, or employing walled enclosures around noisy construction activities.

TABLE 4.21-36. MAXIMUM NOISE LEVELS FROM COMBINED CONSTRUCTION ACTIVITIES (UV FACILITY AND CROTON PROJECT) AT RECEPTORS NEAR EASTVIEW SITE WITHOUT MITIGATION COMPARED TO MOUNT PLEASANT CODE (L_{10}, dBA)

Proximate Receptor	Monitoring Period	Future Without Projects Noise Level [1] (2006)	Total Noise Level During Construction (2006)	Mount Pleasant Code (measured 400 ft. from construction site)[2]	Code Compliance
North	7-8 am[3]	58.0	73.2	55.0	Exceeds
	Noisiest[4] (1-2 pm)	60.2	73.5	70.0	Exceeds
South	7-8 am	57.2	68.2	55.0	Exceeds
	Noisiest (1-2 pm)	56.0	65.5	70.0	Meets
East	7-8 am	57.6	68.7	55.0	Exceeds
	Noisiest (1-2 pm)	57.2	68.1	70.0	Meets
West	7-8 am	53.4	71.4	80.0	Meets
	Noisiest (1-2 pm)	56.2	69.6	75.0	Meets

Notes:
[1]Total Noise Level During Construction based on logarithmic addition of Future Baseline (without UV Facility or Croton project) and Predicted Construction Noise Levels for UV Facility and Croton project. Note, predicted construction noise levels for Croton project peak construction year (2005) used.
[2]Maximum allowable noise levels based on land use.
[3]Measured L_{eq} noise levels during 2-3 pm time period used for early morning time periods.
[4]Noisiest time periods based on measured L_{eq} noise levels.

4.21.3.4. Natural Resources

If both the Croton project and the proposed UV Facility are constructed on the Eastview Site, the combined effects of both these projects would result in the clearing of a substantial portion of the north parcel. A total of approximately 61 acres of vegetation would be cleared from the north parcel as a result of the introduction of these NYCDEP projects. Approximately 18.0 acres of the Eastview Site would be developed with buildings, roadways, and other impervious features that represent the footprint of the permanent proposed structures of the two projects (Table 4.21-37). Approximately 24.8 acres surrounding the proposed buildings for the

permanent proposed structures would be maintained meadow or landscaped area. These disturbances would also constitute a permanent loss of the existing on-site vegetation. Should the two projects occur on the Eastview Site, loss of habitat is likely to decrease due to shared resources between the two facilities. Approximately seven acres of the existing successional old field habitat in the north parcel would be revegetated with a shrubland/grassland community which would represent an improvement in habitat quality.

TABLE 4.21-37. HABITAT COVER TYPE CHANGE AT MOUNT PLEASANT WITH UV FACILITY + CROTON PROJECT

Cover Type (acres)	Existing Area Future	Without the Project	Future With the Project	UV + Croton Induced Impacts	New York State Natural Heritage Program Cover Type Categories		
					System	Subsystem	Community Type
Floodplain Forest Wetland	4.8	4.8	*3.5*	*-1.3 (27.1%)*	Palustrine	Forested Mineral Soil Wetland	Floodplain Forest
Red Maple Hardwood Swamp	4.2	4.2	*4.2*	*0.00*	Palustrine	Forested Mineral Soil Wetland	Red Maple Hardwood Swamp
Shrub Swamp	2.7	2.7	*0.9*	*-1.9 (70.4%)*	Palustrine	Open Mineral Soil Wetland	Shrub Swamp
Reedgrass/Purple Loosestrife Marsh	0.4	0.4	*0.4*	*0.0*	Palustrine	Palustrine Cultural	Reedgrass Marsh
Oak-Tulip Tree Forest	8.3	8.3	*4.3*	*-4.0 (53.0%)*	Terrestrial	Forested Upland	Oak-Tulip Tree Forest
Successional Southern Hardwood Forest	20.8	20.8	*0.5*	*-20.3 (97.6%)*	Terrestrial	Forested Uplands	Successional Southern Hardwoods
Successional Shrubland	32.2	31.4	*2.9*	*-28.5 (88.5%)*	Terrestrial	Open Uplands	Successional Shrubland
Successional Old Field	7.7	5.8	*1.1*	*-4.7 (61.0%)*	Terrestrial	Open Uplands	Successional Old Field
Cultural Trees	0.7	0.7	*0.0*	*-0.7 (100%)*	Terrestrial	Terrestrial Cultural	Planted Shade Trees
Detention Basin	0.00	0.00	*1.3*	*1.3*	Terrestrial	Palustrine Cultural	Water Recharge Basin
Landscaped/Lawn Area	0.4	1.5	*26.3*	*24.8*	Terrestrial	Terrestrial Cultural	Mowed Lawn with Trees
Roads, Parking, Buildings	1.1	2.7	20.7	18.0	Terrestrial	Terrestrial Cultural	Mixed Community Types

TABLE 4.21-37. HABITAT COVER TYPE CHANGE AT MOUNT PLEASANT WITH UV FACILITY + CROTON PROJECT

Cover Type (acres)	Existing Area Future	Without the Project	Future With the Project	UV + Croton Induced Impacts	New York State Natural Heritage Program Cover Type Categories		
					System	Subsystem	Community Type
Shrubland/Grassland Restoration	0.00	0.00	*5.5*	*5.5*	Terrestrial	Open Uplands	Successional Old Field
Naturalized Meadow Grass	0.0	0.0	*9.8*	*9.8*	Terrestrial	Terrestrial Cultural	Mixed Community Types
Wildflower Areas	0.0	0.0	*0.3*	*0.3*			
Wetland Enhancement/Creation	0.0	0.0	1.7	1.7	Palustrine	Forested Mineral Soil Wetland	Floodplain Forest
TOTAL	83.3	83.3	83.3	0.0	--	--	--
Stream Length (feet)	2,345	2,345	2,345	0.0	Riverine	Natural	Perennial Stream
50-foot Wetland Buffer	11.4	11.4	6.1	-5.3	NA	NA	NA

Note: Future Without the Project acreage includes cover type changes associated with the Police Precinct project.

A treated water conveyance connecting the UV Facility to the Catskill Aqueduct would be constructed from the proposed UV Facility on the north parcel to the existing Catskill Connection Chamber (CCC) on the south parcel east of Mine Brook. A potential pressurized raw water conveyance could also be constructed connecting the Catskill Aqueduct to the proposed UV Facility. Impacts associated with the treated water conveyance route to the Catskill Aqueduct and the potential pressurized raw water conveyance have been assessed separately. A raw water bypass line could also be constructed within the footprint of the potential pressurized raw water conveyance. No additional impacts are anticipated with the potential bypass line. The construction of these conveyances would result in the clearing of approximately 5 acres of vegetation on the south parcel.

4.21.3.4.1. Vegetation

A total of 1,949 trees greater than 4 inch dbh would be cut on the north parcel under the combined scenario. Of the trees to be cut, 1,222 trees are greater than six inches dbh (the size regulated by the Town of Mount Pleasant). Trees immediately adjacent to the construction impact area, although not proposed for removal, may be threatened by construction activity, for example from compacted soils, so their survival is uncertain. A total of 387 trees greater than 4 inch dbh in the north parcel are threatened. Of the trees threatened, 274trees are greater than six inches dbh.

A total of 688 trees greater than 4 inches dbh would be cut on the south parcel under the combined scenario. Of the trees to be cut, 494 trees are greater than six inches dbh (the size regulated by the Town of Greenburgh). Trees immediately adjacent to the construction impact area, although not proposed for removal, may be threatened by construction activity, for example from compacted soils, so their survival is uncertain. A total of 278 trees greater than 4 inch dbh in the south parcel are threatened. Of the trees threatened, 201trees are greater than six inches dbh.

Six additional trees would be cut in the south parcel as a result of the replacement of the culvert that carries flow from Mine Brook under Route 100C, three of which have dbh's greater than six inches. Six trees would be threatened in the culvert replacement work area, four of which have dbh's greater than six inches.

Permanent vegetative impacts to the north and south parcels would be limited to the buildings, roadways, storage areas, the stormwater detention basins, the security and parking areas associated with the Croton and UV Facility, and the conveyance right-of-ways. Most of the potential impacts on the site would be located within successional shrubland, successional southern hardwood forest, and oak-tulip tree forest. The loss of trees and habitat that is anticipated under the combined scenario would be a significant impact that would be mitigated through off-site reforestation (see Section 6, Mitigation of Potential Significant or Temporary Adverse Impacts).

4.21.3.4.2. Wetlands

The Croton project and proposed UV Facility buildings and construction staging areas would encroach into several of the wetland areas previously identified on the north parcel. The anticipated direct disturbance of on-site wetlands in the north parcel would be approximately 2.1 acres. It is anticipated that an additional 1.1 acres of floodplain forest wetland immediately north and west of the UV Facility would be indirectly impacted by groundwater dewatering operations (see below and Section 4.15, Water Resources for a discussion of impacts from groundwater dewatering). Therefore, the total direct and indirect disturbance of on-site wetlands in the north parcel would be approximately 3.2 acres.

The proposed UV Facility would result in the direct disturbance of an additional 0.01 acres of forested floodplain would be lost from the replacement of the culvert under Route 100C.

In order to compensate for the 3.2 acres project related wetland impacts, 7.8 acres of wetland enhancement/creation would be undertaken on-site with native vegetation to compensate for the functions and values of the wetlands lost (see Section 6, Mitigation of Potential Significant or Temporary Adverse Impacts).

4.21.3.4.3. Fish and Benthic Macroinvertebrates

A road crossing of Mine Brook is necessary to connect the UV Facility with other project components during construction and operation. The proposed UV Facility project would temporarily convey an approximately 50-foot section of Mine Brook through culverts during construction to allow for the installation of a permanent bridge and underground utility conduits. The Croton Project would temporarily convey an additional 50-foot section of Mine Brook through culverts during construction to allow for the installation of underground water conduits. Although piping of the stream would result in a temporary adverse impact to flora and fauna that might utilize this section of the channel, it would protect the water quality of the stream from any potential contaminants eroding from the construction area into the surface water. Following construction, the affected stream channel would be re-engineered to create a natural stream morphology complete with riffle and pool dynamics and wetland terraces, thereby attenuating stream velocities and improving water quality.

The proposed project would temporarily convey a section of Mine Brook through culverts during construction to allow for the rebuilding of the current culvert under Route 100C. This section of Mine Brook is currently characterized as a culvert; therefore, no significant impacts are anticipated from this temporary construction work.

4.21.3.4.4. Reptiles and Amphibians

The loss of the forest and wetland habitat under the combined scenario could displace some of the local herpetile community (salamanders, green frogs, and garter snakes) but would not represent a potentially significant adverse impact to regional populations. The surrounding wetlands, upland forest, and running water through the remainder of the site could provide habitat to support viable communities of herpetile species. In addition, the planned on -site

wetland enhancement/creation to mitigate for the loss of shrub and forested wetland would provide additional criteria needed for the regional herpetile community (see Section 6, Mitigation of Potential Significant or Temporary Adverse Impacts).

4.21.3.4.5. Avifauna

No long-term significant adverse impacts to the avifauna of the Eastview Site are anticipated to occur from the proposed UV Facility and Croton project. Any potential impacts are anticipated to be short-term and primarily related to the construction phases of the project. The location of the site, near the Hudson and Saw Mill Rivers, may place the property on the fringe of a migratory corridor for migrating passerines (perching birds). All of the migrant species observed during the field surveys (eastern phoebe, red-eyed vireo, cedar waxwing, and black-and-white warbler) are common and anticipated in the region. It is anticipated that the vegetative communities that would remain on-site during operation would continue to provide adequate habitat for migrating passerines that may use the site.

4.21.3.4.6. Mammals

The change to existing habitats on the Eastview Site resulting from construction of the NYCDEP projects would decrease the amount of food and shelter for many species such as gray squirrel, chipmunk, groundhog, coyote, red fox, and white-tailed deer. Species requiring forested habitat would probably relocate to within the remaining oak-tulip tree forest and floodplain/red maple hardwood swamp forested wetlands in the northeast portion of the north parcel and to the south parcel within the oak-tulip tree forest, floodplain forest wetland, and successional southern hardwood forest. However, most of the species found on the site can utilize both forested and shrub/field habitats. While a portion of the local wildlife population may be displaced or lost due to a reduction in habitat, no long-term significant adverse impacts to regional wildlife populations are anticipated. The local wildlife community could also experience a decrease in diversity as well due to the loss of habitat. Regional extirpation would not occur as a result of the proposed facilities because the lost habitat is common in a regional context.

4.21.4. Mitigation of Potential Combined Impacts

4.21.4.1. Traffic and Transportation

Mitigation analyses have been prepared to develop measures that would restore traffic conditions (lane group and/or approach delays and LOS) to FNB levels or better. Where it has not been possible to identify measures that would return service conditions to FNB levels, when those levels were better than mid-point LOS D (delays of 45 seconds or less for signalized intersections and delays of 30 seconds or less for unsignalized intersections), measures have been identified that would result in at least a mitigation condition of mid-LOS D.

The following text describes recommended mitigation measures for the combined impacts of the proposed UV Facility and the Croton project, for both the 2010 Build (operational) condition potential significant adverse traffic impacts, and the 2008 Construction conditions (Options A, B,

C, and D) potential significant adverse impacts, for each of these types of impacts for the relevant project scenarios.

4.21.4.1.1. 2010 Combined Project Impacts and Mitigation

The combined operation of the UV Facility and the Croton project would result in four potential significant adverse impacts (two during the AM peak hour and two during the PM peak hour) as compared to the "pure" 2010 No Build condition that includes neither project. These locations could be fully mitigated as shown in Table 4.21-38 and as described below.

The tables showing the results of applying the mitigation measures also indicate the specific measures recommended for each location. For many of the locations, more than one measure was identified that could be implemented that would reduce delays back to or below FNB conditions. The assessment presented here relies on a combination of new traffic signals and traffic signal retiming or phasing changes as the recommended measures. Once the UV Facility and Croton project are built and operational, the various agencies responsible for maintaining traffic flow and roadways in the study area would conduct field inspections of the operations of the various intersections to determine if the proposed mitigation measures are actually warranted (particularly because traffic from anticipated No Build projects or background growth may be less than analyzed in this report).

With respect to proposed signal re-timings or re-phasings, many of the traffic signals at the intersections included in the analyses (and at locations where signal timing improvements are suggested under "mitigation") have "actuated" signals. Instead of computing the re-optimization of the signal via the actuation process (which is a typical analysis approach for projects undertaking comparable studies in Westchester County), the NYCDEP applied a rigorous methodology that did not take benefit of the natural, re-optimizing of the signal in the "With the Project" scenarios, and only demonstrated such benefits in the mitigation section.

For locations where the installation of a new traffic signal has been recommended as a mitigation measure, if requested by the agency(s) with jurisdiction over the particular intersection roadways involved, formal Signal Warrant Studies would be performed and submitted for review by the appropriate agency; in most cases NYSDOT.

All of the mitigation measures suggested below would serve to eliminate or reduce the predicted temporary adverse construction impacts of the proposed project. If the mitigation identified is not applied, the predicted temporary adverse construction traffic impacts identified would remain unmitigated. In the absence of implementing the mitigation measures proposed below, NYCDEP would consider other traffic management techniques, if approved by the governing roadway entity, to offset these temporary adverse impacts, and ensure the smooth and safe operation of traffic.

Saw Mill River Road (Route 9A) and Ramada Inn/Broadway Plaza.

During the PM peak hour, the eastbound through movement would continue to operate at LOS F with a 5.5-second increase in delay. The installation of a traffic signal at this location

would fully mitigate this impact such that the eastbound through movement would improve to LOS C with 20.9 seconds of delay. All other movements and approaches at this location would also operate at LOS C or better.

It should be noted that the traffic analyses conducted for this area indicate that conditions at this location are already operating unacceptably during the PM peak hour under existing conditions, and are anticipated to deteriorate further in the future, even without the additional traffic from the proposed UV Facility and Croton project. Therefore, the installation of a traffic signal at this intersection may be warranted even without the proposed UV Facility and Croton project, to improve the operation of this intersection.

Although a significant impact was not identified for this location during the AM peak hour, an analysis was conducted to determine the effects of a new traffic signal. As shown in Table 4.21-38, the operation of the eastbound approach would improve from LOS E to LOS C as would the westbound left/through lane group. The northbound approach would improve from LOS B to LOS A and the southbound approach would continue to operate at LOS A. Although there would be an increase in delay for the westbound through/right lane group, this movement would operate at LOS C, which is considered reasonable for this location.

While an MPT solution may be more suitable at this location, compared to the installation of a signal due to the short-term nature of these peak construction activities, NYCDEP would propose a traffic signal to be installed at this location before peak construction worker activities occur in 2008. NYCDEP would submit the proposed traffic signal plan to the appropriate agency for approval. The approving agency may determine that an MPT is more suited for this location.

Saw Mill River Road (Route 9A) and Grasslands Road (Route 100C).

During the AM peak hour, the northbound left-turn would continue to operate at LOS F with an increase in delay of 6.5 seconds. During the PM peak hour, the northbound left-turn would continue to operate at LOS F, with delays increased to beyond 240.0 seconds. This location could be fully mitigated with the installation of a traffic signal. As a result of this mitigation, all movements and intersection approaches would operate at LOS C or better compared to FNB conditions, in both the AM and PM peak hours.

It should be noted that the traffic analyses conducted for this area indicate that conditions at this location are already operating unacceptably under existing conditions, and are anticipated to deteriorate further in the future, even without the addition traffic from the proposed UV Facility and Croton project. Therefore, the installation of a traffic signal at this intersection may be warranted even without the proposed UV Facility and Croton project, to improve the operation of this intersection.

NYCDEP would propose for a traffic signal to be installed at this location before operations start in 2010. Additional discussions would be held with NYSDOT to determine the suitability of a new signal at this location in order to coordinate the new signal with the long-term traffic management efforts/plans for this corridor.

TABLE 4.21-38. PURE NO BUILD VS. CROTON + CAT DEL LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2010 NO BUILD, OPERATION AND MITIGATION CONDITIONS

Intersection	No.	Approach	Lane Group	2010 Pure No Build v/c Ratio	Delay (sec)	LOS	2010 Combined v/c Ratio	Delay (sec)	LOS	2010 Mitigation Lane Group	v/c Ratio	Delay (sec)	LOS	FEIS Mitigation Measures (1)
AM Peak Hour														
Saw Mill River Road (Rt.9A) @	17	Northbound	L	0.10	10.2	B	0.10	10.2	B	L	0.20	4.1	A	Propose to be signalized (no impact).
Ramada Inn/Broadway Plaza										TR	0.32	4.3	A	MPT Plan may be more suited.
		Southbound	LT	0.01	9.0	A	0.01	9.0	A	LTR	0.39	4.6	A	
		Eastbound	L	0.02	36.0	E	0.02	37.1	E	L	0.01	20.9	C	
			T	0.02	42.9	E	0.02	44.6	E	T	0.01	20.9	C	
		Westbound	LT	0.12	38.9	E	0.12	40.6	E	Def	0.06	21.2	C	
			TR	0.01	10.9	B	0.01	11.0	B	TR	0.03	21.0	C	
		Int.		Unsignalized			Unsignalized					4.7	A	
Saw Mill River Road @	19A	Northbound	L	1.00	152.7	F	1.02	159.2 +	F	L	0.37	30.4	C	This intersection meets the volume warrants for a
Grasslands Road (Rt.100C)			R	0.24	18.6	C	0.24	18.9	C	R	0.22	29.0	C	traffic signal, even under existing conditions. If a
		Eastbound								T	0.77	13.4	B	new signal is proposed, formal signal Warrant
										R	0.21	5.9	A	studies will be completed and NYCDEP will
		Westbound	L	0.17	12.2	B	0.17	12.2	B	L	0.33	7.1	A	work with NYSDOT.
										T	0.27	6.2	A	
		Int.		Unsignalized			Unsignalized					12.7	B	
Grassland Road (Rt.100C) @	27	Eastbound	L	0.09	14.8	B	0.11	14.9	B	L	0.11	16.0	B	Signal Retiming: Shift 2 seconds of green time
Sprain Brook Pkwy NB Ramp	30		T	0.51	18.2	B	0.51	18.2	B	T	0.53	19.6	B	from eastbound and westbound phase to
		Westbound	TR	0.48	24.8	C	0.48	24.8	C	TR	0.51	26.4	C	northbound phase. NYSDOT will determine if
		Northbound	LT	1.03	76.4	E	1.07	89.0 +	F	LT	1.03	72.7	E	retiming is necessary after construction of the
			R	1.05	84.7	F	1.05	84.7	F	R	1.01	69.9	E	UV Facility begins.
		Int.			48.2	D		51.4	D			45.0	D	
PM Peak Hour														
Saw Mill River Road (Rt.9A) @	17	Northbound	L	0.17	10.8	B	0.17	10.9	B	L	0.36	5.0	A	Propose to be signalized.
Ramada Inn/Broadway Plaza										TR	0.40	4.7	A	MPT Plan may be more suited.
		Southbound	LT	0.01	9.6	A	0.01	9.6	A	LTR	0.45	4.9	A	
		Eastbound	L	0.01	59.5	F	0.02	61.2	F	L	0.00	20.9	C	
			T	0.12	102.0	F	0.13	107.5 +	F	T	0.02	20.9	C	
		Westbound	LT	0.14	69.1	F	0.14	71.4	F	LTR	0.04	21.0	C	
			TR	0.03	18.7	C	0.03	19.1	C					
		Int.		Unsignalized			Unsignalized					5.0	A	
Saw Mill River Road @	19A	Northbound	L	1.31	**	F	1.35	** +	F	L	0.35	30.1	C	This intersection meets the volume warrants for a
Grasslands Road (Rt.100C)			R	0.30	16.5	C	0.30	16.6	C	R	0.35	30.1	C	traffic signal, even under existing conditions. If a
		Eastbound								T	0.60	9.2	A	new signal is proposed, formal signal Warrant
										R	0.20	5.9	A	studies will be completed and NYCDEP will
		Westbound	L	0.19	11.6	B	0.19	11.6	B	L	0.37	7.3	A	work with NYSDOT.
										T	0.55	8.5	A	
		Int.		Unsignalized			Unsignalized					11.2	B	

Notes:

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts.

" ** " indicates a calculated delay greater than 240 seconds.

(1) FEIS Mitigation derived based on meetings with Review Agencies (e.g., NYSDOT, Westchester County DPW, and Town Representatives).

Grasslands Road (Route 100C) and Sprain Brook Parkway Northbound Ramp.

The northbound left/through movement would deteriorate from LOS E with 75.4 seconds of delay, to LOS F with 89.0 seconds of delay, during the AM peak hour. The transfer of 2 seconds of green time from the east-west signal phase to the northbound phase would fully mitigate this impact. As a result, the northbound left-turn and through movement would improve to LOS E (delay 72.7 seconds) as would the northbound right-turn (delay 69.9 seconds). All of the other movements at this location would continue to operate at LOS C or better.

NYSDOT would determine if retiming is necessary after construction of the UV Facility begins and implement accordingly.

4.21.4.1.2. 2008 Combined Construction Impacts and Mitigation

As mentioned previously, four different construction worker parking Options (A, B, C, and D) have been considered. This is because with the Croton project and the proposed UV Facility under construction at the Eastview Site concurrently, there would not be enough space on-site for all of the workers for both projects to park, as most of the available land area would either be under construction, or in use as construction lay-down or staging areas. These construction worker parking Options have been selected for analysis purposes, as representative of the types of routings that worker vehicles would use for off-site parking. As described in the traffic analyses (Section 4.9, Traffic and Transportation) each of the four construction worker parking Options also included an additional assignment for shuttle buses that would transport the workers between the Eastview Site and the off-site parking areas. The four construction worker parking Options that were analyzed are described below:

- *Option A:* All of the construction workers for both the UV Facility and the Croton project would park at the Landmark property, west of the project site, and would be shuttled to the site in buses or vans.

- *Option B:* All of the construction workers for both the UV Facility and the Croton project would park at the WCC Campus, east of the project site, and would be shuttled to the site in buses or vans.

- *Option C:* Parking for all of the construction workers for both the UV Facility and the Croton project would be split evenly between the Landmark property and WCC, and would be shuttled to the site in buses or vans.

- *Option D:* All of the construction workers for the Croton project would park at the Landmark property, west of the project site, and all of the construction workers for the UV Facility would park at the new Home Depot off Dana Road, just northwest of the project site. Rather than simply splitting the workers between the two sites, workers from the UV Facility were assigned to the Home Depot site because the property owner indicated that it anticipates that available parking would be just enough to accommodate the projected number of UV Facility construction worker vehicles, but would not be sufficient to accommodate the projected number of Croton project worker vehicles. All

workers for either project would be shuttled to the site from their respective parking areas in buses or vans.

It is important to note that these 2008 Construction (Options A through D) conditions reflect the maximum number of worker trips that would be anticipated at the peak of the concurrent construction of the proposed UV Facility and the Croton project, which is anticipated to occur for approximately 16 months (from the end of 2007 through the beginning of 2009). During other times during the 5-year construction period, the numbers of total workers traveling to and from the Eastview Site would be substantially lower than for peak conditions in 2008. During these times with fewer workers, the impacts would be less than those discussed below, and would be likely to occur at locations similar to conditions outlined for Option A, because the workers would be able to park right at the Eastview Site, and the routing of those trips would be very similar to the routing examined for Option A.

With respect to proposed signal re-timings or re-phasings, many of the traffic signals at the intersection included in the analyses (and at locations where signal timing improvements are suggested under mitigation) have "actuated" signals. Instead of computing the re-optimization of the signal via the actuation process (which is a typical analysis approach for projects undertaking comparable studies in Westchester County), the NYCDEP applied a rigorous methodology that did not take benefit of the natural, re-optimizing of the signal in the potential construction and operation impacts for the combined conditions presented above, and only demonstrated such benefits in the mitigation section.

For each of the 2008 combined construction (Options A through D) conditions discussed below, there are a number of locations where the installation of a new traffic signal has been recommended as a mitigation measure. For these locations, , if requested by the agency(s) with jurisdiction over the particular intersection roadways involved, formal Signal Warrant Studies would be performed and submitted for review by the appropriate agency; in most cases NYSDOT.

All of the mitigation measures suggested below for 2008 Combined Construction Conditions (Options A through D) would serve to eliminate the potential significant adverse construction period impacts of the combined projects. If the mitigation identified is not applied, the predicted significant adverse construction-related traffic impacts identified would remain unmitigated. In the absence of implementing the mitigation measures proposed below, NYCDEP would consider other traffic management techniques, if approved by the governing roadway entity, to offset these temporary adverse impacts, and ensure the smooth and safe operation of traffic.

2008 Combined Construction Option A Conditions.

Under the scenario, which compares a "pure" 2008 FNB condition to a 2008 Construction condition that includes both the UV Facility and the Croton project under parking Option A, it was found that traffic from the additional construction vehicle trips would be anticipated to result in 31 potential significant adverse traffic impacts, 10 during the AM peak hour and 21 during the PM peak hour. These potential significant adverse impacts could be fully mitigated as shown in Table 4.21-39 and as described below.

The tables showing the results of applying the mitigation measures also indicate the specific measures recommended for each location. For many of the locations, more than one measure was identified that could be implemented that would reduce delays back to or below FNB conditions. The assessment presented here relies mostly on a combination of new traffic signals, lane stripping changes, and traffic signal retiming or phasing changes as the recommended measures. However, some of the measures that were investigated were more extraordinary, involving additional lane construction or street widening, to give a complete range of potential measures that could eliminate impacts.

Saw Mill River Road (Route 9A) and Saw Mill River Parkway Ramp. During the PM peak hour, the southbound through/right movement would deteriorate from LOS D with 54.3 seconds of delay to LOS E with 58.5 seconds of delay. This impact would be fully mitigated by shifting 1 second of green time from the eastbound signal phase to the north-south phase. As a result of this mitigation, this movement would improve to LOS D compared to FNB conditions, with 47.6 seconds of delay, and the remaining vehicle movements would operate at their 2008 FNB condition LOS, with no significant changes in average vehicle delay.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Knollwood Road (Route 100A) and Cross Westchester Expressway (I-287) Westbound Ramp. During the PM peak hour, the northbound left-turn movement would deteriorate from LOS D with 52.6 seconds of delay to LOS E with 58.2 seconds of delay. This impact would be mitigated with the transfer of 1 second of green time from the westbound signal phase to the northbound, leading phase. As a result of this mitigation, the northbound left-turn would improve to LOS D compared to FNB conditions, with 47.6 seconds of delay. The other vehicle movements would continue to operate at or better than their 2008 FNB condition LOS.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

TABLE 4.21-39. PURE NO BUILD VS. CROTON + CAT DEL, PARKING AT THE LANDMARK LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD, CONSTRUCTION (OPTION A) AND MITIGATION CONDITIONS

			AM Peak Hour												
			2008 Pure No Build				2008 Combined				2008 Mitigation				
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	FEIS Mitigation Measures (1)
Grasslands Road (E-W) @	6	Eastbound	L	0.71	36.6	D	0.75	39.9	D	L	0.66	33.4	C	Add protected left-turn phase, signal retiming, and westbound lane restriping from exclusive left turn lane to shared left-turn through lane.
Bradhurst Avenue			T	1.03	75.1	E	1.03	75.5	E	T	1.03	75.5	E	
			R	0.35	16.3	B	0.36	16.5	B	R	0.36	16.5	B	
		Westbound	L	0.68	56.6	E	0.68	56.6	E	LTR	0.49	26.7	C	
			TR	0.43	25.8	C	0.45	26.2	C					
		Northbound	L	0.23	23.3	C	0.26	23.9	C	L	0.26	23.9	C	
			TR	0.34	25.9	C	0.34	25.9	C	TR	0.34	25.9	C	
		Southbound	L	0.50	40.1	D	0.50	40.1	D	L	0.50	40.1	D	
			TR	0.68	49.7	D	0.68	49.7	D	TR	0.68	49.7	D	
		Int.			45.2	D		45.2	D			44.2	D	
Saw Mill River Road (Rt.9A) @	15	Eastbound	L	0.97	66.8	E	1.12	113.5 +	F	L	0.96	58.4	E	New timing plan: Reduce cycle length from 120 to 110 seconds, as of eastbound leading(23s), eastbound/westbound(50s), northbound leading(9s), and northbound/southbound(28s). NYSDOT will determine if retiming is necessary after construction of the UV Facility begins.
Tarrytown/White Plains Road (Rt.119)			TR	0.38	14.5	B	0.38	14.5	B	TR	0.35	10.4	B	
		Westbound	L	0.17	22.3	C	0.17	22.3	C	L	0.17	21.1	C	
			TR	0.30	23.5	C	0.31	23.6	C	TR	0.32	22.2	C	
		Northbound	L	0.38	34.2	C	0.39	34.4	C	L	0.39	31.1	C	
			TR	0.62	40.3	D	0.72	44.9	D	TR	0.70	40.0	D	
		Southbound	L	0.24	33.9	C	0.29	36.6	D	L	0.43	39.5	D	
			T	0.42	34.9	C	0.44	35.3	D	T	0.62	43.3	D	
			R	0.23	22.1	C	0.24	22.2	C	R	0.25	20.9	C	
		Int.			31.8	C		42.3	D			30.3	C	
Saw Mill River Road (Rt.9A) @	17	Northbound	L	0.09	10.0	A	0.20	11.0	B	L	0.42	5.4	A	Propose to be signalized. MPT Plan may be more suited.
Ramada Inn/Broadway Plaza										TR	0.34	4.4	A	
		Southbound	LT	0.01	8.7	A	0.01	9.1	A	LTR	0.39	4.7	A	
		Eastbound	L	0.01	31.9	D	0.03	54.3 +	F	L	0.01	20.9	C	
			T	0.02	36.9	E	0.03	66.0 +	F	T	0.01	20.9	C	
		Westbound	LT	0.10	33.1	D	0.19	65.7 +	F	Def	0.06	21.2	C	
			TR	0.01	10.6	B	0.01	11.2	B	TR	0.03	21.0	C	
		Int.		Unsignalized			Unsignalized					4.9	A	
Saw Mill River Road @	19A	Northbound	L	0.78	85.3	F	*	** +	F	L	0.60	34.7	C	This intersection meets the volume warrants for a traffic signal, even under existing conditions. If a new signal is proposed, formal signal Warrant studies will be completed and NYCDEP will work with NYSDOT.
Grasslands Road (Rt.100C)			R	0.20	16.3	C	0.22	17.9	C	R	0.22	28.9	C	
		Eastbound								T	0.73	12.2	B	
										R	0.22	6.0	A	
		Westbound	L	0.15	11.3	B	0.16	11.9	B	L	0.31	6.8	A	
										T	0.81	15.3	B	
		Int.		Unsignalized			Unsignalized					15.0	B	
Grasslands Road (E-W) @	19B	Northbound	LT	0.06	25.7	D	*	** +	F	LTR	0.41	44.1	D	This intersection meets the volume warrants for a traffic signal, even under existing conditions. If a new signal is proposed, formal signal Warrant studies will be completed and NYCDEP will work with NYSDOT.
Saw Mill River Road NB Ramp (N-S)			TR	0.07	13.7	B	0.07	14.7	B					
		Eastbound	L	0.21	10.1	B	0.37	16.1	C	L	0.83	33.7	C	
										T	0.68	12.9	B	
		Westbound								TR	1.01	42.8	D	
		Int.		Unsignalized			Unsignalized					32.4	C	
Grassland Road (Rt.100C) @	26	Eastbound	TR	0.27	7.5	A	0.29	7.6	A	TR	0.29	8.1	A	Signal Retiming: shift 1 second of green time from eastbound/westbound phase to southbound phase. NYSDOT will detemine if retiming is necessary after construction of the UV Facility begins.
Sprain Brook Pkwy SB Ramp		Westbound	T	0.32	7.8	A	0.48	9.0	A	T	0.48	9.6	A	
		Southbound	L	0.55	34.0	C	0.55	34.0	C	L	0.52	32.8	C	
			R	0.32	31.0	C	0.82	48.4 +	D	R	0.79	44.4	D	
		Int.			13.1	B		16.8	B			16.5	B	
Grassland Road (Rt.100C) @	27	Eastbound	L	0.09	14.7	B	0.14	15.2	B	L	0.42	31.4	C	New timing plan: reduce cycle length from 110 to 100 seconds, as of eastbound/westbound(34s) and northbound(66s). NYSDOT will determine if retiming is necessary after construction of the UV Facility begins.
Sprain Brook Pkwy NB Ramp	30		T	0.50	18.0	B	0.51	18.1	B	T	0.89	43.9	D	
		Westbound	TR	0.47	24.6	C	0.51	25.1	C	TR	0.70	33.8	C	
		Northbound	LT	1.00	68.7	E	*	** +	F	LT	1.07	67.4	E	
			R	1.02	74.8	E	1.02	74.8	E	R	0.66	15.1	B	
		Int.			44.0	D		132.9	F			44.2	D	
Virginia Road @	31	Eastbound	LT	1.12	126.9	F	1.13	130.6 +	F	LT	1.08	114.8	F	Signal Retiming: Shift 1 second of green time from northbound and southbound phase to eastbound and westbound phase. The Westchester County DPW will determine if retiming is necessary.
Bronx River Pkwy			R	0.21	19.6	B	0.21	19.6	B	R	0.21	19.0	B	
		Westbound	LTR	0.40	34.6	C	0.40	34.7	C	LTR	0.38	33.7	C	
		Northbound	L	0.04	46.3	D	0.06	46.4	D	L	0.06	46.4	D	
			TR	0.26	20.1	C	0.26	20.1	C	TR	0.27	20.7	C	
		Southbound	L	1.10	141.5	F	1.10	141.5	F	L	1.10	141.5	F	
			T	0.70	27.3	C	0.70	27.3	C	T	0.71	28.3	C	
		Int.			53.9	D		54.5	D			52.4	D	
Grasslands Road @	32	Southbound	LT	0.23	8.3	A	0.23	8.4	A	LT	0.23	8.4	A	MPT Plan is likely; NYSDOT is planning to signalize this intersection.
Virginia Road		Westbound	LR	0.55	16.6	C	0.56	17.1	C	L	0.18	26.9	D	
										R	0.38	11.5	B	
Grasslands Road @	33	Southbound	L	0.42	29.8	D	0.43	31.0	D	L	0.32	21.1	C	MPT Plan is likely; NYSDOT is planning to signalize this intersection.
Legion Drive			R	0.20	12.1	B	0.21	12.4	B	R	0.45	22.2	C	
		Eastbound	LT	0.07	8.5	A	0.07	8.6	A	LT	0.51	6.4	A	
		Westbound								T	0.41	5.7	A	
										R	0.03	0.0	A	
		Int.		Unsignalized			Unsignalized					8.9	A	
Old Saw Mill River Road @	47	Northbound	LTR	0.07	17.5	C	0.21	19.7	C	LTR	0.50	38.8	D	Either No Mitigation, or an MPT Plan, based on discussions with NYSDOT, Westchester DOT, and local representatives.
Landmark East Driveway		Southbound	LTR	0.01	10.3	B	*	** +	F	LTR	0.48	39.7	D	
		Eastbound	LTR	0.01	8.1	A	0.02	9.3	A	LTR	0.95	37.2	D	
		Westbound	LTR	0.02	10.2	B	0.55	16.1	C	LT	0.96	30.8	C	
										R	0.32	2.3	A	
		Int.		Unsignalized			Unsignalized					29.4	C	

Notes:

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts.

" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

(1) FEIS Mitigation derived based on meetings with Review Agencies (e.g., NYSDOT, Westchester County DPW, and Town Representatives).

TABLE 4.21-39. PURE NO BUILD VS. CROTON + CAT DEL, PARKING AT THE LANDMARK LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD, CONSTRUCTION (OPTION A) AND MITIGATION CONDITIONS

			PM Peak Hour											
			2008 Pure No Build				2008 Combined				2008 Mitigation				
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS		Lane Group	v/c Ratio	Delay (sec)	LOS	FEIS Mitigation Measures (1)
Saw Mill River Road (Rt.9A) (N-S) @	4	Eastbound	L	0.52	29.3	C	0.52	29.3	C		L	0.55	30.8	C	Signal Retiming: shift 1 second of green time
Saw Mill River Pkwy Ramp			LTR	0.14	25.8	C	0.14	25.8	C		LTR	0.15	26.6	C	from eastbound phase to northbound/southbound
		Westbound	L	0.14	34.1	C	0.14	34.1	C		L	0.14	34.1	C	phase
			LT	0.09	33.8	C	0.09	33.8	C		LT	0.09	33.8	C	
			R	0.04	33.6	C	0.04	33.6	C		R	0.04	33.6	C	
		Northbound	L	0.81	31.5	C	0.81	31.6	C		L	0.81	31.1	C	NYSDOT will determine if retiming is necessary
			TR	0.55	15.4	B	0.61	16.3	B		TR	0.60	15.5	B	after construction of the UV Facility begins.
		Southbound	L	0.13	21.4	C	0.14	21.6	C		L	0.14	20.8	C	
			TR	0.98	54.3	D	1.00	58.5 +	E		TR	0.95	47.6	D	
		Int.			33.7	C		35.1	D				30.8	C	
Grasslands Road (E-W) @	6	Eastbound	L	*	**	F	*	**	F		L	0.67	31.2	C	Add protected left-turn phase, signal retiming,
Bradhurst Avenue			T	0.59	22.3	C	0.61	22.9	C		T	0.63	23.9	C	and westbound lane restriping from exclusive left
			R	0.27	12.1	B	0.30	12.3	B		R	0.30	12.3	B	turn lane to shared left-turn through lane.
		Westbound	L	0.22	18.0	B	0.23	18.1	B		LTR	0.74	26.6	C	
			TR	0.98	55.5	E	0.98	55.9	E						
		Northbound	L	0.87	58.7	E	0.90	64.9 +	E		L	0.85	55.0	E	
			TR	0.20	16.3	B	0.20	16.3	B		TR	0.19	15.7	B	
		Southbound	L	0.30	25.1	C	0.00	25.1	C		L	0.30	25.1	C	
			TR	1.12	109.2	F	1.12	109.2	F		TR	1.12	109.2	F	
		Int.			70.0	E		70.0	E				44.1		
Knollwood Road (E-W) @	8	Westbound	LT	0.79	39.0	D	0.79	39.0	D		LT	0.82	42.8	D	Signal Retiming: shift 1 second of green time
Cross Westchester Expy (I-287) WB Ramp			R	0.45	27.6	C	0.45	27.6	C		R	0.47	28.6	C	from westbound phase to northbound leading
		Northbound	L	0.95	52.6	D	0.97	58.2 +	E		L	0.93	47.6	D	phase
			T	0.52	10.5	B	0.53	10.6	B		T	0.52	10.0	A	
		Southbound	T	0.44	14.8	B	0.46	15.0	B		T	0.46	15.0	B	
			R	0.23	12.8	B	0.23	12.9	B		R	0.23	12.9	B	NYSDOT will determine if retiming is necessary
		Int.			26.7	C		27.7	C				26.2	C	after construction of the UV Facility begins.
Saw Mill River Road (Rt.9A) @	15	Eastbound	L	0.99	76.6	E	1.02	83.3 +	F		L	1.00	76.3	E	Signal Retiming: reduce 2 second of green time
Tarrytown/White Plains Road (Rt.119)			TR	0.46	20.2	C	0.46	20.2	C		TR	0.45	19.2	B	of southbound lagging phase, from 9 to 7
		Westbound	L	0.42	34.4	C	0.42	34.4	C		L	0.41	33.2	C	seconds.
			TR	0.88	48.6	D	0.89	49.7	D		TR	0.87	46.7	D	
		Northbound	L	0.30	25.0	C	0.34	25.8	C		L	0.33	23.3	C	NYSDOT will determine if retiming is necessary
			TR	0.82	41.0	D	0.83	42.1	D		TR	0.82	39.5	D	after construction of the UV Facility begins.
		Southbound	L	0.54	35.0	C	0.58	36.5	D		L	0.61	37.8	D	
			T	0.26	22.8	C	0.34	23.8	C		T	0.35	24.2	C	
			R	0.39	11.0	B	0.43	11.3	B		R	0.43	11.6	B	
		Int.			35.0	C		35.9	D				34.0	C	
Saw Mill River Road (Rt.9A) @	17	Northbound	L	0.15	10.3	B	0.16	10.5	B		L	0.33	4.8	A	Propose to be signalized.
Ramada Inn/Broadway Plaza											TR	0.39	4.6	A	MPT Plan may be more suited.
		Southbound	LT	0.01	9.4	A	0.01	9.6	A		LTR	0.41	4.7	A	
		Eastbound	L	0.01	48.4	E	0.01	53.6 +	F		L	0.00	20.9	C	
			T	0.08	79.9	F	0.09	92.7 +	F		T	0.02	20.9	C	
		Westbound	LT	0.11	56.3	F	0.13	63.9 +	F		LTR	0.04	21.0	C	
			TR	0.03	17.0	C	0.03	18.0	C						
		Int.		Unsignalized			Unsignalized						4.9	A	
Saw Mill River Road @	19A	Northbound	L	0.99	145.4	F	*	** +	F		L	0.68	39.4	D	This intersection meets the volume warrants for a
Grasslands Road (Rt.100C)			R	0.28	15.7	C	0.68	57.2 +	F		R	0.66	38.8	D	traffic signal, even under existing conditions. If a
		Eastbound									T	1.03	41.3	D	new signal is proposed, formal signal Warrant
											R	0.35	3.3	A	studies will be completed and NYCDEP will
		Westbound	L	0.17	11.2	B	0.39	23.5	C		L	0.60	9.2	A	work with NYSDOT.
											T	0.45	3.7	A	
		Int.		Unsignalized			Unsignalized						25.9	C	
Grasslands Road (E-W) @	19B	Northbound	LT	0.05	25.0	C	0.16	58.5 +	F		LTR	0.20	21.8	C	This intersection meets the volume warrants for a
Saw Mill River Road NB Ramp (N-S)			TR	0.16	14.2	B	0.35	29.6	D						traffic signal, even under existing conditions. If a
		Eastbound	L	0.17	10.5	B	0.29	11.8	B		L	0.72	14.9	B	new signal is proposed, formal signal Warrant
											T	0.97	28.9	C	studies will be completed and NYCDEP will
		Westbound									TR	0.78	10.7	B	work with NYSDOT.
		Int.		Unsignalized			Unsignalized						20.5	C	
Old Saw Mill River Road @	21	Eastbound	LT	1.04	70.0	E	1.09	86.2 +	F		LT	1.02	64.4	E	Signal Retiming: shift 2 seconds of green time from
Saw Mill River Pkwy SB Off Ramp		Westbound	TR	0.42	9.2	A	0.54	10.3	B		TR	0.52	9.1	A	southbound phase to eastbound/westbound phase.
		Southbound	L	0.29	23.1	C	0.29	23.1	C		L	0.31	24.8	C	NYSDOT will determine if retiming is necessary after
			LR	0.21	22.6	C	0.21	22.6	C		LR	0.24	24.2	C	construction of the UV Facility begins.
		Int.			33.9	C		37.1	D				29.4	C	
Grassland Road (Rt.100C) @	24	Eastbound	L	0.04	9.2	A	0.04	9.3	A		L	0.02	5.0	A	New timing plan: create a westbound lagging phase, as
Clearbrook Road/Walker Road			TR	0.73	17.2	B	1.23	133.1 +	F		TR	1.01	42.7	D	of eastbound/westbound(61s), westbound lagging(7s),
		Westbound	L	1.40	230.4	F	*	** +	F		L	0.76	44.6	D	and northbound/southbound(17s).
			TR	0.70	16.7	B	0.73	17.5	B		TR	0.51	3.8	A	
		Northbound	LT	0.19	19.9	B	0.19	19.9	B		LT	0.64	44.0	D	NYSDOT will determine if retiming is necessary after
		Southbound	LT	0.23	20.3	C	0.23	20.3	C		LT	0.52	36.6	D	construction of the UV Facility begins.
			R	0.01	18.5	B	0.08	19.0	B		R	0.19	32.6	C	
		Int.			42.3	D		144.3	F				31.2	C	
Grassland Road (Rt.100C) @	27	Eastbound	L	0.50	15.4	B	1.11	104.4 +	F		L	0.85	42.3	D	Switch eastbound leading phase to lagging phase.
Sprain Brook Pkwy NB Ramp	30		T	0.32	9.0	A	0.34	9.1	A		T	0.34	8.6	A	NYSDOT will determine if retiming is necessary after
		Westbound	TR	1.06	67.9	E	1.07	71.4	E		TR	1.07	71.4	E	construction of the UV Facility begins.
		Northbound	LT	0.69	29.4	C	0.73	30.8	C		LT	0.73	30.8	C	
			R	0.35	23.1	C	0.35	23.1	C		R	0.35	23.1	C	
		Int.			42.6	D		53.2	D				45.4	D	

Notes:

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts.

" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

(1) FEIS Mitigation derived based on meetings with Review Agencies (e.g., NYSDOT, Westchester County DPW, and Town Representatives).

TABLE 4.21-39. PURE NO BUILD VS. CROTON + CAT DEL, PARKING AT THE LANDMARK LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD, CONSTRUCTION (OPTION A) AND MITIGATION CONDITIONS

			PM Peak Hour											
				2008 Pure No Build			2008 Combined			2008 Mitigation				
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	FEIS Mitigation Measures (1)
Virginia Road @	31	Eastbound	LT	1.16	139.6	F	1.17	144.9 +	F	LT	1.13	127.3	F	Signal Retiming: Shift 1 second of green time from northbound and southbound phase to eastbound and westbound phase. The Westchester County DPW will determine if retiming is necessary.
Bronx River Pkwy			R	0.39	34.6	C	0.40	34.7	C	R	0.39	33.8	C	
		Westbound	LTR	1.26	185.8	F	1.28	193.5 +	F	LTR	1.17	149.5	F	
		Northbound	L	0.06	10.9	B	0.06	10.9	B	L	0.06	11.4	B	
			TR	0.62	25.3	C	0.62	25.3	C	TR	0.63	26.2	C	
		Southbound	L	0.13	11.7	B	0.13	11.7	B	L	0.13	12.2	B	
			T	0.59	24.7	C	0.59	24.7	C	T	0.60	25.5	C	
		Int.			61.7	E		63.5	E			56.0	E	
Grasslands Road @	32	Southbound	LT	0.36	10.3	B	0.37	10.4	B	LT	0.37	10.4	B	MPT Plan is likely; NYSDOT is planning to signalize this intersection.
Virginia Road		Westbound	LR	1.23	155.8	F	1.26	166.5 +	F	L	0.65	60.1	F	
										R	0.61	19.6	C	
Grasslands Road @	33	Southbound	L	1.27	210.8	F	1.31	227.1 +	F	L	0.88	19.8	B	MPT Plan is likely; NYSDOT is planning to signalize this intersection.
Legion Drive			R	0.47	19.7	C	0.47	19.7	C	R	0.51	6.3	A	
		Eastbound	LT	0.24	10.7	B	0.24	10.7	B	LT	0.18	0.1	A	
		Westbound								T	0.66	27.1	C	
										R	0.73	31.4	C	
		Int.		Unsignalized			Unsignalized					15.5	B	
Old Saw Mill River Road @	46	Eastbound	LTR	0.57	6.0	A	0.58	6.1	A	LTR	0.61	7.5	A	Shift 2 seconds of green time from EB/WB phase to NB/SB phase. NYSDOT will determine if retiming is necessary after construction of the UV Facility begins.
Landmark West Driveway		Westbound	LTR	0.43	4.9	A	0.43	4.9	A	LTR	0.45	5.9	A	
		Northbound	LTR	0.08	21.2	C	0.92	63.3 +	E	LTR	0.77	35.2	D	
		Southbound	LTR	0.03	21.0	C	0.03	21.0	C	LTR	0.02	19.3	B	
		Int.			5.8	A		13.2	B			10.6	B	
Old Saw Mill River Road @	47	Northbound	LTR	0.11	30.0	D	1.08	103.2 +	F	LTR	0.86	39.4	D	Either No Mitigation, or an MPT Plan, based on discussions with NYSDOT, Westchester DOT, and local representatives.
Landmark East Driveway		Southbound	LTR	0.07	17.4	C	*	** +	F	LTR	0.93	43.3	D	
		Eastbound	LTR	0.01	8.7	A	0.01	8.8	A	LTR	0.86	27.4	C	
		Westbound	LTR	0.01	9.2	A	0.06	9.4	A	LT	0.95	43.8	D	
										R	0.06	11.9	B	
		Int.		Unsignalized			Unsignalized					36.9	D	

Notes:

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts.

" + " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

(1) FEIS Mitigation derived based on meetings with Review Agencies (e.g., NYSDOT, Westchester County DPW, and Town Representatives).

Grasslands Road (Route 100C) and Bradhurst Avenue (Route 100). During the PM peak hour, the northbound left-turn movement would continue to operate at LOS E with a 6.2-second increase in delay. This impact would be mitigated by restriping the westbound approach to two lanes, one shared left/through lane, and one shared through/right lane. The additional capacity on the westbound approach would allow for the transfer of 1 second of green time from the east-west signal phase to the northbound lagging phase. As a result of this mitigation, the northbound left-turn would improve to LOS E compared to FNB conditions, with 55.0 seconds of delay, during the PM peak hour. The remaining vehicle movements would operate at or near their 2008 FNB LOS without resulting in any significant changes in average vehicle delays.

An analysis was conducted to determine the impact of these geometric improvements (no changes to signal timing/phasing) to operations at this location during the AM peak hour. All of the vehicle movements at this location would operate at the same LOS as for 2008 FNB conditions, or better without resulting in any significant changes in average vehicle delays.

Based on discussions that occurred between the Draft and Final EIS between NYCDEP and NYSDOT, an alternative restriping (change the westbound left-turn lane to a shared through left-turn lane) and revised signal plan to provide an eastbound/westbound phase is more suitable at this location than the mitigation measures described above. Although this measure does not fully mitigate the predicted traffic impacts at the intersection per the guidance in the *CEQR Technical Manual*, this revised mitigation would dramatically improve eastbound and westbound operations and reflect improved phasing of the signal operation. Overall intersection level-of-service would improve with the proposed improvement measure in place

Saw Mill River Road (Route 9A) and Tarrytown/White Plains Road (Route 119). During the AM peak hour, the eastbound left-turn movement would deteriorate from LOS E to LOS F with a 46.7-second increase in delay. This impact would be mitigated with a new signal timing and phasing plan. The total signal cycle would be reduced by 10 seconds, and new phases would be introduced as shown in Table 4.21-39. As a result of this mitigation, the eastbound left-turn would improve to LOS E compared to FNB conditions, with 58.4 seconds of delay. This mitigation would result in a deterioration of the LOS at the southbound left-turn and southbound through movements as compared to 2008 FNB conditions, but these increases in delay would not constitute adverse impacts. The remaining vehicle movements at this location would operate at or better than predicted for the 2008 FNB conditions.

During the PM peak hour, the eastbound left-turn movement would deteriorate from LOS E with 78.6 seconds of delay to LOS F with 83.3 seconds of delay. This impact would be fully mitigated by transferring 2 seconds of green time from the southbound lagging signal phase to the east-west phase. As a result of this mitigation, the eastbound left-turn would improve to LOS E compared to FNB conditions, with 76.3 seconds of delay. The remaining vehicle movements would at or better than their 2008 FNB LOS.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Saw Mill River Road (Route 9A) and Ramada Inn/Broadway Plaza. Construction period traffic would result in three adverse impacts at this location during both the AM and PM peak hours. During the AM, the eastbound left-turn movement and the westbound left/through movement would deteriorate from LOS D to LOS F, and the eastbound through movement would deteriorate from LOS E to LOS F. During the PM peak hour, the eastbound through movement and the westbound left/through movement would continue to operate at LOS F with 12.8- and 7.6-second increases in delay, respectively; the eastbound left-turn movement would deteriorate from LOS E to LOS F. These peak hour impacts would be fully mitigated with the installation of a traffic signal at this location. As a result of this mitigation, all vehicle movements would operate at LOS C or better compared to FNB conditions, with a maximum delay of 21.2 seconds, during either of the peak hours.

The predicted significant adverse impact at this intersection is largely due to estimated peak construction worker trips. While an MPT solution may be more suitable at this location, compared to the installation of a signal, NYCDEP would propose a traffic signal to be installed at this location before peak construction worker activities occur in 2008. NYCDEP would submit the proposed traffic signal plan to the appropriate agency for approval. The approving agency may determine that an MPT is more suited for this location.

Saw Mill River Road (Route 9A) and Grasslands Road (Route 100C). The northbound left-turn movement would continue to operate at LOS F in both the AM and PM peak hours with delay increasing to well beyond 240.0 seconds. In addition, during the PM peak, the northbound right-turn movement would deteriorate from LOS C to LOS F, with an increase of 41.5 seconds delay. These impacts would be fully mitigated with the installation of a traffic signal at this location. As a result of this mitigation, all of the vehicle movements would operate at LOS C or better compared to FNB conditions during the AM peak hour, with maximum delays of 34.7 seconds, and at LOS D or better compared to FNB conditions during the PM peak hour, with maximum delays of 41.3 seconds.

The predicted significant adverse impact at this intersection is largely due to estimated peak construction worker trips. While an MPT solution may be more suitable at this location, compared to the installation of a signal, NYCDEP would propose a traffic signal to be installed at this location before peak construction worker activities occur in 2008. NYCDEP would submit the proposed traffic signal plan to the appropriate agency for approval. The approving agency may determine that an MPT is more suited for this location.

Grasslands Road (Route 100C) and Saw Mill River Road (Route 9A) Northbound Ramp. The northbound left/through movements would deteriorate from LOS D to LOS F during the AM peak hour and from LOS C to LOS F during the PM peak hour. These impacts would be fully mitigated with the installation of a traffic signal. As a result of this mitigation, all of the vehicle movements at this location would operate at LOS D or better during the AM peak hour (maximum delay 44.1 seconds) and at LOS C (maximum delay 28.9 seconds) during the PM peak hour.

The predicted significant adverse impact at this intersection is largely due to estimated peak construction worker trips. While an MPT solution may be more suitable at this location,

compared to the installation of a signal, NYCDEP would propose a traffic signal to be installed at this location before peak construction worker activities occur in 2008. NYCDEP would submit the proposed traffic signal plan to the appropriate agency for approval. The approving agency may determine that an MPT is more suited for this location.

Old Saw Mill River Road and Saw Mill River Parkway Southbound Off-Ramp. During the PM peak hour, the eastbound left/through movements would deteriorate from LOS E with 70.0 seconds of delay to LOS F with 86.2 seconds of delay. This impact would be mitigated with the transfer of 2 seconds of green time from the southbound signal phase to the east-west phase. This mitigation would improve the operation of the eastbound left/through movement to LOS E with 64.4 seconds of delay, and the remaining vehicle approaches would operate at LOS C or better.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Grasslands Road (Route 100C) and Clearbrook Road/Walker Road. During the PM peak hour, the eastbound through/right movement would deteriorate from LOS B with 17.2 seconds of delay to LOS F with 133.1 seconds of delay, and the westbound left-turn movement would remain at LOS F with increases in delay from 230.4 to well beyond 240.0 seconds. A new signal timing and phasing plan would be implemented at this location to fully mitigate project-generated impacts as described in Table 4.21-39. As a result of this mitigation, all of the vehicle movements at this location would operate at LOS D or better compared to FNB conditions, with a maximum delay of 44.6 seconds during the PM peak hour.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Grasslands Road (Route 100C) and Sprain Brook Parkway Southbound Ramp. During the AM peak hour, the southbound right-turn movement would deteriorate from LOS C with 31.0 seconds of delay to LOS D with 48.4 seconds of delay. This location would be fully mitigated with a transfer of 1 second of green time from the east-west to the southbound signal phase. As a result of this mitigation, the southbound right-turn would improve to below mid-LOS D, with 44.4 seconds of delay, and the other vehicle movements would operate at LOS C or better compared to FNB conditions.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Grasslands Road (Route 100C) and Sprain Brook Parkway Northbound Ramp. During the AM peak hour, the northbound left/through movement would deteriorate from LOS E with 68.7 seconds of delay to LOS F with well beyond 240.0 seconds of delay. This impact would be fully mitigated with a new signal timing plan that reduces the cycle length by 10 seconds as shown in Table 4.21-39. As a result of this mitigation, the northbound left/through movement would improve to LOS E compared to FNB conditions, with 67.4 seconds of delay. Some other

vehicle movements would experience deterioration in LOS compared to 2008 FNB conditions, but there would be no significant changes in average vehicle delay.

During the PM peak hour, the eastbound left-turn movement would deteriorate from LOS B with 15.4 seconds of delay to LOS F with 104.4 seconds of delay. This impact could be mitigated by implementing a new signal phasing plan that results in an eastbound lagging phase rather than an eastbound leading phase. As a result of this mitigation, the eastbound left-turn would improve to LOS D with 42.3 seconds of delay compared to FNB conditions. This mitigation would have no effect on the LOS of the remaining traffic movements at this intersection.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Virginia Road and Bronx River Parkway. The eastbound left/through movement would continue to operate at LOS F during the AM and PM peak hours with 3.7- and 5.3-second increases in delay, respectively. In addition, during the PM peak hour, the westbound approach would continue to operate at LOS F with a 7.7-second increase in delay. In both peak hours, these impacts would be mitigated with the transfer of 1 second of green time from the north-south phase to the east-west phase. Although all of the impacted locations would continue to operate at LOS F, the mitigation would improve delays to better than those under 2008 FNB conditions.

Westchester County DPW would determine if retiming is necessary after construction of the NYCDEP projects commence, and implement accordingly.

Grasslands Road (Route 100) and Virginia Road. During the PM peak hour, the westbound approach would continue to operate at LOS F with a 10.7-second increase in delay. This impact could be mitigated by restriping the westbound approach to accommodate an additional travel lane. As a result of this mitigation, the westbound left-turn would improve to LOS F with 60.1 seconds of delay compared to FNB conditions, and the westbound right-turn would improve to LOS C with 19.6 seconds of delay.

An analysis was conducted to determine the impact of this improvement to operations at this location during the AM peak hour. All of the vehicle movements at this location would operate below mid-LOS D or better, with a maximum delay of 26.9 seconds.

Based on discussions that occurred between the Draft and Final EIS among NYCDEP and NYSDOT, Westchester County DPW, and local representatives, an MPT solution is more likely at this location than the mitigation measures described above, because NYSDOT is planning to install a traffic signal at this intersection in the future, in coordination with planned NYSDOT design work for the corridor. NYCDEP and NYSDOT would coordinate the improvement of this intersection to ensure that adequate traffic flow would occur during the proposed project's impact period.

Grasslands Road (Route 100) and Legion Drive. The southbound left-turn movement would remain at LOS F with an increase of 16.3 seconds of delay during the PM peak hour. This location could be fully mitigated with the installation of a traffic signal. As a result of this mitigation compared to FNB conditions, the southbound left-turn movement would operate at LOS B (19.8 seconds delay), and all of the other movements would operate at LOS C or better during the PM peak hour, with a maximum delay of 31.4 seconds.

Although no impacts were identified at this location during the AM peak hour, an analysis was conducted to test the impact of a traffic signal to vehicle operations. A signal at this location would improve operations for some movements but would increase delays for others. However, all of the vehicle movements would operate at LOS C or better during the AM peak hour, with a maximum delay of 22.2 seconds.

NYCDEP would recommend the installation of a signal at this intersection. However, based on discussions that occurred between the Draft and Final EIS among NYCDEP and NYSDOT, Westchester County DPW, and local representatives, an MPT solution is more likely at this location than the mitigation measures described above, because NYSDOT is planning to install a traffic signal at this intersection in the future, in coordination with planned NYSDOT design work for the corridor. NYCDEP and NYSDOT would coordinate the improvement of this intersection to ensure that adequate traffic flow would occur during the proposed project's impact period.

Old Saw Mill River Road and the Landmark Property West Driveway. During the PM peak hour, the northbound approach would deteriorate from LOS C with 21.2 seconds delay, to LOS E with 63.3 seconds delay. These impacts would be mitigated with the transfer of 2 seconds of green time from the east-west phase to the north-south phase. The mitigation would improve the delay at this movement compared to FNB conditions, to 35.2 seconds (LOS D); the other approaches operating at LOS B or better.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Old Saw Mill River Road and the Landmark Property East Driveway. During the AM peak hour, the southbound approach would deteriorate from LOS B to LOS F. During the PM peak hour, the northbound approach would deteriorate from LOS D to LOS F, and the southbound approach would deteriorate from LOS C to LOS F. These impacts could be mitigated with the installation of a traffic signal, in conjunction with expanding the westbound shoulder and restriping the westbound approach as indicated in Table 4.21-27, to accommodate an additional travel lane. As a result of this mitigation, all of the vehicle movements would operate below mid-LOS D or better during the AM and PM peak hours compared to FNB conditions.

The predicted significant adverse impact at this intersection is largely due to estimated peak construction worker trips. While an MPT solution may be more suitable at this location, compared to the installation of a signal, NYCDEP would propose a traffic signal to be installed at this location before peak construction worker activities occur in 2008. NYCDEP would

submit the proposed traffic signal plan to the appropriate agency for approval. The approving agency may determine that an MPT is more suited for this location.

2008 Combined Construction Option B Conditions.

Under the scenario, which compares a "pure" 2008 FNB condition to a 2008 Construction condition that includes both the UV Facility and the Croton project under parking Option B, it was found that traffic from the additional construction vehicle trips would be anticipated to result in 39 potential significant adverse traffic impacts, 18 during the AM peak hour and 21 during the PM peak hour. These potential significant adverse impacts could be fully mitigated as shown in Table 4.21-40 and as described below.

The tables showing the results of applying the mitigation measures also indicate the specific measures recommended for each location. For many of the locations, more than one measure was identified that could be implemented that would reduce delays back to or below FNB conditions. The assessment presented here relies mostly on a combination of new traffic signals, lane stripping changes, and traffic signal retiming or phasing changes as the recommended measures. However, some of the measures that were investigated were more extraordinary, involving additional lane construction or street widening, to give a complete range of potential measures that could eliminate impacts.

Saw Mill River Road (Route 9A) and Stevens Avenue North. During the AM peak hour, the eastbound approach would deteriorate from LOS D to LOS E with a 5.6-second increase in delay. This impact would be fully mitigated with the installation of a traffic signal at this location. As a result of this mitigation, the eastbound approach would improve compared to FNB conditions, to LOS C with 22.5 seconds of delay, and the remaining approaches would operate at LOS C or better with a maximum delay of 22.7 seconds.

Although there would not be a project-generated impact at this location during the PM peak hour, an analysis was conducted to determine the effect of a traffic signal on vehicle operations. There would be a minimal decline in LOS at the northbound approach, but all vehicle movements would operate at LOS C or better during the AM peak hour with a maximum delay of 23.2 seconds per vehicle.

NYCDEP would recommend the installation of a signal at this intersection. However, based on discussions that occurred between the Draft and Final EIS among NYCDEP and NYSDOT, Westchester County DPW, and local representatives, an MPT solution is more likely at this location than the mitigation measures described above, because NYSDOT is planning to install a traffic signal at this intersection in the future, in coordination with planned NYSDOT design work for the corridor. NYCDEP and NYSDOT would coordinate the improvement of this intersection to ensure that adequate traffic flow would occur during the proposed project's impact period.

TABLE 4.21-40. PURE NO BUILD VS. CROTON + CAT DEL LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD, CONSTRUCTION (OPTION B) AND MITIGATION CONDITIONS

			AM Peak Hour											
			2008 Pure No Build				2008 Combined			2008 Mitigation				
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	FEIS Mitigation Measures (1)
Saw Mill River Road (Rt.9A) @	3N	Northbound	LT	0.02	10.9	B	0.02	11.3	B	LTR	0.39	8.5	A	MPT Plan may be more suited.
Stevens Avenue North		Southbound	LT	0.03	9.2	A	0.03	9.3	A	LTR	0.65	11.3	B	
		Eastbound	LTR	0.02	35.0	D	0.03	40.6 +	E	LTR	0.01	22.5	C	
		Westbound	LTR	0.03	16.7	C	0.04	18.1	C	LTR	0.03	22.7	C	
		Intersection		Unsignalized			Unsignalized					10.4	B	
Grasslands Road (E-W) @	6	Eastbound	L	0.71	36.6	D	0.90	64.3 +	E	L	0.51	14.3	B	Add protected left-turn phase, signal retiming,
Bradhurst Avenue			T	1.03	75.1	E	*	** +	F	TR	1.01	41.4	D	and westbound lane restriping from exclusive left
			R	0.35	16.3	B	0.36	16.5	B					turn lane to shared left-turn through lane.
		Westbound	L	0.68	56.6	E	0.68	56.6	E	LTR	0.51	18.5	B	
			TR	0.43	25.8	C	0.55	27.9	C					
		Northbound	L	0.23	23.3	C	0.25	23.6	C	L	0.49	28.3	C	
			TR	0.34	25.9	C	0.36	26.2	C	TR	0.51	28.2	C	
		Southbound	L	0.50	40.1	D	0.52	40.8	D	L	0.64	33.9	C	
			TR	0.68	49.7	D	0.68	49.7	D	T	0.30	26.0	C	
										R	0.23	25.3	C	
		Intersection			45.2	D		**	F			33.6	C	
Saw Mill River Road (Rt.9A) @	15	Eastbound	L	0.97	66.8	E	1.12	113.5 +	F	L	0.99	66.0	E	Provide the intersection with a new signal plan
Tarrytown/White Plains Road (Rt.119)			TR	0.38	14.5	B	0.38	14.5	B	TR	0.35	10.4	B	as follows
		Westbound	L	0.17	22.3	C	0.17	22.3	C	L	0.16	19.1	B	EB/SB-R: G/A/R = 15/3/2
			TR	0.30	23.5	C	0.31	23.6	C	TR	0.30	20.2	C	EB/WB: G/A/R = 48/3/2
		Northbound	L	0.38	34.2	C	0.39	34.4	C	L	0.39	31.1	C	NB: G/A/R = 6/3/0
			TR	0.62	40.3	D	0.72	44.9	D	TR	0.70	40.0	D	NB/SB: G/A/R = 23/3/2
		Southbound	L	0.24	33.9	C	0.29	36.6	D	L	0.43	39.5	D	C = 110 seconds
			T	0.42	34.9	C	0.44	35.3	D	T	0.62	43.3	D	
			R	0.23	22.1	C	0.24	22.2	C	R	0.26	22.9	C	NYSDOT will determine if retiming is necessary
		Intersection			31.8	C		42.3	D			31.6	C	after construction of the UV Facility begins.
Saw Mill River Road (Rt.9A) @	17	Northbound	L	0.09	10.0	A	0.10	10.3	B	L	0.20	4.1	A	Propose to be signalized.
Ramada Inn/Broadway Plaza										TR	0.38	4.6	A	MPT Plan may be more suited.
		Southbound	LT	0.01	8.7	A	0.02	9.4	A	LTR	0.40	4.7	A	
		Eastbound	L	0.01	31.9	D	0.02	41.0 +	E	L	0.01	20.9	C	
			T	0.02	36.9	E	0.03	52.4 +	F	T	0.01	20.9	C	
		Westbound	LT	0.10	33.1	D	0.15	50.5 +	F	Def	0.06	21.2	C	
			TR	0.01	10.6	B	0.01	11.6	B	TR	0.03	21.0	C	
		Intersection		Unsignalized			Unsignalized					4.8	A	
Saw Mill River Road @	19A	Northbound	L	0.78	85.3	F	1.10	195.5 +	F	L	0.36	30.3	C	This intersection meets the volume warrants for a
Grasslands Road (Rt.100C)			R	0.20	16.3	C	0.26	20.4	C	R	0.22	28.9	C	traffic signal, even under existing conditions. If a
		Eastbound								T	0.22	15.9	B	new signal is proposed, formal signal Warrant
										R	0.21	5.9	A	studies will be completed and NYCDEP will
		Westbound	L	0.15	11.3	B	0.19	12.8	B	L	0.38	7.5	A	work with NYSDOT.
										T	0.25	6.1	A	
		Intersection		Unsignalized			Unsignalized					14.1	B	
Grasslands Road (E-W) @	19B	Northbound	LT	0.06	25.7	D	0.07	30.5	D	LTR	0.42	21.5	C	This intersection meets the volume warrants for a
Saw Mill River Road NB Ramp (N-S)			TR	0.07	13.7	B	0.63	32.1 +	D					traffic signal, even under existing conditions. If a
		Eastbound	L	0.21	10.1	B	0.21	10.2	B	L	0.53	7.5	A	new signal is proposed, formal signal Warrant
										T	0.82	13.5	B	studies will be completed and NYCDEP will
		Westbound								TR	0.58	7.1	A	work with NYSDOT.
		Intersection		Unsignalized			Unsignalized					11.8	B	
Grassland Road (Rt.100C) @	24	Eastbound	L	0.01	2.6	A	0.01	2.6	A	L	0.01	2.9	A	Shift 1 second of green time from EB/WB phase to NB/SB
Clearbrook Road/Walker Road			TR	0.37	3.8	A	0.61	5.5	A	TR	0.62	6.0	A	phase. NYSDOT
		Westbound	L	0.38	4.0	A	0.68	11.1	B	L	0.71	13.6	B	will determine if retiming is necessary after construction of the
			TR	0.39	3.9	A	0.44	4.1	A	TR	0.45	4.5	A	UV Facility begins.
		Northbound	LT	0.21	33.7	C	0.30	34.8	C	LT	0.25	33.3	C	
		Southbound	LT	0.21	33.8	C	0.68	48.5 +	D	LT	0.62	42.2	D	
			R	0.00	32.2	C	0.00	32.2	C	R	0.00	31.4	C	
		Intersection			5.3	A		8.4	A			8.7	A	
Grassland Road (Rt.100C) @	26	Eastbound	TR	0.27	7.5	A	0.44	8.7	A	TR	0.46	9.7	A	Shift 1 second of green time from EB/WB phase
Sprain Brook Pkwy SB Ramp		Westbound	T	0.32	7.8	A	0.35	8.0	A	T	0.36	9.0	A	to SB phase.
		Southbound	L	0.55	34.0	C	0.88	53.9 +	D	L	0.81	44.4	D	NYSDOT will detemine if retiming is necessary
			R	0.32	31.0	C	0.32	31.0	C	R	0.30	29.3	C	after construction of the UV Facility begins.
		Intersection			13.1	B		17.1	B			16.2	B	
Grassland Road (Rt.100C) @	27	Eastbound	L	0.09	14.7	B	0.10	15.4	B	L	0.08	20.3	C	Provide a new signal plan as follows:
Sprain Brook Pkwy NB Ramp	30		T	0.50	18.0	B	0.92	33.4	C	T	0.96	42.4	D	WB/NB-R: G/A/R = 8/4/0
		Westbound	TR	0.47	24.6	C	0.56	26.0	C	T	0.56	24.5	C	EB/WB: G/A/R = 19/4/0
										R	0.18	20.8	C	EB: G/A/R = 8/4/1
		Northbound	LT	1.00	68.7	E	1.00	68.7	E	LT	0.98	55.8	E	NB: G/A/R = 36/4/2
			R	1.02	74.8	E	*	** +	F	R	1.07	70.5	E	C = 90 seconds
		Intersection			44.0	D		93.1	F			47.5	D	
														NYSDOT will determine if retiming is necessary
														after construction of the UV Facility begins.
														(Eastbound and Westbound shoulder usage
														determined not feasible by NYSDOT)
Virginia Road @	31	Eastbound	LT	1.12	126.9	F	1.17	145.7 +	F	LT	1.08	113.7	F	Shift 2 seconds of green time from NB/SB phase
Bronx River Pkwy			R	0.21	19.6	B	0.22	19.8	B	R	0.19	15.2	B	to EB/WB phase; shift another 6 seconds of
		Westbound	LTR	0.40	34.6	C	0.43	35.0	D	LTR	0.39	33.1	C	green time from NB/SB phase to NB-L/SB-L
		Northbound	L	0.04	46.3	D	0.70	59.8 +	E	L	0.50	46.0	D	phase. The
			TR	0.26	20.1	C	0.26	20.1	C	TR	0.31	25.4	C	Westchester County DPW will determine if
		Southbound	L	1.10	141.5	F	1.10	141.5	F	L	0.79	59.4	E	retiming is necessary.
			T	0.70	27.3	C	0.70	27.3	C	T	0.82	36.9	D	
		Intersection			53.9	D		57.0	E			47.6	D	

Notes:

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts.

" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

(1) FEIS Mitigation derived based on meetings with Review Agencies (e.g., NYSDOT, Westchester County DPW, and Town Representatives).

TABLE 4.21-40. PURE NO BUILD VS. CROTON + CAT DEL LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD, CONSTRUCTION (OPTION B) AND MITIGATION CONDITIONS

			AM Peak Hour											
				2008 Pure No Build			2008 Combined			2008 Mitigation				
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	FEIS Mitigation Measures (1)
Grasslands Road @	32	Northbound								TR	0.25	17.4	B	MPT Plan is likely; NYSDOT is planning to signalize this intersection.
Virginia Road		Southbound	LT	0.23	8.3	A	0.24	8.4	A	LT	0.69	14.1	B	
		Westbound	LR	0.55	16.6	C	0.81	27.3	D	L	0.08	20.9	C	
		Intersection		Unsignalized			Unsignalized					15.1	B	
Grasslands Road @	33	Southbound	L	0.42	29.8	D	0.58	50.3 +	F	L	0.32	21.1	C	MPT Plan is likely; NYSDOT is planning to signalize this intersection.
Legion Drive			R	0.20	12.1	B	0.26	15.3	C	R	0.44	22.1	C	
		Eastbound	LT	0.07	8.5	A	0.08	9.3	A	LT	0.54	6.8	A	
		Westbound								T	0.60	7.5	A	
										R	0.03	0.0	A	
		Intersection		Unsignalized			Unsignalized					9.4	A	
Grassland Road (Rt.100C) @	34	Eastbound	T	0.41	7.7	A	0.41	7.7	A	T	0.42	8.6	A	Shift 2 seconds of green time from EB/WB phase to NB phase. NYSDOT will determine if retiming is necessary after construction of the UV Facility begins.
WCC East Gate		Westbound	L	0.26	5.2	A	0.53	7.7	A	L	0.54	9.1	A	
			T	0.24	3.2	A	0.24	3.2	A	T	0.24	3.7	A	
		Northbound	L	0.07	45.8	D	0.56	52.0 +	D	L	0.28	45.5	D	
		Intersection			6.3	A		10.4	B			10.7	B	(Physical Improvement not feasible).
Grasslands Road @	35	Northbound	L	0.06	20.5	C	0.24	84.1 +	F	L	0.14	36.0	D	MPT Plan will be implemented.
WCC West Gate			R	0.01	13.7	B	0.04	36.0 +	E					
		Eastbound								T	1.04	43.9	D	
		Westbound	LT	0.00	9.9	A	0.01	16.3	C	L	0.01	1.4	A	
										T	0.28	1.9	A	
		Intersection		Unsignalized			Unsignalized					34.9	C	
Old Saw Mill River Road @	47	Northbound	LTR	0.07	17.5	C	0.09	21.0	C	LTR	0.07	22.0	C	Either No Mitigation, or an MPT Plan, based on discussions with NYSDOT, Westchester DOT, and local representatives.
Landmark East Driveway		Southbound	LTR	0.01	10.3	B	0.01	10.3	B	LTR	0.02	21.7	C	
		Eastbound	LTR	0.01	8.1	A	0.01	8.1	A	LTR	0.86	16.2	B	
		Westbound	LTR	0.02	10.2	B	0.02	11.0	B	LTR	0.3	5.7	A	
		Intersection		Unsignalized			Unsignalized					13.7	B	

Notes:

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts.

" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

(1) FEIS Mitigation derived based on meetings with Review Agencies (e.g., NYSDOT, Westchester County DPW, and Town Representatives).

TABLE 4.21-40. PURE NO BUILD VS. CROTON + CAT DEL LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD, CONSTRUCTION (OPTION B) AND MITIGATION CONDITIONS

			PM Peak Hour										
			2008 Pure No Build				2008 Combined			2008 Mitigation			
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	FEIS Mitigation Measures (1)
Saw Mill River Road (Rt.9A) @	3N	Northbound	LT	0.01	9.8	A	0.01	9.8	A	LTR	0.67	11.7	B	MPT Plan may be more suited.
Stevens Avenue North		Southbound	LT	0.02	10.5	B	0.02	10.8	B	LTR	0.40	8.5	A	
		Eastbound	LTR	0.13	24.1	C	0.14	25.8	D	LTR	0.10	23.2	C	
		Westbound	LTR	0.07	15.7	C	0.08	16.6	C	LTR	0.07	23.0	C	
		Intersection			Unsignalized			Unsignalized				10.8	B	
Saw Mill River Road (Rt.9A) (N-S) @	4	Eastbound	L	0.52	29.3	C	0.52	29.3	C	L	0.55	30.8	C	Signal Retiming: shift 1 second of green time
Saw Mill River Pkwy Ramp			LTR	0.14	25.8	C	0.14	25.8	C	LTR	0.15	26.6	C	from eastbound phase to northbound/southbound
		Westbound	L	0.14	34.1	C	0.14	34.1	C	L	0.14	34.1	C	phase
			LT	0.09	33.8	C	0.09	33.8	C	LT	0.09	33.8	C	
			R	0.04	33.6	C	0.04	33.6	C	R	0.04	33.6	C	
		Northbound	L	0.81	31.5	C	0.81	31.6	C	L	0.81	31.1	C	NYSDOT will determine if retiming is necessary
			TR	0.55	15.4	B	0.60	16.1	B	TR	0.58	15.3	B	after construction of the UV Facility begins.
		Southbound	L	0.13	21.4	C	0.14	21.5	C	L	0.13	20.8	C	
			TR	0.98	54.3	D	1.00	58.5 +	E	TR	0.95	47.6	D	
		Intersection			33.7	C		35.2	D			30.9	C	
Grasslands Road (E-W) @	6	Eastbound	L	*	**	F	*	**	F	L	*	**	F	Add protected left-turn phase, signal retiming,
Bradhurst Avenue			T	0.59	22.3	C	0.69	25.2	C	TR	0.43	11.8	B	and westbound lane restriping from exclusive left
			R	0.27	12.1	B	0.29	12.2	B					turn lane to shared left-turn through lane.
		Westbound	L	0.22	18.0	B	0.32	19.4	B	LTR	1.01	43.5	D	
			TR	0.98	55.5	E	*	** +	F					
		Northbound	L	0.87	58.7	E	0.90	64.9 +	E	L	0.79	38.0	D	
			TR	0.20	16.3	B	0.20	16.3	B	TR	0.29	23.5	C	
		Southbound	L	0.30	25.1	C	0.30	25.1	C	L	0.32	24.0	C	
			TR	1.12	109.2	F	1.12	109.2	F	T	0.39	24.5	C	
										R	0.85	43.5	D	
		Intersection			70.0	E		**	F			43.2	D	
Knollwood Road (E-W) @	8	Westbound	LT	0.79	39.0	D	0.79	39.0	D	LT	0.82	42.8	D	Signal Retiming: shift 1 second of green time
Cross Westchester Expy (I-287) WB Ramp			R	0.45	27.6	C	0.45	27.6	C	R	0.47	28.6	C	from westbound phase to northbound leading
		Northbound	L	0.95	52.6	D	0.97	58.2 +	E	L	0.93	47.6	D	phase
			T	0.52	10.5	B	0.53	10.6	B	T	0.52	10.0	A	
		Southbound	T	0.44	14.8	B	0.46	15.0	B	T	0.46	15.0	B	
			R	0.23	12.8	B	0.23	12.9	B	R	0.23	12.9	B	NYSDOT will determine if retiming is necessary
		Intersection			26.7	C		27.7	C			26.2	C	after construction of the UV Facility begins.
Saw Mill River Road (Rt.9A) @	15	Eastbound	L	0.99	76.6	E	1.02	83.3 +	F	L	1.00	76.3	E	Change the cycle length from 107 to 105 seconds
Tarrytown/White Plains Road (Rt.119)			TR	0.46	20.2	C	0.46	20.2	C	TR	0.45	19.2	B	by decreasing the green time for SB phase by 2
		Westbound	L	0.42	34.4	C	0.42	34.4	C	L	0.41	33.2	C	seconds
			TR	0.88	48.6	D	0.89	49.7	D	TR	0.87	46.7	D	
		Northbound	L	0.30	25.0	C	0.34	25.8	C	L	0.33	23.3	C	NYSDOT will determine if retiming is necessary
			TR	0.82	41.0	D	0.83	42.1	D	TR	0.82	39.5	D	after construction of the UV Facility begins.
		Southbound	L	0.54	35.0	C	0.57	36.4	D	L	0.61	37.6	D	
			T	0.26	22.8	C	0.34	23.7	C	T	0.35	24.2	C	
			R	0.39	11.0	B	0.43	11.3	B	R	0.43	11.5	B	
		Intersection			35.0	C		35.9	D			34.0	C	
Saw Mill River Road (Rt.9A) @	17	Northbound	L	0.15	10.3	B	0.16	10.5	B	L	0.32	4.7	A	Propose to be signalized.
Ramada Inn/Broadway Plaza										TR	0.40	4.6	A	MPT Plan may be more suited.
		Southbound	LT	0.01	9.4	A	0.01	9.6	A	LTR	0.41	4.7	A	
		Eastbound	L	0.01	48.4	E	0.01	53.0 +	F	L	0.00	20.9	C	
			T	0.08	79.9	F	0.09	90.6 +	F	T	0.02	20.9	C	
		Westbound	LT	0.11	56.3	F	0.13	63.9 +	F	LTR	0.04	21.0	C	
			TR	0.03	17.0	C	0.03	18.0	C					
		Intersection			Unsignalized			Unsignalized				4.9	A	
Saw Mill River Road @	19A	Northbound	L	0.99	145.4	F	*	** +	F	L	0.57	27.8	C	This intersection meets the volume warrants for a
Grasslands Road (Rt.100C)			R	0.28	15.7	C	0.28	15.8	C	R	0.57	28.2	C	traffic signal, even under existing conditions. If a
		Eastbound								T	0.54	4.9	A	new signal is proposed, formal signal Warrant
										R	0.18	3.2	A	studies will be completed and NYCDEP will
		Westbound	L	0.17	11.2	B	0.43	14.0	B	L	0.76	13.9	B	work with NYSDOT.
										T	0.57	5.1	A	
		Intersection			Unsignalized			Unsignalized				8.8	A	
Grasslands Road (E-W) @	19B	Northbound	LT	0.05	25.0	C	0.08	37.4 +	E	LTR	0.26	23.7	C	This intersection meets the volume warrants for a
Saw Mill River Road NB Ramp (N-S)			TR	0.16	14.2	B	0.19	14.5	B					traffic signal, even under existing conditions. If a
		Eastbound	L	0.17	10.5	B	0.24	13.5	B	L	0.62	10.0	A	new signal is proposed, formal signal Warrant
										T	0.50	4.5	A	studies will be completed and NYCDEP will
		Westbound								TR	1.02	40.3	D	work with NYSDOT.
		Intersection			Unsignalized			Unsignalized				26.6	C	

Notes:

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service, "+" indicates significant impacts.

" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

(1) FEIS Mitigation derived based on meetings with Review Agencies (e.g., NYSDOT, Westchester County DPW, and Town Representatives).

TABLE 4.21-40. PURE NO BUILD VS. CROTON + CAT DEL LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD, CONSTRUCTION (OPTION B) AND MITIGATION CONDITIONS

			PM Peak Hour											
			2008 Pure No Build				2008 Combined				2008 Mitigation				
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)		LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	FEIS Mitigation Measures (1)
Old Saw Mill River Road @	21	Eastbound	LT	1.04	70.0	E	1.08	83.6	+	F	LT	1.01	62.0	E	Signal Retiming: shift 2 seconds of green time from southbound phase to eastbound/westbound phase. NYSDOT will determine if retiming is necessary after construction of the UV Facility begins.
Saw Mill River Pkwy SB Off Ramp		Westbound	TR	0.42	9.2	A	0.52	10.1		B	TR	0.50	8.9	A	
		Southbound	L	0.29	23.1	C	0.29	23.1		C	L	0.31	24.8	C	
			LR	0.21	22.6	C	0.21	22.6		C	LR	0.24	24.2	C	
		Intersection			33.9	C		36.6		D			28.8	C	
Grassland Road (Rt.100C) @	24	Eastbound	L	0.04	9.2	A	0.07	9.7		A	L	0.08	7.9	A	Change the cycle length from 85 to 90 seconds by increasing the green time for EB/WB phase by 8 seconds and decreasing the green time for NB/SB phase by 3 seconds (a net increment of 5 seconds). NYSDOT will determine if retiming is necessary after construction of the UV Facility begins.
Clearbrook Road/Walker Road			TR	0.73	17.2	B	0.74	17.8		B	TR	0.67	13.5	B	
		Westbound	L	1.40	230.4	F	*	**	+	F	L	1.03	85.9	F	
			TR	0.70	16.7	B	1.1	79.6	+	E	TR	0.99	42.9	D	
		Northbound	LT	0.19	19.9	B	0.20	20.0		C	LT	0.27	25.1	C	
		Southbound	LT	0.23	20.3	C	0.34	21.4		C	LT	0.39	26.4	C	
			R	0.01	18.5	B	0.01	18.5		B	R	0.01	22.8	C	
		Intersection			42.3	D		71.9		E			35.2	D	
Grassland Road (Rt.100C) @	27	Eastbound	L	0.50	15.4	B	0.50	15.4		B	L	0.62	43.5	D	Provide a new signal plan as follows:
Sprain Brook Pkwy NB Ramp	30		T	0.32	9.0	A	0.36	9.2		A	T	0.33	18.5	B	WB: G/A/R = 16/4/0
		Westbound	TR	1.06	67.9	E	*	**	+	F	T	0.99	42.6	D	EB/WB: G/A/R = 32/4/0
											R	0.43	15.2	B	EB: G/A/R = 8/4/1
		Northbound	LT	0.69	29.4	C	0.69	29.4		C	LT	0.77	41.8	D	NB: G/A/R = 26/4/1
			R	0.35	23.1	C	0.38	23.3		C	R	0.42	31.4	C	C = 100 seconds
		Intersection			42.6	D		206.8		F			34.4	C	NYSDOT will determine if retiming is necessary after construction of the UV Facility begins. (Eastbound and Westbound shoulder usage determined not feasible by NYSDOT)
Virginia Road @	31	Eastbound	LT	1.16	139.6	F	1.47	**	+	F	LT	1.16	134.7	F	Signal Retiming: Shift 7 seconds of green time from northbound and southbound phase to eastbound and westbound phase. The Westchester County DPW will determine if retiming is necessary.
Bronx River Pkwy			R	0.39	34.6	C	0.67	41.5		D	R	0.56	32.9	C	
		Westbound	LTR	1.26	185.8	F	*	**	+	F	LTR	0.95	73.0	E	
		Northbound	L	0.06	10.9	B	0.07	11.0		B	L	0.08	14.4	B	
			TR	0.62	25.3	C	0.62	25.3		C	TR	0.71	31.9	C	
		Southbound	L	0.13	11.7	B	0.13	11.7		B	L	0.15	15.3	B	
			T	0.59	24.7	C	0.59	24.7		C	T	0.67	30.9	C	
		Intersection			61.7	E		113.1		F			53.4	D	
Grasslands Road @	32	Northbound									TR	0.81	37.6	D	MPT Plan is likely; NYSDOT is planning to signalize this intersection.
Virginia Road		Southbound	LT	0.36	10.3	B	0.57	12.8		B	LT	0.96	30.0	C	
		Westbound	LR	1.23	155.8	F	*	**	+	F	L	0.46	41.8	D	
		Intersection			Unsignalized			Unsignalized					33.4	C	
Grasslands Road @	33	Southbound	L	1.27	210.8	F	*	**	+	F	L	0.71	36.1	D	MPT Plan is likely; NYSDOT is planning to signalize this intersection.
Legion Drive			R	0.47	19.7	C	0.47	20.1		C	R	0.78	42.9	D	
		Eastbound	LT	0.24	10.7	B	0.24	10.8		B	LT	0.98	36.6	D	
		Westbound									T	0.48	6.0	A	
											R	0.18	0.1	A	
		Intersection			Unsignalized			Unsignalized					25.0	C	
Grassland Road (Rt.100C) @	34	Eastbound	T	0.72	16.6	B	0.72	16.6		B	T	0.91	42.2	D	Arrange the signal timings as follows:
WCC East Gate		Westbound	L	0.21	11.1	B	0.24	11.3		B	L	0.35	27.4	C	
			T	0.58	7.9	A	0.58	7.9		A	T	0.73	20.8	C	EB/WB: G/A/R = 39/4/1
		Northbound	L	0.62	30.6	C	*	**	+	F	L	0.92	41.0	D	WB: G/A/R = 5/4/1
		Intersection			14.5	B		**		F			35.2	D	NB: G/A/R = 35/5/1 C = 95 seconds NYSDOT will determine if retiming is necessary after construction of the UV Facility begins. (Physical Improvement not feasible).
Grasslands Road @	35	Northbound	L	0.26	50.2	F	1.04	**	+	F	L	0.31	44.7	D	MPT Plan will be implemented.
WCC West Gate			R	0.49	18.4	C	0.56	22.1		C					
		Eastbound									T	0.42	2.1	A	
		Westbound	LT	0.12	9.1	A	0.13	9.5		A	L	0.20	1.6	A	
											T	1.05	43.8	D	
		Intersection			Unsignalized			Unsignalized					30.4	C	
Old Saw Mill River Road @	47	Northbound	LTR	0.11	30.0	D	0.14	39.2	+	E	LTR	0.05	21.9	C	Either No Mitigation, or an MPT Plan, based on discussions with NYSDOT, Westchester DOT, and local representatives.
Landmark East Driveway		Southbound	LTR	0.07	17.4	C	0.09	21.4		C	LTR	0.07	22.0	C	
		Eastbound	LTR	0.01	8.7	A	0.01	9.2		A	LTR	0.57	7.7	A	
		Westbound	LTR	0.01	9.2	A	0.01	9.2		A	LTR	0.55	7.4	A	
		Intersection			Unsignalized			Unsignalized					7.9	A	

Notes:

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts.

" + " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

(1) FEIS Mitigation derived based on meetings with Review Agencies (e.g., NYSDOT, Westchester County DPW, and Town Representatives).

Saw Mill River Road (Route 9A) and Saw Mill River Parkway Ramp. During the PM peak hour, the southbound through/right movement would deteriorate from LOS D with 54.3 seconds of delay to LOS E with 58.5 seconds of delay. This impact would be mitigated with the transfer of 1 second of green time from the eastbound signal phase to the north-south phase. As a result of this mitigation, the southbound through/right movement would improve compared to FNB conditions, to LOS D with 47.8 seconds of delay, and all of the other vehicle movements would operate at LOS C or better.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Grasslands Road (Route 100C) and Bradhurst Avenue (Route 100). During the AM peak hour, there would be construction-related impacts on the eastbound left-turn and through movements. The eastbound left-turn would deteriorate from LOS D with 36.6 seconds of delay to LOS E with 64.3 seconds of delay, and the through movement would deteriorate from LOS E with 75.1 seconds of delay to LOS F with well beyond 240.0 seconds of delay. A number of measures would be implemented at this location to mitigate these potential significant adverse impacts. The eastbound and westbound approaches would be restriped to accommodate two lanes, one shared left/through lane and one, shared through/right lane. The southbound approach would be channelized to allow for a dedicated, free-flow right turn movement, and a new signal timing and phasing plan would be implemented as described in Table 4.21-40. As a result of this mitigation, operations at this location would improve substantially compared to FNB conditions, and all vehicle movements would operate at LOS D or better with a maximum delay of 41.4 seconds.

During the PM peak hour, the westbound through/right movement would deteriorate from LOS E to LOS F with delays of over 240.0 seconds, increasing further. The northbound left-turn movement, which would continue to operate at LOS E, would experience a 6.2-second increase in delay. As described above for the AM peak hour, a number of measures would be required to fully mitigate the impacts at this location, including lane restriping, channelization, and new signal timing and phasing. With the implementation of these mitigation measures, the operation of this intersection would improve greatly compared to FNB conditions,, and all vehicle movements would operate reasonably without significant changes in LOS or delay, compared with 2008 FNB conditions.

Based on discussions that occurred between the Draft and Final EIS among NYCDEP and NYSDOT, an alternative restriping (change the westbound left-turn lane to a shared through left-turn lane) and revised signal plan to provide a lead eastbound/westbound phase[1] is more suitable at this location than the mitigation measures described in the Draft EIS. Although this measure does not fully mitigate the predicted traffic impacts at the intersection per the guidance in the *CEQR Technical Manual*, this revised mitigation would dramatically improve eastbound and westbound operations and reflect improved phasing of the signal operation. When compared to the Future With the Project with the Croton project, overall intersection level-of- service would

[1] A lead phase indicates a specific movement that will proceed through a given intersection while all other approaches to that intersection are stopped.

be equivalent or better than the Future Without the Project condition with the proposed improvement measure in place.

Knollwood Road (Route 100A) and Cross Westchester Expressway (I-287) Westbound Ramp. The northbound left-turn movement would deteriorate from LOS D to LOS E with a 3.6-second increase in delay. This impact would be mitigated with the transfer of 1 second of green time from the westbound signal phase to the northbound phase such that the northbound left-turn would improve compared to FNB conditions, to LOS D with 47.6 seconds of delay. The remaining vehicle movements at this location would operate at or better than their 2008 FNB LOS.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Saw Mill River Road (Route 9A) and Tarrytown/White Plains Road (Route 119). The eastbound left turn would deteriorate from LOS E to LOS F with 46.7- and 7.7-second increases in delay during the AM and PM peak hours, respectively. During the AM peak hour, a new signal phasing and timing plan would be required to fully mitigate this impact. This mitigation would improve the eastbound left-turn compared to FNB conditions, to LOS E with 66.0 seconds of delay, and the remaining approaches would operate at or near their 2008 FNB LOS. During the PM peak hour, a 2-second reduction in the signal cycle would mitigate the adverse impact at this location. As a result of this mitigation, the eastbound left-turn movement would improve, compared to FNB conditions, to LOS E with 76.3 seconds of delay and the other intersection approaches would operate at LOS D or better with no significant changes in delay as compared to the 2008 FNB conditions.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Saw Mill River Road (Route 9A) and Ramada Inn/Broadway Plaza. In both the AM and PM peak hours, there would be adverse impacts on the eastbound left-turn, eastbound through, and westbound left/through movements. During the AM, the eastbound left-turn would deteriorate from LOS D to LOS E; the eastbound through would deteriorate from LOS E to LOS F; and the westbound left/through movement would deteriorate from LOS D to LOS F. During the PM peak hour, the eastbound left-turn would deteriorate from LOS E to LOS F, and the eastbound through and westbound left/through movements would operate at LOS F with significant increases in delay. All of these impacts would be mitigated with the installation of a traffic signal at this location. As a result of this mitigation, all of the vehicle movements at this location would operate at LOS C or better compared to FNB conditions, with a maximum delay of 21.2 seconds during the AM and PM peak hours.

The predicted significant adverse impact at this intersection is largely due to estimated peak construction worker trips. While an MPT solution may be more suitable at this location, compared to the installation of a signal, NYCDEP would propose a traffic signal to be installed at this location before peak construction worker activities occur in 2008. NYCDEP would

submit the proposed traffic signal plan to the appropriate agency for approval. The approving agency may determine that an MPT is more suited for this location.

Grasslands Road (Route 100C) and Saw Mill River Road (Route 9A). During both the AM and PM peak hours, the northbound left-turn movement would remain at LOS F, with increases in delay of 110.2 seconds during the AM peak, and delays increasing to well beyond 240.0 seconds during the PM peak. These impacts would be mitigated with the installation of a traffic signal at this location. As a result of this mitigation, all of the vehicle movements would operate at LOS C or better compared to FNB conditions, with a maximum delay of 30.3 seconds during the AM and PM peak hours.

The predicted significant adverse impact at this intersection is largely due to estimated peak construction worker trips. While an MPT solution may be more suitable at this location, compared to the installation of a signal, NYCDEP would propose a traffic signal to be installed at this location before peak construction worker activities occur in 2008. NYCDEP would submit the proposed traffic signal plan to the appropriate agency for approval. The approving agency may determine that an MPT is more suited for this location.

Grasslands Road (Route 100C) and Saw Mill River Road (Route 9A) Northbound Ramp. During the AM peak hour, the northbound through/right movement would deteriorate from LOS B to LOS D, experiencing an 18.4-second increase in delay. During the PM peak hour, the northbound left/through movement would deteriorate from LOS C with 25.0 seconds of delay to LOS E with 37.4 seconds of delay. These impacts would be mitigated with the installation of a traffic signal at this location. As a result of this mitigation compared to FNB conditions, all of the vehicle movements would operate at LOS C or better during the AM peak hour, with a maximum delay of 21.5 seconds; during the PM peak hour, all of the vehicle movements would operate at LOS D or better with a maximum delay of 40.3 seconds.

The predicted significant adverse impact at this intersection is largely due to estimated peak construction worker trips. While an MPT solution may be more suitable at this location, compared to the installation of a signal, NYCDEP would propose a traffic signal to be installed at this location before peak construction worker activities occur in 2008. NYCDEP would submit the proposed traffic signal plan to the appropriate agency for approval. The approving agency may determine that an MPT is more suited for this location.

Old Saw Mill River Road and Saw Mill River Parkway Southbound Ramp. The eastbound approach would deteriorate from LOS E to LOS F with a 13.6-second increase in delay during the PM peak hour. This impact would be mitigated by shifting 2 seconds of green time from the southbound signal phase to the east-west phase. As a result of this mitigation, the eastbound approach would improve compared to FNB conditions, to LOS E with 62.0 seconds of delay, and the other approaches would operate at their 2008 FNB LOS, or better.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Grasslands Road (Route 100C) and Clearbrook Road/Walker Road. The southbound left/through movement would deteriorate from LOS C with 33.8 seconds of delay to LOS D with 48.5 seconds of delay during the AM peak hour. This impact would be mitigated by transferring 1 second of green time from the east-west signal phase to the north-south phase. As a result of this mitigation, the southbound left/through movement would operate below mid-LOS D, with 44.4 seconds of delay. The remaining vehicle movements would continue to operate at their 2008 FNB LOS with no significant changes in their average vehicle delays.

During the PM peak hour, construction-related traffic would result in two significant adverse impacts at this intersection. The westbound left-turn would continue to operate at LOS F, with delays increasing beyond 240.0 seconds. The westbound through/right movement would deteriorate from LOS B to LOS E with a 62.9-second increase in delay. These impacts would be mitigated with signal timing adjustments. The cycle length would be extended from 85 to 90 seconds, and the north-south phase would be reduced by 3 seconds. These measures would also allow for an 8-second increase in the east-west phase. As a result of this mitigation these movements would improve compared to FNB conditions, with an LOS F with 85.9 seconds of delay for the northbound left-turn, and an LOS D with 42.9 seconds of delay for the northbound through/right movement. The remaining vehicle movements would operate at LOS C or better with a maximum delay of 26.4 seconds per vehicle.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Grasslands Road (Route 100C) and Sprain Brook Parkway Southbound Ramp. The southbound left-turn movement would deteriorate from LOS C with 34.0 seconds of delay to LOS D with 53.9 seconds of delay during the AM peak hour. A 1-second shift of green signal time from the east-west phase to the southbound phase would fully mitigate this impact. As a result of this mitigation compared to FNB conditions, the southbound left-turn would operate below mid-LOS D, with 44.4 seconds of delay, and the other vehicle movements would operate at LOS C or better with a maximum of 29.3 seconds delay.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Grasslands Road (Route 100C) and Sprain Brook Parkway Northbound Ramp. During the AM peak hour, the northbound right-turn movement would deteriorate from LOS E with 74.8 seconds of delay to LOS F with greater than 240.0 seconds of delay. During the PM peak hour, the westbound approach would deteriorate from LOS E to LOS F with delays increasing beyond 240.0 seconds. A combination of measures would be used to fully mitigate these impacts. New signal timing and phasing plans would be implemented in both the AM and PM peak hours as described in Table 4.21-40. Furthermore, the roadway would be expanded to incorporate the shoulders of the eastbound and westbound approaches, which would allow for an additional

travel lane in both directions. On the eastbound approach, this additional lane would be used for through traffic, and on the westbound approach, this lane would provide for a dedicated right-turn movement.

With these mitigation measures compared to FNB conditions, the northbound right-turn movement would improve to LOS E with 70.5 seconds of delay during the AM peak hour, and there would also be decreases in delay on the northbound left/through movement. Although other vehicle movements would experiences increases in delay compared to FNB conditions, during the AM peak hour, all would operate below mid-LOS D or better, without resulting in any adverse impacts to traffic operations.

During the PM peak hour, the proposed mitigation measures would improve the operation of the westbound through movement compared to FNB conditions, to LOS D with 42.6 seconds of delay and the westbound right-turn movement compared to FNB conditions, to LOS B with 15.2 seconds of delay. Although other vehicle movements would experiences increases in delay compared to FNB conditions, all would operate below mid-LOS D or better, without resulting in any adverse impacts to PM peak hour traffic operations at this intersection.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Virginia Road and Bronx River Parkway. During the AM peak hour, the eastbound left/through movement would continue to operate at LOS F with an 18.8-second increase in delay, and the northbound left-turn movement would deteriorate from LOS D to LOS E, with a 13.5-second increase in delay. These impacts would be mitigated with signal timing adjustments. The north-south signal phase would be reduced by 8 seconds, and the east-west phase and the north-south permitted left-turn phases would be extended by 2 and 6 seconds, respectively. As a result of this mitigation, the operation of the eastbound and westbound approaches and northbound and southbound left-turn movements would improve to LOS better than under 2008 FNB conditions. Although there would be an increase in delay compared to FNB conditions, for the northbound through/right and the southbound through movements, these movements would continue to operate below mid-LOS D or better with a maximum delay of 36.9 seconds per vehicle.

During the PM peak hour, the eastbound left/through movement and the westbound approach would continue to operate at LOS F with delays increasing to beyond 240.0 seconds. These impacts would be mitigated by transferring 7 seconds of green time from the north-south signal phase to the east-west phase. As a result of this mitigation, the westbound approach would improve compared to FNB conditions, to LOS E with 73.0 seconds of delay, and the eastbound left/through movement would improve compared to FNB conditions, to operate at LOS F with 134.7 seconds of delay. The other vehicle movements would continue to operate at their 2008 FNB LOS, with only minor changes in their average delays.

Westchester County DPW would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Grasslands Road (Route 100) and Virginia Road. During the PM peak hour, the westbound approach would continue to operate at LOS F with delays increasing to well beyond 240.0 seconds. This impact would be mitigated with the creation of a channelized right-turn lane at the westbound approach, and with the retiming of the traffic signal, as described in Table 4.21-28. With these mitigation measures, all of the vehicle movements at this intersection would operate below mid-LOS D or better compared to FNB conditions, with a maximum delay of 41.8 seconds.

Although an impact was not identified at this location during the AM peak hour, an analysis was conducted to determine the potential effects of a channelized right-turn, and installation of a new traffic signal. Although the vehicle delays would increase in comparison to 2008 FNB conditions, all of the traffic movements would operate at LOS C or better with a maximum delay of 20.9 seconds.

Based on discussions that occurred between the Draft and Final EIS among NYCDEP and NYSDOT, Westchester County DPW, and local representatives, an MPT solution is more likely at this location than the mitigation measures described, because NYSDOT is planning to install a traffic signal at this intersection in the future, in coordination with planned NYSDOT design work for the corridor. NYCDEP and NYSDOT would coordinate the improvement of this intersection to ensure that adequate traffic flow would occur during the proposed project's impact period.

Grasslands Road (Route 100) and Legion Drive. Construction-related traffic would result in potential significant adverse impacts to the southbound left-turn movement in both the AM and PM peak hours. During the AM peak, the southbound left-turn would deteriorate from LOS D with 29.8 seconds of delay to LOS F with 50.3 seconds of delay. During the PM peak hour, the southbound left-turn would continue to operate at LOS F, with delays increasing beyond 240.0 seconds. These impacts would be fully mitigated with the installation of a traffic signal at this location. As a result of this mitigation compared to FNB conditions, all of the vehicle movements would operate at LOS C or better during the AM peak, with a maximum delay of 22.1 seconds, and at LOS D or better during the PM peak, with a maximum delay of 42.9 seconds.

NYCDEP would recommend the installation of a signal at this intersection. However, based on discussions that occurred between the Draft and Final EIS among NYCDEP and NYSDOT, Westchester County DPW, and local representatives, an MPT solution is more likely at this location than the mitigation measures described, because NYSDOT is planning to install a traffic signal at this intersection in the future, in coordination with planned NYSDOT design work for the corridor. NYCDEP and NYSDOT would coordinate the improvement of this intersection to ensure that adequate traffic flow would occur during the proposed project's impact period.

Grasslands Road (Route 100) and WCC East Gate. The northbound left-turn movement would experience an adverse impact during both the AM and PM peak hours. During the AM, the northbound left-turn would continue to operate at LOS D, but there would be a 6.2-second increase in delay. During the PM, the operation of this movement would deteriorate from LOS C with 30.6 seconds of delay, to LOS F with delays increasing to well beyond 240.0 seconds.

These impacts would be fully mitigated by expanding the northbound approach by 7 feet to accommodate 2 travel lanes and by implementing a new signal phasing and timing plan. During the AM peak hour compared to FNB conditions, these measures would improve the operation of the northbound left-turn to LOS D, with 45.5 seconds of delay, and all of the other vehicle movements would operate at LOS A. During the PM peak hour, the northbound left-turn would improve compared to FNB conditions, to LOS D with 41.0 seconds of delay, and all of the other movements would operate below mid-LOS D or better.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Grasslands Road (Route 100) and WCC West Gate. The northbound left-turn and right-turn movements would experience adverse impacts during the AM peak hour. During the PM peak hour, the northbound left-turn would experience and adverse impact. During the AM, the northbound left-turn would deteriorate from LOS C (20.5 seconds of delay) to LOS F (84.1 seconds of delay) and the northbound right-turn would deteriorate from LOS B (13.7 seconds of delay) to LOS E (36.0 seconds of delay). During the PM peak hour, the northbound left-turn would remain at LOS F, with delays increasing well beyond 240.0 seconds.

Several measures would be required to fully mitigate these impacts at this intersection. A traffic signal would be installed. Channelized right-turns would be constructed on the eastbound and northbound approaches, and the westbound approach would be expanded onto its shoulder to create two travel lanes. As a result of implementing these measures compared to FNB conditions, all of the traffic movements would operate below mid-LOS D or better with a maximum vehicle delay of 44.7 and 43.9 seconds during the AM and PM peak hours, respectively.

NYCDEP would recommend the installation of a signal at this intersection. However, based on discussions that occurred between the Draft and Final EIS among NYCDEP and NYSDOT, Westchester County DPW, and local representatives, an MPT solution is more likely at this location than the mitigation measures described above, because NYSDOT is planning to install a traffic signal at this intersection in the future, in coordination with planned NYSDOT design work for the corridor. NYCDEP and NYSDOT would coordinate the improvement of this intersection to ensure that adequate traffic flow would occur during the proposed project's impact period.

Old Saw Mill River Road and the Landmark Property East Driveway. During the PM peak hour, the northbound approach would deteriorate from LOS D to LOS E, experiencing a 9.2-second increase in delay. This impact would be mitigated with the installation of a traffic signal at this location. As a result of this mitigation, all of the vehicle movements would operate at LOS C or better compared to FNB conditions, during the PM peak hour, with a maximum delay of 22.0 seconds.

Although an impact was not identified at this location during the AM peak hour, an analysis was conducted to determine the potential effects of the installation of a new traffic signal. Although the vehicle delays at some movements would increase in comparison to 2008 FNB conditions, all

of the traffic movements would operate at LOS C or better, with a maximum delay of 22.0 seconds, during the AM peak hour.

The predicted significant adverse impact at this intersection is largely due to estimated peak construction worker trips. While an MPT solution may be more suitable at this location, compared to the installation of a signal, NYCDEP would propose a traffic signal to be installed at this location before peak construction worker activities occur in 2008. NYCDEP would submit the proposed traffic signal plan to the appropriate agency for approval. The approving agency may determine that an MPT is more suited for this location.

2008 Combined Construction Option C Conditions.

Under the scenario, which compares a "pure" 2008 FNB condition to a 2008 Construction condition that includes both the UV Facility and the Croton project under parking Option C, it was found that traffic from the additional construction vehicle trips would be anticipated to result in 33 potential significant adverse traffic impacts, 14 during the AM peak hour and 19 during the PM peak hour. These potential significant adverse impacts could be fully mitigated as shown in Table 4.21-41 and as described below.

The tables showing the results of applying the mitigation measures also indicate the specific measures recommended for each location. For many of the locations, more than one measure was identified that could be implemented that would reduce delays back to or below FNB conditions. The assessment presented here relies mostly on a combination of new traffic signals, lane stripping changes, and traffic signal retiming or phasing changes as the recommended measures. However, some of the measures that were investigated were more extraordinary, involving additional lane construction or street widening, to give a complete range of potential measures that could eliminate impacts.

Saw Mill River Road (Route 9A) and Stevens Avenue North. The eastbound approach would experience an adverse impact from construction-related traffic during the AM peak hour. Without mitigation, this approach would deteriorate from LOS D with 35.0 seconds of delay to LOS E with 40.6 seconds of delay. This impact would be fully mitigated with the installation of a traffic signal at this location. As a result of this mitigation, all of the vehicle movements would operate at LOS C or better compared to FNB conditions, with a maximum AM peak hour delay of 22.7 seconds per vehicle.

Although an impact was not identified at this location during the PM peak hour, an analysis was conducted to determine the effect of a new traffic signal on vehicle operations at this location. Although average vehicle delays would increase on some approaches compared to FNB conditions, the vehicle movements at this location would operate at LOS C or better with a maximum delay of 23.2 seconds during the PM peak hour.

Saw Mill River Road (Route 9A) and Saw Mill River Parkway Ramp. During the PM peak hour, the southbound through/right movement would deteriorate from LOS D to LOS E with a 4.2-second increase in average vehicle delay. This impact would be mitigated with a 1 second shift in signal timing from the eastbound phase to the north-south phase. As a result of

this mitigation, the southbound through/right movement would improve compared to FNB conditions, to LOS D with 47.6 seconds of delay. The remaining vehicle movements at this intersection would continue to operate at LOS C or better.

Grasslands Road (Route 100C) and Bradhurst Avenue (Route 100). The eastbound through movement would deteriorate from LOS E with 75.1 seconds of delay to LOS F with well beyond 240.0 seconds of delay during the AM peak hour. This impact would be mitigated by restriping the westbound approach to accommodate 2 travel lanes and with the reprogramming of the traffic signal as shown in Table 4.21-41. As a result of this mitigation, the eastbound through movement would improve compared to FNB conditions, to LOS E with 72.2 seconds of delay, and the remaining vehicle movements at this intersection would operate at LOS D or better with a maximum delay of 41.1 seconds per vehicle.

During the PM peak hour, the westbound through/right movement would deteriorate from LOS E with 55.5 seconds of delay to LOS F with over 240.0 seconds of delay. As described above, the westbound approach would be restriped to accommodate two travel lanes, and a new signal timing and phasing plan would be implemented. As a result of these mitigation measures, the westbound approach would improve compared to FNB conditions, to LOS D with 47.2 seconds of delay.

Based on discussions that occurred between the Draft and Final EIS among NYCDEP and NYSDOT, an alternative restriping (change the westbound left-turn lane to a shared through left-turn lane) and revised signal plan to provide an eastbound/westbound phase is more suitable at this location than the mitigation measures described. Although this measure does not fully mitigate the predicted traffic impacts at the intersection per the guidance in the *CEQR Technical Manual*, this revised mitigation would dramatically improve eastbound and westbound operations and reflect improved phasing of the signal operation. Overall intersection level-of-service would improve with the proposed improvement measure in place.

TABLE 4.21-41. PURE NO BUILD VS. CROTON + CAT DEL LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD, CONSTRUCTION (OPTION C) AND MITIGATION CONDITIONS

			AM Peak Hour											
			2008 Pure No Build				2008 Combined			2008 Mitigation				
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	FEIS Mitigation Measures (1)
Saw Mill River Road (Rt.9A) @	3N	Northbound	LT	0.02	10.9	B	0.02	11.3	B	LTR	0.39	8.5	A	MPT Plan may be more suited.
Stevens Avenue North		Southbound	LT	0.03	9.2	A	0.03	9.3	A	LTR	0.65	11.3	B	
		Eastbound	LTR	0.02	35.0	D	0.03	40.6 +	E	LTR	0.01	22.5	C	
		Westbound	LTR	0.03	16.7	C	0.04	18.1	C	LTR	0.03	22.7	C	
		Intersection			Unsignalized			Unsignalized				10.4	B	
Grasslands Road (E-W) @	6	Eastbound	L	0.71	36.6	D	0.82	48.0	D	L	0.39	12.0	B	Add protected left-turn phase, signal retiming,
Bradhurst Avenue			T	1.03	75.1	E	*	** +	F	T	1.09	72.2	E	and westbound lane restriping from exclusive
			R	0.35	16.3	B	0.36	16.5	B	R	0.32	9.1	A	left-turn lane to shared left-turn through lane.
		Westbound	L	0.68	56.6	E	0.68	56.6	E	LTR	0.45	16.5	B	
			TR	0.43	25.8	C	0.50	26.9	C					
		Northbound	L	0.23	23.3	C	0.26	23.8	C	L	0.50	31.6	C	
			TR	0.34	25.9	C	0.35	26.1	C	TR	0.69	39.1	D	
		Southbound	L	0.50	40.1	D	0.51	40.5	D	L	0.52	32.8	C	
			TR	0.68	49.7	D	0.68	49.7	D	TR	0.71	41.1	D	
		Intersection			45.2	D		147.5	F			43.8	D	
Saw Mill River Road (Rt.9A) @	15	Eastbound	L	0.97	66.8	E	1.12	113.5 +	F	L	0.98	66.4	E	Provide the intersection with a new signal plan
Tarrytown/White Plains Road (Rt.119)			TR	0.38	14.5	B	0.38	14.5	B	TR	0.36	10.9	B	as follows
		Westbound	L	0.17	22.3	C	0.17	22.3	C	L	0.17	21.1	C	EB/SB-R: G/A/R = 17/3/2
			TR	0.30	23.5	C	0.31	23.6	C	TR	0.32	22.2	C	EB/WB: G/A/R = 45/3/2
		Northbound	L	0.38	34.2	C	0.39	34.4	C	L	0.38	30.2	C	NB: G/A/R = 6/3/0
			TR	0.62	40.3	D	0.72	44.9	D	TR	0.68	38.3	D	NB/SB: G/A/R = 24/3/2
		Southbound	L	0.24	33.9	C	0.29	36.6	D	L	0.41	38.4	D	C = 110 seconds
			T	0.42	34.9	C	0.44	35.3	D	T	0.59	41.5	D	NYSDOT will determine if retiming is necessary
			R	0.23	22.1	C	0.24	22.2	C	R	0.25	20.9	C	after construction of the UV Facility begins.
		Intersection			31.8	C		42.3	D			31.5	C	
Saw Mill River Road (Rt.9A) @	17	Northbound	L	0.09	10.0	A	0.15	10.6	B	L	0.31	4.7	A	Propose to be signalized.
Ramada Inn/Broadway Plaza										TR	0.36	4.5	A	MPT Plan may be more suited.
		Southbound	LT	0.01	8.7	A	0.02	9.3	A	LTR	0.40	4.7	A	
		Eastbound	L	0.01	31.9	D	0.02	47.4 +	E	L	0.01	20.9	C	
			T	0.02	36.9	E	0.03	58.7 +	F	T	0.01	20.9	C	
		Westbound	LT	0.10	33.1	D	0.17	57.7 +	F	Def	0.06	21.2	C	
			TR	0.01	10.6	B	0.01	11.4	B	TR	0.03	21.0	C	
		Intersection			Unsignalized			Unsignalized				4.8	A	
Saw Mill River Road @	19A	Northbound	L	0.78	85.3	F	*	** +	F	L	0.49	31.7	C	This intersection meets the volume warrants for
Grasslands Road (Rt.100C)			R	0.20	16.3	C	0.24	19.1	C	R	0.22	28.9	C	a traffic signal, even under existing conditions. If
		Eastbound								T	0.78	13.8	B	a new signal is proposed, formal signal Warrant
										R	0.21	5.9	A	studies will be completed and NYCDEP will
		Westbound	L	0.15	11.3	B	0.17	12.3	B	L	0.34	7.1	A	work with NYSDOT.
										T	0.53	8.2	A	
		Intersection			Unsignalized			Unsignalized				12.9	B	
Grasslands Road (E-W) @	19B	Northbound	LT	0.06	25.7	D	0.51	64.4 +	F	LTR	0.33	20.9	C	This intersection meets the volume warrants for
Saw Mill River Road NB Ramp (N-S)			TR	0.07	13.7	B	0.34	19.6	C					a traffic signal, even under existing conditions. If
		Eastbound	L	0.21	10.1	B	0.28	12.4	B	L	0.80	25.7	C	a new signal is proposed, formal signal Warrant
										T	0.76	11.1	B	studies will be completed and NYCDEP will
		Westbound								TR	0.85	15.3	B	work with NYSDOT.
		Intersection			Unsignalized			Unsignalized				15.1	B	
Grassland Road (Rt.100C) @	27	Eastbound	L	0.09	14.7	B	0.12	15.3	B	L	0.21	19.6	B	Provide the intersection with a new signal plan
Sprain Brook Pkwy NB Ramp	30		T	0.50	18.0	B	0.72	22.2	C	T	0.96	44.2	D	as follows
		Westbound	TR	0.47	24.6	C	0.53	25.6	C	TR	0.56	22.7	C	EB/WB: G/A/R = 34/4/1
		Northbound	LT	1.00	68.7	E	1.32	187.6 +	F	LT	1.03	61.4	E	NB: G/A/R = 45/4/2
			R	1.02	74.8	E	1.27	165.4 +	F	R	0.99	51.4	D	C = 90 seconds
		Intersection			44.0	D		93.0	F			45.5	D	NYSDOT will determine if retiming is necessary
														after construction of the UV Facility begins.
Virginia Road @	31	Eastbound	LT	1.12	126.9	F	1.17	148.9 +	F	LT	1.09	116.0	F	Shift 2 seconds of green time from NB/SB phase
Bronx River Pkwy			R	0.21	19.6	B	0.22	19.7	B	R	0.21	18.5	B	to EB/WB phase.
		Westbound	LTR	0.40	34.6	C	0.44	35.2	D	LTR	0.40	33.2	C	The Westchester County DPW will determine if
		Northbound	L	0.04	46.3	D	0.36	49.2	D	L	0.36	49.2	D	retiming is necessary.
			TR	0.26	20.1	C	0.26	20.1	C	TR	0.27	21.4	C	
		Southbound	L	1.10	141.5	F	1.10	141.5	F	L	1.10	141.5	F	
			T	0.70	27.3	C	0.70	27.3	C	T	0.73	29.4	C	
		Intersection			53.9	D		57.0	E			52.9	D	
Grasslands Road @	32	Southbound	LT	0.23	8.3	A	0.24	8.4	A	LT	0.24	8.4	A	MPT Plan is likely; NYSDOT is planning to
Virginia Road		Westbound	LR	0.55	16.6	C	0.69	20.6	C	L	0.19	27.5	D	signalize this intersection.
										R	0.50	13.0	B	
		Intersection			Unsignalized			Unsignalized				Unsignalized		
Grasslands Road @	33	Southbound	L	0.42	29.8	D	0.50	39.1 +	E	L	0.32	21.1	C	MPT Plan is likely; NYSDOT is planning to
Legion Drive			R	0.20	12.1	B	0.23	13.7	B	R	0.44	22.1	C	signalize this intersection.
		Eastbound	LT	0.07	8.5	A	0.08	8.9	A	LT	0.53	6.6	A	
		Westbound								T	0.51	6.4	A	
										R	0.03	0.0	A	
		Intersection			Unsignalized			Unsignalized				9.0	A	
Grasslands Road @	35	Northbound	L	0.06	20.5	C	0.12	38.9 +	E	L	0.08	24.7	C	MPT Plan will be implemented.
WCC West Gate			R	0.01	13.7	B	0.02	21.2	C					
		Eastbound								T	0.80	8.8	A	
		Westbound	LT	0.00	9.9	A	0.01	12.4	B	LT	0.29	2.8	A	
		Intersection			Unsignalized			Unsignalized						
Old Saw Mill River Road @	47	Northbound	LTR	0.07	17.5	C	0.14	18.5	C	LTR	0.18	26.7	C	Either No Mitigation, or an MPT Plan, based on
Landmark East Driveway		Southbound	LTR	0.01	10.3	B	0.55	174.1 +	F	LTR	0.12	26.4	C	discussions with NYSDOT, Westchester DOT,
		Eastbound	LTR	0.01	8.1	A	0.02	8.6	A	LTR	0.67	6.6	A	and local representatives.
		Westbound	LTR	0.02	10.2	B	0.28	12.1	B	LTR	0.85	15.4	B	
		Intersection			Unsignalized			Unsignalized				11.0	B	

Notes:

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts.

" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

(1) FEIS Mitigation derived based on meetings with Review Agencies (e.g., NYSDOT, Westchester County DPW, and Town Representatives).

TABLE 4.21-41. PURE NO BUILD VS. CROTON + CAT DEL LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD, CONSTRUCTION (OPTION C) AND MITIGATION CONDITIONS

			PM Peak Hour											
			2008 Pure No Build				2008 Combined			2008 Mitigation				
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	FEIS Mitigation Measures (1)
Saw Mill River Road (Rt.9A) @	3N	Northbound	LT	0.01	9.8	A	0.01	9.8	A	LTR	0.67	11.8	B	MPT Plan may be more suited.
Stevens Avenue North		Southbound	LT	0.02	10.5	B	0.02	10.9	B	LTR	0.40	8.5	A	
		Eastbound	LTR	0.13	24.1	C	0.14	25.9	D	LTR	0.10	23.2	C	
		Westbound	LTR	0.07	15.7	C	0.08	16.7	C	LTR	0.07	23.0	C	
		Intersection			Unsignalized			Unsignalized				10.8	B	
Saw Mill River Road (Rt.9A) (N-S) @	4	Eastbound	L	0.52	29.3	C	0.52	29.3	C	L	0.55	30.8	C	Signal Retiming: shift 1 second of green time
Saw Mill River Pkwy Ramp			LTR	0.14	25.8	C	0.14	25.8	C	LTR	0.15	26.6	C	from eastbound phase to
		Westbound	L	0.14	34.1	C	0.14	34.1	C	L	0.14	34.1	C	northbound/southbound phase
			LT	0.09	33.8	C	0.09	33.8	C	LT	0.09	33.8	C	
			R	0.04	33.6	C	0.04	33.6	C	R	0.04	33.6	C	
		Northbound	L	0.81	31.5	C	0.81	31.6	C	L	0.81	31.1	C	NYSDOT will determine if retiming is necessary
			TR	0.55	15.4	B	0.61	16.2	B	TR	0.59	15.4	B	after construction of the UV Facility begins.
		Southbound	L	0.13	21.4	C	0.14	21.6	C	L	0.13	20.8	C	
			TR	0.98	54.3	D	1.00	58.5	E	TR	0.95	47.6	D	
		Intersection			33.7	C		35.1	D			30.8	C	
Grasslands Road (E-W) @	6	Eastbound	L	*	**	F	*	**	F	L	1.46	**	F	Add protected left-turn phase, signal retiming,
Bradhurst Avenue			T	0.59	22.3	C	0.65	23.9	C	T	0.62	20.6	C	and westbound lane restriping from exclusive
			R	0.27	12.1	B	0.29	12.3	B	R	0.35	16.8	B	left-turn lane to shared left-turn through lane.
		Westbound	L	0.22	18.0	B	0.28	18.7	B	LTR	0.99	47.2	D	
			TR	0.98	55.5	E	1.48	** +	F					
		Northbound	L	0.87	58.7	E	0.90	64.9	E	L	0.85	53.7	D	
			TR	0.20	16.3	B	0.20	16.3	B	TR	0.27	22.9	C	
		Southbound	L	0.30	25.1	C	0.30	25.1	C	L	0.20	16.8	B	
			TR	1.12	109.2	F	1.12	109.2	F	TR	1.10	99.0	F	
		Intersection			70.0	E		137.0	F			57.9	E	
Knollwood Road (E-W) @	8	Westbound	LT	0.79	39.0	D	0.79	39.0	D	LT	0.82	42.8	D	Signal Retiming: shift 1 second of green time
Cross Westchester Expy (I-287) WB Ramp			R	0.45	27.6	C	0.45	27.6	C	R	0.47	28.6	C	from westbound phase to northbound leading
		Northbound	L	0.95	52.6	D	0.97	58.2 +	E	L	0.93	47.6	D	phase
			T	0.52	10.5	B	0.53	10.6	B	T	0.52	10.0	A	
		Southbound	T	0.44	14.8	B	0.46	15.0	B	T	0.46	15.0	B	
			R	0.23	12.8	B	0.23	12.9	B	R	0.23	12.9	B	NYSDOT will determine if retiming is necessary
		Intersection			26.7	C		27.7	C			26.2	C	after construction of the UV Facility begins.
Saw Mill River Road (Rt.9A) @	15	Eastbound	L	0.99	76.6	E	1.02	83.2 +	F	L	0.86	37.6	D	Provide the intersection with a new signal plan
Tarrytown/White Plains Road (Rt.119)			TR	0.46	20.2	C	0.46	20.2	C	TR	0.42	14.5	B	as follows
		Westbound	L	0.42	34.4	C	0.42	34.4	C	L	0.41	28.7	C	EB/SB-R: G/A/R = 19/2/0
			TR	0.88	48.6	D	0.89	49.3	D	TR	0.87	41.2	D	EB/WB: G/A/R = 24/3/2
		Northbound	L	0.30	25.0	C	0.34	25.8	C	L	0.27	15.6	B	NB: G/A/R = 5/2/0
			TR	0.82	41.0	D	0.83	42.1	D	TR	0.68	23.0	C	NB/SB: G/A/R = 33/0/0
		Southbound	L	0.54	35.0	C	0.57	36.4	D	L	0.78	41.5	D	C = 90 seconds
			T	0.26	22.8	C	0.34	23.8	C	T	0.36	21.2	C	NYSDOT will determine if retiming is necessary
			R	0.39	11.0	B	0.43	11.3	B	R	0.45	11.0	B	after construction of the UV Facility begins.
		Intersection			35.0	C		35.8	D			25.3	C	
Saw Mill River Road (Rt.9A) @	17	Northbound	L	0.15	10.3	B	0.16	10.5	B	L	0.32	4.7	A	Propose to be signalized.
Ramada Inn/Broadway Plaza										TR	0.39	4.6	A	MPT Plan may be more suited.
		Southbound	LT	0.01	9.4	A	0.01	9.6	A	LTR	0.41	4.7	A	
		Eastbound	L	0.01	48.4	E	0.01	53.0 +	F	L	0.00	20.9	C	
			T	0.08	79.9	F	0.09	90.6 +	F	T	0.02	20.9	C	
		Westbound	LT	0.11	56.3	F	0.13	63.9 +	F	LTR	0.04	21.0	C	
			TR	0.03	17.0	C	0.03	18.0	C					
		Intersection			Unsignalized			Unsignalized				4.9	A	
Saw Mill River Road @	19A	Northbound	L	0.99	145.4	F	*	** +	F	L	0.57	27.9	C	This intersection meets the volume warrants for
Grasslands Road (Rt.100C)			R	0.28	15.7	C	0.44	26.2	D	R	0.57	28.2	C	a traffic signal, even under existing conditions. If
		Eastbound								T	0.82	10.7	B	a new signal is proposed, formal signal Warrant
										R	0.28	3.5	A	studies will be completed and NYCDEP will
		Westbound	L	0.17	11.2	B	0.45	18.7	C	L	0.79	20.8	C	work with NYSDOT.
										T	0.52	4.7	A	
		Intersection			Unsignalized			Unsignalized				10.9	B	
Grasslands Road (E-W) @	19B	Northbound	LT	0.05	25.0	C	0.11	45.0 +	E	LTR	0.20	21.8	C	This intersection meets the volume warrants for
Saw Mill River Road NB Ramp (N-S)			TR	0.16	14.2	B	0.25	19.9	C					a traffic signal, even under existing conditions. If
		Eastbound	L	0.17	10.5	B	0.27	12.7	B	L	0.72	16.7	B	a new signal is proposed, formal signal Warrant
										T	0.75	9.2	A	studies will be completed and NYCDEP will
		Westbound								TR	0.93	21.5	C	work with NYSDOT.
		Intersection			Unsignalized			Unsignalized				16.1	B	
Old Saw Mill River Road @	21	Eastbound	LT	1.04	70.0	E	1.08	86.1 +	F	LT	1.02	64.3	E	Signal Retiming: shift 2 seconds of green time from
Saw Mill River Pkwy SB Off Ramp		Westbound	TR	0.42	9.2	A	0.53	10.2	B	TR	0.51	9.0	A	southbound phase to eastbound/westbound phase.
		Southbound	L	0.29	23.1	C	0.29	23.1	C	L	0.31	24.8	C	NYSDOT will determine if retiming is necessary after
			LR	0.21	22.6	C	0.21	22.6	C	LR	0.24	24.2	C	construction of the UV Facility begins.
		Intersection			33.9	C		37.2	D			29.5	C	
Grassland Road (Rt.100C) @	24	Eastbound	L	0.04	9.2	A	0.07	9.7	A	L	0.05	9.3	A	Provide the intersection with a new signal plan
Clearbrook Road/Walker Road			TR	0.73	17.2	B	0.99	43.7	D	TR	0.96	37.8	D	as follows
		Westbound	L	1.40	230.4	F	*	**	F	L	0.70	41.5	D	EB/WB: G/A/R = 50/4/1
			TR	0.70	16.7	B	0.92	30.5	C	TR	0.72	10.6	B	WB: G/A/R = 7/3/2
		Northbound	LT	0.19	19.9	B	0.20	20.0	B	LT	0.45	33.3	C	NB/SB: G/A/R = 18/4/1
		Southbound	LT	0.23	20.3	C	0.29	20.9	C	LT	0.47	33.2	C	C = 90 seconds
			R	0.01	18.5	B	0.04	18.7	B	R	0.07	29.3	C	NYSDOT will determine if retiming is necessary after
		Intersection			42.3	D		101.5	F			27.5	C	construction of the UV Facility begins.
Grassland Road (Rt.100C) @	27	Eastbound	L	0.50	15.4	B	0.80	32.8	C	L	0.80	41.5	D	Provide the intersection with a new signal plan
Sprain Brook Pkwy NB Ramp	30		T	0.32	9.0	A	0.35	9.2	A	T	0.32	6.6	A	as follows
		Westbound	TR	1.06	67.9	E	1.38	199.0 +	F	TR	1.07	64.6	E	EB/WB: G/A/R = 36/4/1
		Northbound	LT	0.69	29.4	C	0.71	30.0	C	LT	0.85	42.2	D	EB: G/A/R = 6/3/1
			R	0.35	23.1	C	0.37	23.2	C	R	0.44	25.0	C	NB: G/A/R = 18/4/2
		Intersection			42.6	D		116.2	F			45.6	D	C = 75 seconds
														NYSDOT will determine if retiming is necessary
														after construction of the UV Facility begins.
Virginia Road @	31	Eastbound	LT	1.16	139.6	F	1.32	205.4 +	F	LT	1.15	132.9	F	Signal Retiming: Shift 4 seconds of green time
Bronx River Pkwy			R	0.39	34.6	C	0.53	36.9	D	R	0.47	33.1	C	from northbound and southbound phase to
		Westbound	LTR	1.26	185.8	F	*	** +	F	LTR	1.07	111.0	F	eastbound and westbound phase.
		Northbound	L	0.06	10.9	B	0.06	11.0	B	L	0.07	12.9	B	The Westchester County DPW will determine if
			TR	0.62	25.3	C	0.62	25.3	C	TR	0.67	28.9	C	retiming is necessary.
		Southbound	L	0.13	11.7	B	0.13	11.7	B	L	0.14	13.7	B	
			T	0.59	24.7	C	0.59	24.7	C	T	0.63	28.1	C	
		Intersection			61.7	E		87.5	F			54.9	D	

Notes:

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts.

" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

(1) FEIS Mitigation derived based on meetings with Review Agencies (e.g., NYSDOT, Westchester County DPW, and Town Representatives).

TABLE 4.21-41. PURE NO BUILD VS. CROTON + CAT DEL LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD, CONSTRUCTION (OPTION C) AND MITIGATION CONDITIONS

			PM Peak Hour											
			2008 Pure No Build				2008 Combined			2008 Mitigation				
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	FEIS Mitigation Measures (1)
Grasslands Road @	32	Southbound	LT	0.36	10.3	B	0.47	11.4	B	LT	0.47	11.4	B	MPT Plan is likely; NYSDOT is planning to signalize this intersection.
Virginia Road		Westbound	LR	1.23	155.8	F	*	** +	F	L	0.95	142.7	F	
										R	0.62	20.0	C	
		Intersection		Unsignalized			Unsignalized				Unsignalized			
Grasslands Road @	33	Southbound	L	1.27	210.8	F	1.46	** +	F	L	0.66	27.1	C	MPT Plan is likely; NYSDOT is planning to signalize this intersection.
Legion Drive			R	0.47	19.7	C	0.47	19.9	C	R	0.73	31.4	C	
		Eastbound	LT	0.24	10.7	B	0.24	10.8	B	LT	0.97	34.8	C	
		Westbound								T	0.51	6.4	A	
										R	0.18	0.1	A	
		Intersection		Unsignalized			Unsignalized					21.6	C	
Grassland Road (Rt.100C) @	34	Eastbound	T	0.72	16.6	B	0.73	17.0	B	T	0.79	25.1	C	Provide the intersection with a new signal plan as follows EB/WB: G/A/R = 43/4/1 NB: G/A/R = 36/5/1 C = 90 seconds NYSDOT will determine if retiming is necessary after construction of the UV Facility begins.
WCC East Gate		Westbound	L	0.21	11.1	B	0.23	11.3	B	L	0.50	18.0	B	
			T	0.58	7.9	A	0.58	7.9	A	T	0.79	24.6	C	
		Northbound	L	0.62	30.6	C	*	** +	F	L	0.91	40.8	D	
		Intersection			14.5	B		132.3	F			29.4	C	
Grasslands Road @	35	Northbound	L	0.26	50.2	F	0.54	136.4 +	F	L	0.22	35.6	D	MPT Plan will be implemented.
WCC West Gate			R	0.49	18.4	C	0.53	20.5	C					
		Eastbound								T	0.42	2.6	A	
		Westbound	LT	0.12	9.1	A	0.13	9.3	A	LT	1.00	33.6	C	
		Intersection		Unsignalized			Unsignalized					23.8	C	
Old Saw Mill River Road @	47	Northbound	LTR	0.11	30.0	D	0.59	28.0	D	LTR	0.43	21.0	C	Either No Mitigation, or an MPT Plan, based on discussions with NYSDOT, Westchester DOT, and local representatives.
Landmark East Driveway		Southbound	LTR	0.07	17.4	C	*	** +	F	LTR	0.73	30.9	C	
		Eastbound	LTR	0.01	8.7	A	0.01	8.7	A	LTR	0.64	11.2	B	
		Westbound	LTR	0.01	9.2	A	0.03	9.3	A	LTR	0.54	9.8	A	
		Intersection		Unsignalized			Unsignalized					14.3	B	

Notes:

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts.

" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

(1) FEIS Mitigation derived based on meetings with Review Agencies (e.g., NYSDOT, Westchester County DPW, and Town Representatives).

Knollwood Road (Route 100A) and Cross Westchester Expressway (I-287) Westbound Ramp. The northbound left-turn movement would experience a 5.6-second increase in delay, resulting in a deterioration from LOS D to LOS E during the PM peak hour. This impact would be mitigated by transferring 1 second of green time from the westbound signal phase to the northbound phase. As a result of this mitigation, the northbound left-turn movement would improve compared to FNB conditions, to LOS D with 47.6 seconds of delay. The remaining vehicle movements would operate at their 2008 FNB LOS or better with no adverse increases in delay.

Saw Mill River Road (Route 9A) and Tarrytown/White Plains Road (Route 119). The eastbound left-turn movement would deteriorate from LOS E to LOS F with 46.7-second and 6.6-second increases in delay during the AM and PM peak hours, respectively. As shown in Table 4.21-31, a new signal timing plan is recommended for this location to mitigate these impacts. As a result, the eastbound left-turn would improve to LOS E with 66.4 seconds of delay during the AM peak hour, and to LOS D with 37.6 seconds of delay during the PM peak hour. The remaining vehicle movements would continue to operate below mid-LOS D during the AM and PM peak hours, with a maximum delay of 41.5 seconds.

Saw Mill River Road (Route 9A) and Ramada Inn/Broadway Plaza. Three traffic movements would experience adverse impacts from construction-related traffic during the AM and PM peak hours. The eastbound left-turn movement would deteriorate from LOS D to LOS E during the AM and from LOS E to LOS F during the PM. The eastbound through movement would deteriorate from LOS E to LOS F during the AM and would continue to operate at LOS F during the PM, with an 11.7-second increase in delay. The westbound approach would deteriorate from LOS D to LOS F during the AM and would continue to operate at LOS F during the PM, with a 7.6-second increase in delay. The installation of a new traffic signal is recommended for this intersection in order to mitigate these AM and PM peak hour impacts. As a result of this mitigation, all of the vehicle movements at this location would operate at LOS C or better compared to FNB conditions, with a maximum delay of 21.2 seconds per vehicle during the AM or PM peak hours.

The predicted significant adverse impact at this intersection is largely due to estimated peak construction worker trips. While an MPT solution may be more suitable at this location, compared to the installation of a signal, NYCDEP would propose a traffic signal to be installed at this location before peak construction worker activities occur in 2008. NYCDEP would submit the proposed traffic signal plan to the appropriate agency for approval. The approving agency may determine that an MPT is more suited for this location.

Saw Mill River Road (Route 9A) and Grasslands Road (Route 100C). The northbound left-turn movement would continue to operate at LOS F with delays increasing to well beyond 240.0 seconds during the AM and PM peak hours. The installation of a traffic signal would fully mitigate these impacts. As all result of this mitigation compared to FNB conditions, all of the vehicle movements would operate at LOS C or better during the AM peak, with a maximum

delay of 31.7 seconds, and at LOS C or better during the PM peak, with a maximum delay of 28.2 seconds.

The predicted significant adverse impact at this intersection is largely due to estimated peak construction worker trips. While an MPT solution may be more suitable at this location, compared to the installation of a signal, NYCDEP would propose a traffic signal to be installed at this location before peak construction worker activities occur in 2008. NYCDEP would submit the proposed traffic signal plan to the appropriate agency for approval. The approving agency may determine that an MPT is more suited for this location.

Grasslands Road (Route 100C) and Saw Mill River Road (Route 9A) Northbound Ramp. The northbound left/through movement would deteriorate from LOS D to LOS F during the AM peak hour and from LOS C to LOS E during the PM peak hour. The installation of a traffic signal at this location would mitigate these project-generated impacts. As a result of this mitigation, all movements would operate at LOS C or better during peak hours compared to FNB conditions, with a maximum average vehicle delay of 25.7 seconds.

The predicted significant adverse impact at this intersection is largely due to estimated peak construction worker trips. While an MPT solution may be more suitable at this location, compared to the installation of a signal, NYCDEP would propose a traffic signal to be installed at this location before peak construction worker activities occur in 2008. NYCDEP would submit the proposed traffic signal plan to the appropriate agency for approval. The approving agency may determine that an MPT is more suited for this location.

Old Saw Mill River Road and Saw Mill River Parkway Southbound Off-Ramp. During the PM peak hour, the eastbound approach would deteriorate from LOS E with 70.0 seconds of delay to LOS F with 86.1 seconds of delay. This impact would be mitigated by transferring 2 seconds of green time from the southbound signal phase to the east-west phase. As a result of this mitigation, the eastbound approach would improve compared to FNB conditions, to LOS E with 64.3 seconds of delay, and the remaining approaches would continue to operate at LOS C or better, with a maximum of 24.8 seconds delay.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Grasslands Road (Route 100C) and Clearbrook Road/Walker Road. The westbound left-turn movement would continue to operate at LOS F, with an increase in delay well beyond 240.0 seconds. A new signal timing and phasing plan is recommended at this intersection to mitigate this impact as shown in Table 4.21-41. As a result of this mitigation, the westbound left-turn movement would improve compared to FNB conditions, to LOS D with 41.5 seconds of delay, and the other vehicle movements would operate below mid-LOS D or better, with maximum delays of 37.8 seconds.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Grasslands Road (Route 100C) and Sprain Brook Parkway Northbound Ramp. The northbound left/through movement and the northbound right-turn movement would be adversely impacted during the AM peak hour. During the PM peak hour, there would be an adverse impact to the operation of the westbound approach. All of these vehicle movements would decline from LOS E to LOS F.

As shown in Table 4.21-41, new signal timing and phasing plans are recommended for this location to fully mitigate the AM and PM peak hour impacts. During the AM peak hour, compared to FNB conditions, this mitigation measure would improve the operation of the northbound left/through movement to LOS E with 61.4 seconds delay; the northbound right-turn would improve to LOS D with 51.4 seconds delay; and during the PM peak hour, compared to FNB conditions, the westbound approach would improve to LOS E with 64.6 seconds delay. Although there would be a change in LOS for certain other vehicle movements compared to FNB conditions during the peak hours, there would be no significant adverse increases in the average vehicle delays.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Virginia Road and Bronx River Parkway. Construction-related traffic would result in adverse impacts at the eastbound left/through movement during both the AM and PM hours, and at the westbound approach during the PM peak hour. All of these locations would continue to operate at LOS F with significant increases in their average vehicle delays.

These impacts would be fully mitigated by transferring 2 seconds of green time during the AM peak hour, and 4 seconds of green time during the PM peak hour, from the north-south phase to the east-west phase. Although the impacted movements would continue to operate at LOS F, the signal timing adjustments would improve delays to better than 2008 FNB conditions. The other vehicle movements at this intersection would operate at or better than their 2008 FNB condition LOS.

Westchester County DPW would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Grasslands Road (Route 100) and Virginia Road. During the PM peak hour, the westbound approach would continue to operate at LOS F, with an increase in delay to beyond 240.0 seconds. This impact would be mitigated by restriping the westbound approach to accommodate an additional travel lane. As a result of this mitigation compared to FNB conditions, the westbound approach would be divided into separate left-turn and right-turn movements, with resulting improved left-turn LOS F (delay 142.7 seconds), and right-turn LOS C (delay 20.0 seconds).

Although an impact was not identified at this location during the AM peak hour, an analysis was conducted to determine if the proposed lane stripping undertaken as mitigation for the PM peak hour impacts would have adverse effects on traffic operations during the AM peak. With the

additional westbound travel lane, all of the vehicle movements would operate below mid-LOS D or better, with a maximum delay of 27.5 seconds.

Based on discussions that occurred between the Draft and Final EIS among NYCDEP and NYSDOT, Westchester County DPW, and local representatives, an MPT solution is more likely at this location than the mitigation measures described, because NYSDOT is planning to install a traffic signal at this intersection in the future, in coordination with planned NYSDOT design work for the corridor. NYCDEP and NYSDOT would coordinate the improvement of this intersection to ensure that adequate traffic flow will occur during the proposed project's impact period.

Grasslands Road (Route 100) and Legion Drive. The southbound left-turn movement would be adversely impacted by construction-related traffic during both the AM and PM peak hours. During the AM, the left-run movement would deteriorate from LOS D to LOS E with a 9.3-second increase in delay. During the PM, the left-turn movement would continue to operate at LOS F, with delays increasing beyond 240.0 seconds. The installation of a traffic signal at this location would fully mitigate these traffic impacts. As a result of this mitigation compared to FNB conditions, all vehicle movements would operate at LOS C or better during both of the peak hours, with a maximum vehicle delay of 34.8 seconds.

NYCDEP would recommend the installation of a signal at this intersection. However, based on discussions that occurred between the Draft and Final EIS among NYCDEP and NYSDOT, Westchester County DPW, and local representatives, an MPT solution is more likely at this location than the mitigation measures described, because NYSDOT is planning to install a traffic signal at this intersection in the future, in coordination with planned NYSDOT design work for the corridor. NYCDEP and NYSDOT would coordinate the improvement of this intersection to ensure that adequate traffic flow will occur during the proposed project's impact period.

Grasslands Road (Route 100) and WCC East Gate. During the PM peak hour, the northbound left-turn movement would deteriorate from LOS C with 30.6 seconds of delay to LOS F with well beyond 240.0 seconds of delay. A revised signal timing plan is proposed for this intersection to mitigate this impact. With this mitigation, the northbound left-turn movement would improve compared to FNB conditions, to LOS D, with 40.8 seconds delay, and all of the other intersection approaches would operate at LOS C or better during the PM peak hour, with a maximum vehicle delay of 25.1 seconds.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Grasslands Road (Route 100) and WCC West Gate. During both the AM and PM peak hours, construction-related traffic would result in an adverse impact to the northbound left-turn movement. During the AM, the northbound left-turn movement would deteriorate from LOS C to LOS E, with an 18.4-second increase in delay. During the PM peak hour, the northbound left-turn movement would continue to operate at LOS F, with an 86.2-second increase in delay. A traffic signal is recommended for this location to fully mitigate these impacts. As a result of this mitigation compared to FNB conditions, all of the vehicle movements would operate at LOS C

or better during the AM peak, with a maximum vehicle delay of 24.7 seconds, and at LOS D or better during the PM peak, with a maximum delay of 35.6 seconds.

NYCDEP would recommend the installation of a signal at this intersection. However, based on discussions that occurred between the Draft and Final EIS among NYCDEP and NYSDOT, Westchester County DPW, and local representatives, an MPT solution is more likely at this location than the mitigation measures described above, because NYSDOT is planning to install a traffic signal at this intersection in the future, in coordination with planned NYSDOT design work for the corridor. NYCDEP and NYSDOT would coordinate the improvement of this intersection to ensure that adequate traffic flow would occur during the proposed project's impact period.

Old Saw Mill River Road and the Landmark Property East Driveway. During both the AM and PM peak hours, construction-related traffic would result in an adverse impact to the southbound approach. During the AM, the southbound approach would deteriorate from LOS B to LOS F, with a 163.8-second increase in delay. During the PM peak hour, this approach movement would deteriorate from LOS C to LOS F, with resulting delays well in excess of 240.0 seconds. A traffic signal is recommended for this location to fully mitigate these impacts. As a result of this mitigation compared to FNB conditions, all of the vehicle movements would operate at LOS C or better during the AM peak, with a maximum vehicle delay of 26.7 seconds, and at LOS C or better during the PM peak, with a maximum delay of 30.9 seconds.

The predicted significant adverse impact at this intersection is largely due to estimated peak construction worker trips. While an MPT solution may be more suitable at this location, compared to the installation of a signal, NYCDEP would propose a traffic signal to be installed at this location before peak construction worker activities occur in 2008. NYCDEP would submit the proposed traffic signal plan to the appropriate agency for approval. The approving agency may determine that an MPT is more suited for this location.

2008 Combined Construction Option D Conditions.

Under the scenario, which compares a "pure" 2008 FNB condition to a 2008 Construction condition that includes both the UV Facility and the Croton project under parking Option D, it was found that traffic from the additional construction vehicle trips would be anticipated to result in 32 potential adverse traffic impacts, 10 during the AM peak hour and 22 during the PM peak hour. These potential adverse impacts could be fully mitigated as shown in Table 4.21-42 and as described below.

The tables showing the results of applying the mitigation measures also indicate the specific measures recommended for each location. For many of the locations, more than one measure was identified that could be implemented that would reduce delays back to or below FNB conditions. The assessment presented here relies mostly on a combination of new traffic signals, lane stripping changes, and traffic signal retiming or phasing changes as the recommended measures. However, some of the measures that were investigated were more extraordinary, involving additional lane construction or street widening, to give a complete range of potential measures that could eliminate impacts.

For locations where the installation of a new traffic signal has been recommended as a mitigation measure, if requested by the agency(s) with jurisdiction over the particular intersection roadways involved, formal Signal Warrant Studies would be performed and submitted for review by the appropriate agency; in most cases NYSDOT.

All of the mitigation measures suggested would serve to eliminate the predicted significant adverse impacts for the combined construction of the proposed UV Facility and the Croton project. If the mitigation identified is not applied, the predicted significant adverse combined construction traffic impacts identified would remain unmitigated. In the absence of implementing the mitigation measures proposed, NYCDEP would consider other traffic management techniques, if approved by the governing roadway entity, to offset these significant adverse impacts, and ensure the smooth and safe operation of traffic.

Saw Mill River Road (Route 9A) and Saw Mill River Parkway Ramp. During the PM peak hour, the southbound through/right-turn movement would deteriorate from LOS D with 54.3 seconds of delay to LOS E with 58.5 seconds of delay. This impact would be fully mitigated by shifting 1 second of green time from the eastbound signal phase to the north-south phase. As a result of this mitigation, the impacted movement would improve compared to FNB conditions, to LOS D with 47.6 seconds of delay, and the remaining vehicle movements would operate at their 2008 FNB condition LOS with no significant changes in average vehicle delay.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Knollwood Road (Route 100A) and Cross Westchester Expressway (I-287) Westbound Ramp. During the PM peak hour, the northbound left-turn movement would deteriorate from LOS D with 52.6 seconds of delay to LOS E with 58.2 seconds of delay. This impact would be mitigated with the transfer of 1 second of green time from the westbound signal phase to the northbound, leading phase. As a result of this mitigation, the northbound left-turn would improve compared to FNB conditions, to LOS D with 47.6 seconds of delay. The other vehicle movements would continue to operate at or better than their 2008 FNB condition LOS.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

TABLE 4.21-42. PURE NO BUILD VS. CROTON + CAT DEL, PARKING AT LANDMARK (CROTON) AND HOME DEPOT(CAT DEL) LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD, CONSTRUCTION (OPTION D) AND MITIGATION CONDITIONS

			AM Peak Hour										
			2008 Pure No Build			2008 Combined			2008 Mitigation				
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	FEIS Mitigation Measures (1)
Grasslands Road (E-W) @	6	Eastbound	L	0.71	36.6	D	0.75	39.9	D	L	0.66	33.4	C	Add protected left-turn phase, signal retiming, and
Bradhurst Avenue			T	1.03	75.1	E	1.03	75.5	E	T	1.03	75.5	E	westbound lane restriping from exclusive left-turn
			R	0.35	16.3	B	0.36	16.5	B	R	0.36	16.5	B	lane to shared left-turn through lane.
		Westbound	L	0.68	56.6	E	0.68	56.6	E	LTR	0.49	26.7	C	
			TR	0.43	25.8	C	0.45	26.2	C					
		Northbound	L	0.23	23.3	C	0.26	23.9	C	L	0.26	23.9	C	
			TR	0.34	25.9	C	0.34	25.9	C	TR	0.34	25.9	C	
		Southbound	L	0.50	40.1	D	0.50	40.1	D	L	0.50	40.1	D	
			TR	0.68	49.7	D	0.68	49.7	D	TR	0.68	49.7	D	
		Int.			45.2	D		45.2	D			44.2	D	
Saw Mill River Road (Rt.9A) @	15	Eastbound	L	0.97	66.8	E	1.12	113.5 +	F	L	0.96	58.4	E	New timing plan: Reduce cycle length from 120
Tarrytown/White Plains Road (Rt.119)			TR	0.38	14.5	B	0.38	14.5	B	TR	0.35	10.4	B	to 110 seconds, as of eastbound leading(23s),
		Westbound	L	0.17	22.3	C	0.17	22.3	C	L	0.17	21.1	C	eastbound/westbound(50s), northbound
			TR	0.30	23.5	C	0.31	23.6	C	TR	0.32	22.2	C	leading(9s), and northbound/southbound(28s).
		Northbound	L	0.38	34.2	C	0.39	34.4	C	L	0.39	31.1	C	
			TR	0.62	40.3	D	0.72	44.9	D	TR	0.70	40.0	D	
		Southbound	L	0.24	33.9	C	0.29	36.6	D	L	0.43	39.5	D	NYSDOT will determine if retiming is necessary
			T	0.42	34.9	C	0.44	35.3	D	T	0.62	43.3	D	after construction of the UV Facility begins.
			R	0.23	22.1	C	0.24	22.2	C	R	0.25	20.9	C	
		Int.			31.8	C		42.3	D			30.3	C	
Saw Mill River Road (Rt.9A) @	17	Northbound	L	0.09	10.0	A	0.16	10.7	B	L	0.34	4.8	A	Propose to be signalized.
Ramada Inn/Broadway Plaza										TR	0.35	4.5	A	MPT Plan may be more suited.
		Southbound	LT	0.01	8.7	A	0.02	9.3	A	LTR	0.40	4.7	A	
		Eastbound	L	0.01	31.9	D	0.02	48.4 +	E	L	0.01	20.9	C	
			T	0.02	36.9	E	0.03	60.4 +	F	T	0.01	20.9	C	
		Westbound	LT	0.10	33.1	D	0.17	59.3 +	F	Def	0.06	21.2	C	
			TR	0.01	10.6	B	0.01	11.3	B	TR	0.03	21.0	C	
		Int.			Unsignalized			Unsignalized				4.8	A	
Saw Mill River Road @	19A	Northbound	L	0.78	85.3	F	*	** +	F	L	0.51	32.0	C	This intersection meets the volume warrants for a
Grasslands Road (Rt.100C)			R	0.20	16.3	C	0.24	19.0	C	R	0.22	28.9	C	traffic signal, even under existing conditions. If a
		Eastbound								T	0.77	13.7	B	new signal is proposed, formal signal Warrant
										R	0.21	5.9	A	studies will be completed and NYCDEP will
		Westbound	L	0.15	11.3	B	0.16	12.2	B	L	0.33	7.0	A	work with NYSDOT.
										T	0.59	9.0	A	
		Int.			Unsignalized			Unsignalized				13.0	B	
Grasslands Road (E-W) @	19B	Northbound	LT	0.06	25.7	D	0.99	202.6 +	F	LTR	0.23	30.2	C	This intersection meets the volume warrants for a
Saw Mill River Road NB Ramp (N-S)			TR	0.07	13.7	B	0.07	14.3	B					traffic signal, even under existing conditions. If a
		Eastbound	L	0.21	10.1	B	0.43	14.8	B	L	0.73	26.7	C	new signal is proposed, formal signal Warrant
										T	0.59	6.0	A	studies will be completed and NYCDEP will
		Westbound								TR	0.97	36.1	D	work with NYSDOT.
		Int.			Unsignalized			Unsignalized				24.2	C	
Grassland Road (Rt.100C) @	24	Eastbound	L	0.01	2.6	A	0.19	3.6	A	L	0.21	3.7	A	NYSDOT will determine if retiming is necessary
Clearbrook Road/Walker Road			TR	0.37	3.8	A	0.38	3.8	A	TR	0.25	3.2	A	after construction of the UV Facility begins.
		Westbound	L	0.38	4.0	A	0.38	4.1	A	L	0.36	3.9	A	
			TR	0.39	3.9	A	0.84	11.7	B	TR	0.84	11.7	B	
		Northbound	LT	0.21	33.7	C	0.22	33.7	C	LT	0.21	33.7	C	
		Southbound	LT	0.21	33.8	C	0.31	34.8	C	L	0.30	34.7	C	(Restriping determined not feasible by NYSDOT).
			R	0.00	32.2	C	0.00	32.2	C	TR	0.02	32.3	C	
		Int.			5.3	A		9.4	A			9.3	A	
Grassland Road (Rt.100C) @	26	Eastbound	TR	0.27	7.5	A	0.29	7.6	A	TR	0.29	8.1	A	Signal Retiming: shift 1 second of green time from
Sprain Brook Pkwy SB Ramp		Westbound	T	0.32	7.8	A	0.48	9.0	A	T	0.48	9.6	A	eastbound/westbound phase to southbound phase.
		Southbound	L	0.55	34.0	C	0.55	34.0	C	L	0.52	32.8	C	NYSDOT will detemine if retiming is necessary after
			R	0.32	31.0	C	0.82	48.4 +	D	R	0.79	44.4	D	construction of the UV Facility begins.
		Int.			13.1	B		16.8	B			16.5	B	
Grassland Road (Rt.100C) @	27	Eastbound	L	0.09	14.7	B	0.14	15.2	B	L	0.42	31.4	C	New timing plan: reduce cycle length from 110 to 100
Sprain Brook Pkwy NB Ramp	30		T	0.50	18.0	B	0.51	18.1	B	T	0.89	43.9	D	seconds, as of eastbound/westbound(34s) and
		Westbound	TR	0.47	24.6	C	0.51	25.1	C	TR	0.70	33.8	C	northbound(66s).
		Northbound	LT	1.00	68.7	E	*	** +	F	LT	1.07	67.4	E	NYSDOT will determine if retiming is necessary after
			R	1.02	74.8	E	1.02	74.8	E	R	0.66	15.1	B	construction of the UV Facility begins.
		Int.			44.0	D		132.9	F			44.2	D	
Virginia Road @	31	Eastbound	LT	1.12	126.9	F	1.13	130.6 +	F	LT	1.08	114.8	F	Shift 1 second of green time from NB/SB phase to
Bronx River Pkwy			R	0.21	19.6	B	0.21	19.6	B	R	0.21	19.0	B	EB/WB phase. The
		Westbound	LTR	0.40	34.6	C	0.40	34.7	C	LTR	0.38	33.7	C	Westchester County DPW will determine if
		Northbound	L	0.04	46.3	D	0.06	46.4	D	L	0.06	46.4	D	retiming is necessary.
			TR	0.26	20.1	C	0.26	20.1	C	TR	0.27	20.7	C	
		Southbound	L	1.10	141.5	F	1.10	141.5	F	L	1.10	141.5	F	
			T	0.70	27.3	C	0.70	27.3	C	T	0.71	28.3	C	
		Int.			53.9	D		54.5	D			52.4	D	
Grasslands Road @	32	Southbound	LT	0.23	8.3	A	0.23	8.4	A	LT	0.23	8.4	A	MPT Plan is likely; NYSDOT is planning to
Virginia Road		Westbound	LR	0.55	16.6	C	0.56	17.1	C	L	0.18	26.9	D	signalize this intersection.
										R	0.38	11.5	B	
Grasslands Road @	33	Southbound	L	0.42	29.8	D	0.43	31.0	D	L	0.32	21.1	C	MPT Plan is likely; NYSDOT is planning to
Legion Drive			R	0.20	12.1	B	0.21	12.4	B	R	0.45	22.2	C	signalize this intersection.
		Eastbound	LT	0.07	8.5	A	0.07	8.6	A	LT	0.51	6.4	A	
		Westbound								T	0.41	5.7	A	
										R	0.03	0.0	A	
		Int.			Unsignalized			Unsignalized				8.9	A	
Old Saw Mill River Road @	47	Northbound	LTR	0.07	17.5	C	0.18	20.5	C	LTR	0.23	32.1	C	Either No Mitigation, or an MPT Plan, based on
Landmark East Driveway		Southbound	LTR	0.01	10.3	B	1.18	** +	F	LTR	0.15	31.6	C	discussions with NYSDOT, Westchester DOT,
		Eastbound	LTR	0.01	8.1	A	0.02	8.8	A	LTR	0.69	6.4	A	and local representatives.
		Westbound	LTR	0.02	10.2	B	0.36	13.5	B	LTR	1.00	42.6	D	
		Int.			Unsignalized			Unsignalized				22.6	C	

Notes:

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts.

" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

(1) FEIS Mitigation derived based on meetings with Review Agencies (e.g., NYSDOT, Westchester County DPW, and Town Representatives).

TABLE 4.21-42. PURE NO BUILD VS. CROTON + CAT DEL, PARKING AT LANDMARK (CROTON) AND HOME DEPOT(CAT DEL) LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD, CONSTRUCTION (OPTION D) AND MITIGATION CONDITIONS

			PM Peak Hour											
			2008 Pure No Build				2008 Combined				2008 Mitigation				
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)		LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	FEIS Mitigation Measures (1)
Saw Mill River Road (Rt.9A) (N-S) @	4	Eastbound	L	0.52	29.3	C	0.52	29.3		C	L	0.55	30.8	C	Signal Retiming: shift 1 second of green time from
Saw Mill River Pkwy Ramp			LTR	0.14	25.8	C	0.14	25.8		C	LTR	0.15	26.6	C	eastbound phase to northbound/southbound phase
		Westbound	L	0.14	34.1	C	0.14	34.1		C	L	0.14	34.1	C	
			LT	0.09	33.8	C	0.09	33.8		C	LT	0.09	33.8	C	
			R	0.04	33.6	C	0.04	33.6		C	R	0.04	33.6	C	
		Northbound	L	0.81	31.5	C	0.81	31.6		C	L	0.81	31.1	C	NYSDOT will determine if retiming is necessary
			TR	0.55	15.4	B	0.61	16.3		B	TR	0.60	15.5	B	after construction of the UV Facility begins.
		Southbound	L	0.13	21.4	C	0.14	21.6		C	L	0.14	20.8	C	
			TR	0.98	54.3	D	1.00	58.5	+	E	TR	0.95	47.6	D	
		Int.			33.7	C		35.1		D			30.8	C	
Grasslands Road (E-W) @	6	Eastbound	L	*	**	F	*	**		F	L	0.67	31.2	C	Add protected left-turn phase, signal retiming, and
Bradhurst Avenue			T	0.59	22.3	C	0.61	22.9		C	T	0.63	23.9	C	westbound lane restriping from exclusive left-turn
			R	0.27	12.1	B	0.30	12.3		B	R	0.30	12.3	B	lane to shared left-turn through lane.
		Westbound	L	0.22	18.0	B	0.23	18.1		B	LTR	0.74	26.6	C	
			TR	0.98	55.5	E	0.98	55.9		E					
		Northbound	L	0.87	58.7	E	0.90	64.9	+	E	L	0.85	55.0	E	
			TR	0.20	16.3	B	0.20	16.3		B	TR	0.19	15.7	B	
		Southbound	L	0.30	25.1	C	0.00	25.1		C	L	0.30	25.1	C	
			TR	1.12	109.2	F	1.12	109.2		F	TR	1.12	109.2	F	
		Int.			70.0	E		70.0		E			44.1		
Knollwood Road (E-W) @	8	Westbound	LT	0.79	39.0	D	0.79	39.0		D	LT	0.82	42.8	D	Signal Retiming: shift 1 second of green time from
Cross Westchester Expy (I-287) WB Ramp			R	0.45	27.6	C	0.45	27.6		C	R	0.47	28.6	C	westbound phase to northbound leading phase
		Northbound	L	0.95	52.6	D	0.97	58.2	+	E	L	0.93	47.6	D	
			T	0.52	10.5	B	0.53	10.6		B	T	0.52	10.0	A	
		Southbound	T	0.44	14.8	B	0.46	15.0		B	T	0.46	15.0	B	
			R	0.23	12.8	B	0.23	12.9		B	R	0.23	12.9	B	NYSDOT will determine if retiming is necessary
		Int.			26.7	C		27.7		C			26.2	C	after construction of the UV Facility begins.
Saw Mill River Road (Rt.9A) @	15	Eastbound	L	0.99	76.6	E	1.02	83.3	+	F	L	1.00	76.3	E	Signal Retiming: reduce 2 second of green time of
Tarrytown/White Plains Road (Rt.119)			TR	0.46	20.2	C	0.46	20.2		C	TR	0.45	19.2	B	southbound lagging phase, from 9 to 7 seconds.
		Westbound	L	0.42	34.4	C	0.42	34.4		C	L	0.41	33.2	C	
			TR	0.88	48.6	D	0.89	49.7		D	TR	0.87	46.7	D	
		Northbound	L	0.30	25.0	C	0.34	25.8		C	L	0.33	23.3	C	
			TR	0.82	41.0	D	0.83	42.1		D	TR	0.82	39.5	D	NYSDOT will determine if retiming is necessary
		Southbound	L	0.54	35.0	C	0.58	36.5		D	L	0.61	37.8	D	after construction of the UV Facility begins.
			T	0.26	22.8	C	0.34	23.8		C	T	0.35	24.2	C	
			R	0.39	11.0	B	0.43	11.3		B	R	0.43	11.6	B	
		Int.			35.0	C		35.9		D			34.0	C	
Saw Mill River Road (Rt.9A) @	17	Northbound	L	0.15	10.3	B	0.17	10.9		B	L	0.36	5.0	A	Propose to be signalized.
Ramada Inn/Broadway Plaza											TR	0.39	4.6	A	MPT Plan may be more suited.
		Southbound	LT	0.01	9.4	A	0.01	9.6		A	LTR	0.44	4.9	A	
		Eastbound	L	0.01	48.4	E	0.02	60.4	+	F	L	0.00	20.9	C	
			T	0.08	79.9	F	0.10	102.1	+	F	T	0.02	20.9	C	
		Westbound	LT	0.11	56.3	F	0.14	69.1	+	F	LTR	0.04	21.0	C	
			TR	0.03	17.0	C	0.03	19.0		C					
		Int.		Unsignalized				Unsignalized					5.0	A	
Saw Mill River Road @	19A	Northbound	L	0.99	145.4	F	*	**	+	F	L	0.58	28.3	C	This intersection meets the volume warrants for a
Grasslands Road (Rt.100C)			R	0.28	15.7	C	0.48	30.1	+	D	R	0.57	28.2	C	traffic signal, even under existing conditions. If a
		Eastbound									T	0.87	14.2	B	new signal is proposed, formal signal Warrant
											R	0.30	3.6	A	studies will be completed and NYCDEP will
		Westbound	L	0.17	11.2	B	0.28	16.6		C	L	0.50	5.8	A	work with NYSDOT.
											T	0.45	4.2	A	
		Int.		Unsignalized				Unsignalized					11.4	B	
Grasslands Road (E-W) @	19B	Northbound	LT	0.05	25.0	C	0.10	40.3	+	E	LTR	0.19	21.7	C	This intersection meets the volume warrants for a
Saw Mill River Road NB Ramp (N-S)			TR	0.16	14.2	B	0.26	21.2		C					traffic signal, even under existing conditions. If a
		Eastbound	L	0.17	10.5	B	0.25	11.3		B	L	0.61	9.2	A	new signal is proposed, formal signal Warrant
											T	0.79	10.7	B	studies will be completed and NYCDEP will
		Westbound									TR	0.76	9.8	A	work with NYSDOT.
		Int.		Unsignalized				Unsignalized					10.7	B	
Saw Mill River Road (Rt.9A) @	20	Eastbound	LT	0.28	27.4	C	0.99	81.2	+	F	LT	0.78	44.8	D	New signal timing plan:
Dana Road			R	0.24	26.9	C	0.61	32.2		C	R	0.36	23.2	C	G/Y/R
		Westbound	L	0.44	29.1	C	1.50	**	+	F	L	0.52	41.1	D	EB 16/4/1
			TR	0.40	28.4	C	0.48	29.3		C	TR	0.47	38.5	D	EB/WB 20/3/2
		Northbound	L	0.39	32.7	C	0.41	32.9		C	L	0.45	36.7	D	WB 6/3/2
			TR	0.84	31.9	C	0.91	37.4		D	TR	0.90	43.7	D	NB/SB 47/4/1
		Southbound	L	0.15	30.7	C	0.18	31.0		C	L	0.26	39.9	D	NB-L/SB-L/EB-R 6/4/1
			TR	0.74	27.7	C	0.74	27.8		C	TR	0.73	33.6	C	Cycle length = 120 secs
		Int.			29.8	C		53.0		D			38.5	D	(Same mitigation measure with and without Home Depot, See Technical Appendix) To be reviewed and implemented if requested by the approving agency.
Old Saw Mill River Road @	21	Eastbound	LT	1.04	70.0	E	1.09	86.2	+	F	LT	1.02	64.4	E	Signal Retiming: shift 2 seconds of green time
Saw Mill River Pkwy SB Off Ramp		Westbound	TR	0.42	9.2	A	0.54	10.3		B	TR	0.52	9.1	A	from southbound phase to eastbound/westbound
		Southbound	L	0.29	23.1	C	0.29	23.1		C	L	0.31	24.8	C	phase. NYSDOT will
			LR	0.21	22.6	C	0.21	22.6		C	LR	0.24	24.2	C	determine if retiming is necessary after
		Int.			33.9	C		37.1		D			29.4	C	construction of the UV Facility begins.

Notes:

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts.

" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

(1) FEIS Mitigation derived based on meetings with Review Agencies (e.g., NYSDOT, Westchester County DPW, and Town Representatives).

TABLE 4.21-42. PURE NO BUILD VS. CROTON + CAT DEL, PARKING AT LANDMARK (CROTON) AND HOME DEPOT(CAT DEL) LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD, CONSTRUCTION (OPTION D) AND MITIGATION CONDITIONS

			PM Peak Hour											
			2008 Pure No Build				2008 Combined				2008 Mitigation				
Intersection	No.	Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	v/c Ratio	Delay (sec)		LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	FEIS Mitigation Measures (1)
Grassland Road (Rt.100C) @	24	Eastbound	L	0.04	9.2	A	0.04	9.3		A	L	0.07	19.6	B	NYSDOT will determine if retiming is necessary after construction of the UV Facility begins.
Clearbrook Road/Walker Road			TR	0.73	17.2	B	1.03	55.4	+	E	TR	0.82	33.6	C	
		Westbound	L	1.40	230.4	F	*	**	+	F	L	0.65	44.6	D	
			TR	0.70	16.7	B	0.73	17.7		B	TR	0.68	19.0	B	
		Northbound	LT	0.19	19.9	B	0.30	21.1		C	LT	0.19	28.7	C	
		Southbound	LT	0.23	20.3	C	0.78	34.5		C	L	0.77	44.7	D	
			R	0.01	18.5	B	0.05	18.8		B	TR	0.06	27.3	C	
		Int.			42.3	D		102.4		F			31.4	C	
Grassland Road (Rt.100C) @	27	Eastbound	L	0.50	15.4	B	1.11	104.4	+	F	L	0.85	42.3	D	Switch eastbound leading phase to lagging phase. NYSDOT will determine if retiming is necessary after construction of the UV Facility begins.
Sprain Brook Pkwy NB Ramp	30		T	0.32	9.0	A	0.34	9.1		A	T	0.34	8.6	A	
		Westbound	TR	1.06	67.9	E	1.07	71.4		E	TR	1.07	71.4	E	
		Northbound	LT	0.69	29.4	C	0.73	30.8		C	LT	0.73	30.8	C	
			R	0.35	23.1	C	0.35	23.1		C	R	0.35	23.1	C	
		Int.			42.6	D		53.2		D			45.4	D	
Virginia Road @	31	Eastbound	LT	1.16	139.6	F	1.17	144.9	+	F	LT	1.13	127.3	F	Signal Retiming: Shift 1 second of green time from northbound and southbound phase to eastbound and westbound phase. The Westchester County DPW will determine if retiming is necessary.
Bronx River Pkwy			R	0.39	34.6	C	0.40	34.7		C	R	0.39	33.8	C	
		Westbound	LTR	1.26	185.8	F	1.28	193.5	+	F	LTR	1.17	149.5	F	
		Northbound	L	0.06	10.9	B	0.06	10.9		B	L	0.06	11.4	B	
			TR	0.62	25.3	C	0.62	25.3		C	TR	0.63	26.2	C	
		Southbound	L	0.13	11.7	B	0.13	11.7		B	L	0.13	12.2	B	
			T	0.59	24.7	C	0.59	24.7		C	T	0.60	25.5	C	
		Int.			61.7	E		63.5		E			56.0	E	
Grasslands Road @	32	Southbound	LT	0.36	10.3	B	0.37	10.4		B	LT	0.37	10.4	B	MPT Plan is likely; NYSDOT is planning to signalize this intersection.
Virginia Road		Westbound	LR	1.23	155.8	F	1.26	166.5	+	F	L	0.65	60.1	F	
											R	0.61	19.6	C	
Grasslands Road @	33	Southbound	L	1.27	210.8	F	1.31	227.1	+	F	L	0.88	19.8	B	MPT Plan is likely; NYSDOT is planning to signalize this intersection.
Legion Drive			R	0.47	19.7	C	0.47	19.7		C	R	0.51	6.3	A	
		Eastbound	LT	0.24	10.7	B	0.24	10.7		B	LT	0.18	0.1	A	
		Westbound									T	0.66	27.1	C	
											R	0.73	31.4	C	
		Int.		Unsignalized				Unsignalized					15.5	B	
Old Saw Mill River Road @	47	Northbound	LTR	0.11	30.0	D	0.71	35.9	+	E	LTR	0.40	18.8	B	Either No Mitigation, or an MPT Plan, based on discussions with NYSDOT, Westchester DOT, and local representatives.
Landmark East Driveway		Southbound	LTR	0.07	17.4	C	*	**	+	F	LTR	0.69	26.3	C	
		Eastbound	LTR	0.01	8.7	A	0.01	9.0		A	LTR	0.73	18.5	B	
		Westbound	LTR	0.01	9.2	A	0.04	9.3		A	LTR	0.70	17.6	B	
		Int.		Unsignalized				Unsignalized					19.2	B	

Notes:

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts.

" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

(1) FEIS Mitigation derived based on meetings with Review Agencies (e.g., NYSDOT, Westchester County DPW, and Town Representatives).

Grasslands Road (Route 100C) and Bradhurst Avenue (Route 100). During the PM peak hour, the northbound left-turn movement would continue to operate at LOS E with a 6.2-second increase in delay. This impact would be mitigated by restriping the westbound approach to two lanes, one shared left/through lane, and one shared through/right lane. The additional capacity on the westbound approach would allow for the transfer of 1 second of green time from the east-west signal phase to the northbound lagging phase. As a result of this mitigation, the northbound left-turn would improve compared to FNB conditions, to LOS E with 55.0 seconds of delay, during the PM peak hour. The remaining vehicle movements would operate at or near their 2008 FNB LOS without resulting in any significant changes in average vehicle delays.

An analysis was conducted to determine the impact of these geometric improvements (no changes to signal timing/phasing) to operations at this location during the AM peak hour. All of the vehicle movements at this location would operate at the same LOS as for 2008 FNB conditions, or better without resulting in any significant changes in average vehicle delays.

Based on discussions that occurred between the Draft and Final EIS between NYCDEP and NYSDOT, an alternative restriping (change the westbound left-turn lane to a shared through left-turn lane) and revised signal plan to provide an eastbound/westbound phase is more suitable at this location than the mitigation measures described above. Although this measure does not fully mitigate the predicted traffic impacts at the intersection per the guidance in the *CEQR Technical Manual*, this revised mitigation would dramatically improve eastbound and westbound operations and reflect improved phasing of the signal operation. Overall intersection level-of-service would improve with the proposed improvement measure in place.

Saw Mill River Road (Route 9A) and Tarrytown/White Plains Road (Route 119). During the AM peak hour, the eastbound left-turn movement would deteriorate from LOS E to LOS F with a 46.7-second increase in delay. This impact would be mitigated with a new signal timing and phasing plan. The total signal cycle would be reduced by 10 seconds, and new phases would be introduced as shown in Table 4.21-42. As a result of this mitigation, the eastbound left-turn would improve compared to FNB conditions, to LOS E with 58.4 seconds of delay. This mitigation would result in a deterioration of the LOS of the southbound left-turn and the southbound through movements as compared to 2008 FNB conditions, but these increases in delay would not constitute adverse impacts. The remaining vehicle movements at this location would operate at or better than predicted for the 2008 FNB conditions.

During the PM peak hour, the eastbound left-turn movement would deteriorate from LOS E with 78.6 seconds of delay to LOS F with 83.3 seconds of delay. This impact would be fully mitigated by transferring 2 seconds of green time from the southbound lagging signal phase to the east-west phase. As a result of this mitigation, the eastbound left-turn would improve compared to FNB conditions, to LOS E with 76.3 seconds of delay. The remaining vehicle movements would at or better than their 2008 FNB LOS.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Saw Mill River Road (Route 9A) and Ramada Inn/Broadway Plaza. Construction-related traffic would result in three adverse impacts at this location during both the AM and PM peak hours. During the AM, the eastbound left-turn movement would deteriorate from LOS D to LOS E, the westbound left/through movement would deteriorate from LOS D to LOS F, and the eastbound through movement would deteriorate from LOS E to LOS F. During the PM peak hour, the eastbound through movement and the westbound left/through movement would continue to operate at LOS F with 22.2- and 12.8-second increases in delay, respectively; the eastbound left-turn movement would deteriorate from LOS E to LOS F. These peak hour impacts would be fully mitigated with the installation of a traffic signal at this location. As a result of this mitigation compared to FNB conditions all vehicle movements would operate at LOS C or better with a maximum delay of 21.2 seconds, during either of the peak hours.

The predicted significant adverse impact at this intersection is largely due to estimated peak construction worker trips. While an MPT solution may be more suitable at this location, compared to the installation of a signal, NYCDEP would propose a traffic signal to be installed at this location before peak construction worker activities occur in 2008. NYCDEP would submit the proposed traffic signal plan to the appropriate agency for approval. The approving agency may determine that an MPT is more suited for this location.

Saw Mill River Road (Route 9A) and Grasslands Road (Route 100C). The northbound left-turn movement would continue to operate at LOS F in both the AM and PM peak hours with delays increasing to well beyond 240.0 seconds. In addition, during the PM peak, the northbound right-turn movement would deteriorate from LOS C to LOS D, with an increase of 14.4 seconds delay. These impacts would be fully mitigated with the installation of a traffic signal at this location. As a result of this mitigation compared to FNB conditions, all of the vehicle movements would operate at LOS C or better during the AM peak hour (maximum delay 32.0 seconds) and at LOS C or better (maximum delay 28.3 seconds) during the PM peak hour.

The predicted significant adverse impact at this intersection is largely due to estimated peak construction worker trips. While an MPT solution may be more suitable at this location, compared to the installation of a signal, NYCDEP would propose a traffic signal to be installed at this location before peak construction worker activities occur in 2008. NYCDEP would submit the proposed traffic signal plan to the appropriate agency for approval. The approving agency may determine that an MPT is more suited for this location.

Grasslands Road (Route 100C) and Saw Mill River Road (Route 9A) Northbound Ramp. The northbound left/through movements would deteriorate from LOS D to LOS F during the AM peak hour and from LOS C to LOS E during the PM peak hour. These impacts would be fully mitigated with the installation of a traffic signal. As a result of this mitigation compared to FNB conditions, all of the vehicle movements at this location would operate at LOS D or better during the AM peak hour (maximum delay 36.1 seconds) and at LOS C or better (maximum delay 21.7 seconds) during the PM peak hour.

The predicted significant adverse impact at this intersection is largely due to estimated peak construction worker trips. While an MPT solution may be more suitable at this location, compared to the installation of a signal, NYCDEP would propose a traffic signal to be installed

at this location before peak construction worker activities occur in 2008. NYCDEP would submit the proposed traffic signal plan to the appropriate agency for approval. The approving agency may determine that an MPT is more suited for this location.

Saw Mill River Road (Route 9A) and Dana Road. During the PM peak hour, the eastbound left/through movement would deteriorate from LOS C to LOS F, with increases of 53.8 seconds of delay, and the westbound left-turn movement would deteriorate from LOS C to LOS F, delays increasing to well beyond 240.0 seconds. These impacts would be mitigated by implementing a new signal timing and phasing plan, as described in Table 4.21-42. This mitigation would improve the operation of the eastbound left/through movement compared to FNB conditions, to LOS D with 44.8 seconds of delay, and would improve the westbound left-turn movement compared to FNB conditions, to LOS D with 44.1 seconds of delay; the remaining vehicle approaches would operate below mid-LOS D or better.

Based on discussions that occurred between the Draft and Final EIS among NYCDEP and NYSDOT, Westchester County DPW, and/or local representatives, either a signal phasing plan or an MPT solution are more likely at this location than the mitigation measures described.

Old Saw Mill River Road and Saw Mill River Parkway Southbound Off-Ramp. During the PM peak hour, the eastbound approach would deteriorate from LOS E with 70.0 seconds delay to LOS F with 86.2 seconds delay. This impact would be mitigated with the transfer of 2 seconds of green time from the southbound signal phase to the east-west phase. This mitigation would improve the operation of the eastbound approach compared to FNB conditions, to LOS E with 64.4 seconds of delay, and the remaining vehicle approaches would operate at LOS C or better.

NYSDOT will determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Grasslands Road (Route 100C) and Clearbrook Road/Walker Road. During the PM peak hour, the eastbound through/right movement would deteriorate from LOS B with 17.2 seconds delay to LOS E with 55.4 seconds delay, and the westbound left-turn movement would remain at LOS F with increases in delay from 230.4 to well beyond 240.0 seconds. A new signal timing and phasing plan would be implemented at this intersection, in conjunction with a number of lane restriping, to fully mitigate these impacts as described in Table 4.21-42. As a result of this mitigation compared to FNB conditions, all of the vehicle movements at this location would operate below mid-LOS D or better, with a maximum delay of 44.7 seconds during the PM peak hour.

An analysis was conducted to determine the impact of these geometric improvements (no changes to signal timing/phasing) to operations at this location during the AM peak hour. All of the vehicle movements at this location would operate at LOS C or better, without resulting in any significant changes in average vehicle delays.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Grasslands Road (Route 100C) and Sprain Brook Parkway Southbound Ramp. During the AM peak hour, the southbound right-turn movement would deteriorate from LOS C with 31.0 seconds of delay to LOS D with 48.4 seconds of delay. This location would be fully mitigated with a transfer of 1 second of green time from the east-west to the southbound signal phase. As a result of this mitigation, the southbound right-turn would improve compared to FNB conditions, to below mid-LOS D, with 44.4 seconds of delay, and the other vehicle movements would operate at LOS C or better.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Grasslands Road (Route 100C) and Sprain Brook Parkway Northbound Ramp. During the AM peak hour, the northbound left/through movement would deteriorate from LOS E with 68.7 seconds of delay to LOS F with well beyond 240.0 seconds of delay. This impact would be fully mitigated with a new signal-timing plan that reduces the cycle length by 10 seconds as shown in Table 4.21-42. As a result of this mitigation, the northbound left/through movement would improve compared to FNB conditions, to LOS E, with 67.4 seconds of delay. Some other vehicle movements would experience deterioration in LOS compared to 2008 FNB conditions, but there would be no significant changes in average vehicle delay.

During the PM peak hour, the eastbound left-turn movement would deteriorate from LOS B with 15.4 seconds of delay to LOS F with 104.4 seconds of delay. This impact could be mitigated by implementing a new signal phasing plan that results in an eastbound lagging phase rather than an eastbound leading phase. As a result of this mitigation, the eastbound left-turn would improve compared to FNB conditions, to LOS D with 42.3 seconds of delay. This mitigation would have no effect on the LOS of the remaining traffic movements at this intersection.

NYSDOT would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Virginia Road and Bronx River Parkway. The eastbound left/through movement would continue to operate at LOS F during the AM and PM peak hours with 3.7- and 5.3-second increases in delay, respectively. In addition, during the PM peak hour, the westbound approach would continue to operate at LOS F with a 7.7-second increase in delay. In both peak hours, these impacts would be mitigated with the transfer of 1 second of green time from the north-south phase to the east-west phase. Although all of the impacted locations would continue to operate at LOS F, the mitigation would improve delays to better than those under 2008 FNB conditions.

Westchester County DPW would determine if retiming is necessary after construction of the NYCDEP projects begins, and implement accordingly.

Grasslands Road (Route 100) and Virginia Road. During the PM peak hour, the westbound approach would continue to operate at LOS F with a 10.7-second increase in delay. This impact could be mitigated by restriping the westbound approach to accommodate an

additional travel lane. As a result of this mitigation, the westbound left-turn would improve compared to FNB conditions, to LOS F with 60.1 seconds of delay and the westbound right-turn would improve to LOS C with 19.6 seconds of delay.

An analysis was conducted to determine the effects of this improvement to operations at this location during the AM peak hour. All of the vehicle movements at this location would operate below mid-LOS D or better with this improvement.

Based on discussions that occurred between the Draft and Final EIS among NYCDEP and NYSDOT, Westchester County DPW, and local representatives, an MPT solution is more likely at this location than the mitigation measures described above, because NYSDOT is planning to install a traffic signal at this intersection in the future, in coordination with planned NYSDOT design work for the corridor. NYCDEP and NYSDOT would coordinate the improvement of this intersection to ensure that adequate traffic flow would occur during the proposed project's impact period.

Grasslands Road (Route 100) and Legion Drive. The southbound left-turn movement would remain at LOS F with an increase in delay of 16.3 seconds during the PM peak hour. This location could be fully mitigated with the installation of a traffic signal. As a result of this mitigation compared to FNB conditions, the southbound left-turn movement would operate at LOS B (19.8 seconds delay), and all of the other movements would operate at LOS C or better during the PM peak hour, with a maximum delay of 31.4 seconds.

Although no impacts were identified at this location during the AM peak hour, an analysis was conducted to determine the effects of a new traffic signal at this intersection. A signal at this location would improve operations for some movements but would increase delays for others. However, all of the vehicle movements would operate at LOS C or better during the AM peak hour, with a maximum delay of 22.2 seconds.

NYCDEP would recommend the installation of a signal at this intersection. However, based on discussions that occurred between the Draft and Final EIS among NYCDEP and NYSDOT, Westchester County DPW, and local representatives, an MPT solution is more likely at this location than the mitigation measures described, because NYSDOT is planning to install a traffic signal at this intersection in the future, in coordination with planned NYSDOT design work for the corridor. NYCDEP and NYSDOT would coordinate the improvement of this intersection to ensure that adequate traffic flow will occur during the proposed project's impact period.

Old Saw Mill River Road and the Landmark Property East Driveway. During the AM peak hour, the southbound approach would deteriorate from LOS B to LOS F. During the PM peak hour, the northbound approach would deteriorate from LOS D to LOS E, and the southbound approach would deteriorate from LOS C to LOS F. These impacts could be mitigated with the installation of a traffic signal. As a result of this mitigation compared to FNB conditions, all of the vehicle movements would operate below mid-LOS D or better with maximum delays of 42.6 seconds during the AM peak hour, and at LOS C or better with maximum delays of 26.3 seconds during the PM peak hour.

The predicted significant adverse impact at this intersection is largely due to estimated peak construction worker trips. While an MPT solution may be more suitable at this location, compared to the installation of a signal, NYCDEP would propose a traffic signal to be installed at this location before peak construction worker activities occur in 2008. NYCDEP would submit the proposed traffic signal plan to the appropriate agency for approval. The approving agency may determine that an MPT is more suited for this location.

4.21.4.2. Air Quality

An assessment of the proposed traffic signal at the intersection of Saw Mill River Road (Route 9A) and Grasslands Road (Route 100C) as part of the proposed traffic mitigation was performed for CO for each separate parking option. The results of this analysis indicated that there would be no significant adverse air quality impacts for the combined construction of the proposed UV Facility and the Croton project with the proposed traffic mitigation. Results for the combined construction activity with mitigation at the Eastview Site during the peak year for construction-related traffic (2008) are presented below. Parking options that are predicted to have similar impacts are presented jointly.

4.21.4.2.1. 2008 Combined Construction Impacts and Mitigation

Carbon Monoxide. As indicated in Tables 4.21-43 to 4.21-45, the predicted concentrations of CO for the peak year for construction-related traffic (2008) with mitigation, for each separate parking option, at the intersection of Route 100C and Route 9A are below the corresponding ambient air quality standards. Both the 1-hour and 8-hour averaging periods for the modeled intersection are in compliance with the standards.

TABLE 4.21-43. PREDICTED CO 1-HOUR AND 8-HOUR CONCENTRATIONS FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) WITH MITIGATION (PPM) LANDMARK PARKING (OPTION A)

Intersection	Averaging Period	Ambient AQ Background	Model Results		Total Predicted Conc.[1]		Standard
			AM	PM	AM	PM	
Peak Traffic Year 2008							
Route 100C at Route 9A	1-hour	5.9	1.4	2.0	7.3	7.9	35
	8-hour	2.0	1.0	1.4	3.0	3.4	9

Notes: [1] Total Predicted Concentration = Ambient AQ Background + Model Results.

TABLE 4.21-44. PREDICTED CO 1-HOUR AND 8-HOUR CONCENTRATIONS FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) WITH MITIGATION (PPM) WCC PARKING/WCC AND LANDMARK SPLIT PARKING (OPTIONS B AND C)

Intersection	Averaging Period	Ambient AQ Background	Model Results		Total Predicted Conc.[1]		Standard
			AM	PM	AM	PM	
Peak Traffic Year 2008							
Route 100C at Route 9A	1-hour	5.9	1.4	1.7	7.3	7.6	35
	8-hour	2.0	1.0	1.2	3.0	3.2	9

Notes: [1] Total Predicted Concentration = Ambient AQ Background + Model Results.

TABLE 4.21-45. PREDICTED CO 1-HOUR AND 8-HOUR CONCENTRATIONS FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) WITH MITIGATION (PPM) LANDMARK AND HOME DEPOT PARKING (OPTION D)

Intersection	Averaging Period	Ambient AQ Background	Model Results		Total Predicted Conc.[1]		Standard
			AM	PM	AM	PM	
Peak Traffic Year 2008							
Route 100C at Route 9A	1-hour	5.9	1.4	1.8	7.3	7.7	35
	8-hour	2.0	1.0	1.3	3.0	3.3	9

Notes: [1] Total Predicted Concentration = Ambient AQ Background + Model Results.

As indicated in Tables 4.21-46 to 4.21-48, the CEQR *de minimis* criteria for the 8-hour period were not exceeded. The combined construction activities (UV Facility and Croton project) for each of the separate parking options would not result in significant impacts for CO.

TABLE 4.21-46. 8-HOUR CO CONCENTRATIONS AND CEQR *DE MINIMIS* CRITERIA[a] FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) LANDMARK PARKING (OPTION A)

Intersection	Averaging Period	No Build Conc.[a]		Build Conc.[a]		Proj. Increment[b]		*De minimis* Criteria[c]	
		AM	PM	AM	PM	AM	PM	AM	PM
Peak Traffic Year 2008									
Route 100C at Route 9A	8-hour	2.6	2.8	3.0	3.4	0.4	0.6	3.2	3.1

Notes:
[a] Includes Background. No build is without the UV Facility or Croton Project (i.e., Pure No build)
[b] The project increment is defined as the project build value minus the no build value. The project increment is below the *de minimis* criteria.
[c] See Section 3.10, Data Collection and Impact Methodologies, Air Quality, for details on how this value is calculated.

TABLE 4.21-47. 8-HOUR CO CONCENTRATIONS AND CEQR *DE MINIMIS* CRITERIA[a] F FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) WCC PARKING/WCC AND LANDMARK SPLIT PARKING (OPTIONS B AND C)

Intersection	Averaging Period	No Build Conc.[a]		Build Conc.[a]		Proj. Increment[b]		*De minimis* Criteria[c]	
		AM	PM	AM	PM	AM	PM	AM	PM
Peak Traffic Year 2008									
Route 100C at Route 9A	8-hour	2.6	2.8	3.0	3.2	0.4	0.4	3.2	3.1

Notes:
[a] Includes Background. No build is without the UV Facility or Croton Project (i.e., Pure No build)
[b] The project increment is defined as the project build value minus the no build value. The project increment is below the *de minimis* criteria.
[c] See Section 3.10, Data Collection and Impact Methodologies, Air Quality, for details on how this value is calculated.

TABLE 4.21-48. 8-HOUR CO CONCENTRATIONS AND CEQR *DE MINIMIS* CRITERIA[a] FOR COMBINED CONSTRUCTION ACTIVITY (UV FACILITY & CROTON PROJECT) LANDMARK AND HOME DEPOT PARKING (OPTION D)

Intersection	Averaging Period	No Build Conc.[a]		Build Conc.[a]		Proj. Increment[b]		*De minimis* Criteria[c]	
		AM	PM	AM	PM	AM	PM	AM	PM
Peak Traffic Year 2008									
Route 100C at Route 9A	8-hour	2.6	2.8	3.0	3.3	0.4	0.5	3.2	3.1

Notes:
[a] Includes Background. No build is without the UV Facility or Croton Project (i.e., Pure No build)
[b] The project increment is defined as the project build value minus the no build value. The project increment is below the *de minimis* criteria.
[c] See Section 3.10, Data Collection and Impact Methodologies, Air Quality, for details on how this value is calculated.

2010 Operational Conditions

As part of the proposed traffic mitigation measures for the operational scenario in 2010, a traffic signal at the intersection of Saw Mill River Road (Route 9A) and Grasslands Road (Route 100C) is proposed. Potential carbon monoxide impacts with a traffic signal at this intersection are presented above. As indicated in Tables 4.21-43 through 4.21-48, the concentrations of CO would be below the corresponding ambient air quality standards and the incremental CO concentrations during construction in 2008 would be below the CEQR *de minimis* criteria. In comparison to the construction conditions in 2008, the anticipated air quality impacts in 2010 with the proposed traffic mitigation at this intersection would be anticipated to be the same or less than that projected for the 2008 construction impact assessment. Therefore, no significant

adverse mobile source air quality impacts are anticipated to occur in 2010 with the proposed traffic signal at this intersection.

4.21.4.3. Noise

As discussed above, noise levels due to combined construction activities are predicted to violate the Town of Mount Pleasant noise ordinance that governs construction activities toward the north, south and east construction boundary limits. Measures to ensure compliance with Town of Mount Pleasant code could include installing temporary noise barriers, fitting air compressors and cranes with silencers, or employing walled enclosures around noisy construction activities.

4.21.4.4. Natural Resources

Refer to Section 6, Mitigation of Potential Significant or Temporary Adverse Impacts, which describes mitigation measures designed for the proposed UV Facility if the Croton Project were located on the Eastview Site.

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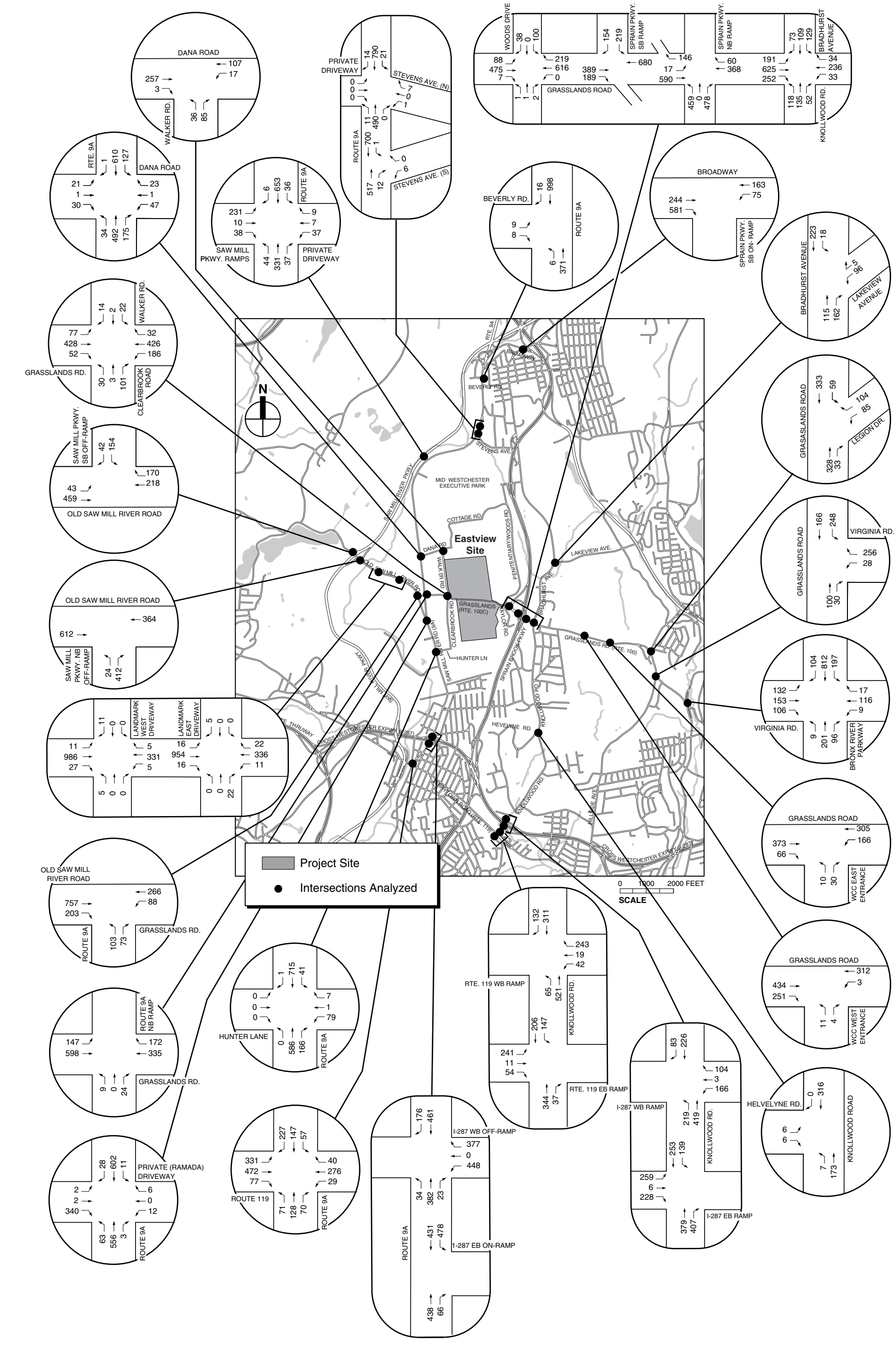

2010 No-Build Traffic Volumes
AM Peak Hour (6:30 - 7:30 AM)

Catskill/Delaware UV Facility

Figure 4.21-1

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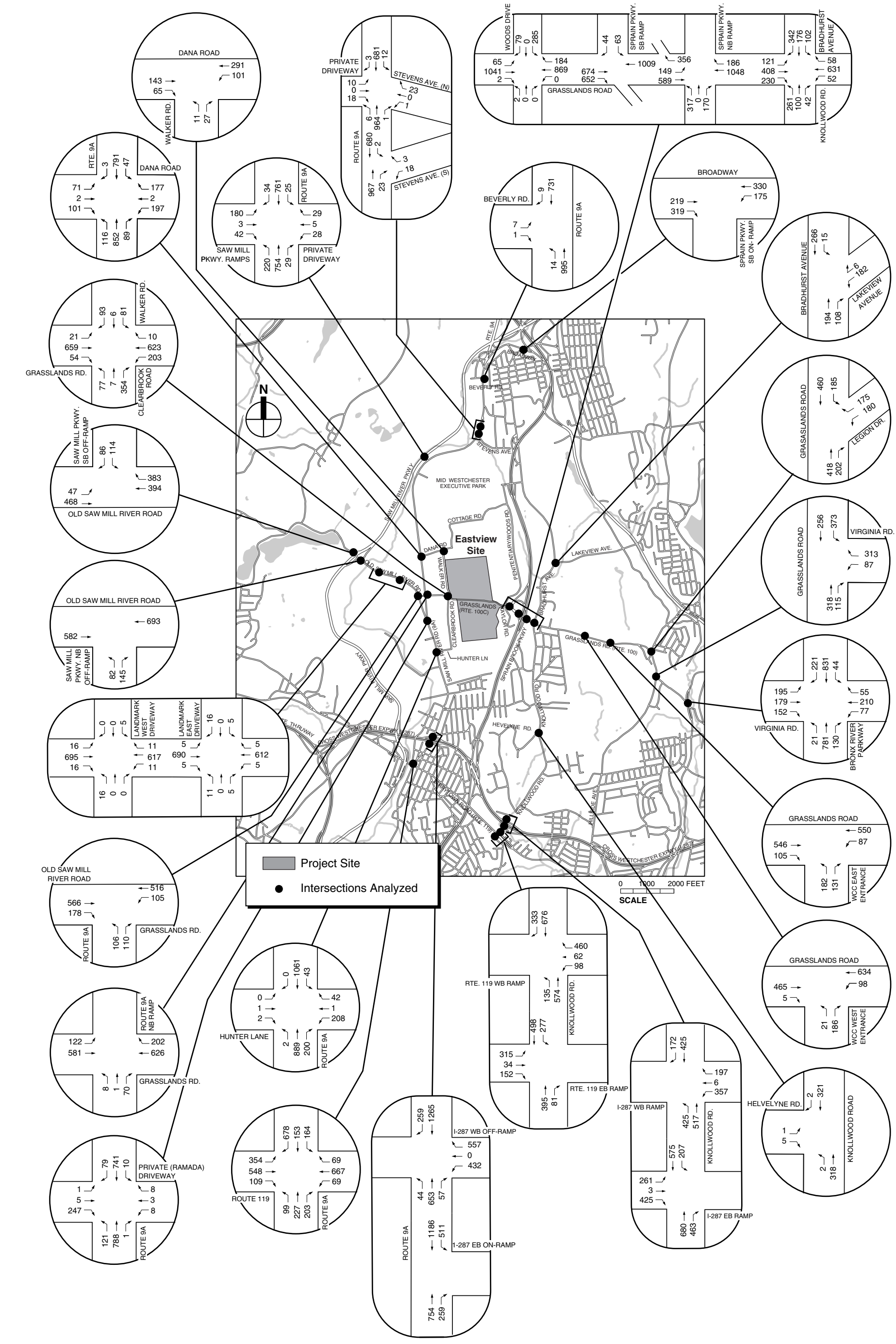

2010 No-Build Traffic Volumes PM Peak Hour (3:30-4:30PM)

Catskill/Delaware UV Facility

Figure 4.21-2

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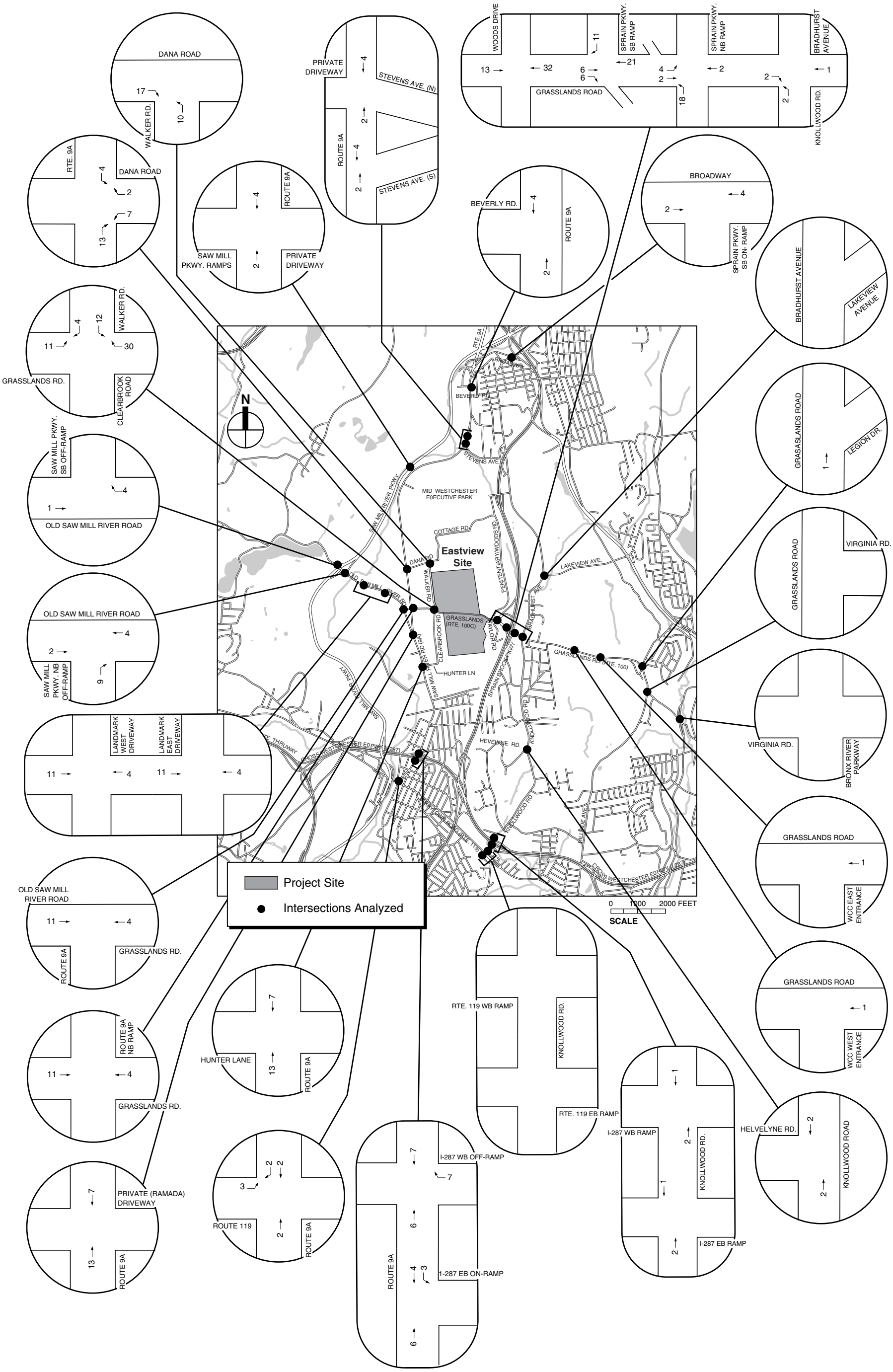

2010 Combined Traffic Assignment
Cat-Del UV and Croton WTP Traffic Volumes
AM Peak Hour (6:30 - 7:30 AM)

Catskill/Delaware UV Facility

Figure 4.21-3

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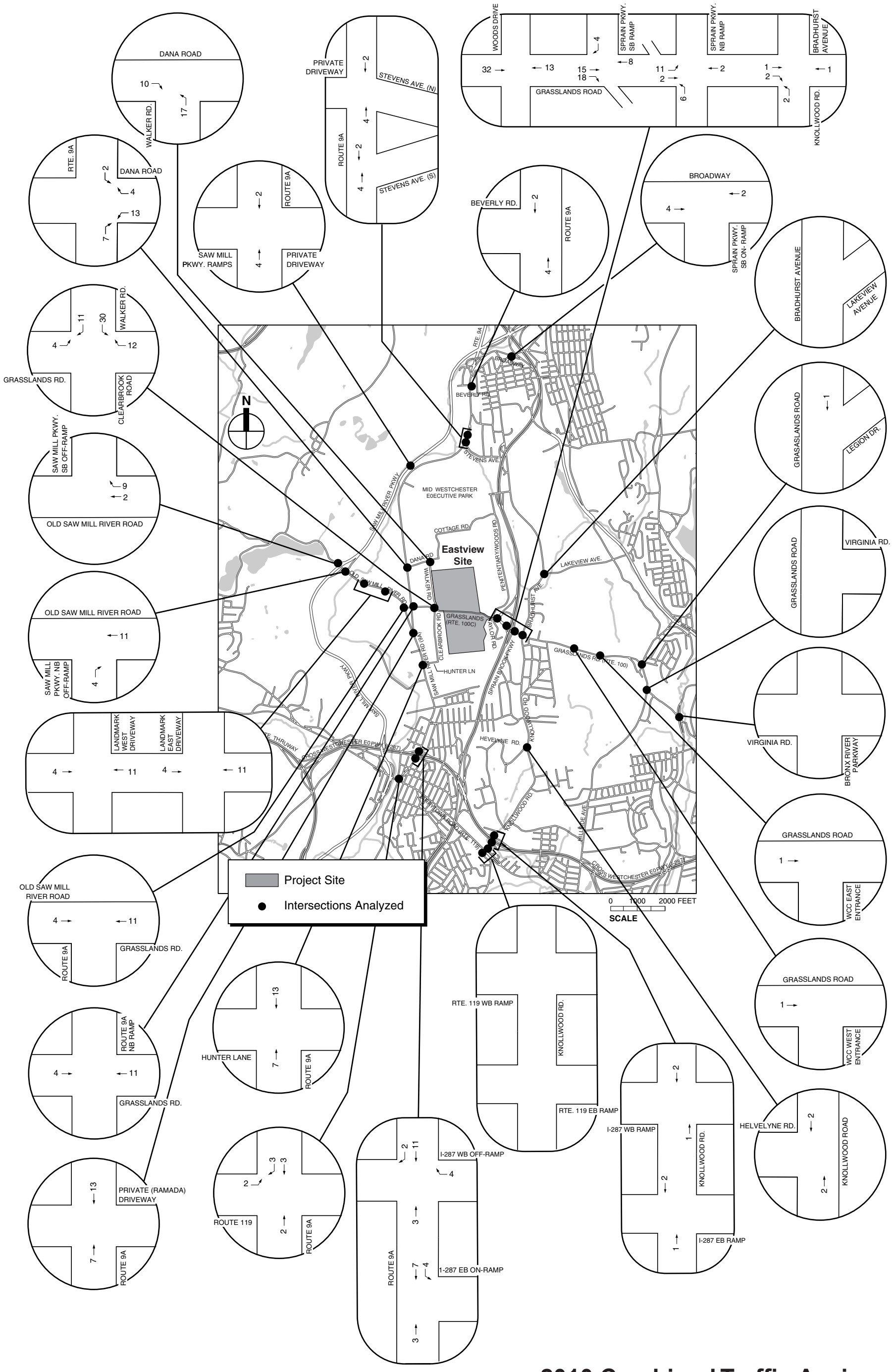

2010 Combined Traffic Assignment
Cat-Del UV and Croton WTP Traffic Volumes
PM Peak Hour (3:30-4:30 PM)

Catskill/Delaware UV Facility

Figure 4.21-4

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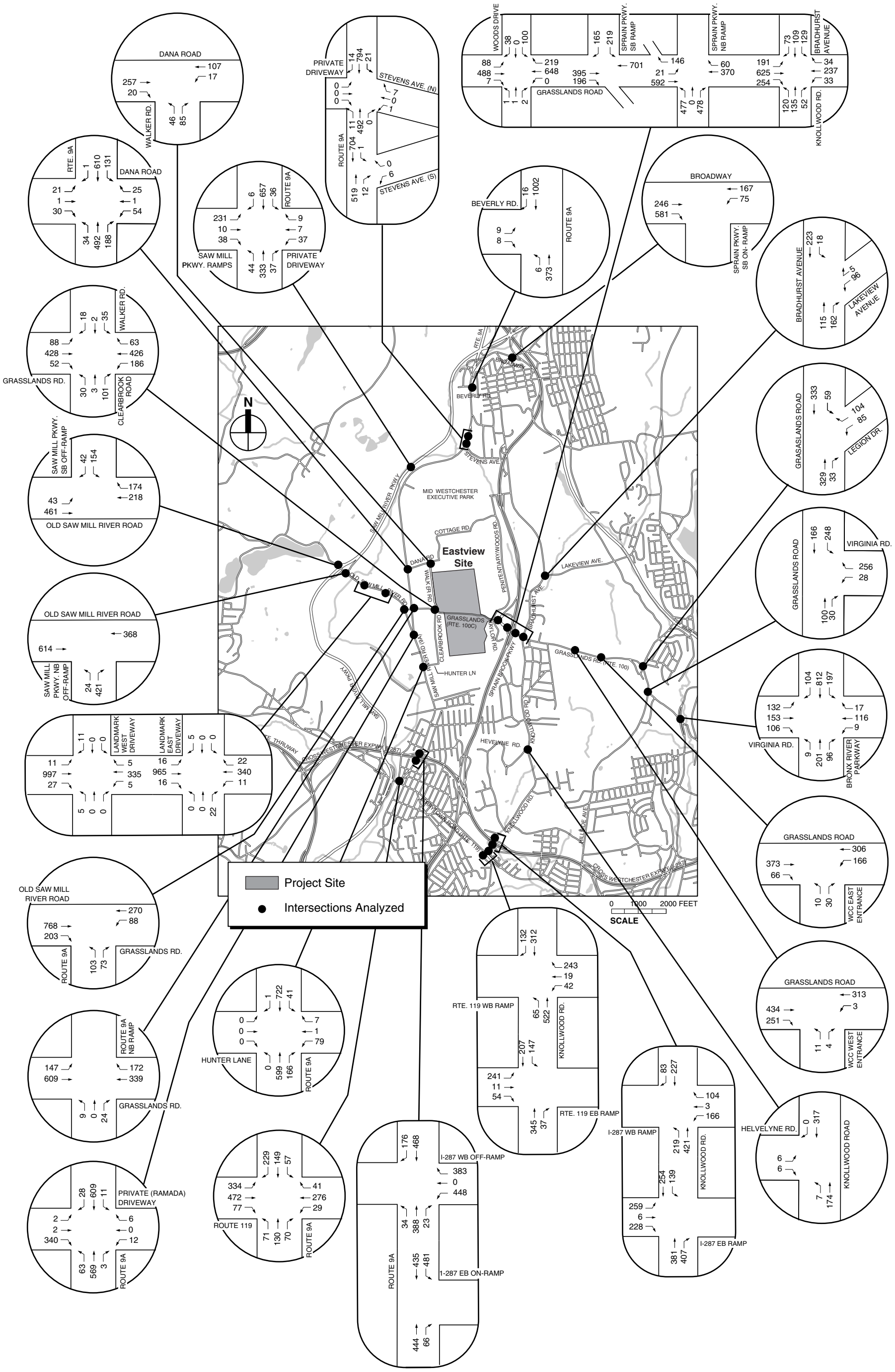

2010 Combined Build Catskill-Delaware UV and Croton WTP Traffic Volumes AM Peak Hour (6:30-7:30AM)

Catskill/Delaware UV Facility

Figure 4.21-5

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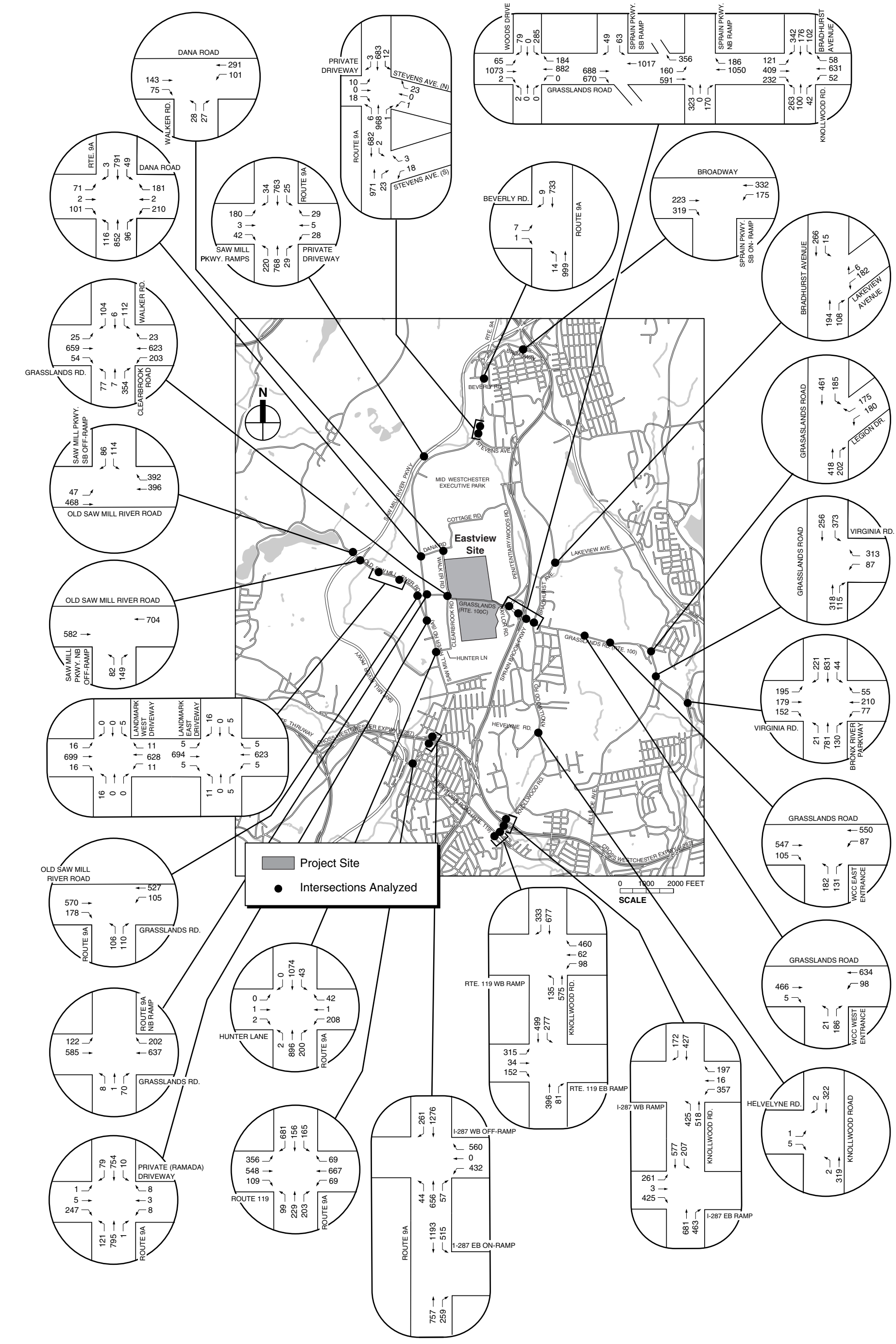

2010 Combined Build Catskill-Delaware UV and Croton WTP Traffic Volumes PM Peak Hour (3:30-4:30PM)

Catskill/Delaware UV Facility

Figure 4.21-6

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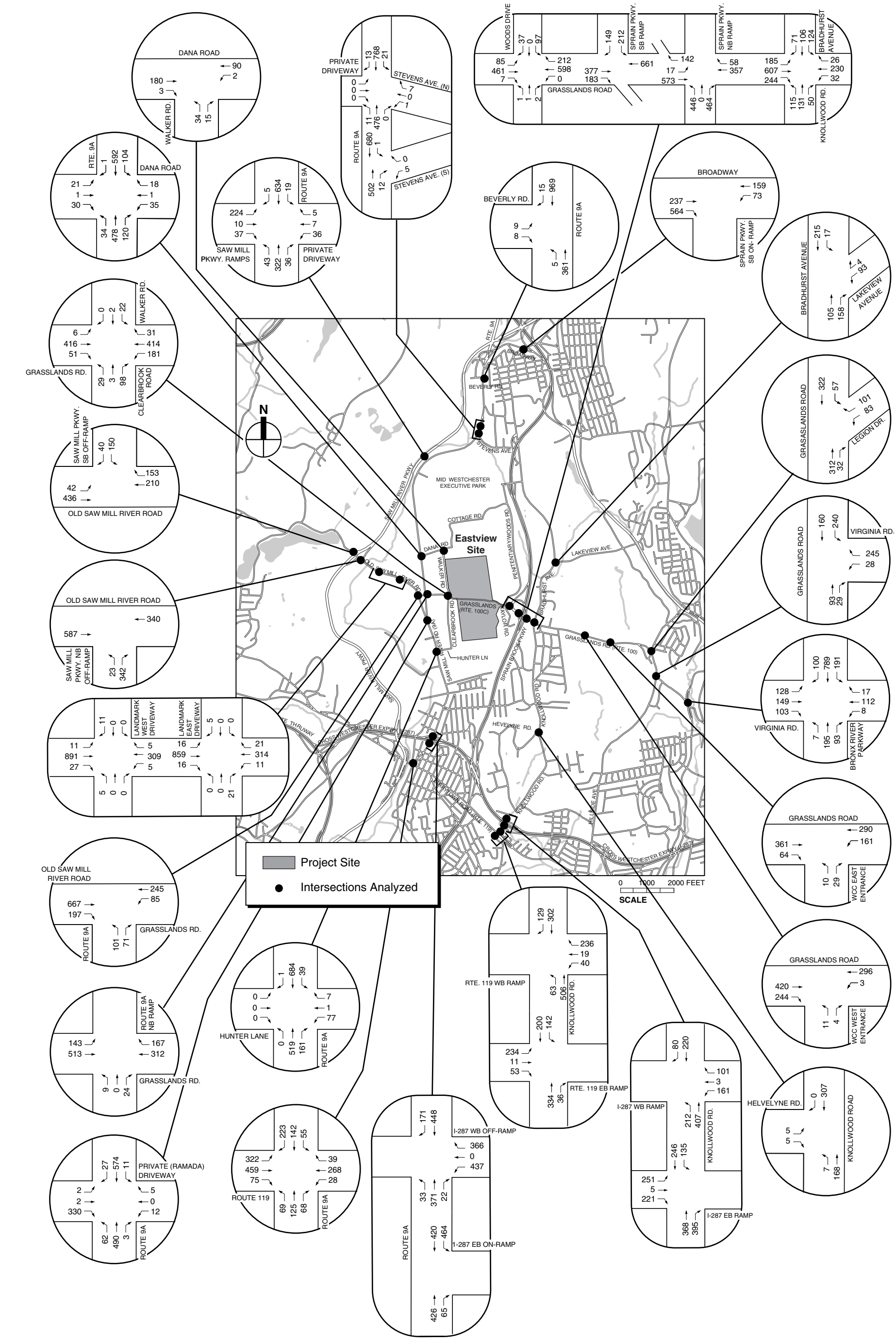
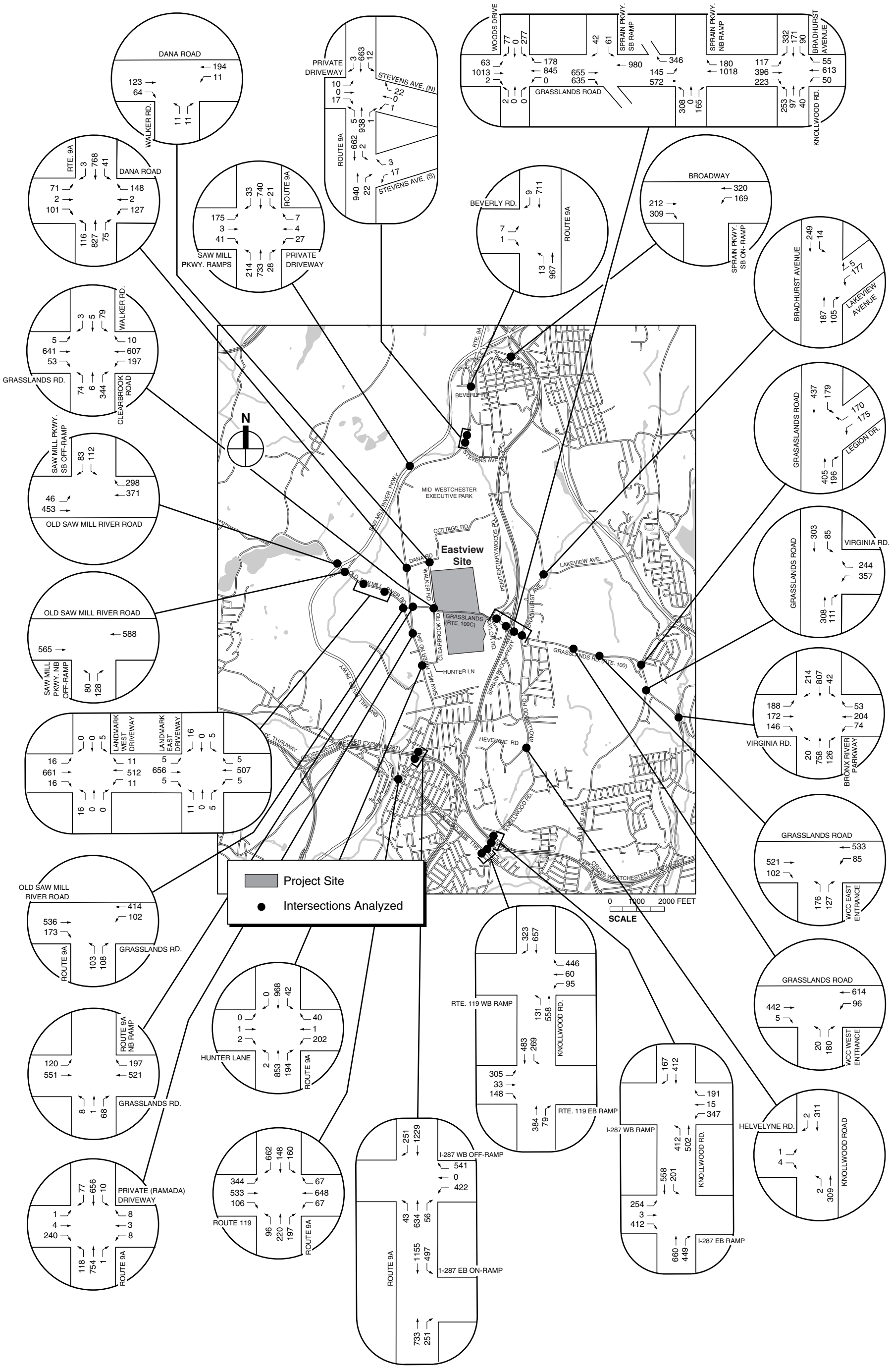


2008 No-Build Traffic Volumes AM Peak Hour (6:30-7:30AM)

Catskill/Delaware UV Facility

Figure 4.21-7



2008 No-Build Traffic Volumes
PM Peak Hour (3:30-4:30PM)

Catskill/Delaware UV Facility

Figure 4.21-8

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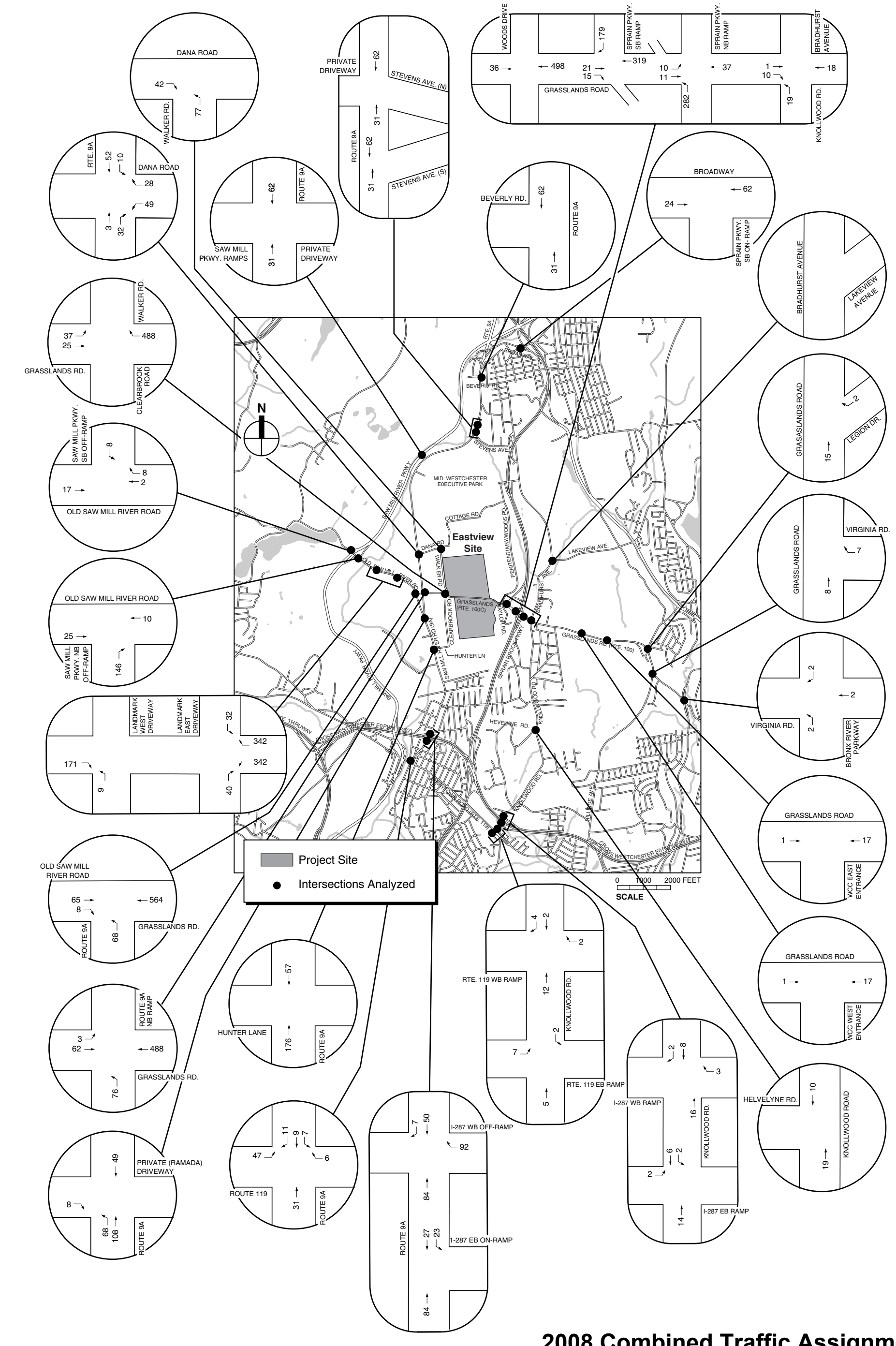

2008 Combined Traffic Assignment
Cat-Del UV and Croton WTP
Worker Parking Option A Traffic Volumes
AM Peak Hour (6:30 - 7:30 AM)

Catskill/Delaware UV Facility

Figure 4.21-9

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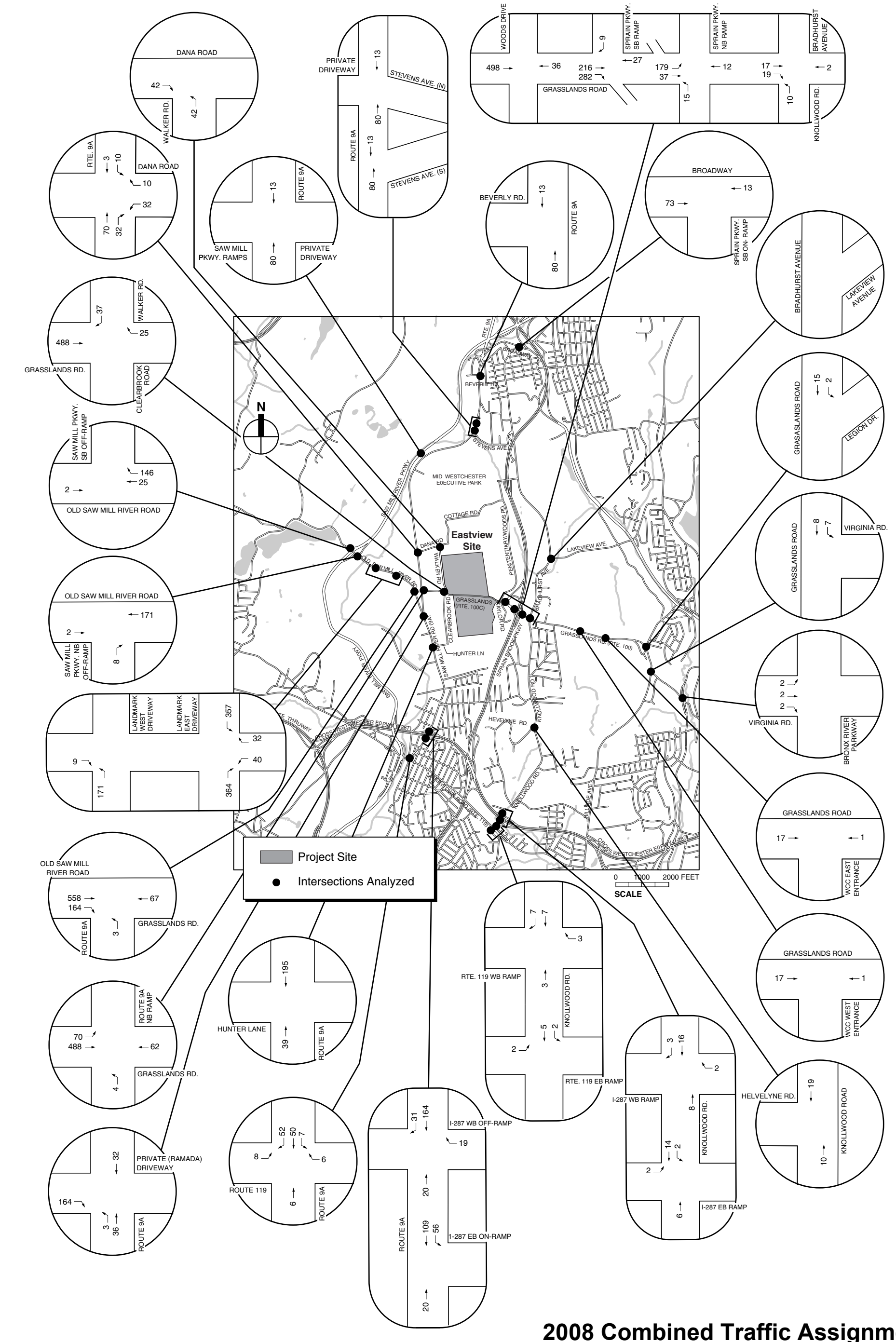

2008 Combined Traffic Assignment
Cat-Del UV and Croton WTP
Worker Parking Option A Traffic Volumes
PM Peak Hour (3:30 - 4:30 PM)

Catskill/Delaware UV Facility

Figure 4.21-10

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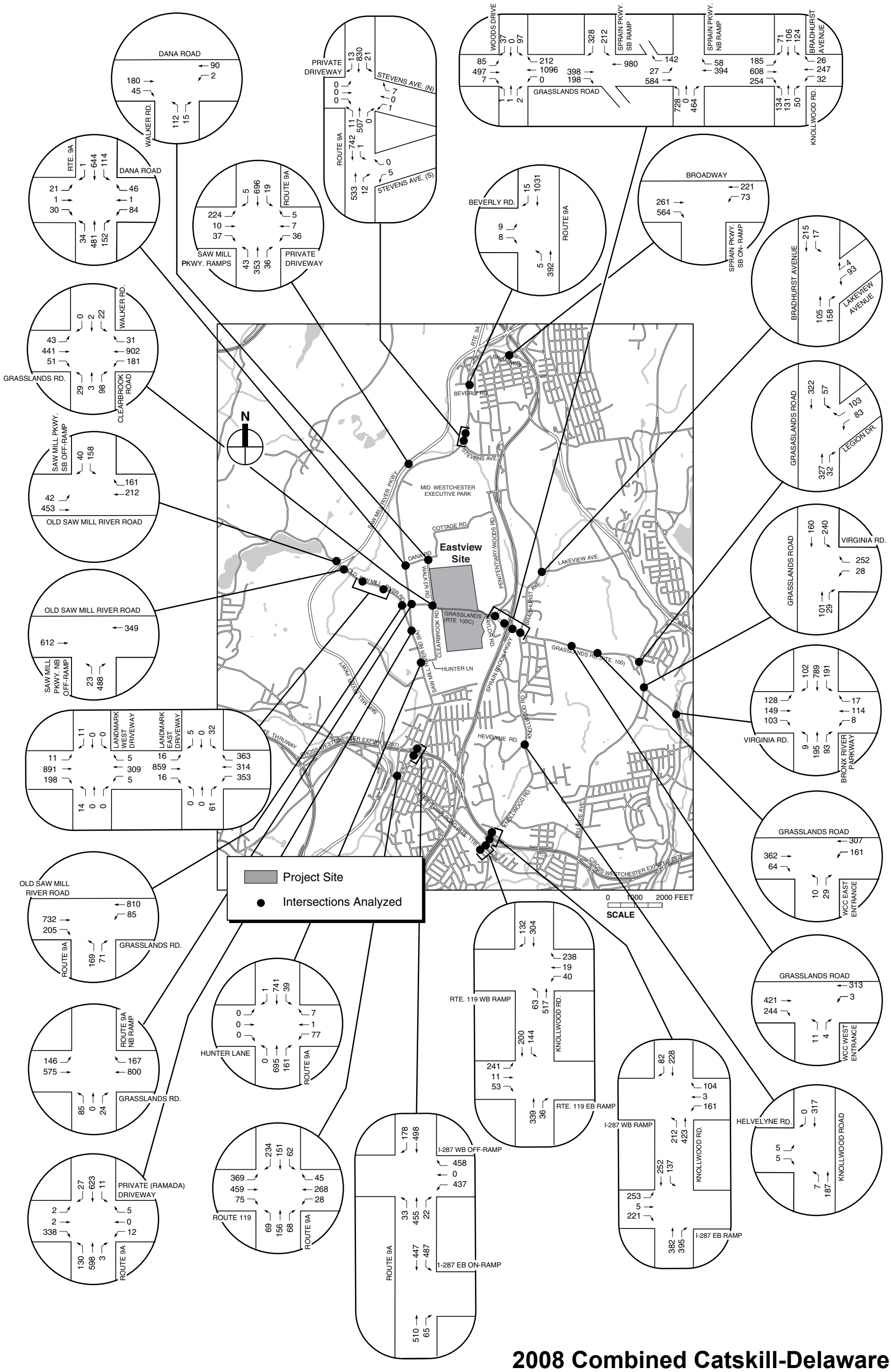

2008 Combined Catskill-Delaware UV and Croton WTP Worker Parking Option A Traffic Volumes AM Peak Hour (6:30 - 7:30 AM)

Catskill/Delaware UV Facility

Figure 4.21-11

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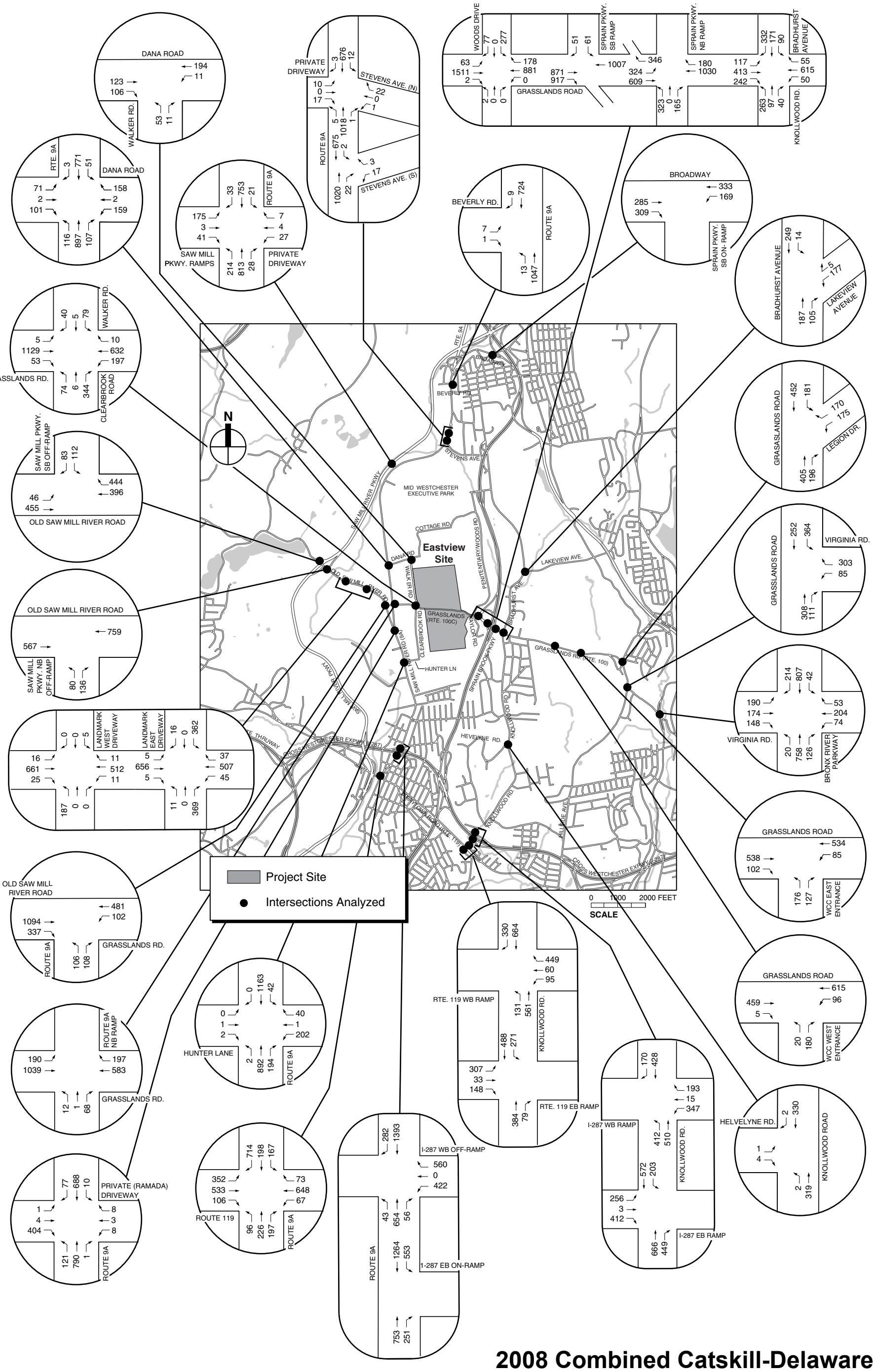

2008 Combined Catskill-Delaware UV and Croton WTP Worker Parking Option A Traffic Volumes PM Peak Hour (3:30 - 4:30 PM)

Catskill/Delaware UV Facility

Figure 4.21-12

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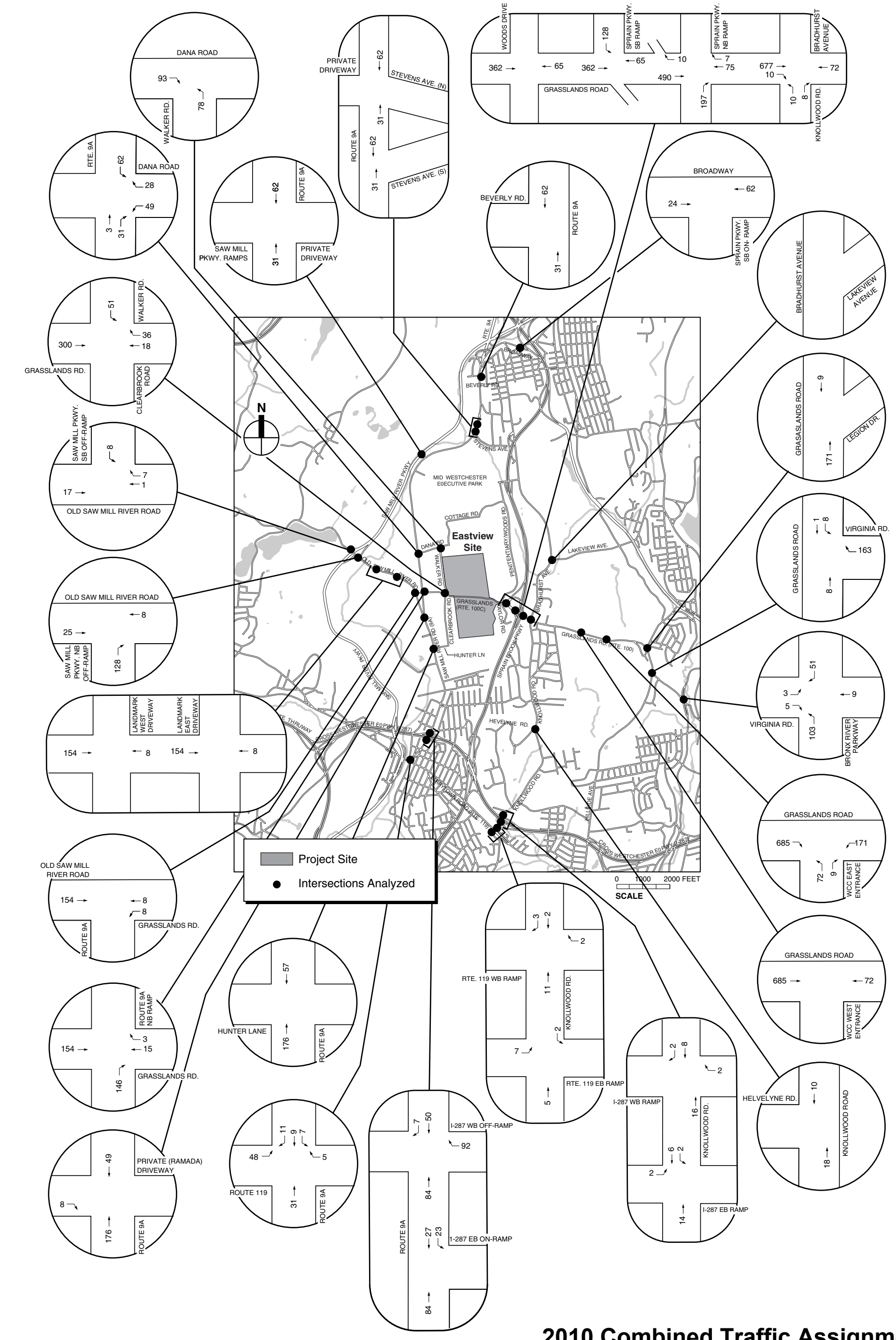

2010 Combined Traffic Assignment
Cat-Del UV and Croton WTP
Worker Parking Option B Traffic Volumes
AM Peak Hour (6:30 - 7:30 AM)

Catskill/Delaware UV Facility

Figure 4.21-13

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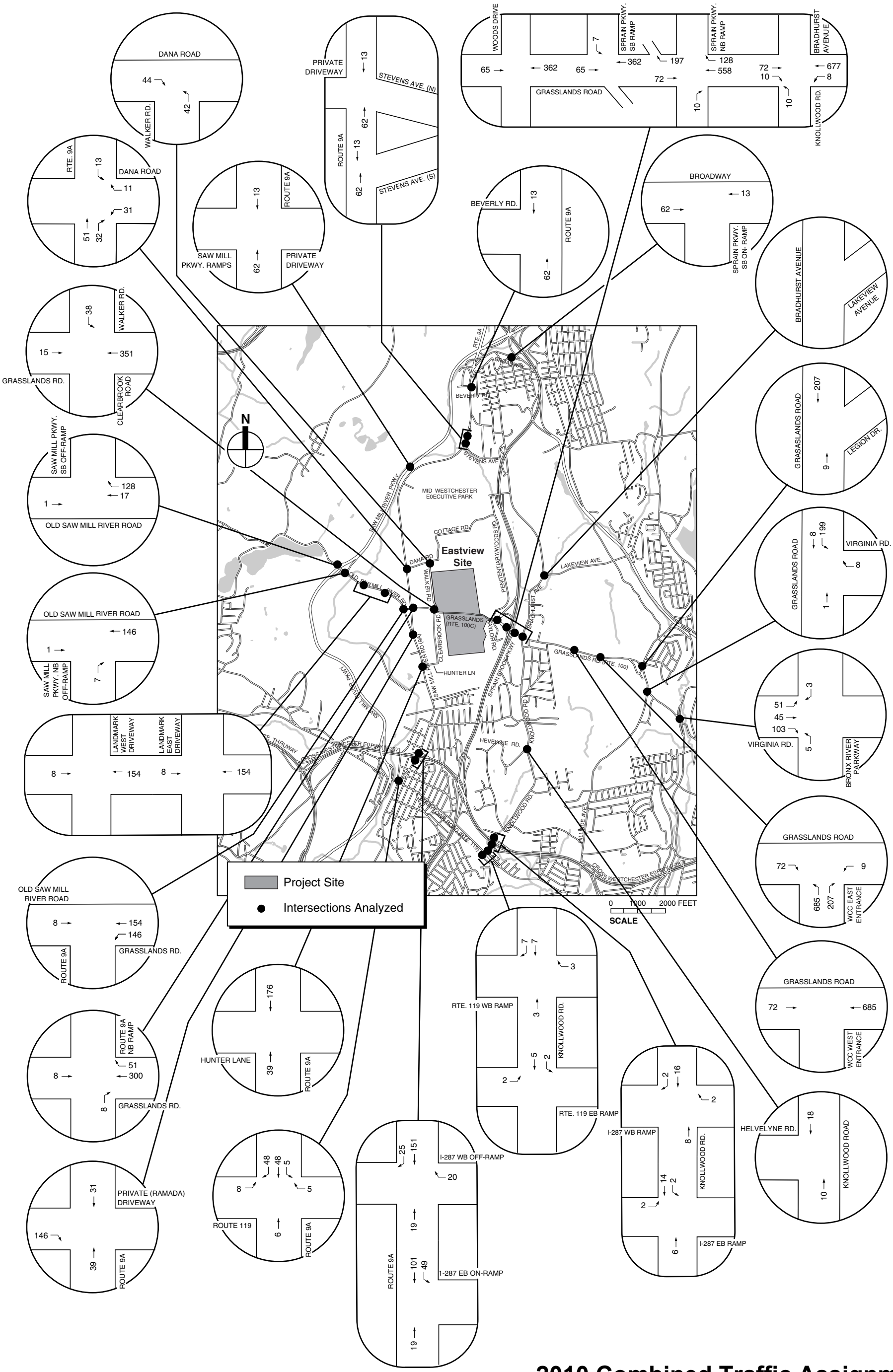
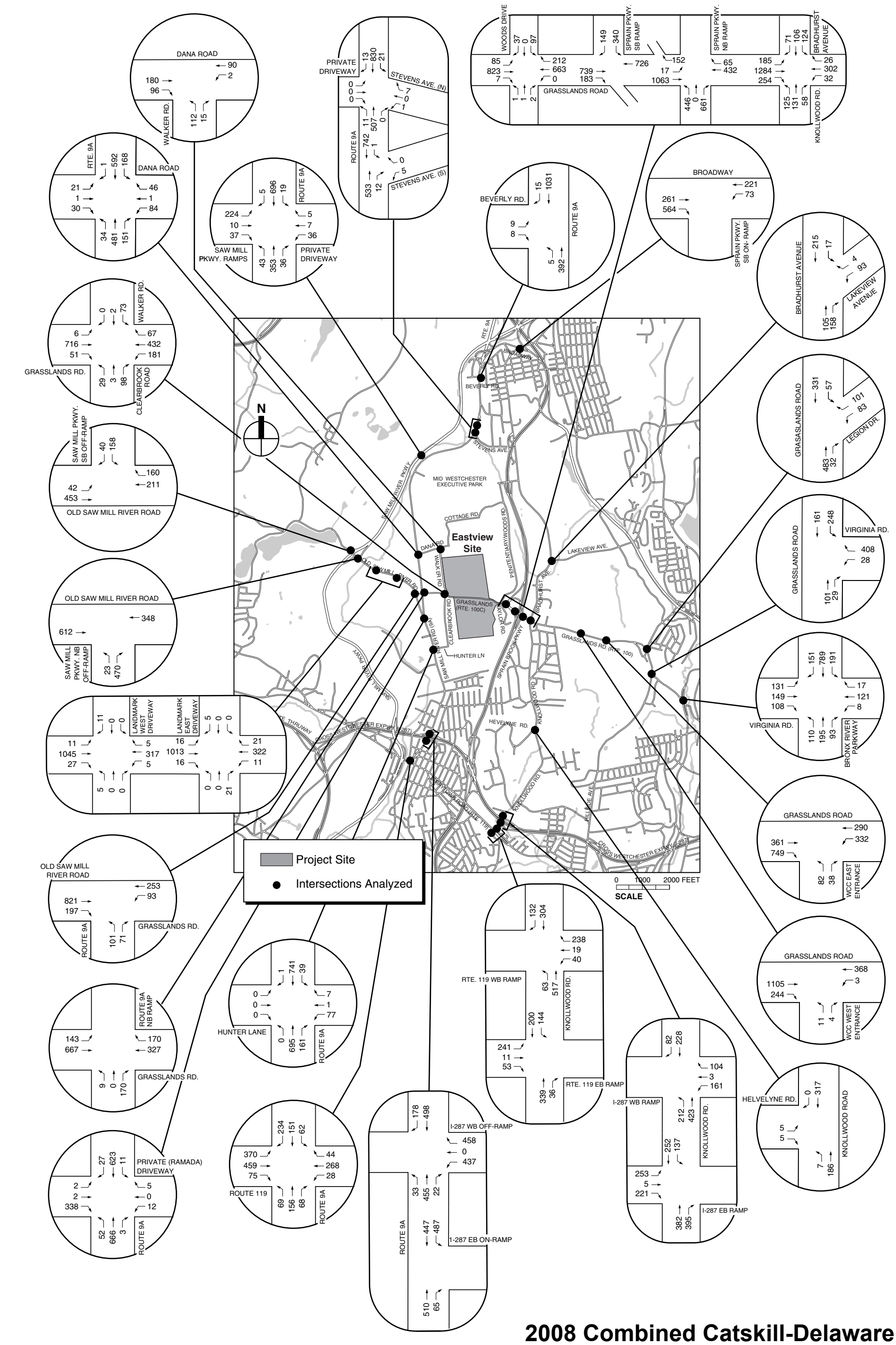


2010 Combined Traffic Assignment
Cat-Del UV and Croton WTP
Worker Parking Option B Traffic Volumes
PM Peak Hour (3:30 - 4:30 PM)

Catskill/Delaware UV Facility

Figure 4.21-14

H&S File: G:\9470\360\Final EIS Graphics\Mp1-Figure4-21-15.ai 5/04

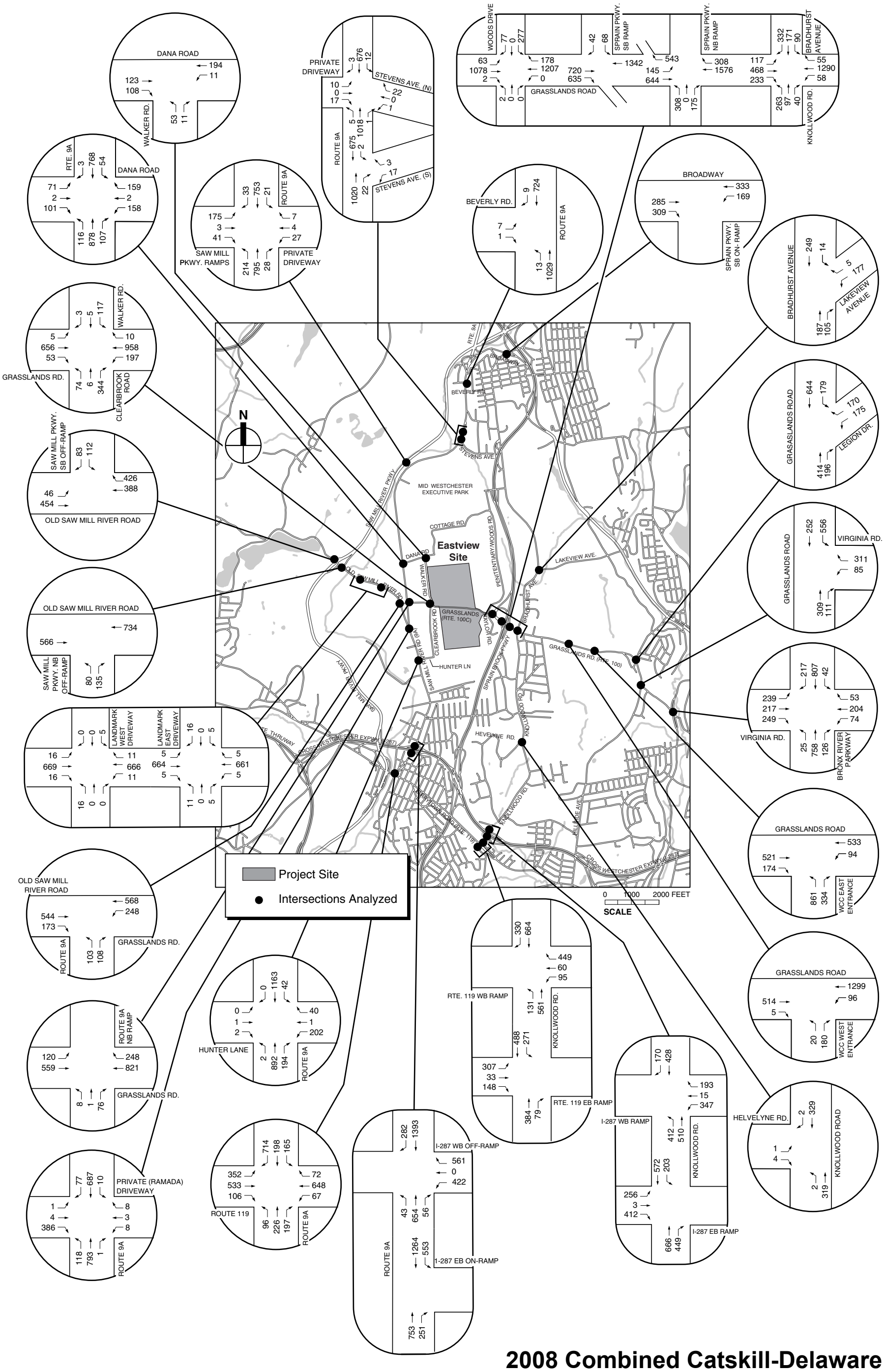


2008 Combined Catskill-Delaware UV and Croton WTP Worker Parking Option B Traffic Volumes AM Peak Hour (6:30 - 7:30 AM)

Catskill/Delaware UV Facility

Figure 4.21-15

H&S File: G:\9470\360\Final EIS Graphics\Mp1-Figure4-21-16.ai 5/04

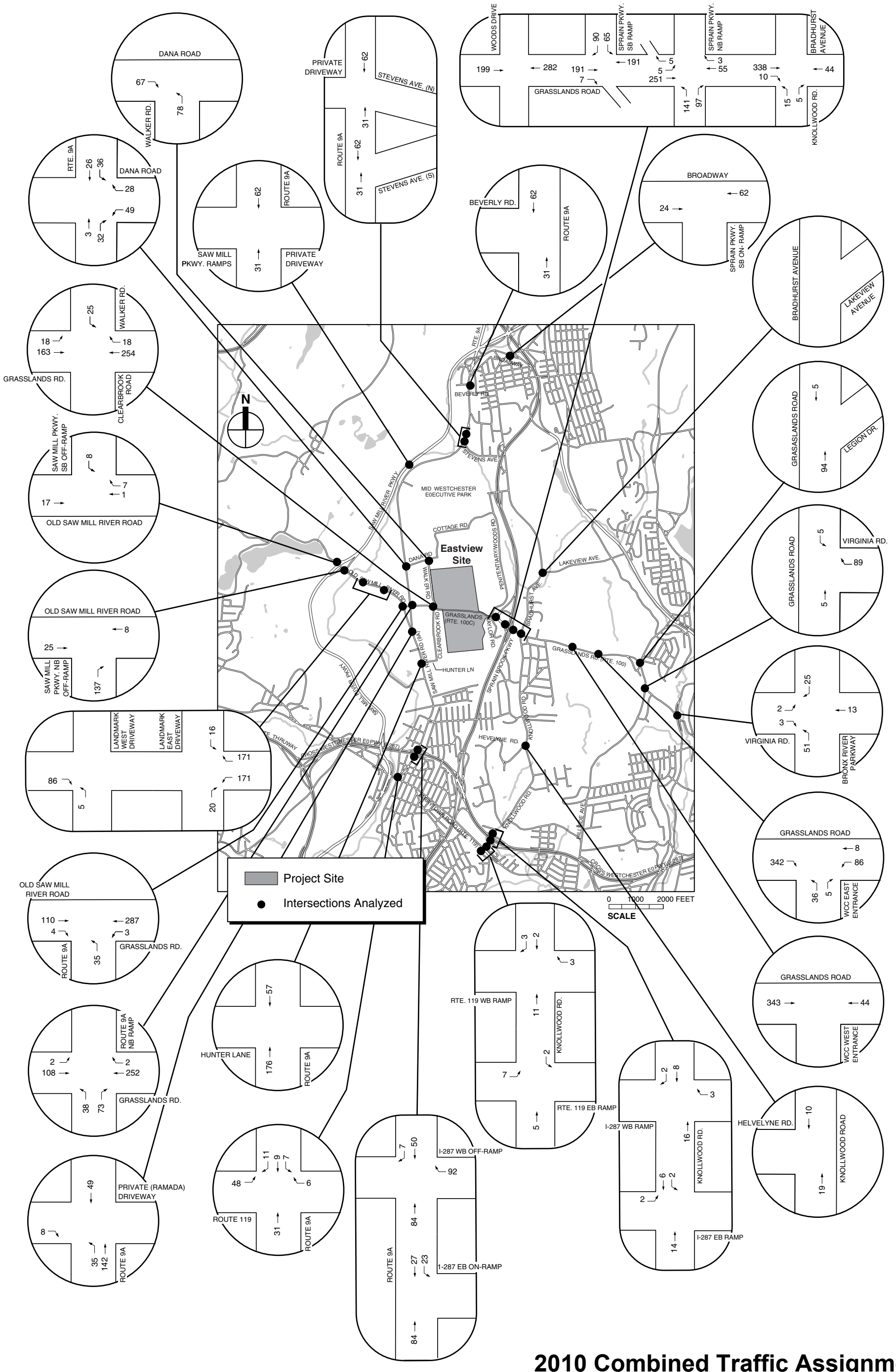


2008 Combined Catskill-Delaware UV and Croton WTP Worker Parking Option B Traffic Volumes PM Peak Hour (3:30 - 4:30 PM)

Catskill/Delaware UV Facility

Figure 4.21-16

H&S File: G:\9470\360\Final EIS Graphics\Mp1-Figure4-21-17.ai 5/04

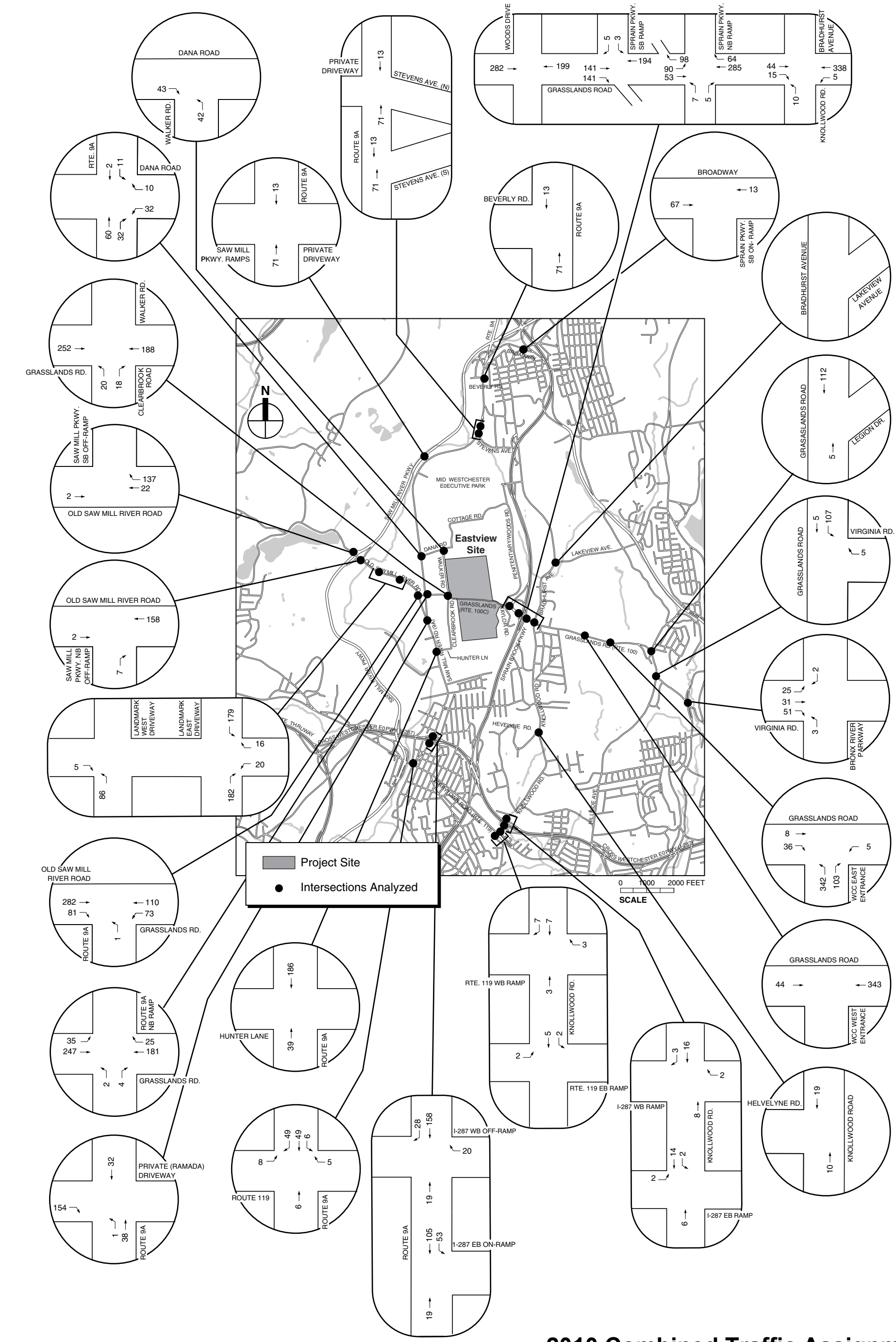


2010 Combined Traffic Assignment
Cat-Del UV and Croton WTP
Worker Parking Option C Traffic Volumes
AM Peak Hour (6:30 - 7:30 AM)

Catskill/Delaware UV Facility

Figure 4.21-17

H&S File: G:\9470\360\Final EIS Graphics\Mp1-Figure4-21-18.ai 5/04

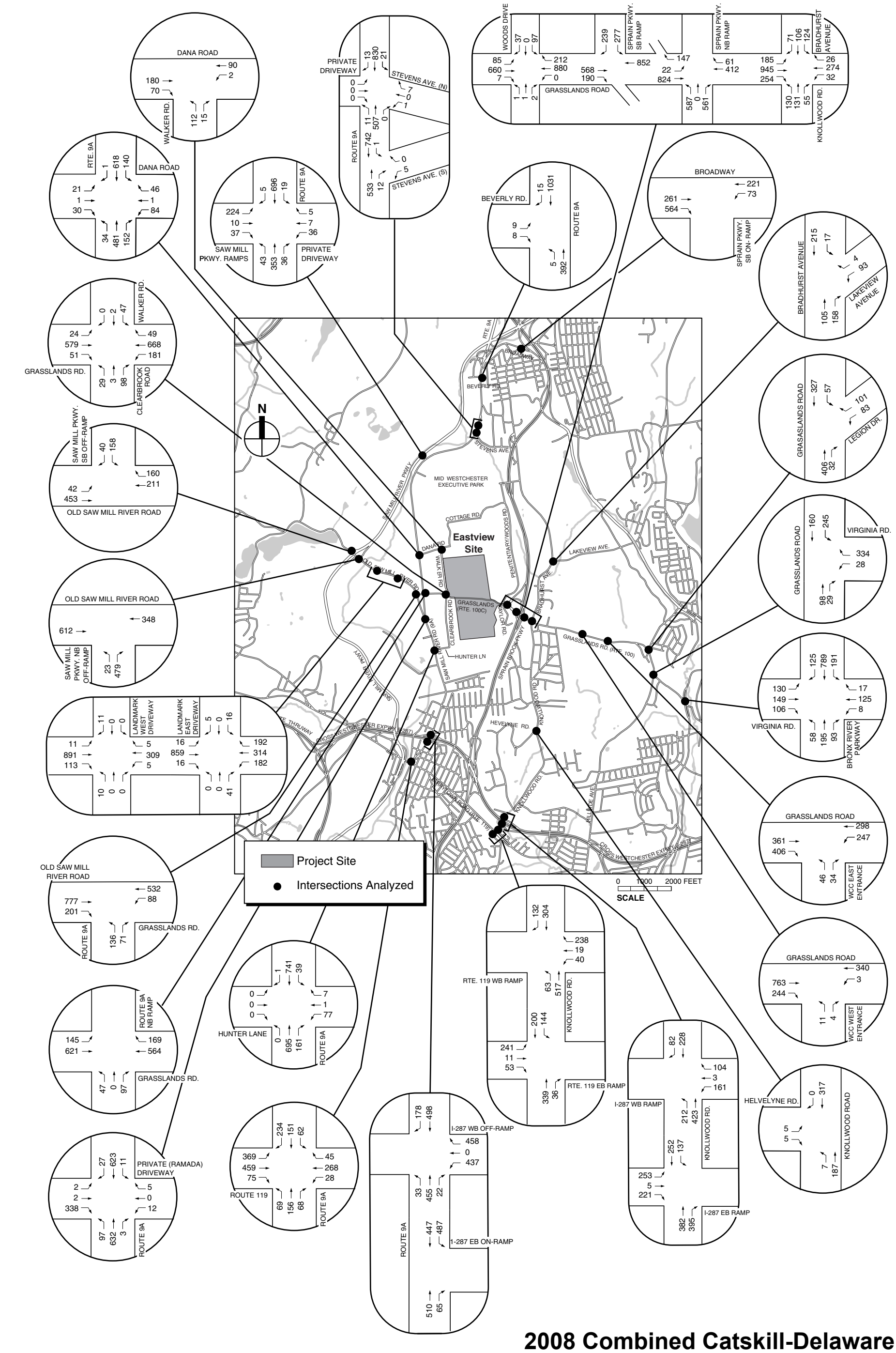


2010 Combined Traffic Assignment
Cat-Del UV and Croton WTP
Worker Parking Option C Traffic Volumes
PM Peak Hour (3:30 - 4:30 PM)

Catskill/Delaware UV Facility

Figure 4.21-18

H&S File: G:\9470\360\Final EIS Graphics\Mp1-Figure4-21-19.ai 5/04

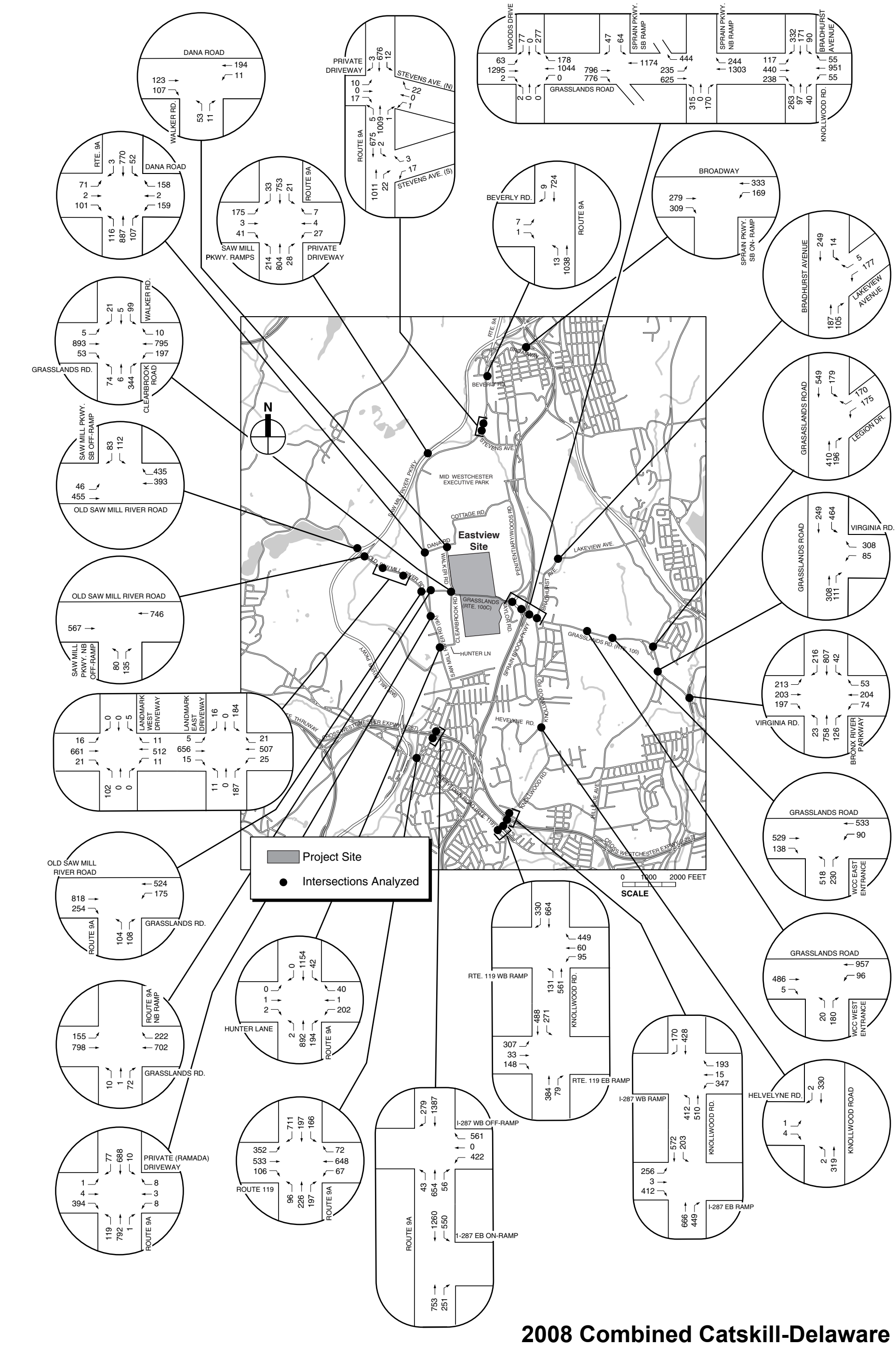


2008 Combined Catskill-Delaware UV and Croton WTP Worker Parking Option C Traffic Volumes AM Peak Hour (6:30 - 7:30 AM)

Catskill/Delaware UV Facility

Figure 4.21-19

H&S File: G:\9470\360\Final EIS Graphics\Mp1-Figure4-21-20.ai 5/04

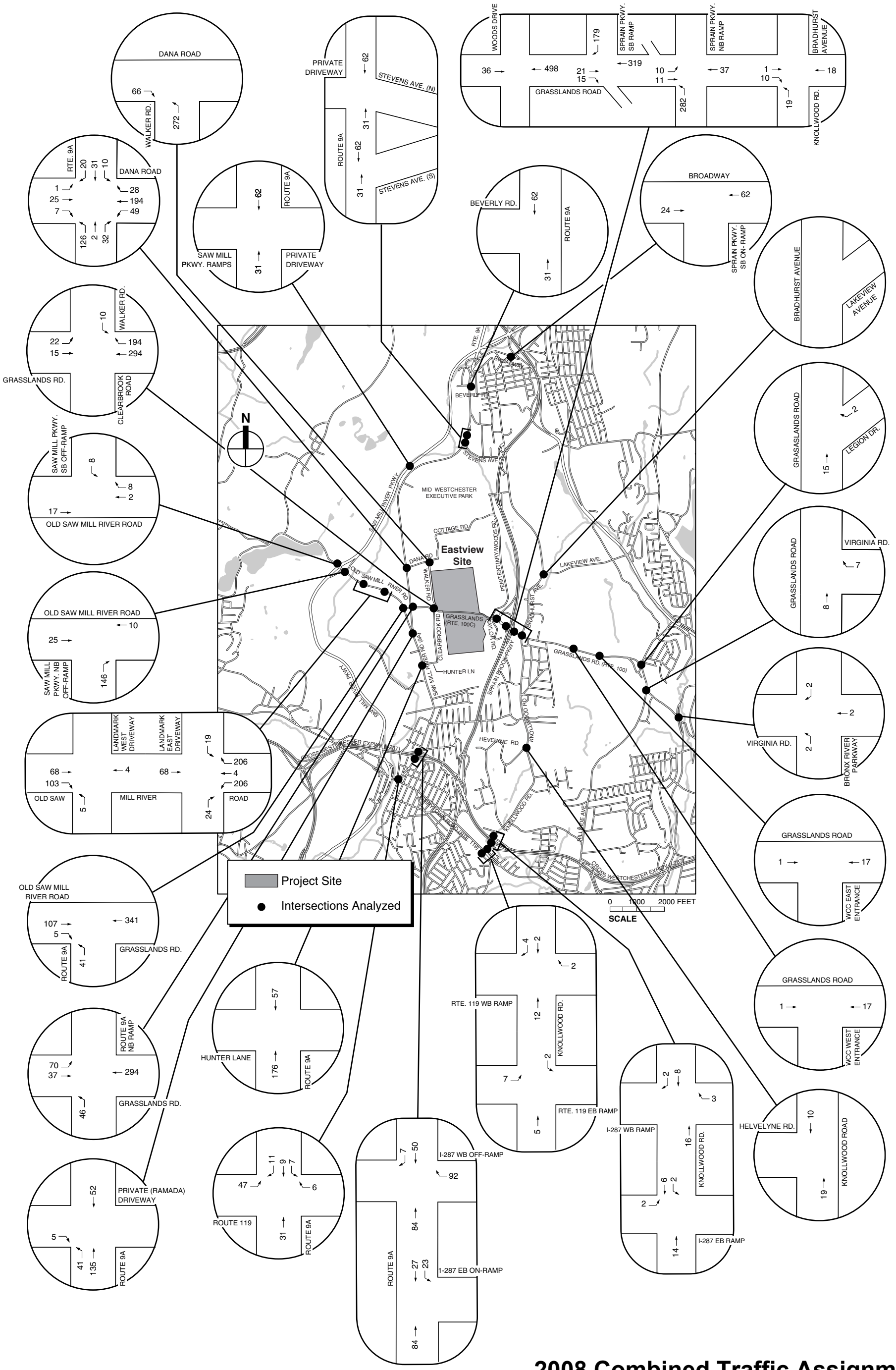


2008 Combined Catskill-Delaware UV and Croton WTP Worker Parking Option C Traffic Volumes PM Peak Hour (3:30 - 4:30 PM)

Catskill/Delaware UV Facility

Figure 4.21-20

H&S File: G:\9470\360\Final EIS Graphics\Mp1-Figure5-21-21.ai 5/04

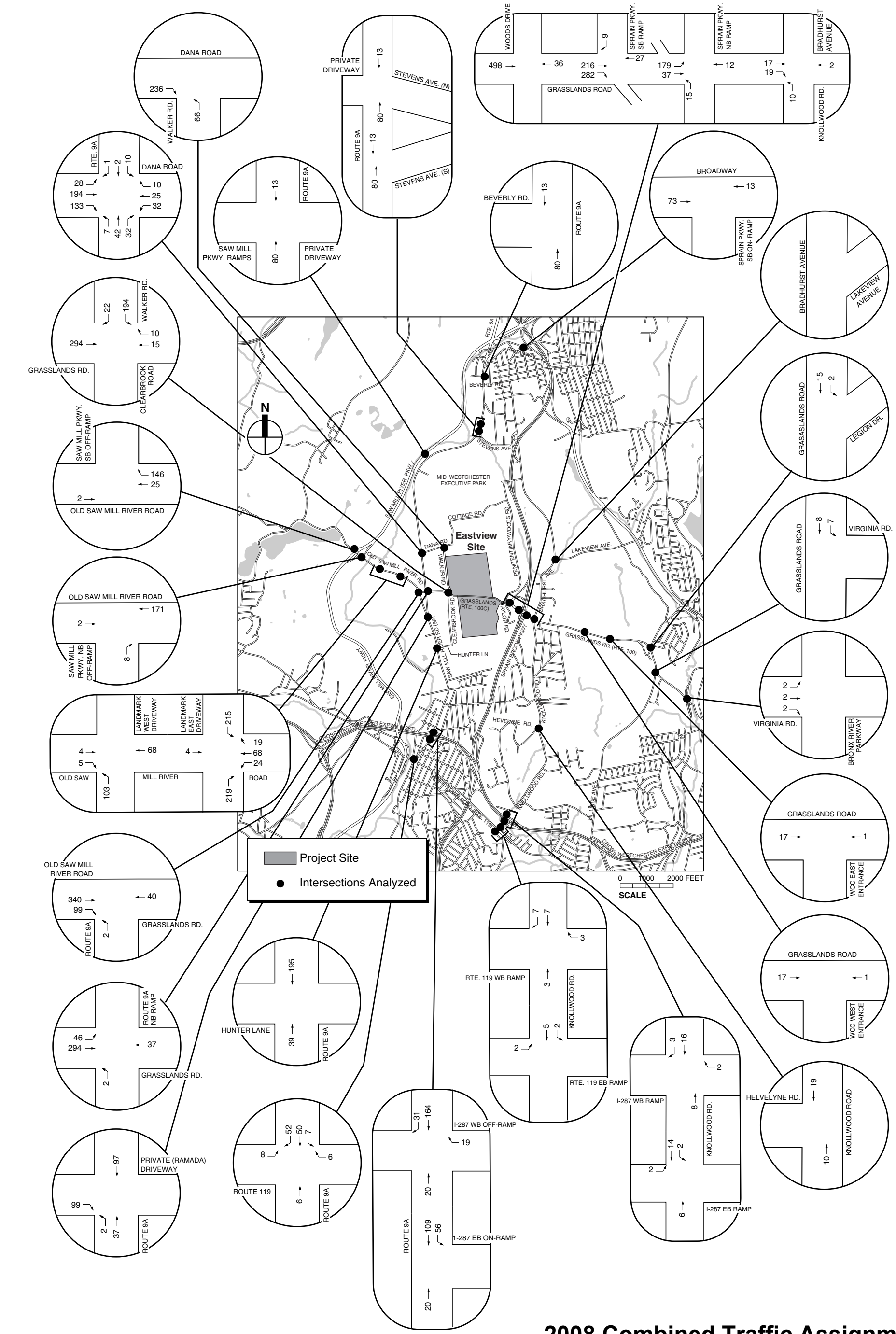


2008 Combined Traffic Assignment Cat-Del UV and Croton WTP Worker Parking Option D Traffic Volumes AM Peak Hour (6:30 - 7:30 AM)

Catskill/Delaware UV Facility

Figure 4.21-21

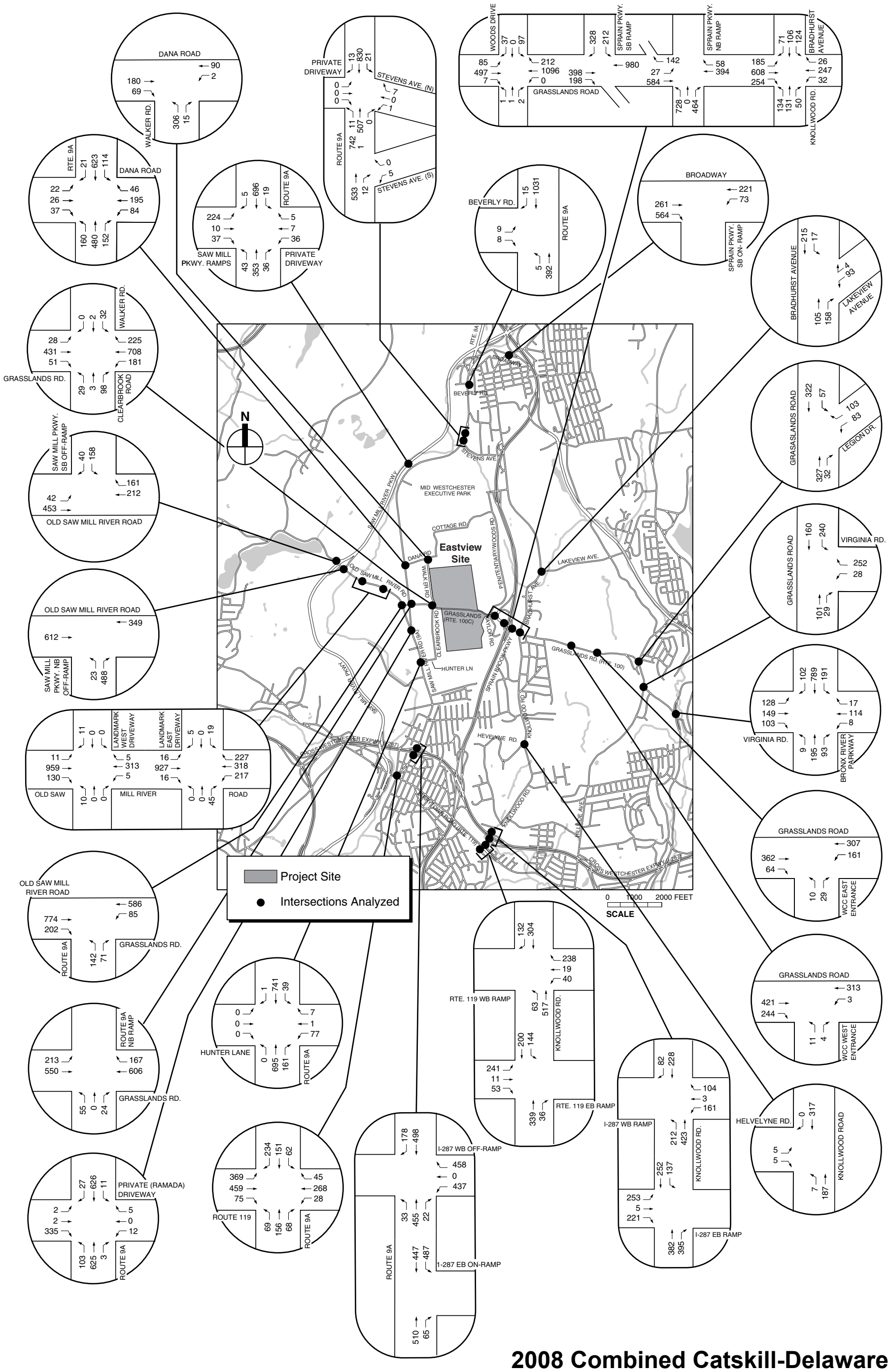
H&S File: G:\9470\360\Final EIS Graphics\Mp1-Figure4-21-22.ai 5/04



2008 Combined Traffic Assignment Cat-Del UV and Croton WTP Worker Parking Option D Traffic Volumes PM Peak Hour (3:30 - 4:30 PM)

Catskill/Delaware UV Facility

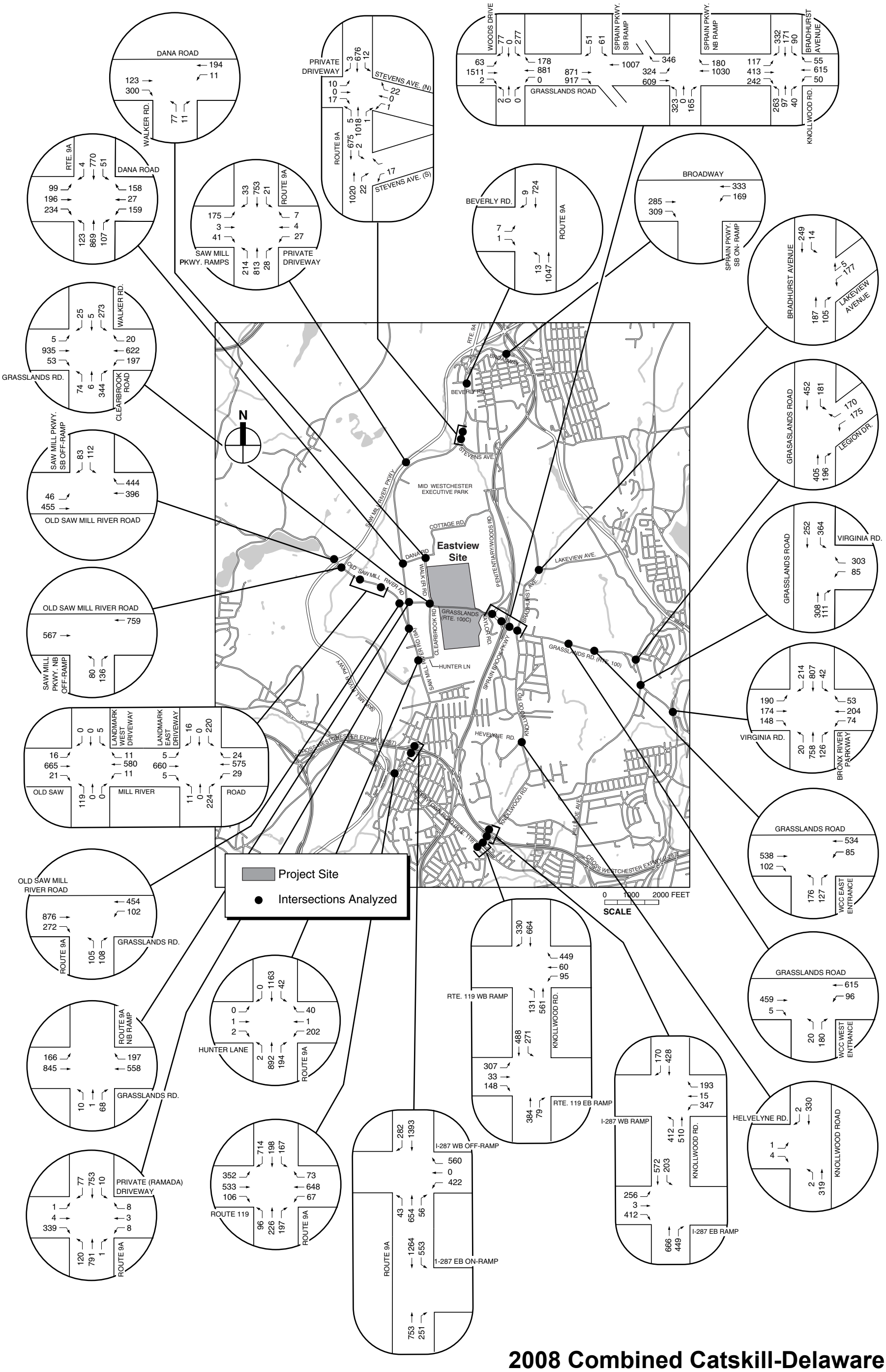
Figure 4.21-22



2008 Combined Catskill-Delaware UV and Croton WTP Worker Parking Option D Traffic Volumes AM Peak Hour (6:30 - 7:30 AM)

Catskill/Delaware UV Facility

Figure 4.21-23



2008 Combined Catskill-Delaware UV and Croton WTP Worker Parking Option D Traffic Volumes PM Peak Hour (3:30 - 4:30 PM)

Catskill/Delaware UV Facility

Figure 4.21-24