

MEMORANDUM



ENGINEERS
PLANNERS
SURVEYORS

Date: October 15, 2019

To: Aaron Frankenfeld
Adirondack/Glens Falls Transportation Council

From: Mark Nadolny and Mark A. Sargent, P.E.

Project: Glen Street/Fire Road and Glen Street/Webster Avenue Intersection Evaluation,
City of Glens Falls, Warren County, New York

Re: Traffic Evaluation and Pedestrian Accessibility

The Adirondack/Glens Falls Transportation Council (A/GFTC) has determined that the Fire Road and Webster Avenue intersections on Glen Street (US Route 9) located in the City of Glens Falls should be reviewed to determine if improvements can be implemented to address public concerns regarding intersection operations and pedestrian safety associated with the existing signalized intersections. The subject intersections are shown on Aerial Photo #1 while the overall study area is shown on Figure 1. This assessment includes a review of existing conditions such as vehicle speeds, crashes, physical characteristics, pedestrian access alternatives, and traffic signal operations, to identify the recommended alternative.



Aerial Photo #1 – Glen St/Fire Rd and
Glen St/Webster Ave Intersections

1.0 Existing Conditions

Roadways Serving the Study Area

Glen Street (US Route 9) is classified as an urban principal arterial that provides north-south travel through the City of Glens Falls and Warren County. Glen Street is an approximate 39 foot wide roadway in the study area that generally provides a single lane in each direction and auxiliary turn lanes at City intersections. The city speed limit is 30 mph. Sidewalks are provided on both sides of the road. Land uses along Glen Street in the study area include *Crandall Park*, the *Glens Falls YMCA*, and a mix of commercial and residential land.

Fire Road is a two-way roadway classified as an urban local road and provides east-west travel from Glen Street to Jerome Avenue. A 300-foot on-street parking area is provided on the south side of Fire Road just west of Glen Street. Fire Road is an approximate 26 foot wide roadway that provides a single lane in each direction. Fire Road has a posted 6-ton weight limit to discourage through truck traffic and has a 20-mph posted speed limit. A sidewalk is provided on the north side of Fire Road from Glen Street to the *Glens Falls Recreational Center*. A sidewalk is also provided on the south side of Fire Road adjacent to the on-street parking lane. This sidewalk transitions to a multiuse path 300 feet west of Glen Street that extends to the Jerome Avenue intersection where it turns south. A mid-block pedestrian crossing with a speed table is located approximately 30-feet west of Glen Street which provides access to the *Glens Falls Family YMCA* to the north and *Crandall Park* to the south. Land uses along Fire Road include the *Glens Falls Family YMCA*, the *Glens Falls Recreational Center*, and *Crandall Park*.

Webster Avenue is a two-way roadway classified as an urban major collector and provides east-west travel from Glen Street to Bay Street. Webster Avenue is an approximate 40 foot wide roadway that provides a single lane in each direction. The city speed limit is 30 mph and on-street parking is allowed. Sidewalks are provided on both sides of Webster Avenue with the exception of an approximate 600 foot section located west of Bay Street adjacent to the *Glens Falls Cemetery* located on the south side of the road. Land uses along Webster Avenue are generally residential with the *Glens Falls Cemetery* located near Bay Street.

Study Area Intersections

The Glen Street/Fire Road intersection is a three-leg intersection controlled by a pre-timed traffic signal that is connected to the Glen Street/Webster Avenue intersection. The eastbound Fire Road approach provides a single lane for shared left and right turn movements. The northbound Glen Street approach provides a short left-turn lane and a through lane while the southbound Glen Street approach provides a single lane for shared through/right turn movements. A marked crosswalk is provided on the west leg of the intersection. Pedestrian push buttons are provided on the northwest and northeast corners of the intersection. A sign below the buttons instructs the user "To Cross Glen Street Push Button and Wait for Green Light." A marked crosswalk and ramps are not provided on Glen Street. As noted above, the traffic signal operates pre-timed and the push-button does not place a pedestrian call to the controller. Pedestrian indicators and countdown timers are not provided on any of the approaches.

The Glen Street/Webster Avenue intersection is a three-leg intersection controlled by a pre-timed traffic signal that is connected to the Glen Street/Fire Road intersection. The westbound Webster Avenue approach provides separate left and right turn lanes. The northbound Glen Street approach provides a single lane for shared through/right turn movements while the southbound Glen Street approach provides a short left-turn lane and a through lane. A marked crosswalk is provided on the south and east legs of the intersection. Pedestrian push buttons are provided on the southwest and southeast corners of the intersection. A sign located below the button on the southwest corner instructs the user "To Cross Glen Street Push Button and Wait for Green Light". It appears that a similar sign may have been provided below the pedestrian button on the southeast corner; however, no sign is currently present. As noted above, the traffic signal operates pre-timed and the push-button does not place a pedestrian call to the controller. Pedestrian indicators and countdown timers are not provided on any of the approaches.

The traffic signal cabinet and controller at the subject intersections consists of a New York State Department of Transportation (NYSDOT) style ground mounted cabinet equipped with an older Safetran Model 170 traffic signal controller. A field review of existing conditions indicates that the traffic signal currently operates under the following traffic signal timing and phasing plan.



Data Collection

An automatic traffic recorder (ATR) was installed on Glen Street during September 2017. The raw ATR data is included under Attachment A. ATR data on Glen Street shows that the road currently serves approximately 16,280 vehicles per day (vpd) north of Fire Road with two-way traffic volumes of approximately 1,005 vehicles during the AM peak hour, 1,350 vehicles during the Mid-Day peak hour, and 1,425 vehicles during the PM peak hour. The 85th percentile speed measured on Glen Street is 33-mph in the northbound direction and 30-mph in the southbound direction.

Intersection turning movement counts were conducted at the Fire Road and Webster Avenue intersections on Glen Street on Tuesday, March 19 and 26, 2019 during the morning, mid-day, and afternoon peak periods. A summary of intersection counts is included in Table 1. It is noted that the signalized Glen Street/Glenwood Avenue/Firestone Driveway intersection located north of Fire Road was also included in the traffic model developed for this assessment in order to determine if proposed improvements in the study area will impact operations of the adjacent traffic signal. The raw turning movement count data is included under Attachment A. The 2019 existing AM, Mid-Day, and PM peak hour traffic volumes (shown on Figure 2) form the basis for all traffic forecasts and analysis.

Table 1 – Summary of Intersection Turning Movement Counts

Intersection	AM Peak Hour		Mid-Day Peak Hour		PM Peak Hour	
	Time Period	Peak Hour	Time Period	Peak Hour	Time Period	Peak Hour
Glen St/Fire Rd	7:00-9:00	8:00-9:00	11:00-1:00	12:00-1:00	2:00-6:00	4:15-5:15
Glen St/Webster Ave	7:00-9:00	8:00-9:00	11:00-1:00	11:45-12:45	2:00-6:00	4:00-5:00
Glen St/Glenwood Ave/Firestone Drwy	7:00-9:00	8:00-9:00	11:00-1:00	12:00-1:00	2:00-6:00	4:30-5:30

A review of the NYSDOT *Project Development Manual - Appendix 5* indicates that safety related projects on existing highways typically do not require future design year traffic volumes; however, an ETC (Estimated Time of Completion)+10 year was used for this assessment in order to ensure adequate operations will be provided for future traffic volume conditions. Traffic projections were prepared for 2030 (ETC+10) based on an analysis of existing traffic growth trends and other developments in the project area. Historical traffic volume data found in the latest version of the *Traffic Data Report* (2017), published by NYSDOT, indicates that traffic volume growth on Glen Street, Glenwood Avenue, and Webster Avenue in the project area has actually decreased over the past several years; therefore, in order to provide a conservative analysis, the Existing traffic volumes were increased by a ½ percent per year growth rate for eleven years to represent general growth in the area. In addition, the City of Glens Falls indicated that there are no other known approved projects that will add to background traffic in the area. The ETC+10 traffic volumes illustrated on Figure 3 represent future traffic conditions expected at the study area intersections.

Accident Analysis

An accident analysis was performed on the study area intersections in accordance with NYS Highway Design Manual Chapter 5. Accident data was requested from NYSDOT to quantify the number of accidents, determine an accident rate, and identify any accident patterns or concentrations at the Glen Street/Fire Road and Glen Street/Webster Avenue intersections. Safety Information Management System (SIMS) and Accident Location Information System (ALIS) data was provided by NYSDOT at these intersections for a three-year period from October 1, 2015 through September 30, 2018. The accident rate for the Fire Road intersection is 0.84 accidents per million entering vehicles (ACC/MEV) while the accident rate for the Webster Avenue intersection is 0.27 ACC/MEV. The Fire Road intersection rate is above the statewide accident rate for similar facilities (0.32 ACC/MEV) while the Webster Avenue intersection is below the statewide accident rate. The predominant accident types are summarized in Table 2.

Table 2 – Accident Type and Severity

Intersection	Collision Severity	Collision Type
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	Non-Reportable	Property Damage	Injury	Fatal	Rear End	Left-Turn	Right Angle	Right-Turn	Pedestrian	Total
Glen Street/Fire Road	5	9	7	0	15	2	1	1	2	21
Gen Street/Webster Avenue	2	2	1	0	5	0	0	0	0	5

There were 21 total accidents at the Glen Street/Fire Road intersection. Of the 21 accidents, seven resulted in injuries while the remaining 14 involved property damage or were non-reportable accidents which are collisions that result in damage less than \$1,000. There were no fatal accidents. The predominant accident type at the study area intersection are rear end collisions (15 total) with three accidents involving vehicles traveling northbound on Glen Street and 10 accidents involving vehicles traveling southbound on Glen Street with the remaining two accidents on the eastbound Fire Road approach. The available contributing factors associated with the rear end collisions is following too closely or slippery pavement. The accident data indicates that there was one right angle collision, one right turn accident, and two left turn accidents. In addition, there were two pedestrian accidents with limited information provided. The first was the result of a pedestrian crossing against the signal while the second pedestrian was struck when a vehicle made a left turn at the intersection.

As shown in the table, there were five total accidents at the Glen Street/Webster Avenue intersection. Of the five accidents, one resulted in an injury while the remaining four involved property damage or were non-reportable accidents. There were no fatal accidents and no pedestrian related collisions. All of the accidents reported at this intersection were rear end accidents and with the available contributing factors associated with following too closely or slippery pavement.

An accident summary (TE-213 equivalent) at the Fire Road and Webster Avenue intersections on Glen Street is included under Attachment B.

2.0 Signal Phasing Alternatives and Pedestrian Improvement Assessment

The following alternatives were reviewed to determine if the study area intersections will operate adequately under different forms of traffic signal phasing and pedestrian accommodations. The following summarizes the different options evaluated:

- Existing pre-timed traffic signal phasing and pedestrian access.
- Option 1 – Improved pre-timed signal timing phasing with the following pedestrian improvements at the Glen Street intersections:
 - Option 1.1 – Concurrent pedestrian phases with marked crosswalks on the north and west legs of the Fire Road intersection and concurrent pedestrian phases with marked crosswalks on the south and east legs of the Webster Avenue intersection.
 - Option 1.2 – Leading Pedestrian Intervals (LPI) on the same intersection legs noted above. An LPI typically gives pedestrians a three to seven second head start when entering an intersection with a corresponding green signal in the same direction of travel. LPIs enhance the visibility of pedestrians in the intersection and reinforce their right-of-way over turning vehicles.
 - Option 1.3 – An exclusive pedestrian phase at both intersections on the same legs noted above. The exclusive pedestrian phase would stop traffic at both intersections.
- Option 2 – Improved signal timing phasing with actuation on all legs of the intersections. Actuated

traffic signals have the capability to respond to the presence of vehicles or pedestrians at an intersection. Actuated control consists of intervals that are called and extended in response to vehicle detectors. The three pedestrian alternatives evaluated for Option 1 were analyzed.

- Option 3 – Improved signal timing phasing with actuation on all legs of the intersection and the construction of a separate southbound right-turn lane on Glen Street at the Fire Road intersection. The three pedestrian alternatives evaluated for Option 1 were analyzed.

A review of the existing study area intersections indicates that there is approximately 125 feet between the stop bars associated with the two traffic signals. This indicates that approximately five vehicles can queue between the signals before impacting vehicular operations of the adjacent intersection. It is noted that the stop bar on the northbound Glen Street approach to the Fire Road intersection and the stop bar on the southbound Glen Street approach to the Webster Avenue intersection would need to be moved back in order to provide marked crosswalks on the internal approaches between these two intersections. The relocation of the stop bars will reduce the available vehicular storage which would impact operations of the traffic signals; therefore, it is not recommended that marked crosswalks be provided on all approaches at the study area intersections. It is recommended that ADA compliant curb ramps be installed on the applicable corners of the intersections and that “Turning Vehicles Yield to Pedestrians” signs be installed on each of the intersection approaches.

Intersection Level of Service (LOS) and capacity analysis relate traffic volumes to the physical characteristics of an intersection. A detailed traffic analysis was completed using Synchro/SimTraffic software, which replicates the *Highway Capacity Manual* methodologies. The delay and queuing reported by the SimTraffic models were used since they assess issues caused by the interaction between two closely spaced intersections. The models were calibrated to replicate existing conditions, then optimized to consider various timing and phasing modifications. Levels of service range from A to F with level of service A conditions considered excellent with very little delay while level of service F generally represents conditions with very long delays. In general, overall level of service D or better conditions are desirable during peak hour operating conditions on each intersection lane group; however, in some cases, lesser levels of service are accepted by municipalities and NYSDOT during peak operating periods. Attachment C contains further detailed descriptions of LOS criteria for signalized intersections and copies of the detailed level of service and queuing reports. Table 3 summarizes the Level of Service assessment for existing conditions and the signal timing and pedestrian improvement alternatives while Table 4 summarizes the 95th percentile queue observed at the study area intersections.

Table 3 – Level of Service Summary

Intersection		Control	ETC+10									
			Existing Cond.	Option 1 Pre-timed			Option 2 Actuated			Option 3 Actuated with SB Right Turn		
				Conc. Ped.	LPI	Exclusive Ped.	Conc. Ped.	LPI	Exclusive Ped.	Conc. Ped.	LPI	Exclusive Ped.
			AM Peak Hour									
Glen Street/Fire Road		S	D (37.1)	D (38.4)	D (50.4)	E (57.5)	C (29.7)	C (27.9)	C (31.2)	C (26.3)	C (25.4)	C (30.6)
Fire Road EB	LR		B (13.3)	A (8.6)	B (10.1)	B (12.8)	A (7.4)	A (6.8)	A (7.9)	A (6.2)	A (5.7)	A (6.5)
Glen Street NB	L		A (6.6)	A (4.2)	A (4.5)	A (5.0)	A (4.2)	A (4.0)	A (4.6)	A (4.2)	A (4.2)	A (4.8)
Glen Street SB	TR		B (18.0)	B (16.9)	C (23.7)	C (26.9)	B (12.1)	B (12.6)	B (13.7)	--	--	--
	(T) (R)		--	--	--	--	--	--	--	B (11.5) A (1.1)	B (12.4) A (0.9)	B (13.5) A (1.2)
Overall			B (18.9)	B (17.9)	C (23.6)	C (26.8)	B (13.6)	B (13.0)	B (14.8)	B (11.8)	B (11.9)	B (13.5)
US Route 9/Webster Avenue		S	D (40.8)	C (26.3)	C (32.2)	D (36.7)	C (23.8)	C (27.8)	C (29.1)	C (25.5)	C (26.8)	C (26.2)
Webster Ave WB	L		D (38.7)	C (26.5)	C (34.4)	C (34.1)	C (25.2)	C (22.6)	C (28.8)	C (22.0)	C (24.0)	C (27.1)
Glen Street NB	TR		B (17.7)	B (18.1)	C (25.3)	C (32.4)	B (14.3)	B (13.8)	B (15.7)	B (14.9)	B (14.4)	B (16.0)
Glen Street SB	L		A (6.2)	A (6.5)	A (7.3)	A (9.5)	A (5.7)	A (7.6)	A (5.3)	A (5.4)	A (7.4)	A (7.1)
	T		A (3.7)	A (3.8)	A (4.1)	A (4.1)	A (3.3)	A (2.9)	A (3.5)	A (3.2)	A (2.8)	A (3.4)
Overall			B (12.7)	B (11.9)	B (16.1)	B (19.5)	A (10.0)	A (9.6)	B (10.9)	A (9.8)	A (9.8)	B (10.9)
			Noon Peak Hour									
Glen Street/Fire Road		S	D (47.4)	D (52.6)	F (98.6)	F (108)	D (47.3)	D (42.5)	D (53.0)	D (37.1)	D (38.9)	D (47.5)
Fire Road EB	LR		C (28.5)	C (20.1)	C (23.7)	C (24.2)	B (18.6)	B (19.8)	C (21.8)	B (11.3)	B (10.8)	B (12.8)
Glen Street NB	L		A (8.3)	A (4.7)	A (6.6)	A (7.3)	A (5.4)	A (5.6)	A (6.1)	A (5.9)	A (5.3)	A (6.3)
Glen Street SB	TR		C (25.1)	D (38.5)	F (82.1)	F (87.2)	C (28.9)	C (27.4)	D (42.7)	--	--	--
	(T) (R)		--	--	--	--	--	--	--	B (16.0) A (1.4)	B (18.6) A (1.6)	B (19.8) A (1.6)
Overall			C (24.2)	C (30.4)	E (59.5)	E (63.0)	C (24.9)	C (23.6)	C (32.8)	B (14.9)	B (15.8)	B (18.5)
US Route 9/Webster Avenue		S	D (47.6)	C (25.6)	D (36.4)	D (37.2)	C (33.5)	D (38.9)	D (37.4)	C (24.9)	C (27.2)	C (26.7)
Webster Ave WB	L		E (56.9)	C (22.1)	D (43.7)	D (39.9)	C (33.5)	C (34.5)	D (37.4)	C (32.0)	C (30.8)	C (32.6)
Glen Street NB	TR		C (21.9)	C (25.7)	E (60.5)	F (93.6)	B (19.0)	C (22.6)	C (25.1)	C (20.7)	C (20.0)	C (24.7)
Glen Street SB	L		B (13.7)	A (9.4)	B (13.3)	B (13.7)	B (10.2)	B (11.2)	B (13.2)	B(13.4)	B (11.6)	B (13.4)
	T		A (4.1)	A (3.9)	A (4.0)	A (4.2)	A (4.2)	A (4.1)	A (4.6)	A (3.6)	A (3.5)	A (3.6)
Overall			B (16.3)	B (15.8)	C (34.9)	D (52.4)	B (13.4)	B (15.0)	B (16.9)	B (14.0)	B (13.4)	B (15.7)
			PM Peak Hour									
Glen Street/Fire Road		S	D (38.4)	D (53.0)	F (189)	F (251)	D (46.8)	E (61.0)	F (87.0)	D (38.2)	D (47.6)	E (59.4)
Fire Road EB	LR		D (44.1)	C (26.2)	C (26.4)	C (24.7)	C (24.8)	C (23.8)	C (24.7)	B (11.8)	B (11.3)	B (12.9)
Glen Street NB	L		B (13.2)	A (6.9)	A (9.0)	A (8.8)	A (7.3)	A (7.1)	A (7.3)	A (5.6)	A (5.5)	A (6.2)
Glen Street SB	TR		D (53.4)	D (49.6)	E (69.7)	E (79.9)	D (38.2)	D (40.0)	D (54.9)	--	--	--
	(T) (R)		--	--	--	--	--	--	--	B (15.9) A (1.8)	B (16.6) A (1.8)	C (20.2) A (2.1)
Overall			D (38.3)	D (35.4)	E (65.6)	E (79.4)	C (29.0)	C (31.5)	D (42.9)	B (13.4)	B (14.9)	B (18.1)
US Route 9/Webster Avenue		S	E (59.6)	C (30.4)	D (38.8)	D (44.9)	C (32.4)	C (30.9)	C (32.7)	C (29.1)	C (30.0)	C (33.4)
Webster Ave WB	L		F (493)	D (35.1)	D (49.5)	E (61.2)	D (43.1)	D (42.4)	D (54.8)	C (34.7)	C (31.9)	D (46.7)
Glen Street NB	TR		F (97.8)	C (32.7)	F (174)	F (262)	C (31.8)	C (31.1)	D (36.5)	C (21.9)	B (17.9)	C (25.7)
Glen Street SB	L		B (14.1)	B (11.0)	B (13.5)	B (17.5)	B (11.9)	B (14.5)	B (11.7)	B (13.3)	B (12.7)	B (15.4)
	T		A (5.5)	A (3.7)	A (3.9)	A (4.2)	A (4.3)	A (4.4)	A (5.1)	A (3.3)	A (3.5)	A (3.7)
Overall			F (82.5)	B (19.8)	F (90.2)	F (138.3)	C (20.2)	B (20.0)	C (23.9)	B (14.6)	B (12.9)	B (17.5)

S = Signalized intersection

Conc. Ped., LPI, Exclusive Ped. = Concurrent Pedestrian Phases, Leading Pedestrian Intervals, Exclusive Pedestrian Phase

EB, WB, NB, SB = Eastbound, Westbound, Northbound, and Southbound intersection approaches

L, T, R = Left-turn, Through, and/or Right-turn movements

X (Y.Y) = Level of service (Average delay in seconds per vehicle)

-- = Not Applicable

Table 4 – Queue Summary (95th percentile in feet)

Intersection		Link Dist.	ETC+10									
			Existing Cond.	Option 1 Pre-timed			Option 2 Actuated			Option 3 Actuated with SB Right Turn		
				Conc. Ped.	LPI	Exclusive Ped.	Conc. Ped.	LPI	Exclusive Ped.	Conc. Ped.	LPI	Exclusive Ped.
			AM Peak Hour									
Glen Street/Fire Road		S										
Fire Road EB	LR	360	268	265	319	330	234	211	236	209	213	261
Glen Street NB	L	45	69	66	65	69	64	65	60	60	61	63
	T	120	113	100	95	113	92	89	93	92	90	97
Glen Street SB	TR	1,040	329	291	343	365	238	256	259	--	--	--
	(T)		--	--	--	--	--	--	--	212	211	226
	(R)		--	--	--	--	--	--	--	106	102	117
US Route 9/Webster Avenue		S										
Webster Ave WB	L	2,050	47	39	32	36	34	36	37	32	32	31
	R	2,050	62	56	52	54	50	46	53	49	54	51
Glen Street NB	TR	2,700	259	242	287	331	233	216	215	202	219	224
Glen Street SB	L	45	53	51	55	51	45	45	47	47	47	45
	T	120	98	94	96	91	84	72	76	82	69	77
			Noon Peak Hour									
Glen Street/Fire Road		S										
Fire Road EB	LR	360	356	388	625	596	369	310	394	292	314	370
Glen Street NB	L	45	78	75	79	78	72	72	77	70	71	72
	T	120	165	134	165	173	134	128	143	133	127	136
Glen Street SB	TR	1,040	550	777	1,056	1,023	664	644	891	--	--	--
	(T)		--	--	--	--	--	--	--	339	398	413
	(R)		--	--	--	--	--	--	--	202	215	210
US Route 9/Webster Avenue		S										
Webster Ave WB	L	2,050	36	32	37	34	32	31	38	30	33	36
	R	2,050	95	56	89	79	75	66	84	84	69	73
Glen Street NB	TR	2,700	366	389	766	1,018	321	368	398	346	337	386
Glen Street SB	L	45	52	50	52	48	51	52	51	51	52	53
	T	120	118	103	102	99	102	99	109	106	101	98
			PM Peak Hour									
Glen Street/Fire Road		S										
Fire Road EB	LR	360	258	309	790	875	264	332	443	234	276	320
Glen Street NB	L	45	79	79	78	77	80	81	79	77	79	79
	T	120	171	177	188	189	169	178	181	147	147	153
Glen Street SB	TR	1,040	1,033	971	997	1,007	904	879	1,088	--	--	--
	(T)		--	--	--	--	--	--	--	372	407	459
	(R)		--	--	--	--	--	--	--	212	202	221
US Route 9/Webster Avenue		S										
Webster Ave WB	L	2,050	148	46	46	57	44	47	44	41	44	47
	R	2,050	793	103	121	141	112	106	162	103	100	122
Glen Street NB	TR	2,700	1,337	535	2,142	2,601	636	540	645	408	330	453
Glen Street SB	L	45	57	51	50	53	54	56	59	48	48	56
	T	120	129	103	105	105	108	112	119	97	103	103

Conc. Ped, LPI, Exclusive Ped = Concurrent Pedestrian Phases, Leading Pedestrian Intervals, Exclusive Pedestrian Phase

EB, WB, NB, SB = Eastbound, Westbound, Northbound, and Southbound intersection approaches

L, T, R = Left-turn, Through, and/or Right-turn movements

-- = Not Applicable

The level of service analysis indicates that the Glen Street/Fire Road intersection will operate at an overall LOS D or better during the AM, Mid-Day, and PM peak hours with all movements operating at LOS D or better under existing geometric and signal timing conditions; however, it is noted that the northbound queue on Glen Street extends back and impacts operations of the adjacent Webster Avenue intersection thus causing failing conditions. The level of service analysis indicates that the Glen Street/Webster Avenue intersection will operate at an overall LOS B during the AM and Mid-Day peak hour and an overall LOS F during the PM peak

hour under existing geometric and signal timing conditions. The westbound Webster Avenue left and right turn lanes will operate at LOS E/F with very long delay and the northbound Glen Street approach will also operate at LOS F. The proposed signal timing and pedestrian improvements are summarized below for Options 1, 2, and 3:

- Option 1.1 (Pre-timed, Concurrent Pedestrian Phasing) – This alternative modifies the existing signal timing and phasing plan in order to optimize available capacity and provide pedestrian movements on the legs noted above. The revised phasing and timing plan for the AM, Mid-Day, and PM peak hours is shown below. It is noted that the signals operate under the same traffic signal controller.

Existing Traffic Signal Timing (for comparison)

AM, Mid-Day, and PM Signal Phasing

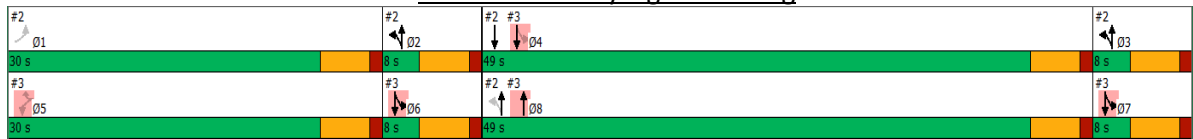


White Movements = Glen Street/Fire Road intersection

Pink Movements = Glen Street/Webster Avenue intersection

Proposed Traffic Signal Timing

AM and Mid-Day Signal Phasing



White Movements = Glen Street/Fire Road intersection

Pink Movements = Glen Street/Webster Avenue intersection

PM Signal Phasing



White Movements = Glen Street/Fire Road intersection

Pink Movements = Glen Street/Webster Avenue intersection

The timing plan allows the eastbound Fire Road and westbound Webster Avenue approaches to operate at the same time. A northbound and southbound lagging “clear phase” for the internal legs on Glen Street allows the 125 feet of storage between the two intersections to clear. The northbound and southbound Glen Street approaches are then allowed to operate under a permitted phase before the lagging “clear phase” for the internal legs on Glen Street again allows the available storage between the two intersections to clear. The level of service analysis indicates that the Fire Road intersection will continue to operate at an overall LOS D or better during all peak hours with all movements operating at LOS D or better with concurrent pedestrian phases. An assessment of the 95th percentile queue on the southbound Glen Street approach indicates that the Glenwood Avenue intersection will not be impacted by this Option. The level of service analysis indicates that the Webster Avenue intersection will operate at an overall LOS B during all peak hours with all movements operating at LOS D or better with concurrent pedestrian phases. **At a minimum, this phasing plan could be implemented in the short-term to improve operations at these intersections.**

- Option 1.2 (Pre-timed, LPI) – This alternative includes a seven second “walk phase” before the signal timing and phasing changes noted above in order to allow the pedestrian to start their movement

prior to the vehicular phase to make them more visible to the driver. The revised phasing and timing plan for the AM, Mid-Day, and PM peak hours is shown below:

Existing Traffic Signal Timing (for comparison)

AM, Mid-Day, and PM Signal Phasing

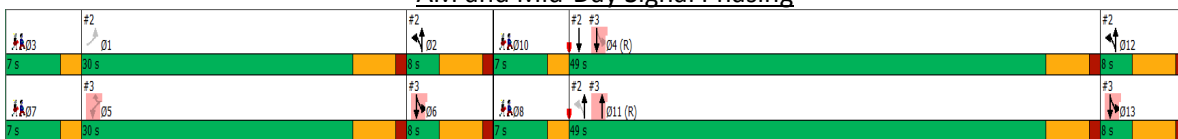


White Movements = Glen Street/Fire Road intersection

Pink Movements = Glen Street/Webster Avenue intersection

Proposed Traffic Signal Timing

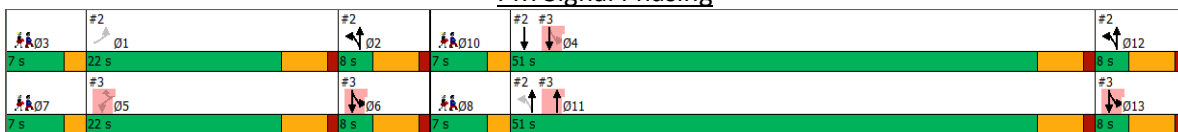
AM and Mid-Day Signal Phasing



White Movements = Glen Street/Fire Road intersection

Pink Movements = Glen Street/Webster Avenue intersection

PM Signal Phasing



White Movements = Glen Street/Fire Road intersection

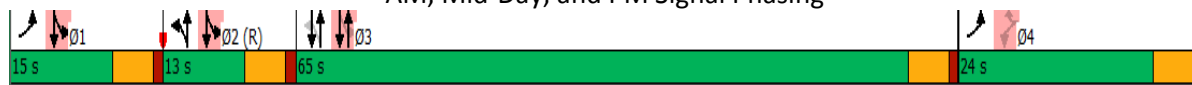
Pink Movements = Glen Street/Webster Avenue intersection

The level of service analysis indicates that the Fire Road intersection will operate at an overall LOS C/E during the peak hours with the eastbound Fire Road approach and the southbound Glen Street approach operating at LOS E/F during the Mid-Day and PM peak hours. In addition, the 95th percentile queue on the southbound Glen Street approach will extend back and impact the Glenwood Avenue intersection during these peak hours. The level of service analysis also indicates that the Webster Avenue intersection will operate at an overall LOS C during the AM and Mid-Day peak hours and an overall LOS F during the PM peak hour with the northbound Glen Street approach operating at LOS F during the PM peak hour. This phasing plan and pedestrian alternative is not considered practical due to poor operating conditions and excessive queuing.

- Option 1.3 (Pre-timed, Exclusive Pedestrian Phase) – This alternative includes the signal timing and phasing changes noted for Option 1.1 and adds an exclusive pedestrian phase prior to the permitted northbound and southbound Glen Street phase. The revised phasing and timing plan for the AM, Mid-Day, and PM peak hours is shown below:

Existing Traffic Signal Timing (for comparison)

AM, Mid-Day, and PM Signal Phasing

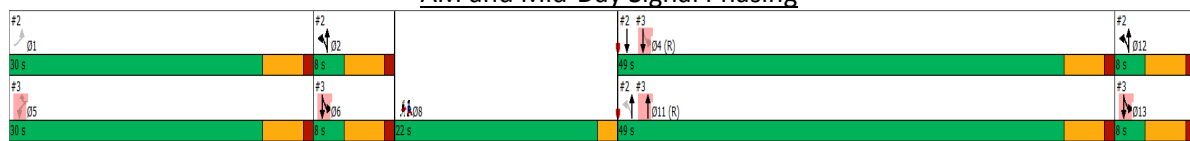


White Movements = Glen Street/Fire Road intersection

Pink Movements = Glen Street/Webster Avenue intersection

Proposed Traffic Signal Timing

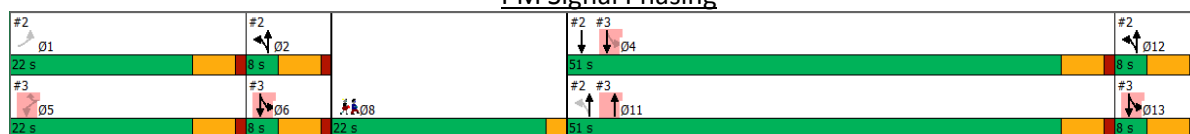
AM and Mid-Day Signal Phasing



White Movements = Glen Street/Fire Road intersection

Pink Movements = Glen Street/Webster Avenue intersection

PM Signal Phasing



White Movements = Glen Street/Fire Road intersection

Pink Movements = Glen Street/Webster Avenue intersection

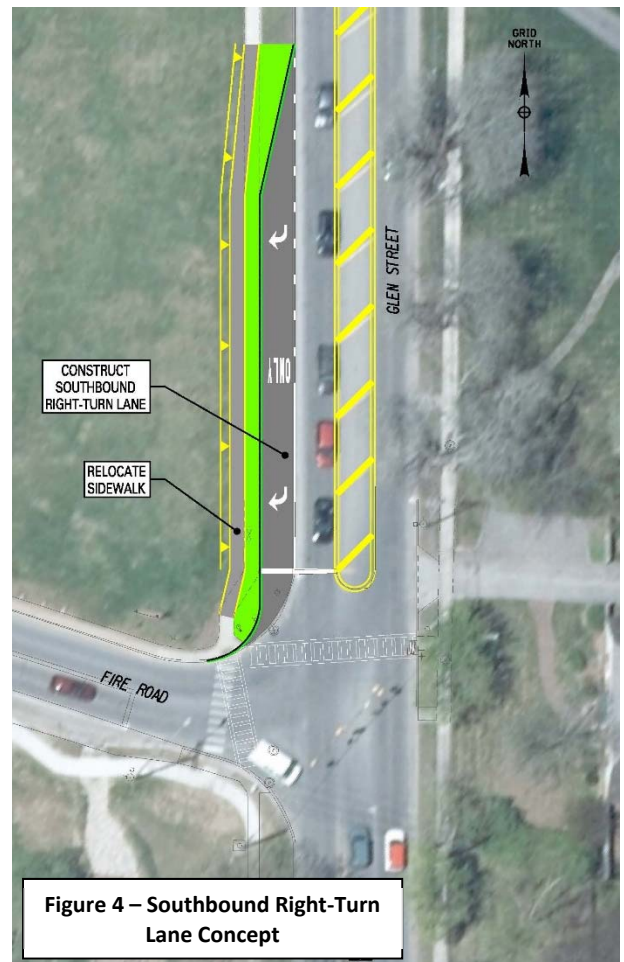
The level of service analysis indicates that the Fire Road intersection will operate at an overall LOS C during the AM peak hour and an overall LOS E during the Mid-Day and PM peak hours with the eastbound Fire Road approach and the southbound Glen Street approach operating at LOS E/F during the peak hours. In addition, the 95th percentile queue on the southbound Glen Street approach will extend back and impact the Glenwood Avenue intersection during the Mid-Day and PM peak hours. The level of service analysis indicates that the Webster Avenue intersection will operate at an overall LOS B/C during the AM and Mid-Day peak hours and an overall LOS F during the PM peak hour with the northbound Glen Street approach operating at LOS F during the PM peak hour. This phasing plan and pedestrian alternative is not considered practical due to poor operating conditions and excessive queuing.

- Option 2.1 (Actuated, Concurrent Pedestrian Phasing) – This alternative is similar to Option 1.1; however, each leg of the intersection will be actuated in order to respond to traffic flows. The level of service analysis indicates that the Fire Road intersection will operate at an overall LOS C or better during the peak hours with all movements operating at LOS D or better with concurrent pedestrian phases. An assessment of the 95th percentile queue on the southbound Glen Street approach indicates that the Glenwood Avenue intersection will not be impacted by this Option. The level of service analysis also indicates that the Webster Avenue intersection will operate at an overall LOS C or better during the peak hours with all movements operating at LOS D or better. **This phasing plan and pedestrian alternative could be implemented to improve operations at these intersections.**
- Option 2.2 (Actuated, LPI) – This alternative is similar to Option 1.2; however, each leg of the intersection will be actuated in order to respond to traffic flows. The level of service analysis indicates that the Fire Road intersection will operate at an overall LOS C or better during the peak hours with the eastbound Fire Road approach operating at LOS E during the PM peak hour. In addition, the 95th

percentile queue on the southbound Glen Street approach will not extend back and impact the Glenwood Avenue intersection during these peak hours. The level of service analysis also indicates that the Webster Avenue intersection will operate at an overall LOS B or better during the peak hours with all movements operating at LOS D or better. **This phasing plan and pedestrian alternative could be implemented to improve operations at these intersections.**

Option 2.3 (Actuated, Exclusive Pedestrian Phase) – This alternative is similar to Option 1.3; however, each leg of the intersection will be actuated in order to respond to traffic flows. The level of service analysis indicates that the Fire Road intersection will operate at an overall LOS B/C during the AM and Mid-Day peak hours and an overall LOS D during the PM peak hour with the eastbound Fire Road approach operating at LOS F during the PM peak hour. In addition, the 95th percentile queue on the southbound Glen Street approach will extend back and impact the Glenwood Avenue intersection during the PM peak hour. The level of service analysis also indicates that the Webster Avenue intersection will operate at an overall LOS C or better during the peak hours with all movements operating at LOS D or better. This phasing plan and pedestrian alternative is not considered practical due to poor operations of the Fire Road intersection.

- Option 3.1 through Option 3.3 (Actuated, Concurrent Pedestrian Phasing/LPI/Exclusive Pedestrian) – These alternatives are similar to Option 2.1 through 2.3 and include the construction of a southbound right-turn lane on Glen Street at the Fire Road intersection as shown on Figure 4. It is noted that the right turn lane would operate on an overlap when the eastbound Fire Road phase is called. The level of service analysis indicates that the Fire Road intersection and the Webster Avenue intersection will operate at an overall LOS B or better with all movements operating at LOS D or better during all peak hours. An assessment of the 95th percentile queuing indicates that these improvements will minimize queues on all approaches and will not impact adjacent signalized intersections. **The construction of a southbound right turn lane on Glen Street at the Fire Road intersection along with the implementation of any of the signal phasing plans and pedestrian alternatives could be implemented to improve operations at these intersections;** however, the concurrent phasing Option (3.1) is considered less desirable due to the additional distance needed to cross the new southbound right turn lane.



It is noted that a mid-block pedestrian crossing or a pedestrian crossing located at an unsignalized intersection located north of Fire Road was considered as requested by A/GFTC. The closest unsignalized intersection to Fire Road on Glen Street is the Fort Amherst Road intersection. A review of geometric conditions indicates that the southbound Glen Street approach

transitions from two lanes to one lane just south of this intersection. It is not recommended that pedestrians be encouraged to cross at this location because of the “multi-threat” condition of having two through lanes in one direction, which poses an additional risk to pedestrians. In addition, the downstream southbound merge is a complex driving situation where road users must use extra time to adjust speed and change lanes. In addition, a review of the southbound queue on Glen Street indicates that vehicles typically queue past this intersection during peak times. Providing signalized pedestrian accommodations at the Fire Road and Webster Avenue intersections on Glen Street is the preferred alternative.

Table 5 compares the proposed alternatives to existing conditions for several measures of effectiveness (MOEs) including the number of stops, fuel consumed, and vehicle emissions.

Table 5 – Measures of Effectiveness Comparison

Glen Street/Fire Road and Glen Street/Webster Avenue Intersections	ETC+10									
	Existing Cond.	Option 1 Pre-timed			Option 2 Actuated			Option 3 Actuated with SB Right Turn		
		Conc. Ped.	LPI	Exclusive Ped.	Conc. Ped.	LPI	Exclusive Ped.	Conc. Ped	LPI	Exclusive Ped.
	AM Peak Hour									
Stops (#)	908	961	1042	1080	890	857	906	847	855	879
Fuel Consumed (gal)	8.8	11.6	12.3	12.7	11.2	11.1	11.2	11.0	11.1	11.4
CO Emissions (g)	2053	2429	2476	2415	2371	2404	2351	2290	2356	2282
NOx Emissions (g)	217	291	294	282	285	290	280	277	286	277
HC Emissions (g)	62	88	89	84	87	88	84	83	87	83
	Noon Peak Hour									
Stops (#)	1469	1690	2118	2228	1540	1536	1687	1303	1314	1381
Fuel Consumed (gal)	13.6	18.7	24.0	25.3	17.5	17.5	18.9	16.6	16.4	16.8
CO Emissions (g)	2956	3520	3991	4879	3305	3292	3498	3083	3338	3129
NOx Emissions (g)	311	417	430	481	396	388	410	389	433	393
HC Emissions (g)	83	125	141	209	116	113	123	112	130	113
	PM Peak Hour									
Stops (#)	2352	2114	2613	2530	1984	2065	2268	1445	1415	1636
Fuel Consumed (gal)	29.5	22.6	32.4	38.1	21.3	21.9	23.9	18.4	18.0	19.5
CO Emissions (g)	4102	3667	4101	4406	3577	3614	3631	3208	3101	3327
NOx Emissions (g)	447	439	400	394	431	428	423	415	400	428
HC Emissions (g)	122	117	104	104	117	117	111	114	109	116

Conc. Ped, LPI, Exclusive Ped = Concurrent Pedestrian Phases, Leading Pedestrian Intervals, Exclusive Pedestrian Phase

The analysis shows the following:

- The three options generally provide higher emissions during the AM and noon peak hours when compared to existing traffic signal conditions since vehicles currently do not stop as often to accommodate pedestrians which creates higher environmental/emission impacts associated with idling/braking/accelerating at the intersection. The improved signal timing plan proposed for the three options has a greater impact on emissions during the PM peak hour due to the amount of existing congestion which results in lower environmental impacts.
- In general, Option 3 has the least environmental impact since the additional southbound right-turn lane increases capacity at the Glen Street/Fire Road intersection.
- All signalized options are considered feasible.

3.0 Intersection Improvements and Conceptual Costs

The estimated conceptual costs for the following improvement options are summarized in Table 6. The estimated costs are summarized by construction costs and soft costs associated with design, inspection, and contingencies.

- Option 1 – Improved pre-timed signal timing phasing and the installation of pedestrian signals.
- Option 2 – Includes Option 1 and provides actuation on all legs of the intersections.
- Option 3 – In addition to Options 1 and 2, a separate southbound right-turn lane would be constructed on Glen Street at the Fire Road intersection.

Table 6 – Cost Summary

Improvement		Cost Category	Option 1	Option 2	Option 3
Construction Costs	Pedestrian Signal Upgrades	Signal Improvements – Pedestrian Poles and Heads/Buttons, Pull Boxes, Wiring, ADA Ramps, and Striping	\$78,000	\$78,000	\$78,000
	Signal Actuation	Actuation Improvements – Controller/Cabinet and Vehicle Detection (Loops, Microwave, Pods, etc.)	--	\$62,000	\$69,000
	Southbound Right-Turn Lane	Pavement, Sidewalks, Curbs, Striping, and Landscaping	--	--	\$72,000
	Construction Costs Sub-Total		\$78,000	\$140,000	\$219,000
Soft Costs – Design, Construction/ Inspection, Contingencies, etc.			\$46,000	\$79,000	\$136,000
Improvement Cost Total			\$124,000	\$219,000	\$355,000

4.0 Conclusions and Recommendations

The analysis indicates that at a minimum, the traffic signal phasing improvement plan identified as part of Option 1 could be implemented in the short-term at no cost to the City to improve vehicular operations at these intersections.

A review of the assessment indicates that the following options are feasible alternatives for long-term improvement of the study area intersections; however, Option 2.2 has been identified as the preferred alternative through discussions with the City and A/GFTC based on a review of tradeoffs such as pedestrian benefits, vehicular delay, costs, and avoiding roadway widening that would encroach on the park:

- Option 1.1 (Pre-timed, Concurrent Pedestrian Phasing) – \$124,000
- Option 2.1 (Actuated, Concurrent Pedestrian Phasing) – \$219,000
- **Option 2.2 (Actuated, LPI) – \$219,000**
- Option 3.1 (Actuated, Concurrent Pedestrian Phasing and southbound right-turn lane on Glen Street at Fire Road) – \$355,000
- Option 3.2 (Actuated, LPI and southbound right-turn lane on Glen Street at Fire Road) – \$355,000
- Option 3.3 (Actuated, Exclusive Pedestrian and southbound right-turn lane on Glen Street at Fire Road) – \$355,000

Option 2.2 strikes a balance between competing modes of traffic since the implementation of an LPI with full pedestrian accommodations at these intersections will improve pedestrian safety while the provision of actuated traffic signal operations will minimize vehicular delay to motorists. It is noted that the implementation of Option 2.2 would not preclude a larger capital improvement project in the future such as the construction of a southbound right-turn lane on Glen Street at the Fire Road intersection which would increase vehicular capacity in the area (Option 3). The preferred option will address public concerns by providing better overall intersection operations and improving pedestrian safety associated with the existing signalized intersections.

5.0 Funding Opportunities

Transportation funding resources are constrained, which has influenced state and regional policies about how to program the limited money that is available. The current funding policy for transportation projects in New York is focused on “preservation first” to keep the existing transportation system in a state of good repair. As of the date of this document, there is no public funding commitment for any of the changes identified in this study, so pursuing funding is a major step in the implementation plan.

It is recommended that the City and partners work proactively to identify funding to fund the design and construction of the preferred intersection improvements and work with A/GFTC to get the project on the Transportation Improvement Program (TIP). The TIP is a five-year capital improvement program that allocates federal highway funds to surface transportation projects that have been selected through A/GFTC’s planning process. A/GFTC updates the TIP every two years to maintain a current list of projects. The City should also identify local funding sources to establish the local match assuming Federal funds cover 80% of the costs. Below is a description of potential Federal and State funding sources.

Federal

- HSIP – Highway Safety Improvement Program funding is for projects designed to achieve significant reductions in traffic fatalities and serious injuries on all public roads. The project may be eligible for HSIP funding since the crash rate at the Glen Street/Fire Road intersection exceeds the statewide average.
- NHPP/STBG – National Highway Performance Program (NHPP) and Surface Transportation Block Grants (STBG) are sources of funding for projects that support progress toward achievement of national performance goals for improving infrastructure condition, safety, travel time reliability, and mobility. These funding sources, when programmed towards non State-owned facilities, are typically administered by the Metropolitan Planning Organization process coordinated by A/GFTC.
- TA – Transportation Alternatives funding is a set-aside of funds under the Surface Transportation Block Grant (STBG) Program for on and off road pedestrian and bicycle facilities, non-driver access to public transportation, and safe routes to schools. States have flexibility in how the TA program is administered and the New York State program is run through the state level TAP office.
- The Make the Connection Program is an A/GFTC - administered funding set-aside intended for bicycling- and pedestrian-specific improvements at targeted locations.

State

- CHIPS – The Consolidated Local Street and Highway Improvement Program provides State funds to municipalities to support the construction and repair of highways on the State highway system. In order to be eligible for CHIPS funding, the project must be undertaken by a municipality (i.e. Town of Queensbury), be for a highway-related purpose, and have a service life of 10 years or more.

Completion of the improvements recommended in this study will improve traffic operations and pedestrian accommodations at the congested study area intersections.

If you have any questions regarding the above analysis, please feel free to contact our office.



PROJECT LOCATION

GLEN ST/FIRE RD AND GLEN ST/WEBSTER AVE
INTERSECTION EVALUATION
GLEN FALLS, NEW YORK

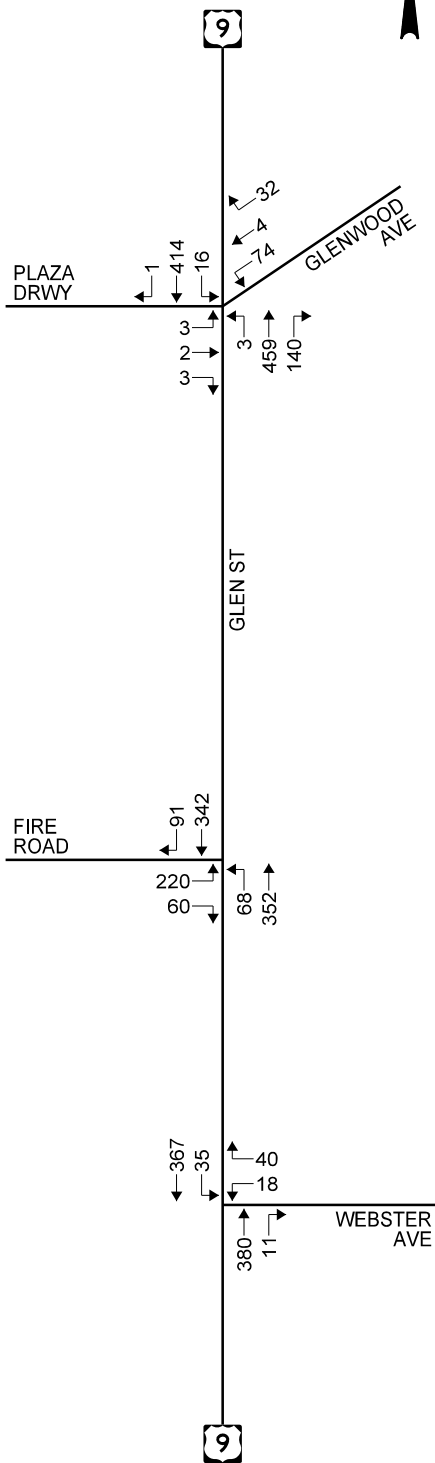


PROJECT: 118-291

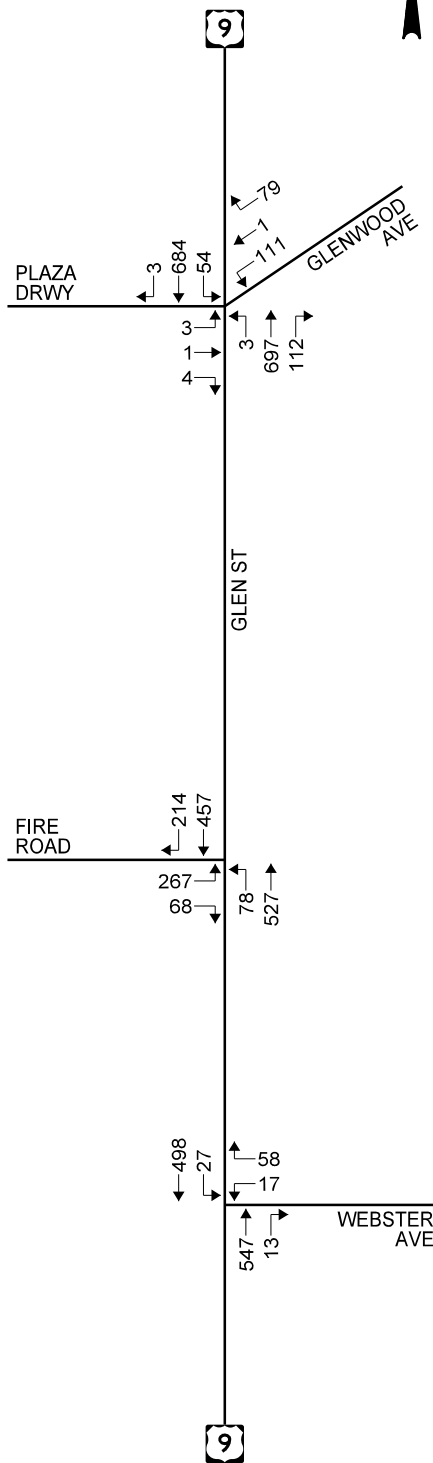
DATE: 05/2019

FIGURE: 1

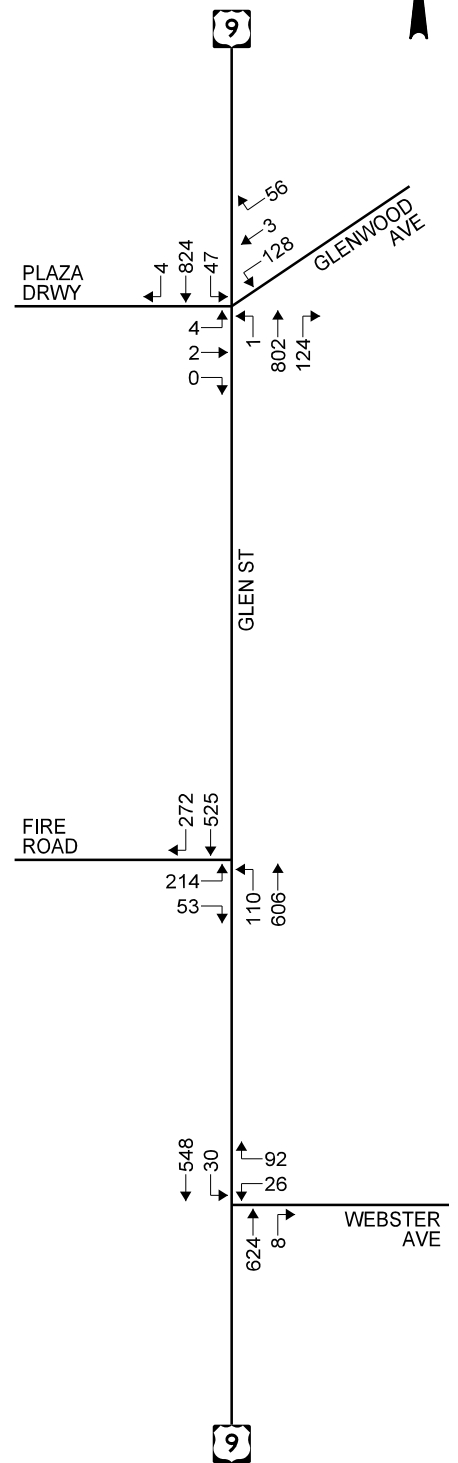
AM PEAK HOUR



MID-DAY PEAK HOUR



PM PEAK HOUR

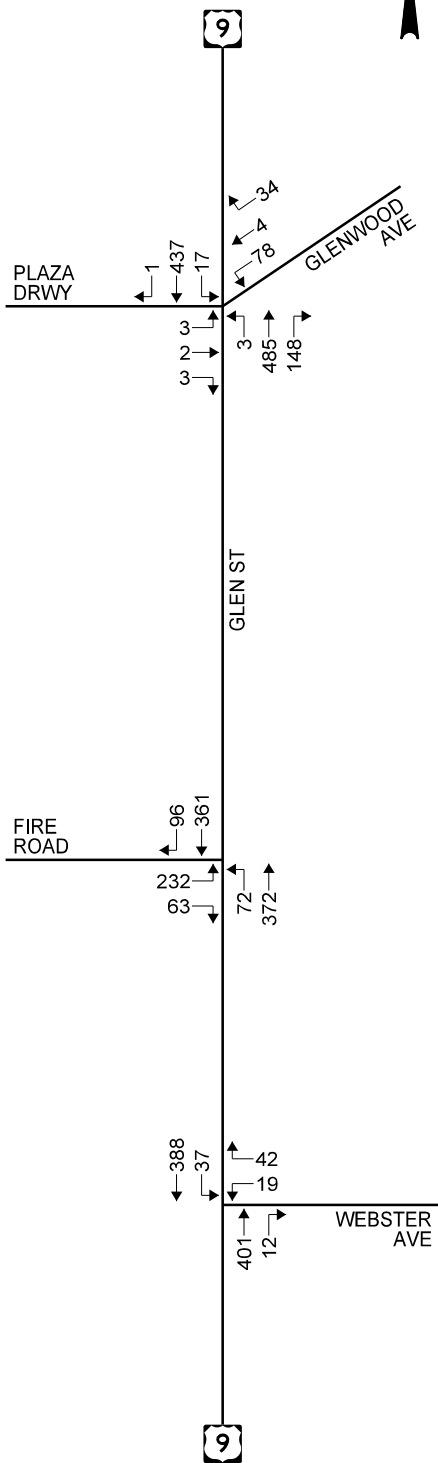


EXISTING 2019
TRAFFIC VOLUMES

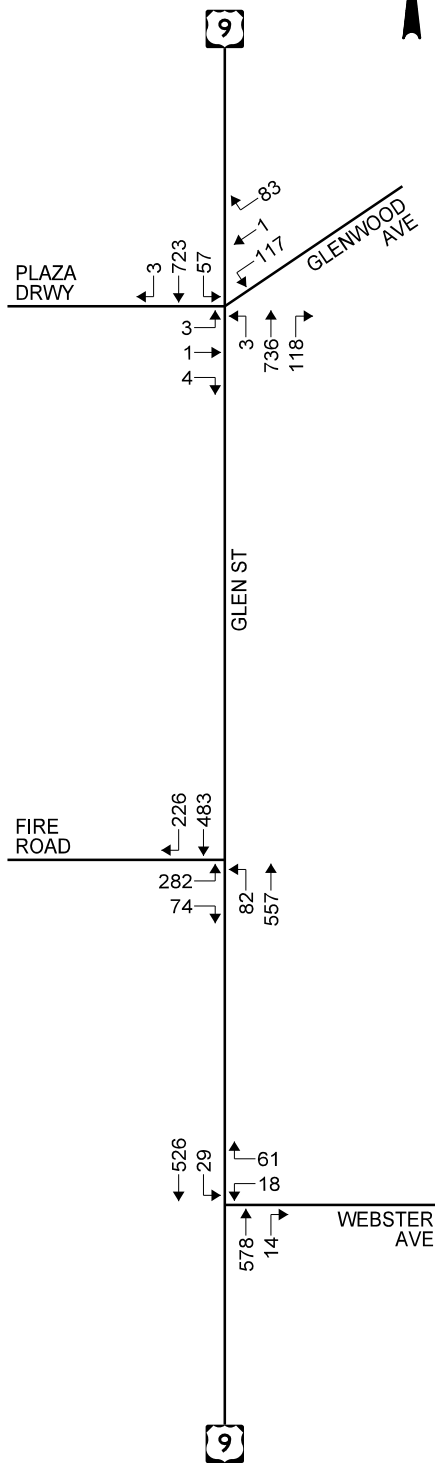
GLEN ST/FIRE RD AND GLEN ST/WEBSTER AVE
INTERSECTION EVALUATION
CITY OF GLENS FALLS, NEW YORK



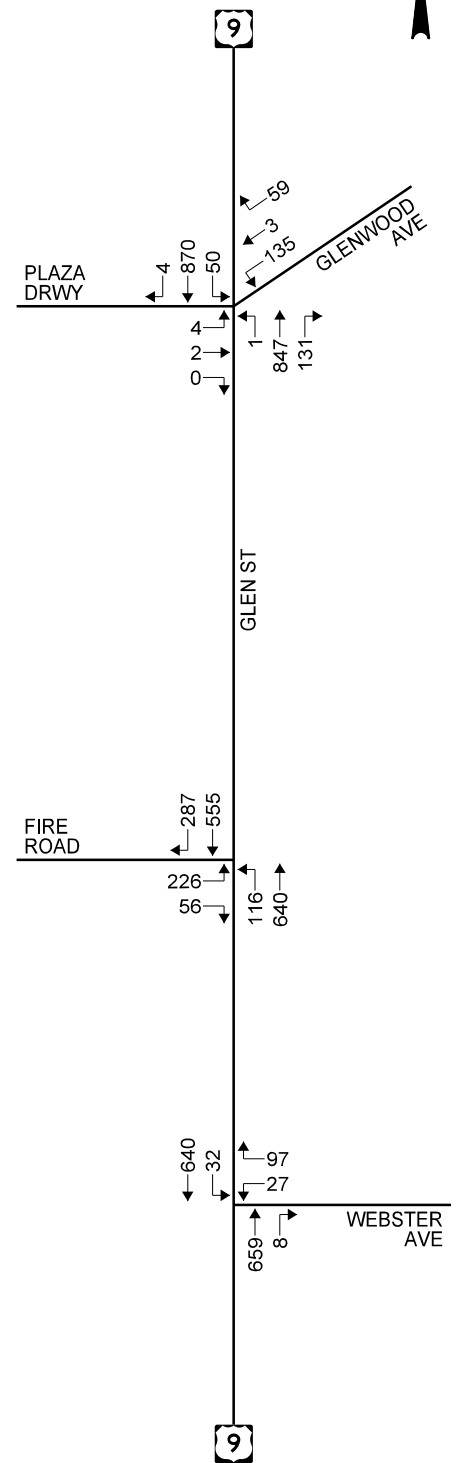
AM PEAK HOUR



MID-DAY PEAK HOUR



PM PEAK HOUR



ETC + 10 (2030)
TRAFFIC VOLUMES

GLEN ST/FIRE RD AND GLEN ST/WEBSTER AVE
INTERSECTION EVALUATION
CITY OF GLENS FALLS, NEW YORK



Summary of Public Comments Received on Draft Final Report

- Pedestrian accommodations are needed at the subject location. Demand has increased at Crandall Park due to expanded amenities. More children appear to be residing in the neighborhood on the east side of Glen Street.
- Pedestrian trips to Kensington Road School are facilitated by the new multi-use path.
- Commenter favors most robust pedestrian-based solution and prioritizes those associated improvements over preservation of vehicular capacity.
- Concern was expressed over the right-turn lane option and the associated additional roadway width being in conflict with pedestrian improvements.

Comments received by phone and documented as of November 5, 2019.



Aaron Frankenfeld
Transportation Planning Director

Attachment A
Automatic Traffic Recorder Data and
Turning Movement Counts

Glen Street/Fire Road and Glen Street/Webster Avenue
Intersection Evaluation
City of Glens Falls, New York



www.TSTData.com
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Glen Falls, NY
US 9 & Glenwood Ave
Tuesday, March 19, 2019
Location: 43.325495, -
73.663408

Count Name: US 9 at Glenwood
Ave
Site Code: Glens Falls, New
York
Start Date: 03/19/2019
Page No: 1

Turning Movement Data

Start Time	Firestone Entrance						Glenwood Ave						US 9						US 9						Int. Total	
	Eastbound						Westbound						Northbound						Southbound							
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total		
7:00 AM	0	0	0	0	0	0	10	0	7	0	0	17	0	65	14	0	0	79	4	44	0	0	0	48	144	
7:15 AM	0	0	0	0	0	0	12	0	3	0	0	15	0	81	21	0	0	102	4	69	0	0	0	73	190	
7:30 AM	0	0	0	0	0	0	8	0	4	0	0	12	0	128	25	0	0	153	7	103	0	0	0	110	275	
7:45 AM	0	1	0	0	0	1	17	1	5	0	0	23	1	119	25	0	0	145	9	129	0	0	0	138	307	
Hourly Total	0	1	0	0	0	1	47	1	19	0	0	67	1	393	85	0	0	479	24	345	0	0	0	369	916	
8:00 AM	0	0	0	0	0	0	15	0	2	0	0	17	1	95	43	0	1	139	6	102	0	0	0	108	264	
8:15 AM	0	1	0	0	0	1	20	1	7	0	0	28	0	118	30	0	0	148	5	98	0	0	0	103	280	
8:30 AM	1	1	0	0	1	2	17	2	13	0	1	32	0	106	34	0	1	140	1	102	1	0	0	104	278	
8:45 AM	2	0	3	0	0	5	22	1	10	0	0	33	2	140	33	0	0	175	4	112	0	0	0	116	329	
Hourly Total	3	2	3	0	1	8	74	4	32	0	1	110	3	459	140	0	2	602	16	414	1	0	0	431	1151	
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11:00 AM	0	1	1	0	1	2	22	1	15	0	0	38	0	150	31	0	1	181	15	134	1	0	0	150	371	
11:15 AM	1	0	2	0	0	3	20	0	17	0	0	37	0	166	32	0	0	198	13	153	0	0	0	166	404	
11:30 AM	0	0	0	0	1	0	17	0	10	0	1	27	0	150	26	0	0	176	13	152	3	0	0	168	371	
11:45 AM	2	1	0	0	1	3	22	1	10	0	1	33	0	199	38	0	0	237	10	150	1	0	0	161	434	
Hourly Total	3	2	3	0	3	8	81	2	52	0	2	135	0	665	127	0	1	792	51	589	5	0	0	645	1580	
12:00 PM	1	0	2	0	0	3	30	0	21	0	2	51	0	173	30	0	1	203	10	158	1	0	0	169	426	
12:15 PM	1	0	0	0	1	1	28	0	20	0	0	48	0	178	30	0	0	208	18	153	0	0	0	171	428	
12:30 PM	0	0	1	0	3	1	22	0	22	0	0	44	2	171	24	0	0	197	8	186	1	0	1	195	437	
12:45 PM	1	1	1	0	0	3	31	1	16	0	0	48	1	175	28	0	0	204	18	187	1	0	0	206	461	
Hourly Total	3	1	4	0	4	8	111	1	79	0	2	191	3	697	112	0	1	812	54	684	3	0	1	741	1752	
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2:00 PM	0	0	0	0	2	0	27	0	14	0	1	41	1	147	38	0	0	186	8	175	2	0	0	185	412	
2:15 PM	0	1	0	0	4	1	23	0	15	0	0	38	0	151	33	0	1	184	16	169	0	0	0	185	408	
2:30 PM	1	0	1	0	2	2	22	0	11	0	1	33	1	161	27	0	0	189	11	178	1	0	0	190	414	
2:45 PM	1	1	0	0	2	2	32	1	12	0	2	45	0	163	27	0	0	190	10	141	0	0	0	151	388	
Hourly Total	2	2	1	0	10	5	104	1	52	0	4	157	2	622	125	0	1	749	45	663	3	0	0	711	1622	
3:00 PM	3	0	0	0	3	3	28	0	22	0	0	50	0	159	30	0	0	189	18	158	4	0	0	180	422	
3:15 PM	2	1	1	0	0	4	28	0	20	0	1	48	0	162	36	0	1	198	14	146	1	0	0	161	411	
3:30 PM	3	1	0	0	2	4	32	2	12	0	0	46	1	179	42	0	1	222	12	167	2	0	0	181	453	
3:45 PM	1	1	0	0	2	2	35	0	13	0	1	48	1	167	30	0	1	198	9	180	0	0	0	189	437	
Hourly Total	9	3	1	0	7	13	123	2	67	0	2	192	2	667	138	0	3	807	53	651	7	0	0	711	1723	
4:00 PM	0	0	1	0	2	1	24	0	9	0	0	33	0	185	28	0	0	213	12	173	2	0	0	187	434	
4:15 PM	1	0	0	0	1	1	47	0	17	0	0	64	0	202	32	0	0	234	8	199	2	0	0	209	508	
4:30 PM	2	0	0	0	0	2	27	1	6	0	1	34	0	204	17	0	0	221	11	205	0	0	0	216	473	
4:45 PM	1	1	0	0	0	2	18	1	12	0	1	31	1	205	39	0	0	245	18	204	0	0	0	222	500	
Hourly Total	4	1	1	0	3	6	116	2	44	0	2	162	1	796	116	0	0	913	49	781	4	0	0	834	1915	
5:00 PM	0	1	0	0	1	1	36	1	21	0	0	58	0	191	36	0	1	227	10	216	2	0	0	228	514	
5:15 PM	1	0	0	0	1	1	32	0	7	0	0	39	0	189	37	0	0	226	8	212	0	0	0	220	486	
5:30 PM	2	2	0	0	1	4	25	1	10	0	1	36	0	165	24	0	1	189	12	200	0	0	0	212	441	
5:45 PM	1	0	1	0	0	2	30	1	13	0	1	44	0	146	23	0	0	169	18	203	2	0	0	223	438	
Hourly Total	4	3	1	0	3	8	123	3	51	0	2	177	0	691	120	0	2	811	48	831	4	0	0	883	1879	
Grand Total	28	15	14	0	31	57	779	16	396	0	15	1191	12	4990	963	0	10	5965	340	4958	27	0	1	5325	12538	
Approach %	49.1	26.3	24.6	0.0	-	-	65.4	1.3	33.2	0.0	-	-	0.2	83.7	16.1	0.0	-	-	6.4	93.1	0.5	0.0	-	-	-	
Total %	0.2	0.1	0.1	0.0	-	0.5	6.2	0.1	3.2	0.0	-	9.5	0.1	39.8	7.7	0.0	-	47.6	2.7	39.5	0.2	0.0	-	-	42.5	
Lights	26	15	12	0	-	53	754	16	386	0	-	1156	11	4920	928	0	-	5859	334	4892	25	0	-	5251	12319	
% Lights	92.9	100.0	85.7	-	-	93.0	96.8	100.0	97.5	-	-	97.1	91.7	98.6	96.4	-	-	98.2	98.2	98.7	92.6	-	-	-	98.6	98.3
Buses	0	0	0	0	-	0	18	0	6	0	-	24	0	37	28	0	-	65	1	31	0	0	-	32	121	
% Buses	0.0	0.0	0.0	-	-	0.0	2.3	0.0	1.5	-	-	2.0	0.0	0.7	2.9	-	-	1.1	0.3	0.6	0.0	-	-	-	0.6	1.0
Trucks	2	0	2	0	-	4	7	0	4	0	-	11	1	33	7	0	-	41	5	35	2	0	-	42	98	
% Trucks	7.1	0.0	14.3	-	-	7.0	0.9	0.0	1.0	-	-	0.9	8.3	0.7	0.7	-	-	0.7	1.5	0.7	7.4	-	-	-	0.8	0.8
Bicycles on Crosswalk	-	-	-	-	6	-	-	-	-	-	7	-	-	-	-	-	1	-	-	-	-	-	1	-	-	
% Bicycles on Crosswalk	-	-	-	-	19.4	-	-	-	-	-	46.7	-	-	-	-	-	10.0	-	-	-	-	-	100.0	-	-	
Pedestrians	-	-	-	-	25	-	-	-	-	-	8	-	-	-	-	-	9	-	-	-	-	-	0	-	-	
% Pedestrians	-	-	-	-	80.6	-	-	-	-	-	53.3	-	-	-	-	-	90.0	-	-	-	-	-	0.0	-	-	

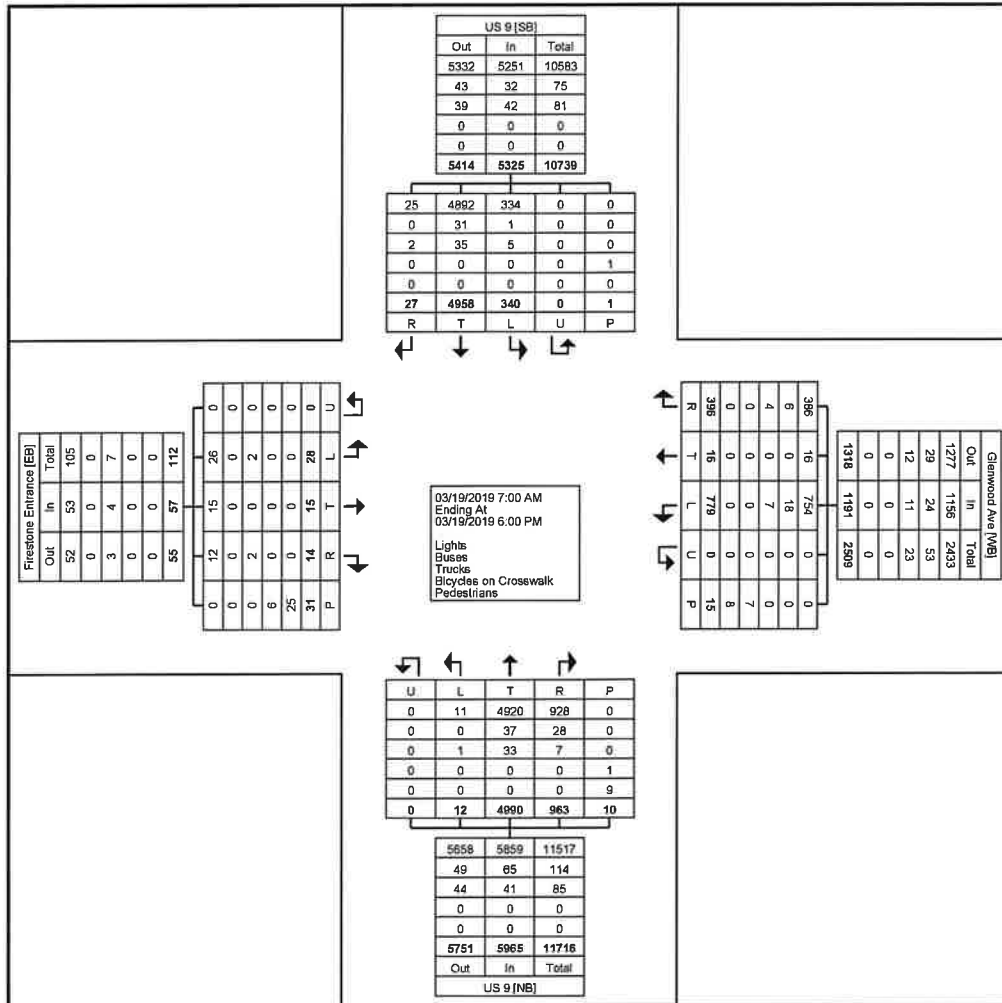


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Count Name: US 9 at Glenwood
Ave
Site Code: Glens Falls, New
York
Start Date: 03/19/2019
Page No: 2

Glen Falls, NY
US 9 & Glenwood Ave
Tuesday, March 19, 2019
Location: 43.325495, -
73.663408





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Glen Falls, NY
US 9 & Glenwood Ave
Tuesday, March 19, 2019
Location: 43.325495, -
73.663408

Count Name: US 9 at Glenwood
Ave
Site Code: Glens Falls, New
York
Start Date: 03/19/2019
Page No: 3

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Firestone Entrance Eastbound						Glenwood Ave Westbound						US 9 Northbound						US 9 Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
8:00 AM	0	0	0	0	0	0	15	0	2	0	0	17	1	95	43	0	1	139	6	102	0	0	0	108	264
8:15 AM	0	1	0	0	0	1	20	1	7	0	0	28	0	118	30	0	0	148	5	98	0	0	0	103	280
8:30 AM	1	1	0	0	1	2	17	2	13	0	1	32	0	106	34	0	1	140	1	102	1	0	0	104	278
8:45 AM	2	0	3	0	0	5	22	1	10	0	0	33	2	140	33	0	0	175	4	112	0	0	0	116	329
Total	3	2	3	0	1	8	74	4	32	0	1	110	3	459	140	0	2	602	16	414	1	0	0	431	1151
Approach %	37.5	25.0	37.5	0.0	-	-	67.3	3.6	29.1	0.0	-	-	0.5	76.2	23.3	0.0	-	-	3.7	96.1	0.2	0.0	-	-	-
Total %	0.3	0.2	0.3	0.0	-	0.7	6.4	0.3	2.8	0.0	-	9.6	0.3	39.9	12.2	0.0	-	52.3	1.4	36.0	0.1	0.0	-	37.4	-
PHF	0.375	0.500	0.250	0.000	-	0.400	0.841	0.500	0.615	0.000	-	0.833	0.375	0.820	0.814	0.000	-	0.860	0.667	0.924	0.250	0.000	-	0.929	0.875
Lights	2	2	3	0	-	7	71	4	30	0	-	105	3	444	131	0	-	578	15	405	1	0	-	421	1111
% Lights	66.7	100.0	100.0	-	-	87.5	95.9	100.0	93.8	-	-	95.5	100.0	96.7	93.6	-	-	96.0	93.8	97.8	100.0	-	-	97.7	96.5
Buses	0	0	0	0	-	0	2	0	2	0	-	4	0	9	9	0	-	18	0	3	0	0	-	3	25
% Buses	0.0	0.0	0.0	-	-	0.0	2.7	0.0	6.3	-	-	3.6	0.0	2.0	6.4	-	-	3.0	0.0	0.7	0.0	-	-	0.7	2.2
Trucks	1	0	0	0	-	1	1	0	0	0	-	1	0	6	0	0	-	6	1	6	0	0	-	7	15
% Trucks	33.3	0.0	0.0	-	-	12.5	1.4	0.0	0.0	-	-	0.9	0.0	1.3	0.0	-	-	1.0	6.3	1.4	0.0	-	-	1.6	1.3
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	0	-	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	0	-	-	-



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Count Name: US 9 at Glenwood
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Glen Falls, NY
US 9 & Glenwood Ave
Tuesday, March 19, 2019
Location: 43.325495, -
73.663408

Count Name: US 9 at Glenwood
Ave
Site Code: Glens Falls, New
York
Start Date: 03/19/2019
Page No: 5

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Firestone Entrance Eastbound						Glenwood Ave Westbound						US 9 Northbound						US 9 Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
12:00 PM	1	0	2	0	0	3	30	0	21	0	2	51	0	173	30	0	1	203	10	158	1	0	0	169	426
12:15 PM	1	0	0	0	1	1	28	0	20	0	0	48	0	178	30	0	0	208	18	153	0	0	0	171	428
12:30 PM	0	0	1	0	3	1	22	0	22	0	0	44	2	171	24	0	0	197	8	186	1	0	1	195	437
12:45 PM	1	1	1	0	0	3	31	1	16	0	0	48	1	175	28	0	0	204	18	187	1	0	0	206	461
Total	3	1	4	0	4	8	111	1	79	0	2	191	3	697	112	0	1	812	54	684	3	0	1	741	1752
Approach %	37.5	12.5	50.0	0.0	-	-	58.1	0.5	41.4	0.0	-	-	0.4	85.8	13.8	0.0	-	-	7.3	92.3	0.4	0.0	-	-	-
Total %	0.2	0.1	0.2	0.0	-	0.5	6.3	0.1	4.5	0.0	-	10.9	0.2	39.8	6.4	0.0	-	46.3	3.1	39.0	0.2	0.0	-	42.3	-
PHF	0.750	0.250	0.500	0.000	-	0.667	0.895	0.250	0.898	0.000	-	0.936	0.375	0.979	0.933	0.000	-	0.976	0.750	0.914	0.750	0.000	-	0.899	0.950
Lights	2	1	4	0	-	7	108	1	77	0	-	186	3	689	110	0	-	802	54	676	3	0	-	733	1728
% Lights	66.7	100.0	100.0	-	-	87.5	97.3	100.0	97.5	-	-	97.4	100.0	98.9	98.2	-	-	98.8	100.0	98.8	100.0	-	-	98.9	98.6
Buses	0	0	0	0	-	0	2	0	0	0	-	2	0	4	1	0	-	5	0	4	0	0	-	4	11
% Buses	0.0	0.0	0.0	-	-	0.0	1.8	0.0	0.0	-	-	1.0	0.0	0.6	0.9	-	-	0.6	0.0	0.6	0.0	-	-	0.5	0.6
Trucks	1	0	0	0	-	1	1	0	2	0	-	3	0	4	1	0	-	5	0	4	0	0	-	4	13
% Trucks	33.3	0.0	0.0	-	-	12.5	0.9	0.0	2.5	-	-	1.6	0.0	0.6	0.9	-	-	0.6	0.0	0.6	0.0	-	-	0.5	0.7
Bicycles on Crosswalk	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	50.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	100.0	-	-
Pedestrians	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	50.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	0.0	-	-



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Count Name: US 9 at Glenwood Ave
Site Code: Glens Falls, New York
Start Date: 03/19/2019
Page No: 6





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Glen Falls, NY
US 9 & Glenwood Ave
Tuesday, March 19, 2019
Location: 43.325495, -
73.663408

Count Name: US 9 at Glenwood
Ave
Site Code: Glens Falls, New
York
Start Date: 03/19/2019
Page No: 7

Turning Movement Peak Hour Data (4:15 PM)

Start Time	Firestone Entrance Eastbound						Glenwood Ave Westbound						US 9 Northbound						US 9 Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
4:15 PM	1	0	0	0	1	1	47	0	17	0	0	64	0	202	32	0	0	234	8	199	2	0	0	209	508
4:30 PM	2	0	0	0	0	2	27	1	6	0	1	34	0	204	17	0	0	221	11	205	0	0	0	216	473
4:45 PM	1	1	0	0	0	2	18	1	12	0	1	31	1	205	39	0	0	245	18	204	0	0	0	222	500
5:00 PM	0	1	0	0	1	1	36	1	21	0	0	58	0	191	36	0	1	227	10	216	2	0	0	228	514
Total	4	2	0	0	2	6	128	3	56	0	2	187	1	802	124	0	1	927	47	824	4	0	0	875	1995
Approach %	66.7	33.3	0.0	0.0	-	-	68.4	1.6	29.9	0.0	-	-	0.1	86.5	13.4	0.0	-	-	5.4	94.2	0.5	0.0	-	-	-
Total %	0.2	0.1	0.0	0.0	-	0.3	6.4	0.2	2.8	0.0	-	9.4	0.1	40.2	6.2	0.0	-	46.5	2.4	41.3	0.2	0.0	-	43.9	-
PHF	0.500	0.500	0.000	0.000	-	0.750	0.681	0.750	0.667	0.000	-	0.730	0.250	0.978	0.795	0.000	-	0.946	0.653	0.954	0.500	0.000	-	0.959	0.970
Lights	4	2	0	0	-	6	127	3	55	0	-	185	1	796	122	0	-	919	47	817	4	0	-	868	1978
% Lights	100.0	100.0	-	-	-	100.0	99.2	100.0	98.2	-	-	98.9	100.0	99.3	98.4	-	-	99.1	100.0	99.2	100.0	-	-	99.2	99.1
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	4	2	0	-	6	0	4	0	0	-	4	10
% Buses	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.5	1.6	-	-	0.6	0.0	0.5	0.0	-	-	0.5	0.5
Trucks	0	0	0	0	-	0	1	0	1	0	-	2	0	2	0	0	-	2	0	3	0	0	-	3	7
% Trucks	0.0	0.0	-	-	-	0.0	0.8	0.0	1.8	-	-	1.1	0.0	0.2	0.0	-	-	0.2	0.0	0.4	0.0	-	-	0.3	0.4
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-



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Count Name: US 9 at Glenwood
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Site Code: Glens Falls, New
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Start Date: 03/19/2019
Page No: 8





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Glen Falls, NY
US 9 & Fire Road
Tuesday, March 19, 2019
Location: 43.322547, -
73.661193

Count Name: US 9 at Fire Rd
Site Code: Glans Falls, New
York
Start Date: 03/19/2019
Page No: 1

Turning Movement Data

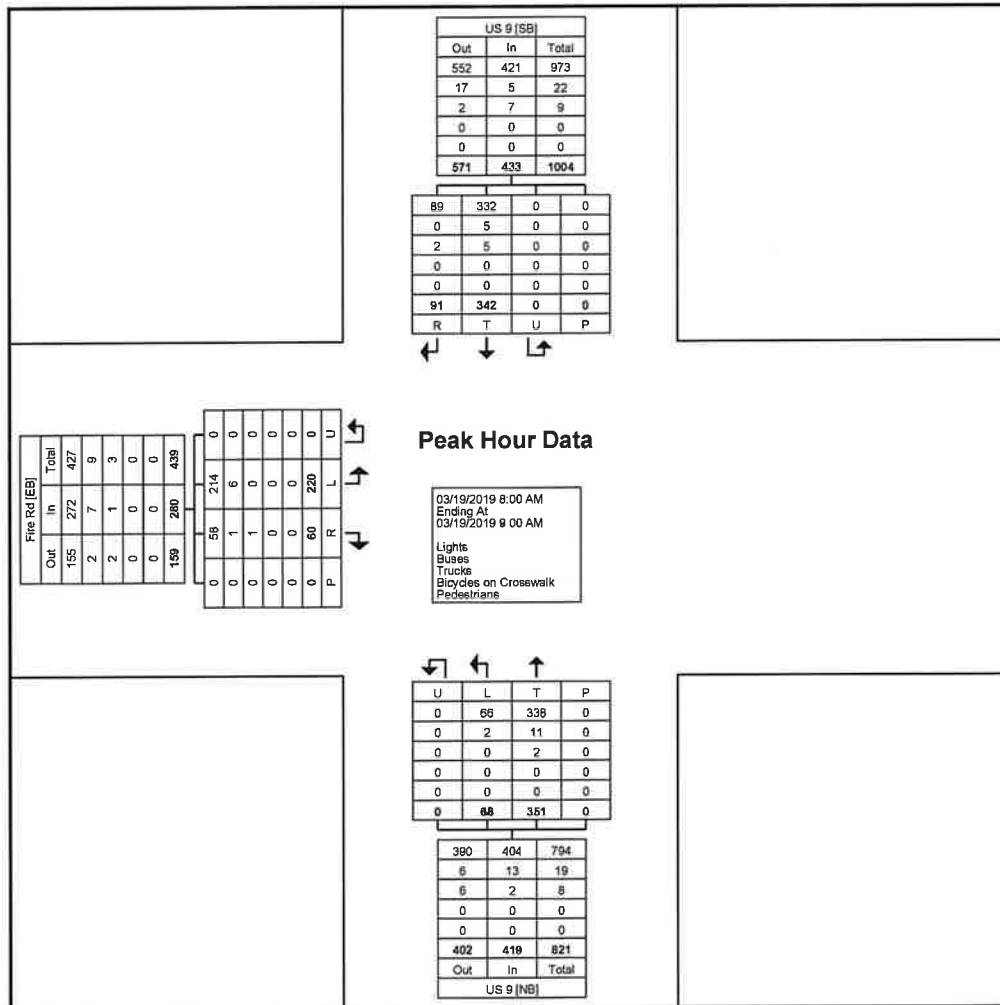
Start Time	Fire Rd Eastbound					US 9 Northbound					US 9 Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	27	5	0	0	32	15	40	0	0	55	34	5	0	0	39	126
7:15 AM	30	14	0	0	44	9	54	0	1	63	59	9	0	0	68	175
7:30 AM	52	10	0	1	62	15	86	0	1	101	83	11	0	0	94	257
7:45 AM	46	15	0	0	61	11	84	0	0	95	95	33	0	0	128	284
Hourly Total	155	44	0	1	199	50	264	0	2	314	271	58	0	0	329	842
8:00 AM	60	11	0	0	71	21	75	0	0	96	79	18	0	0	97	264
8:15 AM	56	19	0	0	75	9	85	0	0	94	94	21	0	0	115	284
8:30 AM	55	16	0	0	71	16	85	0	0	101	78	21	0	0	99	271
8:45 AM	49	14	0	0	63	22	106	0	0	128	91	31	0	0	122	313
Hourly Total	220	60	0	0	280	68	351	0	0	419	342	91	0	0	433	1132
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	54	8	0	0	62	18	109	0	0	127	103	42	0	0	145	334
11:15 AM	52	20	0	1	72	23	129	0	0	152	119	36	0	0	155	379
11:30 AM	56	15	0	0	71	20	112	0	0	132	113	41	0	0	154	357
11:45 AM	77	22	0	1	99	18	138	0	0	156	96	52	0	0	148	403
Hourly Total	239	65	0	2	304	79	468	0	0	567	431	171	0	0	602	1473
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	Don't Use															
2:00 PM																
2:15 PM																
2:30 PM																
2:45 PM																
Hourly Total																
3:00 PM																
3:15 PM																
3:30 PM																
3:45 PM																
Hourly Total																
4:00 PM																
4:15 PM																
4:30 PM																
4:45 PM																
Hourly Total																
5:00 PM																
5:15 PM																
5:30 PM																
5:45 PM																
Hourly Total																
Grand Total	614	169	0	3	783	197	1103	0	2	1300	1044	320	0	0	1364	3447
Approach %	78.4	21.6	0.0	-	-	15.2	84.8	0.0	-	-	76.5	23.5	0.0	-	-	-
Total %	17.8	4.9	0.0	-	22.7	5.7	32.0	0.0	-	37.7	30.3	9.3	0.0	-	39.6	-
Lights	603	166	0	-	769	193	1071	0	-	1264	1005	315	0	-	1320	3353
% Lights	98.2	98.2	-	-	98.2	98.0	97.1	-	-	97.2	96.3	98.4	-	-	96.8	97.3
Buses	9	2	0	-	11	3	19	0	-	22	20	1	0	-	21	54
% Buses	1.5	1.2	-	-	1.4	1.5	1.7	-	-	1.7	1.9	0.3	-	-	1.5	1.6
Trucks	2	1	0	-	3	1	13	0	-	14	19	4	0	-	23	40
% Trucks	0.3	0.6	-	-	0.4	0.5	1.2	-	-	1.1	1.8	1.3	-	-	1.7	1.2
Bicycles on Crosswalk	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	33.3	-	-	-	-	0.0	-	-	-	-	-	-	-
Pedestrians	-	-	-	2	-	-	-	-	2	-	-	-	-	0	-	-
% Pedestrians	-	-	-	66.7	-	-	-	-	100.0	-	-	-	-	-	-	-



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Turning Movement Peak Hour Data (8:00 AM)

[illegible]



Turning Movement Peak Hour Data Plot (8:00 AM)



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184 Baker Rd

Glen Falls, NY
US 9 & Fire Road
Tuesday, March 26, 2019
Location: 43.322511, -
73.661042

Coatesville, Pennsylvania, United States 19320
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Count Name: US 9 & Fire Rd
Site Code: Glens Falls, New
York
Start Date: 03/26/2019
Page No: 1

Turning Movement Data

Start Time	Fire Rd Eastbound						US 9 Northbound					US 9 Southbound						Int. Total
	Left	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
11:00 AM	56	16	1	0	0	73	15	115	0	0	130	95	32	3	0	0	130	333
11:15 AM	59	11	0	0	1	70	15	109	0	0	124	99	41	4	0	0	144	338
11:30 AM	49	15	0	0	1	64	20	133	0	0	153	124	39	1	0	0	164	381
11:45 AM	74	23	0	0	0	97	23	130	0	0	153	116	60	2	0	0	178	428
Hourly Total	238	65	1	0	2	304	73	487	0	0	560	434	172	10	0	0	616	1480
12:00 PM	78	18	0	0	2	96	14	153	0	0	167	109	44	5	0	0	158	421
12:15 PM	54	13	0	0	2	67	23	127	0	0	150	111	45	5	0	0	161	378
12:30 PM	61	14	0	0	1	75	18	132	0	0	150	123	48	5	0	0	176	401
12:45 PM	56	9	0	0	0	65	17	112	0	0	129	121	43	2	0	0	166	360
Hourly Total	249	54	0	0	5	303	72	524	0	0	596	464	180	17	0	0	661	1560
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	46	10	0	0	0	56	16	119	0	0	135	115	36	4	0	0	155	346
2:15 PM	42	13	0	0	1	55	16	140	0	2	156	117	57	6	0	0	180	391
2:30 PM	49	9	0	0	3	58	20	121	0	0	141	114	61	0	0	0	175	374
2:45 PM	48	17	0	0	0	65	18	138	0	0	156	106	40	2	0	0	148	369
Hourly Total	185	49	0	0	4	234	70	518	0	2	588	452	194	12	0	0	658	1480
3:00 PM	46	12	2	0	0	60	29	123	0	0	152	116	39	4	0	0	159	371
3:15 PM	46	18	0	0	0	64	26	140	0	0	166	123	61	4	0	0	188	418
3:30 PM	49	8	0	0	0	57	25	154	0	0	179	120	54	3	0	0	177	413
3:45 PM	52	11	0	0	8	63	47	132	0	0	179	133	59	4	0	0	196	438
Hourly Total	193	49	2	0	8	244	127	549	0	0	676	492	213	15	0	0	720	1640
4:00 PM	43	14	1	0	1	58	33	140	0	0	173	118	53	1	0	0	172	403
4:15 PM	52	5	0	0	1	57	30	151	0	0	181	120	51	13	0	0	184	422
4:30 PM	54	13	0	0	2	67	25	147	0	0	172	132	55	7	0	0	194	433
4:45 PM	58	15	0	0	0	73	27	160	0	0	187	129	70	1	0	0	200	460
Hourly Total	207	47	1	0	4	255	115	598	0	0	713	499	229	22	0	0	750	1718
5:00 PM	50	20	0	0	1	70	28	126	0	0	154	142	74	1	0	0	217	441
5:15 PM	47	22	0	0	2	69	39	126	0	0	165	104	72	1	0	0	177	411
5:30 PM	55	15	0	0	1	70	16	99	0	0	115	110	63	1	0	0	174	359
5:45 PM	55	15	0	0	0	70	28	115	0	0	143	118	51	2	0	0	171	384
Hourly Total	207	72	0	0	4	279	111	466	0	0	577	474	260	5	0	0	739	1595
Grand Total	1279	336	4	0	27	1619	568	3142	0	2	3710	2815	1248	81	0	0	4144	9473
Approach %	79.0	20.8	0.2	0.0	-	-	15.3	84.7	0.0	-	-	67.9	30.1	2.0	0.0	-	-	-
Total %	13.5	3.5	0.0	0.0	-	17.1	6.0	33.2	0.0	-	39.2	29.7	13.2	0.9	0.0	-	43.7	-
Lights	1265	332	4	0	-	1601	562	3104	0	-	3666	2769	1240	81	0	-	4090	9357
% Lights	98.9	98.8	100.0	-	-	98.9	98.9	98.8	-	-	98.8	98.4	99.4	100.0	-	-	98.7	98.8
Buses	13	3	0	0	-	16	5	25	0	-	30	20	5	0	0	-	25	71
% Buses	1.0	0.9	0.0	-	-	1.0	0.9	0.8	-	-	0.8	0.7	0.4	0.0	-	-	0.6	0.7
Trucks	1	1	0	0	-	2	1	13	0	-	14	26	3	0	0	-	29	45
% Trucks	0.1	0.3	0.0	-	-	0.1	0.2	0.4	-	-	0.4	0.9	0.2	0.0	-	-	0.7	0.5
Bicycles on Crosswalk	-	-	-	-	4	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	14.8	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	23	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	85.2	-	-	-	-	100.0	-	-	-	-	-	-	-	-



Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9 & Fire Rd
Site Code: Glens Falls, New
York
Start Date: 03/26/2019
Page No: 2

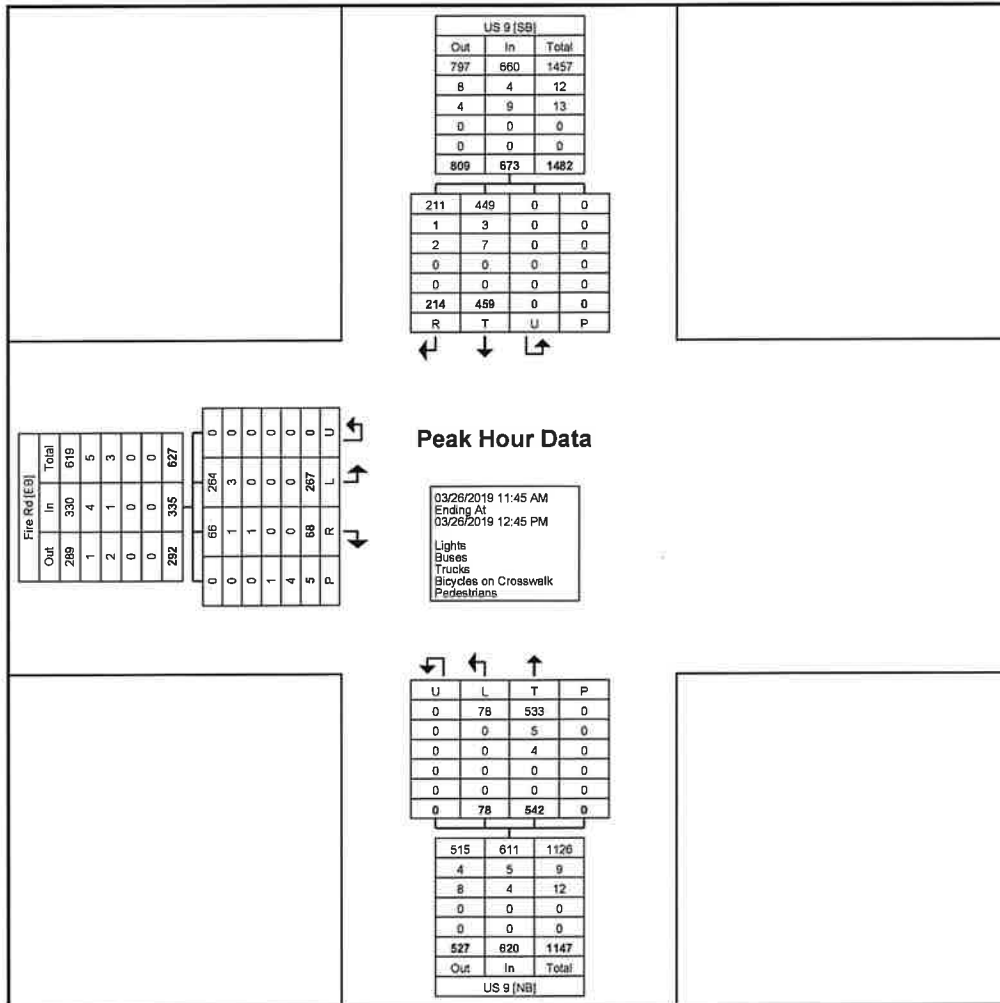




Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9 & Fire Rd
Site Code: Glens Falls, New
York
Start Date: 03/26/2019
Page No: 3

Start Time	Fire Rd Eastbound						US 9 Northbound					US 9 Southbound						Int. Total
	Left	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
11:45 AM	74	23	0	0	0	97	23	130	0	0	153	116	60	2	0	0	178	428
12:00 PM	78	18	0	0	2	96	14	153	0	0	167	109	44	5	0	0	158	421
12:15 PM	54	13	0	0	2	67	23	127	0	0	150	111	45	5	0	0	161	378
12:30 PM	61	14	0	0	1	75	18	132	0	0	150	123	48	5	0	0	176	401
Total	267	68	0	0	5	335	78	542	0	0	620	459	197	17	0	0	673	1628
Approach %	79.7	20.3	0.0	0.0	-	-	12.6	87.4	0.0	-	-	68.2	29.3	2.5	0.0	-	-	-
Total %	16.4	4.2	0.0	0.0	-	20.6	4.8	33.3	0.0	-	38.1	28.2	12.1	1.0	0.0	-	41.3	-
PHF	0.856	0.739	0.000	0.000	-	0.863	0.848	0.886	0.000	-	0.928	0.933	0.821	0.850	0.000	-	0.945	0.951
Lights	264	66	0	0	-	330	78	533	0	-	611	449	194	17	0	-	660	1601
% Lights	98.9	97.1	-	-	-	98.5	100.0	98.3	-	-	98.5	97.8	98.5	100.0	-	-	98.1	98.3
Buses	3	1	0	0	-	4	0	5	0	-	5	3	1	0	0	-	4	13
% Buses	1.1	1.5	-	-	-	1.2	0.0	0.9	-	-	0.8	0.7	0.5	0.0	-	-	0.6	0.8
Trucks	0	1	0	0	-	1	0	4	0	-	4	7	2	0	0	-	9	14
% Trucks	0.0	1.5	-	-	-	0.3	0.0	0.7	-	-	0.6	1.5	1.0	0.0	-	-	1.3	0.9
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	20.0	-	-	-	-	0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	4	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	80.0	-	-	-	-	0	-	-	-	-	-	-	-	-



Turning Movement Peak Hour Data Plot (11:45 AM)

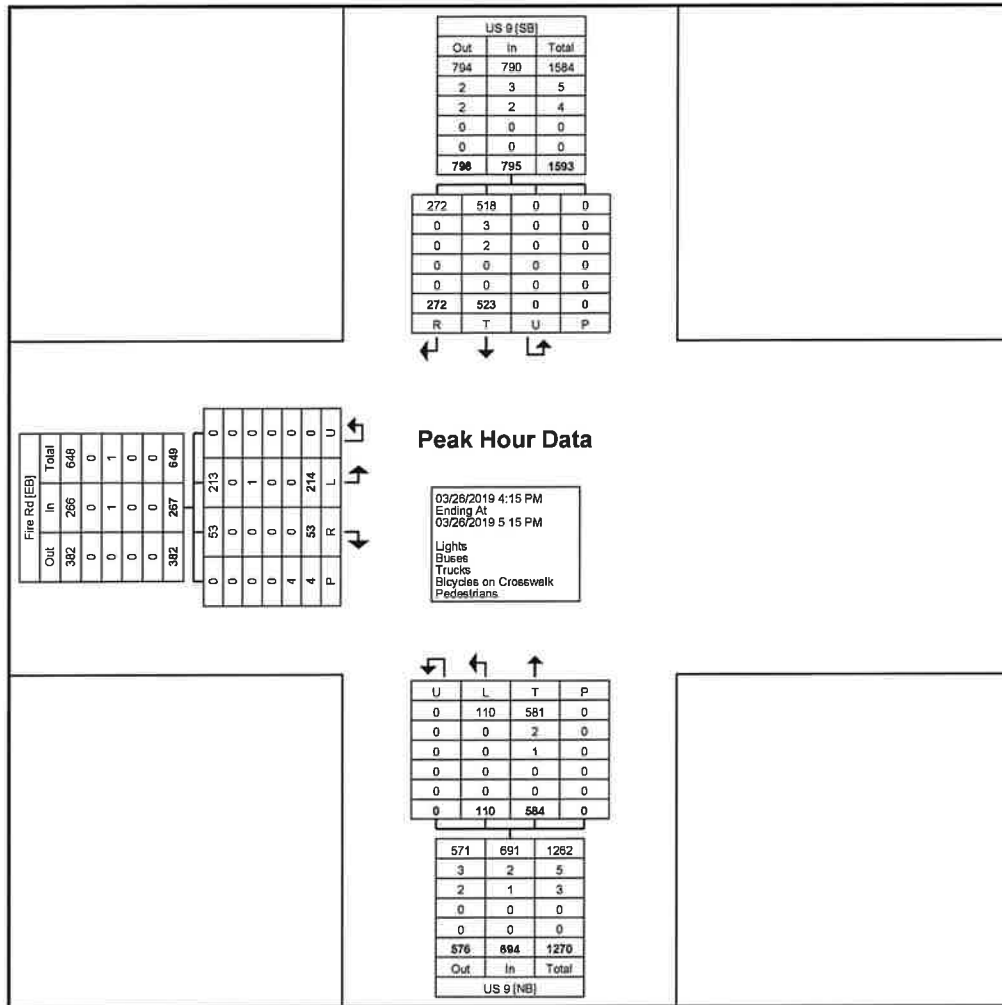
Glen Falls, NY
US 9 & Fire Road
Tuesday, March 26, 2019
Location: 43.322511, -
73.661042

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9 & Fire Rd
Site Code: Glens Falls, New
York
Start Date: 03/26/2019
Page No: 5

Turning Movement Peak Hour Data (4:15 PM)

[illegible]



Turning Movement Peak Hour Data Plot (4:15 PM)



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184 Baker Rd

Coatesville, Pennsylvania, United States 19320
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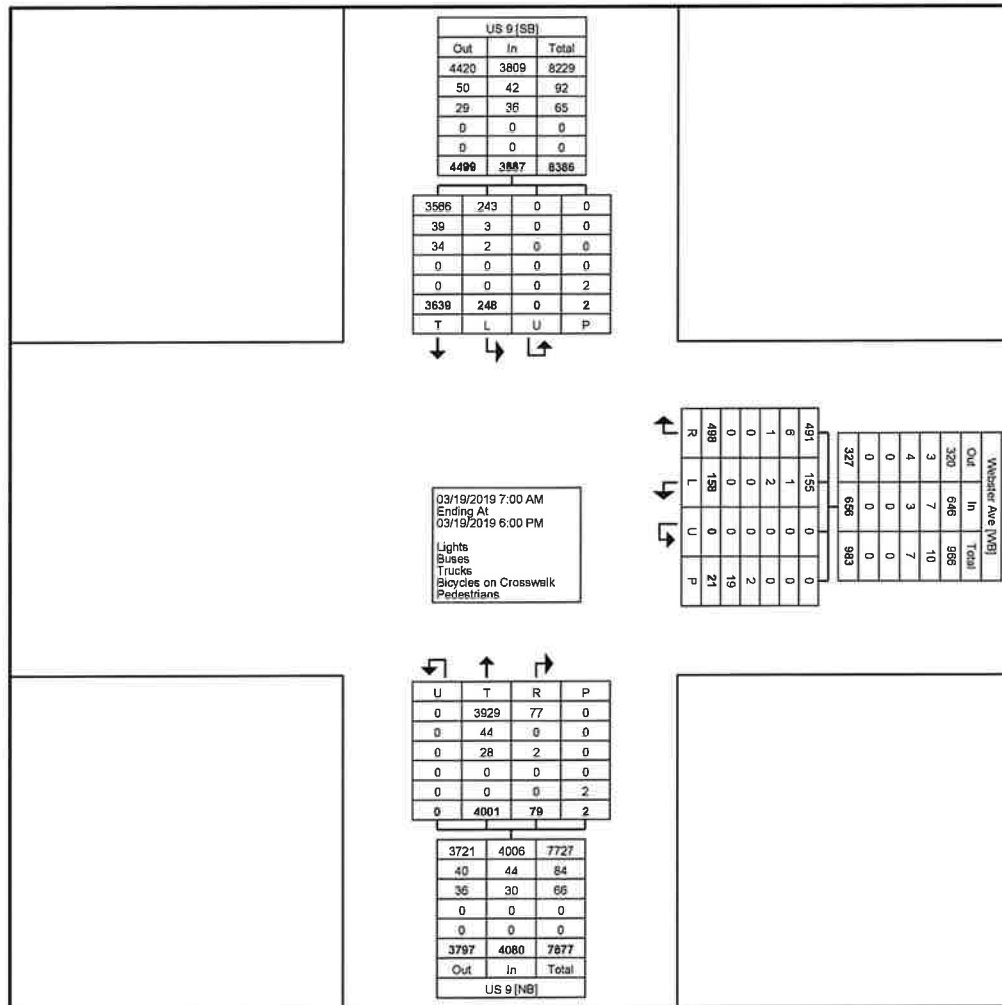
Glen Falls, NY
US 9 & Webster Ave
Tuesday, March 19, 2019
Location: 43.322264, -
73.660451

Count Name: US 9 at Webster
Ave
Site Code: Glens Falls, New
York
Start Date: 03/19/2019
Page No: 1

Turning Movement Data

Start Time	Webster Ave Westbound						US 9 Northbound						US 9 Southbound						Int. Total
	Left	Right	Right on Red	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total		
7:00 AM	2	6	1	0	2	9	48	1	0	0	0	49	4	35	0	1	39	97	
7:15 AM	2	3	2	0	1	7	59	1	0	0	0	60	8	65	0	1	73	140	
7:30 AM	9	9	2	0	0	20	90	2	1	0	0	93	6	87	0	0	93	206	
7:45 AM	5	5	3	0	1	13	94	2	0	0	0	96	12	98	0	0	110	219	
Hourly Total	18	23	8	0	4	49	291	6	1	0	0	298	30	285	0	2	315	662	
8:00 AM	7	11	2	0	0	20	84	2	0	0	0	86	8	80	0	0	88	194	
8:15 AM	6	4	0	0	0	10	88	5	0	0	0	93	5	110	0	0	115	218	
8:30 AM	3	8	0	0	2	11	92	2	0	0	0	94	11	84	0	0	95	200	
8:45 AM	2	12	3	0	0	17	116	2	0	0	0	118	11	93	0	0	104	239	
Hourly Total	18	35	5	0	2	58	380	11	0	0	0	391	35	367	0	0	402	851	
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11:00 AM	2	12	0	0	0	14	115	1	0	0	0	116	7	103	0	0	110	240	
11:15 AM	6	10	2	0	0	18	139	1	1	0	0	141	11	129	0	0	140	299	
11:30 AM	2	12	0	0	2	14	121	0	1	0	0	122	6	122	0	0	128	264	
11:45 AM	2	9	0	0	0	11	146	2	0	0	0	148	10	105	0	0	115	274	
Hourly Total	12	43	2	0	2	57	521	4	2	0	0	527	34	459	0	0	493	1077	
12:00 PM	6	19	0	0	0	25	122	4	0	0	0	126	2	107	0	0	109	260	
12:15 PM	4	14	0	0	0	18	147	2	0	0	0	149	9	104	0	0	113	280	
12:30 PM	3	13	0	0	0	16	123	5	0	0	0	128	7	134	0	0	141	285	
12:45 PM	4	10	2	0	1	16	140	2	0	0	0	142	9	150	0	0	159	317	
Hourly Total	17	56	2	0	1	75	532	13	0	0	0	545	27	495	0	0	522	1142	
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2:00 PM	5	15	0	0	1	20	136	2	0	0	0	138	8	126	0	0	134	292	
2:15 PM	6	16	1	0	1	23	127	4	0	0	0	131	2	136	0	0	138	292	
2:30 PM	7	16	0	0	0	23	136	3	0	0	0	139	9	123	0	0	132	294	
2:45 PM	7	11	0	0	1	18	129	3	0	0	0	132	7	119	0	0	126	276	
Hourly Total	25	58	1	0	3	84	528	12	0	0	0	540	26	504	0	0	530	1154	
3:00 PM	7	22	3	0	1	32	123	1	0	0	0	124	10	120	0	0	130	286	
3:15 PM	5	17	1	0	3	23	141	7	0	0	0	148	4	95	0	0	99	270	
3:30 PM	5	26	0	0	1	31	160	2	0	0	0	162	5	128	0	0	133	326	
3:45 PM	7	23	0	0	2	30	144	0	0	0	2	144	10	132	0	0	142	316	
Hourly Total	24	88	4	0	7	116	568	10	0	0	2	578	29	475	0	0	504	1198	
4:00 PM	7	20	2	0	0	29	135	5	0	0	0	140	12	114	0	0	126	295	
4:15 PM	4	21	0	0	0	25	159	3	0	0	0	162	5	128	0	0	133	320	
4:30 PM	4	18	0	0	1	22	168	3	0	0	0	171	7	136	0	0	143	336	
4:45 PM	10	16	0	0	1	26	155	2	0	0	0	157	8	136	0	0	144	327	
Hourly Total	25	75	2	0	2	102	617	13	0	0	0	630	32	514	0	0	546	1278	
5:00 PM	6	28	2	0	0	36	168	0	0	0	0	168	12	138	0	0	150	354	
5:15 PM	6	27	1	0	0	34	154	3	0	0	0	157	3	139	0	0	142	333	
5:30 PM	5	13	3	0	0	21	133	1	0	0	0	134	10	133	0	0	143	298	
5:45 PM	2	20	2	0	0	24	109	3	0	0	0	112	10	130	0	0	140	276	
Hourly Total	19	88	8	0	0	115	564	7	0	0	0	571	35	540	0	0	575	1261	
Grand Total	158	466	32	0	21	656	4001	76	3	0	2	4080	248	3639	0	2	3887	8623	
Approach %	24.1	71.0	4.9	0.0	-	-	98.1	1.9	0.1	0.0	-	-	6.4	93.6	0.0	-	-	-	
Total %	1.8	5.4	0.4	0.0	-	7.6	46.4	0.9	0.0	0.0	-	47.3	2.9	42.2	0.0	-	45.1	-	
Lights	155	459	32	0	-	646	3929	74	3	0	-	4006	243	3566	0	-	3809	8461	
% Lights	98.1	98.5	100.0	-	-	98.5	98.2	97.4	100.0	-	-	98.2	98.0	98.0	-	-	98.0	98.1	
Buses	1	6	0	0	-	7	44	0	0	0	-	44	3	39	0	-	42	93	
% Buses	0.6	1.3	0.0	-	-	1.1	1.1	0.0	0.0	-	-	1.1	1.2	1.1	-	-	1.1	1.1	
Trucks	2	1	0	0	-	3	28	2	0	0	-	30	2	34	0	-	36	69	
% Trucks	1.3	0.2	0.0	-	-	0.5	0.7	2.6	0.0	-	-	0.7	0.8	0.9	-	-	0.9	0.8	
Bicycles on Crosswalk	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	0	-	-	
% Bicycles on Crosswalk	-	-	-	-	9.5	-	-	-	-	-	0.0	-	-	-	-	0.0	-	-	
Pedestrians	-	-	-	-	19	-	-	-	-	-	2	-	-	-	-	2	-	-	
% Pedestrians	-	-	-	-	90.5	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-	

Glen Falls, NY
US 9 & Webster Ave
Tuesday, March 19, 2019
Location: 43.322264, -
73.660451



Turning Movement Data Plot



Coatesville, Pennsylvania, United States 19320
610-466-1469
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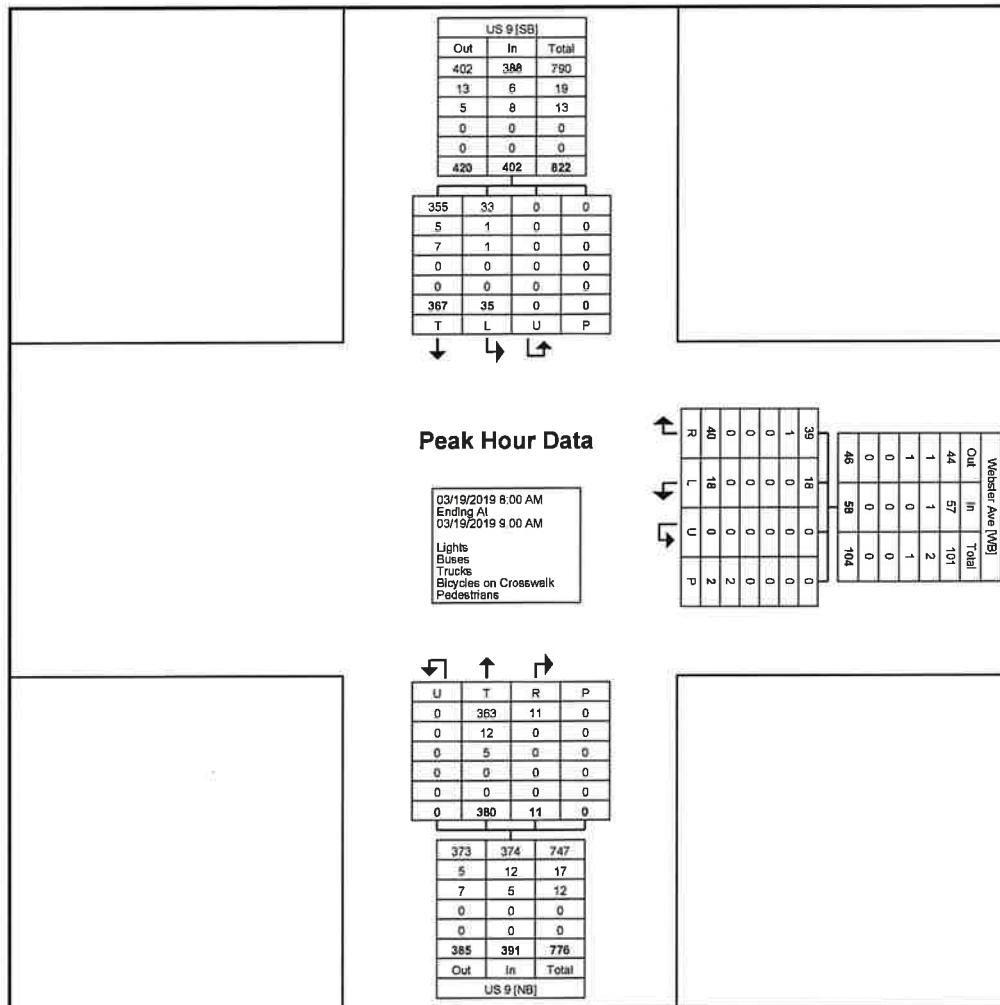
Count Name: US 9 at Webster
Ave
Site Code: Glens Falls, New
York
Start Date: 03/19/2019
Page No: 3

[illegible]

Glen Falls, NY
US 9 & Webster Ave
Tuesday, March 19, 2019
Location: 43.322264, -
73.660451

Coatesville, Pennsylvania, United States 19320
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Count Name: US 9 at Webster
Ave
Site Code: Glens Falls, New
York
Start Date: 03/19/2019
Page No: 4



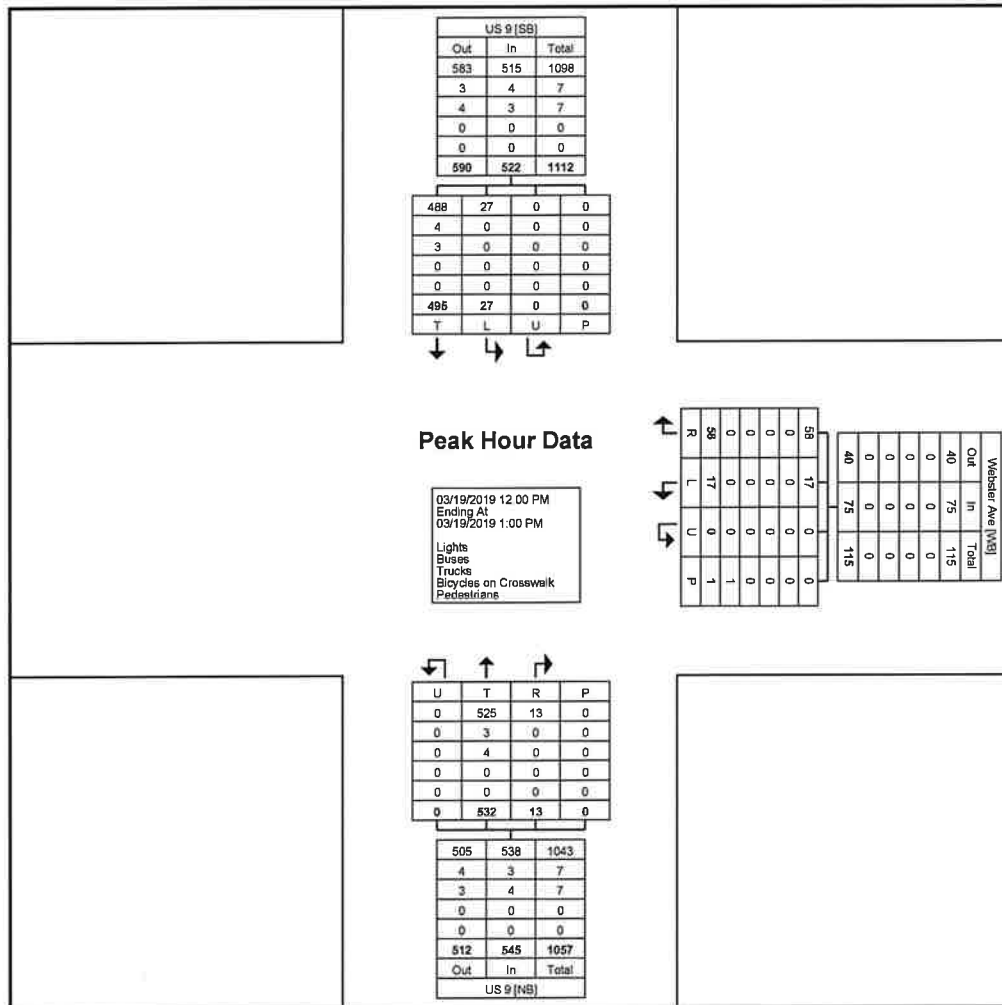
Turning Movement Peak Hour Data Plot (8:00 AM)



Coatesville, Pennsylvania, United States 19320
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Turning Movement Peak Hour Data (12:00 PM)

[illegible]



Turning Movement Peak Hour Data Plot (12:00 PM)



Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9 at Webster
Ave
Site Code: Glens Falls, New
York
Start Date: 03/19/2019
Page No: 7

Start Time	Webster Ave Westbound						US 9 Northbound						US 9 Southbound						Int. Total
	Left	Right	Right on Red	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total		
4:30 PM	4	18	0	0	1	22	168	3	0	0	0	171	7	136	0	0	143	336	
4:45 PM	10	16	0	0	1	26	155	2	0	0	0	157	8	136	0	0	144	327	
5:00 PM	6	28	2	0	0	36	168	0	0	0	0	168	12	138	0	0	150	354	
5:15 PM	6	27	1	0	0	34	154	3	0	0	0	157	3	139	0	0	142	333	
Total	26	89	3	0	2	118	645	8	0	0	0	653	30	549	0	0	579	1350	
Approach %	22.0	75.4	2.5	0.0	-	-	98.8	1.2	0.0	0.0	-	-	5.2	94.8	0.0	-	-	-	
Total %	1.9	6.6	0.2	0.0	-	8.7	47.8	0.6	0.0	0.0	-	48.4	2.2	40.7	0.0	-	42.9	-	
PHF	0.650	0.795	0.375	0.000	-	0.819	0.980	0.667	0.000	0.000	-	0.955	0.625	0.987	0.000	-	0.965	0.953	
Lights	26	89	3	0	-	118	639	8	0	0	-	647	30	548	0	-	578	1343	
% Lights	100.0	100.0	100.0	-	-	100.0	99.1	100.0	-	-	-	99.1	100.0	99.8	-	-	99.8	99.5	
Buses	0	0	0	0	-	0	5	0	0	0	-	5	0	1	0	-	1	6	
% Buses	0.0	0.0	0.0	-	-	0.0	0.8	0.0	-	-	-	0.8	0.0	0.2	-	-	0.2	0.4	
Trucks	0	0	0	0	-	0	1	0	0	0	-	1	0	0	0	-	0	1	
% Trucks	0.0	0.0	0.0	-	-	0.0	0.2	0.0	-	-	-	0.2	0.0	0.0	-	-	0.0	0.1	
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-	
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0	-	-	-	-	0	-	-	
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	0	-	-	
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	0	-	-	-	-	0	-	-	

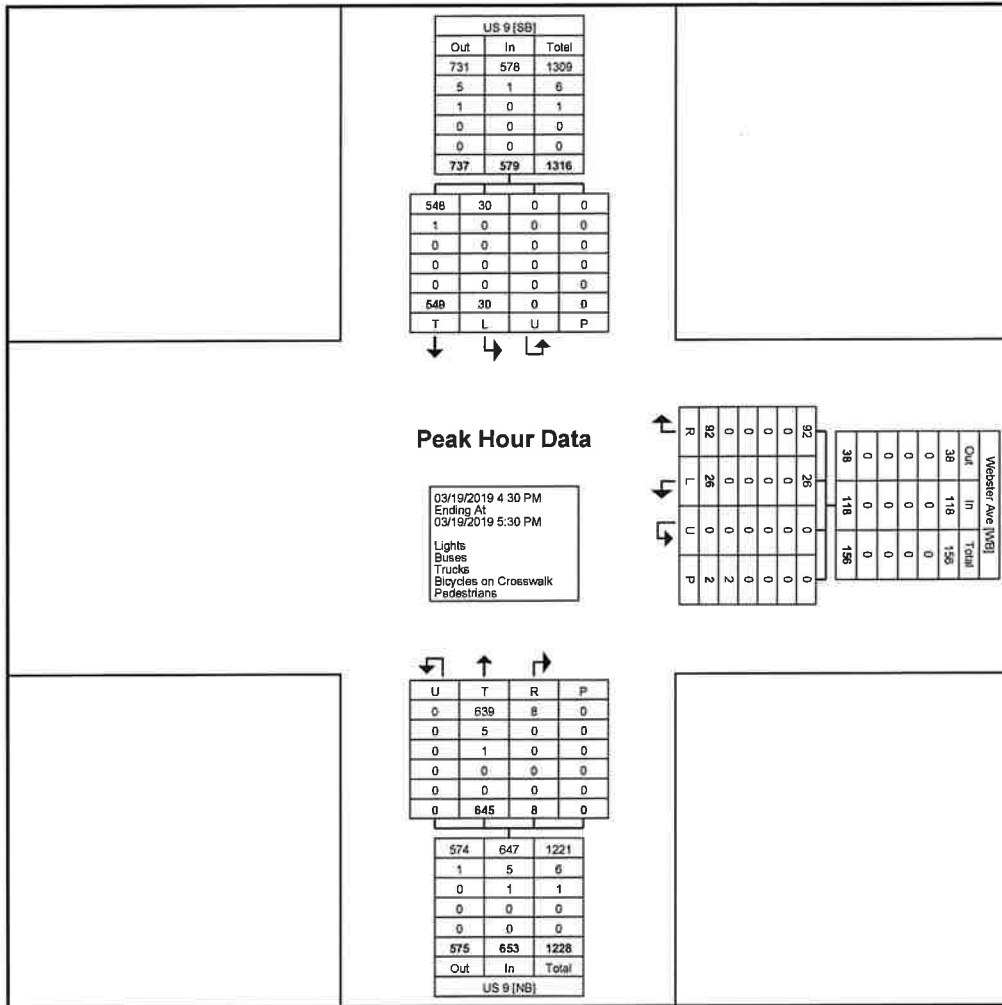


www.TSTData.com
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Glen Falls, NY
US 9 & Webster Ave
Tuesday, March 19, 2019
Location: 43.322264, -
73.660451

Count Name: US 9 at Webster
Ave
Site Code: Glens Falls, New
York
Start Date: 03/19/2019
Page No: 8



Turning Movement Peak Hour Data Plot (4:30 PM)

Tri-State Traffic Data Inc

Road Name: US Route 9
Segment: 400' N of Fire Rd
Ctr#: AP91

184 Baker Rd
Coatesville, PA 19320

GPS: 43.323560, -73.661946

Start	04-Feb-19		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
Time	Northboun	Southbo	Northbou	Southbo	Northbou	Southbo	Northbou	Southbo	Northbou	Southbo	Northbou	Southbo	Northbou	Southbo	Northbou	Southbo
12:00 AM	*	*	*	*	22	34	21	23	*	*	*	*	*	*	22	28
01:00	*	*	*	*	11	15	12	16	*	*	*	*	*	*	12	16
02:00	*	*	*	*	12	12	10	12	*	*	*	*	*	*	11	12
03:00	*	*	*	*	13	6	18	10	*	*	*	*	*	*	16	8
04:00	*	*	*	*	30	20	33	29	*	*	*	*	*	*	32	24
05:00	*	*	*	*	74	75	82	67	*	*	*	*	*	*	78	71
06:00	*	*	*	*	206	160	187	137	*	*	*	*	*	*	196	148
07:00	*	*	*	*	413	325	386	330	*	*	*	*	*	*	400	328
08:00	*	*	*	*	556	451	579	391	*	*	*	*	*	*	568	421
09:00	*	*	*	*	566	440	523	431	*	*	*	*	*	*	544	436
10:00	*	*	*	*	617	509	576	450	*	*	*	*	*	*	596	480
11:00	*	*	*	*	729	623	666	579	*	*	*	*	*	*	698	601
12:00 PM	*	*	*	*	741	697	701	618	*	*	*	*	*	*	721	658
01:00	*	*	*	*	665	685	616	654	*	*	*	*	*	*	640	670
02:00	*	*	*	*	673	679	651	678	*	*	*	*	*	*	662	678
03:00	*	*	*	*	692	729	678	645	*	*	*	*	*	*	685	687
04:00	*	*	738	734	696	730	500	510	*	*	*	*	*	*	645	658
05:00	*	*	645	721	519	661	*	*	*	*	*	*	*	*	582	691
06:00	*	*	544	609	349	453	*	*	*	*	*	*	*	*	446	531
07:00	*	*	337	434	234	317	*	*	*	*	*	*	*	*	286	376
08:00	*	*	205	315	133	192	*	*	*	*	*	*	*	*	169	254
09:00	*	*	181	201	90	154	*	*	*	*	*	*	*	*	136	178
10:00	*	*	67	116	73	97	*	*	*	*	*	*	*	*	70	106
11:00	*	*	43	64	36	65	*	*	*	*	*	*	*	*	40	64
Lane	0	0	2760	3194	8150	8129	6239	5580	0	0	0	0	0	0	8255	8124
Day	0		5954		16279		11819		0		0		0		16379	
AM Peak	-	-	-	-	11:00	11:00	11:00	11:00	-	-	-	-	-	-	11:00	11:00
Vol.	-	-	-	-	729	623	666	579	-	-	-	-	-	-	698	601
PM Peak	-	-	16:00	16:00	12:00	16:00	12:00	14:00	-	-	-	-	-	-	12:00	17:00
Vol.	-	-	738	734	741	730	701	678	-	-	-	-	-	-	721	691

Comb. Total	0	5954	16279	11819	0	0	0	16379
ADT	ADT 14,461	AADT 14,461						

Tri-State Traffic Data Inc

Road Name: US Route 9
Segment: 400' N of Fire Rd
Ctr#: AP91

184 Baker Rd
Coatesville, PA 19320

GPS: 43.323560, -73.661946

Northbound

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
02/05/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	0	3	2	10	110	443	159	7	4	0	0	0	0	0	0	738
17:00	0	2	6	8	118	378	127	5	1	0	0	0	0	0	0	645
18:00	0	1	3	10	67	326	124	13	0	0	0	0	0	0	0	544
19:00	0	0	0	0	21	166	132	15	3	0	0	0	0	0	0	337
20:00	0	0	0	0	5	96	84	17	3	0	0	0	0	0	0	205
21:00	0	0	0	0	6	64	91	20	0	0	0	0	0	0	0	181
22:00	0	0	0	0	5	26	31	5	0	0	0	0	0	0	0	67
23:00	0	0	0	0	6	13	19	4	0	1	0	0	0	0	0	43
Total	0	6	11	28	338	1512	767	86	11	1	0	0	0	0	0	2760

Tri-State Traffic Data Inc

Road Name: US Route 9
Segment: 400' N of Fire Rd
Ctr#: AP91

184 Baker Rd
Coatesville, PA 19320

GPS: 43.323560, -73.661946

Northbound

Start Time	05	06	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
02/06/19	0	0	0	0	2	2	16	1	1	0	0	0	0	0	0	22
01:00	0	0	0	0	1	2	6	2	0	0	0	0	0	0	0	11
02:00	0	0	0	0	0	4	6	2	0	0	0	0	0	0	0	12
03:00	0	0	0	0	4	3	5	1	0	0	0	0	0	0	0	13
04:00	0	0	0	0	2	10	14	2	2	0	0	0	0	0	0	30
05:00	0	0	0	0	7	28	28	9	1	1	0	0	0	0	0	74
06:00	0	0	0	1	11	81	86	25	2	0	0	0	0	0	0	206
07:00	0	0	0	0	29	168	177	35	4	0	0	0	0	0	0	413
08:00	0	0	1	3	51	300	167	31	1	0	2	0	0	0	0	556
09:00	0	0	3	2	29	281	226	22	3	0	0	0	0	0	0	566
10:00	0	2	0	2	50	313	208	41	1	0	0	0	0	0	0	617
11:00	0	0	2	16	91	401	201	18	0	0	0	0	0	0	0	729
12 PM	0	0	6	4	68	442	198	17	6	0	0	0	0	0	0	741
13:00	0	2	0	5	69	367	198	23	1	0	0	0	0	0	0	665
14:00	0	2	1	18	70	397	162	22	0	0	0	0	0	0	0	672
15:00	0	2	1	8	104	395	163	18	1	0	0	0	0	0	0	692
16:00	0	7	5	11	174	381	108	9	1	0	0	0	0	0	0	696
17:00	0	1	2	6	77	321	108	4	0	0	0	0	0	0	0	519
18:00	0	1	0	7	80	174	78	8	1	0	0	0	0	0	0	349
19:00	0	0	0	0	27	121	72	13	1	0	0	0	0	0	0	234
20:00	0	0	0	4	9	47	50	21	2	0	0	0	0	0	0	133
21:00	0	0	0	0	6	38	35	11	0	0	0	0	0	0	0	90
22:00	0	0	0	0	6	31	29	7	0	0	0	0	0	0	0	73
23:00	0	0	0	0	2	11	20	3	0	0	0	0	0	0	0	36
Total	0	17	21	87	969	4318	2361	345	28	1	2	0	0	0	0	8149

Tri-State Traffic Data Inc

Road Name: US Route 9
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Ctr#: AP91

184 Baker Rd
Coatesville, PA 19320

GPS: 43.323560, -73.661946

Northbound

Start Time	05	06	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
02/07/19	0	0	0	0	1	7	9	4	0	0	0	0	0	0	0	21
01:00	0	0	0	0	1	5	4	2	0	0	0	0	0	0	0	12
02:00	0	0	0	0	1	5	3	0	1	0	0	0	0	0	0	10
03:00	0	0	0	3	0	5	9	1	0	0	0	0	0	0	0	18
04:00	0	0	0	0	0	16	14	2	1	0	0	0	0	0	0	33
05:00	0	0	0	0	10	25	33	14	0	0	0	0	0	0	0	82
06:00	0	0	0	0	15	72	80	19	1	0	0	0	0	0	0	187
07:00	0	1	0	2	36	169	153	20	5	0	0	0	0	0	0	386
08:00	0	0	1	3	79	291	175	28	2	0	0	0	0	0	0	579
09:00	0	0	3	1	42	284	166	26	1	0	0	0	0	0	0	523
10:00	0	0	4	24	121	259	157	10	1	0	0	0	0	0	0	576
11:00	0	2	5	5	65	402	179	7	1	0	0	0	0	0	0	666
12 PM	0	0	1	11	91	393	185	19	1	0	0	0	0	0	0	701
13:00	0	1	3	2	66	345	178	18	3	0	0	0	0	0	0	616
14:00	0	1	6	5	66	387	178	8	0	0	0	0	0	0	0	651
15:00	0	1	5	16	99	393	151	13	0	0	0	0	0	0	0	678
16:00	0	3	2	35	53	291	108	6	2	0	0	0	0	0	0	500
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	9	30	107	746	3349	1782	197	19	0	0	0	0	0	0	6239

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Northbound

Start Time	05	06	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
02/08/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	32	62	222	2053	9179	4910	628	58	2	2	0	0	0	0	17148

Stats

15th Percentile : 25 MPH
50th Percentile : 28 MPH
85th Percentile : 33 MPH
95th Percentile : 34 MPH

Mean Speed(Average) : 29 MPH
10 MPH Pace Speed : 26-35 MPH
Number in Pace : 14089
Percent in Pace : 82.2%
Number of Vehicles > 30 MPH : 5600
Percent of Vehicles > 30 MPH : 32.7%

Tri-State Traffic Data Inc

Road Name: US Route 9
Segment: 400' N of Fire Rd
Ctr#: AP91

184 Baker Rd
Coatesville, PA 19320

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Southbound

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
02/05/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	0	40	167	228	154	93	41	10	1	1	0	0	0	0	0	735
17:00	0	34	191	233	135	99	25	2	1	0	1	0	0	0	0	721
18:00	0	21	78	156	158	122	53	17	2	0	0	0	0	1	0	608
19:00	0	4	38	87	93	99	86	25	1	0	0	0	0	0	0	433
20:00	0	1	14	42	71	93	73	18	3	0	0	0	0	0	0	315
21:00	0	0	0	7	35	69	68	21	1	0	0	0	0	0	0	201
22:00	0	0	0	3	23	47	30	12	1	0	0	0	0	0	0	116
23:00	0	0	0	1	8	28	18	6	2	1	0	0	0	0	0	64
Total	0	100	488	757	677	650	394	111	12	2	1	0	0	1	0	3193

Tri-State Traffic Data Inc

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Southbound

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
02/06/19	0	0	0	0	3	12	13	4	2	0	0	0	0	0	0	34
01:00	0	0	0	0	1	9	3	1	1	0	0	0	0	0	0	15
02:00	0	0	0	0	1	2	7	2	0	0	0	0	0	0	0	12
03:00	0	0	0	0	0	5	1	0	0	0	0	0	0	0	0	6
04:00	0	0	0	0	5	7	4	3	0	1	0	0	0	0	0	20
05:00	0	0	0	0	14	24	26	9	2	0	0	0	0	0	0	75
06:00	0	0	0	8	25	48	40	31	7	1	0	0	0	0	0	160
07:00	0	2	15	32	49	80	87	50	6	4	0	0	0	0	0	325
08:00	0	2	30	67	92	112	94	43	10	0	1	0	0	0	0	451
09:00	0	3	19	81	87	105	107	33	5	0	0	0	0	0	0	440
10:00	0	10	48	86	115	106	109	29	5	1	0	0	0	0	0	509
11:00	0	9	94	167	151	131	61	8	1	1	0	0	0	0	0	623
12 PM	0	17	113	186	218	107	47	7	1	0	0	0	0	0	0	696
13:00	0	16	100	198	180	130	49	11	1	0	0	0	0	0	0	685
14:00	0	22	123	251	138	82	49	13	1	0	0	0	0	0	0	679
15:00	0	26	112	231	202	112	37	7	1	0	0	0	0	0	0	728
16:00	0	42	178	290	154	46	17	2	0	0	0	0	0	0	1	730
17:00	0	43	137	227	143	78	24	8	0	0	0	1	0	0	0	661
18:00	0	15	94	103	85	99	43	10	4	0	0	0	0	0	0	453
19:00	0	5	25	57	70	84	66	7	3	0	0	0	0	0	0	317
20:00	0	5	15	28	36	62	38	7	1	0	0	0	0	0	0	192
21:00	0	2	4	11	39	46	44	6	2	0	0	0	0	0	0	154
22:00	0	0	3	11	19	35	17	9	3	0	0	0	0	0	0	97
23:00	0	0	0	1	14	28	16	5	1	0	0	0	0	0	0	65
Total	0	219	1110	2035	1841	1550	999	305	57	8	1	1	0	0	1	8127

Tri-State Traffic Data Inc

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Southbound

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
02/07/19	0	0	0	0	2	10	7	3	1	0	0	0	0	0	0	23
01:00	0	0	0	0	2	7	5	2	0	0	0	0	0	0	0	16
02:00	0	0	0	0	1	4	5	2	0	0	0	0	0	0	0	12
03:00	0	0	0	1	0	5	2	2	0	0	0	0	0	0	0	10
04:00	0	0	0	2	8	12	5	2	0	0	0	0	0	0	0	29
05:00	0	0	1	4	10	20	20	12	0	0	0	0	0	0	0	67
06:00	0	0	2	12	17	38	42	21	4	1	0	0	0	0	0	137
07:00	0	7	22	43	68	78	76	29	7	0	0	0	0	0	0	330
08:00	0	8	30	60	66	116	76	30	3	2	0	0	0	0	0	391
09:00	0	4	52	61	103	109	77	21	3	1	0	0	0	0	0	431
10:00	0	12	61	84	81	120	72	16	3	1	0	0	0	0	0	450
11:00	0	14	68	142	104	124	96	27	3	0	0	0	0	0	0	578
12 PM	0	14	77	146	152	127	74	26	2	0	0	0	0	0	0	618
13:00	0	27	122	157	165	110	59	11	4	0	0	0	0	0	0	655
14:00	0	27	130	223	141	106	42	5	2	1	1	0	0	0	0	678
15:00	0	19	105	196	145	115	50	12	3	0	0	0	0	0	0	645
16:00	0	43	149	165	91	49	10	2	1	0	0	0	0	0	0	510
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	175	819	1296	1156	1150	718	223	36	6	1	0	0	0	0	5580

Tri-State Traffic Data Inc

Road Name: US Route 9
Segment: 400' N of Fire Rd
Ctr#: AP91

184 Baker Rd
Coatesville, PA 19320

GPS: 43.323560, -73.661946

Southbound

Start Time	05	06	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
02/08/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	494	2417	4088	3674	3350	2111	639	105	16	3	1	0	1	1	16900

Stats

15th Percentile : 14 MPH
50th Percentile : 21 MPH
85th Percentile : 30 MPH
95th Percentile : 34 MPH

Mean Speed(Average) : 23 MPH
10 MPH Pace Speed : 16-25 MPH
Number in Pace : 7762
Percent in Pace : 45.9%
Number of Vehicles > 30 MPH : 2877
Percent of Vehicles > 30 MPH : 17.0%

Attachment B
Accident Assessment

Glen Street/Fire Road and Glen Street/Webster Avenue
Intersection Evalaution
City of Glens Falls, New York

STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION
TRAFFIC SAFETY DIVISION
ACCIDENT DETAILS, HISTORY LOCATION

Sheet 1 of 1

DIAGRAM No.: _____

COUNTY: <u>Warren</u> P.I.N.: _____ <input type="radio"/> TOWN <input checked="" type="radio"/> CITY <input type="radio"/> VILLAGE OF <u>Glens Falls</u>			ROUTE NO. OR STREET NAME: <u>Glen Street (US Route 9)</u> AT INTERSECTION WITH/OR BETWEEN: <u>Fire Road and Webster Avenue intersections</u>				CASE No.: <u>118-291</u> FILE: _____ BY: <u>MDN</u> DATE: <u>05/17/19</u>										
TIME PERIOD FROM: <u>10/1/2015</u> TO: <u>9/30/2018</u>			4 No. of VEHICLES	5 SEVERITY	ENVIRONMENTAL: Use Codes from MV 104 (shown at right) for these categories				Light Conditions: 1. Daylight 2. Dawn 3. Dusk 4. Dark Road Lighted 5. Dark Road Unlighted		Roadway Character: 1. Straight & Level 2. Straight & Grade 3. Straight at Hillcrest 4. Curve & Level 5. Curve & Grade 6. Curve & Hillcrest		Roadway Surface Condition: 1. Dry 2. Wet 3. Muddy 4. Snow/Ice 5. Slush 10. Other		Weather: 1. Clear 2. Cloudy 3. Rain 4. Snow 5. Sleet/Hail/Freezing Rain 6. Fog/Smog/Smoke 10. Other		
No. OF MONTHS: <u>36</u>					6	7	8	9	10	DIRECTION 1	DIRECTION 2	TYPE ¹	*Use Codes from MV 104 Police Report		11	DESCRIPTION	Intersection/ Nearest Street
1	2 DATE	3 TIME			LIGHT CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER	APPARENT CONTRIBUTING FACTORS								
1	12/8/2015	Unk	2	PDO	1	1	1	1	9	NB	NB	REAR END	V1	SLOWED OR STOPPING	V2		FIRE ROAD
2	12/28/2015	Unk	2	NR	1	1	1	2	NA	NB	NB	REAR END	V1	SLOWED OR STOPPING	V2		FIRE ROAD
3	1/12/2016	Unk	2	NR	4	1	4	4	NA	SWB	Unk	RIGHT TURN	V1	MAKING RIGHT TURN	V2		FIRE ROAD
4	3/1/2016	Unk	2	PDO	1	1	1	1	NA	SB	SB	REAR END	V1	STOPPED IN TRAFFIC	V2		FIRE ROAD
5	5/1/2016	Unk	2	PDO	1	1	2	3	66	EB	EB	REAR END	V1	SLOWED OR STOPPING	V2		FIRE ROAD
6	7/1/2016	Unk	2	PDO	1	1	1	2	7	SB	Unk	LEFT TURN	V1	GOING STRAIGHT AHEAD	V2		FIRE ROAD
7	9/12/2016	Unk	3	PDO	3	1	1	1	NA	SB	SB	REAR END	V1	STOPPED IN TRAFFIC	V2		FIRE ROAD
8	11/27/2016	Unk	1	INJ	1	1	2	1	NA	NA		PEDESTRIAN	V1	NOT APPLICABLE	PED	CROSSING AGAINST SIGNAL	FIRE ROAD
9	2/13/2017	Unk	2	PDO	4	1	1	1	NA	SB	SB	REAR END	V1	GOING STRAIGHT AHEAD	V2		FIRE ROAD
10	5/23/2017	Unk	2	NR	1	1	1	1	NA	SEB	SEB	REAR END	V1	STARTING IN TRAFFIC	V2		FIRE ROAD
11	9/12/2017	Unk	2	PDO	4	1	1	1	NA	SB	SB	REAR END	V1	STOPPED IN TRAFFIC	V2		FIRE ROAD
12	11/2/2017	Unk	2	INJ	1	1	2	2	NA	SB	SB	REAR END	V1	SLOWED OR STOPPING	V2		FIRE ROAD
13	2/10/2018	Unk	2	PDO	1	1	2	3	NA	NB	Unk	RIGHT ANGLE	V1	MAKING LEFT TURN	V2		FIRE ROAD
14	2/25/2018	Unk	2	NR	2	1	2	1	NA	WB	Unk	LEFT TURN	V1	MAKING LEFT TURN	V2		FIRE ROAD
15	3/24/2018	Unk	2	NR	1	1	1	1	9	SB	SB	REAR END	V1	SLOWED OR STOPPING	V2		FIRE ROAD
16	3/30/2018	Unk	1	PDO	2	1	1	2	NA	WB		PEDESTRIAN	V1	MAKING LEFT TURN	PED	CROSSING/NO SIGNAL OR X-WALK	FIRE ROAD
17	4/8/2018	Unk	2	INJ	1	1	1	1	16	EB	EB	REAR END	V1	STOPPED IN TRAFFIC	V2		FIRE ROAD
18	7/9/2018	Unk	2	INJ	1	1	1	1	9	SB	SB	REAR END	V1	GOING STRAIGHT AHEAD	V2		FIRE ROAD
19	8/4/2018	Unk	3	INJ	1	1	2	3	NA	SB	SB	REAR END	V1	STOPPED IN TRAFFIC	V2		FIRE ROAD
20	8/7/2018	Unk	3	INJ	1	1	1	2	9	NB	NB	REAR END	V1	STARTING IN TRAFFIC	V2		FIRE ROAD
21	8/13/2018	Unk	3	INJ	1	1	1	2	NA	SB	SB	REAR END	V1	SLOWED OR STOPPING	V2		FIRE ROAD
1	12/12/2015	Unk	1	INJ	1	1	1	1	9	NWB	NWB	REAR END	V1	GOING STRAIGHT AHEAD	V2		WEBSTER AVENUE
2	8/10/2016	Unk	1	PDO	1	1	1	1	9	SB	SB	REAR END	V1	GOING STRAIGHT AHEAD	V2		WEBSTER AVENUE
3	5/27/2017	Unk	2	NR	1	1	1	2	NA	NB	NB	REAR END	V1	STARTING IN TRAFFIC	V2		WEBSTER AVENUE
4	10/29/2017	Unk	2	NR	1	1	2	3	NA	NB	NB	REAR END	V1	GOING STRAIGHT AHEAD	V2		WEBSTER AVENUE
5	12/26/2017	Unk	1	PDO	1	1	4	1	66	WB	WB	REAR END	V1	SLOWED OR STOPPING	V2		WEBSTER AVENUE

Contributing Factors

<u>HUMAN</u>	<u>VEHICULAR</u>	<u>ENVIRONMENTAL</u>	<u>Weather</u>	<u>Roadway Character</u>	<u>Road Surface Condition</u>	<u>Light Condition</u>	<u>Severity</u>
4. Driver Inattention*	41. Accelerator Defective	61. Animal's Action	1- Clear	1- Straight and Level	1- Dry	1- Daylight	NR- Non-Reportable
5. Driver Inexperience*	42. Brakes Defective	62. Glare	2- Cloudy	2- Straight and Grade	2- Wet	2- Dawn	PDO- Property Damage
7. Failure to Yield Right-of-Way	43. Headlights Defective	63. Lane Marking - Improper/Inadequate	3- Rain	3- Straight at Hillcrest	4- Snow/Ice	3- Dusk	INJ- Injury
9. Following Too Closely	44. Other Lighting Defects	64. Obstruction/Debris	4- Snow	4- Curve and Level	5- Slush	4- Dark-Road Lighted	FAT- Fatality
10. Illness	45. Oversized Vehicle	65. Pavement Defective	5- Sleet/Hail/Freezing Rain	5- Curve and Grade	NE- Not Entered	5- Dark-Road Unlighted	
12. Passenger Distraction	46. Steering Failure	66. Pavement Slippery	6- Fog/Smog/Smoke		UNK- Unknown	NE- Not Entered	
13. Passing or Lane Usage Improper	47. Tire Failure/Inadequate	67. Shoulders - Defective/Improper	NE- Not Entered			UNK- Unknown	
14. Pedestrian's Error/Confusion	48. Tow Hitch Defective	68. Traffic Control Device Improper/Non-working	UNK- Unknown				
16. Prescription Medication	49. Windshield Inadequate	69. View Obstructed/Limited					
21. Fatigued/Drowsy	60. Other Vehicular*	80. Other Environmental*					
26. Reaction to Other Uninvolved Vehicle							

NA and UNK = Not Available or Unknown

Attachment C
Level of Service Calculations

Glen Street/Fire Road and Glen Street/Webster Avenue
Intersection Evalaution
City of Glens Falls, New York

LOS Definitions

The following is an excerpt from the Highway Capacity Manual, 6th Edition (HCM).

Level of Service for Signalized Intersections

Level of Service (LOS) can be characterized for the entire intersection, each intersection approach, and each lane group. Control delay alone is used to characterize LOS for the entire intersection or an approach. Control delay *and* volume-to-capacity (v/c) ratio are used to characterize LOS for a lane group. Delay quantifies the increase in travel time due to traffic signal control. It is also a surrogate measure of driver discomfort and fuel consumption. The v/c ratio quantifies the degree to which a phase's capacity is utilized by a lane group. The following paragraphs describe each LOS.

LOS A describes operations with a control delay of 10 s/veh or less and a v/c ratio no greater than 1.0. This level is typically assigned when the v/c ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B describes operations with control delay between 10 and 20 s/veh and a v/c ratio no greater than 1.0. This level is typically assigned when the v/c ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

LOS C describes operations with control delay between 20 and 35 s/veh and a v/c ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual *cycle failures* (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

LOS D describes operations with control delay between 35 and 55 s/veh and a v/c ratio no greater than 1.0. This level is typically assigned when the v/c ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

LOS E describes operations with control delay between 55 and 80 s/veh and a v/c ratio no greater than 1.0. This level is typically assigned when the v/c ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

LOS F describes operations with control delay exceeding 80 s/veh or a v/c ratio greater than 1.0. This level is typically assigned when the v/c ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

A lane group can incur a delay less than 80 s/veh when the v/c ratio exceeds 1.0. This condition typically occurs when the cycle length is short, the signal progression is favorable, or both. As a result, both the delay and v/c ratio are considered when lane group LOS is established. A ratio of 1.0 or more indicates that cycle capacity is fully utilized and represents failure from a capacity perspective (just as delay in excess of 80 s/veh represents failure from a delay perspective).

Average control delay and queue length at roundabout controlled intersections are calculated using SIDRA Intersection. The physical geometry such as entry lane width and approach flare, and traffic volume at the roundabout are factors that influence the intersection's performance. The average delay reported using SIDRA Intersection is based on the signalized HCM Method of Delay for Level-of-Service.

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	33.7	14.3	6.6	17.0	17.6

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	46.7	35.6	18.1	6.2	3.7	12.6

Total Zone Performance

Denied Del/Veh (s)		0.3
Total Del/Veh (s)		381.8

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	261	69	131	328
Average Queue (ft)	148	36	53	176
95th Queue (ft)	227	69	116	301
Link Distance (ft)	705		120	522
Upstream Blk Time (%)			1	
Queuing Penalty (veh)			5	
Storage Bay Dist (ft)		40		
Storage Blk Time (%)		8	12	
Queuing Penalty (veh)		27	8	

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	55	62	294	59	106
Average Queue (ft)	15	22	147	17	46
95th Queue (ft)	42	51	248	46	94
Link Distance (ft)	900	900	888		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				1	6
Queuing Penalty (veh)				4	2

Zone Summary

Zone wide Queuing Penalty: 48

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10_AM Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	37.1	13.3	6.6	18.0	18.9

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	40.8	38.7	17.7	6.2	3.7	12.7

Total Zone Performance

Denied Del/Veh (s)			0.3	
Total Del/Veh (s)			427.8	

Queuing and Blocking Report
Glens Falls Intersection Evaluation

ETC+10_AM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13
Directions Served	LR	L	T	TR	
Maximum Queue (ft)	305	69	134	435	8
Average Queue (ft)	171	36	54	182	0
95th Queue (ft)	268	69	113	329	6
Link Distance (ft)	705		120	522	203
Upstream Blk Time (%)			1	0	
Queuing Penalty (veh)			3	1	
Storage Bay Dist (ft)		40			
Storage Blk Time (%)		6	14		
Queuing Penalty (veh)		21	10		

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	63	83	326	61	114
Average Queue (ft)	16	26	150	21	46
95th Queue (ft)	47	62	259	53	98
Link Distance (ft)	900	900	888		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					1
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				1	7
Queuing Penalty (veh)				5	3

Zone Summary

Zone wide Queuing Penalty: 44

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	38.4	8.6	4.2	16.9	17.9

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.1
Total Del/Veh (s)	26.3	26.5	18.1	6.5	3.8	11.9

Total Zone Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	346.0

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Pretimed Dual Side Street-Conc Peds_AM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13
Directions Served	LR	L	T	TR	T
Maximum Queue (ft)	304	66	133	316	11
Average Queue (ft)	168	33	37	172	0
95th Queue (ft)	265	66	100	291	8
Link Distance (ft)	705		120	522	203
Upstream Blk Time (%)			0		
Queuing Penalty (veh)			2		
Storage Bay Dist (ft)		40			
Storage Blk Time (%)		5	6		
Queuing Penalty (veh)		20	4		

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	54	83	287	66	106
Average Queue (ft)	13	21	144	18	45
95th Queue (ft)	39	56	242	51	94
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				1	7
Queuing Penalty (veh)				5	2

Zone Summary

Zone wide Queuing Penalty: 34

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	50.4	10.1	4.5	23.7	23.6

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	32.2	34.4	25.3	7.3	4.1	16.1

Total Zone Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	449.1

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Pretimed Dual Side Street - LPI_AM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13	B13	B11
Directions Served	LR	L	T	TR	T		T
Maximum Queue (ft)	336	66	135	419	38	20	5
Average Queue (ft)	192	35	39	212	1	1	0
95th Queue (ft)	319	65	95	343	18	11	4
Link Distance (ft)	705		120	522	203	203	232
Upstream Blk Time (%)			0	0			
Queuing Penalty (veh)			2	0			
Storage Bay Dist (ft)		40					
Storage Blk Time (%)		6	7				
Queuing Penalty (veh)		22	5				

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	45	62	321	60	106
Average Queue (ft)	10	21	185	22	47
95th Queue (ft)	32	52	287	55	96
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				2	7
Queuing Penalty (veh)				6	2

Zone Summary

Zone wide Queuing Penalty: 37

SimTraffic Performance Report

Glens Falls Intersection Evaluation

ETC+10 Pretimed Dual Side Street - Excl Ped_AM Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	57.5	12.8	5.0	26.9	26.8

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.1
Total Del/Veh (s)	36.7	34.1	32.4	9.5	4.1	19.5

Total Zone Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	498.9

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Pretimed Dual Side Street - Excl Ped_AM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13	B13
Directions Served	LR	L	T	TR	T	
Maximum Queue (ft)	385	68	144	408	12	14
Average Queue (ft)	207	37	48	231	1	1
95th Queue (ft)	330	69	113	365	7	8
Link Distance (ft)	705		120	522	203	203
Upstream Blk Time (%)			1			
Queuing Penalty (veh)			4			
Storage Bay Dist (ft)		40				
Storage Blk Time (%)		7	7			
Queuing Penalty (veh)		26	5			

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	57	74	405	60	114
Average Queue (ft)	12	21	209	21	43
95th Queue (ft)	36	54	331	51	91
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				2	6
Queuing Penalty (veh)				8	2

Zone Summary

Zone wide Queuing Penalty: 46

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street-Conc Peds_AM Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	29.7	7.4	4.2	12.1	13.6

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	23.8	25.2	14.3	5.7	3.3	10.0

Total Zone Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	299.8

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street-Conc Peds_AM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13	B13
Directions Served	LR	L	T	TR	T	
Maximum Queue (ft)	294	67	105	272	19	21
Average Queue (ft)	140	32	40	139	1	1
95th Queue (ft)	234	64	92	238	10	11
Link Distance (ft)	705		120	522	203	203
Upstream Blk Time (%)			0			
Queuing Penalty (veh)			0			
Storage Bay Dist (ft)		40				
Storage Blk Time (%)		4	7			
Queuing Penalty (veh)		13	5			

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	46	70	285	54	101
Average Queue (ft)	11	20	133	15	34
95th Queue (ft)	34	50	233	45	84
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					1
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				1	5
Queuing Penalty (veh)				4	2

Zone Summary

Zone wide Queuing Penalty: 25

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - LPI_AM Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	27.9	6.8	4.0	12.6	13.0

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	27.8	22.6	13.8	7.6	2.9	9.6

Total Zone Performance

Denied Del/Veh (s)			0.3
Total Del/Veh (s)			248.4

Queuing and Blocking Report Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - LPI_AM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13	B13
Directions Served	LR	L	T	TR	T	
Maximum Queue (ft)	258	67	109	316	8	8
Average Queue (ft)	125	30	41	141	0	0
95th Queue (ft)	211	65	89	256	5	4
Link Distance (ft)	705		120	522	203	203
Upstream Blk Time (%)			0			
Queuing Penalty (veh)			0			
Storage Bay Dist (ft)		40				
Storage Blk Time (%)		4	6			
Queuing Penalty (veh)		13	5			

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	46	59	254	54	92
Average Queue (ft)	12	20	127	15	29
95th Queue (ft)	36	46	216	45	72
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				1	4
Queuing Penalty (veh)				6	1

Zone Summary

Zone wide Queuing Penalty: 26

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - Excl Ped_AM Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	31.2	7.9	4.6	13.7	14.8

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.1
Total Del/Veh (s)	29.1	28.8	15.7	5.3	3.5	10.9

Total Zone Performance

Denied Del/Veh (s)			0.3
Total Del/Veh (s)			289.6

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - Excl Ped_AM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	284	64	110	291
Average Queue (ft)	144	29	43	147
95th Queue (ft)	236	60	93	259
Link Distance (ft)	705		120	522
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			1	
Storage Bay Dist (ft)		40		
Storage Blk Time (%)		4	7	
Queuing Penalty (veh)		14	5	

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	46	66	256	59	84
Average Queue (ft)	13	24	129	18	34
95th Queue (ft)	37	53	215	47	76
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				1	6
Queuing Penalty (veh)				4	2

Zone Summary

Zone wide Queuing Penalty: 26

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street-Conc Peds-SB RT_AM Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	SB	All
Movements Served	LR	L	T	T	R	
Denied Del/Veh (s)						0.1
Total Del/Veh (s)	26.3	6.2	4.2	11.5	1.1	11.8

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.1
Total Del/Veh (s)	25.5	22.0	14.9	5.4	3.2	9.8

Total Zone Performance

Denied Del/Veh (s)		0.3
Total Del/Veh (s)		256.9

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street-Conc Peds-SB RT_AM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	SB
Directions Served	LR	L	T	T	R
Maximum Queue (ft)	235	64	120	242	148
Average Queue (ft)	129	29	38	120	28
95th Queue (ft)	209	60	92	212	106
Link Distance (ft)	692		120	520	
Upstream Blk Time (%)			0		
Queuing Penalty (veh)			1		
Storage Bay Dist (ft)		40			100
Storage Blk Time (%)		3	6	10	0
Queuing Penalty (veh)		11	5	10	0

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	46	59	244	58	104
Average Queue (ft)	10	19	126	17	33
95th Queue (ft)	32	49	202	47	82
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					1
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				1	5
Queuing Penalty (veh)				4	2

Zone Summary

Zone wide Queuing Penalty: 34

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - LPI-SB RT_AM Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	SB	All
Movements Served	LR	L	T	T	R	
Denied Del/Veh (s)						0.1
Total Del/Veh (s)	25.4	5.7	4.2	12.4	0.9	11.9

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	26.8	24.0	14.4	7.4	2.8	9.8

Total Zone Performance

Denied Del/Veh (s)			0.3			
Total Del/Veh (s)			254.3			

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - LPI-SB RT_AM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NE	SB	SB	B13	B13
Directions Served	LR	L	T	T	R	T	
Maximum Queue (ft)	257	65	114	278	173	11	4
Average Queue (ft)	128	29	39	119	27	0	0
95th Queue (ft)	213	61	90	211	102	8	3
Link Distance (ft)	692		120	520		203	203
Upstream Blk Time (%)			0				
Queuing Penalty (veh)			1				
Storage Bay Dist (ft)		40			100		
Storage Blk Time (%)		3	7	12			
Queuing Penalty (veh)		12	5	11			

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	41	71	245	63	80
Average Queue (ft)	10	23	129	18	28
95th Queue (ft)	32	54	219	47	69
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				2	4
Queuing Penalty (veh)				6	1

Zone Summary

Zone wide Queuing Penalty: 36

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - Excl Ped-SB RT_AM Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	SB	All
Movements Served	LR	L	T	T	R	
Denied Del/Veh (s)						0.1
Total Del/Veh (s)	30.6	6.5	4.8	13.5	1.2	13.5

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	26.2	27.1	16.0	7.1	3.4	10.9

Total Zone Performance

Denied Del/Veh (s)			0.3			
Total Del/Veh (s)			307.8			

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - Excl Ped-SB RT_AM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	SB	B13
Directions Served	LR	L	T	T	R	T
Maximum Queue (ft)	371	66	113	295	175	8
Average Queue (ft)	138	30	46	123	32	0
95th Queue (ft)	261	63	97	226	117	4
Link Distance (ft)	692		120	520		203
Upstream Blk Time (%)			0			
Queuing Penalty (veh)			1			
Storage Bay Dist (ft)		40			100	
Storage Blk Time (%)		3	9	12		
Queuing Penalty (veh)		12	6	12		

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	41	59	256	56	91
Average Queue (ft)	9	22	135	16	33
95th Queue (ft)	31	51	224	45	77
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				2	6
Queuing Penalty (veh)				6	2

Zone Summary

Zone wide Queuing Penalty: 38

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	45.2	24.3	7.5	21.2	21.7

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	47.1	47.7	22.4	11.4	3.9	16.1

Total Zone Performance

Denied Del/Veh (s)		0.4
Total Del/Veh (s)		344.8

Queuing and Blocking Report

Glens Falls Intersection Evaluation

2018 Existing_Midday Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13	B13
Directions Served	LR	L	T	TR	T	
Maximum Queue (ft)	376	69	150	538	100	55
Average Queue (ft)	206	43	79	271	9	4
95th Queue (ft)	333	75	146	461	52	25
Link Distance (ft)	705		120	522	203	203
Upstream Blk Time (%)			6	0	0	
Queuing Penalty (veh)			36	4	0	
Storage Bay Dist (ft)		40				
Storage Blk Time (%)		15	20			
Queuing Penalty (veh)		80	16			

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	51	95	479	60	120
Average Queue (ft)	14	38	230	19	53
95th Queue (ft)	41	81	386	51	106
Link Distance (ft)	900	900	888		120
Upstream Blk Time (%)					1
Queuing Penalty (veh)					3
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				2	8
Queuing Penalty (veh)				9	2

Zone Summary

Zone wide Queuing Penalty: 150

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10_Midday Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	47.4	28.5	8.3	25.1	24.2

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.3
Total Del/Veh (s)	47.6	56.9	21.9	13.7	4.1	16.3

Total Zone Performance

Denied Del/Veh (s)			0.5
Total Del/Veh (s)			374.9

Queuing and Blocking Report
Glens Falls Intersection Evaluation

ETC+10_Midday Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13	B13
Directions Served	LR	L	T	TR	T	
Maximum Queue (ft)	413	69	163	582	142	80
Average Queue (ft)	215	50	93	332	16	6
95th Queue (ft)	356	78	165	550	80	42
Link Distance (ft)	705		120	522	203	203
Upstream Blk Time (%)			8	2	0	
Queuing Penalty (veh)			52	19	1	
Storage Bay Dist (ft)		40				
Storage Blk Time (%)		23	22			
Queuing Penalty (veh)		129	18			

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	55	117	394	61	120
Average Queue (ft)	11	43	243	21	59
95th Queue (ft)	36	95	366	52	118
Link Distance (ft)	900	900	888		120
Upstream Blk Time (%)					1
Queuing Penalty (veh)					4
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				3	9
Queuing Penalty (veh)				14	3

Zone Summary

Zone wide Queuing Penalty: 239

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Pretimed Dual Side Street-Conc Peds_Noon Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.3
Total Del/Veh (s)	52.6	20.1	4.7	38.5	30.4

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	25.6	22.1	25.7	9.4	3.9	15.8

Total Zone Performance

Denied Del/Veh (s)			0.8
Total Del/Veh (s)			393.3

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Pretimed Dual Side Street-Conc Peds_Noon Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13	B13	B11	B11
Directions Served	LR	L	T	TR	T		T	T
Maximum Queue (ft)	412	69	156	578	237	160	52	32
Average Queue (ft)	231	43	61	413	58	37	7	4
95th Queue (ft)	388	75	134	652	214	158	52	42
Link Distance (ft)	705		120	522	203	203	232	232
Upstream Blk Time (%)			2	12	7	1		
Queuing Penalty (veh)			12	100	30	6		
Storage Bay Dist (ft)		40						
Storage Blk Time (%)		15	8					
Queuing Penalty (veh)		82	7					

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	45	72	440	64	116
Average Queue (ft)	10	23	241	18	53
95th Queue (ft)	32	56	389	50	103
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					1
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				2	8
Queuing Penalty (veh)				9	2

Zone Summary

Zone wide Queuing Penalty: 249

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Pretimed Dual Side Street - LPI_Noon Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					1.8
Total Del/Veh (s)	98.6	23.7	6.6	82.1	59.5

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	36.4	43.7	60.5	13.3	4.0	34.9

Total Zone Performance

Denied Del/Veh (s)			3.4			
Total Del/Veh (s)			781.3			

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Pretimed Dual Side Street - LPI_Noon Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13	B13	B11	B11
Directions Served	LR	L	T	TR	T		T	T
Maximum Queue (ft)	602	69	162	621	301	306	306	290
Average Queue (ft)	338	48	81	596	276	272	225	218
95th Queue (ft)	625	79	165	607	288	305	331	337
Link Distance (ft)	705		120	522	203	203	232	232
Upstream Blk Time (%)	2		5	61	95	69	31	30
Queuing Penalty (veh)	0		29	511	400	291	132	126
Storage Bay Dist (ft)		40						
Storage Blk Time (%)		17	16					
Queuing Penalty (veh)		93	13					

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	54	114	815	62	115
Average Queue (ft)	11	35	415	19	50
95th Queue (ft)	37	89	766	52	102
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					2
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				2	8
Queuing Penalty (veh)				9	2

Zone Summary

Zone wide Queuing Penalty: 1609

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Pretimed Dual Side Street - Excl Ped_Noon Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					6.1
Total Del/Veh (s)	108.0	24.2	7.3	87.2	63.0

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	37.2	39.9	93.6	13.7	4.2	52.4

Total Zone Performance

Denied Del/Veh (s)		10.7
Total Del/Veh (s)		854.7

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Pretimed Dual Side Street - Excl Ped_Noon Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13	B13	B11	B11
Directions Served	LR	L	T	TR	T		T	T
Maximum Queue (ft)	564	69	164	625	301	299	317	322
Average Queue (ft)	352	52	91	597	277	275	253	255
95th Queue (ft)	596	78	173	611	290	287	298	310
Link Distance (ft)	705		120	522	203	203	232	232
Upstream Blk Time (%)	3		5	62	98	76	52	54
Queuing Penalty (veh)	0		32	527	413	321	220	229
Storage Bay Dist (ft)		40						
Storage Blk Time (%)		18	18					
Queuing Penalty (veh)		99	14					

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	54	93	889	58	124
Average Queue (ft)	10	37	579	17	51
95th Queue (ft)	34	79	1018	48	99
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					1
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				2	8
Queuing Penalty (veh)				8	2

Zone Summary

Zone wide Queuing Penalty: 1867

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street-Conc Peds_Noon Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.2
Total Del/Veh (s)	47.3	18.6	5.4	28.9	24.9

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	33.5	33.5	19.0	10.2	4.2	13.4

Total Zone Performance

Denied Del/Veh (s)		0.5
Total Del/Veh (s)		361.1

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street-Conc Peds_Noon Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13	B13	B11	B11
Directions Served	LR	L	T	TR	T		T	T
Maximum Queue (ft)	406	68	154	598	196	164	47	46
Average Queue (ft)	211	43	71	338	28	19	3	2
95th Queue (ft)	369	72	134	577	142	116	32	29
Link Distance (ft)	705		120	522	203	203	232	232
Upstream Blk Time (%)			2	5	3	1		
Queuing Penalty (veh)			13	39	12	4		
Storage Bay Dist (ft)		40						
Storage Blk Time (%)		12	15					
Queuing Penalty (veh)		66	12					

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NE	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	45	101	373	65	109
Average Queue (ft)	10	34	199	19	50
95th Queue (ft)	32	75	321	51	102
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					2
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				1	10
Queuing Penalty (veh)				8	3

Zone Summary

Zone wide Queuing Penalty: 158

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - LPI_Noon Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.2
Total Del/Veh (s)	42.5	19.8	5.6	27.4	23.6

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	38.9	34.5	22.6	11.2	4.1	15.0

Total Zone Performance

Denied Del/Veh (s)		0.6
Total Del/Veh (s)		331.5

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - LPI_Noon Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13	B13	B11
Directions Served	LR	L	T	TR	T		T
Maximum Queue (ft)	348	69	147	590	153	125	5
Average Queue (ft)	205	43	65	330	25	13	0
95th Queue (ft)	310	72	128	574	122	80	5
Link Distance (ft)	705		120	522	203	203	232
Upstream Blk Time (%)			1	5	1	0	
Queuing Penalty (veh)			8	43	4	1	
Storage Bay Dist (ft)		40					
Storage Blk Time (%)		13	15				
Queuing Penalty (veh)		71	12				

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	41	76	434	64	121
Average Queue (ft)	10	31	220	19	51
95th Queue (ft)	31	66	368	52	99
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					2
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				2	9
Queuing Penalty (veh)				11	3

Zone Summary

Zone wide Queuing Penalty: 154

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - Excl Ped_Noon Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.2
Total Del/Veh (s)	53.0	21.8	6.1	42.7	32.8

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	37.4	37.4	25.1	13.2	4.6	16.9

Total Zone Performance

Denied Del/Veh (s)		0.6
Total Del/Veh (s)		411.1

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - Excl Ped_Noon Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13	B13	B11	B11
Directions Served	LR	L	T	TR	T		T	T
Maximum Queue (ft)	497	69	153	605	244	189	128	113
Average Queue (ft)	227	47	73	422	95	71	37	31
95th Queue (ft)	394	77	143	696	287	248	166	153
Link Distance (ft)	705		120	522	203	203	232	232
Upstream Blk Time (%)	0		3	19	19	11	2	2
Queuing Penalty (veh)	0		22	156	82	47	10	7
Storage Bay Dist (ft)		40						
Storage Blk Time (%)		15	15					
Queuing Penalty (veh)		81	12					

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	50	111	443	65	128
Average Queue (ft)	13	36	234	19	54
95th Queue (ft)	38	84	398	51	109
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					1
Queuing Penalty (veh)					4
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				2	11
Queuing Penalty (veh)				9	3

Zone Summary

Zone wide Queuing Penalty: 433

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street-Conc Peds-SB RT_Noon Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	SB	All
Movements Served	LR	L	T	T	R	
Denied Del/Veh (s)						0.1
Total Del/Veh (s)	37.1	11.3	5.9	16.0	1.4	14.9

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	24.9	32.0	20.7	13.4	3.6	14.0

Total Zone Performance

Denied Del/Veh (s)		0.4
Total Del/Veh (s)		250.5

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street-Conc Peds-SB RT_Noon Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	SB	B13	B13
Directions Served	LR	L	T	T	R	T	
Maximum Queue (ft)	324	69	139	427	175	134	70
Average Queue (ft)	182	39	70	184	84	10	4
95th Queue (ft)	292	70	133	339	202	65	30
Link Distance (ft)	692		120	520		203	203
Upstream Blk Time (%)			3	0		0	
Queuing Penalty (veh)			18	3		0	
Storage Bay Dist (ft)		40			100		
Storage Blk Time (%)		8	16	20	0		
Queuing Penalty (veh)		43	13	46	0		

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	32	109	425	63	120
Average Queue (ft)	10	37	206	19	51
95th Queue (ft)	30	84	346	51	106
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					1
Queuing Penalty (veh)					4
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				2	9
Queuing Penalty (veh)				13	3

Zone Summary

Zone wide Queuing Penalty: 143

SimTraffic Performance Report

Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - LPISB RT_Noon Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	SB	All
Movements Served	LR	L	T	T	R	
Denied Del/Veh (s)						0.1
Total Del/Veh (s)	38.9	10.8	5.3	18.6	1.6	15.8

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	27.2	30.8	20.0	11.6	3.5	13.4

Total Zone Performance

Denied Del/Veh (s)		0.4
Total Del/Veh (s)		246.0

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - LPISB RT_Noon Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	SB	B13	B13	B11
Directions Served	LR	L	T	T	R	T		T
Maximum Queue (ft)	354	68	137	491	175	91	45	14
Average Queue (ft)	184	36	66	223	94	7	2	0
95th Queue (ft)	314	71	127	398	215	47	18	10
Link Distance (ft)	692		120	520		203	203	232
Upstream Blk Time (%)			2	0				
Queuing Penalty (veh)			12	1				
Storage Bay Dist (ft)		40			100			
Storage Blk Time (%)		7	14	25	0			
Queuing Penalty (veh)		37	11	56	0			

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	46	80	404	60	120
Average Queue (ft)	11	32	205	20	46
95th Queue (ft)	33	69	337	52	101
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					2
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				2	7
Queuing Penalty (veh)				10	2

Zone Summary

Zone wide Queuing Penalty: 133

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - Excl Ped-SB RT_Noon Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	SB	All
Movements Served	LR	L	T	T	R	
Denied Del/Veh (s)						0.1
Total Del/Veh (s)	47.5	12.8	6.3	19.8	1.6	18.5

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	26.7	32.6	24.7	13.4	3.6	15.7

Total Zone Performance

Denied Del/Veh (s)		0.4
Total Del/Veh (s)		288.5

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - Excl Ped-SB RT_Noon Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	SB	B13	B13
Directions Served	LR	L	T	T	R	T	
Maximum Queue (ft)	424	69	137	460	175	156	78
Average Queue (ft)	214	38	73	218	92	16	6
95th Queue (ft)	370	72	136	413	210	85	51
Link Distance (ft)	692		120	520		203	203
Upstream Blk Time (%)			3	0		0	0
Queuing Penalty (veh)			18	2		1	0
Storage Bay Dist (ft)		40			100		
Storage Blk Time (%)		8	16	26	0		
Queuing Penalty (veh)		44	13	59	0		

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	53	97	452	65	126
Average Queue (ft)	11	31	228	20	46
95th Queue (ft)	36	73	386	53	98
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					2
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				3	9
Queuing Penalty (veh)				14	3

Zone Summary

Zone wide Queuing Penalty: 156

SimTraffic Performance Report
Glens Falls Intersection Evaluation

2018 Existing_PM Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	40.0	42.2	11.8	49.9	36.7

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	43.3	147.5	41.7	13.0	5.2	33.2

Total Zone Performance

Denied Del/Veh (s)		0.4
Total Del/Veh (s)		568.8

Queuing and Blocking Report

Glens Falls Intersection Evaluation

2018 Existing_PM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13	B13	B11	B11
Directions Served	LR	L	T	TR	T		T	T
Maximum Queue (ft)	312	69	166	602	282	281	237	205
Average Queue (ft)	162	59	122	536	163	127	58	48
95th Queue (ft)	269	82	180	717	350	318	206	182
Link Distance (ft)	705		120	522	203	203	232	232
Upstream Blk Time (%)			25	30	33	17	2	1
Queuing Penalty (veh)			176	288	156	82	8	6
Storage Bay Dist (ft)		40						
Storage Blk Time (%)		44	26					
Queuing Penalty (veh)		266	29					

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	92	260	820	66	120
Average Queue (ft)	19	120	344	19	70
95th Queue (ft)	54	247	646	53	121
Link Distance (ft)	1377	1377	1405		120
Upstream Blk Time (%)					1
Queuing Penalty (veh)					8
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				2	15
Queuing Penalty (veh)				12	4

Zone Summary

Zone wide Queuing Penalty: 1035

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Exiting Conditions_PM Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	38.4	44.1	13.2	53.4	38.3

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.4
Total Del/Veh (s)	59.6	492.8	97.8	14.1	5.5	82.5

Total Zone Performance

Denied Del/Veh (s)		0.6
Total Del/Veh (s)		819.8

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Exiting Conditions_PM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13	B13	B11	B11
Directions Served	LR	L	T	TR	T		T	T
Maximum Queue (ft)	312	69	166	617	306	296	321	298
Average Queue (ft)	162	62	138	573	225	202	132	121
95th Queue (ft)	258	79	171	683	387	387	308	296
Link Distance (ft)	705		120	522	203	203	232	232
Upstream Blk Time (%)			35	39	64	38	7	6
Queuing Penalty (veh)			261	393	321	192	36	28
Storage Bay Dist (ft)		40						
Storage Blk Time (%)		51	28					
Queuing Penalty (veh)		327	32					

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	218	515	1280	69	128
Average Queue (ft)	32	335	683	21	80
95th Queue (ft)	148	793	1337	57	129
Link Distance (ft)	2032	2032	2434		120
Upstream Blk Time (%)					1
Queuing Penalty (veh)					9
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				2	17
Queuing Penalty (veh)				13	5

Zone Summary

Zone wide Queuing Penalty: 1616

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Pretimed Dual Side Street-Conc Peds_PM Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	53.0	26.2	6.9	49.6	35.4

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.3
Total Del/Veh (s)	30.4	35.1	32.7	11.0	3.7	19.8

Total Zone Performance

Denied Del/Veh (s)			0.5
Total Del/Veh (s)			465.0

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Pretimed Dual Side Street-Conc Peds_PM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13	B13	B11	B11
Directions Served	LR	L	T	TR	T		T	T
Maximum Queue (ft)	348	69	165	613	261	234	217	216
Average Queue (ft)	179	57	102	545	187	157	82	73
95th Queue (ft)	309	79	177	719	377	348	246	236
Link Distance (ft)	705		120	522	203	203	232	232
Upstream Blk Time (%)			9	35	46	23	4	3
Queuing Penalty (veh)			64	349	229	116	19	17
Storage Bay Dist (ft)		40						
Storage Blk Time (%)		28	16					
Queuing Penalty (veh)		181	18					

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	66	120	627	66	109
Average Queue (ft)	16	53	315	19	53
95th Queue (ft)	46	103	535	51	103
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				2	8
Queuing Penalty (veh)				14	3

Zone Summary

Zone wide Queuing Penalty: 1011

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Pretimed Dual Side Street - LPI_PM Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.5
Total Del/Veh (s)	188.6	26.4	9.0	69.7	65.6

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						9.3
Total Del/Veh (s)	38.8	49.5	174.1	13.5	3.9	90.2

Total Zone Performance

Denied Del/Veh (s)	12.1
Total Del/Veh (s)	1007.5

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Pretimed Dual Side Street - LPI_PM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13	B13	B11	B11
Directions Served	LR	L	T	TR	T		T	T
Maximum Queue (ft)	615	69	167	618	303	304	291	291
Average Queue (ft)	446	61	124	596	277	275	254	258
95th Queue (ft)	790	78	188	609	290	287	272	283
Link Distance (ft)	705		120	522	203	203	232	232
Upstream Blk Time (%)	9		13	55	97	72	46	50
Queuing Penalty (veh)	0		95	553	488	364	229	251
Storage Bay Dist (ft)		40						
Storage Blk Time (%)		30	21					
Queuing Penalty (veh)		191	24					

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	66	139	1368	67	112
Average Queue (ft)	16	63	1035	19	55
95th Queue (ft)	46	121	2142	50	105
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)			13		0
Queuing Penalty (veh)			0		1
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				2	9
Queuing Penalty (veh)				11	3

Zone Summary

Zone wide Queuing Penalty: 2212

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Pretimed Dual Side Street - Excl Ped_PM Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					3.3
Total Del/Veh (s)	250.9	24.7	8.8	79.9	79.4

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						16.0
Total Del/Veh (s)	44.9	61.2	262.1	17.5	4.2	138.3

Total Zone Performance

Denied Del/Veh (s)	24.6
Total Del/Veh (s)	1269.4

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Pretimed Dual Side Street - Excl Ped_PM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13	B13	B11	B11
Directions Served	LR	L	T	TR	T		T	T
Maximum Queue (ft)	697	69	177	635	312	301	315	304
Average Queue (ft)	530	59	122	598	280	275	255	259
95th Queue (ft)	875	77	189	615	299	285	282	292
Link Distance (ft)	705		120	522	203	203	232	232
Upstream Blk Time (%)	31		10	60	97	75	51	51
Queuing Penalty (veh)	0		74	598	487	375	256	256
Storage Bay Dist (ft)		40						
Storage Blk Time (%)		26	21					
Queuing Penalty (veh)		168	25					

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	70	161	1797	66	123
Average Queue (ft)	20	73	1494	21	52
95th Queue (ft)	57	141	2601	58	105
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)			28		0
Queuing Penalty (veh)			0		1
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				3	9
Queuing Penalty (veh)				17	3

Zone Summary

Zone wide Queuing Penalty: 2260

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street-Conc Peds_PM Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	46.8	24.8	7.3	38.2	29.0

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.4
Total Del/Veh (s)	32.4	43.1	31.8	11.9	4.3	20.2

Total Zone Performance

Denied Del/Veh (s)			0.5
Total Del/Veh (s)			406.2

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street-Conc Peds_PM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	SB	B13	B13	B11	B11
Directions Served	LR	L	T	TR	T	T	T
Maximum Queue (ft)	299	69	162	615	271	246	105
Average Queue (ft)	166	55	104	466	106	78	39
95th Queue (ft)	264	80	169	710	295	256	179
Link Distance (ft)	705		120	522	203	203	232
Upstream Blk Time (%)			9	18	19	10	4
Queuing Penalty (veh)			67	185	97	51	18
Storage Bay Dist (ft)		40					
Storage Blk Time (%)		26	18				
Queuing Penalty (veh)		164	20				

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	50	128	731	69	115
Average Queue (ft)	17	58	297	20	60
95th Queue (ft)	44	112	636	54	108
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					1
Queuing Penalty (veh)					3
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				2	12
Queuing Penalty (veh)				14	4

Zone Summary

Zone wide Queuing Penalty: 640

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - LPI_PM Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	61.0	23.8	7.1	40.0	31.5

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.3
Total Del/Veh (s)	30.9	42.4	31.1	14.5	4.4	20.0

Total Zone Performance

Denied Del/Veh (s)		0.5
Total Del/Veh (s)		426.7

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - LPI_PM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13	B13	B11	B11
Directions Served	LR	L	T	TR	T		T	T
Maximum Queue (ft)	371	69	168	624	295	277	179	151
Average Queue (ft)	189	55	106	475	116	82	34	29
95th Queue (ft)	332	81	178	710	304	259	154	144
Link Distance (ft)	705		120	522	203	203	232	232
Upstream Blk Time (%)			9	20	21	10	2	2
Queuing Penalty (veh)			67	198	105	48	8	8
Storage Bay Dist (ft)		40						
Storage Blk Time (%)		25	16					
Queuing Penalty (veh)		161	19					

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	58	124	593	64	119
Average Queue (ft)	17	53	293	21	61
95th Queue (ft)	47	106	540	56	112
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					3
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				3	12
Queuing Penalty (veh)				20	4

Zone Summary

Zone wide Queuing Penalty: 641

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - Excl Ped_PM Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	All
Movements Served	LR	L	T	TR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	87.0	24.7	7.3	54.9	42.9

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.4
Total Del/Veh (s)	32.7	54.8	36.5	11.7	5.1	23.9

Total Zone Performance

Denied Del/Veh (s)		0.6
Total Del/Veh (s)		510.7

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - Excl Ped_PM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	B13	B13	B11	B11
Directions Served	LR	L	T	TR	T		T	T
Maximum Queue (ft)	455	69	167	617	302	297	297	287
Average Queue (ft)	251	56	110	567	243	237	206	205
95th Queue (ft)	443	79	181	711	386	388	363	366
Link Distance (ft)	705		120	522	203	203	232	232
Upstream Blk Time (%)			9	44	82	56	26	26
Queuing Penalty (veh)			68	442	411	282	130	132
Storage Bay Dist (ft)		40						
Storage Blk Time (%)		25	18					
Queuing Penalty (veh)		160	21					

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	59	190	786	67	126
Average Queue (ft)	15	72	326	23	67
95th Queue (ft)	44	162	645	59	119
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					1
Queuing Penalty (veh)					3
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				3	16
Queuing Penalty (veh)				16	5

Zone Summary

Zone wide Queuing Penalty: 1670

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street-Conc Peds-SB RT_PM Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	SB	All
Movements Served	LR	L	T	T	R	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	38.2	11.8	5.6	15.9	1.8	13.4

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.3
Total Del/Veh (s)	29.1	34.7	21.9	13.3	3.3	14.6

Total Zone Performance

Denied Del/Veh (s)		0.5
Total Del/Veh (s)		245.2

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street-Conc Peds-SB RT_PM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	SB	B13	B13	B11
Directions Served	LR	L	T	T	R	T		T
Maximum Queue (ft)	248	69	151	488	175	139	51	3
Average Queue (ft)	148	48	86	205	98	16	4	0
95th Queue (ft)	234	77	147	372	212	76	26	2
Link Distance (ft)	692		120	520		203	203	232
Upstream Blk Time (%)			3	0		0		
Queuing Penalty (veh)			25	1		0		
Storage Bay Dist (ft)		40			100			
Storage Blk Time (%)		12	14	22	0			
Queuing Penalty (veh)		74	17	63	1			

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	54	137	487	57	113
Average Queue (ft)	14	50	230	20	53
95th Queue (ft)	41	103	408	48	97
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					1
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				2	9
Queuing Penalty (veh)				10	3

Zone Summary

Zone wide Queuing Penalty: 194

SimTraffic Performance Report
Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - LPI-SB RT_PM Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	SB	All
Movements Served	LR	L	T	T	R	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	47.6	11.3	5.5	16.6	1.8	14.9

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.3
Total Del/Veh (s)	30.0	31.9	17.9	12.7	3.5	12.9

Total Zone Performance

Denied Del/Veh (s)		0.5
Total Del/Veh (s)		230.9

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - LPI-SB RT_PM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	SB	B13	B13
Directions Served	LR	L	T	T	R	T	
Maximum Queue (ft)	339	69	153	540	175	205	118
Average Queue (ft)	162	45	82	207	90	25	9
95th Queue (ft)	276	79	147	407	202	110	54
Link Distance (ft)	692		120	520		203	203
Upstream Blk Time (%)			3	1		0	0
Queuing Penalty (veh)			25	7		1	0
Storage Bay Dist (ft)		40			100		
Storage Blk Time (%)		12	14	23	0		
Queuing Penalty (veh)		75	17	65	0		

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	57	114	380	52	114
Average Queue (ft)	16	53	199	18	55
95th Queue (ft)	44	100	330	48	103
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					2
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				2	9
Queuing Penalty (veh)				14	3

Zone Summary

Zone wide Queuing Penalty: 208

SimTraffic Performance Report

Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - Excl Ped-SB RT_PM Peak

2: US Route 9 & Fire Road Performance by lane

Lane	EB	NB	NB	SB	SB	All
Movements Served	LR	L	T	T	R	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	59.4	12.9	6.2	20.2	2.1	18.1

3: US Route 9 & Webster Avenue Performance by lane

Lane	WB	WB	NB	SB	SB	All
Movements Served	L	R	TR	L	T	
Denied Del/Veh (s)						0.3
Total Del/Veh (s)	33.4	46.7	25.7	15.4	3.7	17.5

Total Zone Performance

Denied Del/Veh (s)		0.5
Total Del/Veh (s)		304.2

Queuing and Blocking Report

Glens Falls Intersection Evaluation

ETC+10 Actuated Dual Side Street - Excl Ped-SB RT_PM Peak

Intersection: 2: US Route 9 & Fire Road

Movement	EB	NB	NB	SB	SB	B13	B13	B11	B11
Directions Served	LR	L	T	T	R	T		T	T
Maximum Queue (ft)	374	69	152	559	175	185	88	17	16
Average Queue (ft)	189	50	92	253	109	25	10	1	1
95th Queue (ft)	320	79	153	459	221	107	51	9	12
Link Distance (ft)	692		120	520		203	203	232	232
Upstream Blk Time (%)			5	1		0	0		
Queuing Penalty (veh)			37	8		2	0		
Storage Bay Dist (ft)		40			100				
Storage Blk Time (%)		15	16	27	0				
Queuing Penalty (veh)		94	19	78	1				

Intersection: 3: US Route 9 & Webster Avenue

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	57	149	559	61	121
Average Queue (ft)	18	61	254	25	56
95th Queue (ft)	47	122	453	56	103
Link Distance (ft)	1540	1540	2229		120
Upstream Blk Time (%)					0
Queuing Penalty (veh)					2
Storage Bay Dist (ft)				40	
Storage Blk Time (%)				4	9
Queuing Penalty (veh)				22	3

Zone Summary

Zone wide Queuing Penalty: 266