



KWH Enterprise, LLC
277 Reservoir Avenue, Suite 1101
Meriden, CT 06451
Phone: (203) 807-5482
Cell: (203) 606-3525
kermit.hua@kwhenterprise.com

December 18, 2025

Dennis Goderre PLA, AICP CUD
Director of Land Use and Development
Town of Montville
310 Norwich-New London Tpke.
Uncasville, CT 06382

Reference: Traffic Evaluation of Discontinuing PTA Lane, Montville, Connecticut

Dear Dennis:

Thank you for asking me to prepare a traffic evaluation of discontinuing PTA Lane in Montville, Connecticut.

Summary

- Traffic operations of the Golden Road intersection and the PTA Lane intersection along Route 32 during weekday and Saturday peak hours were analyzed.
- There is no excessive traffic delay at the Golden Road intersection or at the PTA Lane intersection under the current conditions. All traffic movements at the two intersections are operating at acceptable LOS D or better during the peak hours.
- At the nearby Mohegan School, most parents currently park their cars and walk children to and from the school building during drop-off and pickup time. There is no excessive queuing of buses or parent vehicles on the site.
- The future conditions of the analysis take into account the increases in traffic volumes on Route 32 from three potential area developments and the effects of discontinuing PTA Lane. This future traffic scenario assumed that the development site at PTA Lane will not be connected to Golden Road.
- After PTA Lane is discontinued, the westbound traffic on Golden Road will experience delays and LOS (level of service) F during the weekday afternoon peak hour of the school.
- I recommend the widening of Golden Road at the Route 32 intersection to include a 100-foot-long left-turn lane to address the traffic delays. After this widening, all traffic movements at the Golden Road intersection will operate at acceptable LOS D or better during the peak hours. After PTA Lane is discontinued, a turnaround cul-de-sac is recommended at the southern end of the onsite connector road to allow parents to return to Golden Road in an orderly fashion.



Reference: Traffic Evaluation of Discontinuing PTA Lane, Montville, Connecticut

Traffic Evaluation

This traffic evaluation covers the peak-hour traffic operations at two adjacent intersections on Route 32—the intersection of Route 32 and PTA Lane and the intersection of Route 32 and Golden Road—under the existing conditions and the future conditions after PTA Lane is discontinued.

I observed the weekday drop-off and pickup operations at the nearby Mohegan School in December 2025. Most parents parked in the large parking lot west of the school building or on the connector road west of the parking lot and walked the children to and from the school entrances. The rest of the children were dropped off and picked up along the curbside in front of the school building when the parent vehicles formed a short line. The school operates several buses. These buses have a separate circulation loop and usually don't arrive at the same time. There is no excessive queuing of school buses or parent vehicles on the site. After PTA Lane is discontinued, a turnaround cul-de-sac is recommended at the southern end of the connector road to allow parents to return to Golden Road in an orderly fashion.

Traffic counts were collected at the two intersections in May 2024 and November 2025. A seasonal adjustment factor of 1.14 and an annual growth rate of 0.6 percent were applied to the May 2024 counts to generate the 2025 traffic volumes during the peak summer month. A seasonal adjustment factor of 1.29 were applied to the November 2025 counts to generate the 2025 traffic volumes during the peak summer month. The seasonal adjustment factors were based on CTDOT information that is included in the Appendices. The annual traffic growth rate was recommended by the CTDOT Bureau of Policy and Planning.

Traffic operations during four peak hours were analyzed: the weekday morning peak commute hour, which does not coincide with the morning drop-off time of the Mohegan School; the weekday afternoon peak hour of the Mohegan School; the weekday afternoon peak commute hour; and the Saturday midday peak hour. The peak-hour volumes for the 2025 existing conditions are shown in Figures 1, 2, 3, and 4 of the Appendices. The peak-hour volumes after PTA Lane is discontinued are shown in Figures 5, 6, 7, and 8.

Table 1 details the capacity analysis results for the existing traffic conditions during the four peak hours. All traffic movements and intersections are operating at acceptable LOS (levels of service) D or better. There are no excessive traffic delays during the four peak hours.

Table 1 Capacity Analyses for Existing Conditions

Intersection	2025 Existing Conditions							
	Weekday Morning Peak Hour of Streets		Weekday Afternoon Peak Hour of School		Weekday Afternoon Peak Hour of Streets		Saturday Midday Peak Hour of Streets	
	Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS
Rt. 32, Montville Commons Rd., and Golden Rd. (Signalized)								
EB Montville Commons Rd. Left Turn and Through	32.2	C	39.2	D	39.2	D	44.2	D
EB Montville Commons Rd. Right Turn	30.8	C	37.1	D	37.1	D	41.7	D
WB Golden Rd.	31.8	C	51.5	D	41.6	D	45.4	D
NB Rt. 32 Left Turn	8.1	A	8.8	A	7.6	A	8.4	A
NB Rt. 32 Through and Right Turn	16.5	B	21.8	C	20.0	B	17.4	B
SB Rt. 32 Left Turn	7.4	A	11.8	B	10.8	B	9.5	A
SB Rt. 32 Through and Right Turn	11.1	B	15.4	B	13.6	B	13.5	B
Intersection	14.8	B	22.8	C	19.7	B	20.2	C
Rt. 32 and PTA Ln. (Unsignalized)								
WB PTA Ln.	20.2	C	21.1	C	21.8	C	15.3	C
SB Rt. 32 Left Turn	9.1	A	9.2	A	0.0	A	0.0	A

EB Eastbound
 WB Westbound
 NB Northbound
 SB Southbound
 LOS Level of Service

Table 2 shows the capacity analysis results for the traffic conditions after PTA Lane is discontinued. The traffic volumes at the intersection of Route 32 and Golden Road were adjusted to reflect discontinuing PTA Lane and the increases in traffic volumes on Route 32 generated by three potential developments in the area.

The three potential developments in the area include the approved 200-unit apartment site at 1758 and 1790 Norwich New London Turnpike, a gas station on Route 32 to the north, and a development near the existing PTA Lane. An additional traffic volume of 200 vehicles (100 vehicles for each approach of Route 32) was added to the through traffic on Route 32 for each of the four peak hours to reflect the traffic impact of these three developments. For context, the approved 200-unit apartment development is projected to generate 74 and 78 vehicular trips during the respective weekday morning and afternoon peak hours of the streets.

The analysis results in Table 2 show that there will be some increases in traffic delays as a result of the higher traffic volumes at the intersection of Route 32 and Golden Road. Most traffic approaches will continue to operate at acceptable LOS D or better with relatively short

Reference: Traffic Evaluation of Discontinuing PTA Lane, Montville, Connecticut

delays. The exception is the westbound Golden Road approach, which will experience an average delay of 89.5 seconds per vehicle and a LOS F during the weekday afternoon peak hour of the school.

Table 2 Capacity Analyses for Future Conditions After Discontinuing PTA Lane

Intersection	Future Conditions of Discontinuing PTA Lane							
	Weekday Morning Peak Hour of Streets		Weekday Afternoon Peak Hour of School		Weekday Afternoon Peak Hour of Streets		Saturday Midday Peak Hour of Streets	
	Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS	Delay (Sec.)	LOS
Rt. 32, Montville Commons Rd., and Golden Rd. (Signalized)								
EB Montville Commons Rd. Left Turn and Through	32.2	C	39.2	D	39.2	D	44.2	D
EB Montville Commons Rd. Right Turn	30.8	C	37.1	D	37.1	D	41.7	D
WB Golden Rd.	32.1	C	89.5	F	42.2	D	45.7	D
NB Rt. 32 Left Turn	8.2	A	9.4	A	7.9	A	8.6	A
NB Rt. 32 Through and Right Turn	21.5	C	28.6	C	25.6	C	20.2	C
SB Rt. 32 Left Turn	9.1	A	14.7	B	13.4	B	10.8	B
SB Rt. 32 Through and Right Turn	11.7	B	16.6	B	14.6	B	14.2	B
Intersection	17.0	B	30.3	C	22.2	C	21.1	C

EB Eastbound
 WB Westbound
 NB Northbound
 SB Southbound
 LOS Level of Service

I recommend the addition of a westbound left-turn lane on Golden Road at Route 32 to address the traffic delays and the LOS F for this approach. The proposed left-turn lane will measure 100 feet in length, enough to store up to five waiting vehicles. A cursory review of the Town GIS map appears to indicate that there is enough right-of-way width for this widening of Golden Road. The road widening will require the relocation of several utility poles and a pedestrian pedestal north of Golden Road and the installation of a retaining wall and a guiderail between Golden Road and the McDonald’s parking lot.

As shown in Table 3, after the addition of the left-turn lane on Golden Road at the Route 32 intersection, all traffic approaches at this intersection will operate at acceptable LOS D or better during the peak hours. The 100-foot left-turn lane on Golden Road should be able to handle the estimated 95th-percentile left-turn queue of 94 feet during the weekday afternoon peak hour of the school. A 95th-percentile queue refers to a queue associated with a 95th-percentile traffic volume.

Reference: Traffic Evaluation of Discontinuing PTA Lane, Montville, Connecticut

Table 3 Capacity Analyses for Future Conditions with Improvements

Intersection	Future Conditions of Discontinuing PTA Lane with Improvements											
	Weekday Morning Peak Hour of Streets			Weekday Afternoon Peak Hour of School			Weekday Afternoon Peak Hour of Streets			Saturday Midday Peak Hour of Streets		
	Delay (Sec.)	95th-Per. Queue (Ft.)	LOS	Delay (Sec.)	95th-Per. Queue (Ft.)	LOS	Delay (Sec.)	95th-Per. Queue (Ft.)	LOS	Delay (Sec.)	95th-Per. Queue (Ft.)	LOS
Rt. 32, Montville Commons Rd., and Golden Rd. (Signalized)												
EB Montville Commons Rd. Left Turn and Through	32.2	28	C	39.2	72	D	39.2	72	D	44.2	80	D
EB Montville Commons Rd. Right Turn	30.8	0	C	37.1	29	D	37.1	37	D	41.7	43	D
WB Golden Rd. Left Turn	32.8	28	C	40.7	94	D	41.2	51	D	46.4	65	D
WB Golden Rd. Through and Right Turn	31.9	28	C	38.0	65	D	39.8	42	D	44.0	50	D
NB Rt. 32 Left Turn	7.6	21	A	8.8	53	A	7.6	51	A	7.6	56	A
NB Rt. 32 Through and Right Turn	19.4	390	B	26.2	647	C	24.3	675	C	17.9	455	B
SB Rt. 32 Left Turn	8.3	41	A	13.6	46	B	12.8	36	B	9.5	46	A
SB Rt. 32 Through and Right Turn	10.9	141	B	15.7	194	B	14.0	189	B	12.7	164	B
Intersection	15.8	-	B	23.4	-	C	21.4	-	C	19.5	-	B

EB Eastbound
 WB Westbound
 NB Northbound
 SB Southbound
 LOS Level of Service

I appreciate the opportunity to prepare this letter. Should you have any questions or need additional information, please feel free to contact me.

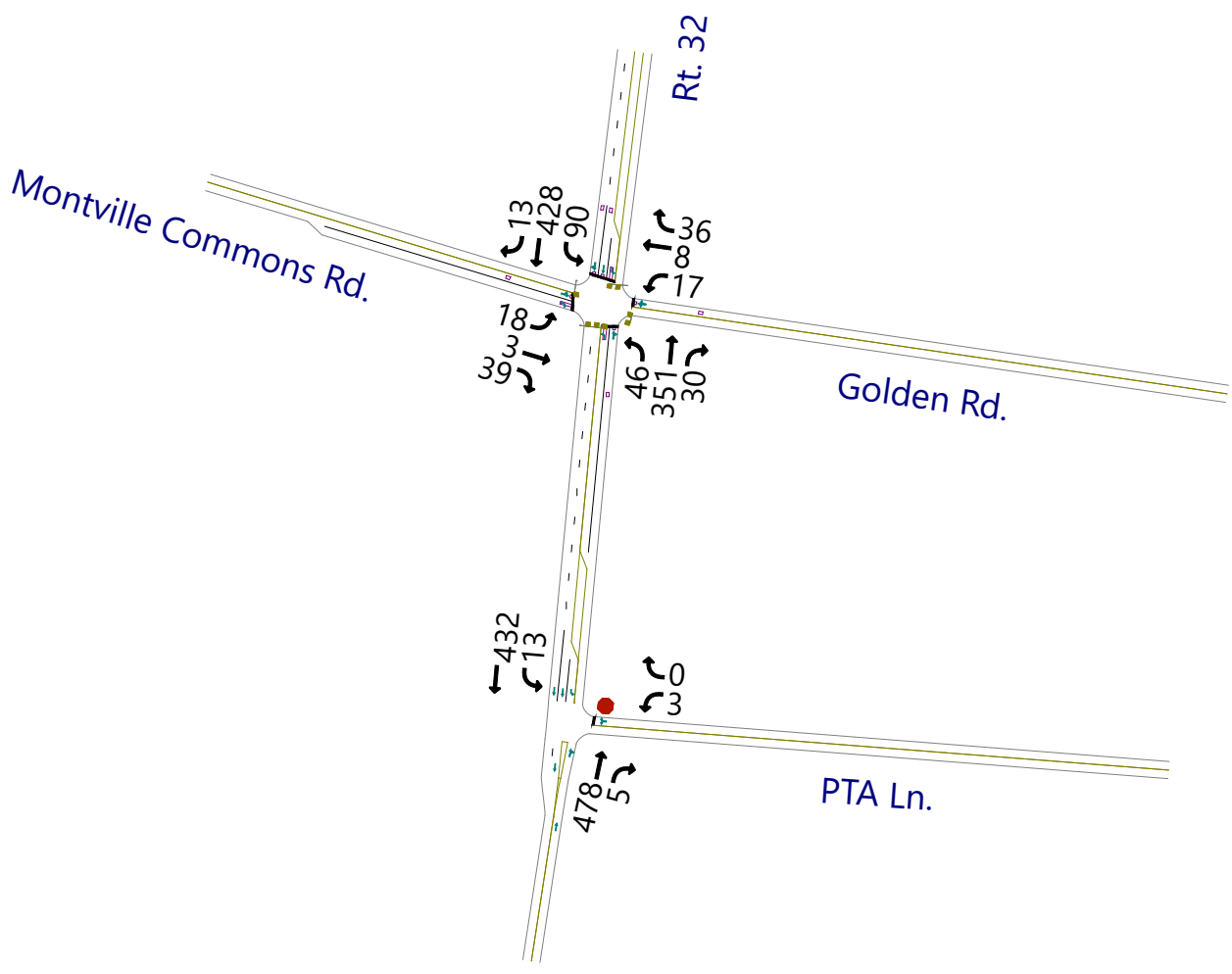
Sincerely,

KWH Enterprise, LLC

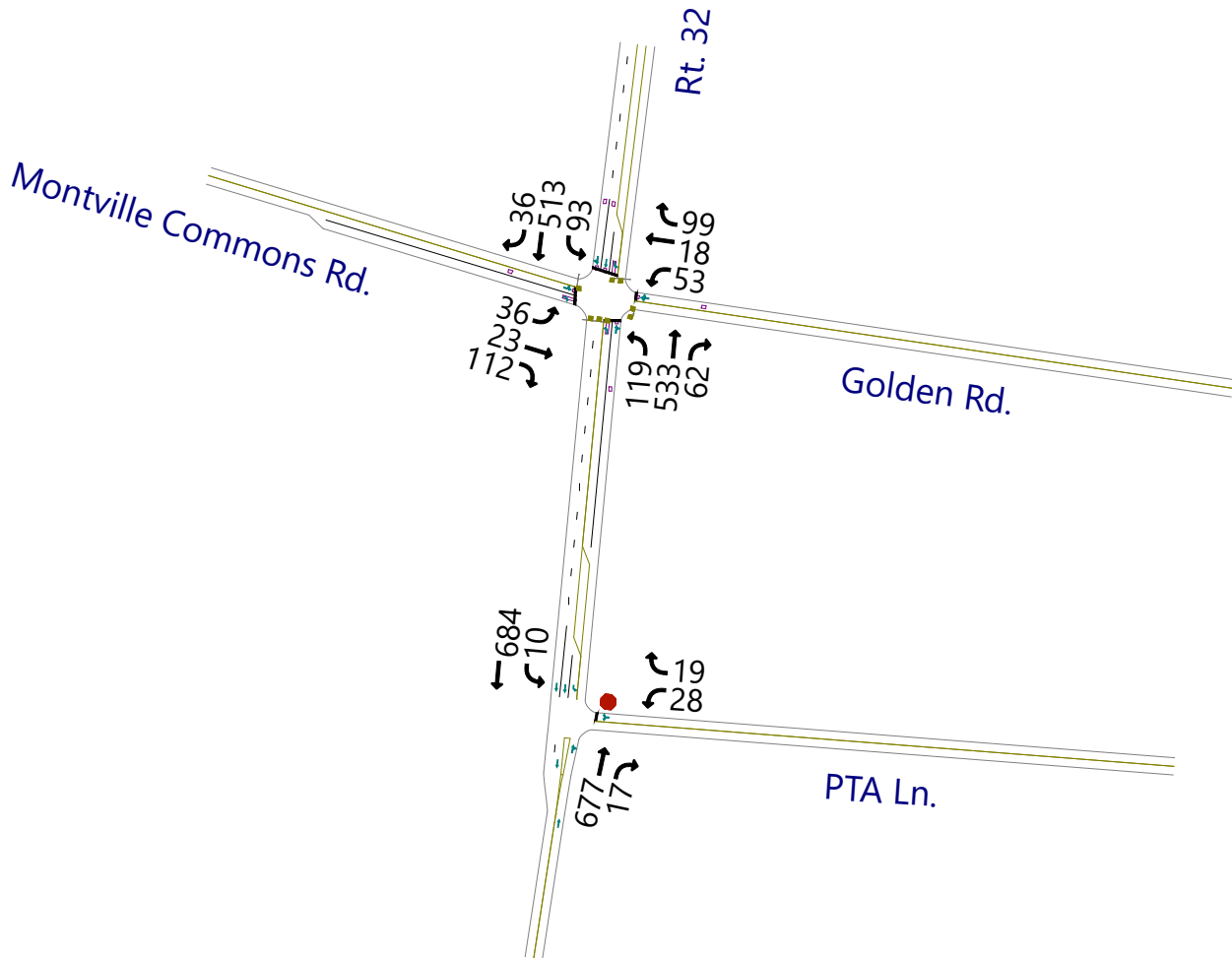
Kermit Hua

Kermit Hua, PE, PTOE
 Principal
 kermit.hua@kwhenterprise.com
 Cell: (203) 606-3525

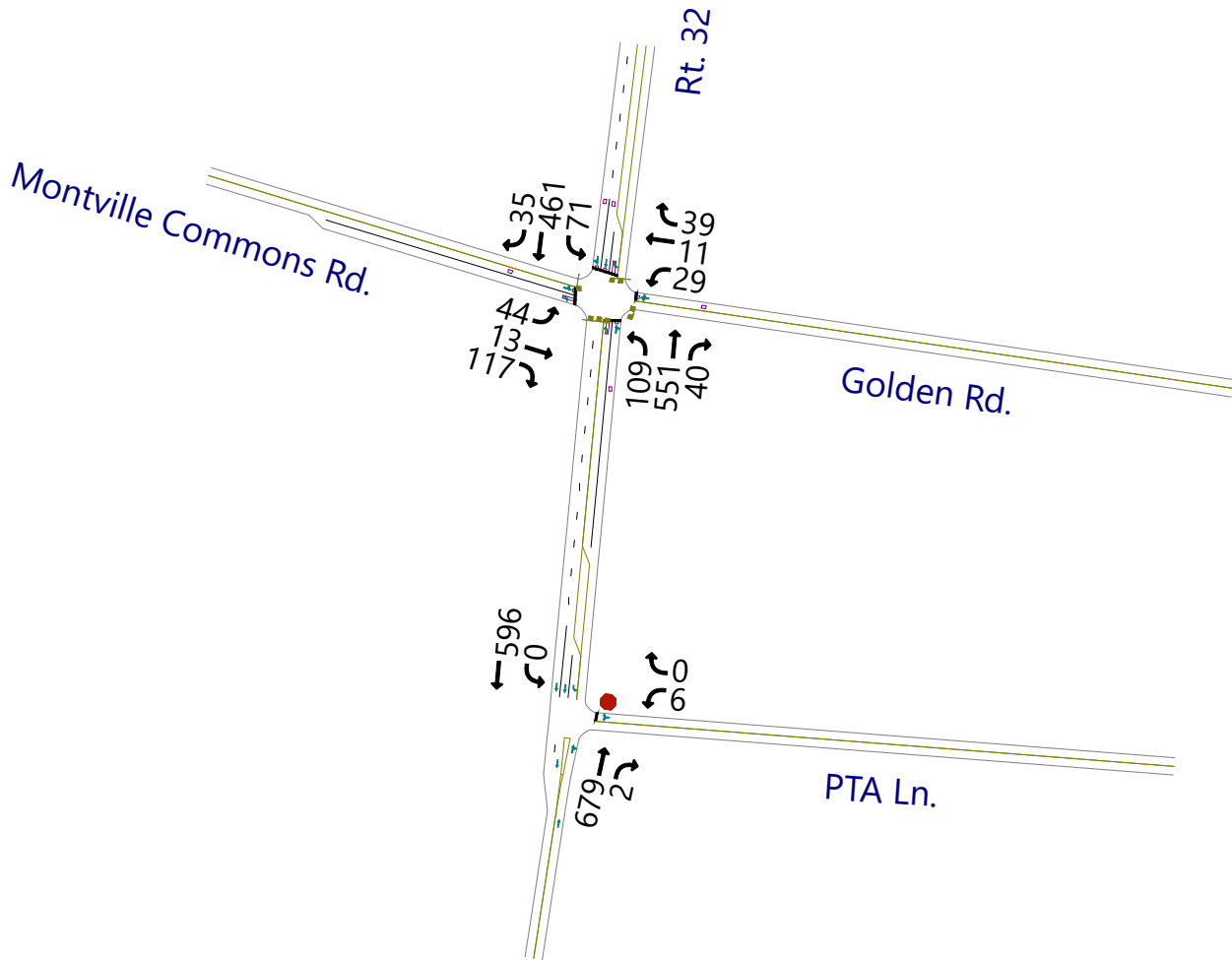




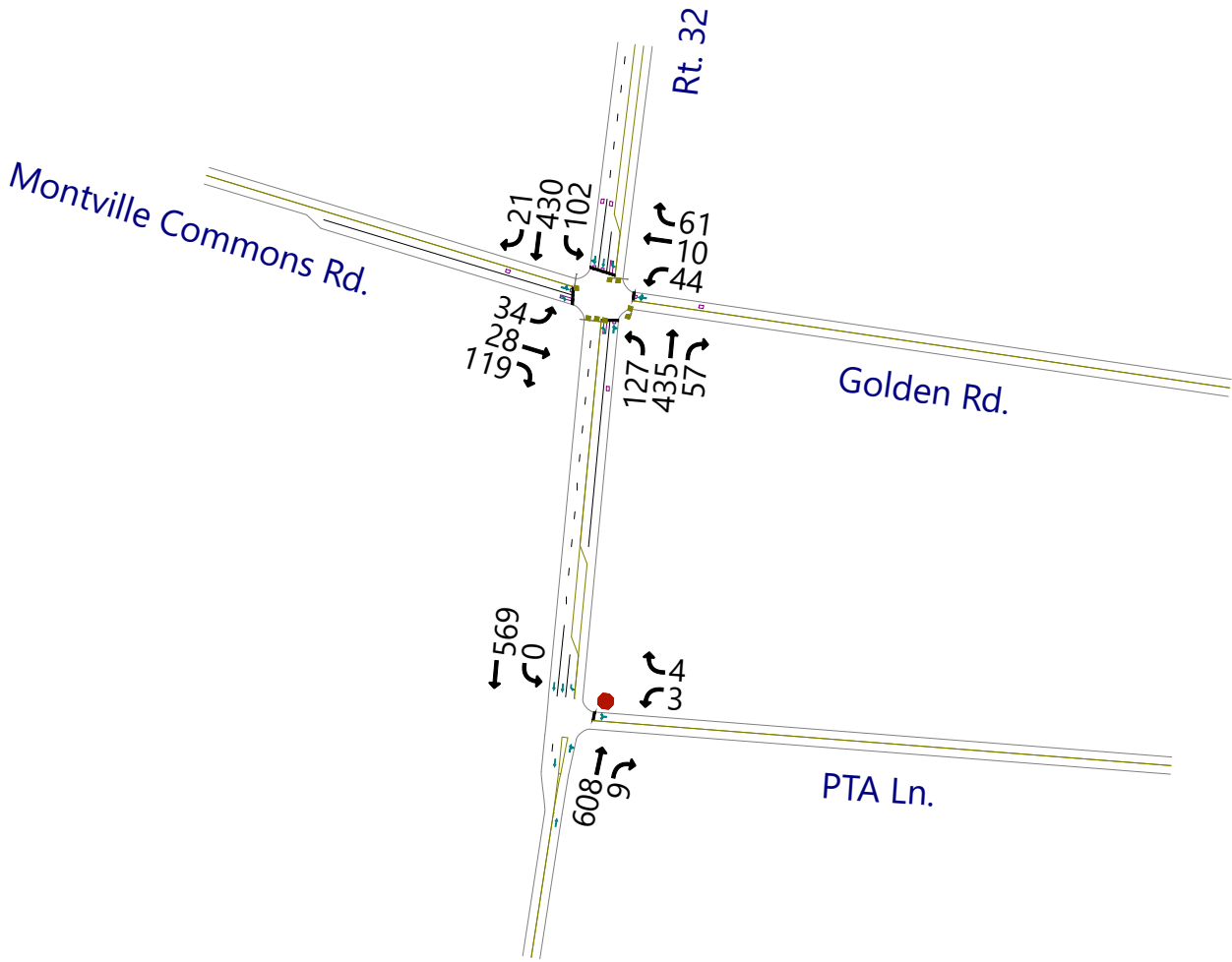
**Figure 1 2025 Existing Traffic Volumes
Weekday Morning Peak Hour of Adjacent Streets**



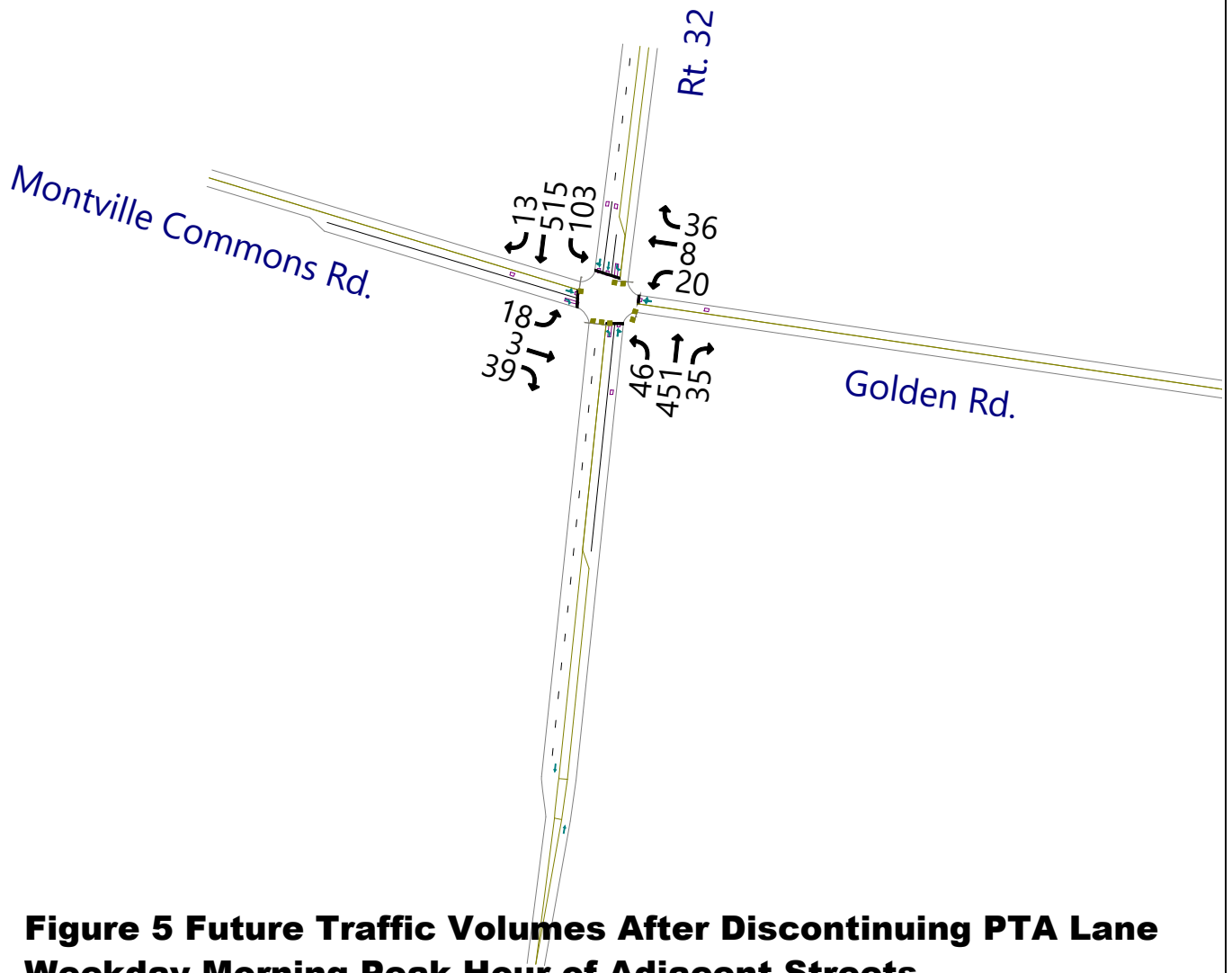
**Figure 2 2025 Existing Traffic Volumes
Weekday Afternoon Peak Hour of Mohegan School**

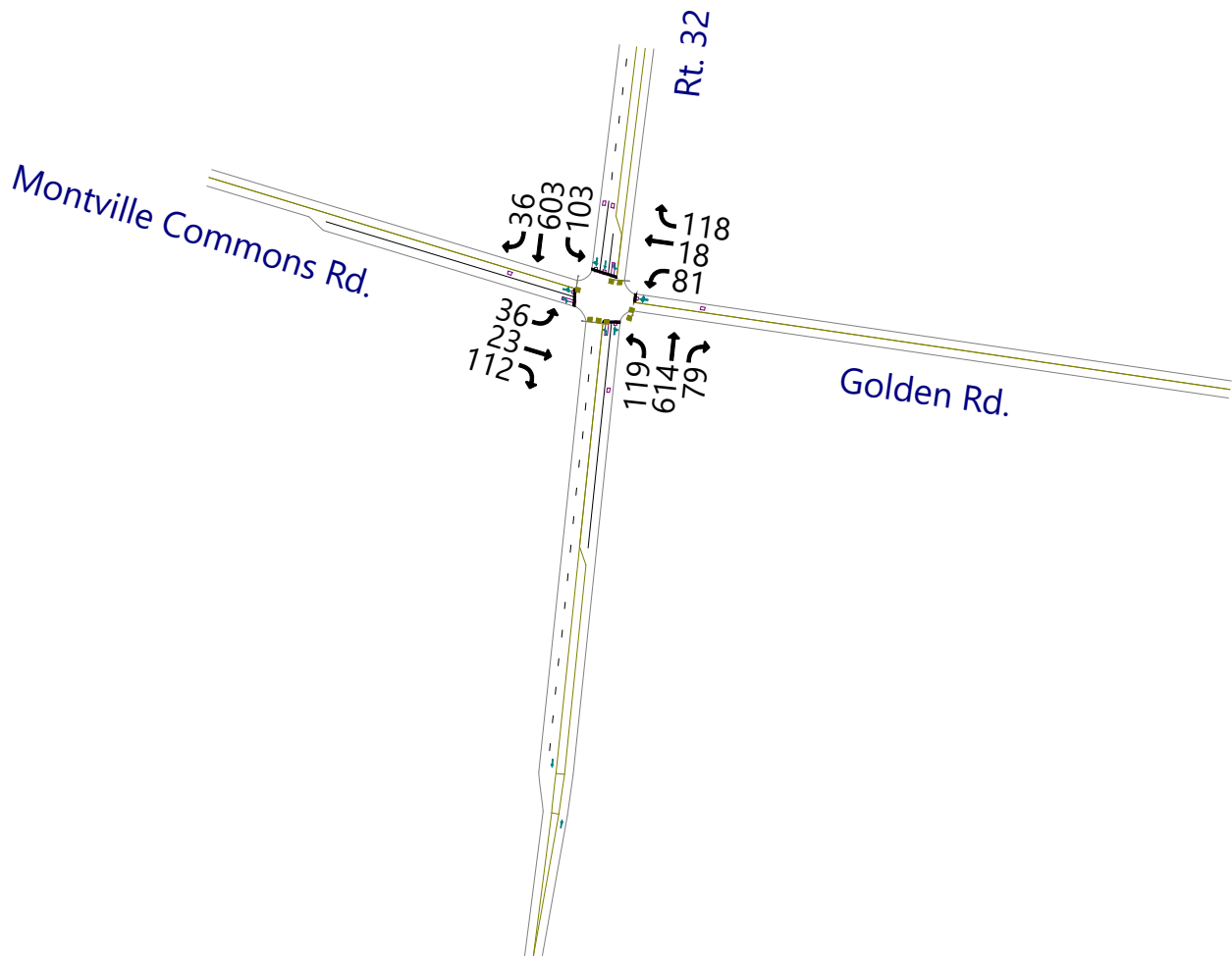


**Figure 3 2025 Existing Traffic Volumes
Weekday Afternoon Peak Hour of Adjacent Streets**

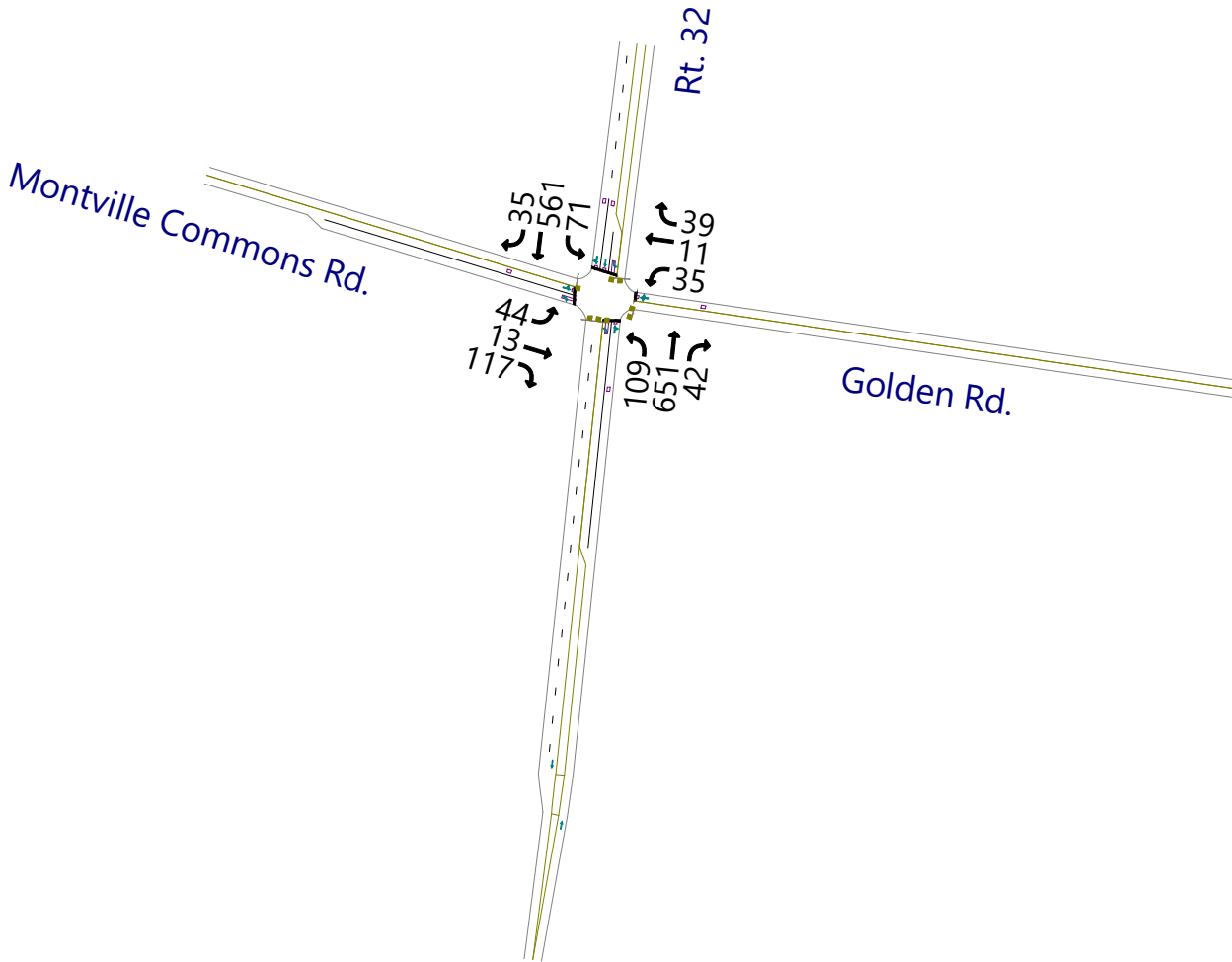


**Figure 4 2025 Existing Traffic Volumes
Saturday Midday Peak Hour of Adjacent Streets**





**Figure 6 Future Traffic Volumes After Discontinuing PTA Lane
Weekday Afternoon Peak Hour of Mohegan School**



**Figure 7 Future Traffic Volumes After Discontinuing PTA Lane
Weekday Afternoon Peak Hour of Adjacent Streets**

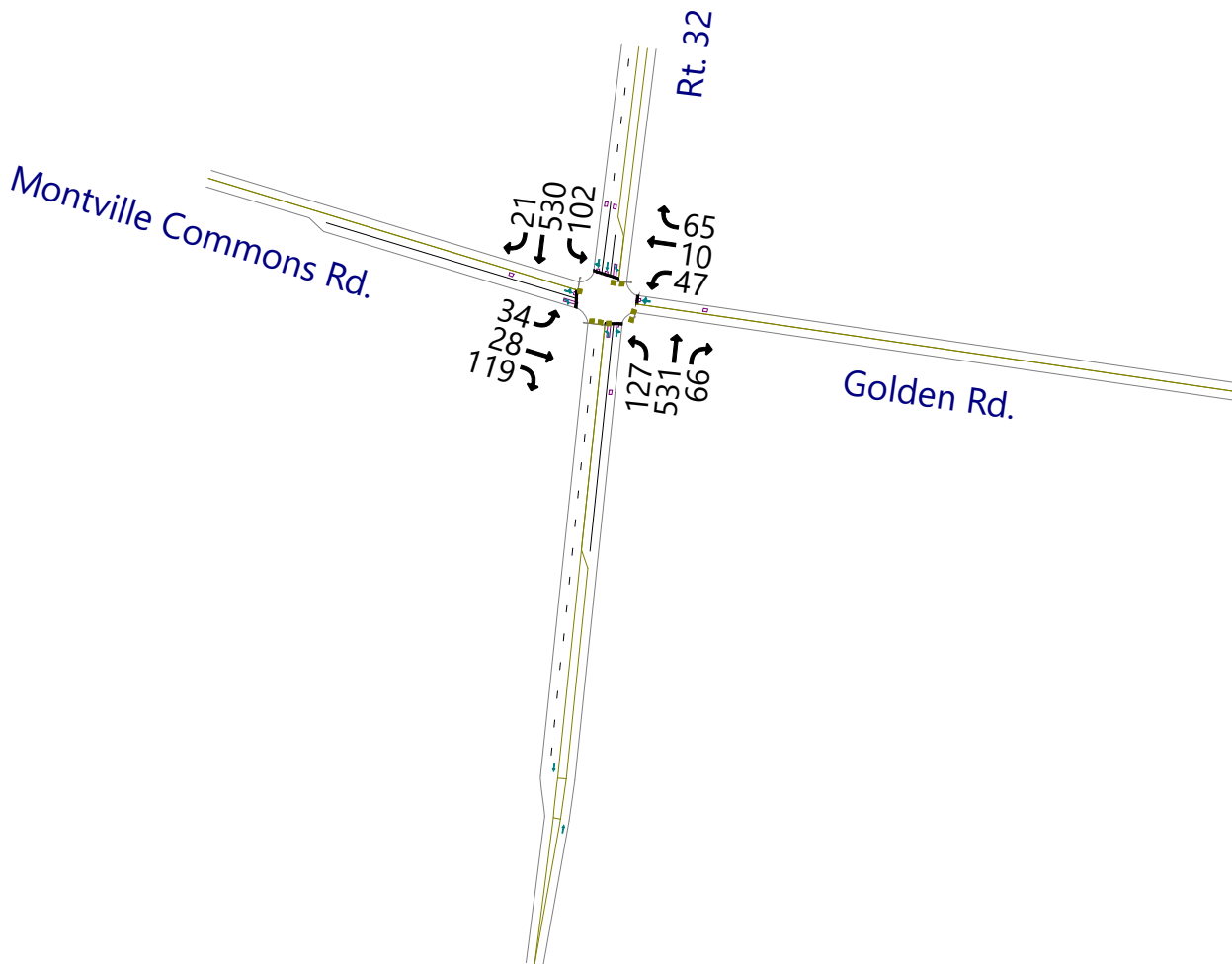


Figure 8 Future Traffic Volumes After Discontinuing PTA Lane Saturday Midday Peak Hour of Adjacent Streets

CONNECTICUT DEPARTMENT OF TRANSPORTATION
 BUREAU OF POLICY & PLANNING - ROADWAY INFORMATION SYSTEMS
 TRAFFIC DATA COLLECTION & VERIFICATION SECTION

FACTORS FOR EXPANDING 24-HOUR COUNTS TO
 ANNUAL AVERAGE DAILY TRAFFIC VOLUMES
 (BASED ON 2018 CONTINUOUS COUNT STATION DATA)

GROUP - 1 ** INTERSTATE **

STATION(S): 7, 12, 24, 30, 31, 32, 53, 54

	AVG.	WEEKDAY	FRIDAY	SATURDAY	SUNDAY
JANUARY		1.08	1.03	1.21	1.41
FEBRUARY		1.04	0.96	1.13	1.45
MARCH		1.05	0.93	1.05	1.21
APRIL		0.99	0.91	1.03	1.17
MAY		0.94	0.83	0.98	1.10
JUNE		0.95	0.90	0.99	1.08
JULY		0.95	0.91	0.97	1.08
AUGUST		0.94	0.86	0.99	1.06
SEPTEMBER		0.99	0.89	0.99	1.08
OCTOBER		0.98	0.90	1.00	1.12
NOVEMBER		0.98	0.98	1.03	1.13
DECEMBER		1.00	0.96	1.04	1.22

GROUP - 2 ** RURAL **

STATION(S): 4, 10, 16, 20, 50, 51

	AVG.	WEEKDAY	FRIDAY	SATURDAY	SUNDAY
JANUARY		1.12	1.08	1.17	1.48
FEBRUARY		1.12	1.05	1.16	1.55
MARCH		1.08	1.04	1.06	1.32
APRIL		1.05	0.95	0.94	1.29
MAY		0.95	0.89	0.95	1.04
JUNE		0.91	0.80	0.87	0.95
JULY		0.93	0.84	0.87	0.98
AUGUST		0.89	0.83	0.90	0.93
SEPTEMBER		0.97	0.88	0.91	1.02
OCTOBER		0.98	0.88	0.97	1.08
NOVEMBER		1.00	1.02	1.09	1.21
DECEMBER		1.08	1.09	1.11	1.29

GROUP - 3 ** INTERSTATE **

STATION(S): 27 (I-84 FROM ROUTE 195 TO MASS. STATE LINE)

	AVG.	WEEKDAY	FRIDAY	SATURDAY	SUNDAY
JANUARY		1.02	1.10	1.25	0.99
FEBRUARY		0.86	0.81	1.02	1.22
MARCH		1.46	0.91	0.94	0.93
APRIL		1.22	0.96	1.00	1.00
MAY		1.07	0.73	0.99	0.90
JUNE		1.04	0.84	0.96	0.71
JULY		0.98	0.84	0.80	0.74
AUGUST		0.81	0.75	0.89	0.79
SEPTEMBER		1.11	1.09	1.13	0.81
OCTOBER		1.04	1.06	1.30	0.99
NOVEMBER		1.26	1.24	1.15	0.64
DECEMBER		1.14	0.33	0.43	0.79

CONNECTICUT DEPARTMENT OF TRANSPORTATION
 BUREAU OF POLICY & PLANNING - ROADWAY INFORMATION SYSTEMS
 TRAFFIC MONITORING & DATA ANALYSIS SECTION

FACTORS FOR EXPANDING 24-HOUR COUNTS TO
 ANNUAL AVERAGE DAILY TRAFFIC VOLUMES
 (BASED ON 2018 CONTINUOUS COUNT STATION DATA)

GROUP - 4 ** URBAN **

STATION(S): 8, 9, 11, 15, 17, 22, 23, 28, 47, 48, 52

	AVG.	WEEKDAY	FRIDAY	SATURDAY	SUNDAY
JANUARY		1.03	1.00	1.18	1.46
FEBRUARY		1.03	0.95	1.14	1.49
MARCH		0.97	0.94	1.07	1.30
APRIL		0.98	0.90	1.03	1.26
MAY		0.92	0.83	1.01	1.21
JUNE		0.91	0.85	1.01	1.15
JULY		0.95	0.89	1.06	1.22
AUGUST		0.95	0.89	1.09	1.23
SEPTEMBER		0.96	0.88	1.03	1.20
OCTOBER		0.95	0.86	1.05	1.16
NOVEMBER		0.97	0.97	1.08	1.27
DECEMBER		0.99	0.96	1.06	1.24

GROUP - 5 ** NORTHWEST RECREATIONAL **

STATION(S): 1 (Station 18 not available on 2018)

	AVG.	WEEKDAY	FRIDAY	SATURDAY	SUNDAY
JANUARY		1.29	1.18	1.05	1.21
FEBRUARY		1.24	1.10	1.02	1.34
MARCH		1.28	1.06	1.14	1.24
APRIL		1.04	0.88	0.96	0.85
MAY		1.00	0.83	0.78	0.80
JUNE		0.96	0.80	0.79	0.77
JULY		0.91	0.80	0.71	0.61
AUGUST		0.94	0.75	0.76	0.71
SEPTEMBER		0.99	0.85	0.69	0.73
OCTOBER		0.95	0.71	0.69	0.68
NOVEMBER		1.15	1.05	1.08	1.06
DECEMBER		1.13	1.11	1.09	1.25

GROUP - 6 ** SOUTHEAST RECREATIONAL **

STATION(S): 5, 33, 44, 46

	AVG.	WEEKDAY	FRIDAY	SATURDAY	SUNDAY
JANUARY		1.24	1.08	1.05	1.22
FEBRUARY		1.17	1.00	0.98	1.21
MARCH		1.19	0.98	0.93	1.06
APRIL		1.13	0.91	0.86	1.00
MAY		1.04	0.85	0.84	0.92
JUNE		1.00	0.80	0.81	0.88
JULY		0.91	0.77	0.75	0.79
AUGUST		0.92	0.75	0.77	0.80
SEPTEMBER		1.07	0.89	0.84	0.92
OCTOBER		1.10	0.89	0.93	0.98
NOVEMBER		1.17	0.97	0.93	1.04
DECEMBER		1.16	1.00	0.97	1.15

HCM Signalized Intersection Capacity Analysis
 13: Rt. 32 & Montville Commons Rd./Golden Rd.

12/15/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↖		↗	↕	↖
Traffic Volume (vph)	18	3	39	17	8	36	46	351	30	90	428	13
Future Volume (vph)	18	3	39	17	8	36	46	351	30	90	428	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.3	5.3		4.9		4.2	6.6		4.2	6.6	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00		1.00	0.95	
Frt		1.00	0.85		0.92		1.00	0.99		1.00	1.00	
Flt Protected		0.96	1.00		0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1752	1553		1657		1736	1805		1736	3456	
Flt Permitted		0.96	1.00		0.99		0.44	1.00		0.35	1.00	
Satd. Flow (perm)		1752	1553		1657		797	1805		642	3456	
Peak-hour factor, PHF	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Adj. Flow (vph)	23	4	51	22	10	47	60	456	39	117	556	17
RTOR Reduction (vph)	0	0	48	0	43	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	27	3	0	36	0	60	495	0	117	570	0
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Split	NA	Prot	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	7	7	4	4		5	2		1	6	
Permitted Phases							2			6		
Actuated Green, G (s)		4.5	4.5		5.3		37.2	32.9		41.2	34.9	
Effective Green, g (s)		4.5	4.5		5.3		37.2	32.9		41.2	34.9	
Actuated g/C Ratio		0.06	0.06		0.08		0.53	0.47		0.59	0.50	
Clearance Time (s)		5.3	5.3		4.9		4.2	6.6		4.2	6.6	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		112	99		125		481	848		476	1723	
v/s Ratio Prot		c0.02	0.00		c0.02		0.01	c0.27		c0.02	0.17	
v/s Ratio Perm							0.06			0.12		
v/c Ratio		0.24	0.03		0.28		0.12	0.58		0.25	0.33	
Uniform Delay, d1		31.1	30.7		30.6		8.0	13.5		7.1	10.5	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.1	0.1		1.3		0.1	2.9		0.3	0.5	
Delay (s)		32.2	30.8		31.8		8.1	16.5		7.4	11.1	
Level of Service		C	C		C		A	B		A	B	
Approach Delay (s/veh)		31.3			31.8			15.6			10.4	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			14.8				HCM 2000 Level of Service				B	
HCM 2000 Volume to Capacity ratio			0.48									
Actuated Cycle Length (s)			70.0				Sum of lost time (s)				21.0	
Intersection Capacity Utilization			48.6%				ICU Level of Service				A	
Analysis Period (min)			15									
c Critical Lane Group												

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	↔
Traffic Vol, veh/h	3	0	478	5	13	432
Future Vol, veh/h	3	0	478	5	13	432
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	4	0	673	7	18	608

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1018	677	0	0	680
Stage 1	677	-	-	-	-
Stage 2	341	-	-	-	-
Critical Hdwy	6.645	6.245	-	-	4.145
Critical Hdwy Stg 1	5.445	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	-	-	2.2285
Pot Cap-1 Maneuver	246	450	-	-	904
Stage 1	502	-	-	-	-
Stage 2	690	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	241	450	-	-	904
Mov Cap-2 Maneuver	241	-	-	-	-
Stage 1	502	-	-	-	-
Stage 2	676	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	20.18	0	0.26
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	241	904
HCM Lane V/C Ratio	-	-	0.018	0.02
HCM Ctrl Dly (s/v)	-	-	20.2	9.1
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

HCM Signalized Intersection Capacity Analysis
 13: Rt. 32 & Montville Commons Rd./Golden Rd.

12/15/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↗		↖	↗	
Traffic Volume (vph)	36	23	112	53	18	99	119	533	62	93	513	36
Future Volume (vph)	36	23	112	53	18	99	119	533	62	93	513	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.3	5.3		4.9		4.2	6.6		4.2	6.6	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00		1.00	0.95	
Frt		1.00	0.85		0.92		1.00	0.98		1.00	0.99	
Flt Protected		0.97	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1807	1583		1690		1770	1834		1770	3504	
Flt Permitted		0.97	1.00		0.98		0.39	1.00		0.27	1.00	
Satd. Flow (perm)		1807	1583		1690		724	1834		499	3504	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	38	24	118	56	19	104	125	561	65	98	540	38
RTOR Reduction (vph)	0	0	106	0	56	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	62	12	0	123	0	125	626	0	98	573	0
Turn Type	Split	NA	Prot	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	7	7	4	4		5	2		1	6	
Permitted Phases							2			6		
Actuated Green, G (s)		8.8	8.8		9.3		52.6	44.5		49.2	42.8	
Effective Green, g (s)		8.8	8.8		9.3		52.6	44.5		49.2	42.8	
Actuated g/C Ratio		0.10	0.10		0.10		0.58	0.49		0.55	0.48	
Clearance Time (s)		5.3	5.3		4.9		4.2	6.6		4.2	6.6	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		176	154		174		517	906		363	1666	
v/s Ratio Prot		c0.03	0.01		c0.07		c0.02	c0.34		0.02	0.16	
v/s Ratio Perm							0.12			0.13		
v/c Ratio		0.35	0.07		0.71		0.24	0.69		0.27	0.34	
Uniform Delay, d1		37.9	36.9		39.0		8.5	17.5		11.4	14.8	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.2	0.2		12.4		0.2	4.3		0.4	0.6	
Delay (s)		39.2	37.1		51.5		8.8	21.8		11.8	15.4	
Level of Service		D	D		D		A	C		B	B	
Approach Delay (s/veh)		37.8			51.5			19.6			14.8	
Approach LOS		D			D			B			B	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	22.8	HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio	0.61	
Actuated Cycle Length (s)	90.0	Sum of lost time (s) 21.0
Intersection Capacity Utilization	66.7%	ICU Level of Service C
Analysis Period (min)	15	

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		T		T	TT
Traffic Vol, veh/h	28	19	677	17	10	684
Future Vol, veh/h	28	19	677	17	10	684
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	29	20	705	18	10	713

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1091	714	0	0	723
Stage 1	714	-	-	-	-
Stage 2	377	-	-	-	-
Critical Hdwy	6.645	6.245	-	-	4.145
Critical Hdwy Stg 1	5.445	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	-	-	2.2285
Pot Cap-1 Maneuver	222	428	-	-	872
Stage 1	482	-	-	-	-
Stage 2	662	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	219	428	-	-	872
Mov Cap-2 Maneuver	219	-	-	-	-
Stage 1	482	-	-	-	-
Stage 2	654	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	21.05	0	0.13
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	273	872
HCM Lane V/C Ratio	-	-	0.179	0.012
HCM Ctrl Dly (s/v)	-	-	21.1	9.2
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.6	0

HCM Signalized Intersection Capacity Analysis
 13: Rt. 32 & Montville Commons Rd./Golden Rd.

12/15/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↖		↗	↕	↖
Traffic Volume (vph)	44	13	117	29	11	39	109	551	40	71	461	35
Future Volume (vph)	44	13	117	29	11	39	109	551	40	71	461	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.3	5.3		4.9		4.2	6.6		4.2	6.6	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00		1.00	0.95	
Frt		1.00	0.85		0.93		1.00	0.99		1.00	0.99	
Flt Protected		0.96	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1794	1583		1708		1770	1844		1770	3502	
Flt Permitted		0.96	1.00		0.98		0.40	1.00		0.26	1.00	
Satd. Flow (perm)		1794	1583		1708		749	1844		480	3502	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	50	15	133	33	13	44	124	626	45	81	524	40
RTOR Reduction (vph)	0	0	120	0	40	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	65	13	0	50	0	124	671	0	81	559	0
Turn Type	Split	NA	Prot	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	7	7	4	4		5	2		1	6	
Permitted Phases							2			6		
Actuated Green, G (s)		8.9	8.9		6.8		55.2	47.3		51.4	45.4	
Effective Green, g (s)		8.9	8.9		6.8		55.2	47.3		51.4	45.4	
Actuated g/C Ratio		0.10	0.10		0.08		0.61	0.53		0.57	0.50	
Clearance Time (s)		5.3	5.3		4.9		4.2	6.6		4.2	6.6	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		177	156		129		549	969		360	1766	
v/s Ratio Prot		c0.04	0.01		c0.03		c0.02	c0.36		0.01	0.16	
v/s Ratio Perm							0.12			0.11		
v/c Ratio		0.37	0.08		0.39		0.23	0.69		0.23	0.32	
Uniform Delay, d1		37.9	36.8		39.6		7.3	15.9		10.4	13.2	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.3	0.2		1.9		0.2	4.1		0.3	0.5	
Delay (s)		39.2	37.1		41.6		7.6	20.0		10.8	13.6	
Level of Service		D	D		D		A	B		B	B	
Approach Delay (s/veh)		37.8			41.6			18.0			13.3	
Approach LOS		D			D			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			19.7				HCM 2000 Level of Service				B	
HCM 2000 Volume to Capacity ratio			0.59									
Actuated Cycle Length (s)			90.0				Sum of lost time (s)				21.0	
Intersection Capacity Utilization			59.9%				ICU Level of Service				B	
Analysis Period (min)			15									

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	↔
Traffic Vol, veh/h	6	0	679	2	0	596
Future Vol, veh/h	6	0	679	2	0	596
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	0	763	2	0	670

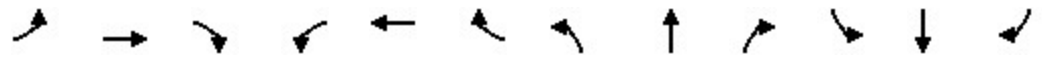
Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1099	764	0	0	765
Stage 1	764	-	-	-	-
Stage 2	335	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.13
Critical Hdwy Stg 1	5.43	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219
Pot Cap-1 Maneuver	221	403	-	-	846
Stage 1	459	-	-	-	-
Stage 2	697	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	221	403	-	-	846
Mov Cap-2 Maneuver	221	-	-	-	-
Stage 1	459	-	-	-	-
Stage 2	697	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	21.84	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	221	846
HCM Lane V/C Ratio	-	-	0.031	-
HCM Ctrl Dly (s/v)	-	-	21.8	0
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM Signalized Intersection Capacity Analysis
 13: Rt. 32 & Montville Commons Rd./Golden Rd.

12/15/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↗		↖	↗	
Traffic Volume (vph)	34	28	119	44	10	61	127	435	57	102	430	21
Future Volume (vph)	34	28	119	44	10	61	127	435	57	102	430	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.3	5.3		4.9		4.2	6.6		4.2	6.6	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00		1.00	0.95	
Frt		1.00	0.85		0.93		1.00	0.98		1.00	0.99	
Flt Protected		0.97	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1831	1599		1713		1787	1849		1787	3549	
Flt Permitted		0.97	1.00		0.98		0.47	1.00		0.37	1.00	
Satd. Flow (perm)		1831	1599		1713		880	1849		695	3549	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	35	29	124	46	10	64	132	453	59	106	448	22
RTOR Reduction (vph)	0	0	113	0	43	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	64	11	0	77	0	132	512	0	106	467	0
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Split	NA	Prot	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	7	7	4	4		5	2		1	6	
Permitted Phases							2			6		
Actuated Green, G (s)		9.2	9.2		9.3		61.1	52.8		59.9	52.2	
Effective Green, g (s)		9.2	9.2		9.3		61.1	52.8		59.9	52.2	
Actuated g/C Ratio		0.09	0.09		0.09		0.61	0.53		0.60	0.52	
Clearance Time (s)		5.3	5.3		4.9		4.2	6.6		4.2	6.6	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		168	147		159		612	976		500	1852	
v/s Ratio Prot		c0.03	0.01		c0.05		c0.02	c0.28		0.02	0.13	
v/s Ratio Perm							0.11			0.11		
v/c Ratio		0.38	0.08		0.49		0.22	0.52		0.21	0.25	
Uniform Delay, d1		42.7	41.5		43.1		8.2	15.4		9.3	13.2	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.4	0.2		2.3		0.2	2.0		0.2	0.3	
Delay (s)		44.2	41.7		45.4		8.4	17.4		9.5	13.5	
Level of Service		D	D		D		A	B		A	B	
Approach Delay (s/veh)		42.6			45.4		15.6			12.8		
Approach LOS		D			D		B			B		
Intersection Summary												
HCM 2000 Control Delay (s/veh)			20.2				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.47									
Actuated Cycle Length (s)			100.0				Sum of lost time (s)			21.0		
Intersection Capacity Utilization			58.5%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	↔
Traffic Vol, veh/h	3	4	608	9	0	569
Future Vol, veh/h	3	4	608	9	0	569
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	4	647	10	0	605

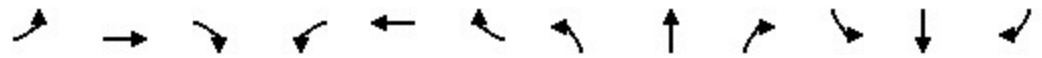
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	954	652	0	0	656	0
Stage 1	652	-	-	-	-	-
Stage 2	303	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	271	467	-	-	929	-
Stage 1	518	-	-	-	-	-
Stage 2	724	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	271	467	-	-	929	-
Mov Cap-2 Maneuver	271	-	-	-	-	-
Stage 1	518	-	-	-	-	-
Stage 2	724	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	15.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	357	929
HCM Lane V/C Ratio	-	-	0.021	-
HCM Ctrl Dly (s/v)	-	-	15.3	0
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM Signalized Intersection Capacity Analysis
 13: Rt. 32 & Montville Commons Rd./Golden Rd.

12/16/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↗		↖	↗	
Traffic Volume (vph)	18	3	39	20	8	36	46	451	35	103	515	13
Future Volume (vph)	18	3	39	20	8	36	46	451	35	103	515	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.3	5.3		4.9		4.2	6.6		4.2	6.6	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00		1.00	0.95	
Frt		1.00	0.85		0.92		1.00	0.99		1.00	1.00	
Flt Protected		0.96	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1752	1553		1661		1736	1807		1736	3458	
Flt Permitted		0.96	1.00		0.98		0.39	1.00		0.23	1.00	
Satd. Flow (perm)		1752	1553		1661		714	1807		423	3458	
Peak-hour factor, PHF	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Adj. Flow (vph)	23	4	51	26	10	47	60	586	45	134	669	17
RTOR Reduction (vph)	0	0	48	0	43	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	27	3	0	40	0	60	631	0	134	684	0
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Split	NA	Prot	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	7	7	4	4		5	2		1	6	
Permitted Phases							2			6		
Actuated Green, G (s)		4.5	4.5		5.3		36.9	32.6		41.5	34.9	
Effective Green, g (s)		4.5	4.5		5.3		36.9	32.6		41.5	34.9	
Actuated g/C Ratio		0.06	0.06		0.08		0.53	0.47		0.59	0.50	
Clearance Time (s)		5.3	5.3		4.9		4.2	6.6		4.2	6.6	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		112	99		125		439	841		374	1724	
v/s Ratio Prot		c0.02	0.00		c0.02		0.01	c0.35		c0.03	0.20	
v/s Ratio Perm							0.06			0.18		
v/c Ratio		0.24	0.03		0.32		0.14	0.75		0.36	0.40	
Uniform Delay, d1		31.1	30.7		30.6		8.1	15.4		8.5	11.0	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.1	0.1		1.5		0.1	6.1		0.6	0.7	
Delay (s)		32.2	30.8		32.1		8.2	21.5		9.1	11.7	
Level of Service		C	C		C		A	C		A	B	
Approach Delay (s/veh)		31.3			32.1			20.3			11.2	
Approach LOS		C			C			C			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			17.0				HCM 2000 Level of Service				B	
HCM 2000 Volume to Capacity ratio			0.60									
Actuated Cycle Length (s)			70.0				Sum of lost time (s)				21.0	
Intersection Capacity Utilization			55.1%				ICU Level of Service				B	
Analysis Period (min)			15									
c Critical Lane Group												

PTA Lane, Montville, Connecticut, Future Conditions, Weekday AM Peak Hour
 KWH Enterprise, LLC

HCM Signalized Intersection Capacity Analysis
 13: Rt. 32 & Montville Commons Rd./Golden Rd.

12/16/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↗		↖	↗	
Traffic Volume (vph)	36	23	112	81	18	118	119	614	79	103	603	36
Future Volume (vph)	36	23	112	81	18	118	119	614	79	103	603	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.3	5.3		4.9		4.2	6.6		4.2	6.6	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00		1.00	0.95	
Frt		1.00	0.85		0.93		1.00	0.98		1.00	0.99	
Flt Protected		0.97	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1807	1583		1694		1770	1831		1770	3509	
Flt Permitted		0.97	1.00		0.98		0.34	1.00		0.17	1.00	
Satd. Flow (perm)		1807	1583		1694		624	1831		318	3509	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	38	24	118	85	19	124	125	646	83	108	635	38
RTOR Reduction (vph)	0	0	106	0	48	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	62	12	0	180	0	125	729	0	108	669	0
Turn Type	Split	NA	Prot	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	7	7	4	4		5	2		1	6	
Permitted Phases							2			6		
Actuated Green, G (s)		8.8	8.8		10.1		51.6	43.5		48.6	42.0	
Effective Green, g (s)		8.8	8.8		10.1		51.6	43.5		48.6	42.0	
Actuated g/C Ratio		0.10	0.10		0.11		0.57	0.48		0.54	0.47	
Clearance Time (s)		5.3	5.3		4.9		4.2	6.6		4.2	6.6	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		176	154		190		460	884		278	1637	
v/s Ratio Prot		c0.03	0.01		c0.11		0.02	c0.40		c0.03	0.19	
v/s Ratio Perm							0.13			0.18		
v/c Ratio		0.35	0.07		0.95		0.27	0.82		0.39	0.41	
Uniform Delay, d1		37.9	36.9		39.7		9.1	20.0		13.8	15.8	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.2	0.2		49.8		0.3	8.6		0.9	0.8	
Delay (s)		39.2	37.1		89.5		9.4	28.6		14.7	16.6	
Level of Service		D	D		F		A	C		B	B	
Approach Delay (s/veh)		37.8			89.5			25.8			16.3	
Approach LOS		D			F			C			B	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	30.3	HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio	0.74	
Actuated Cycle Length (s)	90.0	Sum of lost time (s) 21.0
Intersection Capacity Utilization	75.2%	ICU Level of Service D
Analysis Period (min)	15	

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 13: Rt. 32 & Montville Commons Rd./Golden Rd.

12/16/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↖		↗	↕	↖
Traffic Volume (vph)	44	13	117	35	11	39	109	651	42	71	561	35
Future Volume (vph)	44	13	117	35	11	39	109	651	42	71	561	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.3	5.3		4.9		4.2	6.6		4.2	6.6	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00		1.00	0.95	
Frt		1.00	0.85		0.94		1.00	0.99		1.00	0.99	
Flt Protected		0.96	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1794	1583		1713		1770	1846		1770	3508	
Flt Permitted		0.96	1.00		0.98		0.34	1.00		0.16	1.00	
Satd. Flow (perm)		1794	1583		1713		632	1846		306	3508	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	50	15	133	40	13	44	124	740	48	81	638	40
RTOR Reduction (vph)	0	0	120	0	34	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	65	13	0	63	0	124	788	0	81	674	0
Turn Type	Split	NA	Prot	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	7	7	4	4		5	2		1	6	
Permitted Phases							2			6		
Actuated Green, G (s)		8.9	8.9		7.1		55.0	47.0		51.0	45.0	
Effective Green, g (s)		8.9	8.9		7.1		55.0	47.0		51.0	45.0	
Actuated g/C Ratio		0.10	0.10		0.08		0.61	0.52		0.57	0.50	
Clearance Time (s)		5.3	5.3		4.9		4.2	6.6		4.2	6.6	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		177	156		135		487	964		271	1754	
v/s Ratio Prot		c0.04	0.01		c0.04		c0.02	c0.43		0.02	0.19	
v/s Ratio Perm							0.13			0.15		
v/c Ratio		0.37	0.08		0.47		0.25	0.82		0.30	0.38	
Uniform Delay, d1		37.9	36.8		39.6		7.6	17.9		12.8	13.9	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.3	0.2		2.5		0.3	7.6		0.6	0.6	
Delay (s)		39.2	37.1		42.2		7.9	25.6		13.4	14.6	
Level of Service		D	D		D		A	C		B	B	
Approach Delay (s/veh)		37.8			42.2			23.2			14.4	
Approach LOS		D			D			C			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			22.2				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			90.0				Sum of lost time (s)			21.0		
Intersection Capacity Utilization			65.6%				ICU Level of Service			C		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 13: Rt. 32 & Montville Commons Rd./Golden Rd.

12/16/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↗		↖	↗	
Traffic Volume (vph)	34	28	119	47	10	65	127	531	66	102	530	21
Future Volume (vph)	34	28	119	47	10	65	127	531	66	102	530	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.3	5.3		4.9		4.2	6.6		4.2	6.6	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00		1.00	0.95	
Frt		1.00	0.85		0.93		1.00	0.98		1.00	0.99	
Flt Protected		0.97	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1831	1599		1712		1787	1850		1787	3554	
Flt Permitted		0.97	1.00		0.98		0.41	1.00		0.28	1.00	
Satd. Flow (perm)		1831	1599		1712		762	1850		529	3554	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	35	29	124	49	10	68	132	553	69	106	552	22
RTOR Reduction (vph)	0	0	113	0	42	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	64	11	0	85	0	132	622	0	106	572	0
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Split	NA	Prot	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	7	7	4	4		5	2		1	6	
Permitted Phases							2			6		
Actuated Green, G (s)		9.2	9.2		9.6		60.8	52.5		59.6	51.9	
Effective Green, g (s)		9.2	9.2		9.6		60.8	52.5		59.6	51.9	
Actuated g/C Ratio		0.09	0.09		0.10		0.61	0.53		0.60	0.52	
Clearance Time (s)		5.3	5.3		4.9		4.2	6.6		4.2	6.6	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		168	147		164		548	971		412	1844	
v/s Ratio Prot		c0.03	0.01		c0.05		c0.02	c0.34		0.02	0.16	
v/s Ratio Perm							0.13			0.13		
v/c Ratio		0.38	0.08		0.52		0.24	0.64		0.26	0.31	
Uniform Delay, d1		42.7	41.5		43.0		8.4	17.0		10.5	13.8	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.4	0.2		2.7		0.2	3.2		0.3	0.4	
Delay (s)		44.2	41.7		45.7		8.6	20.2		10.8	14.2	
Level of Service		D	D		D		A	C		B	B	
Approach Delay (s/veh)		42.6			45.7			18.2			13.7	
Approach LOS		D			D			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			21.1				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.56									
Actuated Cycle Length (s)			100.0				Sum of lost time (s)				21.0	
Intersection Capacity Utilization			64.5%				ICU Level of Service				C	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 13: Rt. 32 & Montville Commons Rd./Golden Rd.

12/16/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↖	↗		↖	↗		↖	↗	
Traffic Volume (vph)	18	3	39	20	8	36	46	451	35	103	515	13
Future Volume (vph)	18	3	39	20	8	36	46	451	35	103	515	13
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.3	5.3	4.9	4.9		4.2	6.6		4.2	6.6	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	0.95	
Frt		1.00	0.85	1.00	0.88		1.00	0.99		1.00	1.00	
Flt Protected		0.96	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1752	1553	1736	1601		1736	1807		1736	3458	
Flt Permitted		0.96	1.00	0.95	1.00		0.39	1.00		0.25	1.00	
Satd. Flow (perm)		1752	1553	1736	1601		714	1807		452	3458	
Peak-hour factor, PHF	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Adj. Flow (vph)	23	4	51	26	10	47	60	586	45	134	669	17
RTOR Reduction (vph)	0	0	48	0	44	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	27	3	26	13	0	60	631	0	134	684	0
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Split	NA	Prot	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	7	7	4	4		5	2		1	6	
Permitted Phases							2			6		
Actuated Green, G (s)		4.5	4.5	4.1	4.1		38.2	33.9		42.6	36.1	
Effective Green, g (s)		4.5	4.5	4.1	4.1		38.2	33.9		42.6	36.1	
Actuated g/C Ratio		0.06	0.06	0.06	0.06		0.55	0.48		0.61	0.52	
Clearance Time (s)		5.3	5.3	4.9	4.9		4.2	6.6		4.2	6.6	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		112	99	101	93		452	875		394	1783	
v/s Ratio Prot		c0.02	0.00	c0.01	0.01		0.01	c0.35		c0.03	0.20	
v/s Ratio Perm							0.06			0.18		
v/c Ratio		0.24	0.03	0.26	0.14		0.13	0.72		0.34	0.38	
Uniform Delay, d1		31.1	30.7	31.5	31.3		7.5	14.3		7.8	10.2	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.1	0.1	1.4	0.7		0.1	5.1		0.5	0.6	
Delay (s)		32.2	30.8	32.8	31.9		7.6	19.4		8.3	10.9	
Level of Service		C	C	C	C		A	B		A	B	
Approach Delay (s/veh)		31.3			32.2			18.4			10.4	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			15.8				HCM 2000 Level of Service				B	
HCM 2000 Volume to Capacity ratio			0.59									
Actuated Cycle Length (s)			70.0				Sum of lost time (s)				21.0	
Intersection Capacity Utilization			52.8%				ICU Level of Service				A	
Analysis Period (min)			15									
c Critical Lane Group												

PTA Lane, Montville, Connecticut, Future Conditions with Imp., Weekday AM Peak Hour
 KWH Enterprise, LLC

Queues

13: Rt. 32 & Montville Commons Rd./Golden Rd.

12/16/2025



Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	27	51	26	57	60	631	134	686
v/c Ratio	0.15	0.15	0.16	0.30	0.11	0.61	0.29	0.31
Control Delay (s/veh)	30.3	0.9	31.5	16.7	6.5	22.2	7.3	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.3	0.9	31.5	16.7	6.5	22.2	7.3	12.2
Queue Length 50th (ft)	11	0	11	4	10	252	23	111
Queue Length 95th (ft)	28	0	28	28	21	#390	41	141
Internal Link Dist (ft)	506			798		617		275
Turn Bay Length (ft)		360	100		315		55	
Base Capacity (vph)	267	405	176	204	598	1035	475	2198
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.13	0.15	0.28	0.10	0.61	0.28	0.31

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
 13: Rt. 32 & Montville Commons Rd./Golden Rd.

12/16/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↖	↗		↖	↗		↖	↗	
Traffic Volume (vph)	36	23	112	81	18	118	119	614	79	103	603	36
Future Volume (vph)	36	23	112	81	18	118	119	614	79	103	603	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.3	5.3	4.9	4.9		4.2	6.6		4.2	6.6	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	0.95	
Frt		1.00	0.85	1.00	0.87		1.00	0.98		1.00	0.99	
Flt Protected		0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1807	1583	1770	1620		1770	1831		1770	3509	
Flt Permitted		0.97	1.00	0.95	1.00		0.34	1.00		0.19	1.00	
Satd. Flow (perm)		1807	1583	1770	1620		633	1831		345	3509	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	38	24	118	85	19	124	125	646	83	108	635	38
RTOR Reduction (vph)	0	0	106	0	112	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	62	12	85	31	0	125	729	0	108	669	0
Turn Type	Split	NA	Prot	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	7	7	4	4		5	2		1	6	
Permitted Phases							2			6		
Actuated Green, G (s)		8.8	8.8	8.8	8.8		52.9	44.8		49.9	43.3	
Effective Green, g (s)		8.8	8.8	8.8	8.8		52.9	44.8		49.9	43.3	
Actuated g/C Ratio		0.10	0.10	0.10	0.10		0.59	0.50		0.55	0.48	
Clearance Time (s)		5.3	5.3	4.9	4.9		4.2	6.6		4.2	6.6	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		176	154	173	158		474	911		295	1688	
v/s Ratio Prot		c0.03	0.01	c0.05	0.02		0.02	c0.40		c0.03	0.19	
v/s Ratio Perm							0.13			0.18		
v/c Ratio		0.35	0.07	0.49	0.20		0.26	0.80		0.37	0.40	
Uniform Delay, d1		37.9	36.9	38.5	37.3		8.5	18.9		12.9	15.0	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.2	0.2	2.2	0.6		0.3	7.3		0.8	0.7	
Delay (s)		39.2	37.1	40.7	38.0		8.8	26.2		13.6	15.7	
Level of Service		D	D	D	D		A	C		B	B	
Approach Delay (s/veh)		37.8			39.0			23.6			15.4	
Approach LOS		D			D			C			B	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	23.4	HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio	0.66	
Actuated Cycle Length (s)	90.0	Sum of lost time (s) 21.0
Intersection Capacity Utilization	74.4%	ICU Level of Service D
Analysis Period (min)	15	

c Critical Lane Group

Queues

13: Rt. 32 & Montville Commons Rd./Golden Rd.

12/16/2025



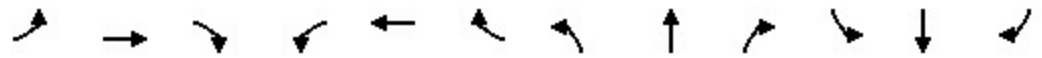
Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	62	118	85	143	125	729	108	673
v/c Ratio	0.35	0.40	0.49	0.53	0.26	0.78	0.33	0.40
Control Delay (s/veh)	43.0	7.2	48.2	17.6	8.3	28.5	9.7	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.0	7.2	48.2	17.6	8.3	28.5	9.7	16.5
Queue Length 50th (ft)	34	0	47	10	25	347	21	124
Queue Length 95th (ft)	72	29	94	65	53	#647	46	194
Internal Link Dist (ft)	506			798		617		275
Turn Bay Length (ft)		360	100		315		55	
Base Capacity (vph)	335	419	198	291	506	929	354	1697
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.28	0.43	0.49	0.25	0.78	0.31	0.40

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
 13: Rt. 32 & Montville Commons Rd./Golden Rd.

12/16/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↖	↗		↖	↗		↖	↗	
Traffic Volume (vph)	44	13	117	35	11	39	109	651	42	71	561	35
Future Volume (vph)	44	13	117	35	11	39	109	651	42	71	561	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.3	5.3	4.9	4.9		4.2	6.6		4.2	6.6	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	0.95	
Frt		1.00	0.85	1.00	0.88		1.00	0.99		1.00	0.99	
Flt Protected		0.96	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1794	1583	1770	1647		1770	1846		1770	3508	
Flt Permitted		0.96	1.00	0.95	1.00		0.34	1.00		0.17	1.00	
Satd. Flow (perm)		1794	1583	1770	1647		637	1846		322	3508	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	50	15	133	40	13	44	124	740	48	81	638	40
RTOR Reduction (vph)	0	0	120	0	41	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	65	13	40	16	0	124	788	0	81	674	0
Turn Type	Split	NA	Prot	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	7	7	4	4		5	2		1	6	
Permitted Phases							2			6		
Actuated Green, G (s)		8.9	8.9	6.4	6.4		55.7	47.8		51.7	45.8	
Effective Green, g (s)		8.9	8.9	6.4	6.4		55.7	47.8		51.7	45.8	
Actuated g/C Ratio		0.10	0.10	0.07	0.07		0.62	0.53		0.57	0.51	
Clearance Time (s)		5.3	5.3	4.9	4.9		4.2	6.6		4.2	6.6	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		177	156	125	117		493	980		279	1785	
v/s Ratio Prot		c0.04	0.01	c0.02	0.01		c0.02	c0.43		0.02	0.19	
v/s Ratio Perm							0.13			0.15		
v/c Ratio		0.37	0.08	0.32	0.14		0.25	0.80		0.29	0.38	
Uniform Delay, d1		37.9	36.8	39.7	39.2		7.3	17.3		12.2	13.4	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.3	0.2	1.5	0.5		0.3	7.0		0.6	0.6	
Delay (s)		39.2	37.1	41.2	39.8		7.6	24.3		12.8	14.0	
Level of Service		D	D	D	D		A	C		B	B	
Approach Delay (s/veh)		37.8			40.4			22.0			13.9	
Approach LOS		D			D			C			B	

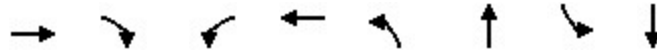
Intersection Summary		
HCM 2000 Control Delay (s/veh)	21.4	HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio	0.66	
Actuated Cycle Length (s)	90.0	Sum of lost time (s) 21.0
Intersection Capacity Utilization	64.2%	ICU Level of Service C
Analysis Period (min)	15	

c Critical Lane Group

Queues

13: Rt. 32 & Montville Commons Rd./Golden Rd.

12/16/2025



Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	65	133	40	57	124	788	81	678
v/c Ratio	0.37	0.45	0.27	0.32	0.24	0.78	0.26	0.37
Control Delay (s/veh)	43.2	9.8	42.6	21.0	7.6	26.5	8.7	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.2	9.8	42.6	21.0	7.6	26.5	8.7	15.1
Queue Length 50th (ft)	36	0	22	7	23	368	15	118
Queue Length 95th (ft)	72	37	51	42	51	#675	36	189
Internal Link Dist (ft)	506			798		617		275
Turn Bay Length (ft)		360	100		315		55	
Base Capacity (vph)	332	419	198	223	534	1015	349	1824
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.32	0.20	0.26	0.23	0.78	0.23	0.37

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
 13: Rt. 32 & Montville Commons Rd./Golden Rd.

12/16/2025



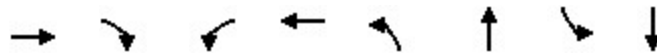
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↖	↗		↖	↗		↖	↗	
Traffic Volume (vph)	34	28	119	47	10	65	127	531	66	102	530	21
Future Volume (vph)	34	28	119	47	10	65	127	531	66	102	530	21
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.3	5.3	4.9	4.9		4.2	6.6		4.2	6.6	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	0.95	
Frt		1.00	0.85	1.00	0.87		1.00	0.98		1.00	0.99	
Flt Protected		0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1831	1599	1787	1635		1787	1850		1787	3554	
Flt Permitted		0.97	1.00	0.95	1.00		0.41	1.00		0.30	1.00	
Satd. Flow (perm)		1831	1599	1787	1635		775	1850		561	3554	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	35	29	124	49	10	68	132	553	69	106	552	22
RTOR Reduction (vph)	0	0	113	0	63	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	64	11	49	15	0	132	622	0	106	572	0
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Split	NA	Prot	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	7	7	4	4		5	2		1	6	
Permitted Phases							2			6		
Actuated Green, G (s)		9.2	9.2	7.1	7.1		63.2	55.1		62.2	54.6	
Effective Green, g (s)		9.2	9.2	7.1	7.1		63.2	55.1		62.2	54.6	
Actuated g/C Ratio		0.09	0.09	0.07	0.07		0.63	0.55		0.62	0.55	
Clearance Time (s)		5.3	5.3	4.9	4.9		4.2	6.6		4.2	6.6	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		168	147	126	116		571	1019		442	1940	
v/s Ratio Prot		c0.03	0.01	c0.03	0.01		c0.02	c0.34		0.02	0.16	
v/s Ratio Perm							0.13			0.13		
v/c Ratio		0.38	0.08	0.39	0.13		0.23	0.61		0.24	0.29	
Uniform Delay, d1		42.7	41.5	44.4	43.5		7.4	15.2		9.2	12.3	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.4	0.2	2.0	0.5		0.2	2.7		0.3	0.4	
Delay (s)		44.2	41.7	46.4	44.0		7.6	17.9		9.5	12.7	
Level of Service		D	D	D	D		A	B		A	B	
Approach Delay (s/veh)		42.6		44.9			16.1			12.2		
Approach LOS		D		D			B			B		

Intersection Summary		
HCM 2000 Control Delay (s/veh)	19.5	HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio	0.53	
Actuated Cycle Length (s)	100.0	Sum of lost time (s) 21.0
Intersection Capacity Utilization	61.0%	ICU Level of Service B
Analysis Period (min)	15	
c Critical Lane Group		

Queues

13: Rt. 32 & Montville Commons Rd./Golden Rd.

12/16/2025



Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	64	124	49	78	132	622	106	574
v/c Ratio	0.38	0.46	0.34	0.40	0.22	0.60	0.23	0.29
Control Delay (s/veh)	48.8	11.4	48.9	19.5	7.0	19.7	7.4	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	48.8	11.4	48.9	19.5	7.0	19.7	7.4	13.7
Queue Length 50th (ft)	40	0	30	6	25	259	20	100
Queue Length 95th (ft)	80	43	65	50	56	455	46	164
Internal Link Dist (ft)	506			798		617		275
Turn Bay Length (ft)		360	100		315		55	
Base Capacity (vph)	342	412	216	257	632	1038	500	1978
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.30	0.23	0.30	0.21	0.60	0.21	0.29

Intersection Summary