

April 3, 2023

Mr. Michael Mahoney
Deputy City Engineer
One Kennedy Plaza
Utica, NY 13502

Re: Genesee Street Road Diet Study

File: 145.004.001

Dear Mr. Mahoney:

We have completed a feasibility study for a road diet on Genesee Street to adopt bicycle lanes between NYS Route 5 (Oriskany Street) and Oneida Street/State Street). It is our professional opinion that Genesee Street will operate acceptably (LOS C or better) with a single lane in each direction, which will provide additional pavement width for a bicycle lane in each direction. Our findings are documented in this letter.

Genesee Street is a northeast-southwest oriented four-lane roadway with two travel lanes eastbound and two travel lanes westbound, and a parking lane on both sides of the road. The roadway width varies from 53 feet to 63 feet along the study corridor. The intent of this study is the determine if it is feasible to change the lane use on Genesee Street from the existing 4-lane road to a 3-lane road (two travel lanes and one center turn lane) with bicycle lanes in both directions where space is available. Parking lanes would be retained for the entire length of Genesee Street within the study area.

Data Collection

Traffic data for AM turning movement counts were collected from 7:00 AM – 9:00 AM and PM turning movement counts were collected from 4:00 PM to 6:00 PM. Traffic data came from two sources, the MVHS TIS in 2018, and intersections outside of the MVHS TIS study area were collected in February 2023. Construction for the MVHS is not complete at the time of this study. Anticipated trips generated from the hospital were added to the existing turning movement counts which is analyzed as existing conditions for the purposes of this study.

Turning movement count data was collected on Genesee Street at the following intersections in July 2018:

- Lafayette Street and Bleecker Street
- Columbia Street and Elizabeth Street
- Washington Street and Blandina Street
- Bank Place
- Court Street and Hopper Street

Turning Movement count data was collected on Genesee Street for the remaining intersections in the study in February 2023:

- NYS Route 5 (Oriskany Street)
- Cornelia Place and South Street
- Eagle Street

The study area weekday morning peak hour is 7:45 AM – 8:45 AM and the afternoon peak hour is 4:00 PM to 5:00 PM. Refer to Exhibit B for the turning movement diagram.

Automatic traffic recorder counts were collected for a 24-hour period in February 2023 in the study area. Attached Exhibit A includes the summary of traffic data collected on Genesee Street. From the 24-hour automatic traffic recorder data on Genesee Street, the eastbound lanes carry up to 322 veh/hour on average and the westbound lanes carry up to 398 veh/hour on average.

Speed information gathered from the February 2023 data collection effort indicates that the 85th percentile speed on Genesee Street between Eagle Street and NYS Route 5 is 28 mph in the westbound direction and 31 mph in the eastbound direction.

Methodology

Intersections

The study intersections were analyzed using SYNCHRO 11¹, which is a computer program that implements the methods presented in the 6th Edition Highway Capacity Manual². SYNCHRO determines the **Level of Service (LOS)**, which is defined in terms of **Delay**.

Delay is a measure of driver discomfort, frustration, fuel consumption and lost travel time.

Level of Service criteria are stated in terms of the control delay per vehicle for a 15-minute analysis period and range from "A" to "F". Level of Service A is representative of a movement that is free flowing with minimal delay, while LOS F generally represents long delays. LOS D is generally considered acceptable in urban environments.

The ranges of delay for each level of service, as contained in the 6th Edition Highway Capacity Manual, are shown in Table 1.

Table 1: Intersection Level of Service Criteria

Level of Service (LOS)	Unsignalized Intersections	Signalized Intersections	
	Delay (sec)	Delay (sec)	v/c ratio*
A	0-10	0-10	<1.0
B	> 10-15	> 10-20	<1.0
C	> 15-25	> 20-35	<1.0
D	> 25-35	> 35-55	<1.0
E	> 35-50	> 55-80	<1.0
F	over 50	over 80	≥1.0

* If the volume to capacity ratio is 1.0 or greater, the LOS is an F

¹ Synchro Studio 11, Traffic Signal Optimization and Simulation Modeling Software, Version 10, Trafficware Corporation, Albany, California, 2020.

² Highway Capacity Manual, Transportation Research Board, National Research Council, Washington D.C., 2016.

Volume Consideration

The Highway Capacity Manual outlines threshold volumes for estimated level of service based on the number of travel lanes and a road’s function. Using Exhibit 10-7, Example Service Volumes for Urban Streets, Highway Capacity Manual 2000, the LOS D volume threshold for a one lane Class IV (low speed) urban street is 690 veh/hr. The eastbound and westbound volumes do not exceed the LOS D threshold during peak hours on Genesee Street, and are significantly lower than this with a peak volume of 398 veh/hr. Based on this analysis, the volumes on Genesee Street can be accommodated by only one travel lane in each direction when considering the corridor as a whole.

Growth Analysis

Historical traffic data was reviewed within the study area, there was an overall decrease in traffic volumes from 2010 to 2023. No background growth rate or analysis of a future condition is proposed due to the decrease in traffic rates.

Capacity Analysis/Delay Consideration

An intersection capacity analysis was completed for the study area intersections using SYNCHRO. Two different scenarios were considered and compared along the corridor, both of which include anticipated hospital trips generated:

- Existing Conditions (2023)
- Road Diet Conditions (2023)

The results displayed in Tables 2 and 3 compare the existing and road diet LOS for the AM and PM peak hours. Genesee Street is considered to run eastbound and westbound in the LOS tables.

Table 2: Intersection LOS Morning (AM) Analysis

Approach		Existing (AM)			Road Diet (AM)		
		LOS ^a (Delay) ^b	V/C ^c	Queue ^d	LOS (Delay)	V/C	Queue
Genesee Street at NYS Route 5 (Oriskany Street)							
Eastbound	<i>Left</i>	D (43.5)	0.31	47	D (43.5)	0.31	47
	<i>Thru/Right</i>	D (39.9)	0.51	126	D (39.9)	0.51	126
Westbound	<i>Left</i>	E (59.4)	0.70	130	E (59.4)	0.70	130
	<i>Thru/Right</i>	D (44.1)	0.66	153	D (44.1)	0.66	153
Northbound	<i>Left</i>	B (10.2)	0.32	60	B (10.2)	0.32	60
	<i>Thru/Right</i>	B (13.4)	0.45	255	B (13.4)	0.45	255
Southbound	<i>Left</i>	A (8.6)	0.20	33	A (8.6)	0.20	33
	<i>Thru/Right</i>	B (16.2)	0.46	260	B (16.2)	0.46	260
<i>Intersection</i>		C (22.3)	-	-	C (22.3)	-	-

Table 2 Continued: Intersection LOS Morning (AM) Analysis

Approach		Existing (AM)			Road Diet (AM)		
		LOS ^a (Delay) ^b	V/C ^c	Queue ^d	LOS (Delay)	V/C	Queue
Genesee Street at Lafayette Street and Bleecker Street							
Eastbound	Left	A (9.2)	0.11	m81	B (10.7)	0.04	m26
	Thru/Right				B (11.2)		
Westbound	Left	A (4.9)	0.31	114	A (4.0)	0.10	32
	Thru/Right				A (7.6)		241
Northbound	Left/Thru/Right	D (54.9)	0.57	113	D (54.9)	0.57	113
Southbound	Left/Thru/Right	D (43.1)	0.39	82	D (43.1)	0.39	82
Intersection		B (12.5)	-	-	B (14.4)	-	-
Genesee Street at Columbia Street and Elizabeth Street							
Eastbound	Left	B (12.2)	0.17	92	C (21.1)	0.13	61
	Thru/Right				C (20.7)		181
Westbound	Left	A (7.8)	0.38	114	A (7.4)	0.15	44
	Thru/Right				B (10.6)		222
Northbound	Left/Thru/Right	C (31.9)	0.28	106	C (31.9)	0.28	106
Southbound	Left/Thru/Right	E (59.7)	0.86	#355	E (59.7)	0.86	#355
Intersection		C (23.2)	-	-	C (26.0)	-	-
Genesee Street at Washington Lane and Blandina Street							
Eastbound	Left	A (0.2)	0.09	2	A (0.3)	0.00	0
	Thru/Right				A (0.6)		4
Westbound	Left	A (2.0)	0.18	60	A (2.8)	0.09	m36
	Thru/Right				A (2.9)		m108
Southbound	Left/Thru/Right	D (49.2)	0.24	46	D (49.2)	0.24	46
Intersection		A (3.2)	-	-	A (3.8)	-	-
Genesee Street at Bank Place							
Eastbound	Thru/Right	A (0.0)	0.08	0	A (0.2)	0.15	0
Westbound	Left	A (0.1)	0.10	0	A (0.0)	0.02	0
	Thru/Right				A (0.2)		0
Intersection		A (0.1)	-	-	A (0.02)	-	-
Genesee Street at Court Street and Hopper Street							
Eastbound	Left	A (8.5)	0.17	70	A (7.9)	0.02	10
	Thru/Right				B (10.1)		152
Westbound	Left	B (11.3)	0.15	73	B (10.5)	0.01	10
	Thru/Right				B (13.0)		148
Northbound	Left/Thru/Right	C (34.4)	0.50	180	C (34.4)	0.50	180
Southbound	Left/Thru/Right	C (30.8)	0.25	95	C (30.8)	0.25	95
Intersection		C (21.4)	-	-	C (22.2)	-	-

Table 2 Continued: Intersection LOS Morning (AM) Analysis

Approach		Existing (AM)			Road Diet (AM)		
		LOS ^a (Delay) ^b	V/C ^c	Queue ^d	LOS (Delay)	V/C	Queue
Genesee Street at Cornelia Place							
Eastbound	Left	A (1.3)	0.10	17	A (2.3)	0.03	6
	Thru/Right				A (2.3)	0.19	33
Westbound	Left	A (2.3)	0.10	25	A (4.1)	0.03	9
	Thru				A (4.9)	0.19	62
	Right				A (0.8)	0.01	2
Northbound	Left/Thru/Right	C (27.0)	0.27	45	C (20.9)	0.15	42
Southbound	Left/Thru/Right	C (29.6)	0.38	60	C (21.7)	0.21	56
Intersection		A (6.8)	-	-	A (6.9)	-	-
Genesee Street at South Street							
Eastbound	Thru	A (2.2)	0.09	23	A (5.0)	0.20	65
	Right				A (2.3)	0.01	3
Westbound	Left	A (1.2)	0.12	12	A (1.9)	0.06	6
	Thru				A (2.0)	0.20	22
Northbound	Left	C (31.7)	0.05	16	C (26.9)	0.02	15
	Right	B (12.8)	0.34	36	A (9.1)	0.21	34
Intersection		A (3.3)	-	-	A (4.3)	-	-
Genesee Street at Eagle Street							
Eastbound	Thru	A (6.0)	0.19	72	A (5.9)	0.20	78
	Right	A (4.3)	0.00	3	A (4.3)	0.00	3
Westbound	Left	A (2.0)	0.03	6	A (2.9)	0.03	7
	Thru	A (2.5)	0.15	41	A (4.3)	0.19	47
Northbound	Left/Right	B (12.4)	0.23	26	B (10.0)	0.16	25
Intersection		A (4.9)	-	-	A (5.4)	-	-

Based on the capacity analysis, the reduction in travel lanes on Genesee Street from two in each direction, to one in each direction with a center turn lane, is expected to have minimal impacts to intersection operations during the AM peak hour. Under existing conditions, a few approach movements operate with poor levels of service, but are not worsened by the potential road diet. These movements are:

- Westbound left turns at Genesee Street and NYS Route 5 (Oriskany Street)
- Southbound movement at Genesee Street and Columbia Street/Elizabeth Street

The westbound left turns at Genesee Street and NYS Route 5 do not have an exclusive left turn phase. The left turn volume in the AM peak is 112 vehicles, left turn volumes over 100 vehicles per hour typically require their own protected phase for level of service and safety.

The southbound movement at Genesee Street and Columbia Street has a shared left/through/right turn lane. The poor level of service experienced at this approach may be due to left turning vehicles blocking through traffic, which is a heavier volume of 220 through vehicles.

Table 3: Intersection LOS Afternoon (PM) Analysis

Approach		Existing (PM)			Road Diet (PM)		
		LOS ^a (Delay) ^b	V/C ^c	Queue ^d	LOS (Delay)	V/C	Queue
Genesee Street at NYS Route 5 (Oriskany Street)							
Eastbound	<i>Left</i>	C (34.3)	0.31	81	C (34.3)	0.31	81
	<i>Thru/Right</i>	D (50.8)	0.82	319	D (50.8)	0.82	319
Westbound	<i>Left</i>	F (115.8)	0.95	#156	F (115.8)	0.95	#156
	<i>Thru/Right</i>	C (31.2)	0.31	102	C (31.2)	0.31	102
Northbound	<i>Left</i>	B (15.6)	0.24	43	B (15.3)	0.24	3
	<i>Thru/Right</i>	C (21.6)	0.45	285	C (21.6)	0.45	285
Southbound	<i>Left</i>	B (15.5)	0.35	88	B (15.5)	0.35	88
	<i>Thru/Right</i>	C (20.6)	0.57	390	C (20.6)	0.57	390
<i>Intersection</i>		C (29.2)	-	-	C (29.2)	-	-
Genesee Street at Lafayette Street and Bleecker Street							
Eastbound	<i>Left</i>	A (9.9)	0.35	97	A (9.2)	0.06	15
	<i>Thru/Right</i>				B (14.2)	0.59	235
Westbound	<i>Left</i>	B (12.0)	0.46	114	B (15.7)	0.40	67
	<i>Thru/Right</i>				B (13.6)	0.52	200
Northbound	<i>Left/Thru/Right</i>	C (21.3)	0.51	123	C (21.3)	0.51	123
Southbound	<i>Left/Thru/Right</i>	B (15.8)	0.28	67	B (15.8)	0.28	67
<i>Intersection</i>		B (12.8)	-	-	B (15.5)	-	-
Genesee Street at Columbia Street and Elizabeth Street							
Eastbound	<i>Left</i>	B (17.1)	0.49	130	C (28.2)	0.45	75
	<i>Thru/Right</i>				C (26.0)	0.66	268
Westbound	<i>Left</i>	B (14.7)	0.49	128	B (11.9)	0.12	24
	<i>Thru/Right</i>				C (29.7)	0.79	#340
Northbound	<i>Left/Thru/Right</i>	C (21.0)	0.59	210	C (21.0)	0.59	210
Southbound	<i>Left/Thru/Right</i>	C (27.1)	0.72	232	C (27.1)	0.72	232
<i>Intersection</i>		B (19.1)	-	-	C (26.1)	-	-
Genesee Street at Washington Lane and Blandina Street							
Eastbound	<i>Left</i>	A (2.0)	0.15	36	A (2.5)	0.01	2
	<i>Thru/Right</i>				A (3.2)	0.27	84
Westbound	<i>Left</i>	A (0.9)	0.19	16	A (1.2)	0.04	m2
	<i>Thru/Right</i>				A (1.5)	0.32	m42
Southbound	<i>Left/Thru/Right</i>	C (30.5)	0.27	46	C (30.5)	0.27	46
<i>Intersection</i>		A (2.8)	-	-	A (3.6)	-	-

Table 3 Continued: Intersection LOS Afternoon (PM) Analysis

Approach		Existing (PM)			Road Diet (PM)		
		LOS ^a (Delay) ^b	V/C ^c	Queue ^d	LOS (Delay)	V/C	Queue
Genesee Street at Bank Place							
Eastbound	<i>Thru/Right</i>	A (0.1)	0.14	0	A (0.3)	0.26	0
Westbound	<i>Left</i>	A (0.1)	0.14	0	A (0.1)	0.03	0
	<i>Thru/Right</i>				A (0.3)	0.23	0
<i>Intersection</i>		A (0.1)	-	-	A (0.3)	-	-
Genesee Street at Court Street and Hopper Street							
Eastbound	<i>Left</i>	B (15.4)	0.36	112	B (14.3)	0.10	23
	<i>Thru/Right</i>				C (20.1)	0.58	247
Westbound	<i>Left</i>	B (14.6)	0.33	103	B (13.3)	0.04	12
	<i>Thru/Right</i>				B (19.7)	0.58	240
Northbound	<i>Left/Thru/Right</i>	B (11.0)	0.28	75	B (11.0)	0.28	75
Southbound	<i>Left/Thru/Right</i>	B (13.9)	0.35	108	B (13.9)	0.35	108
<i>Intersection</i>		B (13.8)	-	-	B (16.2)	-	-
Genesee Street at Cornelia Place							
Eastbound	<i>Left</i>	A (2.0)	0.11	23	A (2.2)	0.03	8
	<i>Thru/Right</i>				A (2.2)	0.17	41
Westbound	<i>Left</i>	A (3.7)	0.17	42	A (3.5)	0.05	15
	<i>Thru</i>				A (4.3)	0.23	80
	<i>Right</i>				A (0.8)	0.01	3
Northbound	<i>Left/Thru/Right</i>	C (32.0)	0.23	67	C (32.6)	0.23	67
Southbound	<i>Left/Thru/Right</i>	D (36.3)	0.44	112	D (38.3)	0.44	112
<i>Intersection</i>		A (10.0)	-	-	B (10.6)	-	-
Genesee Street at South Street							
Eastbound	<i>Thru</i>	A (3.4)	0.10	29	A (4.0)	0.19	63
	<i>Right</i>				A (2.0)	0.00	2
Westbound	<i>Left</i>	A (2.1)	0.18	24	A (2.1)	0.07	10
	<i>Thru</i>				A (2.5)	0.25	41
Northbound	<i>Left</i>	D (37.5)	0.08	34	D (37.5)	0.08	34
	<i>Right</i>	B (10.7)	0.31	46	B (10.9)	0.31	46
<i>Intersection</i>		A (4.6)	-	-	A (4.9)	-	-
Genesee Street at Eagle Street							
Eastbound	<i>Thru</i>	A (5.0)	0.17	76	A (4.1)	0.15	70
	<i>Right</i>	A (3.5)	0.01	7	A (3.1)	0.01	7
Westbound	<i>Left</i>	A (2.8)	0.03	7	A (2.1)	0.03	6
	<i>Thru</i>	A (3.5)	0.24	60	A (2.8)	0.21	60
Northbound	<i>Left/Right</i>	B (12.9)	0.31	34	B (12.9)	0.31	34
<i>Intersection</i>		A (5.1)	-	-	A (4.4)	-	-

*lowercase letters signify the HCM 6th edition Stop Control methodology was used

a: level-of-service, b: delay is measured in seconds, c: volume to capacity ratio, d: 95th queue length, in feet

Based on the capacity analysis, the reduction in travel lanes on Genesee Street from two in each direction, to one in each direction with a center turn lane, is expected to have minimal impacts to intersection operations during the PM peak hour. Under existing conditions, one approach movement operates with poor levels of service, but is not worsened by the potential road diet. This movement is:

- Westbound left turns at Genesee Street and NYS Route 5 (Oriskany Street)

Similar to the AM peak, the westbound left turns at Genesee Street and NYS Route 5 do not have an exclusive left turn phase. The left turn volume in the PM peak is 98 vehicles, this is approaching 100 vehicles per hour which typically requires a protected left turn movement for level of service and safety.

Recommendations

In addition to the road diet, it is recommended to make lane configuration changes at the intersection of Genesee Street and NYS Route 5 on the westbound approach. The existing westbound approach consists of an exclusive left turn lane, through lane, and a shared through/right turn lane. Having two westbound through lanes forces traffic to merge on the other side of the intersection to accommodate a road diet for the remainder of the westbound direction on the Genesee Street corridor. Traffic volumes were reviewed for this approach, and based on the volumes, a single through lane could accommodate volumes, and eliminate the need for a merge after the intersection.

It is also recommended to provide a short exclusive left turn phase for east and westbound left turns on Genesee Street. This intersection is part of a coordinated network along NYS Route 5. For all movements to be a LOS D or better, a few seconds of green time were reallocated from NYS Route 5 to the Genesee Street approaches to accommodate the exclusive left turn phases.

An intersection capacity analysis was completed for the Genesee Street and NYS Route 5 intersection during the AM and PM peak for the existing lane configuration at westbound Genesee Street for the road diet, versus a proposed lane configuration of an exclusive left turn lane, single through lane, and an exclusive right turn lane. Table 4 highlights the results of this analysis.

Based on the capacity analysis with the recommended change, the LOS for westbound left turn movements improves from a LOS E and F, to a LOS C during both peak hours. The overall intersection LOS remains the same with a LOS C, and minimal delay is added.

Table 4: Intersection LOS for Genesee Street at NYS Route 5

Approach		Road Diet			Recommendations		
		LOS ^a (Delay) ^b	V/C ^c	Queue ^d	LOS (Delay)	V/C	Queue
AM Peak							
Eastbound	<i>Left</i>	D (43.5)	0.31	47	B (15.5)	0.15	24
	<i>Thru/Right</i>	D (39.9)	0.51	126	C (23.6)	0.45	63
Westbound	<i>Left</i>	E (59.4)	0.70	130	C (27.1)	0.36	87
	<i>Thru</i>	D (44.1)	0.66	153	D (49.7)	0.79	289
	<i>Right</i>				A (0.3)	0.07	0
Northbound	<i>Left</i>	B (10.2)	0.32	60	C (31.7)	0.49	#119
	<i>Thru/Right</i>	B (13.4)	0.45	255	C (26.7)	0.58	378
Southbound	<i>Left</i>	A (8.6)	0.20	33	C (26.0)	0.33	58
	<i>Thru/Right</i>	B (16.2)	0.46	260	C (29.3)	0.60	341
<i>Intersection</i>		C (22.3)	-	-	C (30.0)	-	-
PM Peak							
Eastbound	<i>Left</i>	C (34.3)	0.31	81	C (23.4)	0.23	66
	<i>Thru/Right</i>	D (50.8)	0.82	319	D (54.6)	0.84	333
Westbound	<i>Left</i>	F (115.8)	0.95	#156	C (28.8)	0.45	79
	<i>Thru</i>	C (31.2)	0.31	102	D (36.5)	0.47	208
	<i>Right</i>				A (0.2)	0.06	0
Northbound	<i>Left</i>	B (15.3)	0.24	3	C (33.8)	0.40	53
	<i>Thru/Right</i>	C (21.6)	0.45	285	C (30.6)	0.58	300
Southbound	<i>Left</i>	B (15.5)	0.35	88	C (28.3)	0.46	108
	<i>Thru/Right</i>	C (20.6)	0.57	390	C (30.3)	0.70	440
<i>Intersection</i>		C (29.2)	-	-	C (33.5)	-	-

Conclusion

Under existing conditions, all of the intersections have an average LOS C or better in both the AM and PM peak hours. There are a few movements that have a LOS E or F for existing conditions during peak hours. The movements with are poor LOS are not affected by the proposed road diet with delay remaining the same as existing. When the road diet lane configuration is modeled with the same volumes and signal timing, which includes anticipated hospital traffic once it becomes operational, the following is noted:

- Genesee Street at NYS Route 5 (Oriskany Street)
 - AM peak hour westbound left movement remained the same - LOS E (59.4s)
 - PM peak hour westbound left movement remained the same - LOS F (115.8s)

- Genesee Street at Columbia Street and Elizabeth Street
 - AM peak hour southbound Lt/Thru/Right remained the same - E (59.7)

There were no significant changes in operation or increases in delays projected from the reduction of Genesee Street from a four lane highway to a two lane highway with a center turn lane and bicycle lanes. Based on the hourly volume data and the capacity/queue analyses results from Synchro, a road diet on Genesee Street is feasible with minimal increased in delay at the intersections.

The following changes are recommended at the intersection of Genesee Street and NYS Route 5:

- Add exclusive left turn phases on the Genesee Street left turn movements
- Change the existing lane configuration for the westbound approach of Genesee Street from an exclusive left turn lane, through lane, and shared through/right turn lane, to an exclusive left turn lane, through lane, and exclusive right turn lane. This will remove the weave movement for westbound traffic after the intersection under the implementation of a road diet.

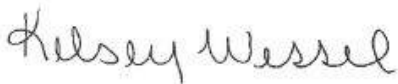
Schematic Concept Plans

Exhibit D includes schematic striping plans to show what the lane configurations could be along the corridor. While not shown on the drawings, Bike Lane signs (2009 MUTCD R3-17) could be used in conjunction with the striping along Genesee Street between Cornelia Place and Oriskany Street. West of South Street to Oneida Street/State Street, Shared Lane markings (Figure 9C-9 in 2009 MUTCD) and Bike Lane signs (2009 MUTCD W11-1 and 2009 MUTCD NYS Supplement NYW5-32P) could be placed to indicate the usage of travel lanes as shared use lanes. The shared lane markings would be placed at an 11 foot offset from each curb to the center of the marking, immediately after each intersection and every 250 feet otherwise. Since the drawings in Exhibit D are schematic concept plans, it should be noted that all installed markings and signage should comply with the guidelines noted in the 2009 MUTCD for bicycle facilities (Chapter 9).

If you have any questions or would like additional information, please call me at (315) 703-4461.

Sincerely,

C&S ENGINEERS, INC.



Kelsey Wessel, P.E.
Managing Engineer

Attachments:

Exhibit A – Traffic Data

Exhibit B – Turning Movement Diagram

Exhibit C – Synchro Reports

Exhibit D – Schematic Striping Plans
