

April 30, 2025

Zakia R. Alam
Assistant Engineer,
Traffic & Safety Group
New York State Department of Transportation (Region 8)
4 Burnett Boulevard, Poughkeepsie, NY 12603

SEQRA 22-218 - Sheffield Gardens
NYS Route 17K
Town of Montgomery, Orange County, New York
Colliers Engineering & Design Project No. 22012941A

Dear Ms. Alam,

We are writing on behalf of the Applicant for the proposed Sheffield Gardens development to be located along Route 17K in the Town of Montgomery, Orange County, New York. As was previously discussed with the Department during the March 19, 2025 virtual meeting that also included representatives of the Town, the Planning Board has asked us to review the possibility of installing a traffic signal at the site access intersection with Route 17K to allow vehicles to enter and exit the site under traffic signal control.

To assess the need for a traffic signal at the site access, a traffic signal warrant analysis has been prepared for the intersection based on the criteria of the ***Manual on Uniform Traffic Control Devices, 11th Edition*** (MUTCD). The signal warrant analysis, which is summarized in attached Table TSW-1, assesses the future 2026 Full Build-Out Traffic Volume conditions at the Route 17K/Site Access intersection. MUTCD Signal Warrants No. 1, 2 and 3 have been analyzed in accordance with the MUTCD guidelines. The other signal warrants (Warrants 4 through 9) are not applicable to the analysis of this intersection. Based on the signal warrant analysis, the intersection is anticipated to satisfy Warrants No. 1, 2 and 3 under the future traffic conditions with the Project. Therefore, it is our opinion, that a fully actuated traffic signal should be installed at the site access intersection with Route 17K along with the previously identified construction of a separate westbound left turn lane along Route 17K for vehicles during left into the site.

Capacity analysis has been conducted for the intersection with a traffic signal and separate westbound left turn lane. This analysis indicates that the intersection would operate at an overall Level of Service "B" during all peak hours. The associated Synchro analysis files are enclosed for your review. It should be noted that this traffic signal would be in excess of 2,500 ft. from the nearest adjacent signal to the east at the Route 208/Route 17K intersection and in excess of 1,500 ft from the nearest adjacent signal to the west at the Route 17K/Valley Central School Exit driveway. Therefore, it is our opinion that the coordination of this signal with the nearest signals along Route 17K would



not be effective, but this could be further explored as part of future analysis along with any other permit requirements.

It is requested that the Department review the enclosed analysis and provide an indication of concurrence that a traffic signal is warranted at the intersection and should be installed by the Applicant as a permit signal as part of the Project, such that the Town can continue their ongoing SEQRA review of the Project.

In addition to the above, we understand that there remain other outstanding comments from the Department's November 8, 2024 comments. These will be addressed in the near future as part of the preparation of the FEIS and a complete submission will be made at that time. As the Project progresses, formal design plans for the intersection improvements, including the proposed traffic signal, will also be prepared and submitted to the Department as part of the Highway Work Permit Application for the Project.

Sincerely,

Colliers Engineering & Design, Architecture, Landscape Architecture, Surveying, CT P.C.

A handwritten signature in black ink that reads "Richard D'Andrea".

Richard D'Andrea, PE, PTOE
Department Manager

R:\Projects\2022\22012941A\Correspondence\OUT\250430RGD_Alam_Signal Warrant Analysis.docx

TABLE TSW-1

**MUTCD 11TH EDITION SIGNAL WARRANTS ANALYSIS
NYS ROUTE 17K AT SHEFFIELD GARDENS SITE ACCESS
WARRANT ANALYSIS SUMMARY**

INTERSECTION DATA			
Major Street:	NYS Route 17K	Number of Lanes For Moving Traffic By Approach	
Minor Street:	Sheffield Gardens Site Access	Major Street (Excluding Auxiliary Lanes) =	1
		Minor Street (Including Auxiliary Lanes) =	1
Location:	Town of Wallkill, Orange County, New York	Major Street Speed	
Date:	4/1/2025	85TH Percentile Speed >= 40 mph (Y or N):	Y
Volume Basis:	2026 Full Build Traffic Volumes	Community Population	
Condition:	Typical Weekday	Community < 10,000 (Y or N):	N
WARRANT ANALYSIS SUMMARY			
Warrant 1 - Eight-Hour Vehicular Volume			
Condition A - Minimum Vehicular Volume		Not Satisfied -- No Signal	
Condition B - Minimum Vehicular Interruption of Continuous Traffic		Satisfied -- Criteria Met for Signalization	
Condition A & B Combined Condition		Not Applicable	
		Warrant 1 Satisfied:	YES
Warrant 2 - Four-Hour Vehicular Volume			
Four-Hour Vehicular Volume		Satisfied -- Criteria Met for Signalization	
		Warrant 2 Satisfied:	YES
Warrant 3 - Peak Hour			
Peak Hour Volume		Satisfied -- Criteria Met for Signalization	
		Warrant 3 Satisfied:	YES
Warrant 4 - Pedestrian Volume Warrant			
Condition A - Pedestrian Four-Hour Volume		Not Applicable	
Condition B - Pedestrian Peak Hour Volume		Not Applicable	
		Warrant 4 Satisfied:	Not Applicable
Warrant 5 - School Crossing			
		Warrant 5 Satisfied:	Not Applicable
Warrant 6 - Coordinated Signal System			
		Warrant 6 Satisfied:	Not Applicable
Warrant 7 - Crash Experience			
		Warrant 7 Satisfied:	Not Applicable
Warrant 8 - Roadway Network			
		Warrant 7 Satisfied:	Not Applicable
Warrant 9 - Intersection Near a Grade Crossing			
Condition A - Distance to Rail		Not Applicable	
Condition B - Traffic Volume Warrant		Not Applicable	
		Warrant 9 Satisfied:	Not Applicable

TABLE TSW-1

SIGNAL WARRANTS ANALYSIS
NYS ROUTE 17K AT SHEFFIELD GARDENS SITE ACCESS
Warrant 1 - Eight-Hour Vehicular Volume

INTERSECTION DATA

Major Street:	NYS Route 17K	Number of Lanes For Moving Traffic By Approach	
Minor Street:	Sheffield Gardens Site Access	Major Street (Excluding Auxiliary Lanes) =	1
		Minor Street (Including Auxiliary Lanes) =	1
Location:	Town of Wallkill, Orange County, New York		
Date:	4/1/2025	Major Street Speed	
		85TH Percentile Speed >= 40 mph (Y or N):	Y
Volume Basis:	2026 Full Build Traffic Volumes	Community Population	
		Community < 10,000 (Y or N):	N
Condition:	Typical Weekday		

WARRANT ANALYSIS

Time of Day	Volumes		Warrant 1 Condition A		Warrant 1 Condition B		Warrant 1 Condition A & B				Warrant Met?		
			Major Street	Minor Street	Major Street	Minor Street	Condition A	Condition B	Major Street	Minor Street	1A	1B	
	Major Street	Minor Street	Major Street	Minor Street			Major Street	Minor Street	Major Street	Minor Street	Combined	Combined	
12:00 AM	90	4	350	105	525	53	280	84	420	42	NO	NO	N/A N/A
1:00 AM	60	3	350	105	525	53	280	84	420	42	NO	NO	N/A N/A
2:00 AM	49	3	350	105	525	53	280	84	420	42	NO	NO	N/A N/A
3:00 AM	69	3	350	105	525	53	280	84	420	42	NO	NO	N/A N/A
4:00 AM	169	11	350	105	525	53	280	84	420	42	NO	NO	N/A N/A
5:00 AM	343	30	350	105	525	53	280	84	420	42	NO	NO	N/A N/A
6:00 AM	761	69	350	105	525	53	280	84	420	42	NO	YES	N/A N/A
7:00 AM	1,238	108	350	105	525	53	280	84	420	42	YES	YES	N/A N/A
8:00 AM	1,138	81	350	105	525	53	280	84	420	42	NO	YES	N/A N/A
9:00 AM	1,097	52	350	105	525	53	280	84	420	42	NO	NO	N/A N/A
10:00 AM	961	47	350	105	525	53	280	84	420	42	NO	NO	N/A N/A
11:00 AM	1,137	47	350	105	525	53	280	84	420	42	NO	NO	N/A N/A
12:00 PM	1,043	78	350	105	525	53	280	84	420	42	NO	YES	N/A N/A
1:00 PM	1,098	71	350	105	525	53	280	84	420	42	NO	YES	N/A N/A
2:00 PM	1,322	79	350	105	525	53	280	84	420	42	NO	YES	N/A N/A
3:00 PM	1,341	77	350	105	525	53	280	84	420	42	NO	YES	N/A N/A
4:00 PM	1,344	95	350	105	525	53	280	84	420	42	NO	YES	N/A N/A
5:00 PM	1,469	119	350	105	525	53	280	84	420	42	YES	YES	N/A N/A
6:00 PM	905	95	350	105	525	53	280	84	420	42	NO	YES	N/A N/A
7:00 PM	845	67	350	105	525	53	280	84	420	42	NO	YES	N/A N/A
8:00 PM	583	44	350	105	525	53	280	84	420	42	NO	NO	N/A N/A
9:00 PM	416	30	350	105	525	53	280	84	420	42	NO	NO	N/A N/A
10:00 PM	241	23	350	105	525	53	280	84	420	42	NO	NO	N/A N/A
11:00 PM	124	17	350	105	525	53	280	84	420	42	NO	NO	N/A N/A

Total Hours Meeting Warrants	2	11	0	0
Total Hours Needed to Satisfy	8	8	8*	8*

WARRANT 1 SUMMARY

Warrant 1 Condition A - Minimum Vehicular Volume	Not Satisfied -- No Signal
Warrant 1 Condition B - Interruption of Continuous Traffic	Satisfied -- Criteria Met for Signalization
Warrant 1A & 1B Combined Condition	Not Applicable

*Note: For Combined Warrant Both Conditions 1A & 1B Must Be Satisfied for a Minimum of 8 Hours.

TABLE TSW-1

SIGNAL WARRANTS ANALYSIS
NYS ROUTE 17K AT SHEFFIELD GARDENS SITE ACCESS
Warrant 2 - Four-Hour Vehicular Volume & Warrant 3 - Peak Hour Volume

INTERSECTION DATA		
Major Street:	NYS Route 17K	Number of Lanes For Moving Traffic By Approach
Minor Street:	Sheffield Gardens Site Access	Major Street (Excluding Auxiliary Lanes) = 1 Minor Street (Including Auxiliary Lanes) = 1
Location:	Town of Wallkill, Orange County, New York	Major Street Speed
Date:	4/1/2025	85TH Percentile Speed >= 40 mph (Y or N): Y
Volume Basis:	2026 Full Build Traffic Volumes	Community Population
Condition:	Typical Weekday	Community < 10,000 (Y or N): N

Time of Day	Volumes		Warrant 2 ¹		Warrant 3 ¹		Warrant Met?	
	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Warrant 2	Warrant 3
							NO	NO
12:00 AM	90	4					NO	NO
1:00 AM	60	3					NO	NO
2:00 AM	49	3					NO	NO
3:00 AM	69	3					NO	NO
4:00 AM	169	11					NO	NO
5:00 AM	343	30					NO	NO
6:00 AM	761	69					YES	NO
7:00 AM	1,238	108					YES	YES
8:00 AM	1,138	81					YES	YES
9:00 AM	1,097	52					NO	NO
10:00 AM	961	47					NO	NO
11:00 AM	1,137	47					NO	NO
12:00 PM	1,043	78					YES	YES
1:00 PM	1,098	71					YES	NO
2:00 PM	1,322	79					YES	YES
3:00 PM	1,341	77					YES	YES
4:00 PM	1,344	95					YES	YES
5:00 PM	1,469	119					YES	YES
6:00 PM	905	95					YES	YES
7:00 PM	845	67					YES	NO
8:00 PM	583	44					NO	NO
9:00 PM	416	30					NO	NO
10:00 PM	241	23					NO	NO
11:00 PM	124	17					NO	NO
						Total Hours Meeting Warrants	11	8
						Total Hours Needed to Satisfy	4	1

WARRANTS 2 & 3 SUMMARY	
Warrant 2 - Four Hour Vehicular Volume	Satisfied -- Criteria Met for Signalization
Warrant 3 - Peak Hour Volume	Satisfied -- Criteria Met for Signalization

Notes:

1) Volumes for Warrants 2 & 3 are compared to attached MUTCD Figures 4C-2 and 4C-4, respectively.

TABLE TSW-1
 Figure 4C-2
 NYS ROUTE 17K AT SHEFFIELD GARDENS SITE ACCESS
 Warrant 2 - Four-Hour Vehicular Volume (70% Factor)

(Community Less than 10,000 Population or 85th Percentile Speed Above 40 MPH on Major Street)

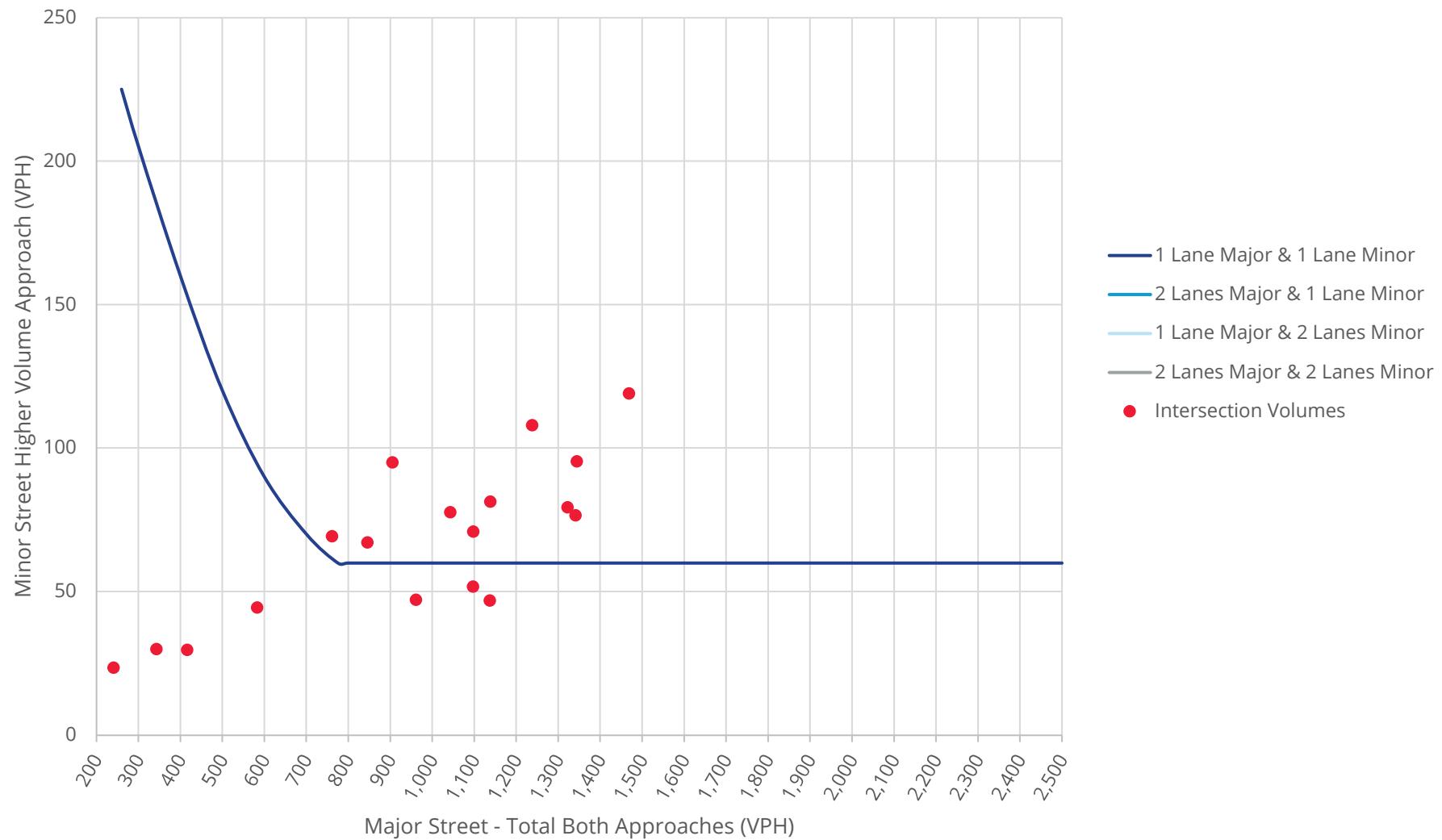


TABLE TSW-1
Figure 4C-4
NYS ROUTE 17K AT SHEFFIELD GARDENS SITE ACCESS
Warrant 3 - Peak Hour Volume (70% Factor)
(Community Less than 10,000 Population or 85th Percentile Speed Above 40 MPH on Major Street)

