400 Columbus Avenue Suite 180E
Valhalla, New York 10595
Main: 877 627 3772
colliersengineering.com

Colliers
Engineering
& Design

June 10, 2025
Revised December 3, 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. This submission supplements our previous submission dated April 30, 2025, which analyzed the need for a traffic signal at the site access driveway connection to Route 17K currently proposed to be located approximately 400 ft. east of Bailey Road. Subsequent comments from the Town and the Department regarding that submission have requested a further analysis of the potential of aligning the site access driveway opposite Bailey Road. Based on review of the site with the Applicant and Project Site Engineer (Engineering & Surveying Properties) it has been determined that aligning the site driveway opposite Bailey Road would be feasible.

To assess the need for a traffic signal at the potential Site Access/Bailey Road intersection with Route 17K, an alternate access scenario capacity analysis and a traffic signal warrant analysis was conducted. The alternate access scenario traffic analysis is based on the previous traffic analysis conducted for the Project as part of our Traffic Impact Study (TIS) dated September 5, 2024. Utilizing this prior analysis information, the arrival and departure distributions were modified to reflect the potential modified location of the access driveway aligning opposite Bailey Road. The modified arrival and departure distributions are identified on Figures No. 14A and 15A provided in Attachment 1. The resulting site generated traffic volumes are identified on Figures No. 16A through 24A. The site generated traffic volumes were added to the No-Build traffic volumes previously identified in the TIS to determine the Build Traffic Volumes at the potential Route 17K/Site Access/Bailey Road intersection.

Colliers Engineering & Design

Utilizing the Build traffic volumes identified above, and other volume data previously identified as part of the TIS, 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 contained in Attachment 2, assesses the future 2026 Full Build-Out Traffic Volume conditions at the intersection. MUTCD Signal Warrants No. 1, 2 and 3 have been analyzed in accordance with the MUTCD guidelines. 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 is warranted at the potential Site Access/Bailey Road intersection with Route 17K along with the construction of separate eastbound and westbound left turn lanes along Route 17K for vehicles during left into the site and onto Bailey Road.

It should be noted that the other traffic signal warrants identified in the MUTCD were assessed for the intersection but as identified below, these warrants do not apply:

- Warrant 4 – Pedestrian Volume and Warrant 5 – School Crossing do not apply to this intersection since there is no evidence of existing pedestrian volume at this intersection and the Project does not anticipate adding any new pedestrian volume at this location. Note that an internal pedestrian connection to the adjacent Central Valley High School/Middle School property is proposed as part of the Project to allow resident students to walk to the school without traverse along Route 17K.
- It is also our opinion that Warrant 6 – Coordinated Signal System does not specifically apply to this location since the Warrant is typically applied to intersection in the middle of an existing coordinated system, however, the coordination of the potential traffic signal at this location with the existing traffic signals at the Central Valley Middle School/High School driveways is discussed further below.
- Warrant 7 – Crash Experience does not apply since the crash history at this intersection indicates just two crashes over the 6-year period between January 1, 2017 and December 31, 2022 as analyzed in the TIS.
- Warrant 8 – Roadway Network does not apply because the intersection is not the intersection of two major roadways.
- Warrant 9 – Intersection Near Grade Crossing does not apply because there is no rail crossing in the vicinity of the intersection.

Based on the above traffic signal warrant analysis, capacity analysis has been conducted for the intersection with a traffic signal and separate eastbound and westbound left turn lanes. The analysis includes the coordination of the potential traffic signal with the existing traffic signals at the intersections of the Valley Central Schools entry and exit driveways. It is noted that those existing traffic signals are not currently coordinated, but it is our opinion that they should be part of a coordinated system with the potential future signalization of the Route 17K/Site Access/Bailey Road intersection.

This capacity analysis, which is summarized in Tables No. 2A and 3A, contained in Attachment 3, indicates that the intersection would operate at an overall Level of Service "A" during all peak hours. The associated Synchro analysis files are enclosed for your review. In addition, the school driveway intersections are projected to operate at similar operating conditions to future no-build conditions, however a review of the synchro analyses indicates that improved traffic progression along the corridor should be provided with the coordination of the three traffic signals. Based on this analysis and the Department's prior review of our June 10, 2025 submission, the Project has been revised accordingly to align the Project site access opposite Bailey Road.

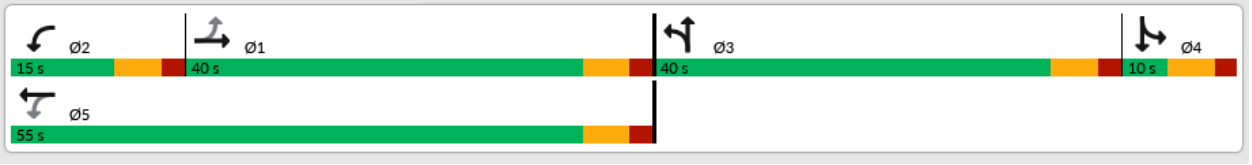
Other Corridor Improvements

Based on other comments from the Department, the analysis of the intersections of NYS Route 17K at NYS Route 211 and NYS Route 17K at NYS Route 208 have been reassessed to determine potential further improvements that could be implemented to address both background traffic volumes and Project generated traffic.

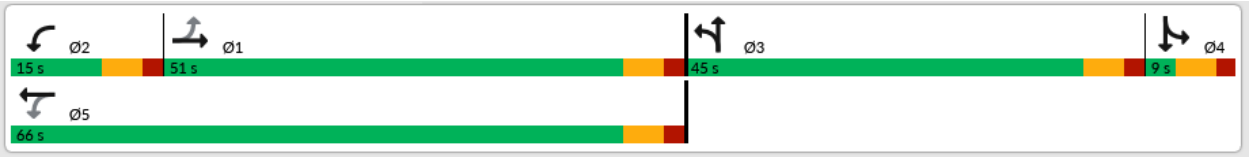
NYS Route 17K at NYS Route 211

During the PM Peak Hour this intersection is projected to operate over capacity on the westbound approach under the future Build conditions with a volume-to-capacity (v/c) ratio of 1.03. An increase in the cycle length from 105 seconds to 120 seconds along with a rebalancing of the phase timings will result in all approaches operating within capacity, but there will be some increases in delay experienced on the northbound approach. The traffic signal timing modifications are identified in the figures below. In addition, to the timing modifications, the installation of adaptive traffic signal software at this location could be considered to improve traffic signal operations.

Existing Traffic Signal Timings – Weekday PM Peak Hour



Proposed Traffic Signal Timings – Weekday PM Peak Hour

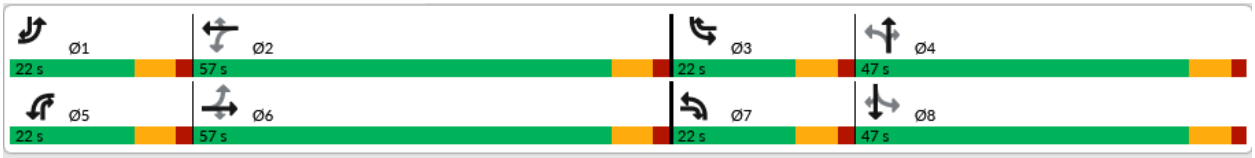


Colliers Engineering & Design

NYS Route 17K at NYS Route 208

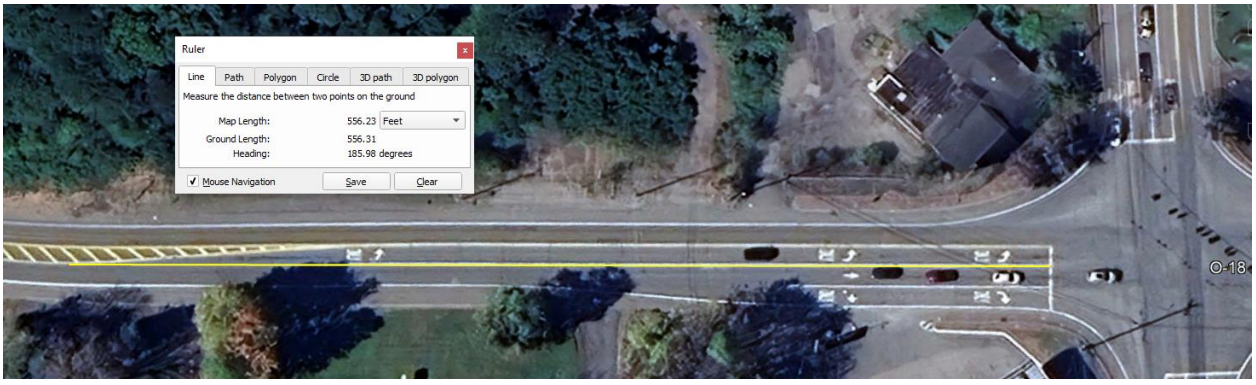
During the PM Peak Hour, the northbound left turn movement is projected to exceed the provided 400-ft. storage length under both the No-Build and Build conditions. Traffic signal timing modifications have been explored to improve the operation of the northbound left turn movement. The traffic signal timing modifications include providing nine (9) seconds of additional green time to the northbound left turn/northbound through movement phases. The traffic signal timing modifications are detailed in the figures below. These modifications will result in an approximately 40 ft. reduction of the northbound left turn queue, but the queue will still exceed the available left turn lane length.

Existing Traffic Signal Timings – Weekday PM Peak Hour



Proposed Traffic Signal Timings – Weekday PM Peak Hour

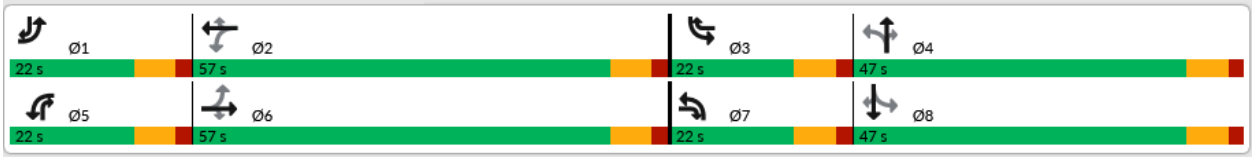
Furthermore, it is noted that while the lane is striped with 400 ft. of storage, when the left turn lane taper area is included, the total storage is approximately 550 ft. This is detailed in the aerial figure below. Based on this the northbound left turn queue will not impact northbound through traffic.



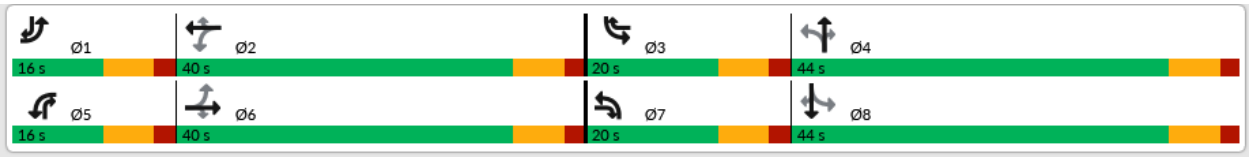
In addition, during the Saturday Peak Hour, the overall intersection Level of Service (LOS) is projected to drop from a LOS C under No-Build conditions to LOS D under Build conditions. Traffic signal timing modifications have been identified for the intersection under the future Build conditions to improve the overall intersection operation during this time period. These traffic signal timing modifications include a change of the overall intersection cycle length from the existing 148 seconds to 120 seconds along with a rebalancing of the phase timings. The traffic signal timing

modifications are detailed in the figures below. These modifications will result in the overall intersection experiencing a LOS C under future Build conditions with the Project, which is similar to the conditions experienced under Existing and No-Build traffic conditions.

Existing Traffic Signal Timings – Weekday PM Peak Hour



Proposed Traffic Signal Timings – Weekday PM Peak Hour



In addition to the above, we understand that there remain other outstanding comments from the Department's July 29, 2025, comments that relate to the layout and design of the proposed improvements along Route 17K. These will also be addressed as part of a future submission upon preparation of detailed highway improvement plans for the proposed modifications in the NYSDOT Right-of-Way as part of the Highway Work Permit Application for the Project.

Sincerely,

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

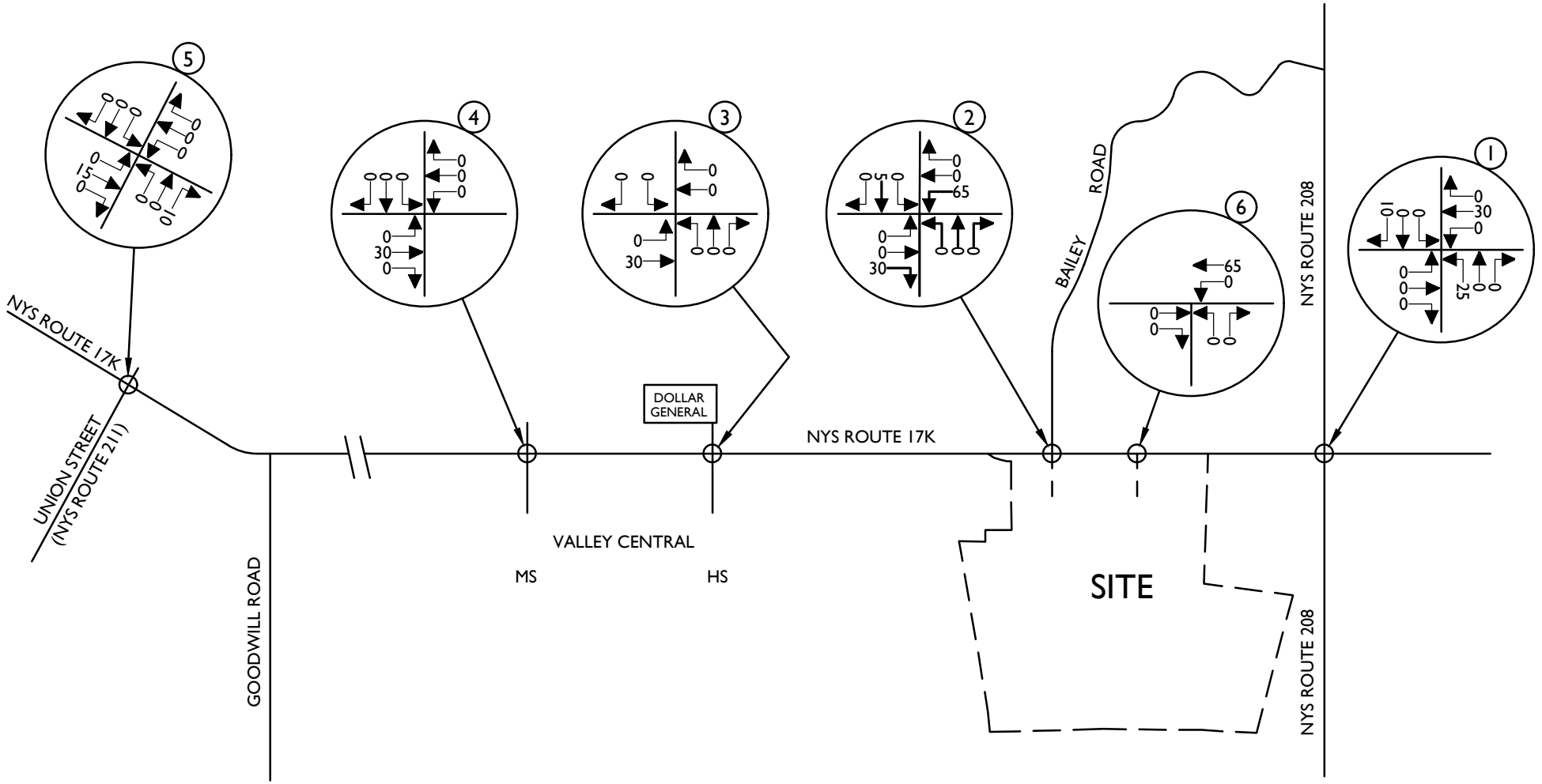
Richard D'Andrea, PE, PTOE
Department Manager

R:\Projects\2022\22012941A\Correspondence\OUT\251014RGD_Alam_Signal Warrant Analysis_Bailey.docx

Colliers
Engineering
& Design

Appendix

Attachement 1 | Traffic Volume Figures



NOTE: LINE DIAGRAM NOT TO SCALE

Colliers Engineering & Design

www.colliersengineering.com

Doing Business as MASER CONSULTING

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

SHEFFIELD GARDENS

TOWN OF MONTGOMERY
ORANGE COUNTY
NEW YORK

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
Know what's below. Call before you dig
STATE REQUIRED FILE NUMBER
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Colliers Engineering & Design
WESTCHESTER
400 Columbus Avenue, Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

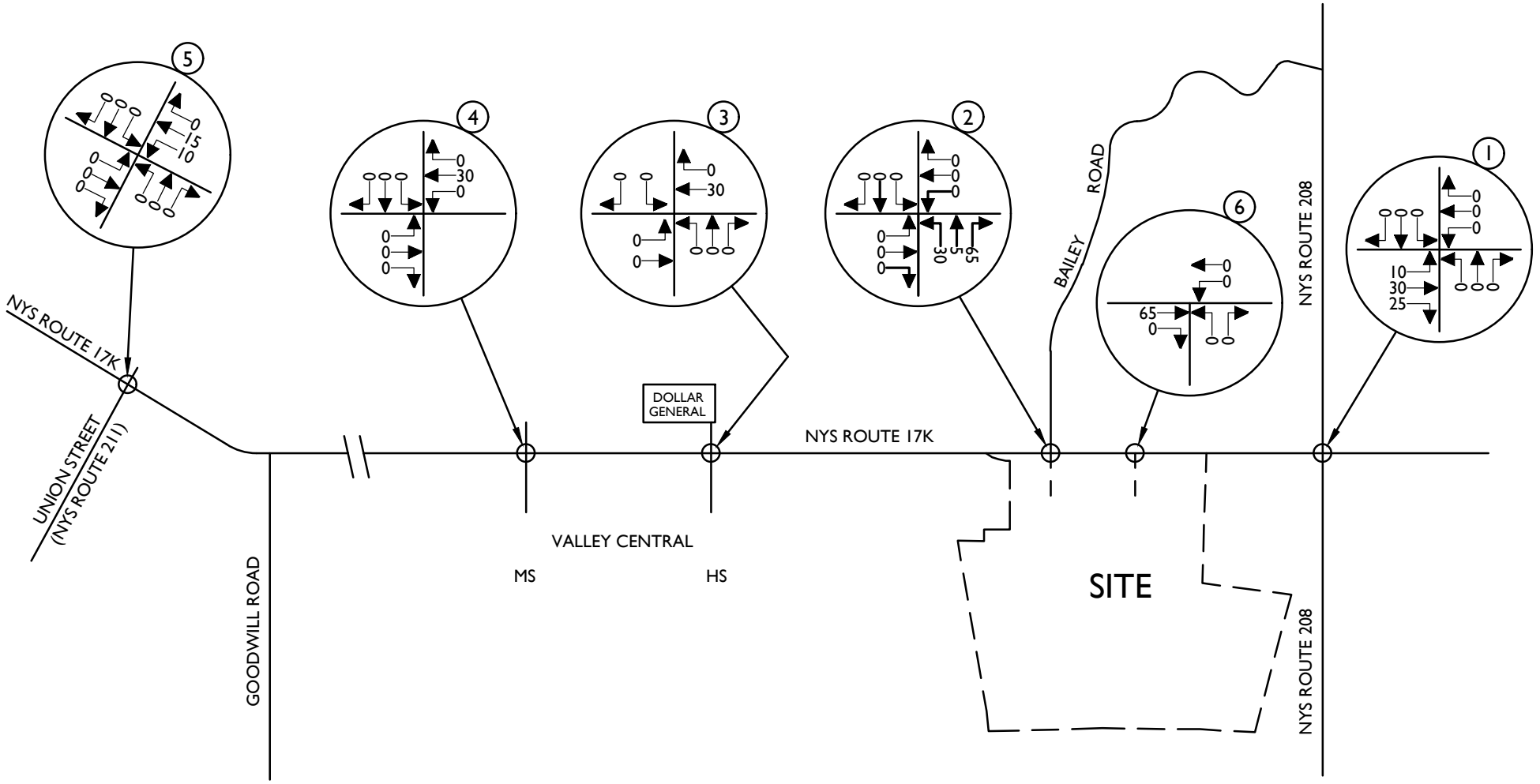
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	10/14/25	R.H.	P.J.G.

PROJECT NUMBER: 22012941A
DRAWING NAME: 251014RH_FIGURE ALT ACCESS

SHEET TITLE:
ARRIVAL DISTRIBUTION
(ALL VALUES ARE EXPRESSED AS %)
(ALTERNATE SITE ACCESS)

SHEET NUMBER: 14A

2941A\Reports\Traffic\Figures\251014RH_FIGURE ALT ACCESS.dwg\14A By: RDANDREA



NOTE: LINE DIAGRAM NOT TO SCALE

Colliers Engineering & Design

www.colliersengineering.com

Doing Business as MASER CONSULTING

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

SHEFFIELD GARDENS

TOWN OF MONTGOMERY
ORANGE COUNTY
NEW YORK

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
Know what's below. Call before you dig
STATE REQUIRED FILE NUMBER
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Colliers Engineering & Design
WESTCHESTER
400 Columbus Avenue, Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

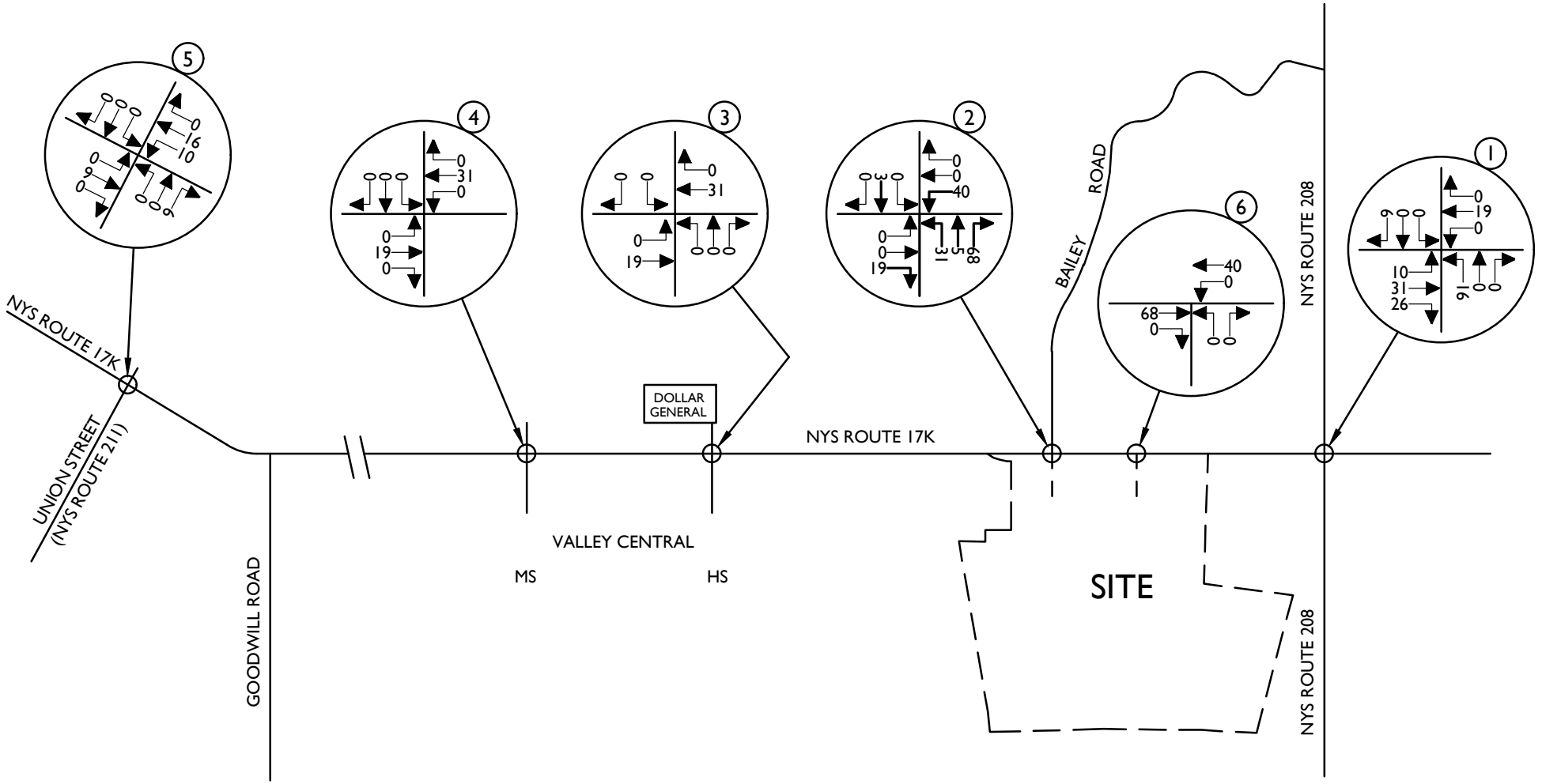
TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	10/14/25	R.H.	P.J.G.

PROJECT NUMBER: 22012941A
DRAWING NAME: 251014RH_FIGURE ALT ACCESS

SHEET TITLE:
DEPARTURE DISTRIBUTION
(ALL VALUES ARE EXPRESSED AS %)
(ALTERNATE SITE ACCESS)

SHEET NUMBER: 15A



NOTE: LINE DIAGRAM NOT TO SCALE

Colliers Engineering & Design

www.colliersengineering.com

Doing Business as MASER CONSULTING

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

SHEFFIELD GARDENS

TOWN OF MONTGOMERY
ORANGE COUNTY
NEW YORK

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
Know what's below. Call before you dig
STATE REQUIRED FILE NUMBER
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Colliers Engineering & Design
WESTCHESTER
400 Columbus Avenue, Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

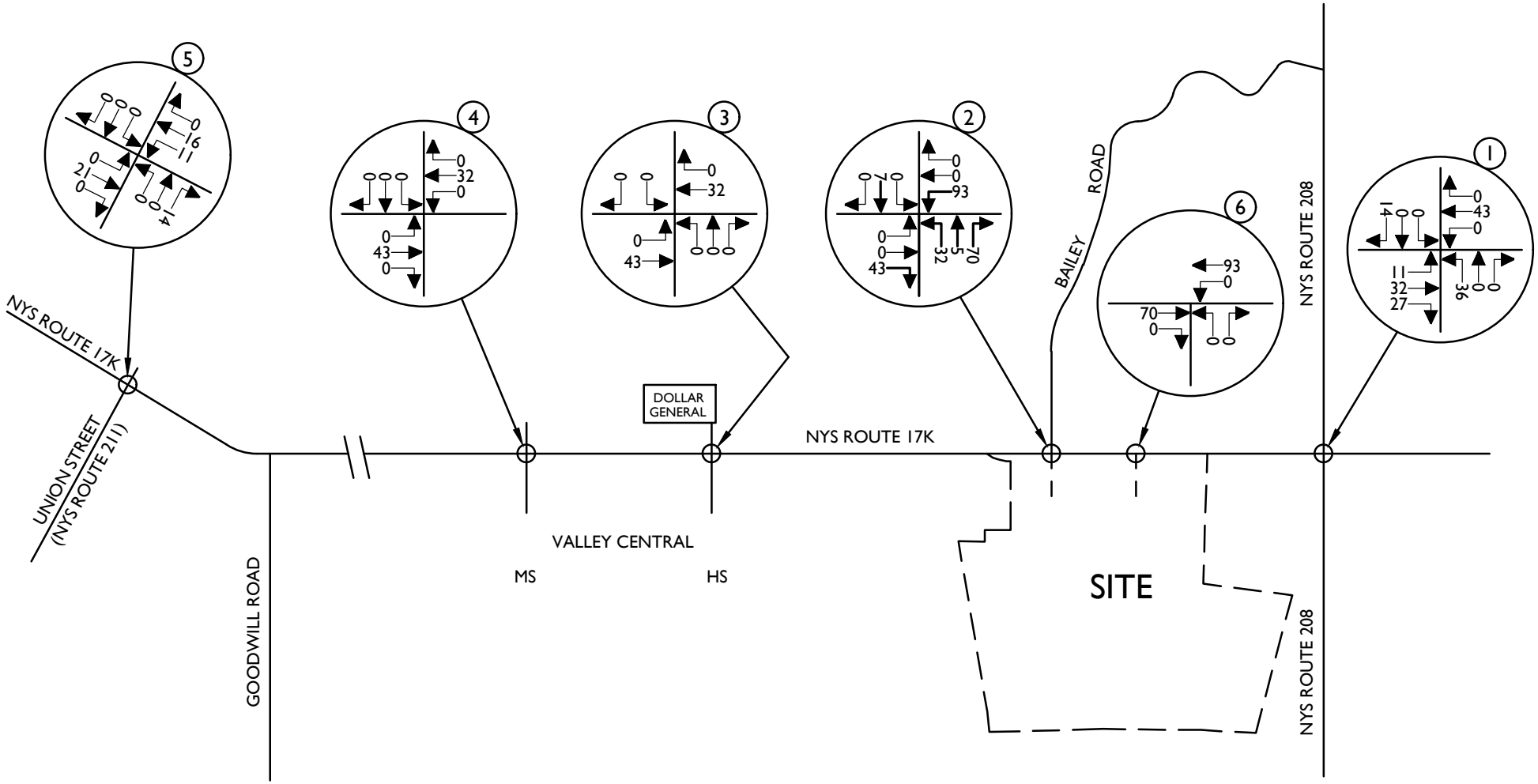
TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	10/14/25	R.H.	P.J.G.

PROJECT NUMBER: 22012941A
DRAWING NAME: 251014RH_FIGURE ALT ACCESS

SHEET TITLE:
SITE GENERATED PRIMARY TRIPS
WEEKDAY PEAK AM HOUR
(ALTERNATE SITE ACCESS)

SHEET NUMBER:
16A



NOTE: LINE DIAGRAM NOT TO SCALE

Colliers Engineering & Design

www.colliersengineering.com

Doing Business as MASER CONSULTING

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

SHEFFIELD GARDENS

TOWN OF MONTGOMERY
ORANGE COUNTY
NEW YORK

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
Know what's below. Call before you dig
STATE REQUIRED FILE NUMBER
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Colliers Engineering & Design
WESTCHESTER
400 Columbus Avenue, Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

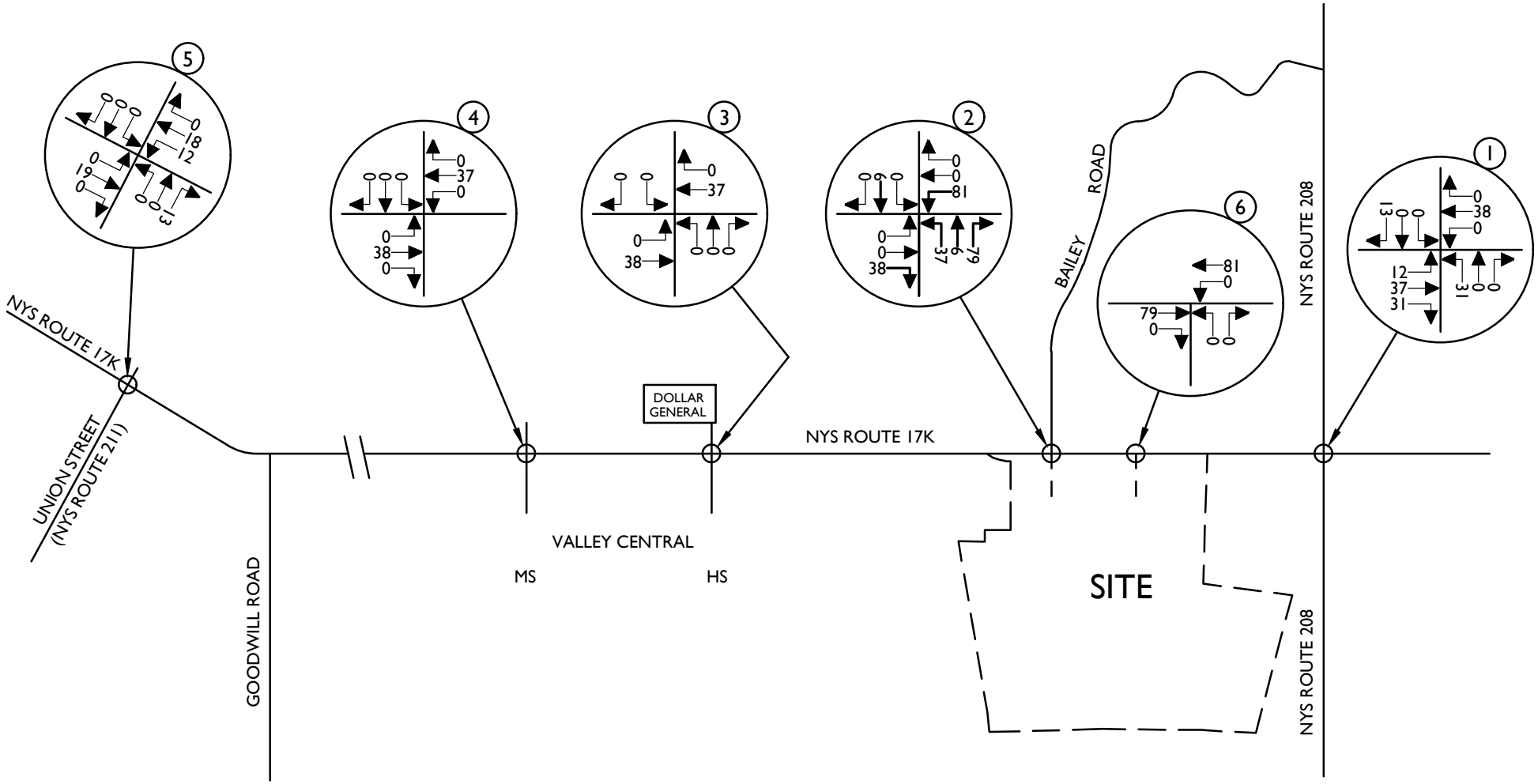
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	10/14/25	R.H.	P.J.G.

PROJECT NUMBER: 22012941A
DRAWING NAME: 251014RH_FIGURE ALT ACCESS

SHEET TITLE:
SITE GENERATED PRIMARY TRIPS
WEEKDAY PEAK PM HOUR
(ALTERNATE SITE ACCESS)

SHEET NUMBER: 17A

2941A\Reports\Traffic\Figures\251014RH_FIGURE ALT ACCESS.dwg\17A By: RDANDREA



NOTE: LINE DIAGRAM NOT TO SCALE

Colliers Engineering & Design

www.colliersengineering.com

Doing Business as MASER CONSULTING

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

SHEFFIELD GARDENS

TOWN OF MONTGOMERY
ORANGE COUNTY
NEW YORK

811 Know what's below. Call before you dig

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

STATE REQUIRED FILE NUMBER

FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Colliers Engineering & Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500

COLLIERS ENGINEERING & DESIGN CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	10/14/25	R.H.	P.J.G.

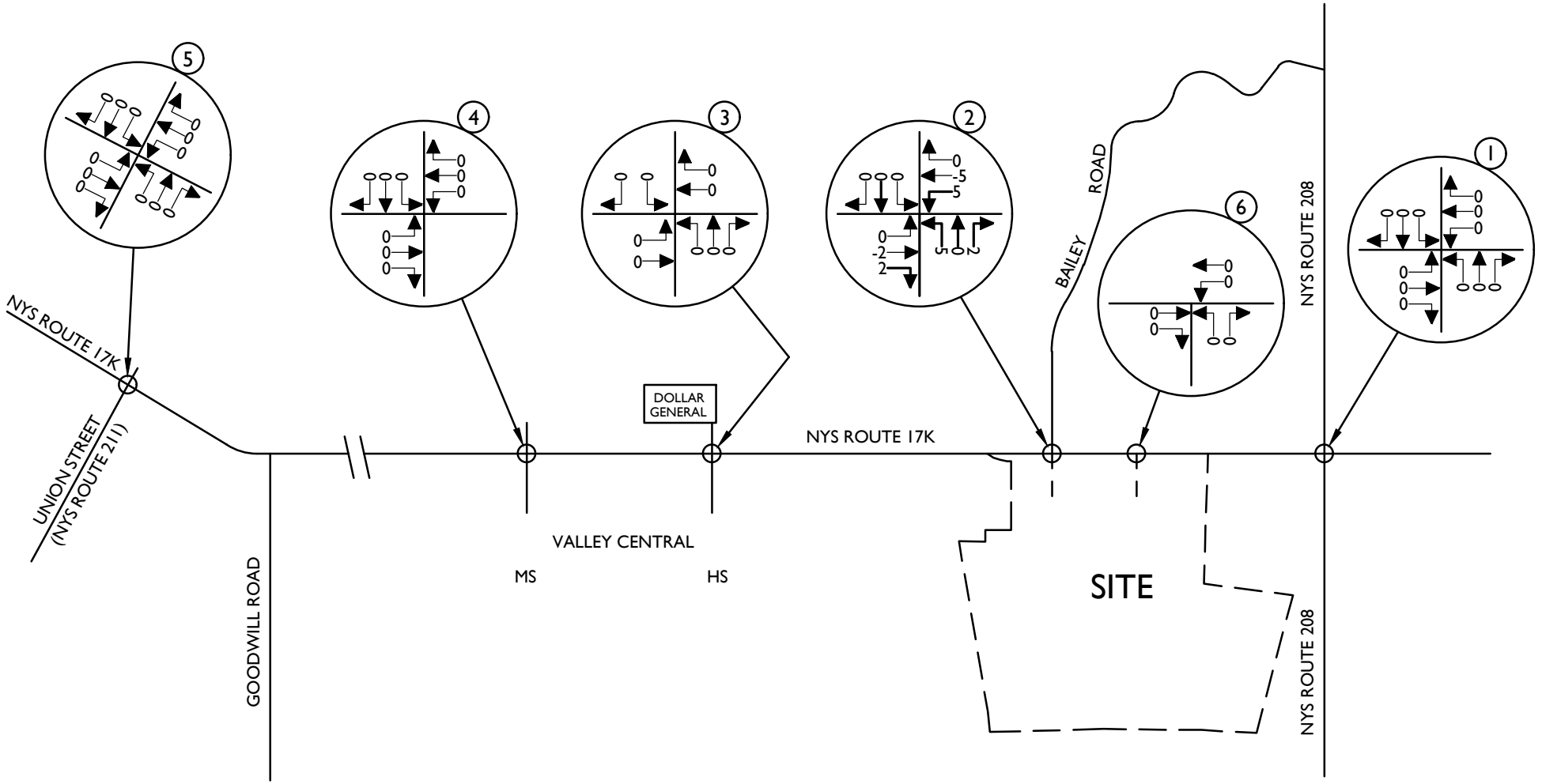
PROJECT NUMBER: 22012941A

DRAWING NAME: 251014RH_FIGURE ALT ACCESS

SHEET TITLE:
SITE GENERATED PRIMARY TRIPS
WEEKEND PEAK SAT HOUR
(ALTERNATE SITE ACCESS)

SHEET NUMBER: 18A

2941A\Reports\Traffic\Figures\251014RH_FIGURE ALT ACCESS.dwg\18A By: RDANDREA



NOTE: LINE DIAGRAM NOT TO SCALE

Colliers Engineering & Design

www.colliersengineering.com

Doing Business as MASER CONSULTING

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

SHEFFIELD GARDENS

TOWN OF MONTGOMERY
ORANGE COUNTY
NEW YORK

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
Know what's below. Call before you dig
STATE REQUIRED FILE NUMBER
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Colliers Engineering & Design
WESTCHESTER
400 Columbus Avenue, Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

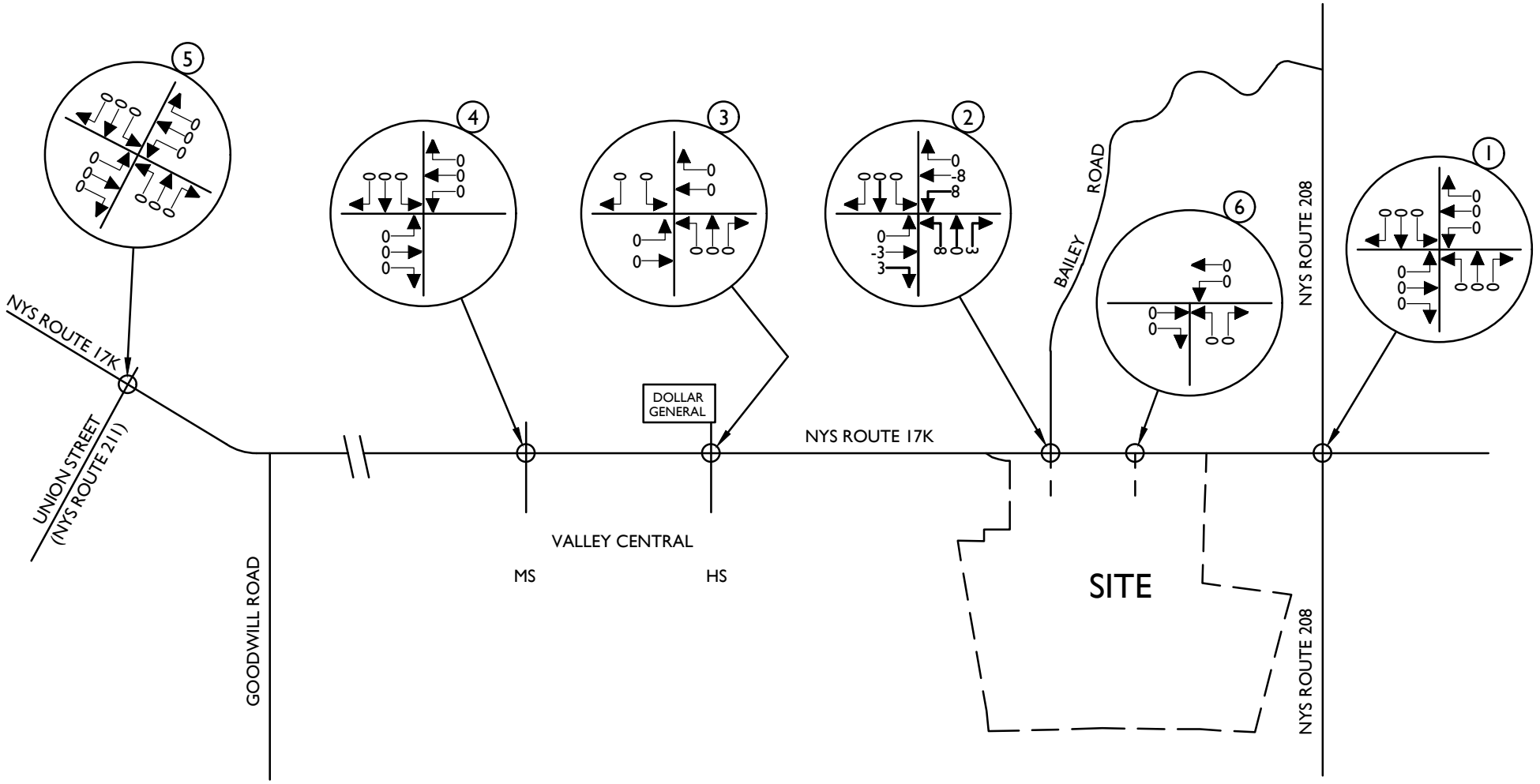
TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	10/14/25	R.H.	P.J.G.

PROJECT NUMBER: 22012941A
DRAWING NAME: 251014RH_FIGURE ALT ACCESS

SHEET TITLE:
SITE GENERATED PASS-BY TRIPS
WEEKDAY PEAK AM HOUR
(ALTERNATE SITE ACCESS)

SHEET NUMBER: 19A



NOTE: LINE DIAGRAM NOT TO SCALE

2941A\Reports\Traffic\Figures\251014RH_FIGURE ALT ACCESS.dwg\20A By: RDANDREA

Colliers Engineering & Design

www.colliersengineering.com

Doing Business as MASER CONSULTING

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

SHEFFIELD GARDENS

TOWN OF MONTGOMERY
ORANGE COUNTY
NEW YORK

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
Know what's below. Call before you dig
STATE REQUIRED FILE NUMBER
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Colliers Engineering & Design
WESTCHESTER
400 Columbus Avenue, Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

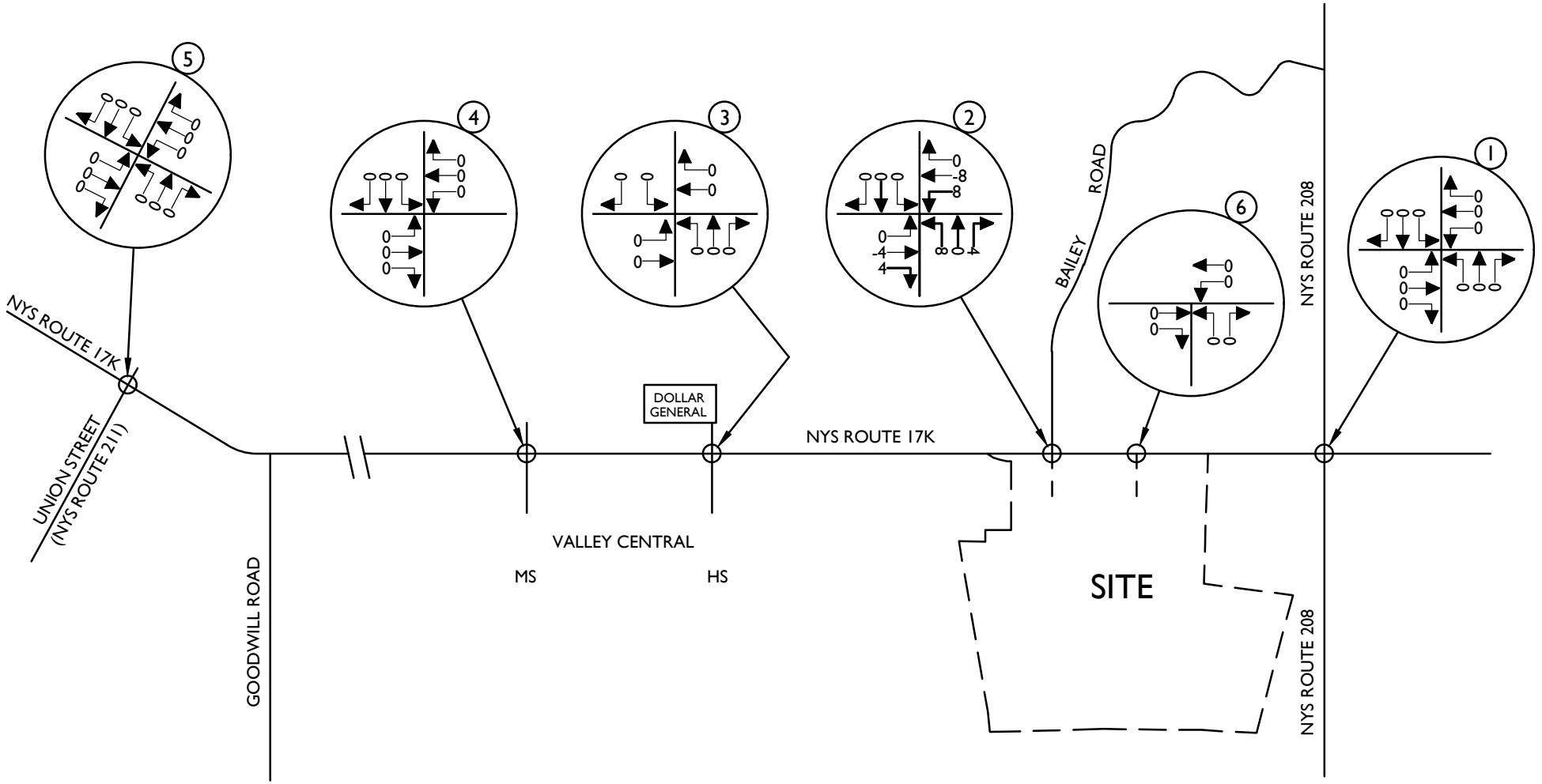
TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	10/14/25	R.H.	P.J.G.

PROJECT NUMBER: 22012941A
DRAWING NAME: 251014RH_FIGURE ALT ACCESS

SHEET TITLE:
SITE GENERATED PASS-BY TRIPS
WEEKDAY PEAK PM HOUR
(ALTERNATE SITE ACCESS)

SHEET NUMBER:
20A



NOTE: LINE DIAGRAM NOT TO SCALE

Colliers Engineering & Design

www.colliersengineering.com

Doing Business as MASER CONSULTING

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

SHEFFIELD GARDENS

TOWN OF MONTGOMERY
ORANGE COUNTY
NEW YORK

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
Know what's below. Call before you dig
STATE REQUIRED FILE NUMBER
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Colliers Engineering & Design
WESTCHESTER
400 Columbus Avenue, Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

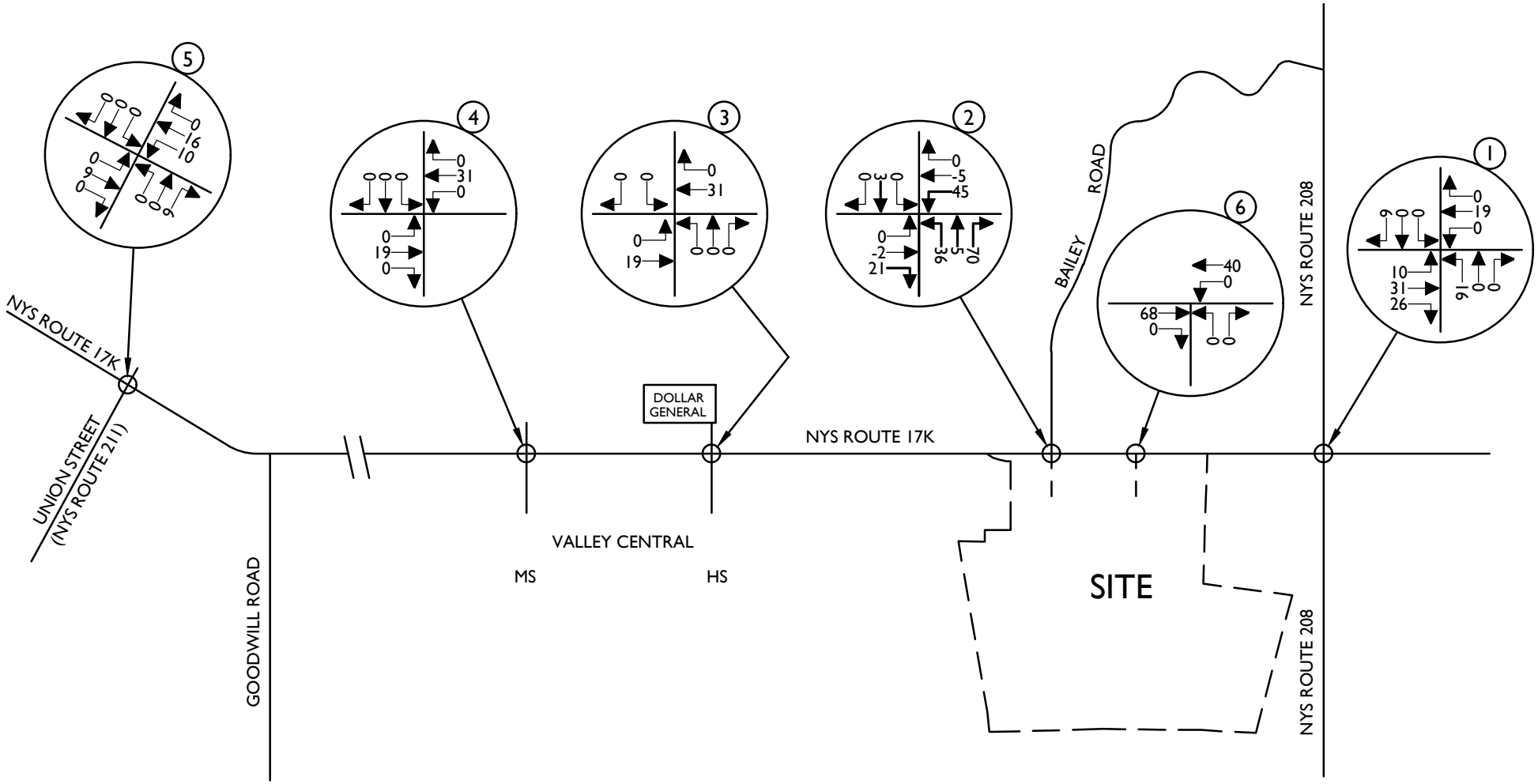
TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	10/14/25	R.H.	P.J.G.

PROJECT NUMBER: 22012941A
DRAWING NAME: 251014RH_FIGURE ALT ACCESS

SHEET TITLE:
SITE GENERATED PASS-BY TRIPS
WEEKEND PEAK SAT HOUR
(ALTERNATE SITE ACCESS)

SHEET NUMBER: 21A



NOTE: LINE DIAGRAM NOT TO SCALE

Colliers Engineering & Design

www.colliersengineering.com

Doing Business as MASER CONSULTING

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

SHEFFIELD GARDENS

TOWN OF MONTGOMERY
ORANGE COUNTY
NEW YORK

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
Know what's below. Call before you dig
STATE REQUIRED FILE NUMBER
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Colliers Engineering & Design
WESTCHESTER
400 Columbus Avenue, Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

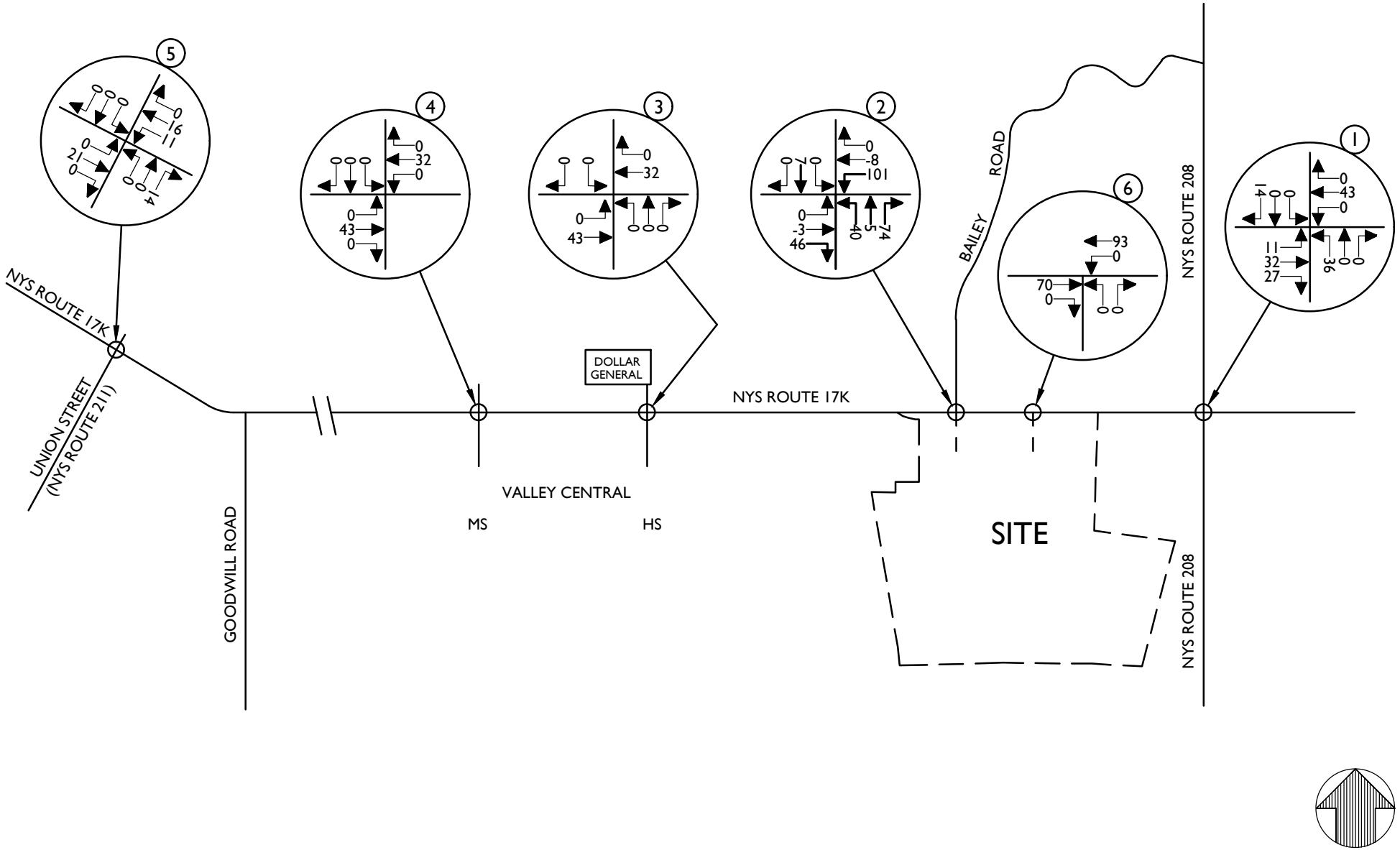
TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	10/14/25	R.H.	P.J.G.

PROJECT NUMBER: 22012941A
DRAWING NAME: 251014RH_FIGURE ALT ACCESS

SHEET TITLE:
TOTAL SITE GENERATED TRIPS
WEEKDAY PEAK AM HOUR
(ALTERNATE SITE ACCESS)

SHEET NUMBER:
22A



NOTE: LINE DIAGRAM NOT TO SCALE

Colliers Engineering & Design

www.colliersengineering.com

Doing Business as MASER CONSULTING

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

SHEFFIELD GARDENS

TOWN OF MONTGOMERY
ORANGE COUNTY
NEW YORK

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
Know what's below. Call before you dig
STATE REQUIRED FILE NUMBER
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Colliers Engineering & Design
WESTCHESTER
400 Columbus Avenue, Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

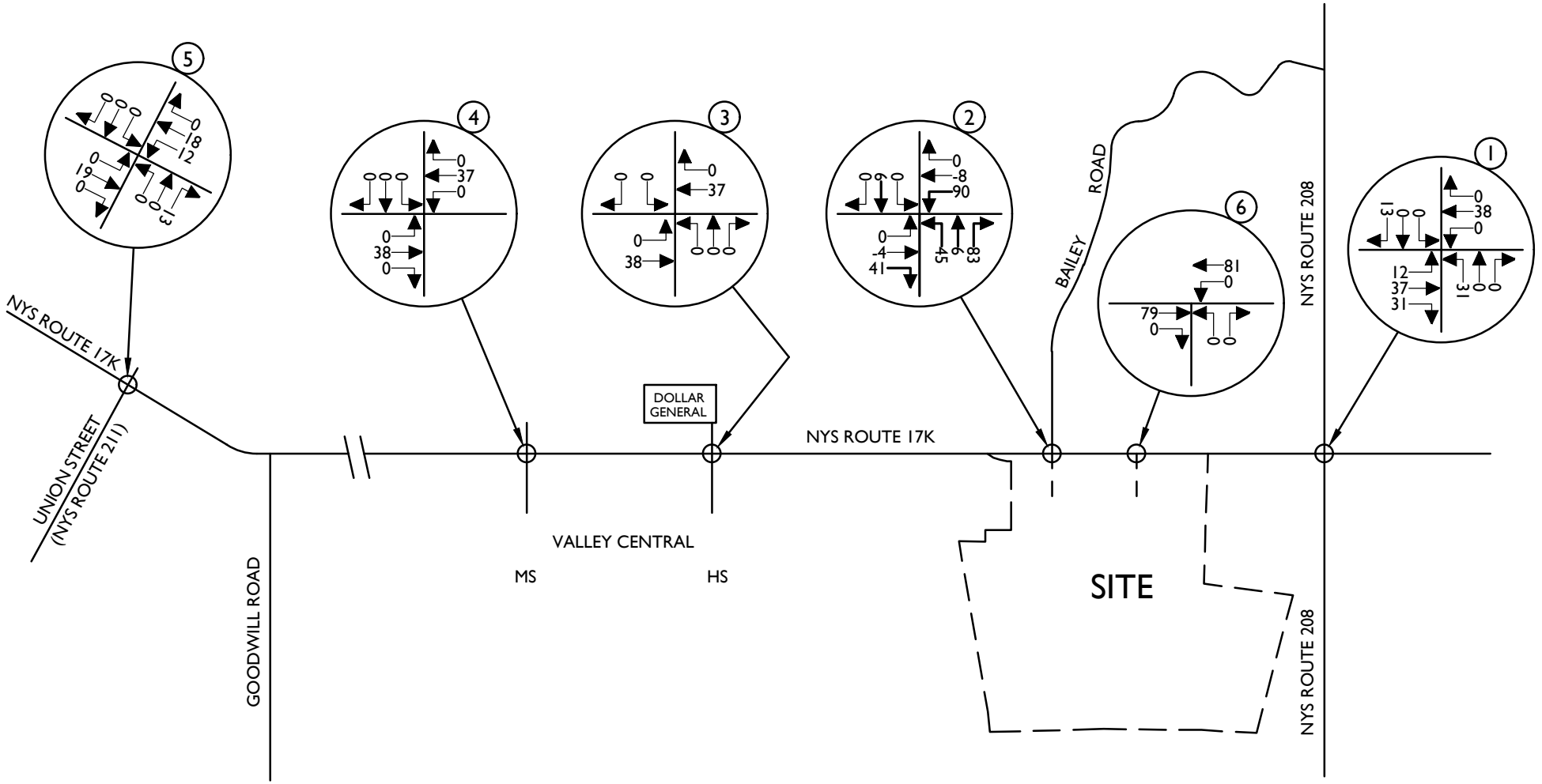
TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	10/14/25	R.H.	P.J.G.

PROJECT NUMBER: 22012941A
DRAWING NAME: 251014RH_FIGURE ALT ACCESS

SHEET TITLE:
TOTAL SITE GENERATED TRIPS
WEEKDAY PEAK PM HOUR
(ALTERNATE SITE ACCESS)

SHEET NUMBER: 23A



NOTE: LINE DIAGRAM NOT TO SCALE

Colliers Engineering & Design

www.colliersengineering.com

Doing Business as MASER CONSULTING

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

SHEFFIELD GARDENS

TOWN OF MONTGOMERY
ORANGE COUNTY
NEW YORK

811 Know what's below. Call before you dig

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

STATE REQUIRED FILE NUMBER

FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Colliers Engineering & Design
WESTCHESTER
400 Columbus Avenue, Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	10/14/25	R.H.	P.J.G.

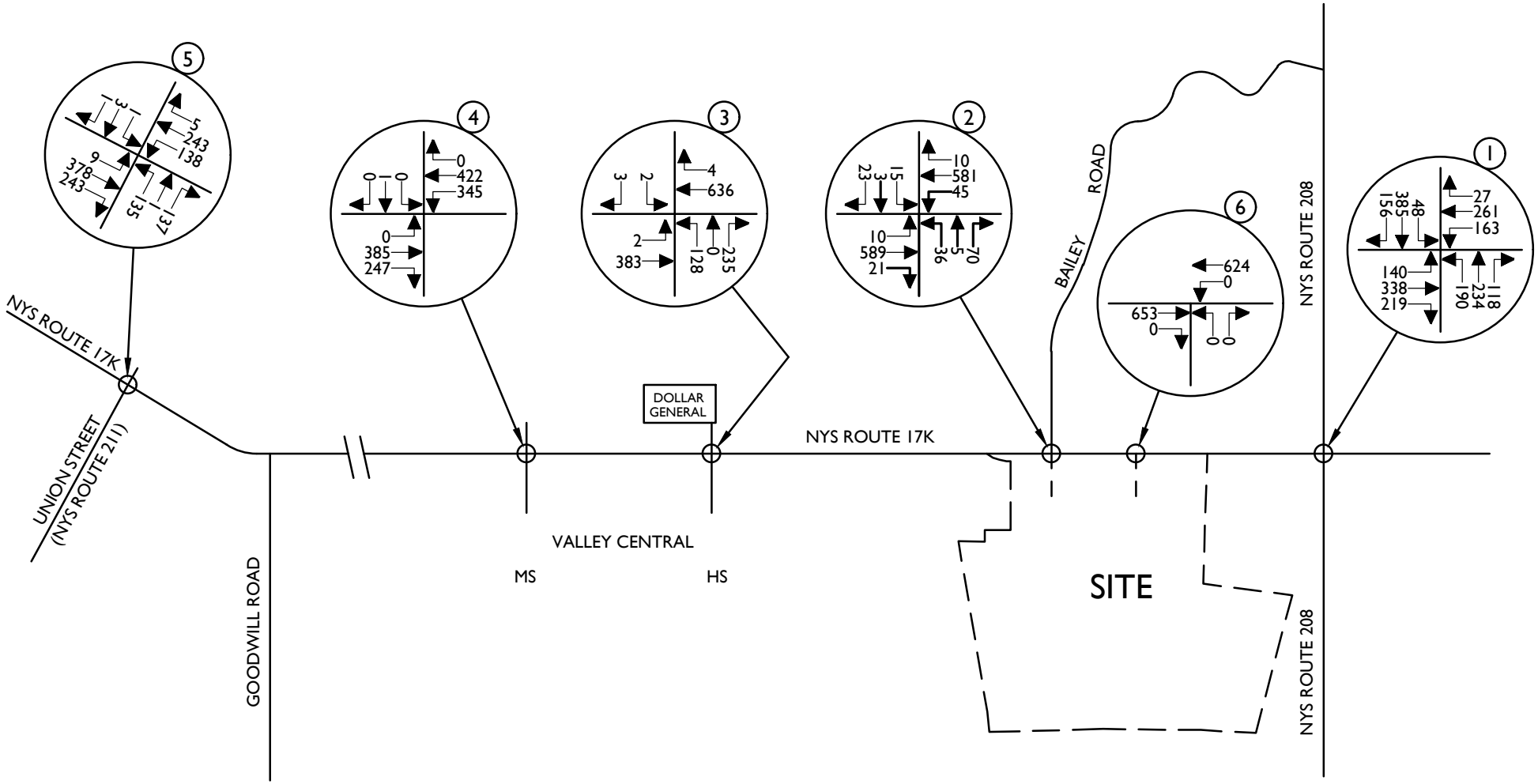
PROJECT NUMBER: 22012941A

DRAWING NAME: 251014RH_FIGURE ALT ACCESS

SHEET TITLE:
TOTAL SITE GENERATED TRIPS
WEEKEND PEAK SAT HOUR
(ALTERNATE SITE ACCESS)

SHEET NUMBER: 24A

2941A\Reports\Traffic\Figures\251014RH_FIGURE ALT ACCESS.dwg\24A By: RDANDREA



NOTE: LINE DIAGRAM NOT TO SCALE

2941A\Reports\Traffic\Figures\251014RH_FIGURE ALT ACCESS.dwg\25A By: RDANDREA

Colliers Engineering & Design

www.colliersengineering.com

Doing Business as MASER CONSULTING

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

SHEFFIELD GARDENS

TOWN OF MONTGOMERY
ORANGE COUNTY
NEW YORK

811 Know what's below. Call before you dig

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

STATE REQUIRED FILE NUMBER

FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Colliers Engineering & Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500

COLLIERS ENGINEERING & DESIGN CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

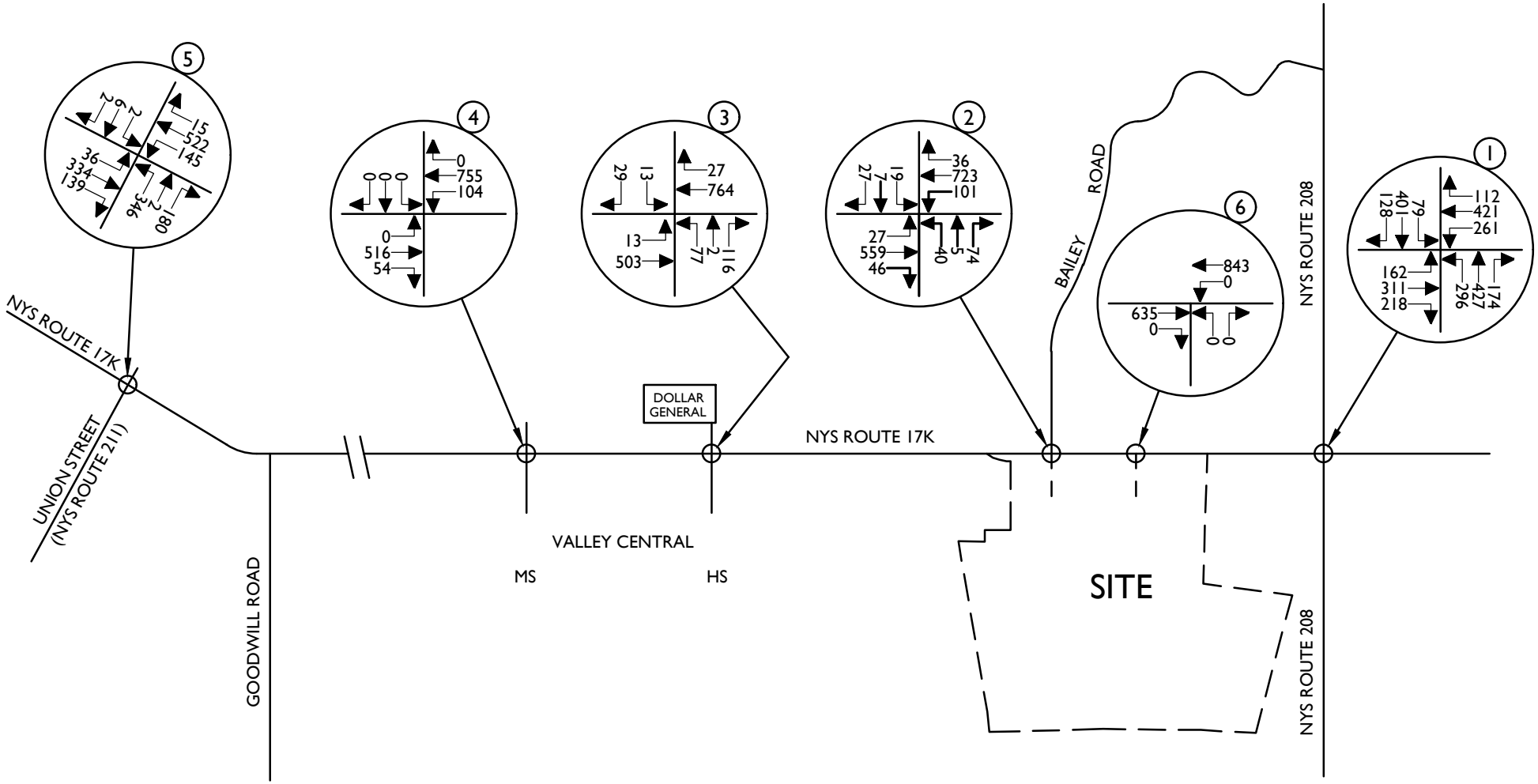
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	10/14/25	R.H.	P.J.G.

PROJECT NUMBER: 22012941A

DRAWING NAME: 251014RH_FIGURE ALT ACCESS

SHEET TITLE:
2026 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR
(ALTERNATE SITE ACCESS)

SHEET NUMBER:
25A



NOTE: LINE DIAGRAM NOT TO SCALE

2941A\Reports\Traffic\Figures\251014RH_FIGURE ALT ACCESS.dwg\26A By: RDANDREA

Colliers Engineering & Design

www.colliersengineering.com

Doing Business as MASER CONSULTING

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

SHEFFIELD GARDENS

TOWN OF MONTGOMERY
ORANGE COUNTY
NEW YORK

811 Know what's below. Call before you dig

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

STATE REQUIRED FILE NUMBER

FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Colliers Engineering & Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500

COLLIERS ENGINEERING & DESIGN CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

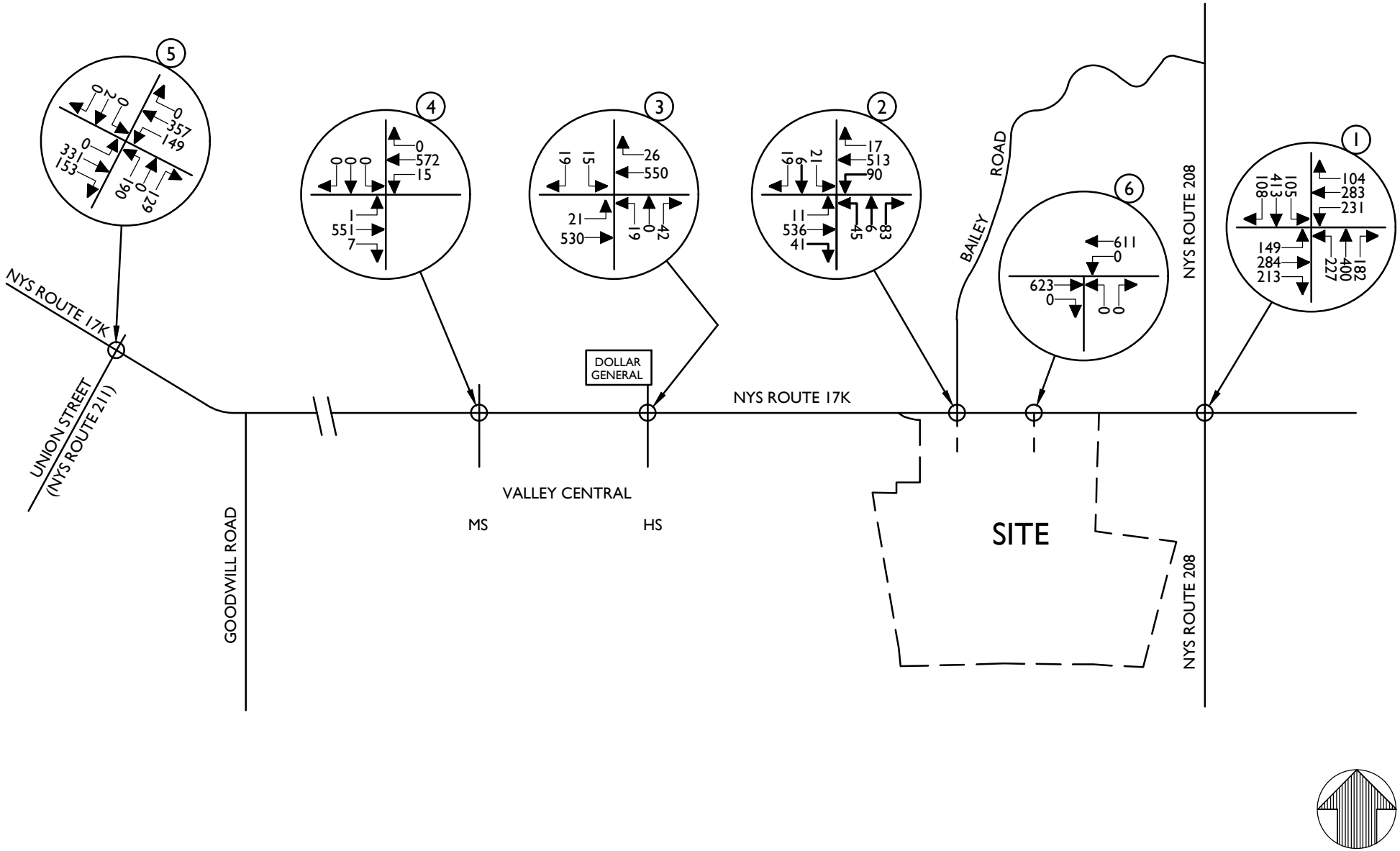
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	10/14/25	R.H.	P.J.G.

PROJECT NUMBER: 22012941A

DRAWING NAME: 251014RH_FIGURE ALT ACCESS

SHEET TITLE:
2026 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR
(ALTERNATE SITE ACCESS)

SHEET NUMBER:
26A



NOTE: LINE DIAGRAM NOT TO SCALE

Colliers Engineering & Design

www.colliersengineering.com

Doing Business as MASER CONSULTING

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

SHEFFIELD GARDENS

TOWN OF MONTGOMERY
ORANGE COUNTY
NEW YORK

811 Know what's below. Call before you dig

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

STATE REQUIRED FILE NUMBER

FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

Colliers Engineering & Design
WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	10/14/25	R.H.	P.J.G.

PROJECT NUMBER: 22012941A

DRAWING NAME: 251014RH_FIGURE ALT ACCESS

SHEET TITLE:
2026 BUILD TRAFFIC VOLUMES
WEEKEND PEAK SAT HOUR
(ALTERNATE SITE ACCESS)

SHEET NUMBER: 27A

Colliers
Engineering
& Design

Appendix

Attachment 2 | Tables

Table No. 2A
Level of Service Summary Table
Weekday Peak AM Hour
(Alternate Access)

					2023 Existing			2026 No-Build			2026 Build			Change in Delay
					v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
1	**NYS Route 17K & NYS Route 208**		**Signalized**											
		NYS Route 17K	EB	L	0.32	C	24.2	0.47	C	29.1	0.51	C	29.4	0.3
				T	0.77	D	52.5	0.83	E	62.4	0.86	E	63.3	0.9
				R	0.29	A	3.9	0.32	A	8.3	0.36	B	10.5	2.2
		NYS Route 17K	WB	L	0.41	C	25.5	0.65	D	35.3	0.68	D	36.3	1.0
				T	0.57	D	41.7	0.60	D	47.2	0.62	D	47.0	-0.2
				R	0.05	A	0.2	0.06	A	0.2	0.06	A	0.3	0.1
		NYS Route 208	NB	L	0.49	C	25.3	0.72	D	39.1	0.83	D	51.7	12.6
				T	0.37	C	31.4	0.41	C	34.7	0.43	D	37.1	2.4
				R	0.10	A	4.0	0.15	A	3.5	0.16	A	3.9	0.4
		NYS Route 208	SB	L	0.12	C	20.7	0.15	C	22.7	0.16	C	24.6	1.9
				T	0.81	D	53.8	0.87	E	61.9	0.89	E	66.4	4.5
				R	0.23	A	4.2	0.25	A	6.5	0.26	A	6.9	0.4
			Overall		**-**	**C**	**32.2**	**-**	**D**	**38.3**	**-**	**D**	**40.7**	**2.4**
2	**NYS Route 17K & Bailey Road/Site Access**		**Unsignalized**											
		NYS Route 17K	EB	LTR	0.01	A	8.7	0.01	A	9.1	0.01	A	9.1	0.0
		NYS Route 17K	WB	LTR	-	-	-	-	-	-	0.06	A	9.3	-
		Site Access	NB	LTR	-	-	-	-	-	-	0.76	F	71.7	-
		Bailey Road	SB	LTR	0.11	C	16.9	0.17	C	21.6	0.32	E	40.0	18.4
	With Signalization													
		NYS Route 17K	EB	L	-	-	-	-	-	-	0.02	A	1.0	-
				TR	-	-	-	-	-	-	0.53	A	3.8	-
		NYS Route 17K	WB	L	-	-	-	-	-	-	0.09	A	2.5	-
				TR	-	-	-	-	-	-	0.50	A	6.7	-
		Site Access	NB	L	-	-	-	-	-	-	0.35	E	60.7	-
				TR	-	-	-	-	-	-	0.46	C	21.4	-
		Bailey Road	SB	LTR	-	-	-	-	-	-	0.40	D	38.1	-
			Overall		-	-	-	-	-	-	**-**	**A**	**8.2**	**-**

Table No. 2A
Level of Service Summary Table
Weekday Peak AM Hour
(Alternate Access)

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
3	**NYS Route 17K & Valley Central School Exit Driveway/ Dollar General Driveway**	**Signalized**											
	NYS Route 17K	EB	L	0.00	A	6.5	0.00	A	6.5	0.01	A	7.0	0.5
			T	0.29	A	7.3	0.36	A	7.8	0.38	A	8.0	0.2
	NYS Route 17K	WB	TR	0.57	B	13.5	0.66	B	15.7	0.69	B	16.7	1.0
	Valley Central School Exit Driveway	NB	LT	0.58	D	38.7	0.61	D	41.1	0.62	D	41.2	0.1
			R	0.60	B	10.6	0.61	B	10.9	0.62	B	10.9	0.0
	Dollar General Driveway	SB	LTR	0.03	A	0.4	0.03	A	0.4	0.03	A	0.4	0.0
		Overall		**-**	**B**	**14.0**	**-**	**B**	**15.1**	**-**	**B**	**15.5**	**0.4**
	With Signal Timing Modifications												
	NYS Route 17K	EB	L	-	-	-	-	-	-	0.01	A	0.5	-6.0
			T	-	-	-	-	-	-	0.33	A	1.0	-6.8
	NYS Route 17K	WB	TR	-	-	-	-	-	-	0.60	B	10.5	-5.2
	Valley Central School Exit Driveway	NB	LT	-	-	-	-	-	-	0.72	E	67.2	26.1
			R	-	-	-	-	-	-	0.65	B	12.9	2.0
	Dollar General Driveway	SB	LTR	-	-	-	-	-	-	0.03	A	0.4	0.0
		Overall		-	-	-	-	-	-	**-**	**B**	**13.5**	**-1.6**
4	**NYS Route 17K & Valley Central School Entry Driveway**	**Signalized**											
	NYS Route 17K	EB	L	0.00	A	0.0	0.00	A	0.0	0.00	A	0.0	0.0
			TR	0.72	C	21.2	0.82	C	26.9	0.85	C	28.6	1.7
	NYS Route 17K	WB	L	0.54	A	8.1	0.61	B	13.6	0.64	B	15.1	1.5
			TR	0.23	A	0.8	0.29	A	1.0	0.32	A	1.1	0.1
	Driveway	SB	LTR	0.01	D	44	0.01	D	44.0	0.01	D	44.0	0.0
		Overall		**-**	**B**	**12.1**	**-**	**B**	**16.1**	**-**	**B**	**17.0**	**0.9**
	With Signal Timing Modifications												
	NYS Route 17K	EB	L	-	-	-	-	-	-	0.00	A	0.0	0.0
			TR	-	-	-	-	-	-	0.80	C	28.6	1.7
	NYS Route 17K	WB	L	-	-	-	-	-	-	0.61	B	15.5	1.9
			TR	-	-	-	-	-	-	0.32	A	0.8	-0.2
	Driveway	SB	LTR	-	-	-	-	-	-	0.02	E	57.0	13.0
		Overall		-	-	-	-	-	-	**-**	**B**	**17.0**	**0.9**
5	**NYS Route 17K & Union Street (NYS Route 211)**	**Signalized**											
	NYS Route 17K	EB	LTR	0.68	B	12.9	0.76	B	15.0	0.77	B	15.1	0.1
	NYS Route 17K	WB	LTR	0.82	C	29.6	0.76	C	20.4	0.78	C	21.1	0.7
	Union Street (NYS Route 211)	NB	LTR	0.58	C	27.0	0.84	D	46.7	0.88	D	49.5	2.8
	Driveway	SB	LTR	0.03	C	23.6	0.03	C	26.4	0.04	C	26.8	0.4
		Overall		**-**	**C**	**20.4**	**-**	**C**	**23.4**	**-**	**C**	**24.2**	**0.8**

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C" FOR A DESCRIPTION OF THE LEVELS OF SERVICE.

Table No. 2A
Level of Service Summary Table
Weekday Peak PM Hour
(Alternate Access)

					2023 Existing			2026 No-Build			2026 Build			Change in Delay
					v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
1	**NYS Route 17K & NYS Route 208**		**Signalized**											
		NYS Route 17K	EB	L	0.37	C	23.6	0.60	C	33.0	0.68	D	36.9	3.9
				T	0.68	D	46.9	0.69	D	50.7	0.71	D	50.6	-0.1
				R	0.25	A	3.8	0.29	A	7.7	0.33	A	9.7	2.0
		NYS Route 17K	WB	L	0.53	C	25.5	0.77	D	42.0	0.79	D	43.1	1.1
				T	0.76	D	46.8	0.82	E	57.6	0.86	E	60.5	2.9
				R	0.14	A	5.5	0.18	A	6.7	0.19	A	7.7	1.0
		NYS Route 208	NB	L	0.66	C	31.2	0.95	E	70.6	1.14	F	126.7	56.1
				T	0.71	D	42.3	0.77	D	49.0	0.79	D	52.6	3.6
				R	0.15	A	6.1	0.23	A	8.8	0.24	A	9.5	0.7
		NYS Route 208	SB	L	0.21	C	22.1	0.35	C	26.5	0.37	C	28.8	2.3
				T	0.74	D	49.9	0.86	E	61.8	0.88	E	65.8	4.0
				R	0.15	A	5.1	0.17	A	6.3	0.20	A	6.5	0.2
			Overall		**-**	**C**	**33.1**	**-**	**D**	**43.4**	**-**	**D**	**51.0**	**7.6**
	With Signal Timing Modifications													
		NYS Route 17K	EB	L	-	-	-	-	-	-	0.75	D	44.2	11.2
				T	-	-	-	-	-	-	0.70	D	50.4	-0.3
				R	-	-	-	-	-	-	0.32	A	8.8	1.1
		NYS Route 17K	WB	L	-	-	-	-	-	-	0.83	D	50.1	8.1
				T	-	-	-	-	-	-	0.87	E	62.2	4.6
				R	-	-	-	-	-	-	0.18	A	3.8	-2.9
		NYS Route 208	NB	L	-	-	-	-	-	-	1.08	F	103.4	32.8
				T	-	-	-	-	-	-	0.74	D	47.0	-2.0
				R	-	-	-	-	-	-	0.24	A	7.4	-1.4
		NYS Route 208	SB	L	-	-	-	-	-	-	0.36	C	27.8	1.3
				T	-	-	-	-	-	-	0.87	E	64.6	2.8
				R	-	-	-	-	-	-	0.21	A	5.9	-0.4
			Overall		-	-	-	-	-	-	**-**	**D**	**48.5**	**5.1**
2	**NYS Route 17K & Bailey Road/Site Access**		**Unsignalized**											
		NYS Route 17K	EB	LTR	0.03	A	9.2	0.04	A	9.6	0.04	A	9.6	0.0
		NYS Route 17K	WB	LTR	-	-	-	-	-	-	0.11	A	9.3	-
		Site Access	NB	LTR	-	-	-	-	-	-	0.94	F	127.0	-
		Bailey Road	SB	LTR	0.15	C	18.7	0.20	C	24.0	0.49	F	63.5	39.5
	With Signalization													
		NYS Route 17K	EB	L	-	-	-	-	-	-	0.06	A	2.6	-
				TR	-	-	-	-	-	-	0.48	A	6.6	-
		NYS Route 17K	WB	L	-	-	-	-	-	-	0.19	A	3.0	-
				TR	-	-	-	-	-	-	0.55	A	9.1	-
		Site Access	NB	LTR	-	-	-	-	-	-	0.35	E	57.3	-
				TR	-	-	-	-	-	-	0.43	B	19.0	-
		Bailey Road	SB	LTR	-	-	-	-	-	-	0.40	D	37.5	-
			Overall		-	-	-	-	-	-	**-**	**B**	**10.2**	**-**

Table No. 2A
Level of Service Summary Table
Weekday Peak PM Hour
(Alternate Access)

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
3	**NYS Route 17K & Valley Central School Exit Driveway/ Dollar General Driveway**	**Signalized**											
	NYS Route 17K	EB	L	0.06	B	11.9	0.06	B	12.0	0.07	B	11.9	-0.1
			T	0.43	B	13.5	0.54	B	15.4	0.60	B	16.5	1.1
	NYS Route 17K	WB	TR	0.82	C	28.9	0.94	D	41.1	0.98	D	48.0	6.9
	Valley Central School Exit Driveway	NB	LT	0.30	C	25.4	0.30	C	25.5	0.31	C	25.7	0.2
			R	0.33	A	6.3	0.34	A	6.6	0.35	A	6.7	0.1
	Dollar General Driveway	SB	LTR	0.20	A	2.0	0.21	A	2.1	0.21	A	2.1	0.0
		Overall		**-**	**C**	**21.3**	**-**	**C**	**28.1**	**-**	**C**	**31.9**	**3.8**
	With Signal Timing Modifications												
	NYS Route 17K	EB	L	-	-	-	-	-	-	0.06	A	0.9	-11.1
			T	-	-	-	-	-	-	0.46	A	1.6	-13.8
	NYS Route 17K	WB	TR	-	-	-	-	-	-	0.76	B	18.5	-22.6
	Valley Central School Exit Driveway	NB	LT	-	-	-	-	-	-	0.46	D	52.6	27.1
			R	-	-	-	-	-	-	0.44	B	10.4	3.8
	Dollar General Driveway	SB	LTR	-	-	-	-	-	-	0.26	A	3.4	1.3
		Overall		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**B**	**13.6**	**-14.5**
4	**NYS Route 17K & Valley Central School Entry Driveway**	**Signalized**											
	NYS Route 17K	EB	L	0.00	A	0.0	0.00	A	0.0	0.00	A	0.0	0.0
			TR	0.41	A	6.7	0.47	A	6.7	0.49	A	6.6	-0.1
	NYS Route 17K	WB	L	0.11	A	0.9	0.13	A	0.9	0.14	A	0.9	0.0
			TR	0.35	A	0.5	0.40	A	0.6	0.42	A	0.1	-0.5
	Driveway	SB	LTR	0.00	A	0.0	0.00	A	0.0	0.00	A	0.0	0.0
		Overall		**-**	**A**	**2.9**	**-**	**A**	**3.1**	**-**	**A**	**3.1**	**0.0**
	With Signal Timing Modifications												
	NYS Route 17K	EB	L	-	-	-	-	-	-	0.00	A	0.0	0.0
			TR	-	-	-	-	-	-	0.61	C	20.9	14.2
	NYS Route 17K	WB	L	-	-	-	-	-	-	0.11	A	0.2	-0.7
			TR	-	-	-	-	-	-	0.42	A	0.5	-0.1
	Driveway	SB	LTR	-	-	-	-	-	-	0.00	A	0.0	0.0
		Overall		-	-	-	-	-	-	**-**	**A**	**8.6**	**5.5**

Table No. 2A
Level of Service Summary Table
Weekday Peak PM Hour
(Alternate Access)

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
5	**NYS Route 17K & Union Street (NYS Route 211)**	**Signalized**											
	NYS Route 17K	EB	LTR	0.46	B	15.9	0.62	C	21.5	0.66	C	22.6	1.1
	NYS Route 17K	WB	LTR	0.70	C	23.3	0.95	D	48.8	1.03	E	68.9	20.1
	Union Street (NYS Route 211)	NB	LTR	0.88	D	48.6	0.91	D	51.3	0.93	D	54.3	3.0
	Driveway	SB	LTR	0.13	D	46.2	0.14	D	47.0	0.14	D	47.0	0.0
		Overall		**-**	**C**	**29.2**	**-**	**D**	**41.6**	**-**	**D**	**50.7**	**9.1**
	With Signal Timing Modifications												
	NYS Route 17K	EB	LTR	-	-	-	-	-	-	0.63	C	22.5	1.0
	NYS Route 17K	WB	LTR	-	-	-	-	-	-	0.97	D	54.5	5.7
	Union Street (NYS Route 211)	NB	LTR	-	-	-	-	-	-	0.95	E	61.9	10.6
	Driveway	SB	LTR	-	-	-	-	-	-	0.21	E	58.4	11.4
		Overall		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**D**	**47.3**	**5.7**

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C" FOR A DESCRIPTION OF THE LEVELS OF SERVICE.

Table No. 2A
Level of Service Summary Table
Weekday Peak SAT Hour
(Alternate Access)

					2023 Existing			2026 No-Build			2026 Build			Change in Delay
					v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
1	**NYS Route 17K & NYS Route 208**		**Signalized**											
		NYS Route 17K	EB	L	0.20	B	19.5	0.44	C	29.0	0.52	C	30.7	1.7
				T	0.65	D	42.8	0.73	E	56.5	0.77	E	58.0	1.5
				R	0.25	A	3.7	0.28	A	7.0	0.33	A	9.6	2.6
		NYS Route 17K	WB	L	0.37	C	20.7	0.69	D	37.4	0.73	D	39.7	2.3
				T	0.46	C	32.4	0.61	D	47.9	0.68	D	50.4	2.5
				R	0.04	A	0.1	0.17	A	5.3	0.17	A	5.1	-0.2
		NYS Route 208	NB	L	0.44	C	20.6	0.62	C	26.8	0.73	D	35.2	8.4
				T	0.38	C	28.7	0.67	D	38.9	0.68	D	40.8	1.9
				R	0.09	A	3.5	0.22	A	6.0	0.22	A	6.6	0.6
		NYS Route 208	SB	L	0.13	B	18.2	0.35	C	20.9	0.36	C	22.3	1.4
				T	0.68	D	43.5	0.82	D	51.5	0.84	D	55.0	3.5
				R	0.10	A	3.8	0.13	A	5.3	0.16	A	5.5	0.2
			Overall		**-**	**C**	**25.8**	**-**	**C**	**33.9**	**-**	**D**	**36.3**	**2.4**
	With Signal Timing Modifications													
		NYS Route 17K	EB	L	-	-	-	-	-	-	0.58	C	32.9	3.9
				T	-	-	-	-	-	-	0.76	D	50.6	-5.9
				R	-	-	-	-	-	-	0.32	A	7.5	0.5
		NYS Route 17K	WB	L	-	-	-	-	-	-	0.83	D	50.7	13.3
				T	-	-	-	-	-	-	0.70	D	46.8	-1.1
				R	-	-	-	-	-	-	0.17	A	4.6	-0.7
		NYS Route 208	NB	L	-	-	-	-	-	-	0.75	C	34.1	7.3
				T	-	-	-	-	-	-	0.71	D	39.0	0.1
				R	-	-	-	-	-	-	0.23	A	4.6	-1.4
		NYS Route 208	SB	L	-	-	-	-	-	-	0.36	B	19.8	-1.1
				T	-	-	-	-	-	-	0.85	D	51.4	-0.1
				R	-	-	-	-	-	-	0.17	A	4.0	-1.3
			Overall		-	-	-	-	-	-	**-**	**C**	**34.8**	**0.9**
2	**NYS Route 17K & Bailey Road/Site Access**		**Unsignalized**											
		NYS Route 17K	EB	LTR	0.01	A	8.4	0.01	A	8.7	0.01	A	8.6	-0.1
		NYS Route 17K	WB	LTR	-	-	-	-	-	-	0.10	A	9.2	-
		Site Access	NB	LTR	-	-	-	-	-	-	0.71	F	56.6	-
		Bailey Road	SB	LTR	0.10	C	15.4	0.14	C	18.6	0.32	E	39.5	20.9
	With Signalization													
		NYS Route 17K	EB	L	-	-	-	-	-	-	0.02	A	0.6	-
				TR	-	-	-	-	-	-	0.48	A	3.8	-
		NYS Route 17K	WB	L	-	-	-	-	-	-	0.17	A	3.2	-
				TR	-	-	-	-	-	-	0.39	A	5.5	-
		Site Access	NB	L	-	-	-	-	-	-	0.37	E	56.3	-
				TR	-	-	-	-	-	-	0.45	B	18.3	-
		Bailey Road	SB	LTR	-	-	-	-	-	-	0.36	D	40.0	-
			Overall		-	-	-	-	-	-	**-**	**A**	**8.3**	**-**

Table No. 2A
Level of Service Summary Table
Weekday Peak SAT Hour
(Alternate Access)

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
3	**NYS Route 17K & Valley Central School Exit Driveway/ Dollar General Driveway**	**Signalized**											
	NYS Route 17K	EB	L	0.04	A	6.0	0.04	A	5.7	0.05	A	5.9	0.2
			T	0.31	A	6.4	0.38	A	6.7	0.41	A	7.1	0.4
	NYS Route 17K	WB	TR	0.38	A	9.5	0.43	A	9.8	0.46	B	10.7	0.9
	Valley Central School Exit Driveway	NB	LT	0.10	C	25.8	0.12	C	27.5	0.12	C	27.5	0.0
			R	0.15	A	1.0	0.16	A	1.2	0.16	A	1.2	0.0
	Dollar General Driveway	SB	LTR	0.13	A	1.0	0.14	A	1.2	0.15	A	1.2	0.0
		Overall		**-**	**A**	**7.9**	**-**	**A**	**8.2**	**-**	**A**	**8.7**	**0.5**
	With Signal Timing Modifications												
	NYS Route 17K	EB	L	-	-	-	-	-	-	0.04	A	0.9	-4.8
			T	-	-	-	-	-	-	0.38	A	2.1	-4.6
	NYS Route 17K	WB	TR	-	-	-	-	-	-	0.44	A	7.0	-2.8
	Valley Central School Exit Driveway	NB	LT	-	-	-	-	-	-	0.23	E	57.4	29.9
			R	-	-	-	-	-	-	0.21	A	2.2	1.0
	Dollar General Driveway	SB	LTR	-	-	-	-	-	-	0.19	A	2.1	0.9
		Overall		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**A**	**5.3**	**-2.9**
4	**NYS Route 17K & Valley Central School Entry Driveway**	**Signalized**											
	NYS Route 17K	EB	L	0.00	A	2.0	0.00	A	2.0	0.00	A	2.0	0.0
			TR	0.26	A	1.9	0.32	A	1.9	0.34	A	1.9	0.0
	NYS Route 17K	WB	L	0.01	A	1.8	0.01	A	1.6	0.02	A	1.5	-0.1
			TR	0.27	A	1.7	0.31	A	1.7	0.34	A	1.7	0.0
	Driveway	SB	LTR	0.00	A	0.0	0.00	A	0.0	0.00	A	0.0	0.0
		Overall		**-**	**A**	**1.8**	**-**	**A**	**1.8**	**-**	**A**	**1.8**	**0.0**
	With Signal Timing Modifications												
	NYS Route 17K	EB	L	-	-	-	-	-	-	0.79	B	11.0	9.0
			TR	-	-	-	-	-	-	0.82	B	10.1	8.2
	NYS Route 17K	WB	L	-	-	-	-	-	-	0.96	A	0.1	-1.5
			TR	-	-	-	-	-	-	0.97	A	0.5	-1.2
	Driveway	SB	LTR	-	-	-	-	-	-	0.00	A	0.0	0.0
		Overall		-	-	-	-	-	-	**-**	**A**	**5.2**	**3.4**
5	**NYS Route 17K & Union Street (NYS Route 211)**	**Signalized**											
	NYS Route 17K	EB	LTR	0.48	B	10.1	0.48	B	10.8	0.51	B	11.3	0.5
	NYS Route 17K	WB	LTR	0.62	B	14.3	0.69	B	18.3	0.79	C	24.1	5.8
	Union Street (NYS Route 211)	NB	LTR	0.62	B	17.2	0.75	C	25.5	0.77	C	26.2	0.7
	Driveway	SB	LTR	0.01	C	31.5	0.01	C	35.0	0.02	C	35.0	0.0
		Overall		**-**	**B**	**13.4**	**-**	**B**	**17.3**	**-**	**B**	**19.9**	**2.6**

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C" FOR A DESCRIPTION OF THE LEVELS OF SERVICE.

Colliers Engineering & Design

Table No. 3A

Queue Summary Table
(Alternate Access)

				Storage Length	Weekday AM Peak Hour						Weekday PM Peak Hour						Weekend SAT Peak Hour					
					2023 Existing		2026 No-Build		2026 Build		2023 Existing		2026 No-Build		2026 Build		2023 Existing		2026 No-Build		2026 Build	
					50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%
1)	**NYS Route 17K & NYS Route 208**																					
	NYS Route 17K	EB	L	300	47	91	82	122	90	130	43	91	83	136	92	145	23	58	72	127	84	142
			T	430	208	336	292	378	331	421	164	285	223	329	259	369	117	231	187	292	221	334
			R	300	-	37	32	74	51	100	-	42	26	76	43	101	-	40	15	66	35	94
	NYS Route 17K	WB	L	200	57	107	105	149	105	148	85	160	156	245	160	253	51	108	129	208	131	212
			T	800	156	261	212	288	233	311	216	379	315	459	370	520	114	220	176	285	213	328
			R	160	-	-	-	-	-	-	1	34	9	46	14	51	-	-	-	38	-	37
	NYS Route 208	NB	L	400	61	122	103	200	120	271	98	203	146	413	244	522	60	129	87	156	109	251
			T	1000+	119	218	173	281	182	297	216	405	329	604	351	628	94	192	263	432	275	454
			R	150	-	24	-	32	-	34	9	48	27	90	30	93	-	24	20	69	22	73
	NYS Route 208	SB	L	145	16	44	25	56	27	59	21	57	38	86	42	88	14	42	44	88	46	93
			T	870	242	394	359	563	372	590	184	333	328	570	347	587	125	243	300	466	312	507
			R	200	-	34	14	54	15	58	-	34	7	48	8	53	-	20	6	37	7	43
	With Signal Timing Modifications																					
	NYS Route 17K	EB	L	300	-	-	-	-	-	-	-	-	-	-	96	168	-	-	-	-	74	135
			T	430	-	-	-	-	-	-	-	-	-	-	253	377	-	-	-	-	187	301
			R	300	-	-	-	-	-	-	-	-	-	-	39	96	-	-	-	-	23	77
	NYS Route 17K	WB	L	200	-	-	-	-	-	-	-	-	-	-	160	297	-	-	-	-	116	240
			T	800	-	-	-	-	-	-	-	-	-	-	369	531	-	-	-	-	185	295
			R	160	-	-	-	-	-	-	-	-	-	-	-	31	-	-	-	-	-	33
	NYS Route 208	NB	L	400	-	-	-	-	-	-	-	-	-	-	232	480	-	-	-	-	91	223
			T	1000+	-	-	-	-	-	-	-	-	-	-	347	526	-	-	-	-	239	415
			R	150	-	-	-	-	-	-	-	-	-	-	24	75	-	-	-	-	8	53
	NYS Route 208	SB	L	145	-	-	-	-	-	-	-	-	-	-	41	84	-	-	-	-	39	83
			T	870	-	-	-	-	-	-	-	-	-	-	351	550	-	-	-	-	268	442
			R	200	-	-	-	-	-	-	-	-	-	-	6	51	-	-	-	-	-	35

Table No. 3A

Queue Summary Table
(Alternate Access)

				Storage Length	Weekday AM Peak Hour						Weekday PM Peak Hour						Weekend SAT Peak Hour					
					2023 Existing		2026 No-Build		2026 Build		2023 Existing		2026 No-Build		2026 Build		2023 Existing		2026 No-Build		2026 Build	
					50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%
2)	**NYS Route 17K & Bailey Road/ Site Access**																					
	NYS Route 17K	EB	LTR	200	-	-	-	-	-	-	-	3	-	3	-	3	-	-	-	-	-	-
	NYS Route 17K	WB	LTR		-	-	-	-	-	5	-	-	-	-	-	10	-	-	-	-	-	10
	Site Access	NB	LTR		-	-	-	-	-	113	-	-	-	-	-	160	-	-	-	-		100
	Bailey Road	SB	LTR	580	-	10	-	15	-	33	-	13	-	18	-	55	-	8	-	13	-	33
	<u>With Signalization</u>																					
	NYS Route 17K	EB	L	150	-	-	-	-	1	1	-	-	-	-	3	8	-	-	-	-	1	1
			TR		-	-	-	-	58	139	-	-	-	-	109	165	-	-	-	-	40	18
	NYS Route 17K	WB	L	150	-	-	-	-	5	13	-	-	-	-	12	27	-	-	-	-	11	26
			TR		-	-	-	-	113	299	-	-	-	-	261	424	-	-	-	-	89	256
	Site Access	NB	L		-	-	-	-	29	64	-	-	-	-	31	66	-	-	-	-	35	72
			TR		-	-	-	-	4	52	-	-	-	-	4	51	-	-	-	-	5	55
	Bailey Road	SB	LTR	580	-	-	-	-	16	54	-	-	-	-	20	60	-	-	-	-	21	59
3)	**NYS Route 17K & Valley Central School Exit Driveway/ Dollar General Driveway**																					
	NYS Route 17K	EB	L	100	-	3	-	3	-	3	3	14	3	14	3	14	2	11	2	12	2	12
			T	610	50	141	66	181	71	192	89	216	123	288	140	327	43	140	59	186	66	208
	NYS Route 17K	WB	TR	1000+	113	402	146	555	159	602	213	691	277	821	318	865	53	256	66	315	74	390
	Valley Central School Exit Driveway	NB	LT	270	57	133	59	137	59	137	29	72	30	74	30	74	5	27	6	28	6	28
			R	270	-	54	-	54	-	54	-	31	-	33	-	33	-	-	-	-	-	-
	Dollar General Driveway	SB	LTR	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<u>With Signal Timing Modifications</u>																					
	NYS Route 17K	EB	L	100	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	4	-
			T	610	-	-	-	-	3	7	-	-	-	-	9	15	-	-	-	-	125	4
	NYS Route 17K	WB	TR	1000+	-	-	-	-	143	601	-	-	-	-	109	886	-	-	-	-	146	182
	Valley Central School Exit Driveway	NB	LT	270	-	-	-	-	114	164	-	-	-	-	65	105	-	-	-	-	15	41
			R	270	-	-	-	-	-	58	-	-	-	-	-	42	-	-	-	-	-	-
	Dollar General Driveway	SB	LTR	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table No. 3A

Queue Summary Table
(Alternate Access)

					Storage	Weekday AM Peak Hour						Weekday PM Peak Hour						Weekend SAT Peak Hour					
						2023 Existing		2026 No-Build		2026 Build		2023 Existing		2026 No-Build		2026 Build		2023 Existing		2026 No-Build		2026 Build	
					Length	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%	50%	95%
4)	**NYS Route 17K & Valley Central School Entry Driveway/Driveway**																						
	NYS Route 17K	EB	L	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1
			TR	975	201	476	264	632	280	660	46	89	61	119	68	134	-	82	-	105	-	113
	NYS Route 17K	WB	L	1,000	-	62	41	128	52	143	-	-	-	-	-	-	1	5	1	5	1	4
			TR	1,000	-	45	-	59	-	65	-	-	-		-	-	-	79	-	95	-	102
	Driveway	SB	LTR	151	1	6	1	6	1	6	-	-	-	-	-	-	-	-	-	-	-	-
	With Signal Timing Modifications																						
	NYS Route 17K	EB	L	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
			TR	975	-	-	-	-	414	741	-	-	-	-	286	403	-	-	-	-	-	338
	NYS Route 17K	WB	L	1,000	-	-	-	-	109	115	-	-	-	-	-	1	-	-	-	-	-	-
			TR	1,000	-	-	-	-	-	52	-	-	-		-	-	-	-	-	-	-	2
	Driveway	SB	LTR	151	-	-	-	-	1	6	-	-	-	-	-	-	-	-	-	-	-	-
5)	**NYS Route 17K & Union Street (NYS Route 211)**																						
	NYS Route 17K	EB	LTR	530	81	239	102	289	105	295	135	282	201	377	216	404	57	201	87	269	98	285
	NYS Route 17K	WB	LTR	530	60	248	65	213	70	225	240	512	371	729	431	788	72	258	116	422	144	485
	Union Street (NYS Route 211)	NB	LTR	230	33	176	59	304	61	313	235	455	292	572	303	592	29	127	65	170	70	182
	Driveway	SB	LTR	60	1	11	1	12	1	12	5	23	5	23	5	23	1	8	1	8	1	8
	With Signal Timing Modifications																						
	NYS Route 17K	EB	LTR	530	-	-	-	-	-	-	-	-	-	-	244	424	-	-	-	-	-	-
	NYS Route 17K	WB	LTR	530	-	-	-	-	-	-	-	-	-	-	466	838	-	-	-	-	-	-
	Union Street (NYS Route 211)	NB	LTR	230	-	-	-	-	-	-	-	-	-	-	366	659	-	-	-	-	-	-
	Driveway	SB	LTR	60	-	-	-	-	-	-	-	-	-	-	6	25	-	-	-	-	-	-

Notes:

1) All Queue Lengths are expressed in units of Feet. It is assumed that one (1) queued vehicle occupies 25 feet of queue storage space.
2) Queue Lengths highlighted in yellow exceed storage length capacity.

TABLE TSW-1A

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

INTERSECTION DATA			
Major Street:	NYS Route 17K	**Number of Lanes For Moving Traffic By Approach**	
Minor Street:	Bailey Road/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:	6/9/2025	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 SUMMARY		
Warrant 1 - Eight-Hour Vehicular Volume		
Condition A - Minimum Vehicular Volume	Not Satisfied -- No Signal	
Condition B - Minimum Vehicular Interruption of Continous 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**	

Colliers Engineering & Design

TABLE TSW-1A

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

INTERSECTION DATA

Major Street: NYS Route 17K
Minor Street: Bailey Road/Sheffield Gardens Site Access
Location: Town of Wallkill, Orange County, New York
Date: 6/9/2025
Volume Basis: 2026 Full Build Traffic Volumes
Condition: Typical Weekday

Number of Lanes For Moving Traffic By Approach
Major Street (Excluding Auxiliary Lanes) = 1
Minor Street (Including Auxiliary Lanes) = 1

Major Street Speed
85TH Percentile Speed >= 40 mph (Y or N): Y

Community Population
Community < 10,000 (Y or N): N

WARRANT ANALYSIS

Time of Day	Volumes Major Street	Volumes Minor Street	Warrant 1 Condition A Major Street	Warrant 1 Condition A Minor Street	Warrant 1 Condition B Major Street	Warrant 1 Condition B Minor Street	Warrant 1 Condition A & B Condition A Major Street	Warrant 1 Condition A & B Condition A Minor Street	Warrant 1 Condition A & B Condition B Major Street	Warrant 1 Condition A & B Condition B Minor Street	Warrant Met? Warrant 1A	Warrant Met? Warrant 1B	Warrant Met? Combined 1A	Warrant Met? Combined 1B
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-1A

SIGNAL WARRANTS ANALYSIS
NYS ROUTE 17K AT BAILEY ROAD/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:	Bailey Road/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:	6/9/2025	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 Major Street	Volumes Minor Street	Warrant 2[1] Major Street	Warrant 2[1] Minor Street	Warrant 3[1] Major Street	Warrant 3[1] Minor Street	Warrant Met? Warrant 2	Warrant Met? Warrant 3
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
			See Figure 4C-2		**See Figure 4C-4**			
						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-1A

Figure 4C-2

NYS ROUTE 17K AT BAILEY ROAD/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)

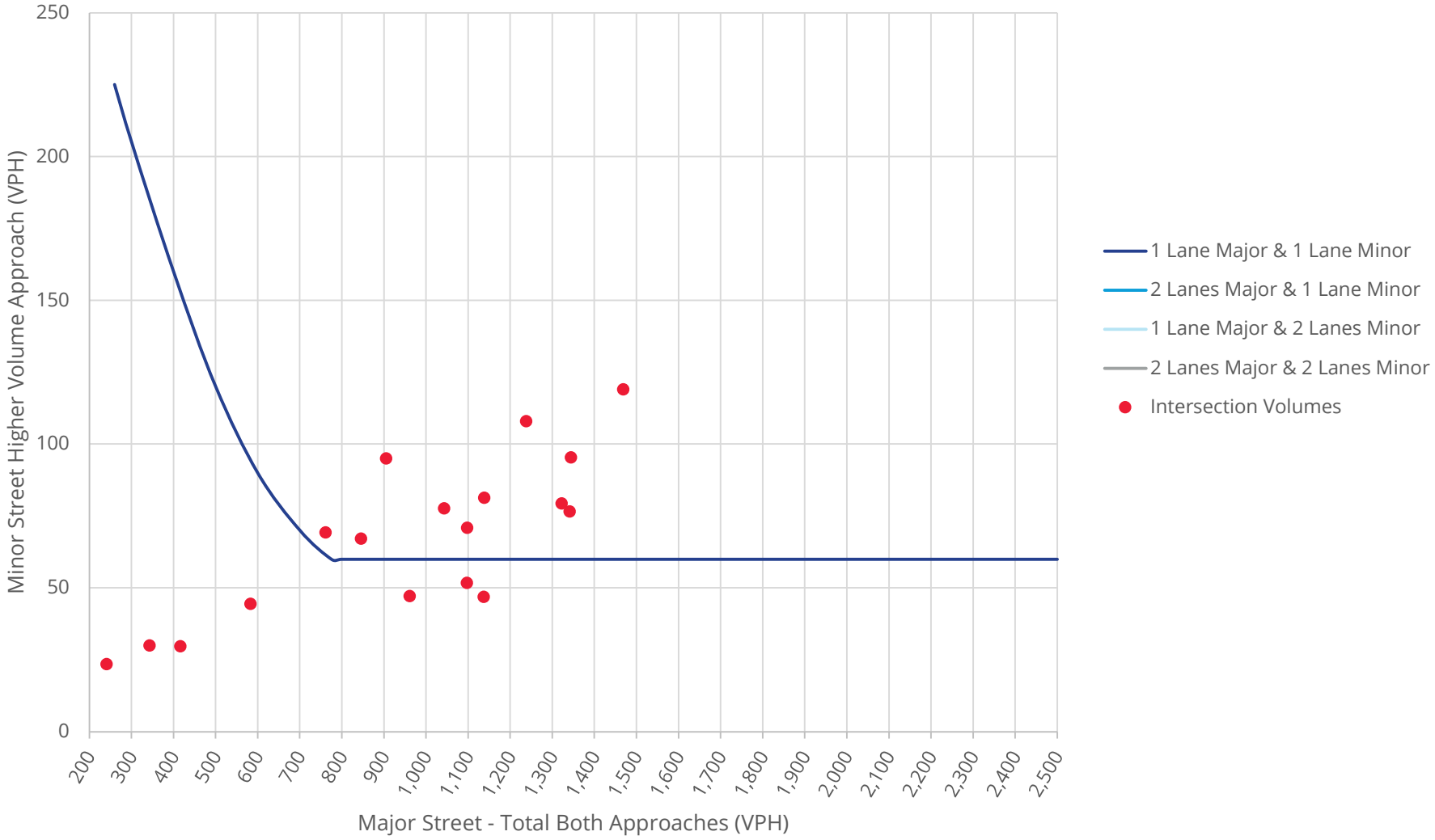


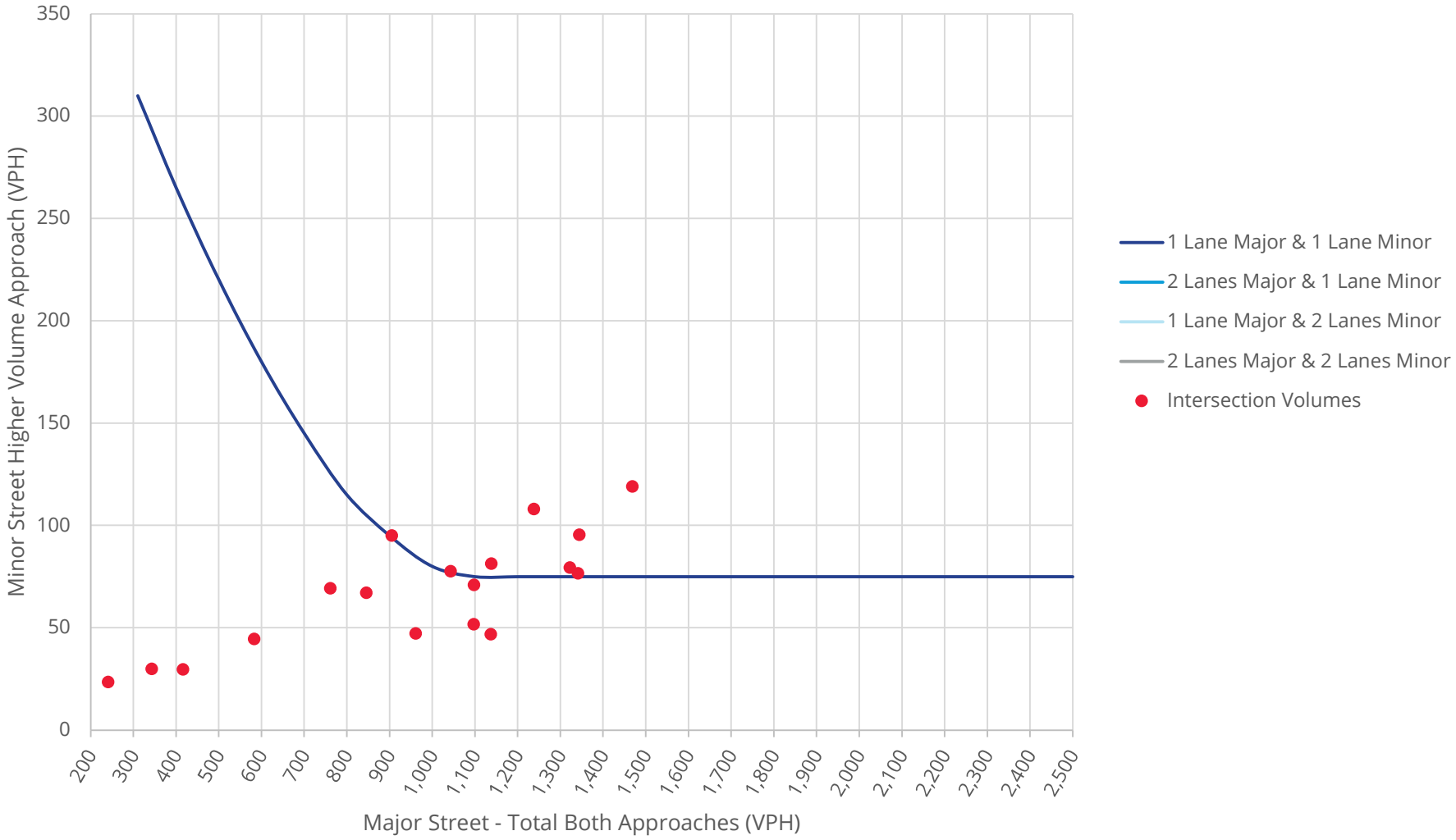
TABLE TSW-1A

Figure 4C-4

NYS ROUTE 17K AT BAILEY ROAD/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)



TSW-1A
SIGNAL WARRANTS ANALYSIS
NYS ROUTE 17K AT BAILEY ROAD/SHEFFIELD GARDENS SITE ACCESS

ANALYSIS TRAFFIC VOLUME CALCULATIONS

Colliers Engineering & Design

	Existing Machine Volumes (See Attached NYSDOT Traffic Data View Volumes)					
	NYS Route 17K				Bailey Road	
Time	EB	WB	Total		SB	
12:00:00 AM	26	28	54	6%	-	0%
1:00:00 AM	16	22	38	5%	-	0%
2:00:00 AM	18	13	31	4%	-	0%
3:00:00 AM	31	15	46	5%	-	0%
4:00:00 AM	87	32	119	14%	3	20%
5:00:00 AM	167	69	236	28%	4	27%
6:00:00 AM	491	140	631	75%	12	80%
7:00:00 AM	542	302	844	100%	15	100%
8:00:00 AM	482	371	853	101%	13	87%
9:00:00 AM	400	342	742	88%	10	67%
10:00:00 AM	331	315	646	77%	16	107%
11:00:00 AM	375	362	737	87%	12	80%
12:00:00 PM	422	403	825	75%	12	63%
1:00:00 PM	454	425	879	79%	16	84%
2:00:00 PM	510	544	1,054	95%	14	74%
3:00:00 PM	479	568	1,047	95%	16	84%
4:00:00 PM	531	608	1,139	103%	15	79%
5:00:00 PM	474	632	1,106	100%	19	100%
6:00:00 PM	399	456	855	77%	11	58%
7:00:00 PM	289	338	627	57%	10	53%
8:00:00 PM	182	242	424	38%	7	37%
9:00:00 PM	127	171	298	27%	2	11%
10:00:00 PM	57	110	167	15%	1	5%
11:00:00 PM	34	49	83	8%	-	0%
	6,924	6,557	13,481			

	Other Development Calculations (Peak Hour Volumes Spread Proportionally Based on Hourly DOT Volumes																	
	915 Route 17K Warehouse		I-84 Logistics Center		Quick Check		Zipline Park		Dino Park		RDM Bracken Road		Bracken 20		Bracken 4.3		Grunbaum Warehouse	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00:00 AM	-	-	-	-	1	1	-	-	-	-	1	-	-	-	-	-	-	-
1:00:00 AM	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
2:00:00 AM	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
3:00:00 AM	-	-	-	-	1	1	-	-	-	-	1	-	-	-	-	-	-	-
4:00:00 AM	1	-	-	-	2	2	-	-	-	-	1	-	-	-	-	-	-	-
5:00:00 AM	2	1	-	-	4	4	-	-	-	-	3	1	-	-	-	-	-	-
6:00:00 AM	5	1	1	1	11	11	-	-	-	-	7	2	1	-	1	-	-	1
7:00:00 AM	7	2	1	1	15	15	-	-	-	-	10	3	1	-	1	-	-	1
8:00:00 AM	7	2	1	1	15	15	-	-	-	-	10	3	1	-	1	-	-	1
9:00:00 AM	6	2	1	1	13	13	-	-	-	-	9	3	1	-	1	-	-	1
10:00:00 AM	5	2	1	1	11	11	-	-	-	-	8	2	1	-	1	-	-	1
11:00:00 AM	6	2	1	1	13	13	-	-	-	-	9	3	1	-	1	-	-	1
12:00:00 PM	1	5	1	-	9	9	6	10	3	4	1	7	-	1	-	1	1	-
1:00:00 PM	2	6	1	-	10	10	6	10	3	5	2	8	-	1	-	1	1	-
2:00:00 PM	2	7	1	-	11	11	8	12	4	6	2	10	-	1	-	1	1	-
3:00:00 PM	2	7	1	-	11	11	8	12	4	6	2	9	-	1	-	1	1	-
4:00:00 PM	2	7	1	-	12	12	8	13	4	6	2	10	-	1	-	1	1	-
5:00:00 PM	2	7	1	-	12	12	8	13	4	6	2	10	-	1	-	1	1	-
6:00:00 PM	2	5	1	-	9	9	6	10	3	5	2	8	-	1	-	1	1	-
7:00:00 PM	1	4	1	-	7	7	5	7	2	3	1	6	-	1	-	1	1	-
8:00:00 PM	1	3	-	-	5	5	3	5	2	2	1	4	-	-	-	-	-	-
9:00:00 PM	1	2	-	-	3	3	2	4	1	2	1	3	-	-	-	-	-	-
10:00:00 PM	-	1	-	-	2	2	1	2	1	1	-	2	-	-	-	-	-	-
11:00:00 PM	-	1	-	-	1	1	1	1	-	-	-	1	-	-	-	-	-	-

	Growht Factor	1.03

	Existing Traffic Volumes (Highlight Cells Based on CED Collected Count Data, Other Hours based on Proportional Hourly Distribution from NYSDOT Volumes Above					
	NYS Route 17K			Bailey Road/Sheffield Gardens Site Access		
Time	EB	WB	Total	NB	SB	Higher Volume Approach
12:00:00 AM	34	33	66	-	-	-
1:00:00 AM	24	23	47	-	-	-
2:00:00 AM	19	19	38	-	-	-
3:00:00 AM	29	28	57	-	-	-
4:00:00 AM	74	72	146	-	7	7
5:00:00 AM	147	143	290	-	9	9
6:00:00 AM	321	309	630	-	25	25
7:00:00 AM	525	513	1,038	-	33	33
8:00:00 AM	551	384	935	-	40	40
9:00:00 AM	462	451	913	-	22	22
10:00:00 AM	402	393	794	-	35	35
11:00:00 AM	458	448	906	-	26	26
12:00:00 PM	362	499	861	-	23	23
1:00:00 PM	385	532	917	-	31	31
2:00:00 PM	591	498	1,089	-	26	26
3:00:00 PM	601	498	1,099	-	41	41
4:00:00 PM	448	603	1,051	-	44	44
5:00:00 PM	485	669	1,154	-	37	37
6:00:00 PM	335	340	675	-	23	23
7:00:00 PM	275	379	654	-	19	19
8:00:00 PM	186	256	442	-	14	14
9:00:00 PM	131	180	311	-	4	4
10:00:00 PM	73	101	174	-	2	2
11:00:00 PM	36	50	87	-	-	-

	2026 Projected Traffic Volumes			
		Bailey Road/Sheffield Gardens Site Access		
Time	NYS Route 17K	NB	SB	Higher Volume Approach
12:00:00 AM	68	-	-	-
1:00:00 AM	48	-	-	-
2:00:00 AM	39	-	-	-
3:00:00 AM	58	-	-	-
4:00:00 AM	151	-	7	7
5:00:00 AM	299	-	9	9
6:00:00 AM	649	-	26	26
7:00:00 AM	1,069	-	34	34
8:00:00 AM	963	-	41	41
9:00:00 AM	940	-	23	23
10:00:00 AM	818	-	36	36
11:00:00 AM	934	-	27	27
12:00:00 PM	887	-	24	24
1:00:00 PM	945	-	32	32
2:00:00 PM	1,122	-	27	27
3:00:00 PM	1,132	-	42	42
4:00:00 PM	1,083	-	45	45
5:00:00 PM	1,189	-	38	38
6:00:00 PM	695	-	24	24
7:00:00 PM	674	-	20	20
8:00:00 PM	456	-	14	14
9:00:00 PM	320	-	4	4
10:00:00 PM	179	-	2	2
11:00:00 PM	89	-	-	-

	Other Development (See Above Calculations)		
		Bailey Road/Sheffield Gardens Site Access	
Time	NYS Route 17K	NB	SB
12:00:00 AM	6	-	-
1:00:00 AM	4	-	-
2:00:00 AM	3	-	-
3:00:00 AM	5	-	-
4:00:00 AM	12	-	-
5:00:00 AM	28	-	-
6:00:00 AM	74	-	-
7:00:00 AM	100	-	-
8:00:00 AM	100	-	-
9:00:00 AM	89	-	-
10:00:00 AM	77	-	-
11:00:00 AM	89	-	-
12:00:00 PM	93	-	-
1:00:00 PM	103	-	-
2:00:00 PM	120	-	-
3:00:00 PM	119	-	-
4:00:00 PM	127	-	-
5:00:00 PM	126	-	-
6:00:00 PM	98	-	-
7:00:00 PM	73	-	-
8:00:00 PM	49	-	-
9:00:00 PM	34	-	-
10:00:00 PM	19	-	-
11:00:00 PM	10	-	-

	2026 No-Build Traffic Volumes			
		Bailey Road/Sheffield Gardens Site Access		
Time	NYS Route 17K	NB	SB	Higher Volume Approach
12:00:00 AM	74	-	-	-
1:00:00 AM	52	-	-	-
2:00:00 AM	42	-	-	-
3:00:00 AM	63	-	-	-
4:00:00 AM	163	-	7	7
5:00:00 AM	327	-	9	9
6:00:00 AM	723	-	26	26
7:00:00 AM	1,169	-	34	34
8:00:00 AM	1,063	-	41	41
9:00:00 AM	1,029	-	23	23
10:00:00 AM	895	-	36	36
11:00:00 AM	1,023	-	27	27
12:00:00 PM	980	-	24	24
1:00:00 PM	1,048	-	32	32
2:00:00 PM	1,242	-	27	27
3:00:00 PM	1,251	-	42	42
4:00:00 PM	1,210	-	45	45
5:00:00 PM	1,315	-	38	38
6:00:00 PM	793	-	24	24
7:00:00 PM	747	-	20	20
8:00:00 PM	505	-	14	14
9:00:00 PM	354	-	4	4
10:00:00 PM	198	-	2	2
11:00:00 PM	99	-	-	-

	Site Generated Traffic Volumes (See Above Calculations)		
		Bailey Road/Sheffield Gardens Site Access	
Time	NYS Route 17K	NB	SB
12:00:00 AM	15	4	-
1:00:00 AM	8	3	-
2:00:00 AM	7	3	-
3:00:00 AM	6	3	-
4:00:00 AM	6	11	-
5:00:00 AM	16	30	-
6:00:00 AM	38	69	-
7:00:00 AM	69	108	-
8:00:00 AM	75	81	-
9:00:00 AM	68	52	-
10:00:00 AM	66	47	-
11:00:00 AM	114	47	-
12:00:00 PM	63	78	-
1:00:00 PM	50	71	-
2:00:00 PM	80	79	-
3:00:00 PM	91	77	-
4:00:00 PM	135	95	-
5:00:00 PM	154	119	-
6:00:00 PM	112	95	-
7:00:00 PM	99	67	-
8:00:00 PM	78	44	-
9:00:00 PM	62	30	-
10:00:00 PM	42	23	-
11:00:00 PM	25	17	-

TSW-1A
SIGNAL WARRANTS ANALYSIS
NYS ROUTE 17K AT BAILEY ROAD/SHEFFIELD GARDENS SITE ACCESS

ANALYSIS TRAFFIC VOLUME CALCULATIONS

KSH Development		Total Other Devlopment	
EB	WB	EB	WB
1	2	3	3
-	2	1	3
-	1	1	2
-	2	2	3
1	5	5	7
3	10	12	16
7	25	33	41
9	34	44	56
9	34	44	56
8	30	39	50
7	26	34	43
8	30	39	50
25	9	47	46
27	10	52	51
32	11	61	59
32	11	61	58
35	12	65	62
34	12	64	62
26	9	50	48
19	7	37	36
13	5	25	24
9	3	17	17
5	2	9	10
3	1	5	5

Site Generated Traffic Volume Calculations

ITE Site Generated Hourly Distribution		ITE Site Generated Hourly Distribution		Site Generated Volumes				Hourly Site Generated Volumes - Residential		Hourly Site Generated Volumes - Retail	
Entry	Exit	Entry	Exit		Time Period	Entry	Exit	Entry	Exit	Entry	Exit
0.91%	0.41%	0.41%	0.30%	Residential	AM	25	79	11	3	4	1
0.53%	0.33%	0.10%	0.20%		PM	84	49	7	2	1	1
0.40%	0.35%	0.20%	0.00%	Retail	AM	44	29	5	3	2	-
0.40%	0.33%	0.10%	0.20%		PM	70	70	5	2	1	1
0.34%	1.44%	0.20%	0.10%					4	11	2	0
0.51%	2.57%	0.91%	3.96%					6	19	10	11
1.37%	6.88%	2.03%	6.71%					17	50	21	19
2.04%	10.81%	4.16%	10.26%					25	79	44	29
3.15%	8.46%	3.45%	6.91%					39	62	36	20
2.85%	4.88%	3.14%	5.69%					35	36	33	16
2.42%	4.76%	3.45%	4.37%					30	35	36	12
3.82%	4.73%	6.39%	4.37%					47	35	68	12
4.52%	4.12%	5.78%	6.50%					33	27	30	51
3.96%	4.43%	4.06%	5.39%					29	29	21	42
5.62%	4.88%	7.51%	6.10%					41	32	39	48
6.93%	5.31%	7.61%	5.39%					51	34	39	42
10.12%	5.64%	11.56%	7.52%					75	37	60	59
11.41%	7.57%	13.49%	8.94%					84	49	70	70
9.74%	6.69%	7.71%	6.61%					72	43	40	52
8.10%	4.71%	7.51%	4.67%					60	30	39	37
7.66%	4.16%	4.16%	2.24%					56	27	22	18
6.02%	2.74%	3.35%	1.52%					44	18	17	12
4.67%	2.39%	1.52%	1.02%					34	15	8	8
2.50%	1.40%	1.22%	1.02%					18	9	6	8

2026 Build Traffic Volumes

	Bailey Road/Sheffield Gardens Site Access		
NYS Route 17K	NB	SB	Higher Volume Approach
90	4	-	4
60	3	-	3
49	3	-	3
69	3	-	3
169	11	7	11
343	30	9	30
761	69	26	69
1,238	108	34	108
1,138	81	41	81
1,097	52	23	52
961	47	36	47
1,137	47	27	47
1,043	78	24	78
1,098	71	32	71
1,322	79	27	79
1,341	77	42	77
1,344	95	45	95
1,469	119	38	119
905	95	24	95
845	67	20	67
583	44	14	44
416	30	4	30
241	23	2	23
124	17	-	17

TSW-1A
SIGNAL WARRANTS ANALYSIS
NYS ROUTE 17K AT BAILEY ROAD/SHEFFIELD GARDENS SITE ACCESS

TRAFFIC VOLUME DATA

File Name : 2-_NYS_RT_17K_&_BAILEY_RD-THU_1028461_01-05-2023
Site Code :
Start Date : 1/5/2023
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	BAILAY RD From North					NYS RT 17K From East					From South					NYS RT 17K From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:00 AM	2	0	2	0	4	0	26	0	0	26	0	0	0	0	0	0	56	0	0	56	86
06:15 AM	1	0	1	0	2	1	49	0	0	50	0	0	0	0	0	0	67	0	0	67	119
06:30 AM	2	0	8	0	10	3	73	0	0	76	0	0	0	0	0	0	89	0	0	89	175
06:45 AM	7	0	2	0	9	0	157	0	0	157	0	0	0	0	0	0	96	4	0	100	266
Total	12	0	13	0	25	4	305	0	0	309	0	0	0	0	0	0	308	4	0	312	646
07:00 AM	6	0	5	0	11	1	134	0	0	135	0	0	0	0	0	0	125	1	0	126	272
07:15 AM	2	0	0	0	2	4	96	0	0	100	0	0	0	0	0	0	140	3	0	143	245
07:30 AM	3	0	3	0	6	1	104	0	0	105	0	0	0	0	0	0	112	3	0	115	226
07:45 AM	11	0	3	0	14	2	164	0	0	166	0	0	0	0	0	0	129	3	0	132	312
Total	22	0	11	0	33	8	498	0	0	506	0	0	0	0	0	0	506	10	0	516	1055
08:00 AM	2	0	4	0	6	3	92	0	0	95	0	0	0	0	0	0	142	5	0	147	248
08:15 AM	2	0	6	0	8	2	82	0	0	84	0	0	0	0	0	0	102	2	0	104	196
08:30 AM	8	0	6	0	14	4	84	0	0	88	0	0	0	0	0	0	132	4	0	136	238
08:45 AM	2	0	10	0	12	5	112	0	0	117	0	0	0	0	0	0	149	4	0	153	282
Total	14	0	26	0	40	14	370	0	0	384	0	0	0	0	0	0	525	15	0	540	964
Grand Total	48	0	50	0	98	26	1173	0	0	1199	0	0	0	0	0	0	1339	29	0	1368	2665
Apprch %	49	0	51	0		2.2	97.8	0	0		0	0	0	0		0	97.9	2.1	0		
Total %	1.8	0	1.9	0	3.7	1	44	0	0	45	0	0	0	0	0	0	50.2	1.1	0	51.3	
Lights	47	0	48	0	95	23	1035	0	0	1058	0	0	0	0	0	0	1235	26	0	1261	2414
% Lights	97.9	0	96	0	96.9	88.5	88.2	0	0	88.2	0	0	0	0	0	0	92.2	89.7	0	92.2	90.6
Buses	1	0	1	0	2	3	56	0	0	59	0	0	0	0	0	0	62	2	0	64	125
% Buses	2.1	0	2	0	2	11.5	4.8	0	0	4.9	0	0	0	0	0	0	4.6	6.9	0	4.7	4.7
Trucks	0	0	1	0	1	0	82	0	0	82	0	0	0	0	0	0	42	1	0	43	126
% Trucks	0	0	2	0	1	0	7	0	0	6.8	0	0	0	0	0	0	3.1	3.4	0	3.1	4.7
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TSW-1A
SIGNAL WARRANTS ANALYSIS
NYS ROUTE 17K AT BAILEY ROAD/SHEFFIELD GARDENS SITE ACCESS

TRAFFIC VOLUME DATA

File Name : 2-_NYS_RT_17K_&_BAILEY_RD-THU_1028461_01-05-2023
Site Code :
Start Date : 1/5/2023
Page No : 1

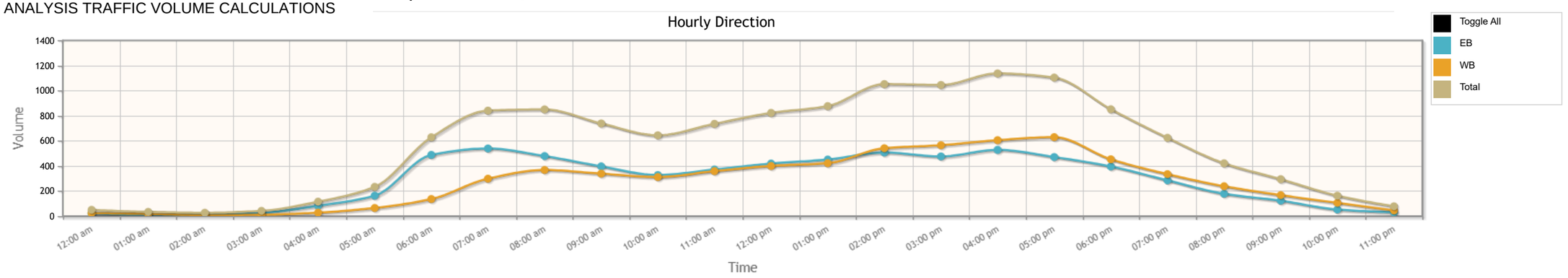
Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	BAILAY RD From North					NYS RT 17K From East					From South					NYS RT 17K From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
02:00 PM	1	0	0	0	1	3	109	0	0	112	0	0	0	0	0	0	178	5	0	183	296
02:15 PM	1	0	1	0	2	4	117	0	0	121	0	0	0	0	0	0	121	5	0	126	249
02:30 PM	4	0	9	1	14	6	129	0	0	135	0	0	0	0	0	0	132	5	0	137	286
02:45 PM	6	0	3	0	9	6	124	0	0	130	0	0	0	0	0	0	147	5	0	152	291
Total	12	0	13	1	26	19	479	0	0	498	0	0	0	0	0	0	578	20	0	598	1122
03:00 PM	7	0	6	0	13	7	108	0	0	115	0	0	0	0	0	0	190	9	0	199	327
03:15 PM	6	0	4	0	10	6	126	0	0	132	0	0	0	0	0	0	113	6	0	119	261
03:30 PM	3	0	5	0	8	10	127	0	0	137	0	0	0	0	0	0	148	6	0	154	299
03:45 PM	4	0	6	0	10	6	108	0	0	114	0	0	0	0	0	0	129	2	0	131	255
Total	20	0	21	0	41	29	469	0	0	498	0	0	0	0	0	0	580	23	0	603	1142
04:00 PM	8	0	1	0	9	9	140	0	0	149	0	0	0	0	0	0	93	6	0	99	257
04:15 PM	4	0	6	0	10	7	128	0	0	135	0	0	0	0	0	0	115	8	0	123	268
04:30 PM	5	0	3	0	8	8	153	0	0	161	0	0	0	0	0	0	106	5	0	111	280
04:45 PM	8	0	9	0	17	5	153	0	0	158	0	0	0	0	0	0	115	7	0	122	297
Total	25	0	19	0	44	29	574	0	0	603	0	0	0	0	0	0	429	26	0	455	1102
05:00 PM	6	0	3	0	9	8	165	0	0	173	0	0	0	0	0	0	108	6	0	114	296
05:15 PM	7	0	3	0	10	9	151	0	0	160	0	0	0	0	0	0	111	7	0	118	288
05:30 PM	5	0	1	0	6	10	149	0	0	159	0	0	0	0	0	0	127	6	0	133	298
05:45 PM	7	0	5	0	12	4	135	0	0	139	0	0	0	0	0	0	115	4	0	119	270
Total	25	0	12	0	37	31	600	0	0	631	0	0	0	0	0	0	461	23	0	484	1152
06:00 PM	3	0	3	0	6	3	87	0	0	90	0	0	0	0	0	0	111	5	0	116	212
06:15 PM	6	0	3	0	9	6	91	0	0	97	0	0	0	0	0	0	70	1	0	71	177
06:30 PM	2	0	3	0	5	0	73	0	0	73	0	0	0	0	0	0	71	2	0	73	151
06:45 PM	2	0	1	0	3	4	76	0	0	80	0	0	0	0	0	0	73	5	0	78	161
Total	13	0	10	0	23	13	327	0	0	340	0	0	0	0	0	0	325	13	0	338	701
Grand Total	95	0	75	1	171	121	2449	0	0	2570	0	0	0	0	0	0	2373	105	0	2478	5219
Apprch %	55.6	0	43.9	0.6		4.7	95.3	0	0		0	0	0	0		0	95.8	4.2	0		
Total %	1.8	0	1.4	0	3.3	2.3	46.9	0	0	49.2	0	0	0	0	0	0	45.5	2	0	47.5	
Lights	94	0	72	0	166	115	2345	0	0	2460	0	0	0	0	0	0	2225	101	0	2326	4952
% Lights	98.9	0	96	0	97.1	95	95.8	0	0	95.7	0	0	0	0	0	0	93.8	96.2	0	93.9	94.9
Buses	1	0	1	0	2	2	45	0	0	47	0	0	0	0	0	0	74	2	0	76	125
% Buses	1.1	0	1.3	0	1.2	1.7	1.8	0	0	1.8	0	0	0	0	0	0	3.1	1.9	0	3.1	2.4
Trucks	0	0	2	0	2	4	59	0	0	63	0	0	0	0	0	0	74	2	0	76	141
% Trucks	0	0	2.7	0	1.2	3.3	2.4	0	0	2.5	0	0	0	0	0	0	3.1	1.9	0	3.1	2.7
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Pedestrians	0	0	0	100	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TSW-1A
SIGNAL WARRANTS ANALYSIS
NYS ROUTE 17K AT BAILEY ROAD/SHEFFIELD GARDENS SITE ACCESS

ANALYSIS TRAFFIC VOLUME CALCULATIONS

Hourly Direction Report NYSDOT_SC 830677000000 Tuesday, September 12, 2023 to Friday, September 15, 2023



Site Name 830677 **Site ID** 830677000000 **Description** NY17K from RT 211 MONTGOMERY to RT 208 **Region** 8 **County** Orange **DOTID** 100111 **County Order** 01

Exclude data: None

	EB	WB	Total
12:00 am	26	28	54
01:00 am	16	22	38
02:00 am	18	13	31
03:00 am	31	15	46
04:00 am	87	32	119
05:00 am	167	69	237
06:00 am	491	140	631
07:00 am	542	302	843
08:00 am	482	371	853
09:00 am	400	342	741
10:00 am	331	315	647
11:00 am	375	362	738
12:00 pm	422	403	825
01:00 pm	454	425	879
02:00 pm	510	544	1054
03:00 pm	479	568	1047
04:00 pm	531	608	1139
05:00 pm	474	632	1106
06:00 pm	399	456	854
07:00 pm	289	338	627
08:00 pm	182	242	424
09:00 pm	127	171	298
10:00 pm	57	110	167
11:00 pm	34	49	82
7am-7pm	5398	5329	10727
6am-10pm	6487	6220	12707
6am-12am	6578	6379	12957
12am-12am	6922	6559	13481
am Peak	07:00 am	08:00 am	08:00 am
Peak Volume	542	371	853
pm Peak	04:00 pm	05:00 pm	04:00 pm
Peak Volume	531	632	1139

Event key: QC Failure QC Outlier QC Atypical Events Special Holiday Offline
Weekends and defined holidays Holiday-affected days

Holidays & Events:
None

Data prepared by Drakewell US 12 New York October 15, 2025 12:43:07 PM.

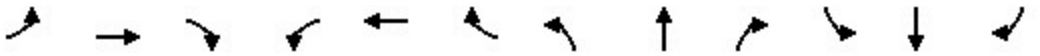
Version 25.09.18.074739

Colliers
Engineering
& Design

Appendix

Attachment 3 | Capacity Analysis

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	338	219	163	261	27	190	234	118	48	385	156
Future Volume (vph)	140	338	219	163	261	27	190	234	118	48	385	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	11	11	12	11	11	12	12	11	12	11
Grade (%)		5%			-4%			2%			3%	
Storage Length (ft)	300		300	200		160	400		150	145		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1575	1715	1396	1695	1778	1154	1529	1742	1494	1482	1749	1385
Flt Permitted	0.385			0.218			0.168			0.590		
Satd. Flow (perm)	638	1715	1396	389	1778	1154	270	1742	1494	920	1749	1385
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			160			81			139			153
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1101			1133			1322			1760	
Travel Time (s)		13.6			14.0			20.0			26.7	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	8%	8%	9%	5%	9%	38%	13%	8%	7%	16%	7%	11%
Adj. Flow (vph)	165	398	258	192	307	32	224	275	139	56	453	184
Shared Lane Traffic (%)												
Lane Group Flow (vph)	165	398	258	192	307	32	224	275	139	56	453	184
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.08	1.03	1.08	1.02	0.97	1.02	1.06	1.01	1.01	1.07	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2	2	2	2	2	2	2	2	2	2	2
Detector Template												
Leading Detector (ft)	78	78	78	78	78	78	78	78	78	78	78	78
Trailing Detector (ft)	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
Detector 1 Position(ft)	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
Detector 1 Size(ft)	40	40	40	40	40	40	40	40	40	40	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	38	38	38	38	38	38	38	38	38	38	38	38
Detector 2 Size(ft)	40	40	40	40	40	40	40	40	40	40	40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	1	6	7	5	2	3	7	4	5	3	8	1
Permitted Phases	6		6	2		2	4		4	8		8
Detector Phase	1	6	7	5	2	3	7	4	5	3	8	1
Switch Phase												
Minimum Initial (s)	3.0	10.0	3.0	3.0	10.0	3.0	3.0	10.0	3.0	3.0	10.0	3.0
Minimum Split (s)	10.0	17.0	10.0	10.0	17.0	10.0	10.0	17.0	10.0	10.0	17.0	10.0
Total Split (s)	22.0	57.0	22.0	22.0	57.0	22.0	22.0	47.0	22.0	22.0	47.0	22.0
Total Split (%)	14.9%	38.5%	14.9%	14.9%	38.5%	14.9%	14.9%	31.8%	14.9%	14.9%	31.8%	14.9%
Maximum Green (s)	15.0	50.0	15.0	15.0	50.0	15.0	15.0	40.0	15.0	15.0	40.0	15.0
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	None
Act Effct Green (s)	48.0	35.4	57.7	49.9	36.4	51.0	59.5	48.5	69.1	45.4	37.9	57.6
Actuated g/C Ratio	0.37	0.27	0.44	0.38	0.28	0.39	0.46	0.37	0.53	0.35	0.29	0.44
v/c Ratio	0.51	0.86	0.36	0.68	0.62	0.06	0.83	0.43	0.16	0.16	0.89	0.26
Control Delay (s/veh)	29.4	63.3	10.5	36.3	47.0	0.3	51.7	37.1	3.9	24.6	66.4	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	29.4	63.3	10.5	36.3	47.0	0.3	51.7	37.1	3.9	24.6	66.4	6.9
LOS	C	E	B	D	D	A	D	D	A	C	E	A
Approach Delay (s/veh)		39.9			40.4			35.0			47.2	
Approach LOS		D			D			C			D	
Queue Length 50th (ft)	90	331	51	105	233	0	120	182	0	27	372	15
Queue Length 95th (ft)	130	421	100	148	311	0	#271	297	34	59	#590	58
Internal Link Dist (ft)		1021			1053			1242			1680	
Turn Bay Length (ft)	300		300	200		160	400		150	145		200
Base Capacity (vph)	356	666	707	305	690	563	269	647	874	439	543	721
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.60	0.36	0.63	0.44	0.06	0.83	0.43	0.16	0.13	0.83	0.26

Intersection Summary

Area Type: Other
Cycle Length: 148
Actuated Cycle Length: 130.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay (s/veh): 40.7 Intersection LOS: D
Intersection Capacity Utilization 80.9% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: NYS Route 208 & NYS Route 17K

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	589	21	45	581	10	36	5	70	15	3	23
Future Volume (vph)	10	589	21	45	581	10	36	5	70	15	3	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			1%			0%			-1%	
Storage Length (ft)	100		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	75			75			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.997			0.915			0.926	
Flt Protected	0.950			0.950				0.984			0.982	
Satd. Flow (prot)	1770	1708	0	1761	1694	0	0	1677	0	0	1675	0
Flt Permitted	0.950			0.950				0.984			0.982	
Satd. Flow (perm)	1770	1708	0	1761	1694	0	0	1677	0	0	1675	0
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		1066			2078			204			1084	
Travel Time (s)		13.2			25.8			4.6			24.6	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	2%	11%	2%	2%	11%	25%	2%	2%	2%	2%	2%	5%
Adj. Flow (vph)	12	693	25	53	684	12	42	6	82	18	4	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	12	718	0	53	696	0	0	130	0	0	49	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 52.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	7.2

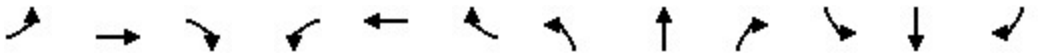
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	589	21	45	581	10	36	5	70	15	3	23
Future Vol, veh/h	10	589	21	45	581	10	36	5	70	15	3	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	1	-	-	0	-	-	-1	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	11	2	2	11	25	2	2	2	2	2	5
Mvmt Flow	12	693	25	53	684	12	42	6	82	18	4	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	695	0	0	718	0	0	1520	1530	705	1515	1536	689
Stage 1	-	-	-	-	-	-	729	729	-	795	795	-
Stage 2	-	-	-	-	-	-	791	801	-	719	741	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	6.92	6.32	6.15
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	5.92	5.32	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	5.92	5.32	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.345
Pot Cap-1 Maneuver	900	-	-	883	-	-	97	117	436	107	126	449
Stage 1	-	-	-	-	-	-	414	428	-	398	417	-
Stage 2	-	-	-	-	-	-	383	397	-	436	440	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	900	-	-	883	-	-	82	109	436	76	117	449
Mov Cap-2 Maneuver	-	-	-	-	-	-	82	109	-	76	117	-
Stage 1	-	-	-	-	-	-	409	423	-	374	392	-
Stage 2	-	-	-	-	-	-	335	373	-	345	435	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.15	0.66	71.69	40.04
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	172	900	-	-	883	-	-	150
HCM Lane V/C Ratio	0.757	0.013	-	-	0.06	-	-	0.322
HCM Control Delay (s/veh)	71.7	9.1	-	-	9.3	-	-	40
HCM Lane LOS	F	A	-	-	A	-	-	E
HCM 95th %tile Q(veh)	4.9	0	-	-	0.2	-	-	1.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	383	0	0	636	4	128	0	235	2	0	3
Future Volume (vph)	2	383	0	0	636	4	128	0	235	2	0	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	15	12
Grade (%)		1%			-1%			2%			1%	
Storage Length (ft)	100		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.999				0.850		0.910	
Flt Protected	0.950							0.950			0.984	
Satd. Flow (prot)	1197	1818	0	0	1719	0	0	1554	1355	0	1826	0
Flt Permitted	0.186							0.950			0.984	
Satd. Flow (perm)	234	1818	0	0	1719	0	0	1554	1355	0	1826	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)									276		103	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		616			1066			255			202	
Travel Time (s)		10.5			18.2			5.8			4.6	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	50%	4%	2%	2%	11%	2%	15%	2%	18%	2%	2%	2%
Adj. Flow (vph)	2	451	0	0	748	5	151	0	276	2	0	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	2	451	0	0	753	0	0	151	276	0	6	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.99	0.99	0.99	1.01	1.01	1.01	1.01	0.89	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2			2		1	2	2	1	2	
Detector Template							Left			Left		
Leading Detector (ft)	42	42			42		20	42	42	20	42	
Trailing Detector (ft)	-8	-8			-8		0	-8	-8	0	-8	
Detector 1 Position(ft)	-8	-8			-8		0	-8	-8	0	-8	
Detector 1 Size(ft)	6	6			6		20	6	6	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	2	2			2			2	2		2	
Detector 2 Size(ft)	40	40			40			40	40		40	
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0			0.0	0.0		0.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA			NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6			2		4	4		8	8	
Permitted Phases	6								4			
Detector Phase	1	6			2		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0			10.0		5.0	5.0	5.0	3.0	3.0	
Minimum Split (s)	11.0	16.0			16.0		28.0	28.0	28.0	9.0	9.0	
Total Split (s)	21.0	72.0			51.0		66.0	66.0	66.0	21.0	21.0	
Total Split (%)	13.2%	45.3%			32.1%		41.5%	41.5%	41.5%	13.2%	13.2%	
Maximum Green (s)	15.0	66.0			45.0		60.0	60.0	60.0	15.0	15.0	
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0		0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0	6.0		6.0	
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	1.0	2.0			2.0		2.0	2.0	2.0	1.0	1.0	
Recall Mode	None	Min			Min		None	None	None	None	None	
Walk Time (s)							7.0	7.0	7.0			
Flash Don't Walk (s)							15.0	15.0	15.0			
Pedestrian Calls (#/hr)							0	0	0			
Act Effct Green (s)	47.6	47.6			46.0			11.5	11.5		3.7	
Actuated g/C Ratio	0.65	0.65			0.63			0.16	0.16		0.05	
v/c Ratio	0.01	0.38			0.69			0.62	0.62		0.03	
Control Delay (s/veh)	7.0	8.0			16.7			41.2	10.9		0.4	
Queue Delay	0.0	0.0			0.0			0.0	0.0		0.0	
Total Delay (s/veh)	7.0	8.0			16.7			41.2	10.9		0.4	
LOS	A	A			B			D	B		A	
Approach Delay (s/veh)		8.0			16.7			21.6			0.4	
Approach LOS		A			B			C			A	
Queue Length 50th (ft)	0	71			159			59	0		0	
Queue Length 95th (ft)	3	192			#602			137	54		0	
Internal Link Dist (ft)		536			986			175			122	
Turn Bay Length (ft)	100											
Base Capacity (vph)	355	1673			1084			1306	1183		465	
Starvation Cap Reductn	0	105			0			0	0		0	
Spillback Cap Reductn	0	0			0			0	0		0	
Storage Cap Reductn	0	0			0			0	0		0	
Reduced v/c Ratio	0.01	0.29			0.69			0.12	0.23		0.01	

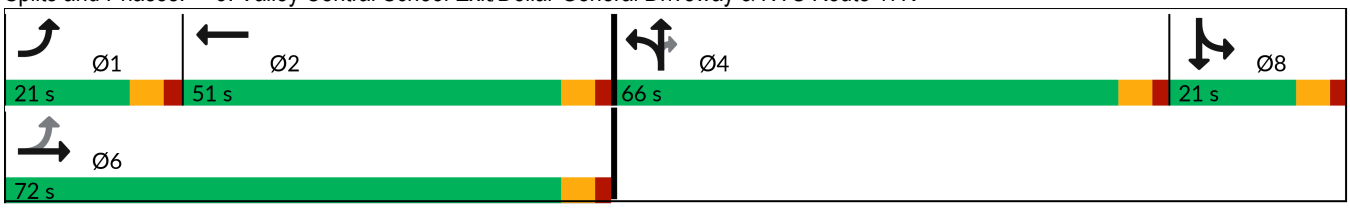
Intersection Summary			
Area Type:	Other		
Cycle Length: 159			
Actuated Cycle Length: 72.9			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay (s/veh): 15.5		Intersection LOS: B	
Intersection Capacity Utilization 57.5%		ICU Level of Service B	

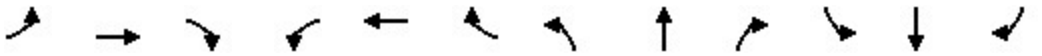
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

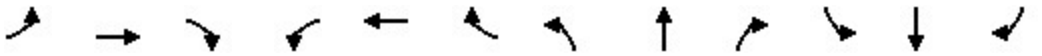
Queue shown is maximum after two cycles.

Splits and Phases: 3: Valley Central School Exit/Dollar General Driveway & NYS Route 17K





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	385	247	345	422	0	0	0	0	0	1	0
Future Volume (vph)	0	385	247	345	422	0	0	0	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	10	12
Grade (%)		4%			-2%			0%			3%	
Storage Length (ft)	45		0	380		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	86			50			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.941										
Flt Protected				0.950								
Satd. Flow (prot)	1825	1630	0	1673	1698	0	0	0	0	0	1712	0
Flt Permitted				0.186								
Satd. Flow (perm)	1825	1630	0	327	1698	0	0	0	0	0	1712	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27										
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		976			616			265			123	
Travel Time (s)		16.6			10.5			6.0			2.8	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	2%	4%	13%	9%	13%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	0	475	305	426	521	0	0	0	0	0	1	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	780	0	426	521	0	0	0	0	0	1	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.03	1.03	0.99	0.99	0.99	1.00	1.00	1.00	1.02	1.11	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2					1	2	
Detector Template										Left		
Leading Detector (ft)	42	42		42	42					20	42	
Trailing Detector (ft)	-8	-8		-8	-8					0	-8	
Detector 1 Position(ft)	-8	-8		-8	-8					0	-8	
Detector 1 Size(ft)	6	6		6	6					20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0					0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0					0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0					0.0	0.0	
Detector 2 Position(ft)	2	2		2	2						2	
Detector 2 Size(ft)	40	40		40	40						40	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0						0.0	

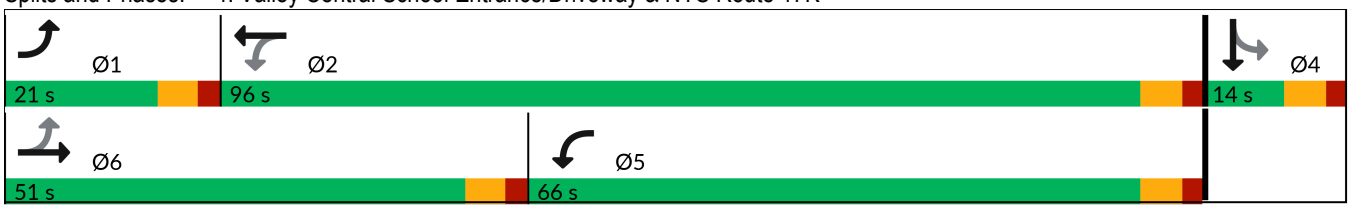


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA						NA	
Protected Phases	1	6		5	2						4	
Permitted Phases	6			2						4		
Detector Phase	1	6		5	2					4	4	
Switch Phase												
Minimum Initial (s)	3.0	10.0		5.0	10.0					3.0	3.0	
Minimum Split (s)	9.0	16.0		11.0	16.0					9.0	9.0	
Total Split (s)	21.0	51.0		66.0	96.0					14.0	14.0	
Total Split (%)	16.0%	38.9%		50.4%	73.3%					10.7%	10.7%	
Maximum Green (s)	15.0	45.0		60.0	90.0					8.0	8.0	
Yellow Time (s)	4.0	4.0		4.0	4.0					4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0					2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0						0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0						6.0	
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	1.0	2.0		1.0	2.0					1.0	1.0	
Recall Mode	None	Min		None	Min					None	None	
Act Effct Green (s)		45.7		74.6	79.7						3.7	
Actuated g/C Ratio		0.56		0.91	0.97						0.04	
v/c Ratio		0.85		0.64	0.32						0.01	
Control Delay (s/veh)		28.6		15.1	1.1						44.0	
Queue Delay		0.0		0.1	0.0						0.0	
Total Delay (s/veh)		28.6		15.1	1.1						44.0	
LOS		C		B	A						D	
Approach Delay (s/veh)		28.6			7.4						44.0	
Approach LOS		C			A						D	
Queue Length 50th (ft)		280		52	0						1	
Queue Length 95th (ft)		#660		143	65						6	
Internal Link Dist (ft)		896			536			185			43	
Turn Bay Length (ft)				380								
Base Capacity (vph)		917		1323	1656						169	
Starvation Cap Reductn		0		127	137						0	
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.85		0.36	0.34						0.01	

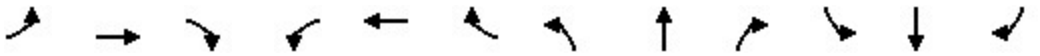
Intersection Summary			
Area Type:	Other		
Cycle Length: 131			
Actuated Cycle Length: 82.3			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay (s/veh): 17.0		Intersection LOS: B	
Intersection Capacity Utilization 72.8%		ICU Level of Service C	
Analysis Period (min) 15			

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

Splits and Phases: 4: Valley Central School Entrance/Driveway & NYS Route 17K



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	378	243	128	243	5	135	1	137	1	3	1
Future Volume (vph)	9	378	243	128	243	5	135	1	137	1	3	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	12	12	11	12	12	11	12
Grade (%)		4%			-5%			-2%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.948			0.998			0.932			0.973	
Flt Protected		0.999			0.983			0.976			0.990	
Satd. Flow (prot)	0	1674	0	0	1673	0	0	1549	0	0	1708	0
Flt Permitted		0.993			0.596			0.976			0.990	
Satd. Flow (perm)	0	1664	0	0	1014	0	0	1549	0	0	1708	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		58			1			41			1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		540			962			1646			119	
Travel Time (s)		12.3			21.9			37.4			2.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	5%	6%	15%	18%	100%	10%	2%	8%	2%	2%	2%
Adj. Flow (vph)	10	406	261	138	261	5	145	1	147	1	3	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	677	0	0	404	0	0	293	0	0	5	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.03	1.03	0.97	0.93	0.97	0.99	1.03	0.99	1.02	1.07	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	3		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	42		20	42		20	84		20	42	
Trailing Detector (ft)	0	-8		0	-8		0	-8		0	-8	
Detector 1 Position(ft)	0	-8		0	-8		0	-8		0	-8	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		2			2			2			2	
Detector 2 Size(ft)		40			40			40			40	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Detector 3 Position(ft)								44				
Detector 3 Size(ft)								40				
Detector 3 Type								Cl+Ex				



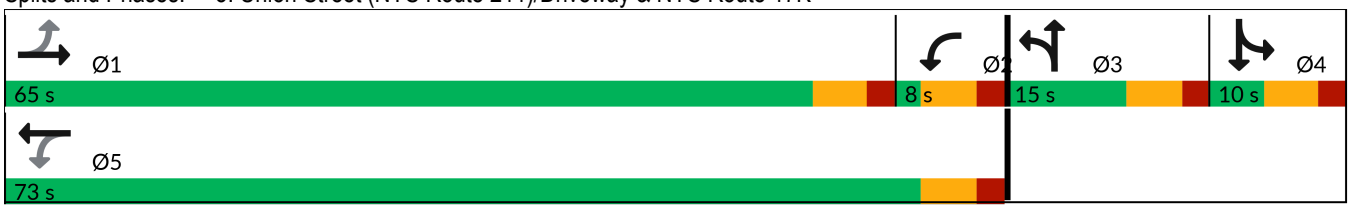
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 3 Channel												
Detector 3 Extend (s)								0.0				
Turn Type	Perm	NA		pm+pt	NA		Split	NA		Split	NA	
Protected Phases		1		2	5		3	3		4	4	
Permitted Phases	1			5								
Detector Phase	1	1		2	5		3	3		4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		2.0	10.0		5.0	5.0		3.0	3.0	
Minimum Split (s)	16.0	16.0		8.0	29.0		11.0	11.0		9.0	9.0	
Total Split (s)	65.0	65.0		8.0	73.0		15.0	15.0		10.0	10.0	
Total Split (%)	66.3%	66.3%		8.2%	74.5%		15.3%	15.3%		10.2%	10.2%	
Maximum Green (s)	59.0	59.0		2.0	67.0		9.0	9.0		4.0	4.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag	Lead	Lead		Lag			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0		2.0	4.0		2.0	2.0		1.0	1.0	
Recall Mode	Min	Min		None	Min		None	None		None	None	
Walk Time (s)					7.0		7.0	7.0				
Flash Don't Walk (s)					16.0		16.0	16.0				
Pedestrian Calls (#/hr)					0		0	0				
Act Effct Green (s)		25.1			25.1			9.6			4.0	
Actuated g/C Ratio		0.51			0.51			0.20			0.08	
v/c Ratio		0.77			0.78			0.87			0.04	
Control Delay (s/veh)		15.1			21.1			49.5			26.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		15.1			21.1			49.5			26.8	
LOS		B			C			D			C	
Approach Delay (s/veh)		15.1			21.1			49.5			26.8	
Approach LOS		B			C			D			C	
Queue Length 50th (ft)		105			70			61			1	
Queue Length 95th (ft)		295			225			#313			12	
Internal Link Dist (ft)		460			882			1566			39	
Turn Bay Length (ft)												
Base Capacity (vph)		1593			991			338			150	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.42			0.41			0.87			0.03	

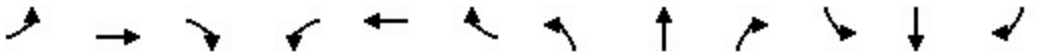
Intersection Summary	
Area Type:	Other
Cycle Length: 98	
Actuated Cycle Length: 48.8	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	

Intersection Signal Delay (s/veh): 24.2	Intersection LOS: C
Intersection Capacity Utilization 93.0%	ICU Level of Service F
Analysis Period (min) 15	

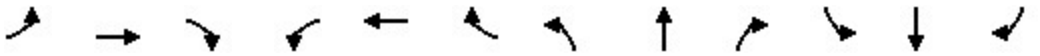
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Union Street (NYS Route 211)/Driveway & NYS Route 17K





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	145	338	219	163	261	27	190	234	118	48	385	159
Future Volume (vph)	145	338	219	163	261	27	190	234	118	48	385	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	11	11	12	11	11	12	12	11	12	11
Grade (%)		5%			-4%			2%			3%	
Storage Length (ft)	300		300	200		160	400		150	145		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1575	1715	1396	1695	1778	1154	1529	1742	1494	1482	1749	1385
Flt Permitted	0.388			0.226			0.172			0.578		
Satd. Flow (perm)	643	1715	1396	403	1778	1154	277	1742	1494	901	1749	1385
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			174			81			139			161
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1101			1133			1322			1760	
Travel Time (s)		13.6			14.0			20.0			26.7	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	8%	8%	9%	5%	9%	38%	13%	8%	7%	16%	7%	11%
Adj. Flow (vph)	171	398	258	192	307	32	224	275	139	56	453	187
Shared Lane Traffic (%)												
Lane Group Flow (vph)	171	398	258	192	307	32	224	275	139	56	453	187
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.08	1.03	1.08	1.02	0.97	1.02	1.06	1.01	1.01	1.07	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2	2	2	2	2	2	2	2	2	2	2
Detector Template												
Leading Detector (ft)	78	78	78	78	78	78	78	78	78	78	78	78
Trailing Detector (ft)	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
Detector 1 Position(ft)	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
Detector 1 Size(ft)	40	40	40	40	40	40	40	40	40	40	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	38	38	38	38	38	38	38	38	38	38	38	38
Detector 2 Size(ft)	40	40	40	40	40	40	40	40	40	40	40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



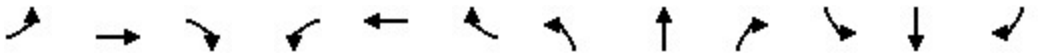
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	1	6	7	5	2	3	7	4	5	3	8	1
Permitted Phases	6		6	2		2	4		4	8		8
Detector Phase	1	6	7	5	2	3	7	4	5	3	8	1
Switch Phase												
Minimum Initial (s)	3.0	10.0	3.0	3.0	10.0	3.0	3.0	10.0	3.0	3.0	10.0	3.0
Minimum Split (s)	10.0	17.0	10.0	10.0	17.0	10.0	10.0	17.0	10.0	10.0	17.0	10.0
Total Split (s)	22.0	56.0	20.0	22.0	56.0	20.0	20.0	50.0	22.0	20.0	50.0	22.0
Total Split (%)	14.9%	37.8%	13.5%	14.9%	37.8%	13.5%	13.5%	33.8%	14.9%	13.5%	33.8%	14.9%
Maximum Green (s)	15.0	49.0	13.0	15.0	49.0	13.0	13.0	43.0	15.0	13.0	43.0	15.0
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	None
Act Effct Green (s)	47.7	35.0	55.4	49.3	35.8	50.4	56.0	46.1	66.8	44.7	37.2	57.1
Actuated g/C Ratio	0.37	0.27	0.43	0.39	0.28	0.39	0.44	0.36	0.52	0.35	0.29	0.45
v/c Ratio	0.51	0.85	0.37	0.66	0.62	0.06	0.89	0.44	0.16	0.16	0.89	0.26
Control Delay (s/veh)	29.1	61.5	9.8	34.7	46.4	0.3	62.7	37.4	3.9	24.3	64.7	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	29.1	61.5	9.8	34.7	46.4	0.3	62.7	37.4	3.9	24.3	64.7	6.1
LOS	C	E	A	C	D	A	E	D	A	C	E	A
Approach Delay (s/veh)		38.7			39.4			39.0			45.7	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	93	329	44	105	233	0	120	182	0	27	365	12
Queue Length 95th (ft)	136	426	94	150	314	0	#283	294	33	58	#556	53
Internal Link Dist (ft)		1021			1053			1242			1680	
Turn Bay Length (ft)	300		300	200		160	400		150	145		200
Base Capacity (vph)	365	673	704	316	698	553	251	635	867	417	602	733
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.59	0.37	0.61	0.44	0.06	0.89	0.43	0.16	0.13	0.75	0.26

Intersection Summary

Area Type: Other
Cycle Length: 148
Actuated Cycle Length: 127.6
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay (s/veh): 40.7 Intersection LOS: D
Intersection Capacity Utilization 80.9% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: NYS Route 208 & NYS Route 17K

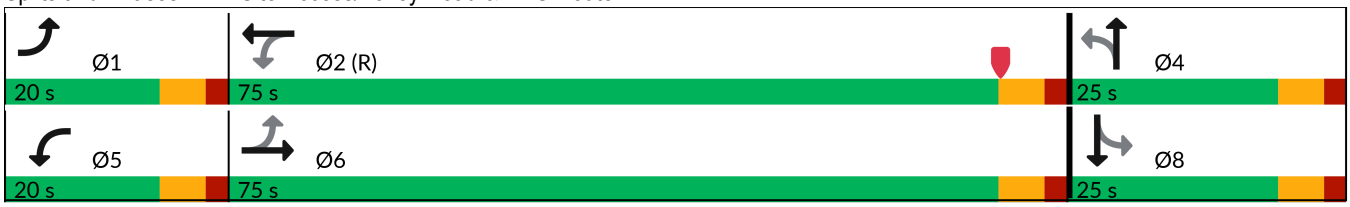
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	589	21	45	581	10	36	5	70	15	3	23
Future Volume (vph)	10	589	21	45	581	10	36	5	70	15	3	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			1%			0%			-1%	
Storage Length (ft)	100		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	75			75			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.997			0.859			0.924	
Flt Protected	0.950			0.950			0.950				0.982	
Satd. Flow (prot)	1770	1708	0	1761	1694	0	1770	1600	0	0	1671	0
Flt Permitted	0.360			0.329			0.903				0.842	
Satd. Flow (perm)	671	1708	0	610	1694	0	1682	1600	0	0	1433	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			1			76			27	
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		1066			2078			195			1084	
Travel Time (s)		13.2			25.8			4.4			24.6	
Peak Hour Factor	0.85	0.85	0.92	0.92	0.85	0.85	0.92	0.92	0.92	0.85	0.92	0.85
Heavy Vehicles (%)	2%	11%	2%	2%	11%	25%	2%	2%	2%	2%	2%	5%
Adj. Flow (vph)	12	693	23	49	684	12	39	5	76	18	3	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	12	716	0	49	696	0	39	81	0	0	48	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		2	2		1	2	
Detector Template										Left		
Leading Detector (ft)	42	42		42	42		42	42		20	42	
Trailing Detector (ft)	-8	-8		-8	-8		-8	-8		0	-8	
Detector 1 Position(ft)	-8	-8		-8	-8		-8	-8		0	-8	
Detector 1 Size(ft)	6	6		6	6		6	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)	2	2		2	2		2	2			2	
Detector 2 Size(ft)	40	40		40	40		40	40			40	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	

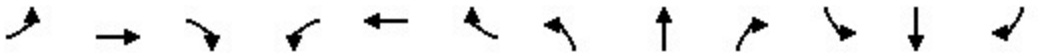


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		3.0	3.0		3.0	3.0	
Minimum Split (s)	11.0	16.0		11.0	16.0		9.0	9.0		9.0	9.0	
Total Split (s)	20.0	75.0		20.0	75.0		25.0	25.0		25.0	25.0	
Total Split (%)	16.7%	62.5%		16.7%	62.5%		20.8%	20.8%		20.8%	20.8%	
Maximum Green (s)	14.0	69.0		14.0	69.0		19.0	19.0		19.0	19.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0			6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	1.0	2.0		1.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	97.3	94.5		99.7	98.9		8.1	8.1			8.1	
Actuated g/C Ratio	0.81	0.79		0.83	0.82		0.07	0.07			0.07	
v/c Ratio	0.02	0.53		0.09	0.50		0.35	0.46			0.40	
Control Delay (s/veh)	1.0	3.8		2.5	6.7		60.7	21.4			38.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay (s/veh)	1.0	3.8		2.5	6.7		60.7	21.4			38.1	
LOS	A	A		A	A		E	C			D	
Approach Delay (s/veh)		3.7			6.4			34.2			38.1	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	1	58		5	115		29	4			16	
Queue Length 95th (ft)	m1	139		13	299		64	52			54	
Internal Link Dist (ft)		986			1998			115			1004	
Turn Bay Length (ft)	100			150								
Base Capacity (vph)	698	1345		652	1395		266	317			249	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.02	0.53		0.08	0.50		0.15	0.26			0.19	

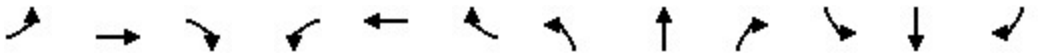
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 2 (2%), Referenced to phase 2:WBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay (s/veh): 8.2		Intersection LOS: A	
Intersection Capacity Utilization 56.5%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Site Access/Bailey Road & NYS Route 17K





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	383	0	0	636	4	128	0	235	2	0	3
Future Volume (vph)	2	383	0	0	636	4	128	0	235	2	0	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	15	12
Grade (%)		1%			-1%			2%			1%	
Storage Length (ft)	100		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.999				0.850		0.910	
Flt Protected	0.950							0.950			0.984	
Satd. Flow (prot)	1197	1818	0	0	1719	0	0	1554	1355	0	1826	0
Flt Permitted	0.243							0.950			0.984	
Satd. Flow (perm)	306	1818	0	0	1719	0	0	1554	1355	0	1826	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)									276		136	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		616			1066			255			202	
Travel Time (s)		10.5			18.2			5.8			4.6	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	50%	4%	2%	2%	11%	2%	15%	2%	18%	2%	2%	2%
Adj. Flow (vph)	2	451	0	0	748	5	151	0	276	2	0	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	2	451	0	0	753	0	0	151	276	0	6	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.99	0.99	0.99	1.01	1.01	1.01	1.01	0.89	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2			2		1	2	2	1	2	
Detector Template							Left			Left		
Leading Detector (ft)	42	42			42		20	42	42	20	42	
Trailing Detector (ft)	-8	-8			-8		0	-8	-8	0	-8	
Detector 1 Position(ft)	-8	-8			-8		0	-8	-8	0	-8	
Detector 1 Size(ft)	6	6			6		20	6	6	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	2	2			2			2	2		2	
Detector 2 Size(ft)	40	40			40			40	40		40	
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0			0.0	0.0		0.0	

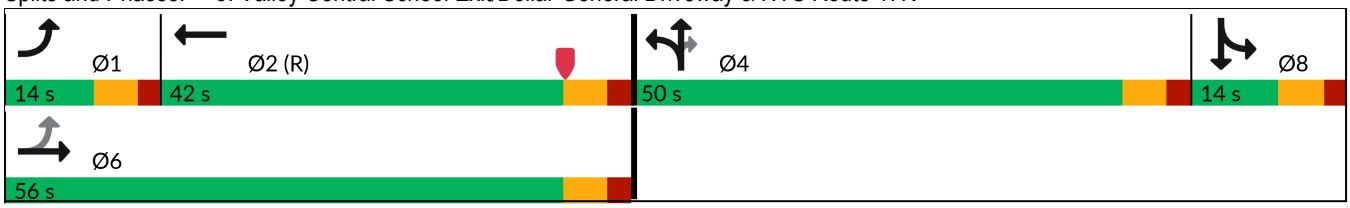


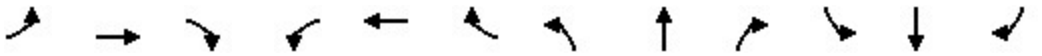
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA			NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6			2		4	4		8	8	
Permitted Phases	6								4			
Detector Phase	1	6			2		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0			10.0		5.0	5.0	5.0	3.0	3.0	
Minimum Split (s)	11.0	16.0			16.0		28.0	28.0	28.0	9.0	9.0	
Total Split (s)	14.0	56.0			42.0		50.0	50.0	50.0	14.0	14.0	
Total Split (%)	11.7%	46.7%			35.0%		41.7%	41.7%	41.7%	11.7%	11.7%	
Maximum Green (s)	8.0	50.0			36.0		44.0	44.0	44.0	8.0	8.0	
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0		0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0	6.0		6.0	
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	1.0	2.0			2.0		2.0	2.0	2.0	1.0	1.0	
Recall Mode	None	Min			C-Min		None	None	None	None	None	
Walk Time (s)							7.0	7.0	7.0			
Flash Don't Walk (s)							15.0	15.0	15.0			
Pedestrian Calls (#/hr)							0	0	0			
Act Effct Green (s)	89.7	89.7			87.5			16.3	16.3		3.6	
Actuated g/C Ratio	0.75	0.75			0.73			0.14	0.14		0.03	
v/c Ratio	0.01	0.33			0.60			0.72	0.65		0.03	
Control Delay (s/veh)	0.5	0.6			10.5			67.2	12.9		0.4	
Queue Delay	0.0	0.4			0.0			0.0	0.0		0.0	
Total Delay (s/veh)	0.5	1.0			10.5			67.2	12.9		0.4	
LOS	A	A			B			E	B		A	
Approach Delay (s/veh)		1.0			10.5			32.1			0.4	
Approach LOS		A			B			C			A	
Queue Length 50th (ft)	0	3			143			114	0		0	
Queue Length 95th (ft)	m0	7			601			164	58		0	
Internal Link Dist (ft)		536			986			175			122	
Turn Bay Length (ft)	100											
Base Capacity (vph)	288	1359			1254			569	671		248	
Starvation Cap Reductn	0	458			0			0	0		0	
Spillback Cap Reductn	0	0			0			0	0		0	
Storage Cap Reductn	0	0			0			0	0		0	
Reduced v/c Ratio	0.01	0.50			0.60			0.27	0.41		0.02	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay (s/veh): 13.5	Intersection LOS: B

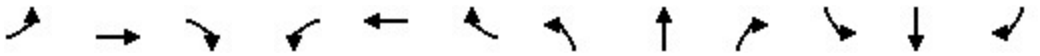
Intersection Capacity Utilization 57.5% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Valley Central School Exit/Dollar General Driveway & NYS Route 17K





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	385	247	345	422	0	0	0	0	0	1	0
Future Volume (vph)	0	385	247	345	422	0	0	0	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	10	12
Grade (%)		4%			-2%			0%			3%	
Storage Length (ft)	45		0	380		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	86			50			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.941										
Flt Protected				0.950								
Satd. Flow (prot)	1825	1630	0	1673	1698	0	0	0	0	0	1712	0
Flt Permitted				0.187								
Satd. Flow (perm)	1825	1630	0	329	1698	0	0	0	0	0	1712	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33										
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		976			616			265			123	
Travel Time (s)		16.6			10.5			6.0			2.8	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	2%	4%	13%	9%	13%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	0	475	305	426	521	0	0	0	0	0	1	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	780	0	426	521	0	0	0	0	0	1	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.03	1.03	0.99	0.99	0.99	1.00	1.00	1.00	1.02	1.11	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2					1	2	
Detector Template										Left		
Leading Detector (ft)	42	42		42	42					20	42	
Trailing Detector (ft)	-8	-8		-8	-8					0	-8	
Detector 1 Position(ft)	-8	-8		-8	-8					0	-8	
Detector 1 Size(ft)	6	6		6	6					20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0					0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0					0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0					0.0	0.0	
Detector 2 Position(ft)	2	2		2	2						2	
Detector 2 Size(ft)	40	40		40	40						40	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0						0.0	



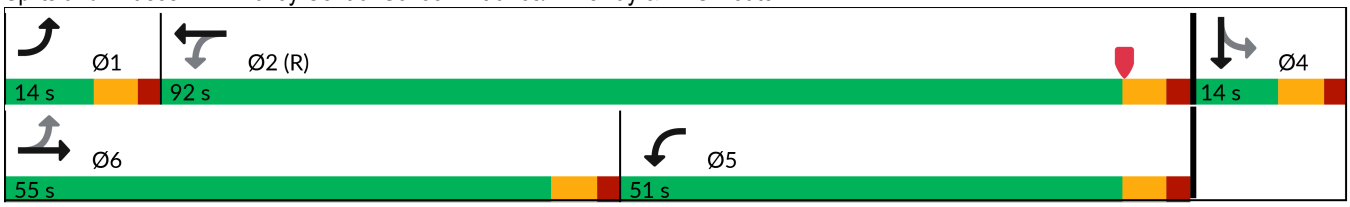
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA						NA	
Protected Phases	1	6		5	2						4	
Permitted Phases	6			2						4		
Detector Phase	1	6		5	2					4	4	
Switch Phase												
Minimum Initial (s)	3.0	10.0		5.0	10.0					3.0	3.0	
Minimum Split (s)	9.0	16.0		11.0	16.0					9.0	9.0	
Total Split (s)	14.0	55.0		51.0	92.0					14.0	14.0	
Total Split (%)	11.7%	45.8%		42.5%	76.7%					11.7%	11.7%	
Maximum Green (s)	8.0	49.0		45.0	86.0					8.0	8.0	
Yellow Time (s)	4.0	4.0		4.0	4.0					4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0					2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0						0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0						6.0	
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	1.0	2.0		1.0	2.0					1.0	1.0	
Recall Mode	None	Min		None	C-Min					None	None	
Act Effct Green (s)		70.6		112.0	116.8						3.7	
Actuated g/C Ratio		0.59		0.93	0.97						0.03	
v/c Ratio		0.80		0.61	0.32						0.02	
Control Delay (s/veh)		28.6		15.5	0.8						57.0	
Queue Delay		0.0		0.0	0.0						0.0	
Total Delay (s/veh)		28.6		15.5	0.8						57.0	
LOS		C		B	A						E	
Approach Delay (s/veh)		28.6			7.4						57.0	
Approach LOS		C			A						E	
Queue Length 50th (ft)		414		109	0						1	
Queue Length 95th (ft)		#741		115	52						6	
Internal Link Dist (ft)		896			536			185			43	
Turn Bay Length (ft)				380								
Base Capacity (vph)		972		823	1652						114	
Starvation Cap Reductn		0		0	134						0	
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.80		0.52	0.34						0.01	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 23 (19%), Referenced to phase 2:WBTL, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay (s/veh): 17.0		Intersection LOS: B	
Intersection Capacity Utilization 72.8%		ICU Level of Service C	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 4: Valley Central School Entrance/Driveway & NYS Route 17K



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	378	243	128	243	5	135	1	137	1	3	1
Future Volume (vph)	9	378	243	128	243	5	135	1	137	1	3	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	12	12	11	12	12	11	12
Grade (%)		4%			-5%			-2%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.948			0.998			0.932			0.973	
Flt Protected		0.999			0.983			0.976			0.990	
Satd. Flow (prot)	0	1674	0	0	1673	0	0	1549	0	0	1708	0
Flt Permitted		0.993			0.570			0.976			0.990	
Satd. Flow (perm)	0	1664	0	0	970	0	0	1549	0	0	1708	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		53			1			43			1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		540			962			1646			119	
Travel Time (s)		12.3			21.9			37.4			2.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	5%	6%	15%	18%	100%	10%	2%	8%	2%	2%	2%
Adj. Flow (vph)	10	406	261	138	261	5	145	1	147	1	3	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	677	0	0	404	0	0	293	0	0	5	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.03	1.03	0.97	0.93	0.97	0.99	1.03	0.99	1.02	1.07	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	3		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	42		20	42		20	84		20	42	
Trailing Detector (ft)	0	-8		0	-8		0	-8		0	-8	
Detector 1 Position(ft)	0	-8		0	-8		0	-8		0	-8	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		2			2			2			2	
Detector 2 Size(ft)		40			40			40			40	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Detector 3 Position(ft)								44				
Detector 3 Size(ft)								40				
Detector 3 Type								Cl+Ex				

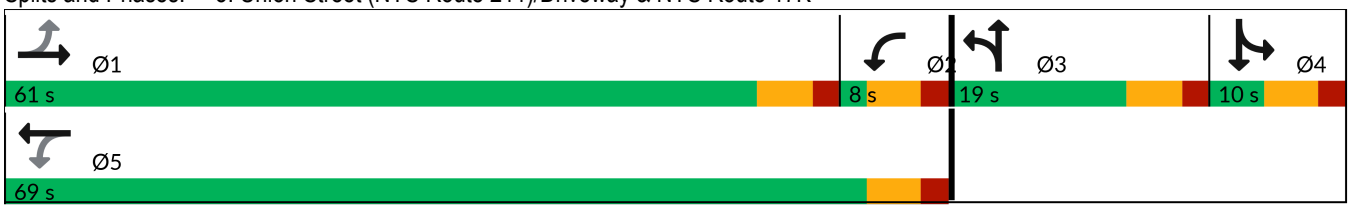
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 3 Channel												
Detector 3 Extend (s)								0.0				
Turn Type	Perm	NA		pm+pt	NA		Split	NA		Split	NA	
Protected Phases		1		2	5		3	3		4	4	
Permitted Phases	1			5								
Detector Phase	1	1		2	5		3	3		4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		2.0	10.0		5.0	5.0		3.0	3.0	
Minimum Split (s)	16.0	16.0		8.0	29.0		11.0	11.0		9.0	9.0	
Total Split (s)	61.0	61.0		8.0	69.0		19.0	19.0		10.0	10.0	
Total Split (%)	62.2%	62.2%		8.2%	70.4%		19.4%	19.4%		10.2%	10.2%	
Maximum Green (s)	55.0	55.0		2.0	63.0		13.0	13.0		4.0	4.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag	Lead	Lead		Lag			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0		2.0	4.0		2.0	2.0		1.0	1.0	
Recall Mode	Min	Min		None	Min		None	None		None	None	
Walk Time (s)					7.0		7.0	7.0				
Flash Don't Walk (s)					16.0		16.0	16.0				
Pedestrian Calls (#/hr)					0		0	0				
Act Effct Green (s)		28.1			28.1			13.8			4.0	
Actuated g/C Ratio		0.50			0.50			0.25			0.07	
v/c Ratio		0.79			0.83			0.71			0.04	
Control Delay (s/veh)		17.6			27.5			32.5			31.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		17.6			27.5			32.5			31.2	
LOS		B			C			C			C	
Approach Delay (s/veh)		17.6			27.5			32.5			31.2	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)		135			91			66			1	
Queue Length 95th (ft)		331			261			#318			13	
Internal Link Dist (ft)		460			882			1566			39	
Turn Bay Length (ft)												
Base Capacity (vph)		1546			917			415			130	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.44			0.44			0.71			0.04	

Intersection Summary	
Area Type:	Other
Cycle Length: 98	
Actuated Cycle Length: 56	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.83	

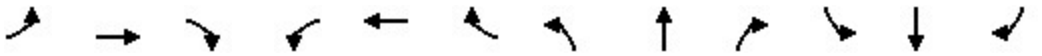
Intersection Signal Delay (s/veh): 23.7	Intersection LOS: C
Intersection Capacity Utilization 93.0%	ICU Level of Service F
Analysis Period (min) 15	

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

Splits and Phases: 5: Union Street (NYS Route 211)/Driveway & NYS Route 17K



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	162	311	218	261	421	112	296	427	174	79	401	128
Future Volume (vph)	162	311	218	261	421	112	296	427	174	79	401	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	11	11	12	11	11	12	12	11	12	11
Grade (%)		5%			-4%			2%			3%	
Storage Length (ft)	300		300	200		160	400		150	145		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1668	1748	1423	1695	1828	1435	1630	1809	1440	1577	1817	1479
Flt Permitted	0.195			0.312			0.154			0.268		
Satd. Flow (perm)	342	1748	1423	557	1828	1435	264	1809	1440	445	1817	1479
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			149			93			119			121
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1085			1133			1322			1760	
Travel Time (s)		13.5			14.0			20.0			26.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	6%	7%	5%	6%	11%	6%	4%	11%	9%	3%	4%
Adj. Flow (vph)	174	334	234	281	453	120	318	459	187	85	431	138
Shared Lane Traffic (%)												
Lane Group Flow (vph)	174	334	234	281	453	120	318	459	187	85	431	138
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.08	1.03	1.08	1.02	0.97	1.02	1.06	1.01	1.01	1.07	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2	2	2	2	2	2	2	2	2	2	2
Detector Template												
Leading Detector (ft)	78	78	78	78	78	78	78	78	78	78	78	78
Trailing Detector (ft)	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
Detector 1 Position(ft)	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
Detector 1 Size(ft)	40	40	40	40	40	40	40	40	40	40	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	38	38	38	38	38	38	38	38	38	38	38	38
Detector 2 Size(ft)	40	40	40	40	40	40	40	40	40	40	40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



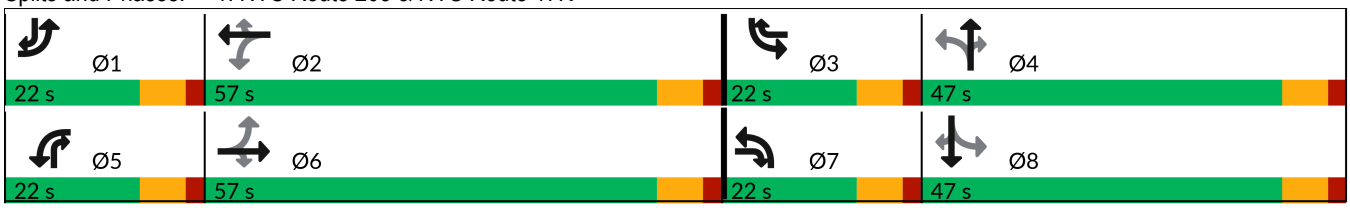
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	1	6	7	5	2	3	7	4	5	3	8	1
Permitted Phases	6		6	2		2	4		4	8		8
Detector Phase	1	6	7	5	2	3	7	4	5	3	8	1
Switch Phase												
Minimum Initial (s)	3.0	10.0	3.0	3.0	10.0	3.0	3.0	10.0	3.0	3.0	10.0	3.0
Minimum Split (s)	10.0	17.0	10.0	10.0	17.0	10.0	10.0	17.0	10.0	10.0	17.0	10.0
Total Split (s)	22.0	57.0	22.0	22.0	57.0	22.0	22.0	47.0	22.0	22.0	47.0	22.0
Total Split (%)	14.9%	38.5%	14.9%	14.9%	38.5%	14.9%	14.9%	31.8%	14.9%	14.9%	31.8%	14.9%
Maximum Green (s)	15.0	50.0	15.0	15.0	50.0	15.0	15.0	40.0	15.0	15.0	40.0	15.0
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	None
Act Effct Green (s)	47.0	34.6	57.1	51.5	36.8	52.8	55.5	41.0	62.9	43.3	34.5	54.1
Actuated g/C Ratio	0.37	0.27	0.45	0.40	0.29	0.41	0.43	0.32	0.49	0.34	0.27	0.42
v/c Ratio	0.68	0.71	0.33	0.79	0.86	0.19	1.14	0.79	0.24	0.37	0.88	0.20
Control Delay (s/veh)	36.9	50.6	9.7	43.1	60.5	7.7	126.7	52.6	9.5	28.8	65.8	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	36.9	50.6	9.7	43.1	60.5	7.7	126.7	52.6	9.5	28.8	65.8	6.5
LOS	D	D	A	D	E	A	F	D	A	C	E	A
Approach Delay (s/veh)		34.5			47.3			68.7			48.5	
Approach LOS		C			D			E			D	
Queue Length 50th (ft)	92	259	43	160	370	14	~244	351	30	42	347	8
Queue Length 95th (ft)	145	369	101	#253	520	51	#522	#628	93	88	#587	53
Internal Link Dist (ft)		1005			1053			1242			1680	
Turn Bay Length (ft)	300		300	200		160	400		150	145		200
Base Capacity (vph)	292	699	718	363	731	716	278	607	775	309	582	726
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.48	0.33	0.77	0.62	0.17	1.14	0.76	0.24	0.28	0.74	0.19

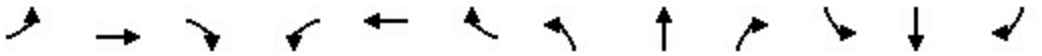
Intersection Summary

Area Type: Other
Cycle Length: 148
Actuated Cycle Length: 127.7
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.14
Intersection Signal Delay (s/veh): 51.0 Intersection LOS: D
Intersection Capacity Utilization 92.0% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 1: NYS Route 208 & NYS Route 17K





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	559	46	101	723	36	40	5	74	19	7	27
Future Volume (vph)	27	559	46	101	723	36	40	5	74	19	7	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			1%			0%			-1%	
Storage Length (ft)	100		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	75			75			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.993			0.916			0.931	
Flt Protected	0.950			0.950				0.983			0.982	
Satd. Flow (prot)	1736	1826	0	1761	1837	0	0	1677	0	0	1712	0
Flt Permitted	0.950			0.950				0.983			0.982	
Satd. Flow (perm)	1736	1826	0	1761	1837	0	0	1677	0	0	1712	0
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		1066			2094			195			1084	
Travel Time (s)		13.2			26.0			4.4			24.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	3%	2%	2%	2%	6%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	28	588	48	106	761	38	42	5	78	20	7	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	636	0	106	799	0	0	125	0	0	55	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 62.5%		ICU Level of Service B	
Analysis Period (min) 15			

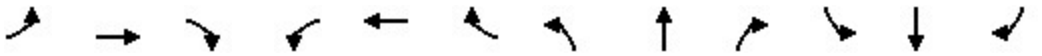
Intersection	
Int Delay, s/veh	11.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	559	46	101	723	36	40	5	74	19	7	27
Future Vol, veh/h	27	559	46	101	723	36	40	5	74	19	7	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	1	-	-	0	-	-	-1	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	4	3	2	2	2	6	2	2	2	2	2	2
Mvmt Flow	28	588	48	106	761	38	42	5	78	20	7	28

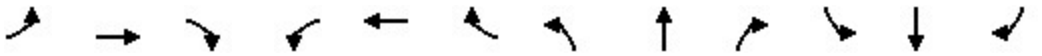
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	799	0	0	637	0	0	1647	1681	613	1641	1686	780
Stage 1	-	-	-	-	-	-	669	669	-	993	993	-
Stage 2	-	-	-	-	-	-	977	1012	-	648	694	-
Critical Hdwy	4.14	-	-	4.12	-	-	7.12	6.52	6.22	6.92	6.32	6.12
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	5.92	5.32	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	5.92	5.32	-
Follow-up Hdwy	2.236	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	815	-	-	947	-	-	79	95	493	88	103	404
Stage 1	-	-	-	-	-	-	447	456	-	312	342	-
Stage 2	-	-	-	-	-	-	302	317	-	476	462	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	815	-	-	947	-	-	59	81	493	60	88	404
Mov Cap-2 Maneuver	-	-	-	-	-	-	59	81	-	60	88	-
Stage 1	-	-	-	-	-	-	431	440	-	277	303	-
Stage 2	-	-	-	-	-	-	243	281	-	382	446	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.41	1.09	126.99	63.53
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	133	815	-	-	947	-	-	114
HCM Lane V/C Ratio	0.942	0.035	-	-	0.112	-	-	0.489
HCM Control Delay (s/veh)	127	9.6	-	-	9.3	-	-	63.5
HCM Lane LOS	F	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	6.4	0.1	-	-	0.4	-	-	2.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	503	0	0	764	27	77	2	116	13	0	29
Future Volume (vph)	13	503	0	0	764	27	77	2	116	13	0	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	15	12
Grade (%)		1%			-1%			2%			1%	
Storage Length (ft)	100		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00				1.00			0.94			0.92	
Frt					0.995				0.850		0.907	
Flt Protected	0.950							0.953			0.985	
Satd. Flow (prot)	1694	1750	0	0	1758	0	0	1590	1440	0	1613	0
Flt Permitted	0.099							0.953			0.985	
Satd. Flow (perm)	177	1750	0	0	1758	0	0	1488	1440	0	1613	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2				144		144	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		616			1066			255			202	
Travel Time (s)		10.5			18.2			5.8			4.6	
Confl. Peds. (#/hr)	1					1	27					27
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	6%	8%	2%	2%	8%	7%	13%	2%	11%	7%	2%	5%
Adj. Flow (vph)	15	572	0	0	868	31	88	2	132	15	0	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	15	572	0	0	899	0	0	90	132	0	48	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.99	0.99	0.99	1.01	1.01	1.01	1.01	0.89	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2			2		1	2	2	1	2	
Detector Template							Left			Left		
Leading Detector (ft)	42	42			42		20	42	42	20	42	
Trailing Detector (ft)	-8	-8			-8		0	-8	-8	0	-8	
Detector 1 Position(ft)	-8	-8			-8		0	-8	-8	0	-8	
Detector 1 Size(ft)	6	6			6		20	6	6	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	2	2			2			2	2		2	
Detector 2 Size(ft)	40	40			40			40	40		40	
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0			0.0	0.0		0.0	
Turn Type	pm+pt	NA			NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6			2		4	4		8	8	
Permitted Phases	6								4			
Detector Phase	1	6			2		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0			10.0		5.0	5.0	5.0	3.0	3.0	
Minimum Split (s)	11.0	16.0			16.0		28.0	28.0	28.0	9.0	9.0	
Total Split (s)	21.0	57.0			36.0		36.0	36.0	36.0	21.0	21.0	
Total Split (%)	18.4%	50.0%			31.6%		31.6%	31.6%	31.6%	18.4%	18.4%	
Maximum Green (s)	15.0	51.0			30.0		30.0	30.0	30.0	15.0	15.0	
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0		0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0	6.0		6.0	
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	1.0	2.0			2.0		2.0	2.0	2.0	1.0	1.0	
Recall Mode	None	Min			Min		None	None	None	None	None	
Walk Time (s)							7.0	7.0	7.0			
Flash Don't Walk (s)							15.0	15.0	15.0			
Pedestrian Calls (#/hr)							20	20	20			
Act Effct Green (s)	36.2	36.2			34.5			12.1	12.1		3.7	
Actuated g/C Ratio	0.55	0.55			0.52			0.18	0.18		0.06	
v/c Ratio	0.07	0.60			0.98			0.31	0.35		0.21	
Control Delay (s/veh)	11.9	16.5			48.0			25.7	6.7		2.1	
Queue Delay	0.0	0.0			0.0			0.0	0.0		0.0	
Total Delay (s/veh)	11.9	16.5			48.0			25.7	6.7		2.1	
LOS	B	B			D			C	A		A	
Approach Delay (s/veh)		16.3			48.0			14.4			2.1	
Approach LOS		B			D			B			A	
Queue Length 50th (ft)	3	140			~318			30	0		0	
Queue Length 95th (ft)	14	327			#865			74	33		0	
Internal Link Dist (ft)		536			986			175			122	
Turn Bay Length (ft)	100											
Base Capacity (vph)	453	1383			918			747	753		489	
Starvation Cap Reductn	0	0			0			0	0		0	
Spillback Cap Reductn	0	0			0			0	0		0	
Storage Cap Reductn	0	0			0			0	0		0	
Reduced v/c Ratio	0.03	0.41			0.98			0.12	0.18		0.10	

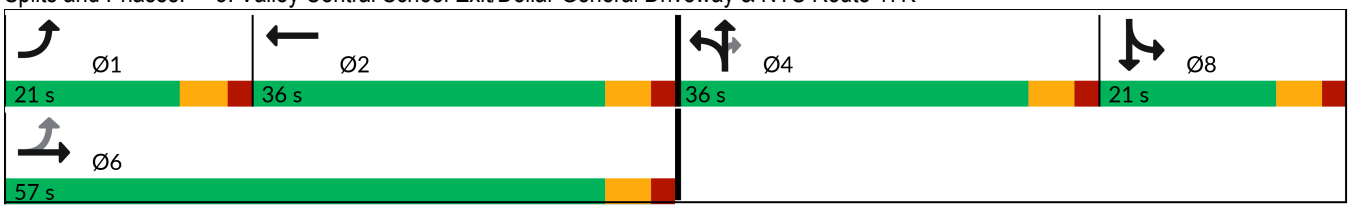
Intersection Summary	
Area Type:	Other
Cycle Length: 114	
Actuated Cycle Length: 66.1	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.98	

Intersection Signal Delay (s/veh): 31.9	Intersection LOS: C
Intersection Capacity Utilization 62.9%	ICU Level of Service B
Analysis Period (min) 15	

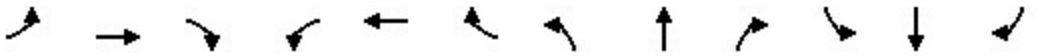
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 3: Valley Central School Exit/Dollar General Driveway & NYS Route 17K



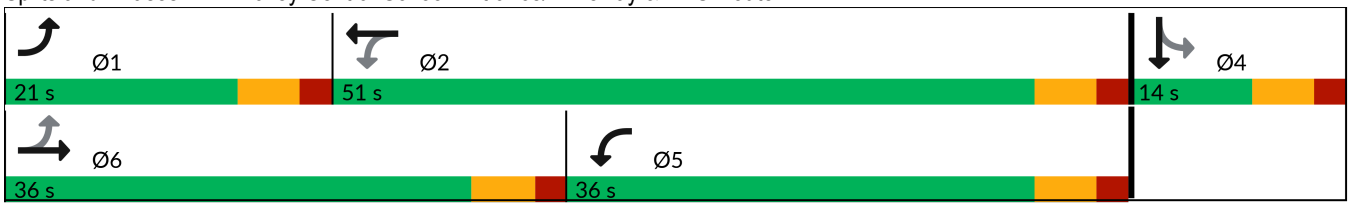
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	516	54	104	755	0	0	0	0	0	0	0
Future Volume (vph)	0	516	54	104	755	0	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	10	12
Grade (%)		4%			-2%			0%			3%	
Storage Length (ft)	45		0	380		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	86			50			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986										
Flt Protected				0.950								
Satd. Flow (prot)	1825	1784	0	1787	1881	0	0	0	0	0	1712	0
Flt Permitted				0.412								
Satd. Flow (perm)	1825	1784	0	775	1881	0	0	0	0	0	1712	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7										
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		976			616			265			123	
Travel Time (s)		16.6			10.5			6.0			2.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	0	543	57	109	795	0	0	0	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	600	0	109	795	0	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.03	1.03	0.99	0.99	0.99	1.00	1.00	1.00	1.02	1.11	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2					1	2	
Detector Template										Left		
Leading Detector (ft)	42	42		42	42					20	42	
Trailing Detector (ft)	-8	-8		-8	-8					0	-8	
Detector 1 Position(ft)	-8	-8		-8	-8					0	-8	
Detector 1 Size(ft)	6	6		6	6					20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0					0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0					0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0					0.0	0.0	
Detector 2 Position(ft)	2	2		2	2						2	
Detector 2 Size(ft)	40	40		40	40						40	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0						0.0	



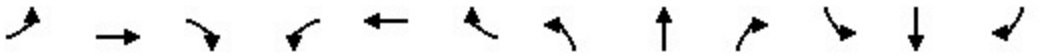
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA							
Protected Phases	1	6		5	2						4	
Permitted Phases	6			2						4		
Detector Phase	1	6		5	2					4	4	
Switch Phase												
Minimum Initial (s)	3.0	10.0		5.0	10.0					3.0	3.0	
Minimum Split (s)	9.0	16.0		11.0	16.0					9.0	9.0	
Total Split (s)	21.0	36.0		36.0	51.0					14.0	14.0	
Total Split (%)	24.4%	41.9%		41.9%	59.3%					16.3%	16.3%	
Maximum Green (s)	15.0	30.0		30.0	45.0					8.0	8.0	
Yellow Time (s)	4.0	4.0		4.0	4.0					4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0					2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0						0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0						6.0	
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	1.0	2.0		1.0	2.0					1.0	1.0	
Recall Mode	None	Min		None	Min					None	None	
Act Effct Green (s)		28.9		36.0	42.1							
Actuated g/C Ratio		0.69		0.86	1.00							
v/c Ratio		0.49		0.14	0.42							
Control Delay (s/veh)		6.6		0.9	0.7							
Queue Delay		0.0		0.0	0.0							
Total Delay (s/veh)		6.6		0.9	0.7							
LOS		A		A	A							
Approach Delay (s/veh)		6.6			0.7							
Approach LOS		A			A							
Queue Length 50th (ft)		68		0	0							
Queue Length 95th (ft)		134		0	0							
Internal Link Dist (ft)		896			536			185			43	
Turn Bay Length (ft)				380								
Base Capacity (vph)		1326		1487	1881							
Starvation Cap Reductn		0		0	0							
Spillback Cap Reductn		0		0	0							
Storage Cap Reductn		0		0	0							
Reduced v/c Ratio		0.45		0.07	0.42							

Intersection Summary			
Area Type:	Other		
Cycle Length: 86			
Actuated Cycle Length: 42.1			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay (s/veh): 3.1		Intersection LOS: A	
Intersection Capacity Utilization 53.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Valley Central School Entrance/Driveway & NYS Route 17K



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	334	139	145	522	15	346	2	180	2	6	2
Future Volume (vph)	36	334	139	145	522	15	346	2	180	2	6	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	12	12	11	12	12	11	12
Grade (%)		4%			-5%			-2%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			1.00			0.99			1.00	
Frt		0.963			0.997			0.954			0.973	
Flt Protected		0.996			0.989			0.968			0.990	
Satd. Flow (prot)	0	1713	0	0	1940	0	0	1649	0	0	1708	0
Flt Permitted		0.922			0.700			0.968			0.990	
Satd. Flow (perm)	0	1585	0	0	1373	0	0	1649	0	0	1708	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19			1			26			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		540			962			1646			119	
Travel Time (s)		12.3			21.9			37.4			2.7	
Confl. Peds. (#/hr)	4		3	3		4			2	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	3%	3%	2%	2%	3%	2%	3%	2%	2%	2%
Adj. Flow (vph)	38	352	146	153	549	16	364	2	189	2	6	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	536	0	0	718	0	0	555	0	0	10	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.03	1.03	0.97	0.93	0.97	0.99	1.03	0.99	1.02	1.07	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	3		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	42		20	42		20	84		20	42	
Trailing Detector (ft)	0	-8		0	-8		0	-8		0	-8	
Detector 1 Position(ft)	0	-8		0	-8		0	-8		0	-8	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		2			2			2			2	
Detector 2 Size(ft)		40			40			40			40	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Detector 3 Position(ft)								44				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 3 Size(ft)								40				
Detector 3 Type								Cl+Ex				
Detector 3 Channel												
Detector 3 Extend (s)								0.0				
Turn Type	Perm	NA		pm+pt	NA		Split	NA		Split	NA	
Protected Phases		1		2	5		3	3		4	4	
Permitted Phases	1			5								
Detector Phase	1	1		2	5		3	3		4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		3.0	10.0		5.0	5.0		3.0	3.0	
Minimum Split (s)	16.0	16.0		9.0	16.0		11.0	11.0		9.0	9.0	
Total Split (s)	40.0	40.0		15.0	55.0		40.0	40.0		10.0	10.0	
Total Split (%)	38.1%	38.1%		14.3%	52.4%		38.1%	38.1%		9.5%	9.5%	
Maximum Green (s)	34.0	34.0		9.0	49.0		34.0	34.0		4.0	4.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0		2.0	4.0		2.0	2.0		1.0	1.0	
Recall Mode	Min	Min		None	Min		None	None		None	None	
Walk Time (s)					7.0		7.0	7.0				
Flash Don't Walk (s)					16.0		16.0	16.0				
Pedestrian Calls (#/hr)					0		0	0				
Act Effct Green (s)		49.1			49.1			34.1			3.8	
Actuated g/C Ratio		0.51			0.51			0.35			0.04	
v/c Ratio		0.66			1.03			0.93			0.14	
Control Delay (s/veh)		22.6			68.9			54.3			47.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		22.6			68.9			54.3			47.0	
LOS		C			E			D			D	
Approach Delay (s/veh)		22.6			68.9			54.3			47.0	
Approach LOS		C			E			D			D	
Queue Length 50th (ft)		216			~431			303			5	
Queue Length 95th (ft)		404			#788			#592			23	
Internal Link Dist (ft)		460			882			1566			39	
Turn Bay Length (ft)												
Base Capacity (vph)		811			695			595			72	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.66			1.03			0.93			0.14	

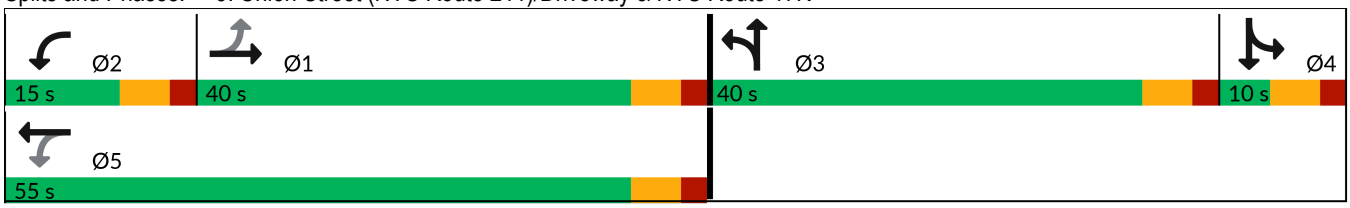
Intersection Summary	
Area Type:	Other
Cycle Length: 105	
Actuated Cycle Length: 97	
Natural Cycle: 150	

Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay (s/veh): 50.7	Intersection LOS: D
Intersection Capacity Utilization 116.6%	ICU Level of Service H
Analysis Period (min) 15	

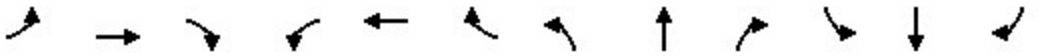
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 5: Union Street (NYS Route 211)/Driveway & NYS Route 17K



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	311	218	261	421	112	296	427	174	79	401	136
Future Volume (vph)	167	311	218	261	421	112	296	427	174	79	401	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	11	11	12	11	11	12	12	11	12	11
Grade (%)		5%			-4%			2%			3%	
Storage Length (ft)	300		300	200		160	400		150	145		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1668	1748	1423	1695	1828	1435	1630	1809	1440	1577	1817	1479
Flt Permitted	0.185			0.321			0.155			0.319		
Satd. Flow (perm)	325	1748	1423	573	1828	1435	266	1809	1440	529	1817	1479
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			158			133			133			133
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1095			1133			1322			1760	
Travel Time (s)		13.6			14.0			20.0			26.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	6%	7%	5%	6%	11%	6%	4%	11%	9%	3%	4%
Adj. Flow (vph)	180	334	234	281	453	120	318	459	187	85	431	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	180	334	234	281	453	120	318	459	187	85	431	146
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.08	1.03	1.08	1.02	0.97	1.02	1.06	1.01	1.01	1.07	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2	2	2	2	2	2	2	2	2	2	2
Detector Template												
Leading Detector (ft)	78	78	78	78	78	78	78	78	78	78	78	78
Trailing Detector (ft)	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
Detector 1 Position(ft)	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
Detector 1 Size(ft)	40	40	40	40	40	40	40	40	40	40	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	38	38	38	38	38	38	38	38	38	38	38	38
Detector 2 Size(ft)	40	40	40	40	40	40	40	40	40	40	40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



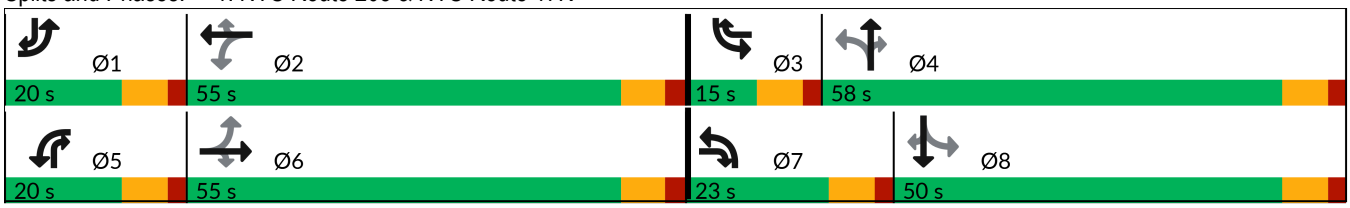
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	1	6	7	5	2	3	7	4	5	3	8	1
Permitted Phases	6		6	2		2	4		4	8		8
Detector Phase	1	6	7	5	2	3	7	4	5	3	8	1
Switch Phase												
Minimum Initial (s)	3.0	10.0	3.0	3.0	10.0	3.0	3.0	10.0	3.0	3.0	10.0	3.0
Minimum Split (s)	10.0	17.0	10.0	10.0	17.0	10.0	10.0	17.0	10.0	10.0	17.0	10.0
Total Split (s)	20.0	55.0	23.0	20.0	55.0	15.0	23.0	58.0	20.0	15.0	50.0	20.0
Total Split (%)	13.5%	37.2%	15.5%	13.5%	37.2%	10.1%	15.5%	39.2%	13.5%	10.1%	33.8%	13.5%
Maximum Green (s)	13.0	48.0	16.0	13.0	48.0	8.0	16.0	51.0	13.0	8.0	43.0	13.0
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	None
Act Effct Green (s)	46.9	35.1	58.6	49.9	36.6	51.1	58.4	43.9	64.4	42.2	34.9	53.8
Actuated g/C Ratio	0.37	0.27	0.46	0.39	0.29	0.40	0.46	0.34	0.50	0.33	0.27	0.42
v/c Ratio	0.75	0.70	0.32	0.83	0.87	0.18	1.08	0.74	0.24	0.36	0.87	0.21
Control Delay (s/veh)	44.2	50.4	8.8	50.1	62.2	3.8	103.4	47.0	7.4	27.8	64.6	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	44.2	50.4	8.8	50.1	62.2	3.8	103.4	47.0	7.4	27.8	64.6	5.9
LOS	D	D	A	D	E	A	F	D	A	C	E	A
Approach Delay (s/veh)		35.9			50.0			57.9			46.9	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	96	253	36	160	369	0	~232	347	24	41	351	6
Queue Length 95th (ft)	#168	377	96	#297	531	31	#480	526	75	84	#550	51
Internal Link Dist (ft)		1015			1053			1242			1680	
Turn Bay Length (ft)	300		300	200		160	400		150	145		200
Base Capacity (vph)	261	668	736	338	699	660	295	735	789	244	622	713
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.50	0.32	0.83	0.65	0.18	1.08	0.62	0.24	0.35	0.69	0.20

Intersection Summary

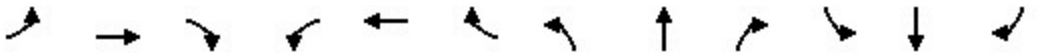
Area Type: Other
Cycle Length: 148
Actuated Cycle Length: 128.3
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.08
Intersection Signal Delay (s/veh): 48.5 Intersection LOS: D
Intersection Capacity Utilization 92.2% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 1: NYS Route 208 & NYS Route 17K



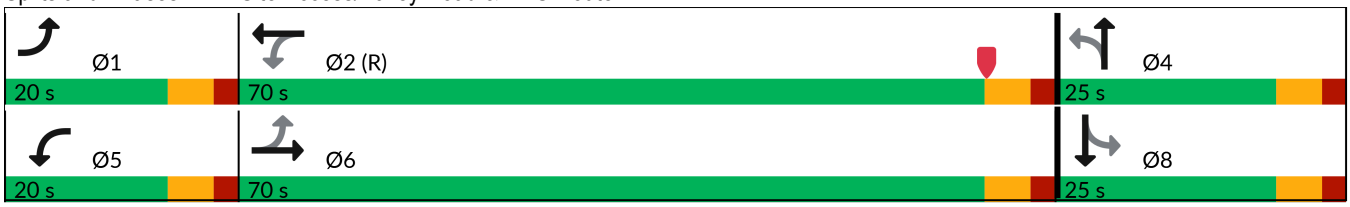
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	559	46	101	723	36	40	5	74	19	7	27
Future Volume (vph)	27	559	46	101	723	36	40	5	74	19	7	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			1%			0%			-1%	
Storage Length (ft)	100		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	75			75			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988			0.993			0.859			0.932	
Flt Protected	0.950			0.950			0.950				0.982	
Satd. Flow (prot)	1736	1824	0	1761	1837	0	1770	1600	0	0	1713	0
Flt Permitted	0.301			0.347			0.849				0.847	
Satd. Flow (perm)	550	1824	0	643	1837	0	1581	1600	0	0	1478	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			4			80			28	
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		1066			2084			197			1084	
Travel Time (s)		13.2			25.8			4.5			24.6	
Peak Hour Factor	0.95	0.95	0.92	0.92	0.95	0.95	0.92	0.92	0.92	0.95	0.92	0.95
Heavy Vehicles (%)	4%	3%	2%	2%	2%	6%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	28	588	50	110	761	38	43	5	80	20	8	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	638	0	110	799	0	43	85	0	0	56	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		2	2		1	2	
Detector Template										Left		
Leading Detector (ft)	42	42		42	42		42	42		20	42	
Trailing Detector (ft)	-8	-8		-8	-8		-8	-8		0	-8	
Detector 1 Position(ft)	-8	-8		-8	-8		-8	-8		0	-8	
Detector 1 Size(ft)	6	6		6	6		6	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)	2	2		2	2		2	2			2	
Detector 2 Size(ft)	40	40		40	40		40	40			40	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	

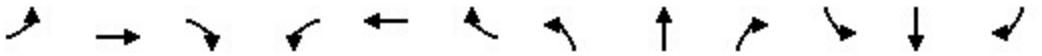


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		3.0	3.0		3.0	3.0	
Minimum Split (s)	11.0	16.0		11.0	16.0		9.0	9.0		9.0	9.0	
Total Split (s)	20.0	70.0		20.0	70.0		25.0	25.0		25.0	25.0	
Total Split (%)	17.4%	60.9%		17.4%	60.9%		21.7%	21.7%		21.7%	21.7%	
Maximum Green (s)	14.0	64.0		14.0	64.0		19.0	19.0		19.0	19.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0			6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	89.4	83.4		93.7	90.3		8.9	8.9			8.9	
Actuated g/C Ratio	0.78	0.73		0.81	0.79		0.08	0.08			0.08	
v/c Ratio	0.06	0.48		0.19	0.55		0.35	0.43			0.40	
Control Delay (s/veh)	2.6	6.6		3.0	9.1		57.3	19.0			37.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay (s/veh)	2.6	6.6		3.0	9.1		57.3	19.0			37.5	
LOS	A	A		A	A		E	B			D	
Approach Delay (s/veh)		6.4			8.3			31.9			37.5	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	3	109		12	261		31	4			20	
Queue Length 95th (ft)	m8	165		27	424		66	51			60	
Internal Link Dist (ft)		986			2004			117			1004	
Turn Bay Length (ft)	100			150								
Base Capacity (vph)	604	1325		675	1443		261	331			267	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.05	0.48		0.16	0.55		0.16	0.26			0.21	

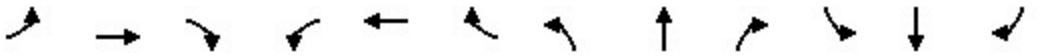
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 22 (19%), Referenced to phase 2:WBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay (s/veh): 10.2		Intersection LOS: B	
Intersection Capacity Utilization 69.1%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Site Access/Bailey Road & NYS Route 17K





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	503	0	0	764	27	77	2	116	13	0	29
Future Volume (vph)	13	503	0	0	764	27	77	2	116	13	0	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	15	12
Grade (%)		1%			-1%			2%			1%	
Storage Length (ft)	100		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00				1.00			0.94			0.86	
Frt					0.995				0.850		0.907	
Flt Protected	0.950							0.953			0.985	
Satd. Flow (prot)	1694	1750	0	0	1758	0	0	1590	1440	0	1505	0
Flt Permitted	0.150							0.953			0.985	
Satd. Flow (perm)	267	1750	0	0	1758	0	0	1487	1440	0	1505	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2				142		142	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		616			1066			255			202	
Travel Time (s)		10.5			18.2			5.8			4.6	
Confl. Peds. (#/hr)	1					1	27					27
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	6%	8%	2%	2%	8%	7%	13%	2%	11%	7%	2%	5%
Adj. Flow (vph)	15	572	0	0	868	31	88	2	132	15	0	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	15	572	0	0	899	0	0	90	132	0	48	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.99	0.99	0.99	1.01	1.01	1.01	1.01	0.89	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2			2		1	2	2	1	2	
Detector Template							Left			Left		
Leading Detector (ft)	42	42			42		20	42	42	20	42	
Trailing Detector (ft)	-8	-8			-8		0	-8	-8	0	-8	
Detector 1 Position(ft)	-8	-8			-8		0	-8	-8	0	-8	
Detector 1 Size(ft)	6	6			6		20	6	6	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	2	2			2			2	2		2	
Detector 2 Size(ft)	40	40			40			40	40		40	
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	



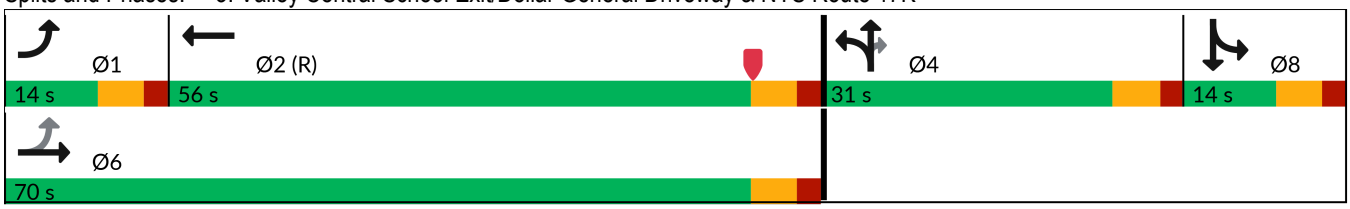
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0			0.0	0.0		0.0	
Turn Type	pm+pt	NA			NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6			2		4	4		8	8	
Permitted Phases	6								4			
Detector Phase	1	6			2		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0			10.0		5.0	5.0	5.0	3.0	3.0	
Minimum Split (s)	11.0	16.0			16.0		28.0	28.0	28.0	9.0	9.0	
Total Split (s)	14.0	70.0			56.0		31.0	31.0	31.0	14.0	14.0	
Total Split (%)	12.2%	60.9%			48.7%		27.0%	27.0%	27.0%	12.2%	12.2%	
Maximum Green (s)	8.0	64.0			50.0		25.0	25.0	25.0	8.0	8.0	
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0		0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0	6.0		6.0	
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	1.0	2.0			2.0		2.0	2.0	2.0	1.0	1.0	
Recall Mode	None	Max			C-Max		None	None	None	None	None	
Walk Time (s)							7.0	7.0	7.0			
Flash Don't Walk (s)							15.0	15.0	15.0			
Pedestrian Calls (#/hr)							20	20	20			
Act Effct Green (s)	81.3	81.3			76.9			14.0	14.0		3.6	
Actuated g/C Ratio	0.71	0.71			0.67			0.12	0.12		0.03	
v/c Ratio	0.06	0.46			0.76			0.46	0.44		0.26	
Control Delay (s/veh)	0.9	1.5			18.5			52.6	10.4		3.4	
Queue Delay	0.0	0.1			0.0			0.0	0.0		0.0	
Total Delay (s/veh)	0.9	1.6			18.5			52.6	10.4		3.4	
LOS	A	A			B			D	B		A	
Approach Delay (s/veh)		1.6			18.5			27.5			3.4	
Approach LOS		A			B			C			A	
Queue Length 50th (ft)	0	9			109			65	0		0	
Queue Length 95th (ft)	m1	15			#886			105	42		0	
Internal Link Dist (ft)		536			986			175			122	
Turn Bay Length (ft)	100											
Base Capacity (vph)	288	1237			1176			345	424		236	
Starvation Cap Reductn	0	60			0			0	0		0	
Spillback Cap Reductn	0	0			0			0	0		0	
Storage Cap Reductn	0	0			0			0	0		0	
Reduced v/c Ratio	0.05	0.49			0.76			0.26	0.31		0.20	

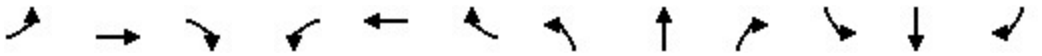
Intersection Summary	
Area Type:	Other
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 32 (28%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	

Maximum v/c Ratio: 0.76	
Intersection Signal Delay (s/veh): 13.6	Intersection LOS: B
Intersection Capacity Utilization 62.9%	ICU Level of Service B
Analysis Period (min) 15	

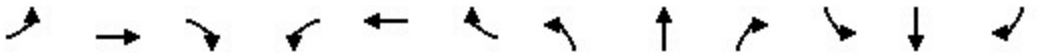
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Valley Central School Exit/Dollar General Driveway & NYS Route 17K





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	516	54	104	755	0	0	0	0	0	0	0
Future Volume (vph)	0	516	54	104	755	0	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	10	12
Grade (%)		4%			-2%			0%			3%	
Storage Length (ft)	45		0	380		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	86			50			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986										
Flt Protected				0.950								
Satd. Flow (prot)	1825	1784	0	1787	1881	0	0	0	0	0	1712	0
Flt Permitted				0.311								
Satd. Flow (perm)	1825	1784	0	585	1881	0	0	0	0	0	1712	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6										
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		976			616			265			123	
Travel Time (s)		16.6			10.5			6.0			2.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	0	543	57	109	795	0	0	0	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	600	0	109	795	0	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.03	1.03	0.99	0.99	0.99	1.00	1.00	1.00	1.02	1.11	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2					1	2	
Detector Template										Left		
Leading Detector (ft)	42	42		42	42					20	42	
Trailing Detector (ft)	-8	-8		-8	-8					0	-8	
Detector 1 Position(ft)	-8	-8		-8	-8					0	-8	
Detector 1 Size(ft)	6	6		6	6					20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0					0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0					0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0					0.0	0.0	
Detector 2 Position(ft)	2	2		2	2						2	
Detector 2 Size(ft)	40	40		40	40						40	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0						0.0	

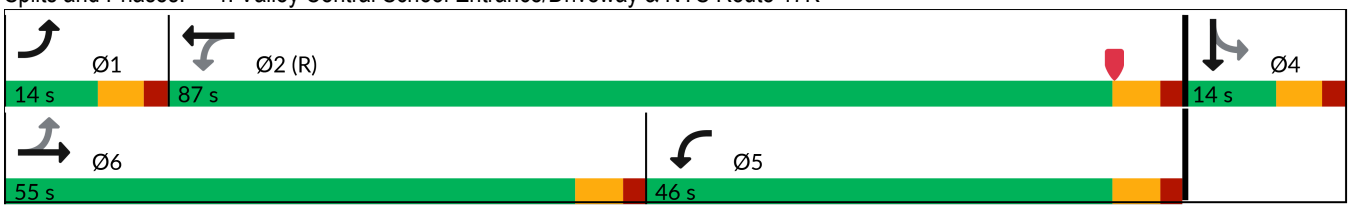


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA							
Protected Phases	1	6		5	2						4	
Permitted Phases	6			2						4		
Detector Phase	1	6		5	2					4	4	
Switch Phase												
Minimum Initial (s)	3.0	10.0		5.0	10.0					3.0	3.0	
Minimum Split (s)	9.0	16.0		11.0	16.0					9.0	9.0	
Total Split (s)	14.0	55.0		46.0	87.0					14.0	14.0	
Total Split (%)	12.2%	47.8%		40.0%	75.7%					12.2%	12.2%	
Maximum Green (s)	8.0	49.0		40.0	81.0					8.0	8.0	
Yellow Time (s)	4.0	4.0		4.0	4.0					4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0					2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0						0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0						6.0	
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	1.0	2.0		1.0	2.0					1.0	1.0	
Recall Mode	None	Max		None	C-Max					None	None	
Act Effct Green (s)		63.0		109.0	115.0							
Actuated g/C Ratio		0.55		0.95	1.00							
v/c Ratio		0.61		0.11	0.42							
Control Delay (s/veh)		20.9		0.2	0.5							
Queue Delay		0.0		0.0	0.0							
Total Delay (s/veh)		20.9		0.2	0.5							
LOS		C		A	A							
Approach Delay (s/veh)		20.9			0.5							
Approach LOS		C			A							
Queue Length 50th (ft)		286		0	0							
Queue Length 95th (ft)		403		m1	0							
Internal Link Dist (ft)		896			536			185			43	
Turn Bay Length (ft)				380								
Base Capacity (vph)		980		972	1881							
Starvation Cap Reductn		0		0	0							
Spillback Cap Reductn		0		0	0							
Storage Cap Reductn		0		0	0							
Reduced v/c Ratio		0.61		0.11	0.42							

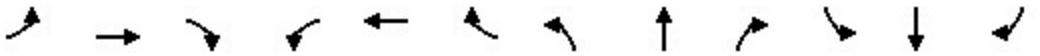
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 66 (57%), Referenced to phase 2:WBTL, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay (s/veh): 8.6		Intersection LOS: A	
Intersection Capacity Utilization 53.1%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Valley Central School Entrance/Driveway & NYS Route 17K



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	334	139	145	522	15	346	2	180	2	6	2
Future Volume (vph)	36	334	139	145	522	15	346	2	180	2	6	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	12	12	11	12	12	11	12
Grade (%)		4%			-5%			-2%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			1.00			0.99			1.00	
Frt		0.963			0.997			0.954			0.973	
Flt Protected		0.996			0.989			0.968			0.990	
Satd. Flow (prot)	0	1713	0	0	1940	0	0	1649	0	0	1708	0
Flt Permitted		0.920			0.705			0.968			0.990	
Satd. Flow (perm)	0	1582	0	0	1383	0	0	1649	0	0	1708	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			1			23			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		540			962			1646			119	
Travel Time (s)		12.3			21.9			37.4			2.7	
Confl. Peds. (#/hr)	4		3	3		4			2	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	3%	3%	2%	2%	3%	2%	3%	2%	2%	2%
Adj. Flow (vph)	38	352	146	153	549	16	364	2	189	2	6	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	536	0	0	718	0	0	555	0	0	10	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.03	1.03	0.97	0.93	0.97	0.99	1.03	0.99	1.02	1.07	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	3		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	42		20	42		20	84		20	42	
Trailing Detector (ft)	0	-8		0	-8		0	-8		0	-8	
Detector 1 Position(ft)	0	-8		0	-8		0	-8		0	-8	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		2			2			2			2	
Detector 2 Size(ft)		40			40			40			40	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Detector 3 Position(ft)								44				



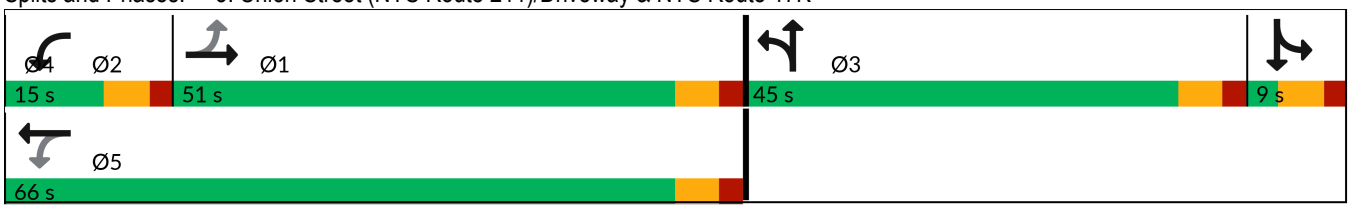
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 3 Size(ft)								40				
Detector 3 Type								Cl+Ex				
Detector 3 Channel												
Detector 3 Extend (s)								0.0				
Turn Type	Perm	NA		pm+pt	NA		Split	NA		Split	NA	
Protected Phases		1		2	5		3	3		4	4	
Permitted Phases	1			5								
Detector Phase	1	1		2	5		3	3		4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		3.0	10.0		5.0	5.0		3.0	3.0	
Minimum Split (s)	16.0	16.0		9.0	16.0		11.0	11.0		9.0	9.0	
Total Split (s)	51.0	51.0		15.0	66.0		45.0	45.0		9.0	9.0	
Total Split (%)	42.5%	42.5%		12.5%	55.0%		37.5%	37.5%		7.5%	7.5%	
Maximum Green (s)	45.0	45.0		9.0	60.0		39.0	39.0		3.0	3.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0		2.0	4.0		2.0	2.0		1.0	1.0	
Recall Mode	Min	Min		None	Min		None	None		None	None	
Walk Time (s)					7.0		7.0	7.0				
Flash Don't Walk (s)					16.0		16.0	16.0				
Pedestrian Calls (#/hr)					0		0	0				
Act Effct Green (s)		60.1			60.1			39.0			3.0	
Actuated g/C Ratio		0.53			0.53			0.35			0.03	
v/c Ratio		0.63			0.97			0.95			0.21	
Control Delay (s/veh)		22.5			54.5			61.9			59.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		22.5			54.5			61.9			59.4	
LOS		C			D			E			E	
Approach Delay (s/veh)		22.5			54.5			61.9			59.4	
Approach LOS		C			D			E			E	
Queue Length 50th (ft)		244			466			366			6	
Queue Length 95th (ft)		424			#838			#659			25	
Internal Link Dist (ft)		460			882			1566			39	
Turn Bay Length (ft)												
Base Capacity (vph)		850			737			585			47	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.63			0.97			0.95			0.21	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 112.8	
Natural Cycle: 150	

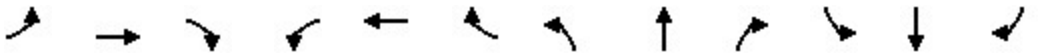
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay (s/veh): 47.3	Intersection LOS: D
Intersection Capacity Utilization 116.6%	ICU Level of Service H
Analysis Period (min) 15	

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

Splits and Phases: 5: Union Street (NYS Route 211)/Driveway & NYS Route 17K



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	155	284	213	231	283	104	227	400	182	105	413	115
Future Volume (vph)	155	284	213	231	283	104	227	400	182	105	413	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	11	11	12	11	11	12	12	11	12	11
Grade (%)		5%			-4%			2%			3%	
Storage Length (ft)	300		300	200		160	400		150	145		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1668	1816	1492	1745	1900	1561	1694	1844	1537	1685	1817	1508
Flt Permitted	0.375			0.290			0.179			0.354		
Satd. Flow (perm)	658	1816	1492	533	1900	1561	319	1844	1537	628	1817	1508
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			155			111			133			105
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1087			1133			1322			1760	
Travel Time (s)		13.5			14.0			20.0			26.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	4%	2%	3%	2%
Adj. Flow (vph)	165	302	227	246	301	111	241	426	194	112	439	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	165	302	227	246	301	111	241	426	194	112	439	122
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.08	1.03	1.08	1.02	0.97	1.02	1.06	1.01	1.01	1.07	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2	2	2	2	2	2	2	2	2	2	2
Detector Template												
Leading Detector (ft)	78	78	78	78	78	78	78	78	78	78	78	78
Trailing Detector (ft)	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
Detector 1 Position(ft)	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
Detector 1 Size(ft)	40	40	40	40	40	40	40	40	40	40	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	38	38	38	38	38	38	38	38	38	38	38	38
Detector 2 Size(ft)	40	40	40	40	40	40	40	40	40	40	40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	1	6	7	5	2	3	7	4	5	3	8	1
Permitted Phases	6		6	2		2	4		4	8		8
Detector Phase	1	6	7	5	2	3	7	4	5	3	8	1
Switch Phase												
Minimum Initial (s)	3.0	10.0	3.0	3.0	10.0	3.0	3.0	10.0	3.0	3.0	10.0	3.0
Minimum Split (s)	10.0	17.0	10.0	10.0	17.0	10.0	10.0	17.0	10.0	10.0	17.0	10.0
Total Split (s)	22.0	57.0	22.0	22.0	57.0	22.0	22.0	47.0	22.0	22.0	47.0	22.0
Total Split (%)	14.9%	38.5%	14.9%	14.9%	38.5%	14.9%	14.9%	31.8%	14.9%	14.9%	31.8%	14.9%
Maximum Green (s)	15.0	50.0	15.0	15.0	50.0	15.0	15.0	40.0	15.0	15.0	40.0	15.0
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	None
Act Effct Green (s)	37.3	25.1	47.4	41.5	27.2	43.3	54.5	39.9	61.3	42.7	33.7	53.0
Actuated g/C Ratio	0.32	0.22	0.41	0.36	0.23	0.37	0.47	0.34	0.53	0.37	0.29	0.45
v/c Ratio	0.52	0.77	0.33	0.73	0.68	0.17	0.73	0.68	0.22	0.36	0.84	0.16
Control Delay (s/veh)	30.7	58.0	9.6	39.7	50.4	5.1	35.2	40.8	6.6	22.3	55.0	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.7	58.0	9.6	39.7	50.4	5.1	35.2	40.8	6.6	22.3	55.0	5.5
LOS	C	E	A	D	D	A	D	D	A	C	D	A
Approach Delay (s/veh)		35.7			38.8			31.5			40.6	
Approach LOS		D			D			C			D	
Queue Length 50th (ft)	84	221	35	131	213	0	109	275	22	46	312	7
Queue Length 95th (ft)	142	334	94	#212	328	37	#251	454	73	93	#507	43
Internal Link Dist (ft)		1007			1053			1242			1680	
Turn Bay Length (ft)	300		300	200		160	400		150	145		200
Base Capacity (vph)	359	790	698	352	826	726	328	666	881	400	632	778
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.38	0.33	0.70	0.36	0.15	0.73	0.64	0.22	0.28	0.69	0.16

Intersection Summary

Area Type: Other
Cycle Length: 148
Actuated Cycle Length: 116.7
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay (s/veh): 36.3 Intersection LOS: D
Intersection Capacity Utilization 85.4% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: NYS Route 208 & NYS Route 17K

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	536	41	90	513	17	45	6	83	21	6	19
Future Volume (vph)	11	536	41	90	513	17	45	6	83	21	6	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			1%			0%			-1%	
Storage Length (ft)	100		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	75			75			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.995			0.916			0.945	
Flt Protected	0.950			0.950				0.983			0.977	
Satd. Flow (prot)	1770	1842	0	1761	1844	0	0	1677	0	0	1728	0
Flt Permitted	0.950			0.950				0.983			0.977	
Satd. Flow (perm)	1770	1842	0	1761	1844	0	0	1677	0	0	1728	0
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		1066			2092			236			1084	
Travel Time (s)		13.2			25.9			5.4			24.6	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	12	576	44	97	552	18	48	6	89	23	6	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	12	620	0	97	570	0	0	143	0	0	49	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.8%		ICU Level of Service A	
Analysis Period (min) 15			

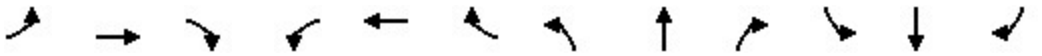
Intersection	
Int Delay, s/veh	7.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	536	41	90	513	17	45	6	83	21	6	19
Future Vol, veh/h	11	536	41	90	513	17	45	6	83	21	6	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	1	-	-	0	-	-	-1	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	576	44	97	552	18	48	6	89	23	6	20

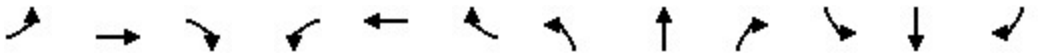
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	570	0	0	620	0	0	1370	1385	598	1358	1398	561
Stage 1	-	-	-	-	-	-	622	622	-	754	754	-
Stage 2	-	-	-	-	-	-	748	763	-	603	644	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	6.92	6.32	6.12
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	5.92	5.32	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	5.92	5.32	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1003	-	-	960	-	-	124	143	502	136	152	536
Stage 1	-	-	-	-	-	-	474	479	-	418	435	-
Stage 2	-	-	-	-	-	-	404	413	-	502	485	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1003	-	-	960	-	-	101	127	502	95	135	536
Mov Cap-2 Maneuver	-	-	-	-	-	-	101	127	-	95	135	-
Stage 1	-	-	-	-	-	-	469	473	-	376	391	-
Stage 2	-	-	-	-	-	-	344	371	-	403	479	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.16	1.33	56.62	39.5
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	204	1003	-	-	960	-	-	153
HCM Lane V/C Ratio	0.707	0.012	-	-	0.101	-	-	0.324
HCM Control Delay (s/veh)	56.6	8.6	-	-	9.2	-	-	39.5
HCM Lane LOS	F	A	-	-	A	-	-	E
HCM 95th %tile Q(veh)	4.5	0	-	-	0.3	-	-	1.3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	530	0	0	550	26	19	0	42	15	0	19
Future Volume (vph)	21	530	0	0	550	26	19	0	42	15	0	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	15	12
Grade (%)		1%			-1%			2%			1%	
Storage Length (ft)	100		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.994				0.850		0.923	
Flt Protected	0.950							0.950			0.979	
Satd. Flow (prot)	1761	1853	0	0	1861	0	0	1752	1568	0	1842	0
Flt Permitted	0.275							0.950			0.979	
Satd. Flow (perm)	510	1853	0	0	1861	0	0	1752	1568	0	1842	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2				144		144	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		616			1066			255			202	
Travel Time (s)		10.5			18.2			5.8			4.6	
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	576	0	0	598	28	21	0	46	16	0	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	576	0	0	626	0	0	21	46	0	37	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.99	0.99	0.99	1.01	1.01	1.01	1.01	0.89	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2			2		1	2	2	1	2	
Detector Template							Left			Left		
Leading Detector (ft)	42	42			42		20	42	42	20	42	
Trailing Detector (ft)	-8	-8			-8		0	-8	-8	0	-8	
Detector 1 Position(ft)	-8	-8			-8		0	-8	-8	0	-8	
Detector 1 Size(ft)	6	6			6		20	6	6	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	2	2			2			2	2		2	
Detector 2 Size(ft)	40	40			40			40	40		40	
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	
Detector 2 Channel												

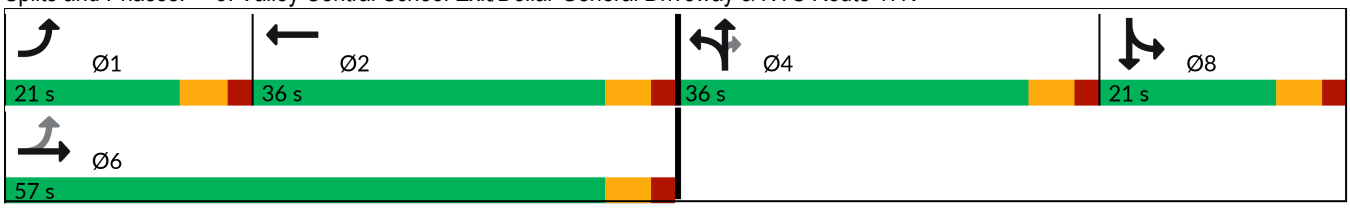


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)	0.0	0.0			0.0			0.0	0.0		0.0	
Turn Type	pm+pt	NA			NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6			2		4	4		8	8	
Permitted Phases	6								4			
Detector Phase	1	6			2		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0			10.0		5.0	5.0	5.0	3.0	3.0	
Minimum Split (s)	11.0	16.0			16.0		28.0	28.0	28.0	9.0	9.0	
Total Split (s)	21.0	57.0			36.0		36.0	36.0	36.0	21.0	21.0	
Total Split (%)	18.4%	50.0%			31.6%		31.6%	31.6%	31.6%	18.4%	18.4%	
Maximum Green (s)	15.0	51.0			30.0		30.0	30.0	30.0	15.0	15.0	
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0		0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0	6.0		6.0	
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	1.0	2.0			2.0		2.0	2.0	2.0	1.0	1.0	
Recall Mode	None	Min			Min		None	None	None	None	None	
Walk Time (s)							7.0	7.0	7.0			
Flash Don't Walk (s)							15.0	15.0	15.0			
Pedestrian Calls (#/hr)							0	0	0			
Act Effct Green (s)	40.0	42.6			40.8			5.6	5.6		3.6	
Actuated g/C Ratio	0.71	0.76			0.72			0.10	0.10		0.06	
v/c Ratio	0.05	0.41			0.46			0.12	0.16		0.15	
Control Delay (s/veh)	5.9	7.1			10.7			27.5	1.2		1.2	
Queue Delay	0.0	0.0			0.0			0.0	0.0		0.0	
Total Delay (s/veh)	5.9	7.1			10.7			27.5	1.2		1.2	
LOS	A	A			B			C	A		A	
Approach Delay (s/veh)		7.0			10.7			9.5			1.2	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)	2	66			74			6	0		0	
Queue Length 95th (ft)	12	208			#390			28	0		0	
Internal Link Dist (ft)		536			986			175			122	
Turn Bay Length (ft)	100											
Base Capacity (vph)	699	1700			1349			945	912		602	
Starvation Cap Reductn	0	1			0			0	0		0	
Spillback Cap Reductn	0	0			0			0	0		0	
Storage Cap Reductn	0	0			0			0	0		0	
Reduced v/c Ratio	0.03	0.34			0.46			0.02	0.05		0.06	

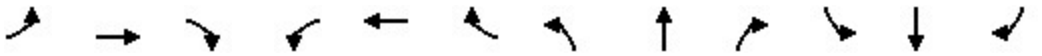
Intersection Summary			
Area Type:	Other		
Cycle Length: 114			
Actuated Cycle Length: 56.3			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay (s/veh): 8.7		Intersection LOS: A	

Intersection Capacity Utilization 50.4% ICU Level of Service A
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Valley Central School Exit/Dollar General Driveway & NYS Route 17K



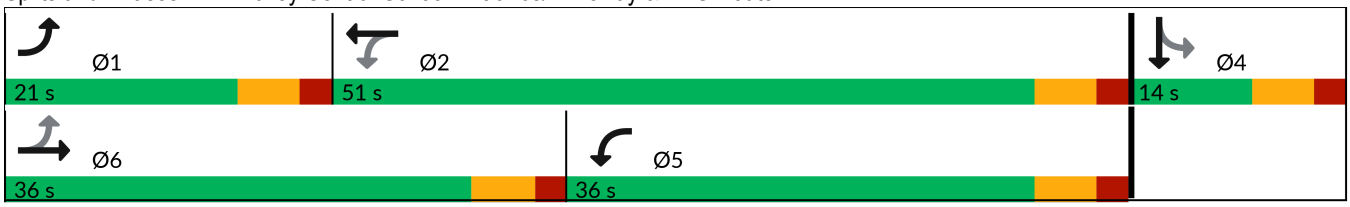
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	551	7	15	572	0	0	0	0	0	0	0
Future Volume (vph)	1	551	7	15	572	0	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	10	12
Grade (%)		4%			-2%			0%			3%	
Storage Length (ft)	45		0	380		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	86			50			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00								
Frt		0.998										
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1734	1821	0	1787	1881	0	0	0	0	0	1712	0
Flt Permitted	0.345			0.443								
Satd. Flow (perm)	629	1821	0	833	1881	0	0	0	0	0	1712	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1										
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		976			616			265			123	
Travel Time (s)		16.6			10.5			6.0			2.8	
Confl. Peds. (#/hr)	2		1	1		2						
Peak Hour Factor	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)	1	580	7	16	602	0	0	0	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	587	0	16	602	0	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.03	1.03	0.99	0.99	0.99	1.00	1.00	1.00	1.02	1.11	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2					1	2	
Detector Template										Left		
Leading Detector (ft)	42	42		42	42					20	42	
Trailing Detector (ft)	-8	-8		-8	-8					0	-8	
Detector 1 Position(ft)	-8	-8		-8	-8					0	-8	
Detector 1 Size(ft)	6	6		6	6					20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0					0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0					0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0					0.0	0.0	
Detector 2 Position(ft)	2	2		2	2						2	
Detector 2 Size(ft)	40	40		40	40						40	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex						Cl+Ex	
Detector 2 Channel												

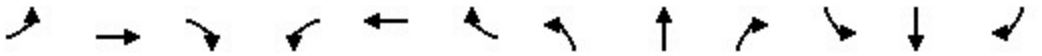


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)	0.0	0.0		0.0	0.0						0.0	
Turn Type	pm+pt	NA		pm+pt	NA							
Protected Phases	1	6		5	2						4	
Permitted Phases	6			2						4		
Detector Phase	1	6		5	2					4	4	
Switch Phase												
Minimum Initial (s)	3.0	10.0		5.0	10.0					3.0	3.0	
Minimum Split (s)	9.0	16.0		11.0	16.0					9.0	9.0	
Total Split (s)	21.0	36.0		36.0	51.0					14.0	14.0	
Total Split (%)	24.4%	41.9%		41.9%	59.3%					16.3%	16.3%	
Maximum Green (s)	15.0	30.0		30.0	45.0					8.0	8.0	
Yellow Time (s)	4.0	4.0		4.0	4.0					4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0					2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0						0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0						6.0	
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	1.0	2.0		1.0	2.0					1.0	1.0	
Recall Mode	None	Min		None	Min					None	None	
Act Effct Green (s)	30.4	35.9		30.6	36.1							
Actuated g/C Ratio	0.80	0.94		0.80	0.95							
v/c Ratio	0.00	0.34		0.02	0.34							
Control Delay (s/veh)	2.0	1.9		1.5	1.7							
Queue Delay	0.0	0.0		0.0	0.0							
Total Delay (s/veh)	2.0	1.9		1.5	1.7							
LOS	A	A		A	A							
Approach Delay (s/veh)		1.9			1.7							
Approach LOS		A			A							
Queue Length 50th (ft)	0	0		1	0							
Queue Length 95th (ft)	1	113		4	102							
Internal Link Dist (ft)		896			536			185			43	
Turn Bay Length (ft)	45			380								
Base Capacity (vph)	954	1552		1542	1806							
Starvation Cap Reductn	0	0		0	0							
Spillback Cap Reductn	0	0		0	0							
Storage Cap Reductn	0	0		0	0							
Reduced v/c Ratio	0.00	0.38		0.01	0.33							

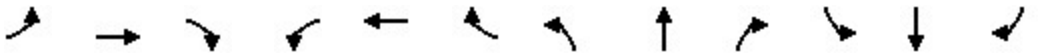
Intersection Summary			
Area Type:	Other		
Cycle Length: 86			
Actuated Cycle Length: 38.2			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.34			
Intersection Signal Delay (s/veh): 1.8		Intersection LOS: A	
Intersection Capacity Utilization 35.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Valley Central School Entrance/Driveway & NYS Route 17K





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	331	153	149	357	0	190	0	129	0	2	0
Future Volume (vph)	0	331	153	149	357	0	190	0	129	0	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	12	12	11	12	12	11	12
Grade (%)		4%			-5%			-2%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			1.00			1.00				
Frt		0.957						0.945				
Flt Protected					0.985			0.971				
Satd. Flow (prot)	0	1735	0	0	1943	0	0	1669	0	0	1774	0
Flt Permitted					0.594			0.971				
Satd. Flow (perm)	0	1735	0	0	1172	0	0	1667	0	0	1774	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26						157				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		540			962			1646			119	
Travel Time (s)		12.3			21.9			37.4			2.7	
Confl. Peds. (#/hr)			2	2			1					1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	0	364	168	164	392	0	209	0	142	0	2	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	532	0	0	556	0	0	351	0	0	2	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.03	1.03	0.97	0.93	0.97	0.99	1.03	0.99	1.02	1.07	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	3		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	42		20	42		20	84		20	42	
Trailing Detector (ft)	0	-8		0	-8		0	-8		0	-8	
Detector 1 Position(ft)	0	-8		0	-8		0	-8		0	-8	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		2			2			2			2	
Detector 2 Size(ft)		40			40			40			40	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Detector 3 Position(ft)								44				
Detector 3 Size(ft)								40				



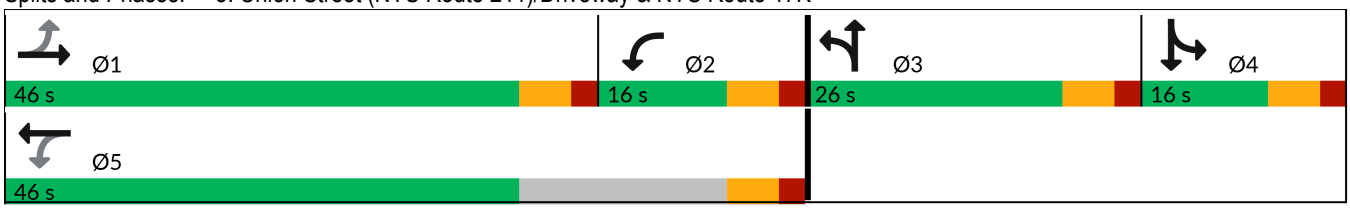
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 3 Type								Cl+Ex				
Detector 3 Channel												
Detector 3 Extend (s)								0.0				
Turn Type		NA		pm+pt	NA		Split	NA			NA	
Protected Phases		1		2	5		3	3		4	4	
Permitted Phases	1			5								
Detector Phase	1	1		2	5		3	3		4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		3.0	10.0		5.0	5.0		3.0	3.0	
Minimum Split (s)	16.0	16.0		9.0	16.0		11.0	11.0		9.0	9.0	
Total Split (s)	46.0	46.0		16.0	46.0		26.0	26.0		16.0	16.0	
Total Split (%)	44.2%	44.2%		15.4%	44.2%		25.0%	25.0%		15.4%	15.4%	
Maximum Green (s)	40.0	40.0		10.0	40.0		20.0	20.0		10.0	10.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag	Lead	Lead		Lag			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0		2.0	4.0		2.0	2.0		1.0	1.0	
Recall Mode	Min	Min		None	Min		None	None		None	None	
Walk Time (s)					7.0		7.0	7.0				
Flash Don't Walk (s)					16.0		16.0	16.0				
Pedestrian Calls (#/hr)					0		0	0				
Act Effct Green (s)		40.5			40.5			13.4			3.8	
Actuated g/C Ratio		0.60			0.60			0.20			0.06	
v/c Ratio		0.51			0.79			0.77			0.02	
Control Delay (s/veh)		11.3			24.1			26.2			35.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		11.3			24.1			26.2			35.0	
LOS		B			C			C			C	
Approach Delay (s/veh)		11.3			24.1			26.2			35.0	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)		98			144			70			1	
Queue Length 95th (ft)		285			#485			182			8	
Internal Link Dist (ft)		460			882			1566			39	
Turn Bay Length (ft)												
Base Capacity (vph)		1047			981			609			265	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.51			0.57			0.58			0.01	

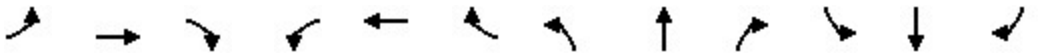
Intersection Summary	
Area Type:	Other
Cycle Length: 104	
Actuated Cycle Length: 67.7	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	

Maximum v/c Ratio: 0.79	
Intersection Signal Delay (s/veh): 19.9	Intersection LOS: B
Intersection Capacity Utilization 93.9%	ICU Level of Service F
Analysis Period (min) 15	

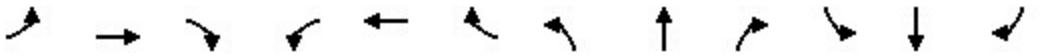
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Union Street (NYS Route 211)/Driveway & NYS Route 17K





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	155	284	213	231	283	104	227	400	182	105	413	115
Future Volume (vph)	155	284	213	231	283	104	227	400	182	105	413	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	11	11	12	11	11	12	12	11	12	11
Grade (%)		5%			-4%			2%			3%	
Storage Length (ft)	300		300	200		160	400		150	145		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	86			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1668	1816	1492	1745	1900	1561	1694	1844	1537	1685	1817	1508
Flt Permitted	0.365			0.340			0.196			0.335		
Satd. Flow (perm)	641	1816	1492	624	1900	1561	349	1844	1537	594	1817	1508
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			168			111			171			122
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1106			1133			1322			1760	
Travel Time (s)		13.7			14.0			20.0			26.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	4%	2%	3%	2%
Adj. Flow (vph)	165	302	227	246	301	111	241	426	194	112	439	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	165	302	227	246	301	111	241	426	194	112	439	122
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.08	1.03	1.08	1.02	0.97	1.02	1.06	1.01	1.01	1.07	1.02	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2	2	2	2	2	2	2	2	2	2	2
Detector Template												
Leading Detector (ft)	78	78	78	78	78	78	78	78	78	78	78	78
Trailing Detector (ft)	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
Detector 1 Position(ft)	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
Detector 1 Size(ft)	40	40	40	40	40	40	40	40	40	40	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	38	38	38	38	38	38	38	38	38	38	38	38
Detector 2 Size(ft)	40	40	40	40	40	40	40	40	40	40	40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	1	6	7	5	2	3	7	4	5	3	8	1
Permitted Phases	6		6	2		2	4		4	8		8
Detector Phase	1	6	7	5	2	3	7	4	5	3	8	1
Switch Phase												
Minimum Initial (s)	3.0	10.0	3.0	3.0	10.0	3.0	3.0	10.0	3.0	3.0	10.0	3.0
Minimum Split (s)	10.0	17.0	10.0	10.0	17.0	10.0	10.0	17.0	10.0	10.0	17.0	10.0
Total Split (s)	16.0	40.0	20.0	16.0	40.0	20.0	20.0	44.0	16.0	20.0	44.0	16.0
Total Split (%)	13.3%	33.3%	16.7%	13.3%	33.3%	16.7%	16.7%	36.7%	13.3%	16.7%	36.7%	13.3%
Maximum Green (s)	9.0	33.0	13.0	9.0	33.0	13.0	13.0	37.0	9.0	13.0	37.0	9.0
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	None
Act Effct Green (s)	31.1	22.4	42.0	32.1	22.9	38.5	45.4	32.9	49.3	37.4	28.9	44.8
Actuated g/C Ratio	0.31	0.22	0.41	0.32	0.23	0.38	0.45	0.32	0.49	0.37	0.28	0.44
v/c Ratio	0.58	0.76	0.32	0.83	0.70	0.17	0.75	0.71	0.23	0.36	0.85	0.17
Control Delay (s/veh)	32.9	50.6	7.5	50.7	46.8	4.6	34.1	39.0	4.6	19.8	51.4	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	32.9	50.6	7.5	50.7	46.8	4.6	34.1	39.0	4.6	19.8	51.4	4.0
LOS	C	D	A	D	D	A	C	D	A	B	D	A
Approach Delay (s/veh)		32.3			41.1			29.9			37.5	
Approach LOS		C			D			C			D	
Stops (vph)	114	252	40	179	247	12	126	337	23	63	365	12
Fuel Used(gal)	6	13	5	7	9	1	5	11	2	2	14	2
CO Emissions (g/hr)	439	932	374	515	651	75	356	755	141	168	949	109
NOx Emissions (g/hr)	85	181	73	100	127	15	69	147	27	33	185	21
VOC Emissions (g/hr)	102	216	87	119	151	17	83	175	33	39	220	25
Dilemma Vehicles (#)	0	12	0	0	12	0	0	17	0	0	17	0
Queue Length 50th (ft)	74	187	23	116	185	0	91	239	8	39	268	0
Queue Length 95th (ft)	135	301	77	#240	295	33	#223	415	53	83	#442	35
Internal Link Dist (ft)		1026			1053			1242			1680	
Turn Bay Length (ft)	300		300	200		160	400		150	145		200
Base Capacity (vph)	292	603	725	298	630	729	334	697	833	389	676	739
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.50	0.31	0.83	0.48	0.15	0.72	0.61	0.23	0.29	0.65	0.17

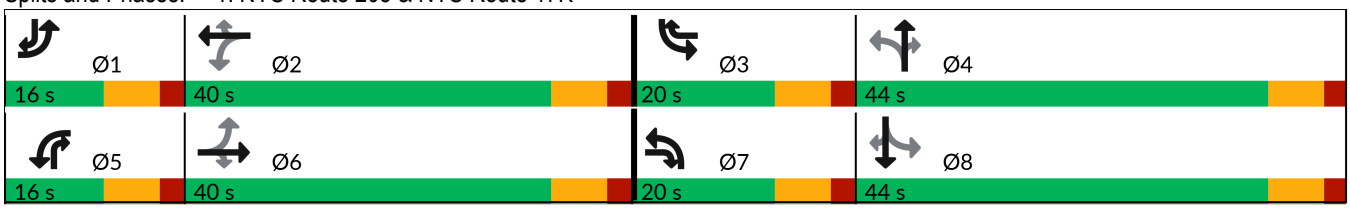
Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 101.6
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

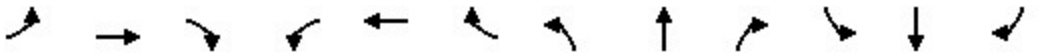
Maximum v/c Ratio: 0.85	
Intersection Signal Delay (s/veh): 34.8	Intersection LOS: C
Intersection Capacity Utilization 85.4%	ICU Level of Service E
Analysis Period (min) 15	

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

Splits and Phases: 1: NYS Route 208 & NYS Route 17K



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	536	41	90	513	17	45	6	83	21	6	19
Future Volume (vph)	11	536	41	90	513	17	45	6	83	21	6	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			1%			0%			-1%	
Storage Length (ft)	100		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	75			75			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.995			0.861			0.946	
Flt Protected	0.950			0.950			0.950				0.978	
Satd. Flow (prot)	1770	1842	0	1761	1844	0	1770	1604	0	0	1732	0
Flt Permitted	0.441			0.340			0.857				0.805	
Satd. Flow (perm)	821	1842	0	630	1844	0	1596	1604	0	0	1426	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			2			90			20	
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		1066			2073			200			1084	
Travel Time (s)		13.2			25.7			4.5			24.6	
Peak Hour Factor	0.93	0.93	0.92	0.92	0.93	0.93	0.92	0.92	0.92	0.93	0.92	0.93
Adj. Flow (vph)	12	576	45	98	552	18	49	7	90	23	7	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	12	621	0	98	570	0	49	97	0	0	50	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		2	2		1	2	
Detector Template										Left		
Leading Detector (ft)	42	42		42	42		42	42		20	42	
Trailing Detector (ft)	-8	-8		-8	-8		-8	-8		0	-8	
Detector 1 Position(ft)	-8	-8		-8	-8		-8	-8		0	-8	
Detector 1 Size(ft)	6	6		6	6		6	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)	2	2		2	2		2	2			2	
Detector 2 Size(ft)	40	40		40	40		40	40			40	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	



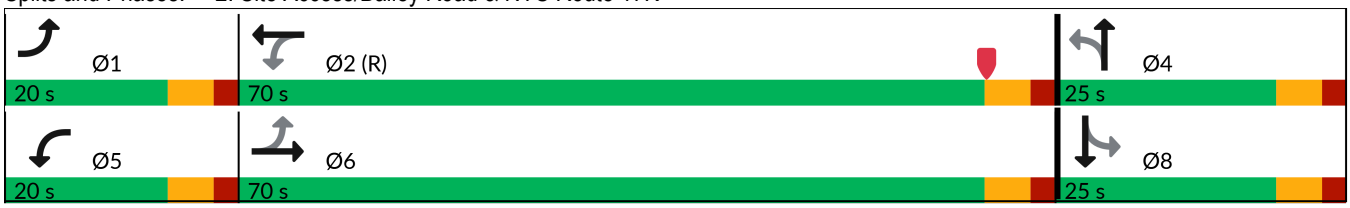
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		3.0	3.0		3.0	3.0	
Minimum Split (s)	11.0	16.0		11.0	16.0		9.0	9.0		9.0	9.0	
Total Split (s)	20.0	70.0		20.0	70.0		25.0	25.0		25.0	25.0	
Total Split (%)	17.4%	60.9%		17.4%	60.9%		21.7%	21.7%		21.7%	21.7%	
Maximum Green (s)	14.0	64.0		14.0	64.0		19.0	19.0		19.0	19.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0			6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	86.2	80.4		92.6	90.9		9.7	9.7			9.7	
Actuated g/C Ratio	0.75	0.70		0.81	0.79		0.08	0.08			0.08	
v/c Ratio	0.02	0.48		0.17	0.39		0.37	0.45			0.36	
Control Delay (s/veh)	0.6	3.8		3.2	5.5		56.3	18.3			40.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay (s/veh)	0.6	3.8		3.2	5.5		56.3	18.3			40.0	
LOS	A	A		A	A		E	B			D	
Approach Delay (s/veh)		3.7			5.2			31.1			40.0	
Approach LOS		A			A			C			D	
Stops (vph)	0	103		17	158		41	20			29	
Fuel Used(gal)	0	6		2	14		1	1			1	
CO Emissions (g/hr)	5	437		153	993		57	41			65	
NOx Emissions (g/hr)	1	85		30	193		11	8			13	
VOC Emissions (g/hr)	1	101		35	230		13	9			15	
Dilemma Vehicles (#)	0	14		0	23		0	0			0	
Queue Length 50th (ft)	1	40		11	89		35	5			21	
Queue Length 95th (ft)	m1	18		26	256		72	55			59	
Internal Link Dist (ft)		986			1993			120			1004	
Turn Bay Length (ft)	100			150								
Base Capacity (vph)	781	1289		649	1458		263	340			252	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.02	0.48		0.15	0.39		0.19	0.29			0.20	

Intersection Summary	
Area Type:	Other
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 94 (82%), Referenced to phase 2:WBTL, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.48	

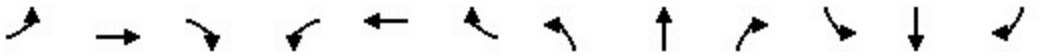
Intersection Signal Delay (s/veh): 8.3	Intersection LOS: A
Intersection Capacity Utilization 60.0%	ICU Level of Service B
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Site Access/Bailey Road & NYS Route 17K



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	530	0	0	550	26	19	0	42	15	0	19
Future Volume (vph)	21	530	0	0	550	26	19	0	42	15	0	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	15	12
Grade (%)		1%			-1%			2%			1%	
Storage Length (ft)	100		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.994				0.850		0.923	
Flt Protected	0.950							0.950			0.979	
Satd. Flow (prot)	1761	1853	0	0	1861	0	0	1752	1568	0	1842	0
Flt Permitted	0.337							0.950			0.979	
Satd. Flow (perm)	625	1853	0	0	1861	0	0	1752	1568	0	1842	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					3				142		142	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		616			1066			255			202	
Travel Time (s)		10.5			18.2			5.8			4.6	
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	576	0	0	598	28	21	0	46	16	0	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	576	0	0	626	0	0	21	46	0	37	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.99	0.99	0.99	1.01	1.01	1.01	1.01	0.89	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2			2		1	2	2	1	2	
Detector Template							Left			Left		
Leading Detector (ft)	42	42			42		20	42	42	20	42	
Trailing Detector (ft)	-8	-8			-8		0	-8	-8	0	-8	
Detector 1 Position(ft)	-8	-8			-8		0	-8	-8	0	-8	
Detector 1 Size(ft)	6	6			6		20	6	6	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	2	2			2			2	2		2	
Detector 2 Size(ft)	40	40			40			40	40		40	
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	
Detector 2 Channel												



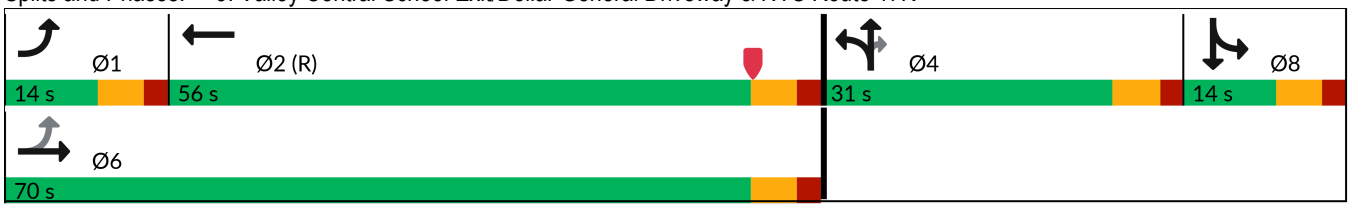
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)	0.0	0.0			0.0			0.0	0.0		0.0	
Turn Type	pm+pt	NA			NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6			2		4	4		8	8	
Permitted Phases	6								4			
Detector Phase	1	6			2		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0			10.0		5.0	5.0	5.0	3.0	3.0	
Minimum Split (s)	11.0	16.0			16.0		28.0	28.0	28.0	9.0	9.0	
Total Split (s)	14.0	70.0			56.0		31.0	31.0	31.0	14.0	14.0	
Total Split (%)	12.2%	60.9%			48.7%		27.0%	27.0%	27.0%	12.2%	12.2%	
Maximum Green (s)	8.0	64.0			50.0		25.0	25.0	25.0	8.0	8.0	
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0		0.0	
Total Lost Time (s)	6.0	6.0			6.0			6.0	6.0		6.0	
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	1.0	2.0			2.0		2.0	2.0	2.0	1.0	1.0	
Recall Mode	None	Max			C-Max		None	None	None	None	None	
Walk Time (s)							7.0	7.0	7.0			
Flash Don't Walk (s)							15.0	15.0	15.0			
Pedestrian Calls (#/hr)							0	0	0			
Act Effct Green (s)	93.3	94.5			87.9			6.1	6.1		3.6	
Actuated g/C Ratio	0.81	0.82			0.76			0.05	0.05		0.03	
v/c Ratio	0.04	0.38			0.44			0.23	0.21		0.19	
Control Delay (s/veh)	0.9	2.0			7.0			57.4	2.2		2.1	
Queue Delay	0.0	0.1			0.0			0.0	0.0		0.0	
Total Delay (s/veh)	0.9	2.1			7.0			57.4	2.2		2.1	
LOS	A	A			A			E	A		A	
Approach Delay (s/veh)		2.1			7.0			19.5			2.1	
Approach LOS		A			A			B			A	
Stops (vph)	1	51			184			19	0		0	
Fuel Used(gal)	0	3			7			0	0		0	
CO Emissions (g/hr)	7	205			475			25	7		5	
NOx Emissions (g/hr)	1	40			92			5	1		1	
VOC Emissions (g/hr)	2	47			110			6	2		1	
Dilemma Vehicles (#)	0	9			19			0	0		0	
Queue Length 50th (ft)	4	125			146			15	0		0	
Queue Length 95th (ft)	m0	4			182			41	0		0	
Internal Link Dist (ft)		536			986			175			122	
Turn Bay Length (ft)	100											
Base Capacity (vph)	586	1522			1423			380	452		260	
Starvation Cap Reductn	0	264			0			0	0		0	
Spillback Cap Reductn	0	0			0			0	0		0	
Storage Cap Reductn	0	0			0			0	0		0	
Reduced v/c Ratio	0.04	0.46			0.44			0.06	0.10		0.14	

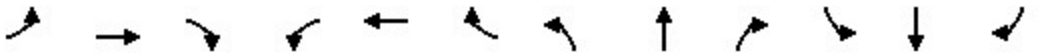
Intersection Summary	
Area Type:	Other

Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 88 (77%), Referenced to phase 2:WBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.44	
Intersection Signal Delay (s/veh): 5.3	Intersection LOS: A
Intersection Capacity Utilization 50.4%	ICU Level of Service A
Analysis Period (min) 15	

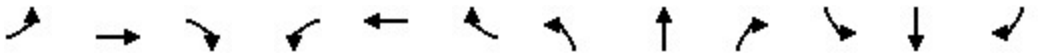
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Valley Central School Exit/Dollar General Driveway & NYS Route 17K





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	551	7	15	572	0	0	0	0	0	0	0
Future Volume (vph)	1	551	7	15	572	0	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	10	12
Grade (%)		4%			-2%			0%			3%	
Storage Length (ft)	45		0	380		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	86			50			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00								
Frt		0.998										
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1734	1821	0	1787	1881	0	0	0	0	0	1712	0
Flt Permitted	0.404			0.436								
Satd. Flow (perm)	737	1821	0	820	1881	0	0	0	0	0	1712	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1										
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		976			616			265			123	
Travel Time (s)		16.6			10.5			6.0			2.8	
Confl. Peds. (#/hr)	2		1	1		2						
Peak Hour Factor	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)	1	580	7	16	602	0	0	0	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	587	0	16	602	0	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.03	1.03	0.99	0.99	0.99	1.00	1.00	1.00	1.02	1.11	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2					1	2	
Detector Template										Left		
Leading Detector (ft)	42	42		42	42					20	42	
Trailing Detector (ft)	-8	-8		-8	-8					0	-8	
Detector 1 Position(ft)	-8	-8		-8	-8					0	-8	
Detector 1 Size(ft)	6	6		6	6					20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0					0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0					0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0					0.0	0.0	
Detector 2 Position(ft)	2	2		2	2						2	
Detector 2 Size(ft)	40	40		40	40						40	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex						Cl+Ex	
Detector 2 Channel												



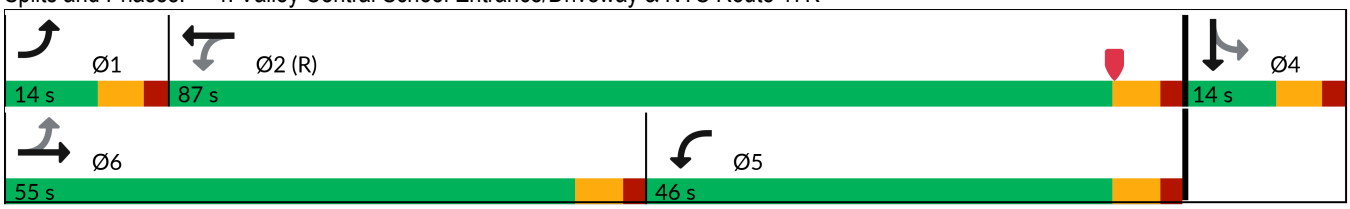
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)	0.0	0.0		0.0	0.0						0.0	
Turn Type	pm+pt	NA		pm+pt	NA							
Protected Phases	1	6		5	2						4	
Permitted Phases	6			2						4		
Detector Phase	1	6		5	2					4	4	
Switch Phase												
Minimum Initial (s)	3.0	10.0		5.0	10.0					3.0	3.0	
Minimum Split (s)	9.0	16.0		11.0	16.0					9.0	9.0	
Total Split (s)	14.0	55.0		46.0	87.0					14.0	14.0	
Total Split (%)	12.2%	47.8%		40.0%	75.7%					12.2%	12.2%	
Maximum Green (s)	8.0	49.0		40.0	81.0					8.0	8.0	
Yellow Time (s)	4.0	4.0		4.0	4.0					4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0					2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0						0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0						6.0	
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	1.0	2.0		1.0	2.0					1.0	1.0	
Recall Mode	None	Max		None	C-Max					None	None	
Act Effct Green (s)	90.6	94.2		110.6	111.8							
Actuated g/C Ratio	0.79	0.82		0.96	0.97							
v/c Ratio	0.00	0.39		0.02	0.33							
Control Delay (s/veh)	11.0	10.1		0.1	0.5							
Queue Delay	0.0	0.0		0.0	0.0							
Total Delay (s/veh)	11.0	10.1		0.1	0.5							
LOS	B	B		A	A							
Approach Delay (s/veh)		10.1			0.5							
Approach LOS		B			A							
Stops (vph)	1	189		0	1							
Fuel Used(gal)	0	22		0	2							
CO Emissions (g/hr)	3	1565		4	172							
NOx Emissions (g/hr)	1	304		1	33							
VOC Emissions (g/hr)	1	363		1	40							
Dilemma Vehicles (#)	0	12		0	0							
Queue Length 50th (ft)	0	0		0	0							
Queue Length 95th (ft)	3	388		m0	2							
Internal Link Dist (ft)		896			536			185			43	
Turn Bay Length (ft)	45			380								
Base Capacity (vph)	649	1492		1099	1829							
Starvation Cap Reductn	0	0		0	90							
Spillback Cap Reductn	0	0		0	0							
Storage Cap Reductn	0	0		0	0							
Reduced v/c Ratio	0.00	0.39		0.01	0.35							

Intersection Summary	
Area Type:	Other
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 112 (97%), Referenced to phase 2:WBTL, Start of Yellow	

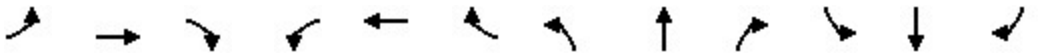
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.39	
Intersection Signal Delay (s/veh): 5.2	Intersection LOS: A
Intersection Capacity Utilization 35.1%	ICU Level of Service A
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Valley Central School Entrance/Driveway & NYS Route 17K



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	331	153	149	357	0	190	0	129	0	2	0
Future Volume (vph)	0	331	153	149	357	0	190	0	129	0	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	12	12	11	12	12	11	12
Grade (%)		4%			-5%			-2%			3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			1.00			1.00				
Frt		0.957						0.945				
Flt Protected					0.985			0.971				
Satd. Flow (prot)	0	1735	0	0	1943	0	0	1669	0	0	1774	0
Flt Permitted					0.594			0.971				
Satd. Flow (perm)	0	1735	0	0	1172	0	0	1667	0	0	1774	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26						157				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		540			962			1646			119	
Travel Time (s)		12.3			21.9			37.4			2.7	
Confl. Peds. (#/hr)			2	2			1					1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	0	364	168	164	392	0	209	0	142	0	2	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	532	0	0	556	0	0	351	0	0	2	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.03	1.03	0.97	0.93	0.97	0.99	1.03	0.99	1.02	1.07	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	3		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	42		20	42		20	84		20	42	
Trailing Detector (ft)	0	-8		0	-8		0	-8		0	-8	
Detector 1 Position(ft)	0	-8		0	-8		0	-8		0	-8	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		2			2			2			2	
Detector 2 Size(ft)		40			40			40			40	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Detector 3 Position(ft)								44				
Detector 3 Size(ft)								40				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 3 Type								Cl+Ex				
Detector 3 Channel												
Detector 3 Extend (s)								0.0				
Turn Type		NA		pm+pt	NA		Split	NA			NA	
Protected Phases		1		2	5		3	3		4	4	
Permitted Phases	1			5								
Detector Phase	1	1		2	5		3	3		4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		3.0	10.0		5.0	5.0		3.0	3.0	
Minimum Split (s)	16.0	16.0		9.0	16.0		11.0	11.0		9.0	9.0	
Total Split (s)	46.0	46.0		16.0	46.0		26.0	26.0		16.0	16.0	
Total Split (%)	44.2%	44.2%		15.4%	44.2%		25.0%	25.0%		15.4%	15.4%	
Maximum Green (s)	40.0	40.0		10.0	40.0		20.0	20.0		10.0	10.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag	Lead	Lead		Lag			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0		2.0	4.0		2.0	2.0		1.0	1.0	
Recall Mode	Min	Min		None	Min		None	None		None	None	
Walk Time (s)					7.0		7.0	7.0				
Flash Don't Walk (s)					16.0		16.0	16.0				
Pedestrian Calls (#/hr)					0		0	0				
Act Effct Green (s)		40.5			40.5			13.4			3.8	
Actuated g/C Ratio		0.60			0.60			0.20			0.06	
v/c Ratio		0.51			0.79			0.77			0.02	
Control Delay (s/veh)		11.3			24.1			26.2			35.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		11.3			24.1			26.2			35.0	
LOS		B			C			C			C	
Approach Delay (s/veh)		11.3			24.1			26.2			35.0	
Approach LOS		B			C			C			C	
Stops (vph)		262			332			164			4	
Fuel Used(gal)		5			24			7			0	
CO Emissions (g/hr)		322			1670			468			3	
NOx Emissions (g/hr)		63			325			91			1	
VOC Emissions (g/hr)		75			387			109			1	
Dilemma Vehicles (#)		0			0			0			0	
Queue Length 50th (ft)		98			144			70			1	
Queue Length 95th (ft)		285			#485			182			8	
Internal Link Dist (ft)		460			882			1566			39	
Turn Bay Length (ft)												
Base Capacity (vph)		1047			981			609			265	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.51			0.57			0.58			0.01	

Intersection Summary

Area Type:	Other		
Cycle Length: 104			
Actuated Cycle Length: 67.7			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay (s/veh): 19.9		Intersection LOS: B	
Intersection Capacity Utilization 93.9%		ICU Level of Service F	
Analysis Period (min) 15			

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

Splits and Phases: 5: Union Street (NYS Route 211)/Driveway & NYS Route 17K