TRAFFIC IMPACT STUDY

PROPOSED ONESCHOOL

60 Sunset Road
Township of Pequannock,
Morris County, New Jersey

Prepared For:
OneSchool Global

October 17, 2022
SE&D Job No. RUT-220209

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STONEFIELD
92 Park Avenue, Rutherford, NJ 07070

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INTRODUCTION

This Traffic Impact Study was prepared to investigate the potential impacts of the proposed OneSchool on the adjacent roadway network. The subject property is located along the northerly side of Sunset Road and is bounded by Roome Avenue to the east and de Wilde Drive to the north in the Township of Pequannock, Morris County, New Jersey. The site location is shown on appended **Figure 1**.

The subject property is designated as Block 2104, Lot 21 as depicted on the Township of Pequannock Tax Map. The site has approximately 412 feet of frontage along Sunset Road, approximately 351 feet of frontage along Roome Avenue, and approximately 275 feet of frontage along de Wilde Drive. The existing site is occupied by non-operational Pompton Valley Presbyterian Church and Sunset Co-Op Nursery School. Access is presently provided via one (1) full-movement driveway along Sunset Road, and one (1) ingress-only driveway and one (1) egress-only driveway along Roome Avenue. Under the proposed development program, the existing structures would be razed and a 27,825-square-foot OneSchool would be constructed. Access to the site is proposed via one (1) ingress-only driveway and one (1) egress-only driveway along Sunset Road.

METHODOLOGY

Stonefield Engineering & Design, LLC has prepared this Traffic Impact Study in accordance with the recommended guidelines and practices outlined by the Institute of Transportation Engineers (ITE) within Transportation Impact Analyses for Site Development. A detailed field investigation was performed to assess the existing conditions of the adjacent roadway network. A data collection effort was completed to identify the existing traffic volumes at the study intersections to serve as a base for the traffic analyses. Capacity analysis, a procedure used to estimate the traffic-carrying ability of roadway facilities over a range of defined operating conditions, was performed using the Highway Capacity Manual, 6th Edition (HCM) and the Synchro 11 Software for all study conditions to assess the roadway operations.

For an unsignalized intersection, Level of Service (LOS) A indicates operations with delay of less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 50 seconds per vehicle. For a signalized intersection, LOS A indicates operations with delay of less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 80 seconds per vehicle. The Technical Appendix contains the Highway Capacity Analysis Detail Sheets for the study intersections analyzed in this assessment. The traffic signal timing utilized within the signalized analysis is based on timing directives provided by Morris County.

2022 EXISTING CONDITION

2022 EXISTING ROADWAY CONDITIONS

The proposed OneSchool is located along the northerly side of Sunset Road and is bounded by Roome Avenue to the east and de Wilde Drive to the north in the Township of Pequannock, Morris County, New Jersey. The subject property is designated as Block 2104, Lot 21 as depicted on the Township of Pequannock Tax Map. The site has approximately 412 feet of frontage along Sunset Road, approximately 351 feet of frontage along Roome Avenue, and approximately 275 feet of frontage along de Wilde Drive. Land uses in the area are a mix of educational, religious, and residential uses.

Sunset Road is classified as an Urban Major Collector roadway with a general east-west orientation, and is under the jurisdiction of the Township of Pequannock. Along the site frontage, the roadway provides one (1) lane of travel in each direction and has a posted speed limit of 35 mph with restrictions to 25 mph in the vicinity of Pequannock High School. Curb and sidewalk are provided along both sides of the roadway, shoulders are not provided, and on-street parking is not permitted. Sunset Road provides general east-west mobility throughout the Township of Pequannock for educational, religious, and residential uses along its length.

Boulevard (County Route 511A) is classified as an Urban Minor Arterial roadway with a general north-south orientation, and is under the jurisdiction of Morris County. In the vicinity of the site, the roadway provides one (1) lane of travel in each direction and has a posted speed limit of 40 mph and with restrictions to 25 mph in the vicinity of Hillview Elementary School. Curb and sidewalk are provided along both sides of the roadway, shoulders are not provided, and on-street parking is not permitted. Boulevard provides north-south mobility throughout the Township of Pequannock and surrounding municipalities and provides access to NJSH Route 23 to the north for educational, religious, and residential uses along its length.

West Parkway is classified as an Urban Major Collector roadway with a general north-south orientation, and is under the jurisdiction of the Township of Pequannock. In the vicinity of the site, the roadway provides one (1) lane of travel in each direction with additional lanes provided at key intersections to facilitate turning movements. The roadway has a posted speed limit of 35 mph and with restrictions to 25 mph in the vicinity of Pequannock High School. Curb and sidewalk are provided along both sides of the roadway, shoulders are not provided, and on-street parking is permitted along the easterly side of the roadway adjacent to Pequannock High School. West Parkway provides general north-south mobility throughout the Township of Pequannock with medical, educational, and residential uses along its length.

Roome Avenue is a local roadway with a general north-south orientation, and is under the jurisdiction of the Township of Pequannock. Along the site frontage, the roadway provides one (1) lane of travel in each

direction. Curb is provided along both sides of the roadway, sidewalks are not provided, shoulders are not provided, and on-street parking is permitted along both sides of the roadway. Roome Avenue connects Evelyn Place at its northerly terminus to Sunset Road at its southerly terminus with predominately residential uses along its length.

Washburn Road is a local roadway with a general north-south orientation, and is under the jurisdiction of the Township of Pequannock. In the vicinity of the site, the roadway provides one (1) lane of travel in each direction and has a posted speed limit of 25 mph. Curb and sidewalk are not provided, shoulders are not provided, and on-street parking is permitted with restrictions in effect daily from 8:00 a.m. to 4:00 p.m. along the westerly side of the roadway. Washburn Road connects Sunset Road at its northerly terminus to Nichols Road at its southerly terminus with predominately residential uses along its length.

Sunset Road and Boulevard intersect to form a four (4)-leg intersection controlled by a two (2)-phase traffic signal operating on a variable cycle length. The eastbound and westbound approaches of Sunset Road provide one (1) shared left-turn/through/right-turn lane. The northbound and southbound approaches of Boulevard provide one (1) shared left-turn/through/right-turn lane. Crosswalks, pedestrian signals, and pedestrian ramps are provided across all legs of the intersection.

Sunset Road, Roome Avenue, and Washburn Road intersect to form an unsignalized offset four (4)-leg intersection with the northbound approach of Washburn Road and the southbound approach of Roome Avenue operating under stop control. The eastbound and westbound approaches of Sunset Road provide one (1) shared left-turn/through/right-turn lane. The northbound approach of Washburn Road provides one (1) shared left-turn/through/right-turn lane and the southbound approach of Roome Avenue provides one (1) shared left-turn/through/right-turn lane. Pedestrian ramps are provided at each corner of the intersection to facilitate pedestrians across Roome Avenue and Washburn Road.

Sunset Road and West Parkway intersect to form an unsignalized T-intersection with the westbound approach of Sunset Road operating under stop control. The westbound approach of Sunset Road provides one (1) shared left-turn/right-turn lane. The northbound approach of West Parkway provides one (1) shared through/right-turn lane and the southbound approach of West Parkway provides one (1) exclusive left-turn lane and one (1) exclusive through lane. Crosswalks and pedestrian ramps are provided across the easterly and northerly legs of the intersection.

2022 EXISTING TRAFFIC VOLUMES

Turning movement counts were collected during the typical weekday arrival and weekday dismissal time periods to evaluate existing traffic conditions and identify the specific hours when traffic activity on the adjacent

roadways is at a maximum and could be potentially impacted by the development of the site. Turning movement counts were collected at the following intersections:

- Sunset Road and Boulevard
- Sunset Road, Roome Avenue, and Washburn Road
- Sunset Road and West Parkway

Specifically, turning movement counts were conducted on the following date and during the following times:

- Tuesday, June 7, 2022, from 6:30 a.m. to 8:30 a.m. and from 2:00 p.m. to 4:00 p.m.

The study time periods were chosen as they are representative of the peak periods of both the adjacent roadway network and the proposed development, as the site is directly adjacent to Pequannock Township High School. It is noted that the traffic counts were conducted while classes were in session for the School District of Pequannock. The traffic volume data was collected and analyzed to identify the design peak hour in accordance with HCM and ITE guidelines. Based on the review of the count data the weekday arrival peak hour occurred from 7:00 a.m. to 8:00 a.m. and the weekday dismissal peak hour occurred from 2:15 p.m. to 3:15 p.m. The Technical Appendix contains a summary of the turning movement count data. The 2022 Existing weekday arrival and weekday dismissal peak-hour volumes are summarized on appended **Figure 2**.

2022 EXISTING LOS/CAPACITY ANALYSIS

A Level of Service and Volume/Capacity analysis was conducted for the 2022 Existing Condition during the weekday arrival and weekday dismissal peak hours at the study intersections. Under the existing condition, the signalized intersection of Sunset Road and Boulevard is calculated to operate at overall Level of Service of B during the weekday arrival peak hour and overall Level of Service A during the weekday dismissal peak hour. The turning movements at the unsignalized intersection of Sunset Road, Roome Avenue, and Washburn Road are calculated to operate at Level of Service C or better during the weekday arrival peak hour and at Level of Service B or better during the weekday dismissal peak hour. The turning movements at the unsignalized intersection of Sunset Road and West Parkway are calculated to operate at Level of Service D or better during the weekday arrival peak hour and Level of Service C or better during the weekday dismissal peak hour.

2024 NO-BUILD CONDITION

BACKGROUND GROWTH

The 2022 Existing Condition traffic volume data was grown to a future horizon year of 2024, which is a conservative estimate for when the proposed OneSchool is expected to be fully constructed. In accordance with industry guidelines, the existing traffic volumes at the study intersections were increased by 1.00% annually

for two (2) years. The 1.00% background growth rate was obtained from the New Jersey Department of Transportation (NJDOT) Annual Background Growth Rate Table.

OTHER PLANNED DEVELOPMENT PROJECTS

To evaluate the future traffic conditions, it is important to consider the potential site-generated traffic of other projects that could influence the traffic volume at the study intersections. Other planned development projects include those that are either in the entitlement process or have recently been approved for building permits in proximity to the proposed development. Based on consultations with the Township of Pequannock Land Use Secretary, Lori Camaya, there are no planned development projects within the area of the subject site. As such, the application of the background growth rate would be adequate to account for background traffic growth.

2024 NO-BUILD TRAFFIC VOLUMES

The background growth rate was applied to the 2022 Existing Traffic Volumes to calculate the 2024 No-Build Traffic Volumes for the weekday arrival and weekday dismissal peak hours. These volumes are summarized on appended **Figure 3**.

2024 NO-BUILD LOS/CAPACITY ANALYSIS

A Level of Service and Volume/Capacity analysis was also conducted for the 2024 No-Build Condition during the weekday arrival and weekday dismissal peak hours at the study intersections. The signalized intersection of Sunset Road and Boulevard is calculated to operate generally consistent with the findings of the Existing Condition during the weekday arrival and weekday dismissal peak hours. The turning movements at the unsignalized intersection of Sunset Road, Roome Avenue, and Washburn Road are calculated to operate at Level of Service C or better during the weekday arrival and weekday dismissal peak hours. The turning movements at the unsignalized intersection of Sunset Road and West Parkway are calculated to operate at Level of Service E or better during the weekday arrival peak hour and at Level of Service D or better during the weekday dismissal peak hour.

2024 BUILD CONDITION

The site-generated traffic volume of the proposed OneSchool was estimated to identify the potential impacts of the project. For the purpose of this analysis, a complete project "build out" is assumed within two (2) years of the preparation of this study.

TRIP GENERATION

Trip generation projections for the proposed OneSchool were prepared utilizing operational information provided by the applicant. The school would consist of approximately 12 employees and approximately 100 students total in grades three (3) through 12. Students would arrive to the site via sprinter vans with each van transporting a maximum of 10 students at a time. As such, it is anticipated approximately 14 vans would be required to transport students with the vans being stored off-site while not in use. To provide a conservative analysis, it was assumed that pick-ups and drop-offs would occur within the peak hour and a trip generation reduction for the existing site use was not applied. **Table 1** provides the weekday arrival and weekday dismissal peak hour trip generation volumes associated with the proposed development.

TABLE 1 – PROPOSED TRIP GENERATION

	Weekday Arrival Peak Hour			Weekday Dismissal Peak Hour		
Land Use	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**
14 Vans and 12 Employees OneSchool *Operations*	26	14	40	14	26	40

The proposed development is expected to generate 40 new trips during the critical weekday arrival and weekday dismissal peak hours. Based on Transportation Impact Analysis for Site Development published by ITE, a trip increase of less than 100 vehicle trips would likely not change the level of service of the adjacent roadway system or appreciably increase the volume-to-capacity ratio of an intersection approach. As such, the proposed development is not anticipated to significantly impact the operations of the adjacent roadway network.

TRIP ASSIGNMENT/DISTRIBUTION

The trips generated by the proposed development were distributed according to the existing travel pattern along the adjacent roadways, the location of residential neighborhoods proximate to the site, and the access management plan of the site. Based on the site's proximity to residential neighborhoods, it is anticipated that a majority of traffic would be routed to and from Boulevard and West Parkway. The Site-Generated Traffic Volumes are illustrated on **Figure 4**.

2024 BUILD TRAFFIC VOLUMES

The site-generated trips were added to the 2024 No-Build Traffic Volumes to calculate the 2024 Build Traffic Volumes and are shown on appended **Figure 5**.

2024 BUILD LOS/CAPACITY ANALYSIS

A Level of Service and Volume/Capacity analysis was also conducted for the 2024 Build Condition during the weekday arrival and weekday dismissal peak hours at the study intersections and proposed site driveway. Appended **Table A1** compares the Existing, No-Build, and Build Conditions Level of Service and delay values.

The signalized intersection of Sunset Road and Boulevard is calculated to operate generally consistent with the findings of the No-Build Condition at overall Level of Service B during the weekday arrival and at overall Level of Service A during the weekday dismissal peak hour. The turning movements at the unsignalized intersection of Sunset Road, Roome Avenue, and Washburn Road are calculated to operate generally consistent with the findings of the No-Build Condition during the weekday arrival and weekday dismissal peak hours. The turning movements at the unsignalized intersection of Sunset Road and West Parkway are calculated to operate generally consistent with the findings of the No-Build Condition during the weekday arrival and weekday dismissal peak hours. The turning movements at the site driveway along Sunset Road is calculated to operate at Level of Service C or better during the weekday arrival and weekday dismissal peak hours.

SITE CIRCULATION/PARKING SUPPLY

A review was conducted of the proposed OneSchool using the Site Plan prepared by our office, dated October 17, 2022. In completing this review, particular attention was focused on the site access, circulation, and parking supply.

Access is proposed via one (1) ingress-only driveway and one (1) egress-only driveway along Sunset Road. The proposed OneSchool would be located on the southerly portion of the property with parking spaces and a drive aisle provided to the west of the building. A proposed 12-foot-wide drop-off and pick-up lane would be located to the south of the building. Two (2)-way vehicular circulation throughout the site would be provided via 24-foot-wide drive aisles. A proposed soccer field would be located on the northeasterly portion of the site. A proposed hard court would be located on the northwesterly portion of the site.

Regarding the parking requirements for the proposed development, the Township of Pequannock Ordinance requires 2.5 parking spaces per classroom and one (1) parking space per 10 students for secondary school uses and two (2) parking spaces per classroom and one (1) parking space per staff member for elementary school uses. For the proposed OneSchool with seven (7) secondary school classrooms, 100 secondary school students, eight (8) elementary school classrooms, and 12 elementary school staff members, this equates to 56 required spaces. The site would provide 43 total parking spaces, inclusive of three (3) ADA accessible parking spaces and nine (9) sets of tandem parking spaces (18 total spaces). Based on operational

information provided by the applicant, the 14 vans anticipated to transport students would be stored off-site when not in use and the tandem parking spaces would be utilized by employees with the remaining on-site parking spaces generally provided for visitors and other school related activities. As such, the proposed parking supply of 43 spaces would be sufficient to support this project's parking demand. The spaces would be nine (9) feet wide by 18 feet deep in accordance with Township of Pequannock Ordinance and industry standards.

CONCLUSIONS

This report was prepared to examine the potential traffic impact of the proposed OneSchool. The analysis findings, which have been based on industry-standard guidelines, indicate that the proposed development would not have a significant impact on the traffic operations of the adjacent roadway network. The traffic analyses considered the adjacent Pequannock Township High School as the traffic counts utilized were conducted when school was in session. The trip generation for the proposed OneSchool were performed utilizing operational information provided by the applicant. The site driveways and on-site layout have been designed to provide for effective access to and from the subject property. Based on operational information provided by the applicant, the parking supply would be sufficient to support this project.

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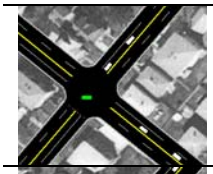
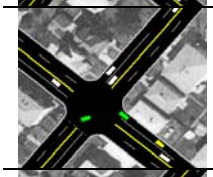
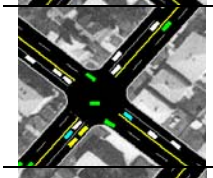
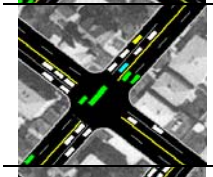
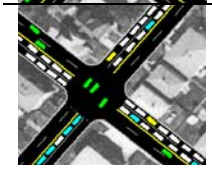
TECHNICAL APPENDIX

LEVEL OF SERVICE/AVERAGE CONTROL DELAY CRITERIA

LEVEL OF SERVICE /AVERAGE CONTROL DELAY CRITERIA

The ability of a roadway to effectively accommodate traffic demand is determined through an assessment of the volume-to-capacity ratio, delay and Level of Service of the lane group and/or intersection. The volume-to-capacity ratio is the ratio of traffic flow rate to capacity for a given transportation facility. As defined within the Highway Capacity Manual, 6th Edition (HCM), intersection delay is the total additional travel time experienced by drivers, passengers, or pedestrians as a result of control measures and interaction with other users of the facility, divided by the volume departing from the corresponding cross section of the facility. Level of service is a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience.

For an unsignalized intersection, LOS A indicates operations with delay less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 50 seconds per vehicle. For a signalized intersection, LOS A indicates operations with delay less than 10 seconds per vehicle and LOS F denotes operations with delay in excess of 80 seconds per vehicle.

	Level Of Service (LOS)	Signalized Delay Range (average control delay in sec/veh)	Unsignalized Delay Range (average control delay in sec/veh)
	A	<=10	<=10
	B	>10 and <=20	>10 and <=15
	C	>20 and <=35	>15 and <=25
	D	>35 and <=55	>25 and <=35
	E	>55 and <=80	>35 and <=50
	F	>80	>50

Source: Highway Capacity Manual, 6th Edition

STONEFIELD

Table A1: Comparative Level of Service (Delay) Table

Township of Pequannock, Morris County, New Jersey

X (n) = Level of Service (seconds of delay)

		Weekday Arrival Peak Hour			Weekday Dismissal Peak Hour		
Intersection	**Lane Group**	**2022 Existing Condition**	**2024 No-Build Condition**	**2024 Build Condition**	**2022 Existing Condition**	**2024 No-Build Condition**	**2024 Build Condition**
Sunset Road (E/W) & Boulevard (N/S)	EB Left/Through/Right	C (34.1)	C (34.1)	C (34.1)	B (16.6)	B (16.6)	B (16.6)
	WB Left/Through/Right	C (29.3)	C (29.2)	C (29.0)	B (15.7)	B (15.7)	B (15.5)
	NB Left/Through/Right	A (6.6)	A (6.9)	A (7.1)	A (5.8)	A (5.9)	A (6.2)
	SB Left/Through/Right	A (6.1)	A (6.3)	A (6.5)	A (5.3)	A (5.3)	A (5.6)
	Overall	**B (15.7)**	**B (15.8)**	**B (16.0)**	**A (8.8)**	**A (8.9)**	**A (9.1)**
Sunset Road (E/W), Washburn Road (N), & Roome Avenue (S)	EB Left/Through/Right	A (8.3)	A (8.3)	A (8.4)	A (8.0)	A (8.0)	A (8.0)
	WB Left/Through/Right	A (8.6)	A (8.7)	A (8.7)	A (8.8)	A (8.9)	A (9.0)
	NB Left/Through/Right	C (19.0)	C (19.5)	C (21.1)	B (14.9)	C (15.1)	C (15.9)
	SB Left/Through/Right	C (21.4)	C (21.9)	C (22.9)	B (13.2)	B (13.3)	B (13.6)
Sunset Road (W) & West Parkway (N/S)	WB Left/Right	D (34.4)	E (37.3)	E (40.8)	C (23.9)	D (25.1)	D (26.5)
	SB Left	A (9.2)	A (9.3)	A (9.3)	A (8.6)	A (8.6)	A (8.7)
Sunset Road (E/W) & Site Driveway (S)	EB Left/Through			A (8.4)			A (8.1)
	SB Left/Right			C (17.0)			C (15.1)

TURNING MOVEMENT COUNT DATA

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201.340.4468 t. 201.340.4472 f.

Intersection of Sunset Road (E/W)
& Boulevard (N/S)
Pequannock, Morris County, New Jersey
Tuesday, June 7, 2022

File Name : RUT-220209.03
Site Code : 00220209
Start Date : 6/7/2022
Page No : 1

Groups Printed- Auto - HV - B/SB

	Sunset Road Eastbound					Sunset Road Westbound					Boulevard Northbound					Boulevard Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
06:30 AM	9	5	2	0	16	1	11	0	1	13	1	37	1	0	39	2	33	6	0	41	109
06:45 AM	7	13	6	1	27	3	13	2	0	18	4	49	2	1	56	2	59	15	0	76	177
Total	16	18	8	1	43	4	24	2	1	31	5	86	3	1	95	4	92	21	0	117	286
07:00 AM	19	22	10	0	51	1	22	1	3	27	11	56	1	2	70	1	37	29	0	67	215
07:15 AM	30	44	15	0	89	0	51	2	2	55	37	55	3	3	98	1	55	43	0	99	341
07:30 AM	15	55	8	3	81	2	17	3	1	23	7	91	16	5	119	12	80	7	0	99	322
07:45 AM	12	31	6	0	49	1	18	1	0	20	8	99	9	1	117	6	69	10	1	86	272
Total	76	152	39	3	270	4	108	7	6	125	63	301	29	11	404	20	241	89	1	351	1150
08:00 AM	8	21	10	0	39	3	11	6	2	22	5	73	3	0	81	3	73	7	1	84	226
08:15 AM	5	31	13	1	50	8	34	5	0	47	9	79	4	2	94	5	91	11	0	107	298
*** BREAK ***																					
Total	13	52	23	1	89	11	45	11	2	69	14	152	7	2	175	8	164	18	1	191	524
*** BREAK ***																					
02:00 PM	34	27	5	1	67	4	22	5	0	31	10	91	8	1	110	1	57	10	1	69	277
02:15 PM	21	24	4	1	50	7	30	5	0	42	10	82	4	1	97	3	61	11	1	76	265
02:30 PM	27	28	6	0	61	2	18	5	1	26	7	100	10	0	117	3	57	13	1	74	278
02:45 PM	10	25	4	0	39	3	20	7	0	30	12	87	7	0	106	3	53	13	0	69	244
Total	92	104	19	2	217	16	90	22	1	129	39	360	29	2	430	10	228	47	3	288	1064
03:00 PM	22	21	7	0	50	1	24	4	0	29	10	112	7	0	129	2	70	8	0	80	288
03:15 PM	11	18	8	0	37	5	21	2	1	29	10	101	5	0	116	2	52	8	0	62	244
03:30 PM	12	25	2	0	39	2	25	0	0	27	12	88	8	0	108	6	80	15	0	101	275
03:45 PM	21	29	6	0	56	4	18	1	1	24	7	99	6	1	113	3	62	17	0	82	275
Total	66	93	23	0	182	12	88	7	2	109	39	400	26	1	466	13	264	48	0	325	1082
Grand Total	263	419	112	7	801	47	355	49	12	463	160	1299	94	17	1570	55	989	223	5	1272	4106
Apprch %	32.8	52.3	14	0.9		10.2	76.7	10.6	2.6		10.2	82.7	6	1.1		4.3	77.8	17.5	0.4		
Total %	6.4	10.2	2.7	0.2	19.5	1.1	8.6	1.2	0.3	11.3	3.9	31.6	2.3	0.4	38.2	1.3	24.1	5.4	0.1	31	
Auto	258	409	109	7	783	47	344	48	12	451	157	1250	92	17	1516	55	940	219	5	1219	3969
% Auto	98.1	97.6	97.3	100	97.8	100	96.9	98	100	97.4	98.1	96.2	97.9	100	96.6	100	95	98.2	100	95.8	96.7
HV	0	6	2	0	8	0	5	0	0	5	2	39	2	0	43	0	34	2	0	36	92
% HV	0	1.4	1.8	0	1	0	1.4	0	0	1.1	1.2	3	2.1	0	2.7	0	3.4	0.9	0	2.8	2.2
B/SB	5	4	1	0	10	0	6	1	0	7	1	10	0	0	11	0	15	2	0	17	45
% B/SB	1.9	1	0.9	0	1.2	0	1.7	2	0	1.5	0.6	0.8	0	0	0.7	0	1.5	0.9	0	1.3	1.1

Stonefield Engineering & Design, LLC

92 Park Avenue, Rutherford, NJ 07070

201.340.4468 t. 201.340.4472 f.

Intersection of Sunset Road (E/W)
& Boulevard (N/S)
Pequannock, Morris County, New Jersey
Tuesday, June 7, 2022

File Name : RUT-220209.03
Site Code : 00220209
Start Date : 6/7/2022

	Sunset Road Eastbound					Sunset Road Westbound					Boulevard Northbound					Boulevard Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	19	22	10	0	51	1	22	1	3	27	11	56	1	2	70	1	37	29	0	67	215
07:15 AM	30	44	15	0	89	0	51	2	2	55	37	55	3	3	98	1	55	43	0	99	341
07:30 AM	15	55	8	3	81	2	17	3	1	23	7	91	16	5	119	12	80	7	0	99	322
07:45 AM	12	31	6	0	49	1	18	1	0	20	8	99	9	1	117	6	69	10	1	86	272
Total Volume	76	152	39	3	270	4	108	7	6	125	63	301	29	11	404	20	241	89	1	351	1150
% App. Total	28.1	56.3	14.4	1.1		3.2	86.4	5.6	4.8		15.6	74.5	7.2	2.7		5.7	68.7	25.4	0.3		
PHF	.633	.691	.650	.250	.758	.500	.529	.583	.500	.568	.426	.760	.453	.550	.849	.417	.753	.517	.250	.886	.843
Auto	72	150	38	3	263	4	102	6	6	118	62	278	29	11	380	20	225	86	1	332	1093
% Auto	94.7	98.7	97.4	100	97.4	100	94.4	85.7	100	94.4	98.4	92.4	100	100	94.1	100	93.4	96.6	100	94.6	95.0
HV	0	0	0	0	0	0	2	0	0	2	0	22	0	0	22	0	13	1	0	14	38
% HV	0	0	0	0	0	0	1.9	0	0	1.6	0	7.3	0	0	5.4	0	5.4	1.1	0	4.0	3.3
B/SB	4	2	1	0	7	0	4	1	0	5	1	1	0	0	2	0	3	2	0	5	19
% B/SB	5.3	1.3	2.6	0	2.6	0	3.7	14.3	0	4.0	1.6	0.3	0	0	0.5	0	1.2	2.2	0	1.4	1.7
Peak Hour Analysis From 02:15 PM to 03:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 02:15 PM																					
02:15 PM	21	24	4	1	50	7	30	5	0	42	10	82	4	1	97	3	61	11	1	76	265
02:30 PM	27	28	6	0	61	2	18	5	1	26	7	100	10	0	117	3	57	13	1	74	278
02:45 PM	10	25	4	0	39	3	20	7	0	30	12	87	7	0	106	3	53	13	0	69	244
03:00 PM	22	21	7	0	50	1	24	4	0	29	10	112	7	0	129	2	70	8	0	80	288
Total Volume	80	98	21	1	200	13	92	21	1	127	39	381	28	1	449	11	241	45	2	299	1075
% App. Total	40	49	10.5	0.5		10.2	72.4	16.5	0.8		8.7	84.9	6.2	0.2		3.7	80.6	15.1	0.7		
PHF	.741	.875	.750	.250	.820	.464	.767	.750	.250	.756	.813	.850	.700	.250	.870	.917	.861	.865	.500	.934	.933
Auto	80	96	20	1	197	13	91	21	1	126	39	376	28	1	444	11	230	44	2	287	1054
% Auto	100	98.0	95.2	100	98.5	100	98.9	100	100	99.2	100	98.7	100	100	98.9	100	95.4	97.8	100	96.0	98.0
HV	0	2	1	0	3	0	1	0	0	1	0	4	0	0	4	0	9	1	0	10	18
% HV	0	2.0	4.8	0	1.5	0	1.1	0	0	0.8	0	1.0	0	0	0.9	0	3.7	2.2	0	3.3	1.7
B/SB	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3
% B/SB	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0.2	0	0.8	0	0	0.7	0.3

Stonefield Engineering & Design, LLC

92 Park Avenue, Rutherford, NJ 07070

201.340.4468 t. 201.340.4472 f.

Intersection of Sunset Road (E/W),
Washburn Road (N), & Roome Avenue (S)
Pequannock, Morris County, New Jersey
Tuesday, June 7, 2022

File Name : RUT-220209.02
Site Code : 00220209
Start Date : 6/7/2022
Page No : 1

Groups Printed- Auto - HV - B/SB

	Sunset Road Eastbound					Sunset Road Westbound					Washburn Road Northbound					Roome Avenue Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
06:30 AM	0	15	0	0	15	0	19	0	0	19	0	0	0	1	1	1	0	1	1	3	38
06:45 AM	1	19	0	0	20	0	32	0	0	32	0	0	2	2	4	2	0	0	0	2	58
Total	1	34	0	0	35	0	51	0	0	51	0	0	2	3	5	3	0	1	1	5	96
07:00 AM	2	43	3	0	48	1	55	5	0	61	3	0	2	2	7	0	1	0	0	1	117
07:15 AM	11	103	31	0	145	3	96	12	0	111	9	3	10	8	30	3	1	3	2	9	295
07:30 AM	2	55	10	2	69	1	27	0	0	28	2	0	4	0	6	5	0	0	0	5	108
07:45 AM	2	35	1	0	38	0	31	1	0	32	1	0	1	2	4	4	0	1	2	7	81
Total	17	236	45	2	300	5	209	18	0	232	15	3	17	12	47	12	2	4	4	22	601
08:00 AM	0	36	1	0	37	0	25	0	0	25	1	0	1	0	2	1	1	0	1	3	67
08:15 AM	1	32	1	0	34	2	42	2	0	46	1	1	1	2	5	6	0	3	0	9	94
*** BREAK ***																					
Total	1	68	2	0	71	2	67	2	0	71	2	1	2	2	7	7	1	3	1	12	161
*** BREAK ***																					
02:00 PM	2	42	1	0	45	1	30	1	0	32	1	0	0	0	1	0	0	0	0	0	78
02:15 PM	0	30	3	0	33	3	33	2	0	38	1	0	3	3	7	3	0	1	2	6	84
02:30 PM	4	77	12	0	93	6	59	4	0	69	1	0	3	38	42	3	0	8	4	15	219
02:45 PM	7	83	58	0	148	2	57	2	0	61	4	0	3	21	28	3	0	8	6	17	254
Total	13	232	74	0	319	12	179	9	0	200	7	0	9	62	78	9	0	17	12	38	635
03:00 PM	3	72	4	0	79	3	58	0	0	61	1	0	2	10	13	1	0	1	2	4	157
03:15 PM	0	50	0	0	50	0	47	1	0	48	2	1	3	0	6	3	0	2	0	5	109
03:30 PM	0	55	2	0	57	3	31	4	0	38	0	2	2	0	4	2	0	1	0	3	102
03:45 PM	0	55	0	0	55	0	29	2	0	31	3	0	1	6	10	2	0	2	0	4	100
Total	3	232	6	0	241	6	165	7	0	178	6	3	8	16	33	8	0	6	2	16	468
Grand Total	35	802	127	2	966	25	671	36	0	732	30	7	38	95	170	39	3	31	20	93	1961
Apprch %	3.6	83	13.1	0.2		3.4	91.7	4.9	0		17.6	4.1	22.4	55.9		41.9	3.2	33.3	21.5		
Total %	1.8	40.9	6.5	0.1	49.3	1.3	34.2	1.8	0	37.3	1.5	0.4	1.9	4.8	8.7	2	0.2	1.6	1	4.7	
Auto	34	774	126	2	936	25	652	35	0	712	30	7	37	95	169	37	3	30	20	90	1907
% Auto	97.1	96.5	99.2	100	96.9	100	97.2	97.2	0	97.3	100	100	97.4	100	99.4	94.9	100	96.8	100	96.8	97.2
HV	1	10	0	0	11	0	9	1	0	10	0	0	1	0	1	1	0	0	0	1	23
% HV	2.9	1.2	0	0	1.1	0	1.3	2.8	0	1.4	0	0	2.6	0	0.6	2.6	0	0	0	1.1	1.2
B/SB	0	18	1	0	19	0	10	0	0	10	0	0	0	0	0	1	0	1	0	2	31
% B/SB	0	2.2	0.8	0	2	0	1.5	0	0	1.4	0	0	0	0	0	2.6	0	3.2	0	2.2	1.6

Stonefield Engineering & Design, LLC

92 Park Avenue, Rutherford, NJ 07070

201.340.4468 t. 201.340.4472 f.

Intersection of Sunset Road (E/W),
Washburn Road (N), & Roome Avenue (S)
Pequannock, Morris County, New Jersey
Tuesday, June 7, 2022

File Name : RUT-220209.02
Site Code : 00220209
Start Date : 6/7/2022

	Sunset Road Eastbound					Sunset Road Westbound					Washburn Road Northbound					Roome Avenue Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	2	43	3	0	48	1	55	5	0	61	3	0	2	2	7	0	1	0	0	1	117
07:15 AM	11	103	31	0	145	3	96	12	0	111	9	3	10	8	30	3	1	3	2	9	295
07:30 AM	2	55	10	2	69	1	27	0	0	28	2	0	4	0	6	5	0	0	0	5	108
07:45 AM	2	35	1	0	38	0	31	1	0	32	1	0	1	2	4	4	0	1	2	7	81
Total Volume	17	236	45	2	300	5	209	18	0	232	15	3	17	12	47	12	2	4	4	22	601
% App. Total	5.7	78.7	15	0.7		2.2	90.1	7.8	0		31.9	6.4	36.2	25.5		54.5	9.1	18.2	18.2		
PHF	.386	.573	.363	.250	.517	.417	.544	.375	.000	.523	.417	.250	.425	.375	.392	.600	.500	.333	.500	.611	.509
Auto	17	228	45	2	292	5	201	18	0	224	15	3	17	12	47	12	2	4	4	22	585
% Auto	100	96.6	100	100	97.3	100	96.2	100	0	96.6	100	100	100	100	100	100	100	100	100	100	97.3
HV	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
% HV	0	0	0	0	0	0	1.0	0	0	0.9	0	0	0	0	0	0	0	0	0	0	0.3
B/SB	0	8	0	0	8	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	14
% B/SB	0	3.4	0	0	2.7	0	2.9	0	0	2.6	0	0	0	0	0	0	0	0	0	0	2.3
Peak Hour Analysis From 02:15 PM to 03:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 02:15 PM																					
02:15 PM	0	30	3	0	33	3	33	2	0	38	1	0	3	3	7	3	0	1	2	6	84
02:30 PM	4	77	12	0	93	6	59	4	0	69	1	0	3	38	42	3	0	8	4	15	219
02:45 PM	7	83	58	0	148	2	57	2	0	61	4	0	3	21	28	3	0	8	6	17	254
03:00 PM	3	72	4	0	79	3	58	0	0	61	1	0	2	10	13	1	0	1	2	4	157
Total Volume	14	262	77	0	353	14	207	8	0	229	7	0	11	72	90	10	0	18	14	42	714
% App. Total	4	74.2	21.8	0		6.1	90.4	3.5	0		7.8	0	12.2	80		23.8	0	42.9	33.3		
PHF	.500	.789	.332	.000	.596	.583	.877	.500	.000	.830	.438	.000	.917	.474	.536	.833	.000	.563	.583	.618	.703
Auto	14	257	76	0	347	14	199	8	0	221	7	0	11	72	90	9	0	18	14	41	699
% Auto	100	98.1	98.7	0	98.3	100	96.1	100	0	96.5	100	0	100	100	100	90.0	0	100	100	97.6	97.9
HV	0	2	0	0	2	0	5	0	0	5	0	0	0	0	0	1	0	0	0	1	8
% HV	0	0.8	0	0	0.6	0	2.4	0	0	2.2	0	0	0	0	0	10.0	0	0	0	2.4	1.1
B/SB	0	3	1	0	4	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	7
% B/SB	0	1.1	1.3	0	1.1	0	1.4	0	0	1.3	0	0	0	0	0	0	0	0	0	0	1.0

Stonefield Engineering & Design, LLC

92 Park Avenue, Rutherford, NJ 07070

201.340.4468 t. 201.340.4472 f.

Intersection of Sunset Road (W)
& West Parkway (N/S)
Pequannock, Morris County, New Jersey
Tuesday, June 7, 2022

File Name : RUT-220209.01
Site Code : 00220209
Start Date : 6/7/2022
Page No : 1

Groups Printed- Auto - HV - B/SB

	Sunset Road Westbound				West Parkway Northbound				West Parkway Southbound				
Start Time	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Int. Total
06:30 AM	12	7	0	19	15	4	0	19	8	63	0	71	109
06:45 AM	14	3	1	18	14	11	0	25	13	80	0	93	136
Total	26	10	1	37	29	15	0	44	21	143	0	164	245
07:00 AM	15	6	1	22	14	26	0	40	26	53	0	79	141
07:15 AM	18	7	0	25	33	138	0	171	52	69	0	121	317
07:30 AM	14	10	3	27	42	14	0	56	29	72	0	101	184
07:45 AM	22	9	1	32	39	22	0	61	20	96	1	117	210
Total	69	32	5	106	128	200	0	328	127	290	1	418	852
08:00 AM	11	9	1	21	31	11	0	42	28	87	0	115	178
08:15 AM	15	22	1	38	40	10	0	50	25	74	0	99	187
*** BREAK ***													
Total	26	31	2	59	71	21	0	92	53	161	0	214	365
*** BREAK ***													
02:00 PM	12	8	1	21	40	31	1	72	16	53	0	69	162
02:15 PM	16	9	1	26	43	17	1	61	22	46	0	68	155
02:30 PM	31	12	4	47	48	52	0	100	33	73	2	108	255
02:45 PM	48	26	0	74	42	37	1	80	21	98	0	119	273
Total	107	55	6	168	173	137	3	313	92	270	2	364	845
03:00 PM	19	26	3	48	69	47	0	116	19	48	2	69	233
03:15 PM	18	19	0	37	50	32	0	82	17	58	0	75	194
03:30 PM	12	12	3	27	50	30	0	80	24	64	0	88	195
03:45 PM	22	12	0	34	47	28	0	75	12	64	0	76	185
Total	71	69	6	146	216	137	0	353	72	234	2	308	807
Grand Total	299	197	20	516	617	510	3	1130	365	1098	5	1468	3114
Apprch %	57.9	38.2	3.9		54.6	45.1	0.3		24.9	74.8	0.3		
Total %	9.6	6.3	0.6	16.6	19.8	16.4	0.1	36.3	11.7	35.3	0.2	47.1	
Auto	295	188	20	503	596	501	3	1100	343	1071	5	1419	3022
% Auto	98.7	95.4	100	97.5	96.6	98.2	100	97.3	94	97.5	100	96.7	97
HV	1	3	0	4	15	6	0	21	7	21	0	28	53
% HV	0.3	1.5	0	0.8	2.4	1.2	0	1.9	1.9	1.9	0	1.9	1.7
B/SB	3	6	0	9	6	3	0	9	15	6	0	21	39
% B/SB	1	3	0	1.7	1	0.6	0	0.8	4.1	0.5	0	1.4	1.3

Stonefield Engineering & Design, LLC

92 Park Avenue, Rutherford, NJ 07070

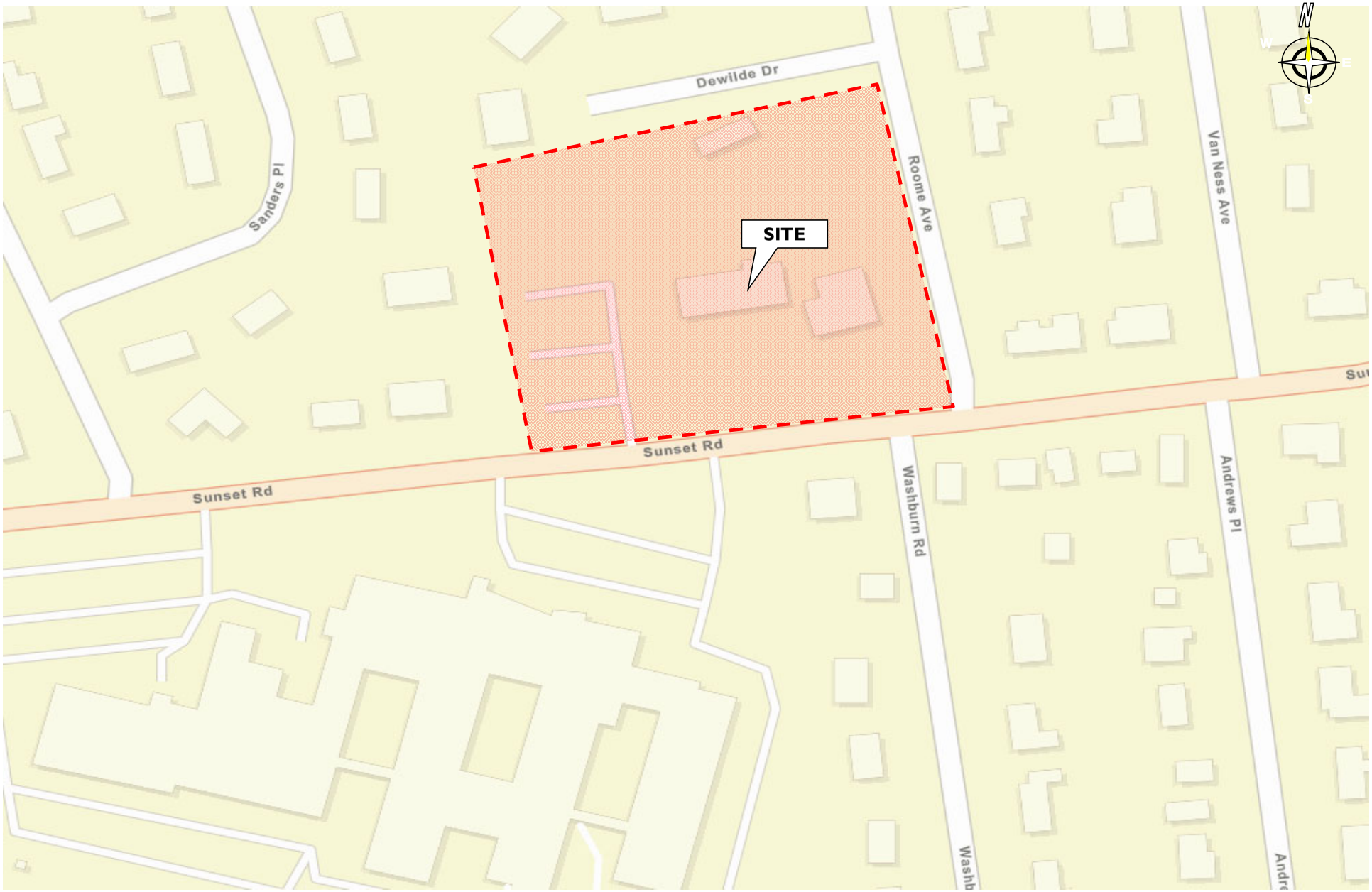
201.340.4468 t. 201.340.4472 f.

Intersection of Sunset Road (W)
& West Parkway (N/S)
Pequannock, Morris County, New Jersey
Tuesday, June 7, 2022

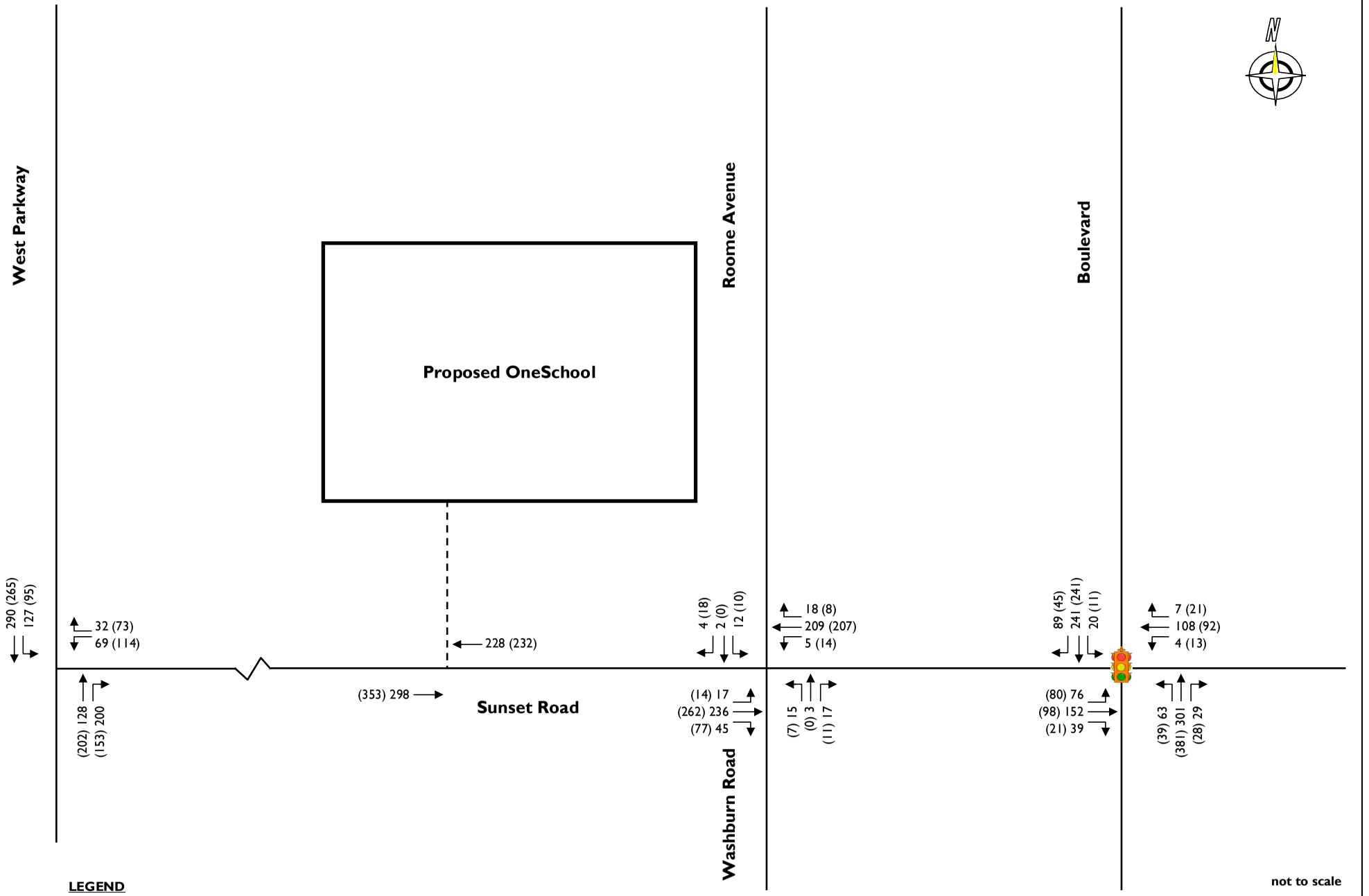
File Name : RUT-220209.01
Site Code : 00220209
Start Date : 6/7/2022
Page No : 2

	Sunset Road Westbound				West Parkway Northbound				West Parkway Southbound				
Start Time	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	15	6	1	22	14	26	0	40	26	53	0	79	141
07:15 AM	18	7	0	25	33	138	0	171	52	69	0	121	317
07:30 AM	14	10	3	27	42	14	0	56	29	72	0	101	184
07:45 AM	22	9	1	32	39	22	0	61	20	96	1	117	210
Total Volume	69	32	5	106	128	200	0	328	127	290	1	418	852
% App. Total	65.1	30.2	4.7		39	61	0		30.4	69.4	0.2		
PHF	.784	.800	.417	.828	.762	.362	.000	.480	.611	.755	.250	.864	.672
Auto	67	28	5	100	123	199	0	322	121	279	1	401	823
% Auto	97.1	87.5	100	94.3	96.1	99.5	0	98.2	95.3	96.2	100	95.9	96.6
HV	0	1	0	1	1	1	0	2	0	7	0	7	10
% HV	0	3.1	0	0.9	0.8	0.5	0	0.6	0	2.4	0	1.7	1.2
B/SB	2	3	0	5	4	0	0	4	6	4	0	10	19
% B/SB	2.9	9.4	0	4.7	3.1	0	0	1.2	4.7	1.4	0	2.4	2.2
Peak Hour Analysis From 02:15 PM to 03:00 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:15 PM													
02:15 PM	16	9	1	26	43	17	1	61	22	46	0	68	155
02:30 PM	31	12	4	47	48	52	0	100	33	73	2	108	255
02:45 PM	48	26	0	74	42	37	1	80	21	98	0	119	273
03:00 PM	19	26	3	48	69	47	0	116	19	48	2	69	233
Total Volume	114	73	8	195	202	153	2	357	95	265	4	364	916
% App. Total	58.5	37.4	4.1		56.6	42.9	0.6		26.1	72.8	1.1		
PHF	.594	.702	.500	.659	.732	.736	.500	.769	.720	.676	.500	.765	.839
Auto	114	70	8	192	196	151	2	349	91	262	4	357	898
% Auto	100	95.9	100	98.5	97.0	98.7	100	97.8	95.8	98.9	100	98.1	98.0
HV	0	1	0	1	4	1	0	5	1	3	0	4	10
% HV	0	1.4	0	0.5	2.0	0.7	0	1.4	1.1	1.1	0	1.1	1.1
B/SB	0	2	0	2	2	1	0	3	3	0	0	3	8
% B/SB	0	2.7	0	1.0	1.0	0.7	0	0.8	3.2	0	0	0.8	0.9

FIGURES



STONEFIELD	Proposed OneSchool 60 Sunset Road Pequannock, Morris County, New Jersey Traffic Impact Study	FIGURE 1 Site Location Map



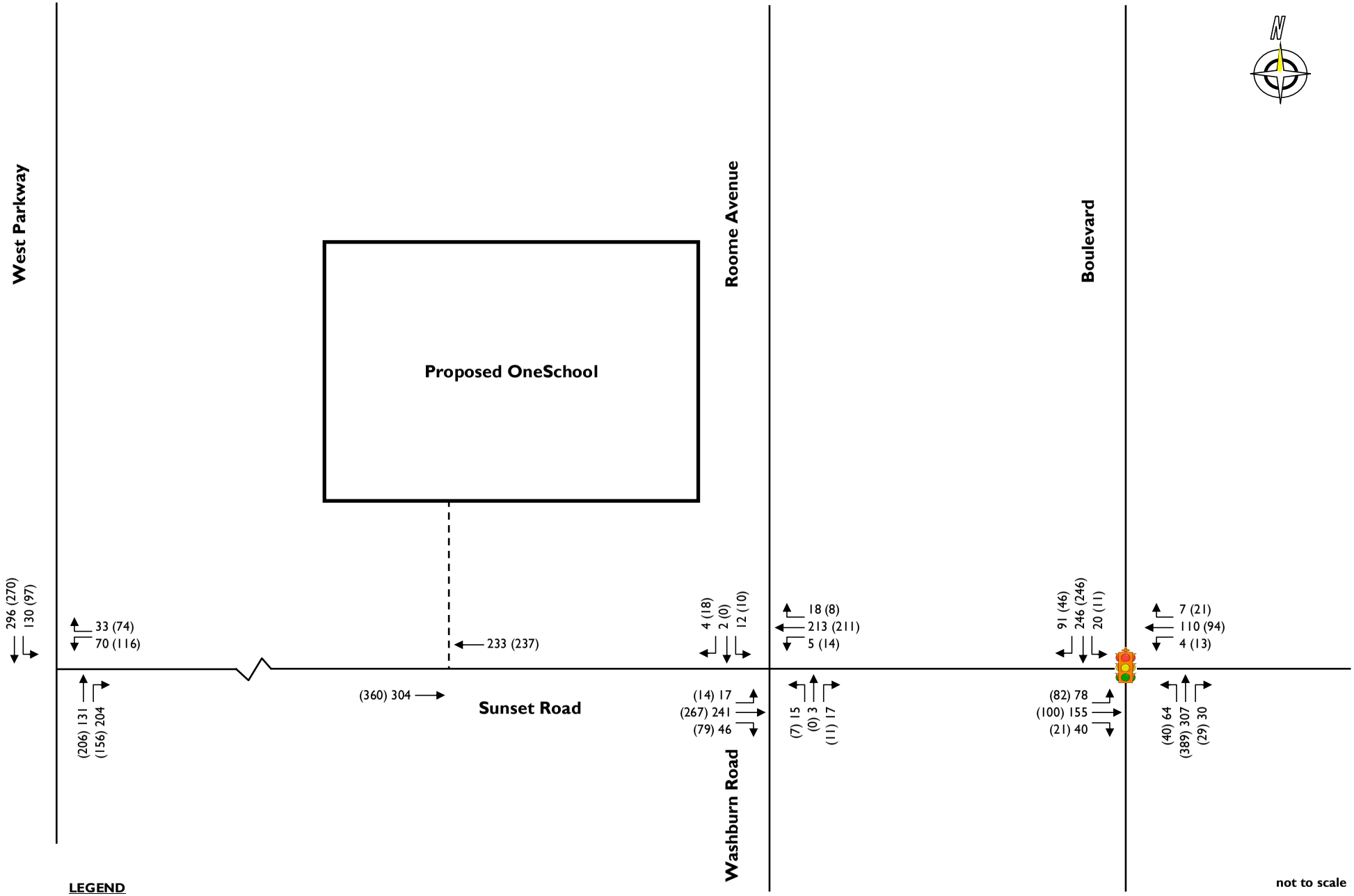
LEGEND

- Existing Roadway
- Proposed Driveway
- Arrival (Dismissal) Peak Hour
- Signalized Intersection

STONEFIELD

Proposed OneSchool
60 Sunset Road
Pequannock, Morris County, New Jersey
Traffic Impact Study

FIGURE 2
2022 Existing Traffic Volumes



LEGEND

- Existing Roadway
- Proposed Driveway
- Arrival (Dismissal) Peak Hour
- Signalized Intersection

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Proposed OneSchool
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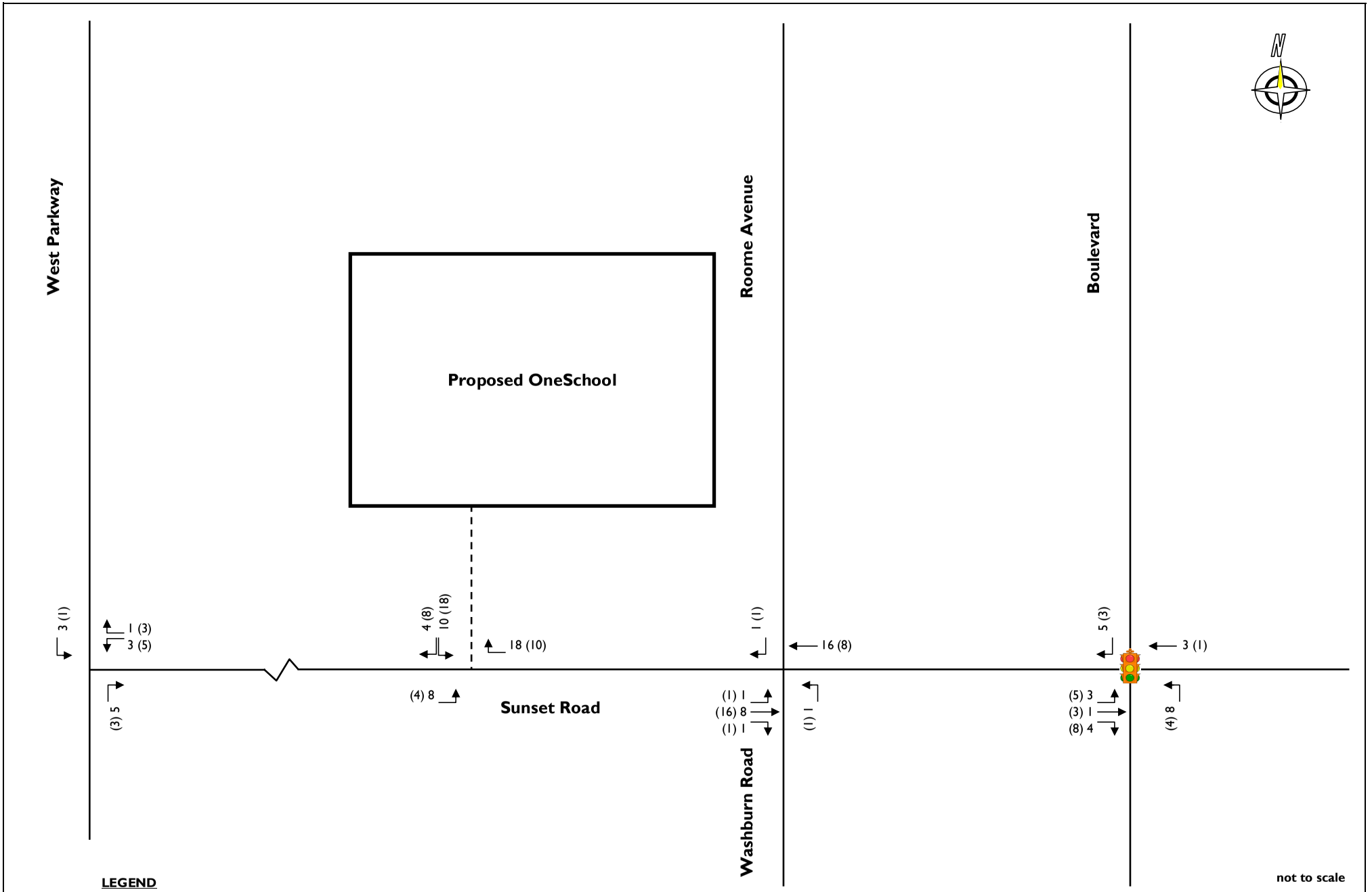
Traffic Impact Study

FIGURE 3
2024 No-Build Traffic Volumes



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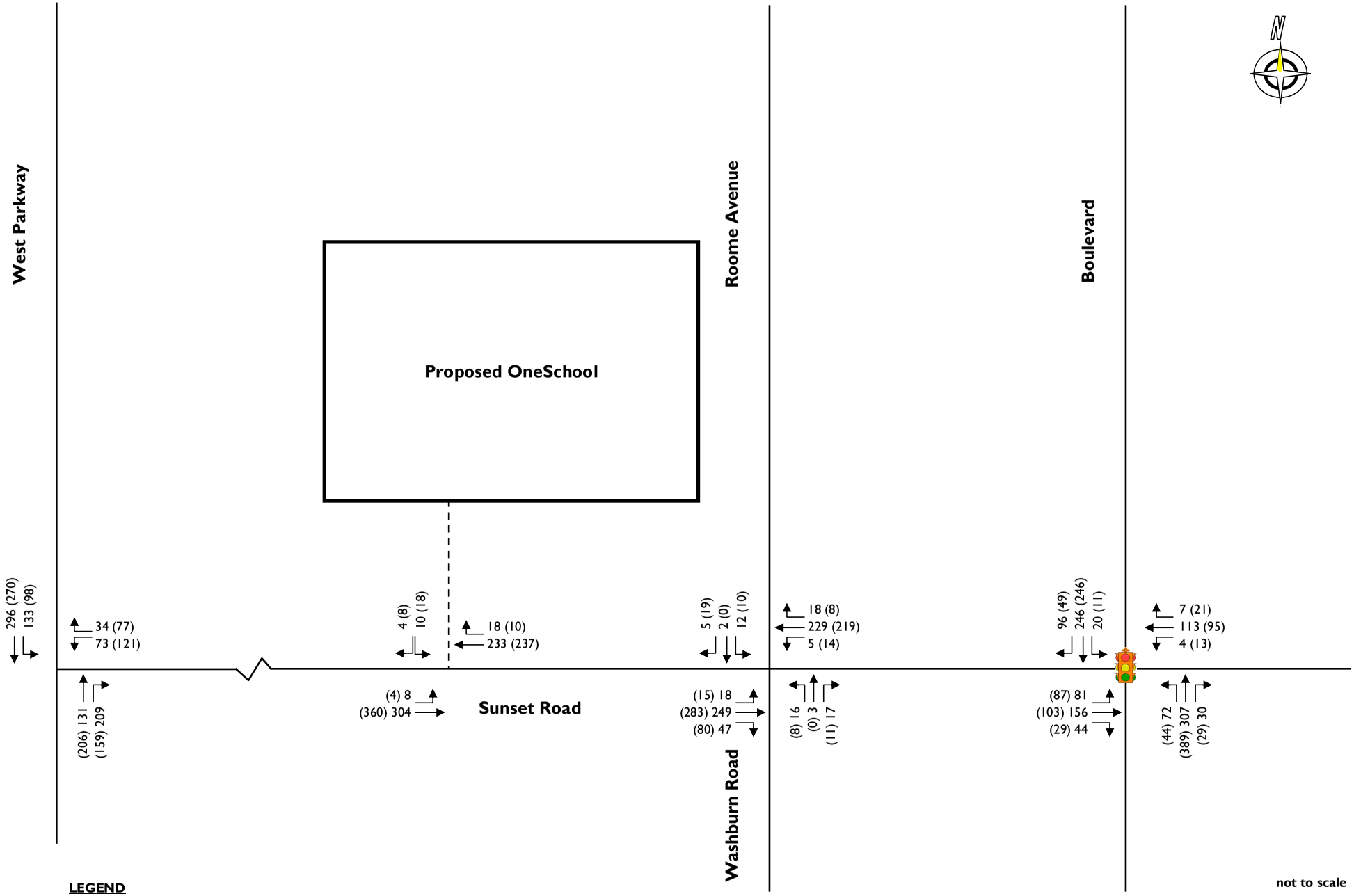
Traffic Impact Study

FIGURE 4
Site-Generated Traffic Volumes



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Traffic Impact Study

FIGURE 5
2024 Build Traffic Volumes

HIGHWAY CAPACITY ANALYSIS DETAIL SHEETS

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	152	39	4	108	7	63	301	29	20	241	89
Future Volume (veh/h)	76	152	39	4	108	7	63	301	29	20	241	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.99		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2018	2084	2051	2100	2002	1871	2067	1969	2100	2100	1985	2051
Adj Flow Rate, veh/h	90	181	33	5	129	7	75	358	30	24	287	38
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	5	1	3	0	6	14	2	8	0	0	7	3
Cap, veh/h	149	235	40	49	368	19	200	939	75	94	1056	135
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.66	0.66	0.66	0.66	0.66	0.66
Sat Flow, veh/h	467	1184	201	22	1853	98	228	1428	115	73	1605	205
Grp Volume(v), veh/h	304	0	0	141	0	0	463	0	0	349	0	0
Grp Sat Flow(s),veh/h/ln	1853	0	0	1973	0	0	1770	0	0	1883	0	0
Q Serve(g_s), s	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.0	0.0	0.0	5.1	0.0	0.0	8.9	0.0	0.0	6.3	0.0	0.0
Prop In Lane	0.30		0.11	0.04		0.05	0.16		0.06	0.07		0.11
Lane Grp Cap(c), veh/h	424	0	0	437	0	0	1215	0	0	1285	0	0
V/C Ratio(X)	0.72	0.00	0.00	0.32	0.00	0.00	0.38	0.00	0.00	0.27	0.00	0.00
Avail Cap(c_a), veh/h	771	0	0	816	0	0	1215	0	0	1285	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	31.8	0.0	0.0	28.9	0.0	0.0	6.4	0.0	0.0	6.0	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.0	0.0	0.4	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.9	0.0	0.0	4.3	0.0	0.0	5.2	0.0	0.0	3.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	0.0	0.0	29.3	0.0	0.0	6.6	0.0	0.0	6.1	0.0	0.0
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		304			141			463			349	
Approach Delay, s/veh		34.1			29.3			6.6			6.1	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		61.0		22.6		61.0		22.6				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		55.0		33.0		55.0		33.0				
Max Q Clear Time (g_c+I1), s		10.9		15.0		8.3		7.1				
Green Ext Time (p_c), s		3.2		1.7		2.2		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			15.7									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	236	45	5	209	18	15	3	17	12	2	4
Future Vol, veh/h	17	236	45	5	209	18	15	3	17	12	2	4
Conflicting Peds, #/hr	4	0	12	12	0	4	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	51	51	51	51	51	51	51	51	51	51	51	51
Heavy Vehicles, %	0	3	0	0	4	0	0	0	0	0	0	0
Mvmt Flow	33	463	88	10	410	35	29	6	33	24	4	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	449	0	0	563	0	0	1041	1054	519	1045	1081	434
Stage 1	-	-	-	-	-	-	585	585	-	452	452	-
Stage 2	-	-	-	-	-	-	456	469	-	593	629	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.6	6	5.7	6.6	6	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1122	-	-	1019	-	-	243	264	603	241	255	665
Stage 1	-	-	-	-	-	-	501	501	-	591	574	-
Stage 2	-	-	-	-	-	-	588	564	-	496	478	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1118	-	-	1007	-	-	224	246	596	213	237	661
Mov Cap-2 Maneuver	-	-	-	-	-	-	224	246	-	213	237	-
Stage 1	-	-	-	-	-	-	474	474	-	563	564	-
Stage 2	-	-	-	-	-	-	568	554	-	443	452	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.2	19	21.4
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	325	1118	-	-	1007	-	-	254
HCM Lane V/C Ratio	0.211	0.03	-	-	0.01	-	-	0.139
HCM Control Delay (s)	19	8.3	0	-	8.6	0	-	21.4
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.8	0.1	-	-	0	-	-	0.5

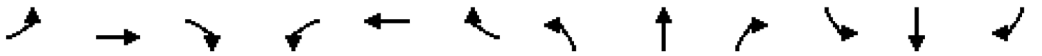
Intersection	
Int Delay, s/veh	5.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	69	32	128	200	127	290
Future Vol, veh/h	69	32	128	200	127	290
Conflicting Peds, #/hr	1	0	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	3	12	4	0	5	4
Mvmt Flow	103	48	191	299	190	433

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1160	346	0	0	495	0
Stage 1	346	-	-	-	-	-
Stage 2	814	-	-	-	-	-
Critical Hdwy	5.9	5.8	-	-	4.15	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.408	-	-	2.245	-
Pot Cap-1 Maneuver	255	709	-	-	1053	-
Stage 1	714	-	-	-	-	-
Stage 2	434	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	208	706	-	-	1048	-
Mov Cap-2 Maneuver	208	-	-	-	-	-
Stage 1	710	-	-	-	-	-
Stage 2	355	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	34.4	0	2.8
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	268	1048	-
HCM Lane V/C Ratio	-	-	0.562	0.181	-
HCM Control Delay (s)	-	-	34.4	9.2	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	3.2	0.7	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	98	21	13	92	21	39	381	28	11	241	45
Future Volume (veh/h)	80	98	21	13	92	21	39	381	28	11	241	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2100	2067	2018	2100	2084	2100	2100	2084	2100	2100	2034	1870
Adj Flow Rate, veh/h	86	105	23	14	99	23	42	410	30	12	259	48
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
Percent Heavy Veh, %	0	2	5	0	1	0	0	1	0	0	4	2
Cap, veh/h	224	172	33	112	265	58	140	973	68	101	895	161
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.54	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	613	1009	195	105	1550	337	86	1787	124	22	1642	295
Grp Volume(v), veh/h	214	0	0	136	0	0	482	0	0	319	0	0
Grp Sat Flow(s),veh/h/ln	1817	0	0	1992	0	0	1997	0	0	1960	0	0
Q Serve(g_s), s	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.5	0.0	0.0	2.5	0.0	0.0	5.9	0.0	0.0	3.7	0.0	0.0
Prop In Lane	0.40		0.11	0.10		0.17	0.09		0.06	0.04		0.15
Lane Grp Cap(c), veh/h	430	0	0	434	0	0	1181	0	0	1156	0	0
V/C Ratio(X)	0.50	0.00	0.00	0.31	0.00	0.00	0.41	0.00	0.00	0.28	0.00	0.00
Avail Cap(c_a), veh/h	2763	0	0	3071	0	0	1181	0	0	1156	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.3	0.0	0.0	15.6	0.0	0.0	5.7	0.0	0.0	5.2	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	0.0	0.0	1.8	0.0	0.0	2.3	0.0	0.0	1.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	0.0	0.0	15.7	0.0	0.0	5.8	0.0	0.0	5.3	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		214			136			482			319	
Approach Delay, s/veh		16.6			15.7			5.8			5.3	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		29.0		13.2		29.0		13.2				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		23.0		65.0		23.0		65.0				
Max Q Clear Time (g_c+I1), s		7.9		6.5		5.7		4.5				
Green Ext Time (p_c), s		1.6		0.9		1.0		0.5				

Intersection Summary												
HCM 6th Ctrl Delay			8.8									
HCM 6th LOS			A									

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	262	77	14	207	8	7	0	11	10	0	18
Future Vol, veh/h	14	262	77	14	207	8	7	0	11	10	0	18
Conflicting Peds, #/hr	14	0	72	72	0	14	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	0	2	1	0	4	0	0	0	0	10	0	0
Mvmt Flow	20	374	110	20	296	11	10	0	16	14	0	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	321	0	0	556	0	0	896	902	501	833	952	316
Stage 1	-	-	-	-	-	-	541	541	-	356	356	-
Stage 2	-	-	-	-	-	-	355	361	-	477	596	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.6	6	5.7	6.7	6	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.2	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.2	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.59	4	3.3
Pot Cap-1 Maneuver	1250	-	-	1025	-	-	298	317	615	313	298	762
Stage 1	-	-	-	-	-	-	529	524	-	645	633	-
Stage 2	-	-	-	-	-	-	666	629	-	554	495	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1233	-	-	955	-	-	258	277	573	290	261	752
Mov Cap-2 Maneuver	-	-	-	-	-	-	258	277	-	290	261	-
Stage 1	-	-	-	-	-	-	481	477	-	622	609	-
Stage 2	-	-	-	-	-	-	627	605	-	526	450	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.5	14.9	13.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	389	1233	-	-	955	-	-	479
HCM Lane V/C Ratio	0.066	0.016	-	-	0.021	-	-	0.084
HCM Control Delay (s)	14.9	8	0	-	8.8	0	-	13.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.3

Intersection	
Int Delay, s/veh	5.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	114	73	202	153	95	265
Future Vol, veh/h	114	73	202	153	95	265
Conflicting Peds, #/hr	4	2	0	8	8	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	4	3	1	4	1
Mvmt Flow	136	87	240	182	113	315

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	884	341	0	0	430	0
Stage 1	339	-	-	-	-	-
Stage 2	545	-	-	-	-	-
Critical Hdwy	5.9	5.7	-	-	4.14	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.336	-	-	2.236	-
Pot Cap-1 Maneuver	360	734	-	-	1119	-
Stage 1	726	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	319	727	-	-	1110	-
Mov Cap-2 Maneuver	319	-	-	-	-	-
Stage 1	720	-	-	-	-	-
Stage 2	524	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.9	0	2.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	408	1110	-
HCM Lane V/C Ratio	-	-	0.546	0.102	-
HCM Control Delay (s)	-	-	23.9	8.6	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	3.2	0.3	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	78	155	40	4	110	7	64	307	30	20	246	91
Future Volume (veh/h)	78	155	40	4	110	7	64	307	30	20	246	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.99		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2018	2084	2051	2100	2002	1871	2067	1969	2100	2100	1985	2051
Adj Flow Rate, veh/h	93	185	35	5	131	7	76	365	31	24	293	40
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	5	1	3	0	6	14	2	8	0	0	7	3
Cap, veh/h	152	239	42	49	378	20	197	932	76	92	1047	138
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.65	0.65	0.65	0.65	0.65	0.65
Sat Flow, veh/h	471	1171	207	22	1855	97	226	1427	116	70	1602	211
Grp Volume(v), veh/h	313	0	0	143	0	0	472	0	0	357	0	0
Grp Sat Flow(s),veh/h/ln	1849	0	0	1974	0	0	1769	0	0	1883	0	0
Q Serve(g_s), s	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.5	0.0	0.0	5.2	0.0	0.0	9.3	0.0	0.0	6.6	0.0	0.0
Prop In Lane	0.30		0.11	0.03		0.05	0.16		0.07	0.07		0.11
Lane Grp Cap(c), veh/h	432	0	0	447	0	0	1206	0	0	1276	0	0
V/C Ratio(X)	0.72	0.00	0.00	0.32	0.00	0.00	0.39	0.00	0.00	0.28	0.00	0.00
Avail Cap(c_a), veh/h	765	0	0	812	0	0	1206	0	0	1276	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	31.8	0.0	0.0	28.7	0.0	0.0	6.7	0.0	0.0	6.2	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.0	0.0	0.4	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.1	0.0	0.0	4.4	0.0	0.0	5.5	0.0	0.0	3.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	0.0	0.0	29.2	0.0	0.0	6.9	0.0	0.0	6.3	0.0	0.0
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		313			143			472			357	
Approach Delay, s/veh		34.1			29.2			6.9			6.3	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		61.0		23.2		61.0		23.2				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		55.0		33.0		55.0		33.0				
Max Q Clear Time (g_c+I1), s		11.3		15.5		8.6		7.2				
Green Ext Time (p_c), s		3.3		1.7		2.3		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			15.8									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	17	241	46	5	213	18	15	3	17	12	2	4
Future Vol, veh/h	17	241	46	5	213	18	15	3	17	12	2	4
Conflicting Peds, #/hr	4	0	12	12	0	4	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	51	51	51	51	51	51	51	51	51	51	51	51
Heavy Vehicles, %	0	3	0	0	4	0	0	0	0	0	0	0
Mvmt Flow	33	473	90	10	418	35	29	6	33	24	4	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	457	0	0	575	0	0	1060	1073	530	1064	1101	442
Stage 1	-	-	-	-	-	-	596	596	-	460	460	-
Stage 2	-	-	-	-	-	-	464	477	-	604	641	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.6	6	5.7	6.6	6	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1114	-	-	1008	-	-	236	258	595	235	249	659
Stage 1	-	-	-	-	-	-	494	495	-	585	569	-
Stage 2	-	-	-	-	-	-	582	559	-	489	473	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1110	-	-	996	-	-	217	240	588	208	231	655
Mov Cap-2 Maneuver	-	-	-	-	-	-	217	240	-	208	231	-
Stage 1	-	-	-	-	-	-	467	468	-	557	559	-
Stage 2	-	-	-	-	-	-	563	549	-	435	447	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.2	19.5	21.9
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	317	1110	-	-	996	-	-	248
HCM Lane V/C Ratio	0.216	0.03	-	-	0.01	-	-	0.142
HCM Control Delay (s)	19.5	8.3	0	-	8.7	0	-	21.9
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.8	0.1	-	-	0	-	-	0.5

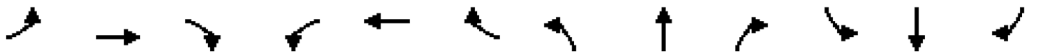
Intersection	
Int Delay, s/veh	5.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	70	33	131	204	130	296
Future Vol, veh/h	70	33	131	204	130	296
Conflicting Peds, #/hr	1	0	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	3	12	4	0	5	4
Mvmt Flow	104	49	196	304	194	442

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1184	353	0	0	505	0
Stage 1	353	-	-	-	-	-
Stage 2	831	-	-	-	-	-
Critical Hdwy	5.9	5.8	-	-	4.15	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.408	-	-	2.245	-
Pot Cap-1 Maneuver	248	704	-	-	1044	-
Stage 1	709	-	-	-	-	-
Stage 2	426	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	200	701	-	-	1039	-
Mov Cap-2 Maneuver	200	-	-	-	-	-
Stage 1	705	-	-	-	-	-
Stage 2	346	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	37.3	0	2.8
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	259	1039	-
HCM Lane V/C Ratio	-	-	0.594	0.187	-
HCM Control Delay (s)	-	-	37.3	9.3	-
HCM Lane LOS	-	-	E	A	-
HCM 95th %tile Q(veh)	-	-	3.5	0.7	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	100	21	13	94	21	40	389	29	11	246	46
Future Volume (veh/h)	82	100	21	13	94	21	40	389	29	11	246	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2100	2067	2018	2100	2084	2100	2100	2084	2100	2100	2034	2067
Adj Flow Rate, veh/h	88	108	23	14	101	23	43	418	31	12	265	49
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
Percent Heavy Veh, %	0	2	5	0	1	0	0	1	0	0	4	2
Cap, veh/h	226	176	33	111	271	58	140	967	68	100	892	160
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.54	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	612	1012	191	102	1558	332	87	1782	126	22	1643	295
Grp Volume(v), veh/h	219	0	0	138	0	0	492	0	0	326	0	0
Grp Sat Flow(s),veh/h/ln	1816	0	0	1993	0	0	1995	0	0	1960	0	0
Q Serve(g_s), s	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.6	0.0	0.0	2.6	0.0	0.0	6.1	0.0	0.0	3.8	0.0	0.0
Prop In Lane	0.40		0.11	0.10		0.17	0.09		0.06	0.04		0.15
Lane Grp Cap(c), veh/h	435	0	0	440	0	0	1175	0	0	1152	0	0
V/C Ratio(X)	0.50	0.00	0.00	0.31	0.00	0.00	0.42	0.00	0.00	0.28	0.00	0.00
Avail Cap(c_a), veh/h	2752	0	0	3062	0	0	1175	0	0	1152	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.3	0.0	0.0	15.5	0.0	0.0	5.8	0.0	0.0	5.3	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	0.0	0.0	1.8	0.0	0.0	2.4	0.0	0.0	1.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	0.0	0.0	15.7	0.0	0.0	5.9	0.0	0.0	5.3	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		219			138			492			326	
Approach Delay, s/veh		16.6			15.7			5.9			5.3	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		29.0		13.4		29.0		13.4				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		23.0		65.0		23.0		65.0				
Max Q Clear Time (g_c+I1), s		8.1		6.6		5.8		4.6				
Green Ext Time (p_c), s		1.7		0.9		1.1		0.5				

Intersection Summary		
HCM 6th Ctrl Delay		8.9
HCM 6th LOS		A

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	267	79	14	211	8	7	0	11	10	0	18
Future Vol, veh/h	14	267	79	14	211	8	7	0	11	10	0	18
Conflicting Peds, #/hr	14	0	72	72	0	14	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	0	2	1	0	4	0	0	0	0	10	0	0
Mvmt Flow	20	381	113	20	301	11	10	0	16	14	0	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	326	0	0	566	0	0	910	916	510	847	967	321
Stage 1	-	-	-	-	-	-	550	550	-	361	361	-
Stage 2	-	-	-	-	-	-	360	366	-	486	606	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.6	6	5.7	6.7	6	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.2	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.2	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.59	4	3.3
Pot Cap-1 Maneuver	1245	-	-	1016	-	-	292	312	609	307	293	758
Stage 1	-	-	-	-	-	-	523	519	-	641	629	-
Stage 2	-	-	-	-	-	-	662	626	-	548	490	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1228	-	-	946	-	-	253	273	567	284	256	748
Mov Cap-2 Maneuver	-	-	-	-	-	-	253	273	-	284	256	-
Stage 1	-	-	-	-	-	-	476	472	-	618	604	-
Stage 2	-	-	-	-	-	-	623	602	-	521	446	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.5	15.1	13.3
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	382	1228	-	-	946	-	-	472
HCM Lane V/C Ratio	0.067	0.016	-	-	0.021	-	-	0.085
HCM Control Delay (s)	15.1	8	0	-	8.9	0	-	13.3
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	0.3

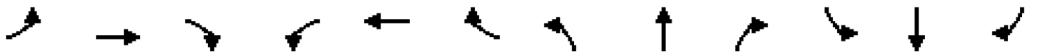
Intersection	
Int Delay, s/veh	6.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	116	74	206	156	97	270
Future Vol, veh/h	116	74	206	156	97	270
Conflicting Peds, #/hr	4	2	0	8	8	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	4	3	1	4	1
Mvmt Flow	138	88	245	186	115	321

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	901	348	0	0	439	0
Stage 1	346	-	-	-	-	-
Stage 2	555	-	-	-	-	-
Critical Hdwy	5.9	5.7	-	-	4.14	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.336	-	-	2.236	-
Pot Cap-1 Maneuver	353	728	-	-	1110	-
Stage 1	721	-	-	-	-	-
Stage 2	579	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	312	721	-	-	1102	-
Mov Cap-2 Maneuver	312	-	-	-	-	-
Stage 1	715	-	-	-	-	-
Stage 2	517	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.1	0	2.3
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	400	1102	-
HCM Lane V/C Ratio	-	-	0.565	0.105	-
HCM Control Delay (s)	-	-	25.1	8.6	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	3.4	0.3	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	81	156	44	4	113	7	72	307	30	20	246	96
Future Volume (veh/h)	81	156	44	4	113	7	72	307	30	20	246	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.99		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2018	2084	2051	2100	2002	1871	2067	1969	2100	2100	1985	2051
Adj Flow Rate, veh/h	96	186	39	5	135	7	86	365	31	24	293	46
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	5	1	3	0	6	14	2	8	0	0	7	3
Cap, veh/h	154	239	47	48	388	20	215	896	73	90	1022	155
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.65	0.65	0.65	0.65	0.65	0.65
Sat Flow, veh/h	476	1144	224	21	1860	94	254	1379	112	68	1573	238
Grp Volume(v), veh/h	321	0	0	147	0	0	482	0	0	363	0	0
Grp Sat Flow(s),veh/h/ln	1844	0	0	1974	0	0	1745	0	0	1880	0	0
Q Serve(g_s), s	8.5	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.9	0.0	0.0	5.4	0.0	0.0	9.9	0.0	0.0	6.8	0.0	0.0
Prop In Lane	0.30		0.12	0.03		0.05	0.18		0.06	0.07		0.13
Lane Grp Cap(c), veh/h	440	0	0	456	0	0	1184	0	0	1267	0	0
V/C Ratio(X)	0.73	0.00	0.00	0.32	0.00	0.00	0.41	0.00	0.00	0.29	0.00	0.00
Avail Cap(c_a), veh/h	759	0	0	807	0	0	1184	0	0	1267	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	31.8	0.0	0.0	28.6	0.0	0.0	6.9	0.0	0.0	6.4	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.0	0.0	0.4	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.4	0.0	0.0	4.5	0.0	0.0	5.8	0.0	0.0	4.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	0.0	0.0	29.0	0.0	0.0	7.1	0.0	0.0	6.5	0.0	0.0
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		321			147			482			363	
Approach Delay, s/veh		34.1			29.0			7.1			6.5	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		61.0		23.7		61.0		23.7				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		55.0		33.0		55.0		33.0				
Max Q Clear Time (g_c+I1), s		11.9		15.9		8.8		7.4				
Green Ext Time (p_c), s		3.4		1.7		2.4		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			16.0									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	18	249	47	5	229	18	16	3	17	12	2	5
Future Vol, veh/h	18	249	47	5	229	18	16	3	17	12	2	5
Conflicting Peds, #/hr	4	0	12	12	0	4	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	51	51	51	51	51	51	51	51	51	51	51	51
Heavy Vehicles, %	0	3	0	0	4	0	0	0	0	0	0	0
Mvmt Flow	35	488	92	10	449	35	31	6	33	24	4	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	488	0	0	592	0	0	1112	1124	546	1115	1153	473
Stage 1	-	-	-	-	-	-	616	616	-	491	491	-
Stage 2	-	-	-	-	-	-	496	508	-	624	662	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.6	6	5.7	6.6	6	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1086	-	-	994	-	-	219	242	584	218	234	636
Stage 1	-	-	-	-	-	-	481	485	-	563	552	-
Stage 2	-	-	-	-	-	-	559	542	-	477	462	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1082	-	-	983	-	-	200	224	577	191	216	632
Mov Cap-2 Maneuver	-	-	-	-	-	-	200	224	-	191	216	-
Stage 1	-	-	-	-	-	-	453	457	-	534	542	-
Stage 2	-	-	-	-	-	-	538	532	-	422	435	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.2	21.1	22.9
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	293	1082	-	-	983	-	-	238
HCM Lane V/C Ratio	0.241	0.033	-	-	0.01	-	-	0.157
HCM Control Delay (s)	21.1	8.4	0	-	8.7	0	-	22.9
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0	-	-	0.5

Intersection	
Int Delay, s/veh	6.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	73	34	131	209	133	296
Future Vol, veh/h	73	34	131	209	133	296
Conflicting Peds, #/hr	1	0	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	3	12	4	0	5	4
Mvmt Flow	109	51	196	312	199	442

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1198	357	0	0	513	0
Stage 1	357	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Critical Hdwy	5.9	5.8	-	-	4.15	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.408	-	-	2.245	-
Pot Cap-1 Maneuver	243	700	-	-	1037	-
Stage 1	706	-	-	-	-	-
Stage 2	421	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	195	697	-	-	1032	-
Mov Cap-2 Maneuver	195	-	-	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	339	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	40.8	0	2.9
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	253	1032	-
HCM Lane V/C Ratio	-	-	0.631	0.192	-
HCM Control Delay (s)	-	-	40.8	9.3	-
HCM Lane LOS	-	-	E	A	-
HCM 95th %tile Q(veh)	-	-	3.9	0.7	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	304	233	18	10	4
Future Vol, veh/h	8	304	233	18	10	4
Conflicting Peds, #/hr	4	0	0	4	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	52	52	52	52	52	52
Heavy Vehicles, %	0	3	4	0	0	0
Mvmt Flow	15	585	448	35	19	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	487	0	-	0	1085	470
Stage 1	-	-	-	-	470	-
Stage 2	-	-	-	-	615	-
Critical Hdwy	4.1	-	-	-	5.9	5.7
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1086	-	-	-	281	638
Stage 1	-	-	-	-	633	-
Stage 2	-	-	-	-	543	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1082	-	-	-	273	636
Mov Cap-2 Maneuver	-	-	-	-	273	-
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	541	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	17
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1082	-	-	-	326
HCM Lane V/C Ratio	0.014	-	-	-	0.083
HCM Control Delay (s)	8.4	0	-	-	17
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	103	29	13	95	21	44	389	29	11	246	49
Future Volume (veh/h)	87	103	29	13	95	21	44	389	29	11	246	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2100	2067	2018	2100	2084	2100	2100	2084	2100	2100	2034	2067
Adj Flow Rate, veh/h	94	111	31	14	102	23	47	418	31	12	265	53
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
Percent Heavy Veh, %	0	2	5	0	1	0	0	1	0	0	4	2
Cap, veh/h	229	178	44	110	290	61	144	945	67	98	868	168
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.54	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	602	965	237	98	1566	330	98	1765	124	22	1620	314
Grp Volume(v), veh/h	236	0	0	139	0	0	496	0	0	330	0	0
Grp Sat Flow(s),veh/h/ln	1804	0	0	1994	0	0	1987	0	0	1956	0	0
Q Serve(g_s), s	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.1	0.0	0.0	2.6	0.0	0.0	6.3	0.0	0.0	4.0	0.0	0.0
Prop In Lane	0.40		0.13	0.10		0.17	0.09		0.06	0.04		0.16
Lane Grp Cap(c), veh/h	451	0	0	461	0	0	1156	0	0	1135	0	0
V/C Ratio(X)	0.52	0.00	0.00	0.30	0.00	0.00	0.43	0.00	0.00	0.29	0.00	0.00
Avail Cap(c_a), veh/h	2708	0	0	3021	0	0	1156	0	0	1135	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.2	0.0	0.0	15.3	0.0	0.0	6.1	0.0	0.0	5.6	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.3	0.0	0.0	1.8	0.0	0.0	2.6	0.0	0.0	1.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	0.0	0.0	15.5	0.0	0.0	6.2	0.0	0.0	5.6	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		236			139			496			330	
Approach Delay, s/veh		16.6			15.5			6.2			5.6	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		29.0		13.9		29.0		13.9				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		23.0		65.0		23.0		65.0				
Max Q Clear Time (g_c+I1), s		8.3		7.1		6.0		4.6				
Green Ext Time (p_c), s		1.7		1.0		1.1		0.5				

Intersection Summary												
HCM 6th Ctrl Delay			9.1									
HCM 6th LOS			A									

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	283	80	14	219	8	8	0	11	10	0	19
Future Vol, veh/h	15	283	80	14	219	8	8	0	11	10	0	19
Conflicting Peds, #/hr	14	0	72	72	0	14	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	0	2	1	0	4	0	0	0	0	10	0	0
Mvmt Flow	21	404	114	20	313	11	11	0	16	14	0	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	338	0	0	590	0	0	947	953	533	884	1005	333
Stage 1	-	-	-	-	-	-	575	575	-	373	373	-
Stage 2	-	-	-	-	-	-	372	378	-	511	632	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.6	6	5.7	6.7	6	5.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.2	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.2	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.59	4	3.3
Pot Cap-1 Maneuver	1232	-	-	995	-	-	277	298	593	291	280	747
Stage 1	-	-	-	-	-	-	507	506	-	632	622	-
Stage 2	-	-	-	-	-	-	653	619	-	531	477	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1216	-	-	927	-	-	239	260	552	268	244	737
Mov Cap-2 Maneuver	-	-	-	-	-	-	239	260	-	268	244	-
Stage 1	-	-	-	-	-	-	460	459	-	608	598	-
Stage 2	-	-	-	-	-	-	613	595	-	503	433	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.5	15.9	13.6
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	356	1216	-	-	927	-	-	460
HCM Lane V/C Ratio	0.076	0.018	-	-	0.022	-	-	0.09
HCM Control Delay (s)	15.9	8	0	-	9	0	-	13.6
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	0.3

Intersection	
Int Delay, s/veh	6.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	121	77	206	159	98	270
Future Vol, veh/h	121	77	206	159	98	270
Conflicting Peds, #/hr	4	2	0	8	8	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	4	3	1	4	1
Mvmt Flow	144	92	245	189	117	321

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	907	350	0	0	442	0
Stage 1	348	-	-	-	-	-
Stage 2	559	-	-	-	-	-
Critical Hdwy	5.9	5.7	-	-	4.14	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.336	-	-	2.236	-
Pot Cap-1 Maneuver	350	726	-	-	1107	-
Stage 1	719	-	-	-	-	-
Stage 2	576	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	309	719	-	-	1099	-
Mov Cap-2 Maneuver	309	-	-	-	-	-
Stage 1	713	-	-	-	-	-
Stage 2	513	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.5	0	2.3
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	397	1099	-
HCM Lane V/C Ratio	-	-	0.594	0.106	-
HCM Control Delay (s)	-	-	26.5	8.7	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	3.7	0.4	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	360	237	10	18	8
Future Vol, veh/h	4	360	237	10	18	8
Conflicting Peds, #/hr	14	0	0	14	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	0	2	4	0	0	0
Mvmt Flow	6	537	354	15	27	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	383	0	-	0	925	376
Stage 1	-	-	-	-	376	-
Stage 2	-	-	-	-	549	-
Critical Hdwy	4.1	-	-	-	5.9	5.7
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1187	-	-	-	342	711
Stage 1	-	-	-	-	699	-
Stage 2	-	-	-	-	583	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1171	-	-	-	331	702
Mov Cap-2 Maneuver	-	-	-	-	331	-
Stage 1	-	-	-	-	685	-
Stage 2	-	-	-	-	575	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	15.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1171	-	-	-	395
HCM Lane V/C Ratio	0.005	-	-	-	0.098
HCM Control Delay (s)	8.1	0	-	-	15.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

TRAFFIC SIGNAL TIMING DIRECTIVE

TRAFFIC SIGNAL TIMING

BOULEVARD (CR ALT 511) & SUNSET ROAD

TOWNSHIP OF PEQUANNOCK

	SIGNAL INDICATIONS				TIME	
					I	II
PHASE	2,3,6,7	1,4,5,8	B,D,F,G	A,C,E,H		
VEHICLE ACTUATED						
A – Boulevard (ROW)	G	R	W	DW	40	8
Ped Clearance	G	R	FDW	DW	15	15
Change	Y	R	DW	DW	4	4
Clearance	R	R	DW	DW	2	2
B – Sunset (ROW)	R	G	DW	DW	7-33	7-65
Change	R	Y	DW	DW	4	4
Clearance	R	R	DW	DW	2	2
PEDESTRIAN ACTIVATED						
A – Boulevard (ROW)	G	R	W	DW	40	8
Ped Clearance	G	R	FDW	DW	15	15
Change	Y	R	DW	DW	4	4
Clearance	R	R	DW	DW	2	2
B – Sunset (ROW)	R	G	DW	W	16	16
Ped Clearance	R	G	DW	FDW	16	16
Vehicle Extension	R	G	DW	DW	0-2	0-34
Change	R	Y	DW	DW	4	4
Clearance	R	R	DW	DW	2	2
FLASHING OPERATION	Y	R	DARK	DARK		

NOTES:
1. Phase **B** memory and recall "Off" .
2. Controller to rest in Phase **A** green.
3. Manual Control to be disconnected.
4. Vehicle Extension to be set at 2 seconds.

Hours of Operation / Cycle Length

Time I - ALL OTHER TIMES, C = Variable
Time II - 2:30 P.M. - 3:30 P.M., Monday – Friday / C = Variable

09/16/02
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