

TRAFFIC IMPACT STUDY

For

Daughters of Israel Proposed Continuing Care Retirement Community

Property Located at:

**1155 Pleasant Valley Way (CR 636)
Block 171 – Lot 12
Township of West Orange, Essex County, NJ**

Prepared by:



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4041-99-001TE

INTRODUCTION

It is proposed to replace the existing Daughters of Israel skilled nursing home with a continuing care retirement community. The site is located along the southbound side of Pleasant Valley Way (CR 636) between its intersection with N.J. N.J. Route 10 (Mount Pleasant Avenue) and Old Indian Road in the Township of West Orange, Essex County, New Jersey, see Figure 1 in Appendix A. The site is designated as Block 171 – Lot 12 on the Township of West Orange Tax Maps and is currently occupied by a 303-bed Skilled Nursing Facility.

The development proposal includes the reconstruction of the nursing home facility to a continuing care retirement community that will provide the following:

- 182 Independent Living Units
- 64 Assisted Living Units
- 80 Skilled Nursing Units

Access to the site is currently provided via two (2) driveways along Pleasant Valley Way. It is proposed to maintain the existing access points.

Dynamic Traffic, LLC has been retained to prepare this study to assess the traffic impact associated with the construction of The Project on the adjacent roadway network. This study documents the methodology, analyses, findings and conclusions of our study and includes:

- A detailed field inspection was conducted to obtain an inventory of existing roadway geometry, traffic control, and location and geometry of existing driveways and intersections.
- Existing traffic data was collected via manual turning movement (MTM) counts during the weekday AM and weekday PM peak periods at the following intersections:
 - N.J. Route 10 & Pleasant Valley Way
 - Pleasant Valley Way & Kessler Driveway
 - Pleasant Valley Way & North Site Driveway
 - Pleasant Valley Way & South Site Driveway
- Projections of traffic to be generated by the proposed development were prepared utilizing trip generation data as published by the Institute of Transportation Engineers. Site traffic was then assigned to the adjacent street system based upon the anticipated directional distribution.
- The proposed points of ingress and egress were inspected for adequacy of geometric design, spacing and/or alignment to streets and driveways on the opposite side of the street, relationship to other driveways adjacent to the development, and conformance with accepted design standards.
- The site plan as designed was reviewed for sufficiency in accommodating large wheel base vehicles such as delivery trucks, refuse trucks, and emergency vehicles.

EXISTING CONDITIONS

A review of the existing roadway conditions near the proposed site was conducted to provide the basis for assessing the traffic impact of the development. This included field investigations of the surrounding roadways and intersections, collection of traffic volume data, and extensive analyses.

Existing Roadway Conditions

The following are descriptions of the roadways in the study area:

N.J. Route 10 (Mount Pleasant Avenue) is an Urban Principal Arterial roadway under the jurisdiction of the New Jersey Department of Transportation (NJDOT). In the vicinity of the site the posted speed limit is 40 MPH. The roadway provides one eastbound travel lane and two westbound travel lanes to the west of its intersection with Pleasant Valley Way and two travel lanes in each direction to the east of the intersection. Curb is provided along both sides of the roadway while sidewalk is provided along portions of both sides of the roadway. N.J. Route 10 provides a curved horizontal alignment and a downhill vertical alignment from west to east. The land uses along N.J. Route 10 in the vicinity of the project are a mix of commercial and residential.

Pleasant Valley Way (CR 636) is an Urban Minor Arterial roadway under Essex County jurisdiction. In the vicinity of the site the posted speed limit is 45 MPH and the roadway provides one travel lane in each direction along the site frontage with a general north/south orientation. Curb is provided along both sides of the roadway while sidewalk is provided along the westerly (southbound) side of the roadway. Pleasant Valley Way provides a primarily straight horizontal alignment and a relatively flat vertical alignment along the site frontage. The land uses along Pleasant Valley Way in the vicinity of the project are a mix of commercial and residential.

Existing Traffic Volumes

Manual turning movement (MTM) counts were conducted on Tuesday, October 19, 2021 from 7:00 – 9:00 AM and from 4:30 – 6:30 PM at the following intersections:

- N.J. Route 10 & Pleasant Valley Way
- Pleasant Valley Way & Kessler Driveway
- Pleasant Valley Way & North Site Driveway
- Pleasant Valley Way & South Site Driveway

It should be noted that traffic impacts associated with the COVID-19 pandemic may have still been in effect as of the time of the traffic counts. As a result, the collected traffic volumes on the surrounding roadways may not be representative of “existing” traffic conditions. Therefore, historical traffic volume data has been reviewed and compared with current traffic conditions.

NJDOT has previously conducted Automatic Traffic Recorder (ATR) counts along Pleasant Valley Way just south of Cornell Street in July 2018. In order to perform an appropriate comparison, the 2018 ATR volumes were increased to better represent 2021 conditions by applying a growth rate of 2% per year, obtained from the NJDOT Annual Background Growth Rate Table, for a period of three (3) years. Additionally, in order to account for summer traffic patterns in the area, the July ATR data was further adjusted using the seasonal adjustment factors published by NJDOT. Thus, a seasonal adjustment factor of 1.069 was applied to the ATR data to establish “existing” traffic volumes.

The individual intersection movements from the October 2021 MTM count at Pleasant Valley Way and the Kessler Driveway were then utilized to establish the current traffic volumes along Pleasant Valley Way at the ATR location. The ATR traffic volumes representative of “existing” conditions were then compared to the October 2021 MTM traffic volumes, upon which adjustment factors of 1.20 and 1.12 were calculated and applied to the respective weekday morning and weekday evening counts to develop traffic volumes that best represent “existing” conditions at the study intersections.

Review of the collected traffic data reveals that the weekday morning peak street hour (PSH) of the network occurs between 8:00 – 9:00 AM and the weekday evening PSH occurs between 4:45 – 5:45 PM. Note that the 2021 counts were increased to better represent 2022 traffic volumes by applying a growth rate of 2% for one (1) year obtained from the NJDOT Annual Background Growth Rate Table. Figure 2, located in Appendix A, shows the existing peak hour traffic volumes at the study intersections. All MTM counts are contained in Appendix B.

Existing Capacity Analysis

The methodology utilized in the capacity analyses is described in the *Highway Capacity Manual*, published by the Transportation Research Board. In general, the term Level of Service (LOS) is used to provide a “qualitative” evaluation of capacity based upon certain “quantitative” calculations related to empirical values, such as traffic volume and intersection control.

At signalized intersections, factors that affect the various approach capacities include width of approach, number of lanes, signal “green time”, turning percentages, truck volumes, etc. However, delays cannot be related to capacity in a simple one-to-one fashion. For example, it is possible to have delays in the Level of Service “F” range without exceeding roadway capacity. Substantial delays can exist without exceeding capacity if one or more of the following conditions exist: long signal cycle lengths; a particular traffic movement experiences a long red time; or progressive movement for a particular lane group is poor. Table II describes the level of service ranges for signalized intersections.

An unsignalized (STOP sign controlled) driveway or side street along a through route is seldom critical from an overall capacity standpoint, however, it may be of great significance to the capacity of the minor cross-route, and it may influence the quality of traffic flow on both. When analyzing an unsignalized intersection, it is assumed that both the major street through and right turn movements are unimpeded and have the right-of-way over all side street traffic and left turns from the major street. All other turning movements in the intersection cross, merge with, or are otherwise impeded by major street movements. Traffic delays at unsignalized intersections are determined by sequentially processing these impeded movements. Table III describes the level of service ranges for unsignalized (stop controlled) intersections.

Table II
Level of Service Criteria
for Signalized Intersections

Level of Service	Average Control Delay (seconds per vehicle)
A	0.0 to 10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	greater than 80.0

Table III
Level of Service Criteria
for Unsignalized Intersections

Level of Service	Average Control Delay (seconds per vehicle)
a	0.0 to 10.0
b	10.1 to 15.0
c	15.1 to 25.0
d	25.1 to 35.0
e	35.1 to 50.0
f	greater than 50.0

It should be noted that the analyses within the *Highway Capacity Manual* assume a random arrival for all the movements, which may not be the case if an adjacent traffic signal is present that platoons vehicles. All capacity analyses were performed utilizing Synchro 11 software. Table III summarizes the existing Levels of Service (LOS) and delays. All capacity analysis calculation worksheets are contained in Appendix C.

Table III
Existing Levels of Service

Intersection	Direction/ Movement		AM PSH	PM PSH
N.J. Route 10 & Pleasant Valley Way	EB	LT	D (51)	D (52)
		R	A (4)	A (1)
	WB	LT	D (41)	D (41)
		R	A (6)	B (15)
	NB	L	C (32)	C (22)
		TR	D (40)	F (91)
	SB	L	C (31)	D (50)
		TR	E (59)	D (37)
Overall		D (45)	E (58)	
Pleasant Valley Way & Kessler Driveway	EB	L	C (34)	C (33)
		R	C (35)	C (28)
	NB	L	A (3)	A (3)
		TR	A (3)	B (13)
	SB	TR	A (4)	A (7)
	Overall		A (4)	B (12)
Pleasant Valley Way & North Site Driveway	EB	LR	d (28)	c (20)
	NB	L	b (11)	a (9)
Pleasant Valley Way & South Site Driveway	EB	LR	e (44)	d (33)
	NB	L	b (12)	a (9)

a (#) - Unsignalized Intersection Level of Service (seconds of delay per vehicle)

A (#) - Signalized Intersection Level of Service (seconds of delay per vehicle)

The following are discussions pertaining to each of the existing intersections analyzed. It should be noted that the existing percentage of trucks and peak hour factors were used in the existing analysis.

N.J. Route 10 and Pleasant Valley Way

Pleasant Valley Way intersects N.J. Route 10 to form a four-leg intersection controlled by a four-phase traffic signal with a variable cycle length. The eastbound and westbound approaches of N.J. Route 10 each provide a shared left turn/through lane, a dedicated through lane and a channelized right turn lane operating under yield control. The northbound and southbound approaches of Pleasant Valley Way each provide a dedicated left turn lane, a dedicated through lane and a shared through/right turn lane.

A review of the existing analysis reveals that the intersection operates at overall Level of Service “E” or better and the individual intersection movements operate at Levels of Service “E” or better during the analyzed peak periods, with the exception of the northbound through/right turn movement, which operates at Level of Service “F” during the PM peak hour. See Table III for the individual movement Levels of Service and delays.

Pleasant Valley Way and Kessler Driveway

The Kessler Driveway intersects Pleasant Valley Way to form a T-intersection controlled by a two-phase traffic signal with a 90-second cycle length. The northbound approach of Pleasant Valley Way provides a dedicated left turn lane and a dedicated through lane. The southbound approach of Pleasant Valley Way provides a shared through/right turn lane. The eastbound approach of the Kessler Driveway provides a dedicated left turn lane and a dedicated right turn lane.

A review of the existing analysis reveals that the intersection operates at overall Level of Service “B” or better and the individual intersection movements operate at Levels of Service “C” or better during the analyzed peak periods. See Table III for the individual movement Levels of Service and delays.

Pleasant Valley Way and the North Site Driveway

The north site driveway intersects Pleasant Valley Way to form an unsignalized T- intersection with the site driveway operating under stop control. The northbound approach of Pleasant Valley Way provides a dedicated left turn lane and a dedicated through lane. The southbound approach of Pleasant Valley Way provides a shared through/right turn lane. The eastbound approach of the site driveway provides a shared lane for left and right turns.

A review of the existing analysis reveals that the individual intersection movements operate at Level of Service “D” or better during the analyzed peak periods. See Table III for the individual movement Levels of Service and delays.

Pleasant Valley Way and the South Site Driveway

The south site driveway intersects Pleasant Valley Way to form an unsignalized T- intersection with the site driveway operating under stop control. The northbound approach of Pleasant Valley Way provides a dedicated left turn lane and a dedicated through lane. The southbound approach of Pleasant Valley Way provides a shared through/right turn lane. The eastbound approach of the site driveway provides a shared lane for left and right turns.

A review of the existing analysis reveals that the individual intersection movements operate at Level of Service “E” or better during the analyzed peak periods. See Table III for the individual movement Levels of Service and delays.

FUTURE CONDITIONS

As previously mentioned, the site access points will remain as they exist today. A sidewalk connection is proposed to facilitate pedestrian access to/from the site which is an improvement over the existing conditions.

Traffic volumes and operational analyses were developed for both the No Build and Build conditions. The No Build conditions provide a baseline for assessing the impact of site development traffic on the roadway system. The process of developing the No Build and Build traffic volumes and the subsequent analyses is outlined below.

Regardless of whether the subject site is developed or not, traffic volumes on the surrounding roadways are expected to increase as a result of developments throughout the region. A growth rate for roadways within the study area was obtained from the NJDOT Annual Background Growth Rate Table, which indicates a growth rate of 2% per year.

Future No Build traffic volumes were developed by applying the background growth rate of 2% for two (2) years to the study area roadways existing traffic volumes. Figure 3, in Appendix A, shows the No Build traffic volumes.

Traffic Generation

Trip generation projections for The Project were prepared utilizing trip generation research data as published under Land Use Code (LUC) 620 – Nursing Home for the existing facility and using LUC 255 – Continuing Care Retirement Facility for the proposed facility as published in the Institute of Transportation Engineers' (ITE) publication, *Trip Generation, 11th Edition*. This publication sets forth trip generation rates based on traffic counts conducted at research sites throughout the country.

ITE defines a Continuing Care Retirement Community as follows:

“A continuing care retirement community (CCRC) is a land use that provides multiple elements of senior adult living. A CCRC enables a resident to transition in place from independent living to increased care as the medical needs of the resident change. Housing options may include various combinations of senior adult housing (both single-family and multifamily), congregate care, assisted living, and nursing home. The community may also contain special services such as medical, dining, recreational, communal transportation, and some limited, supporting retail facilities. A CCRC is usually a self-contained village.”

Based on the above definition, LUC 255 is clearly the most appropriate land use to describe the improved facility that is proposed. Table IV below provides a trip generation comparison of the existing versus proposed uses on the property for the critical weekday morning and weekday evening peak street hours (PSH).

Table IV
Existing vs. Proposed Trip Generation Comparison

Land Use	AM PSH			PM PSH		
	In	Out	Total	In	Out	Total
LUC 620 – 303 Bed Nursing Home (Existing)	30	12	42	14	28	42
LUC 255 – 306 Units Continuing Care Retirement Community (Proposed)	30	16	46	23	35	58
Difference	+0	+4	+4	+9	+7	+16

As can be seen above, the proposed site is projected to generate 4 more trips during the morning peak hour and 16 more trips during the weekday evening peak hour. This magnitude of change in trip generation is minimal and indicates that the traffic entering and exiting the site will not materially change.

It should further be noted that the number of new trips falls below the industry accepted standard of a significant increase in traffic of 100 trips. Based on *Transportation Impact Analysis for Site Development*, published by the ITE “it is suggested that a transportation impact study be conducted whenever a proposed development will generate 100 or more added (new) trips during the adjacent roadways’ peak hour or the development’s peak hour.” Additionally, NJDOT has determined that the same 100 vehicle threshold is considered a “significant increase in traffic”. Even without consideration of the existing use on the property, the proposed use is projected to generate approximately 60% of this threshold. Therefore, it is not anticipated that the change in use will result in any degradation of operating conditions and the traffic impacts will be essentially imperceptible.

Once the magnitude of traffic to be generated by the site is known, it is necessary to assign that traffic to the adjacent street system. The distribution of new traffic to the surrounding roadways is based on the location of primary arterial roadways, major signalized intersections and existing traffic patterns. Located in Appendix A, Figure 4 illustrates the removal of the existing site generated traffic volumes, Figure 5 illustrates the percent distribution of site generated trips and Figure 6 illustrates the site generated traffic volumes assigned to the study area network. The site generated volumes were added to the No Build traffic volumes to generate the Build traffic volumes, shown in Figure 7.

Future Capacity Analysis

Operational conditions at the study intersections were analyzed under the No Build and Build conditions and are summarized in Table V below.

Table V
Future Levels of Service

Intersection	Direction/ Movement		AM PSH			PM PSH		
			No Build	Build	Build w. Mit.	No Build	Build	Build w. Mit.
N.J. Route 10 & Pleasant Valley Way	EB	LT	D (52)	D (52)	D (52)	D (52)	D (52)	D (52)
		R	A (4)	A (5)	A (5)	A (1)	A (1)	A (1)
	WB	LT	D (41)	D (41)	D (45)	D (42)	D (42)	D (45)
		R	A (7)	A (7)	A (7)	B (16)	B (16)	B (17)
	NB	L	C (33)	C (34)	C (32)	C (23)	C (23)	C (21)
		TR	D (42)	D (42)	D (38)	F (109)	F (111)	E (79)
	SB	L	C (34)	C (35)	C (29)	D (54)	D (54)	D (53)
		TR	F (84)	F (84)	E (61)	D (38)	D (38)	C (35)
	Overall		E (55)	D (55)	D (46)	E (66)	E (67)	D (55)
Pleasant Valley Way & Kessler Driveway	EB	L	D (36)	D (36)	-	D (36)	D (36)	-
		R	D (37)	D (37)	-	C (30)	C (30)	-
	NB	L	A (4)	A (4)	-	A (3)	A (3)	-
		TR	A (3)	A (3)	-	B (13)	B (13)	-
	SB	TR	A (5)	A (5)	-	A (7)	A (7)	-
	Overall		A (4)	A (4)	-	B (13)	B (13)	-
Pleasant Valley Way & North Site Driveway	EB	LR	d (30)	d (26)	-	c (21)	c (24)	-
	NB	L	b (12)	b (12)	-	a (9)	a (10)	-
Pleasant Valley Way & South Site Driveway	EB	LR	e (48)	e (48)	-	e (37)	e (49)	-
	NB	L	b (12)	b (12)	-	a (9)	a (10)	-

a (#) - Unsignalized Intersection Level of Service (seconds of delay per vehicle)

A (#) - Signalized Intersection Level of Service (seconds of delay per vehicle)

N.J. Route 10 and Pleasant Valley Way

With the addition of the site traffic, the intersection is anticipated to continue operating at overall Level of Service “E” or better and the individual intersection movements are anticipated to continue operating at Levels of Service “D” or better during the analyzed peak periods, with the exception of the southbound through/right turn movement and the northbound through/right turn movement, which are anticipated to continue to operate at Level of Service “F” during the weekday morning and weekday evening peak hours, respectively.

It is important to note that these movements already operate at Level of Service “F” under No Build conditions, indicating that the increased delays are a function of the magnitude of existing traffic volumes rather than the addition of the site traffic. However, with signal timing adjustments of reallocating 3 seconds of green time from the N.J. Route 10 Eastbound ROW phase to the Pleasant Valley Way ROW phase, the northbound through/right turn movement can operate at similar or better Levels of Service during both peak hours when compared to No Build conditions. See Table V for the individual movement levels of service and delays.

Pleasant Valley Way and Kessler Driveway

With the addition of the site traffic, the intersection is anticipated to continue operating at overall Level of Service “B” or better and the individual intersection movements are anticipated to continue operating at Levels of Service “D” or better during the analyzed peak periods. See Table V for the individual movement levels of service and delays.

Pleasant Valley Way and the North Site Driveway

With the addition of the site traffic, the individual intersection movements are anticipated to continue operating at Levels of Service “D” or better during the analyzed peak periods. See Table V for the individual movement Levels of Service and delays.

Pleasant Valley Way and the South Site Driveway

With the addition of the site traffic, the individual intersection movements are anticipated to continue operating at Levels of Service “E” or better during the analyzed peak periods. See Table V for the individual movement Levels of Service and delays.

SITE PLAN

Site Access and Circulation

The site plan was reviewed with respect to the site access and on-site circulation design. As noted previously, access to The Project will continue to be provided via two (2) driveways along Pleasant Valley Way.

The newly constructed parking areas will be serviced by parking aisles with a minimum width of 24 feet which meets the minimum Ordinance requirement of 24 feet. These aisles will allow for two-way circulation and 90-degree parking. This access configuration is consistent with accepted engineering design standards and will be sufficient to accommodate the traffic volumes anticipated for The Project.

FINDINGS & CONCLUSIONS

Findings

Based upon the detailed analyses as documented herein, the following findings are noted:

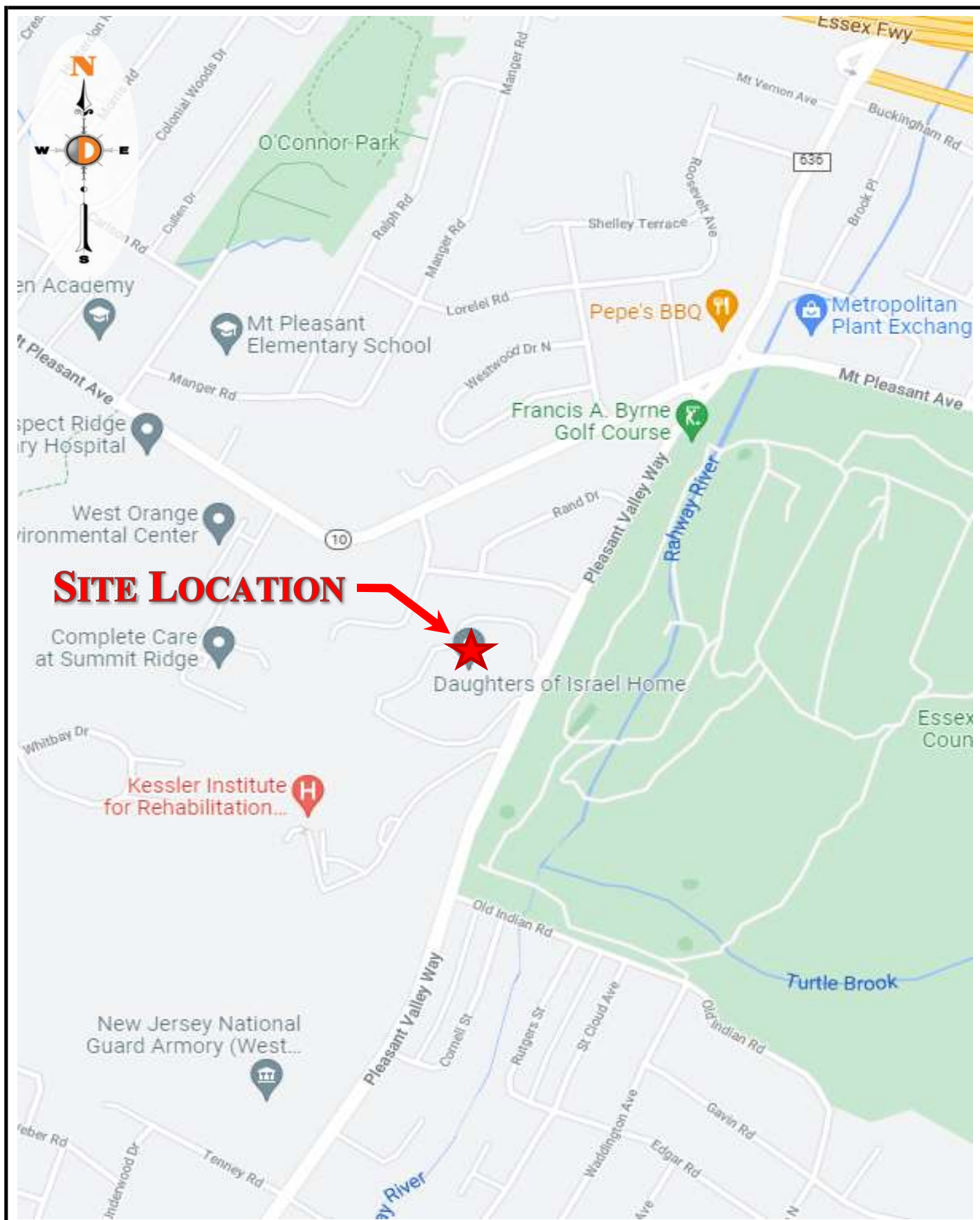
- The proposed reconstruction of the existing Daughters of Israel Nursing Home Facility to a Continuing Care Retirement Community is projected to result in the trip generation potential of the property increasing by only 4 trips during the weekday morning peak hour and 16 trips during the weekday evening peak hour.
- Vehicular access to the site will be maintained in its existing condition and pedestrian access will be improved by providing a connection between the site and the public sidewalk network.
- With the addition of the site generated traffic, the intersection of N.J. Route 10 and Pleasant Valley Way is anticipated to continue operating at overall Level of Service “E” or better during the analyzed peak hours, with the southbound and northbound through/right turn movements continuing to operate at Level of Service “F” during the AM and PM peak hours, respectively. However, with signal timing adjustments, the northbound and southbound through/right turn movements can operate at similar or better Levels of Service during both peak hours when compared to No Build conditions.
- With the addition of the site generated traffic, the intersection of Pleasant Valley Way and the Kessler Driveway is anticipated to continue operating at overall Level of Service “B” or better during the analyzed peak hours.
- With the addition of the site generated traffic, the individual intersection movements of Pleasant Valley Way and the north site driveway are anticipated to continue operating at Level of Service “D” or better during the analyzed peak hours.
- With the addition of the site generated traffic, the individual intersection movements of Pleasant Valley Way and the south site driveway are anticipated to continue operating at Level of Service “E” or better during the analyzed peak hours.
- As proposed, The Project’s site driveways and internal circulation have been designed to provide for safe and efficient movement of automobiles and large wheel base vehicles.

Conclusions

Based upon our Traffic Impact Study as detailed in the body of this report, it is the professional opinion of Dynamic Traffic, LLC that the adjacent street system of the Township of West Orange, Essex County and NJDOT will not experience any significant degradation in operating conditions with the construction of The Project. The site driveways are located to continue to provide safe and efficient access to the adjacent roadway system. The site plan as proposed provides for good circulation throughout the site and will accommodate The Project’s needs.

Appendix A

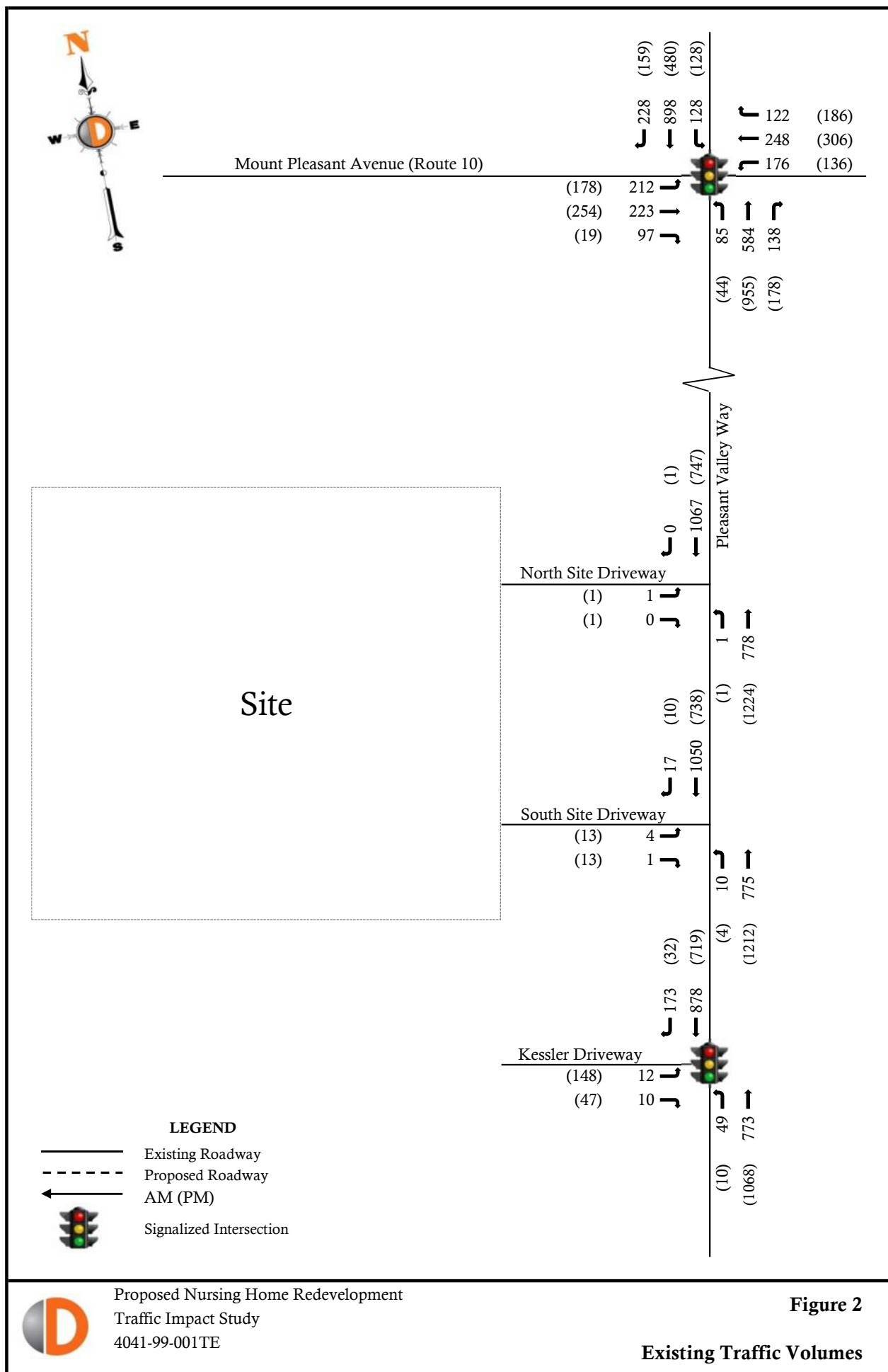
Volume Figures

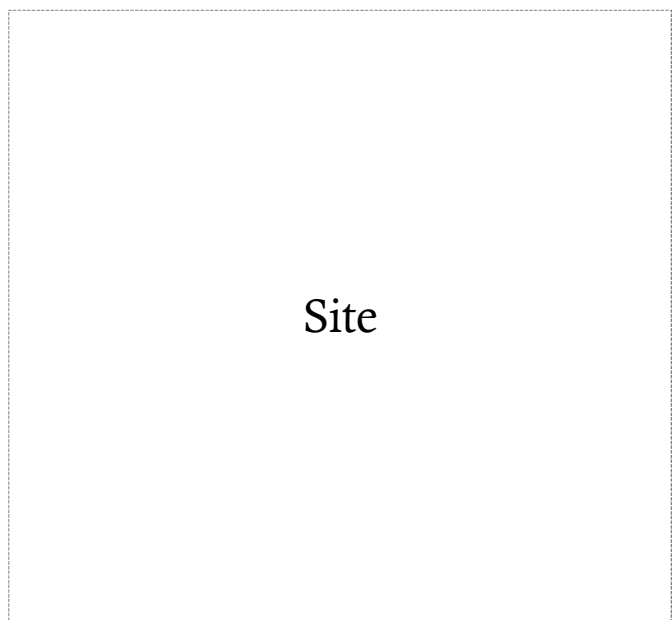


Proposed Nursing Home Redevelopment
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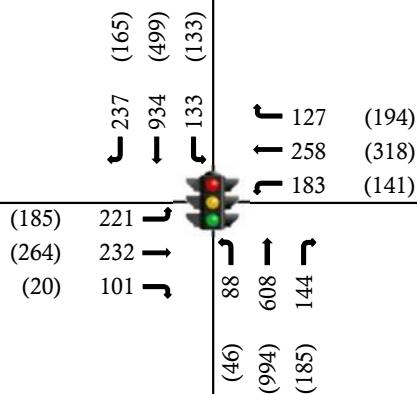
Figure 1

Site Location Map



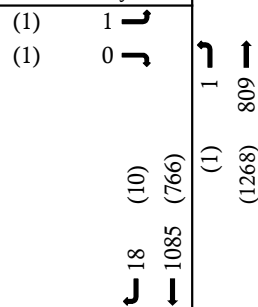


Mount Pleasant Avenue (Route 10)

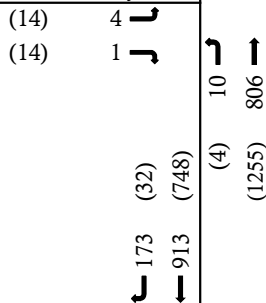


Pleasant Valley Way

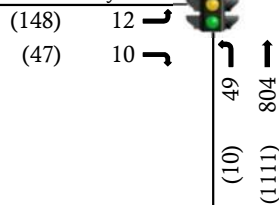
North Site Driveway



South Site Driveway



Kessler Driveway



LEGEND

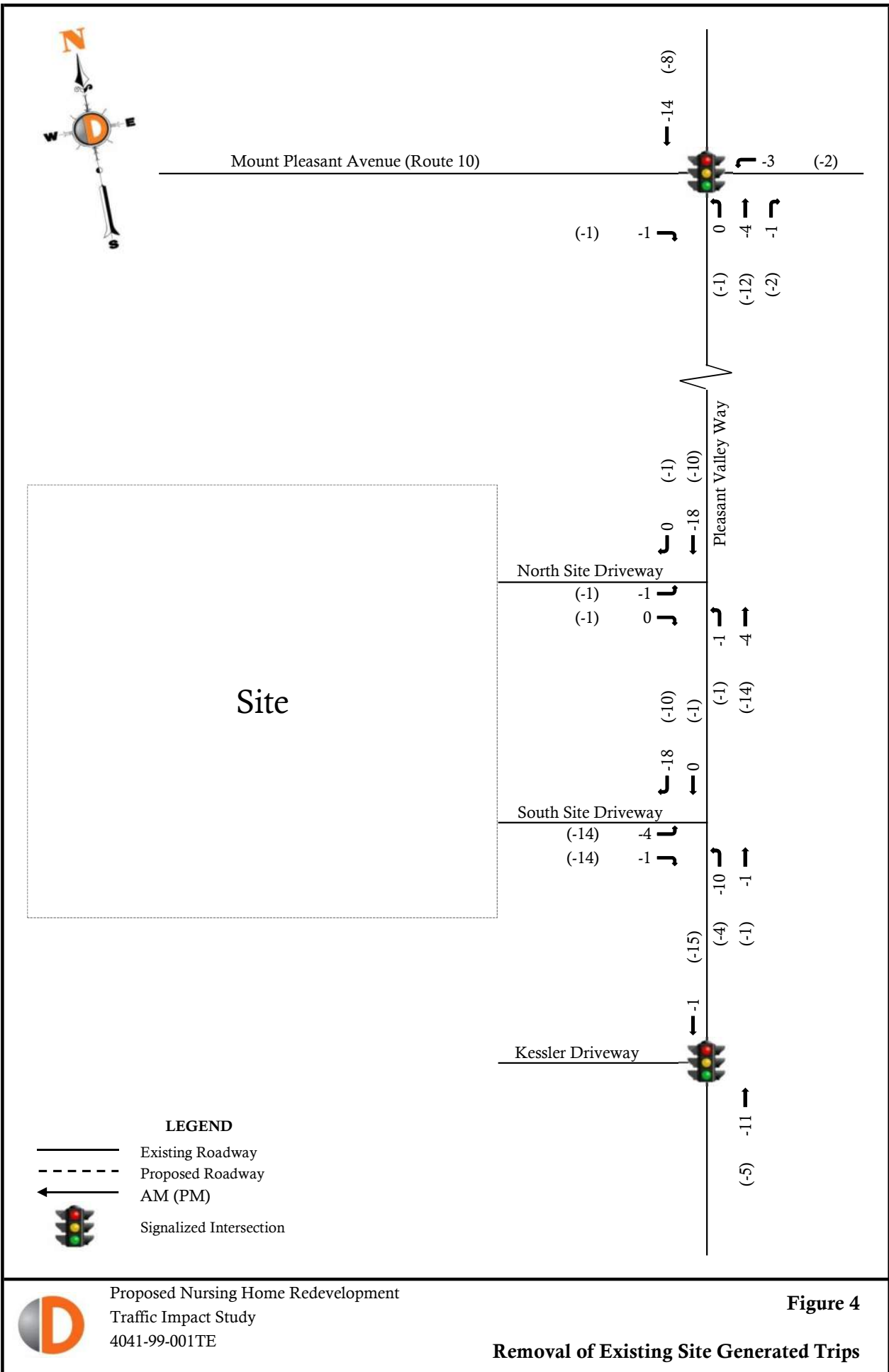
- Existing Roadway
- Proposed Roadway
- AM (PM)
- Signalized Intersection

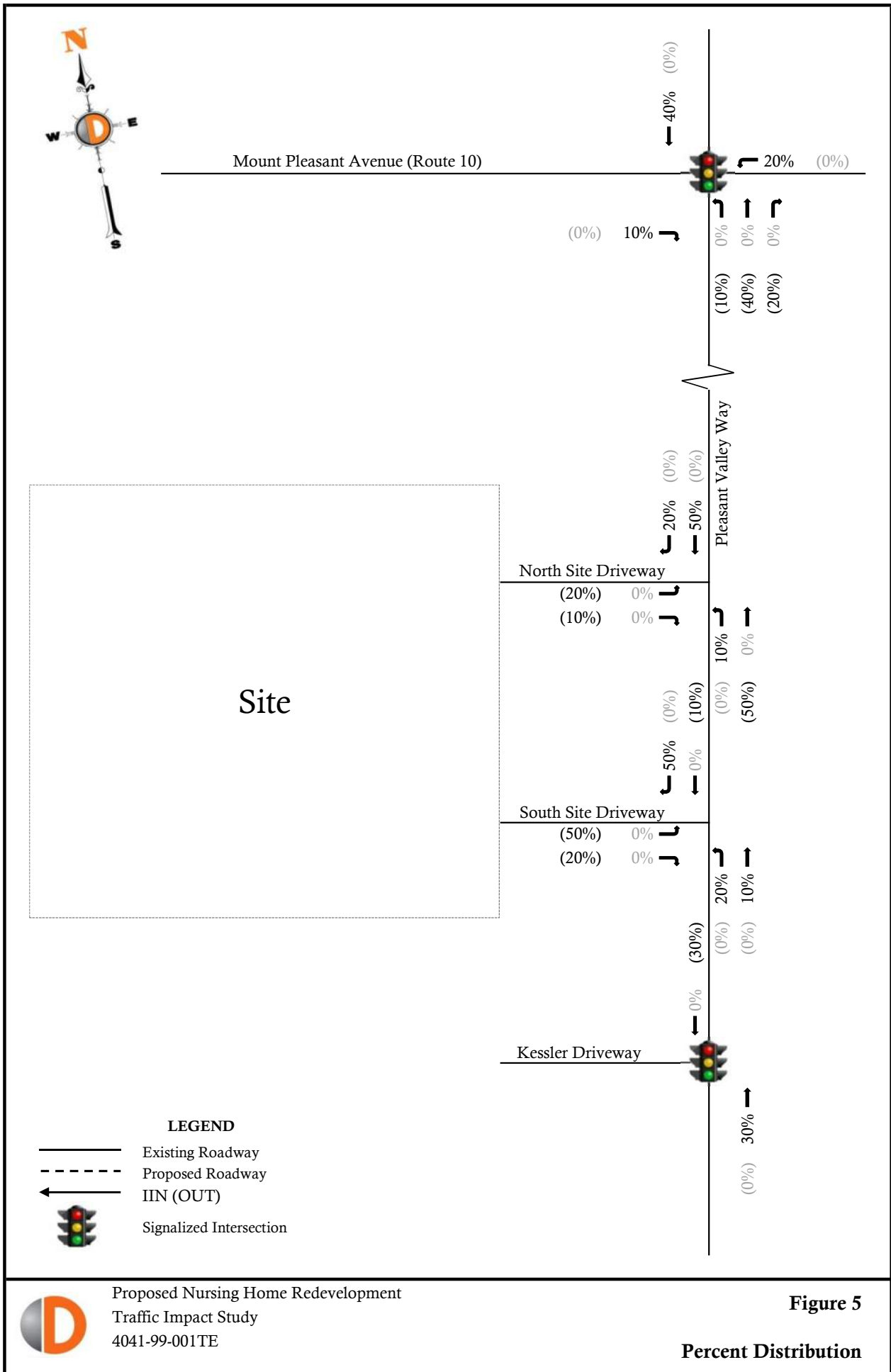


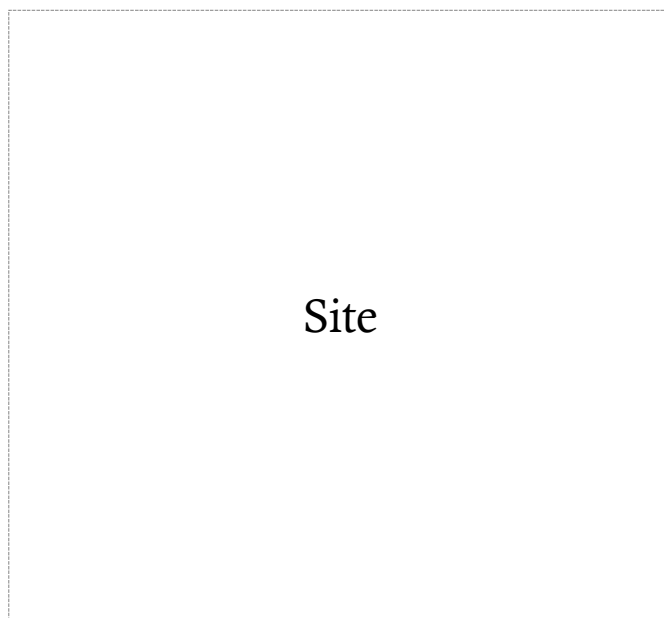
Proposed Nursing Home Redevelopment
Traffic Impact Study
4041-99-001TE

Figure 3

No Build Traffic Volumes







Mount Pleasant Avenue (Route 10)

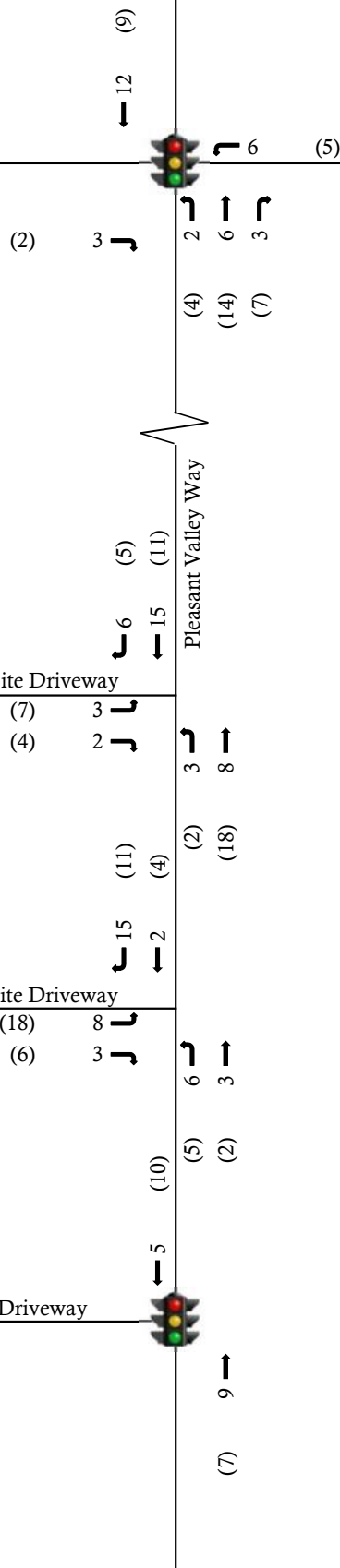
North Site Driveway

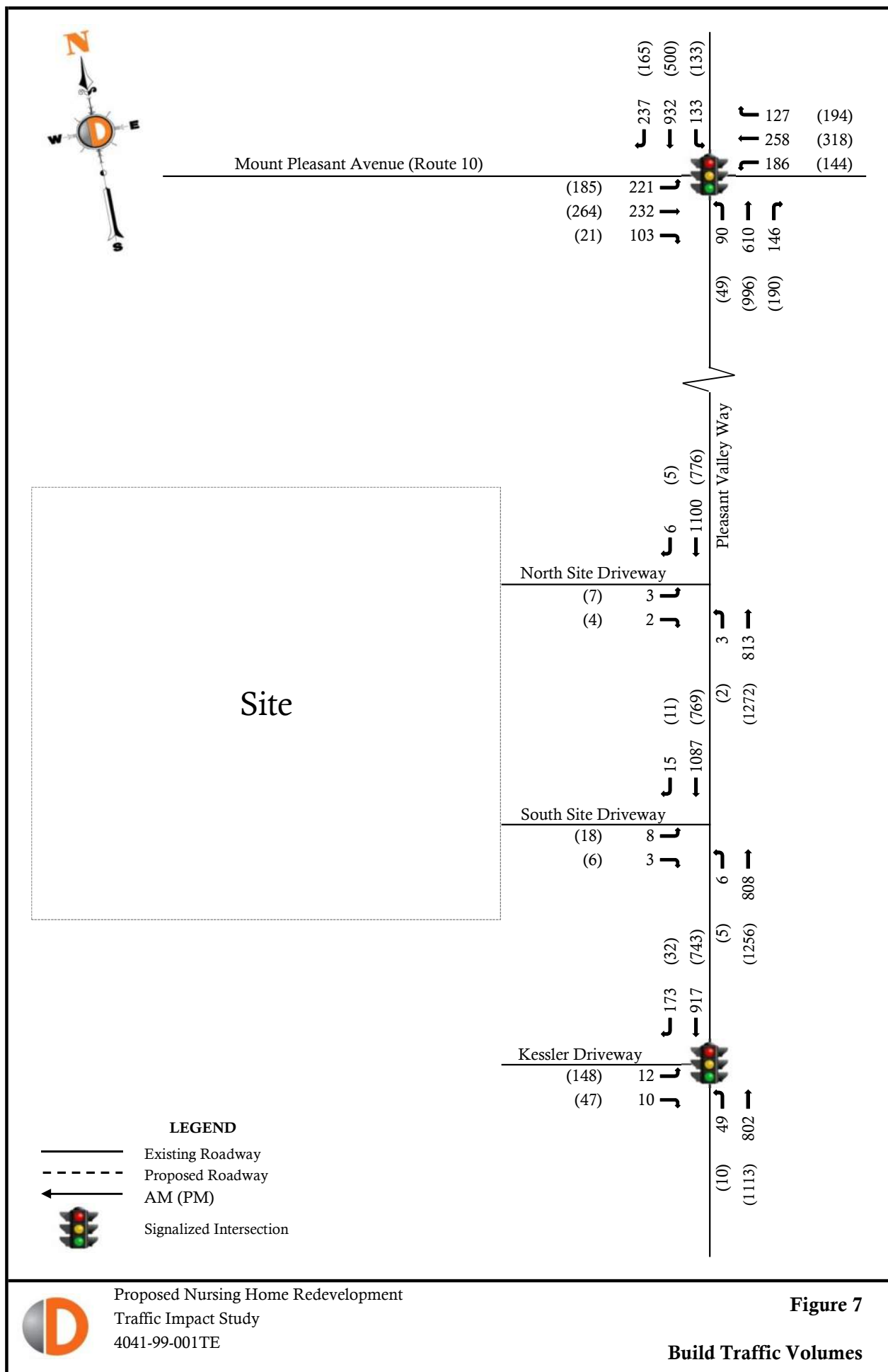
South Site Driveway

Kessler Driveway

Pleasant Valley Way

- LEGEND**
- Existing Roadway
 - Proposed Roadway
 - AM (PM)
 - Signalized Intersection





Appendix B

Traffic Counts

Dynamic Traffic, LLC

1904 Main Street, Lake Como, NJ 07719
245 Main Street - Suite 110, Chester, NJ 07930
732-681-0760

E/W: Route 10
N/S: Pleasant Valley Way
Town/County: West Orange/Essex
Job #: 4041-99-001TE

File Name : Rt 10 & Pleasant Valley Way - AMPM
Site Code : 00000000
Start Date : 10/19/2021
Page No : 1

Groups Printed- Cars - Trucks (SU) - Trucks (TT)

Start Time	Route 10 (Mt Pleasant Avenue) Eastbound					Route 10 (Mt Pleasant Avenue) Westbound					Pleasant Valley Way (CR 636) Northbound					Pleasant Valley Way (CR 636) Southbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	40	14	7	0	61	16	15	45	0	76	3	113	16	0	132	11	108	38	0	157	426
07:15 AM	59	22	5	3	89	14	22	40	0	76	8	130	12	0	150	24	146	29	1	200	515
07:30 AM	42	32	8	4	86	24	37	13	0	74	14	118	27	0	159	25	168	49	0	242	561
07:45 AM	31	44	17	0	92	35	55	26	0	116	6	100	28	0	134	23	170	68	0	261	603
Total	172	112	37	7	328	89	129	124	0	342	31	461	83	0	575	83	592	184	1	860	2105
08:00 AM	52	55	19	1	127	35	44	26	0	105	12	93	29	0	134	21	194	56	0	271	637
08:15 AM	27	39	22	0	88	37	40	30	0	107	17	141	37	0	195	36	177	48	1	262	652
08:30 AM	48	39	18	1	106	38	63	30	0	131	25	116	11	0	152	18	198	43	0	259	648
08:45 AM	47	49	20	1	117	34	56	14	0	104	16	127	36	0	179	30	164	39	1	234	634
Total	174	182	79	3	438	144	203	100	0	447	70	477	113	0	660	105	733	186	2	1026	2571
*** BREAK ***																					
04:30 PM	35	43	4	0	82	13	27	38	0	78	15	187	31	0	233	26	104	35	0	165	558
04:45 PM	37	58	2	0	97	33	62	21	0	116	9	193	37	0	239	23	130	29	0	182	634
Total	72	101	6	0	179	46	89	59	0	194	24	380	68	0	472	49	234	64	0	347	1192
05:00 PM	38	54	3	1	96	19	94	53	0	166	5	208	41	0	254	32	78	24	0	134	650
05:15 PM	54	63	3	2	122	38	66	46	1	151	9	207	34	0	250	25	107	44	0	176	699
05:30 PM	27	48	9	0	84	29	46	43	0	118	15	228	44	0	287	32	106	42	0	180	669
05:45 PM	39	55	9	0	103	26	42	52	0	120	3	179	38	0	220	25	131	43	0	199	642
Total	158	220	24	3	405	112	248	194	1	555	32	822	157	0	1011	114	422	153	0	689	2660
06:00 PM	35	49	11	0	95	49	46	40	0	135	17	176	42	0	235	36	121	36	0	193	658
06:15 PM	46	54	8	0	108	26	41	38	0	105	10	154	33	0	197	43	90	36	0	169	579
Grand Total	657	718	165	13	1553	466	756	555	1	1778	184	2470	496	0	3150	430	2192	659	3	3284	9765
Apprch %	42.3	46.2	10.6	0.8		26.2	42.5	31.2	0.1		5.8	78.4	15.7	0		13.1	66.7	20.1	0.1		
Total %	6.7	7.4	1.7	0.1	15.9	4.8	7.7	5.7	0	18.2	1.9	25.3	5.1	0	32.3	4.4	22.4	6.7	0	33.6	
Cars	641	700	160	13	1514	457	738	535	1	1731	177	2435	491	0	3103	417	2166	634	3	3220	9568
% Cars	97.6	97.5	97	100	97.5	98.1	97.6	96.4	100	97.4	96.2	98.6	99	0	98.5	97	98.8	96.2	100	98.1	98
Trucks (SU)	16	18	5	0	39	9	17	20	0	46	7	34	5	0	46	13	26	23	0	62	193
% Trucks (SU)	2.4	2.5	3	0	2.5	1.9	2.2	3.6	0	2.6	3.8	1.4	1	0	1.5	3	1.2	3.5	0	1.9	2
Trucks (TT)	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0	2	0	2	4
% Trucks (TT)	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0.3	0	0.1	0

1904 Main Street, Lake Como, NJ 07719
245 Main Street - Suite 110, Chester, NJ 07930
732-681-0760

E/W: Daughters of Israel Dways
N/S: Pleasant Valley Rd
Town/County: West Orange/Essex
Job #: 4041-99-001TE

File Name : Daughters of Israel Dways - AMPM
Site Code : 00000000
Start Date : 10/19/2021
Page No : 1

Groups Printed- Cars - Trucks (SU) - Trucks (TT)

	Southern Driveway Eastbound					Northern Driveway Westbound					Southern Driveway Northbound					Northern Driveway Southbound					
Start Time	Left Out	Thru	Right Out	Peds	App. Total	Left In	Thru	Right In	Peds	App. Total	Left In	Thru	Right In	Peds	App. Total	Left Out	Thru	Right Out	Peds	App. Total	Int. Total
07:00 AM	5	0	2	0	7	0	0	0	0	0	0	0	10	0	10	0	0	0	0	0	17
07:15 AM	1	0	0	5	6	0	0	0	1	1	1	0	8	0	9	0	0	0	0	0	16
07:30 AM	0	0	0	1	1	0	0	0	0	0	1	0	4	0	5	0	0	0	0	0	6
07:45 AM	3	0	0	0	3	0	0	0	0	0	3	0	5	0	8	0	0	0	0	0	11
Total	9	0	2	6	17	0	0	0	1	1	5	0	27	0	32	0	0	0	0	0	50
08:00 AM	1	0	1	0	2	1	0	0	1	2	4	0	1	0	5	0	0	0	0	0	9
08:15 AM	1	0	0	1	2	0	0	0	0	0	0	0	5	0	5	0	0	0	0	0	7
08:30 AM	0	0	0	0	0	0	0	0	0	0	3	0	5	0	8	0	0	0	0	0	8
08:45 AM	1	0	0	0	1	0	0	0	0	0	1	0	3	0	4	0	0	0	0	0	5
Total	3	0	1	1	5	1	0	0	1	2	8	0	14	0	22	0	0	0	0	0	29
*** BREAK ***																					
04:30 PM	5	0	1	2	8	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1	10
04:45 PM	3	0	5	1	9	1	0	1	0	2	1	0	2	0	3	1	0	1	0	2	16
Total	8	0	6	3	17	1	0	2	0	3	1	0	2	0	3	1	0	2	0	3	26
05:00 PM	6	0	4	3	13	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	14
05:15 PM	2	0	2	2	6	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	10
05:30 PM	1	0	1	0	2	0	0	0	1	1	3	0	2	0	5	0	0	0	0	0	8
05:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Total	9	0	7	5	21	0	0	0	1	1	4	0	7	0	11	0	0	0	0	0	33
06:00 PM	0	0	1	0	1	0	0	0	2	2	0	0	3	0	3	0	0	0	0	0	6
06:15 PM	3	0	1	0	4	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	5
Grand Total	32	0	18	15	65	2	0	2	5	9	19	0	53	0	72	1	0	2	0	3	149
Apprch %	49.2	0	27.7	23.1		22.2	0	22.2	55.6		26.4	0	73.6	0		33.3	0	66.7	0		
Total %	21.5	0	12.1	10.1	43.6	1.3	0	1.3	3.4	6	12.8	0	35.6	0	48.3	0.7	0	1.3	0	2	
Cars	32	0	18	15	65	2	0	1	5	8	19	0	51	0	70	1	0	1	0	2	145
% Cars	100	0	100	100	100	100	0	50	100	88.9	100	0	96.2	0	97.2	100	0	50	0	66.7	97.3
Trucks (SU)	0	0	0	0	0	0	0	1	0	1	0	0	2	0	2	0	0	1	0	1	4
% Trucks (SU)	0	0	0	0	0	0	0	50	0	11.1	0	0	3.8	0	2.8	0	0	50	0	33.3	2.7
Trucks (TT)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks (TT)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C

Capacity Analysis

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	212	223	97	176	248	122	85	584	138	128	898	228
Future Volume (vph)	212	223	97	176	248	122	85	584	138	128	898	228
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	11	11	16	10	10	16	10	10	10	10	11	11
Grade (%)		-8%			0%			-2%			-1%	
Storage Length (ft)	0		150	0		75	60		0	110		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			50			20		
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.971			0.970	
Flt Protected		0.976			0.980		0.950			0.950		
Satd. Flow (prot)	0	3744	2043	0	3517	1964	1725	3581	0	1733	3701	0
Flt Permitted		0.976			0.980		0.109			0.218		
Satd. Flow (perm)	0	3744	2043	0	3517	1964	198	3581	0	398	3701	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)			131			131						
Link Speed (mph)		40			40			45			40	
Link Distance (ft)		378			977			1545			744	
Travel Time (s)		6.4			16.7			23.4			12.7	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	2%	7%	3%	2%	5%	3%	9%	2%	2%	8%	1%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	439	98	0	429	123	86	729	0	129	1137	0
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	6	6		2	2		3	8		7	4	
Permitted Phases			6			2	8			4		
Detector Phase	6	6	6	2	2	2	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	10.0	18.0		10.0	18.0	
Total Split (s)	34.0	34.0	34.0	37.0	37.0	37.0	10.0	44.0		10.0	44.0	
Total Split (%)	27.2%	27.2%	27.2%	29.6%	29.6%	29.6%	8.0%	35.2%		8.0%	35.2%	
Maximum Green (s)	27.0	27.0	27.0	30.0	30.0	30.0	7.0	36.0		7.0	36.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	4.0		0.0	4.0	
Lost Time Adjust (s)		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	3.0	8.0		3.0	8.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Recall Mode	Min	Min	Min	Max	Max	Max	None	Max		None	Max	
Act Effect Green (s)		20.8	20.8		30.0	30.0	48.1	36.1		48.7	38.2	
Actuated g/C Ratio		0.17	0.17		0.25	0.25	0.40	0.30		0.41	0.32	
v/c Ratio		0.67	0.21		0.48	0.21	0.51	0.67		0.54	0.96	
Control Delay		51.2	3.9		40.6	6.3	32.2	40.4		31.4	58.5	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		51.2	3.9		40.6	6.3	32.2	40.4		31.4	58.5	
LOS		D	A		D	A	C	D		C	E	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		42.6			32.9			39.6			55.8	
Approach LOS		D			C			D			E	
Queue Length 50th (ft)		167	0		148	0	39	257		60	~472	
Queue Length 95th (ft)		222	23		212	44	78	348		110	#671	
Internal Link Dist (ft)		298			897			1465			664	
Turn Bay Length (ft)			150			75	60			110		
Base Capacity (vph)		851	565		888	594	170	1085		241	1187	
Starvation Cap Reductn		0	0		0	0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.52	0.17		0.48	0.21	0.51	0.67		0.54	0.96	

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 118.9

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 45.4

Intersection LOS: D

Intersection Capacity Utilization 78.5%

ICU Level of Service D

Analysis Period (min) 15

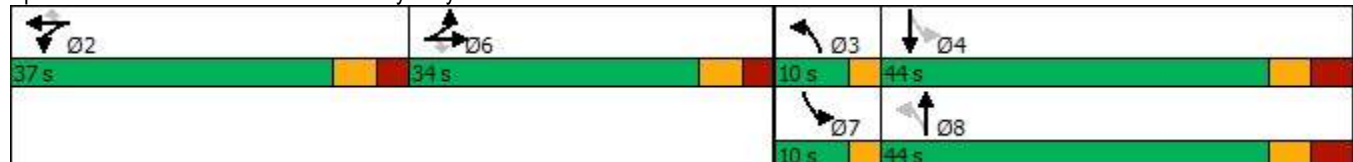
~ Volume exceeds capacity, queue is theoretically infinite.

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: 10: Pleasant Valley Way & Route 10



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	178	254	19	136	306	186	44	955	178	128	480	159
Future Volume (vph)	178	254	19	136	306	186	44	955	178	128	480	159
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	11	11	16	10	10	16	10	10	10	10	11	11
Grade (%)		-8%			0%			-2%			-1%	
Storage Length (ft)	0		150	0		75	60		0	110		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			50			20		
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.976			0.963	
Flt Protected		0.980			0.985		0.950			0.950		
Satd. Flow (prot)	0	3845	2104	0	3643	1983	1881	3640	0	1835	3687	0
Flt Permitted		0.980			0.985		0.285			0.105		
Satd. Flow (perm)	0	3845	2104	0	3643	1983	564	3640	0	203	3687	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)			131			131						
Link Speed (mph)		40			40			45			40	
Link Distance (ft)		378			977			1545			744	
Travel Time (s)		6.4			16.7			23.4			12.7	
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%	1%	0%	0%	1%	2%	0%	1%	0%	2%	1%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	454	20	0	465	196	46	1192	0	135	672	0
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	6	6		2	2		3	8		7	4	
Permitted Phases			6			2	8			4		
Detector Phase	6	6	6	2	2	2	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	10.0	18.0		10.0	18.0	
Total Split (s)	34.0	34.0	34.0	37.0	37.0	37.0	10.0	44.0		10.0	44.0	
Total Split (%)	27.2%	27.2%	27.2%	29.6%	29.6%	29.6%	8.0%	35.2%		8.0%	35.2%	
Maximum Green (s)	27.0	27.0	27.0	30.0	30.0	30.0	7.0	36.0		7.0	36.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	4.0		0.0	4.0	
Lost Time Adjust (s)		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	3.0	8.0		3.0	8.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Recall Mode	Min	Min	Min	Max	Max	Max	None	Max		None	Max	
Act Effct Green (s)		20.5	20.5		30.0	30.0	48.0	36.0		48.7	38.1	
Actuated g/C Ratio		0.17	0.17		0.25	0.25	0.40	0.30		0.41	0.32	
v/c Ratio		0.68	0.04		0.50	0.33	0.15	1.08		0.75	0.57	
Control Delay		51.5	0.2		40.7	14.9	22.2	90.5		49.5	36.9	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		51.5	0.2		40.7	14.9	22.2	90.5		49.5	36.9	
LOS		D	A		D	B	C	F		D	D	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		49.3			33.1			88.0			39.0	
Approach LOS		D			C			F			D	
Queue Length 50th (ft)		173	0		160	38	20	~531		62	228	
Queue Length 95th (ft)		229	0		227	106	47	#722		#159	312	
Internal Link Dist (ft)		298			897			1465			664	
Turn Bay Length (ft)			150			75	60			110		
Base Capacity (vph)		876	580		922	599	306	1105		179	1185	
Starvation Cap Reductn		0	0		0	0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.52	0.03		0.50	0.33	0.15	1.08		0.75	0.57	

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 118.6

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 58.4

Intersection LOS: E

Intersection Capacity Utilization 79.4%

ICU Level of Service D

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: 10: Pleasant Valley Way & Route 10

			
Ø2	Ø6	Ø3	Ø4
37 s	34 s	10 s	44 s
			
		Ø7	Ø8
		10 s	44 s

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	221	232	101	183	258	127	88	608	144	133	934	237
Future Volume (vph)	221	232	101	183	258	127	88	608	144	133	934	237
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	11	11	16	10	10	16	10	10	10	10	11	11
Grade (%)		-8%			0%			-2%			-1%	
Storage Length (ft)	0		150	0		75	60		0	110		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			50			20		
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.971			0.970	
Flt Protected		0.976			0.980		0.950			0.950		
Satd. Flow (prot)	0	3744	2043	0	3517	1964	1725	3581	0	1733	3701	0
Flt Permitted		0.976			0.980		0.111			0.205		
Satd. Flow (perm)	0	3744	2043	0	3517	1964	202	3581	0	374	3701	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)			131			131						
Link Speed (mph)		40			40			45			40	
Link Distance (ft)		378			977			1545			744	
Travel Time (s)		6.4			16.7			23.4			12.7	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	2%	7%	3%	2%	5%	3%	9%	2%	2%	8%	1%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	457	102	0	446	128	89	759	0	134	1182	0
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	6	6		2	2		3	8		7	4	
Permitted Phases			6			2	8			4		
Detector Phase	6	6	6	2	2	2	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	10.0	18.0		10.0	18.0	
Total Split (s)	34.0	34.0	34.0	37.0	37.0	37.0	10.0	44.0		10.0	44.0	
Total Split (%)	27.2%	27.2%	27.2%	29.6%	29.6%	29.6%	8.0%	35.2%		8.0%	35.2%	
Maximum Green (s)	27.0	27.0	27.0	30.0	30.0	30.0	7.0	36.0		7.0	36.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	4.0		0.0	4.0	
Lost Time Adjust (s)		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	3.0	8.0		3.0	8.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Recall Mode	Min	Min	Min	Max	Max	Max	None	Max		None	Max	
Act Effct Green (s)		21.2	21.2		30.0	30.0	48.0	36.0		48.0	36.0	
Actuated g/C Ratio		0.18	0.18		0.25	0.25	0.40	0.30		0.40	0.30	
v/c Ratio		0.69	0.22		0.50	0.22	0.52	0.70		0.58	1.06	
Control Delay		51.5	4.1		41.2	6.9	33.1	41.6		34.2	84.3	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		51.5	4.1		41.2	6.9	33.1	41.6		34.2	84.3	
LOS		D	A		D	A	C	D		C	F	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		42.9			33.5			40.7			79.2	
Approach LOS		D			C			D			E	
Queue Length 50th (ft)		175	0		156	0	41	273		63	~528	
Queue Length 95th (ft)		231	27		221	48	80	365		114	#711	
Internal Link Dist (ft)		298			897			1465			664	
Turn Bay Length (ft)			150			75	60			110		
Base Capacity (vph)		847	563		885	592	170	1081		230	1117	
Starvation Cap Reductn		0	0		0	0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.54	0.18		0.50	0.22	0.52	0.70		0.58	1.06	

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 119.3

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.06

Intersection Signal Delay: 55.2

Intersection LOS: E

Intersection Capacity Utilization 80.6%

ICU Level of Service D

Analysis Period (min) 15

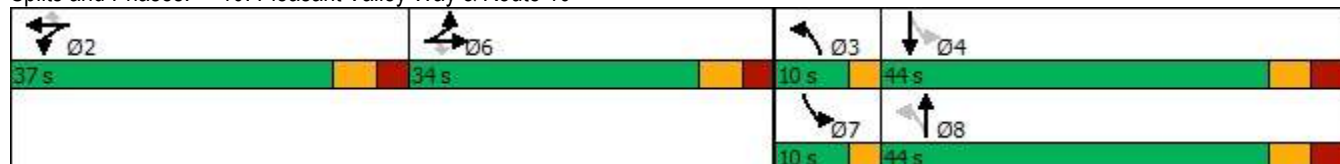
~ Volume exceeds capacity, queue is theoretically infinite.

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: 10: Pleasant Valley Way & Route 10



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	185	264	20	141	318	194	46	994	185	133	499	165
Future Volume (vph)	185	264	20	141	318	194	46	994	185	133	499	165
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	11	11	16	10	10	16	10	10	10	10	11	11
Grade (%)		-8%			0%			-2%			-1%	
Storage Length (ft)	0		150	0		75	60		0	110		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			50			20		
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.976			0.963	
Flt Protected		0.980			0.985		0.950			0.950		
Satd. Flow (prot)	0	3845	2104	0	3643	1983	1881	3640	0	1835	3687	0
Flt Permitted		0.980			0.985		0.265			0.105		
Satd. Flow (perm)	0	3845	2104	0	3643	1983	525	3640	0	203	3687	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)			131			131						
Link Speed (mph)		40			40			45			40	
Link Distance (ft)		378			977			1545			744	
Travel Time (s)		6.4			16.7			23.4			12.7	
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%	1%	0%	0%	1%	2%	0%	1%	0%	2%	1%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	473	21	0	483	204	48	1241	0	140	699	0
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	6	6		2	2		3	8		7	4	
Permitted Phases			6			2	8			4		
Detector Phase	6	6	6	2	2	2	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	10.0	18.0		10.0	18.0	
Total Split (s)	34.0	34.0	34.0	37.0	37.0	37.0	10.0	44.0		10.0	44.0	
Total Split (%)	27.2%	27.2%	27.2%	29.6%	29.6%	29.6%	8.0%	35.2%		8.0%	35.2%	
Maximum Green (s)	27.0	27.0	27.0	30.0	30.0	30.0	7.0	36.0		7.0	36.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	4.0		0.0	4.0	
Lost Time Adjust (s)		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	3.0	8.0		3.0	8.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Recall Mode	Min	Min	Min	Max	Max	Max	None	Max		None	Max	
Act Effct Green (s)		21.1	21.1		30.0	30.0	48.0	36.0		48.7	38.1	
Actuated g/C Ratio		0.18	0.18		0.25	0.25	0.40	0.30		0.41	0.32	
v/c Ratio		0.69	0.04		0.53	0.34	0.16	1.13		0.79	0.59	
Control Delay		51.7	0.1		41.5	15.9	22.7	108.6		53.8	37.8	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		51.7	0.1		41.5	15.9	22.7	108.6		53.8	37.8	
LOS		D	A		D	B	C	F		D	D	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		49.5			33.9			105.4			40.4	
Approach LOS		D			C			F			D	
Queue Length 50th (ft)		181	0		168	44	21	~577		65	241	
Queue Length 95th (ft)		238	0		237	114	49	#772		#171	330	
Internal Link Dist (ft)		298			897			1465			664	
Turn Bay Length (ft)			150			75	60			110		
Base Capacity (vph)		871	578		917	597	291	1099		178	1179	
Starvation Cap Reductn		0	0		0	0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.54	0.04		0.53	0.34	0.16	1.13		0.79	0.59	

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 119.2

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.13

Intersection Signal Delay: 65.7

Intersection LOS: E

Intersection Capacity Utilization 81.7%

ICU Level of Service D

Analysis Period (min) 15

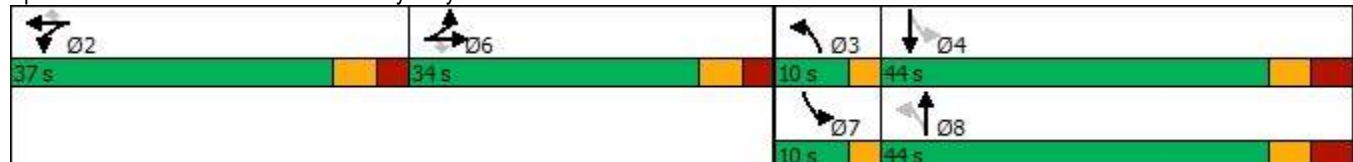
~ Volume exceeds capacity, queue is theoretically infinite.

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: 10: Pleasant Valley Way & Route 10



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	221	232	103	186	258	127	90	610	146	133	932	237
Future Volume (vph)	221	232	103	186	258	127	90	610	146	133	932	237
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	11	11	16	10	10	16	10	10	10	10	11	11
Grade (%)		-8%			0%			-2%			-1%	
Storage Length (ft)	0		150	0		75	60		0	110		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			50			20		
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.971			0.970	
Flt Protected		0.976			0.979		0.950			0.950		
Satd. Flow (prot)	0	3744	2043	0	3514	1964	1725	3581	0	1733	3701	0
Flt Permitted		0.976			0.979		0.111			0.202		
Satd. Flow (perm)	0	3744	2043	0	3514	1964	202	3581	0	368	3701	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)			131			131						
Link Speed (mph)		40			40			45			40	
Link Distance (ft)		378			977			1545			744	
Travel Time (s)		6.4			16.7			23.4			12.7	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	2%	7%	3%	2%	5%	3%	9%	2%	2%	8%	1%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	457	104	0	449	128	91	763	0	134	1180	0
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	6	6		2	2		3	8		7	4	
Permitted Phases			6			2	8			4		
Detector Phase	6	6	6	2	2	2	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	10.0	18.0		10.0	18.0	
Total Split (s)	34.0	34.0	34.0	37.0	37.0	37.0	10.0	44.0		10.0	44.0	
Total Split (%)	27.2%	27.2%	27.2%	29.6%	29.6%	29.6%	8.0%	35.2%		8.0%	35.2%	
Maximum Green (s)	27.0	27.0	27.0	30.0	30.0	30.0	7.0	36.0		7.0	36.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	4.0		0.0	4.0	
Lost Time Adjust (s)		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	3.0	8.0		3.0	8.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Recall Mode	Min	Min	Min	Max	Max	Max	None	Max		None	Max	
Act Effct Green (s)		21.2	21.2		30.0	30.0	48.0	36.0		48.0	36.0	
Actuated g/C Ratio		0.18	0.18		0.25	0.25	0.40	0.30		0.40	0.30	
v/c Ratio		0.69	0.22		0.51	0.22	0.54	0.71		0.59	1.06	
Control Delay		51.5	4.5		41.3	6.9	33.7	41.7		34.5	83.7	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		51.5	4.5		41.3	6.9	33.7	41.7		34.5	83.7	
LOS		D	A		D	A	C	D		C	F	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		42.8			33.6			40.9			78.7	
Approach LOS		D			C			D			E	
Queue Length 50th (ft)		175	0		157	0	42	275		63	~526	
Queue Length 95th (ft)		231	29		222	48	82	367		114	#709	
Internal Link Dist (ft)		298			897			1465			664	
Turn Bay Length (ft)			150			75	60			110		
Base Capacity (vph)		847	563		884	592	170	1081		228	1117	
Starvation Cap Reductn		0	0		0	0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.54	0.18		0.51	0.22	0.54	0.71		0.59	1.06	

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 119.3

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.06

Intersection Signal Delay: 55.0

Intersection LOS: D

Intersection Capacity Utilization 80.6%

ICU Level of Service D

Analysis Period (min) 15

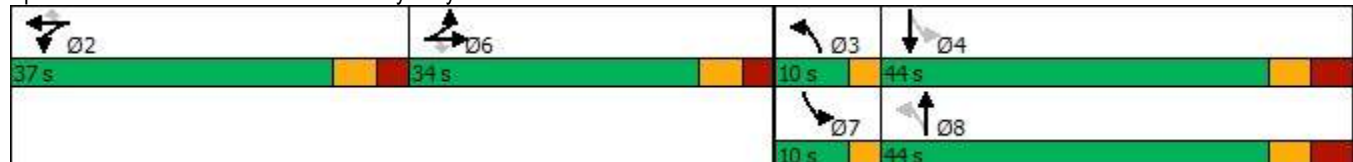
~ Volume exceeds capacity, queue is theoretically infinite.

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: 10: Pleasant Valley Way & Route 10



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	185	264	21	144	318	194	49	996	190	133	500	165
Future Volume (vph)	185	264	21	144	318	194	49	996	190	133	500	165
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	11	11	16	10	10	16	10	10	10	10	11	11
Grade (%)		-8%			0%			-2%			-1%	
Storage Length (ft)	0		150	0		75	60		0	110		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			50			20		
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.976			0.963	
Flt Protected		0.980			0.985		0.950			0.950		
Satd. Flow (prot)	0	3845	2104	0	3643	1983	1881	3640	0	1835	3687	0
Flt Permitted		0.980			0.985		0.264			0.105		
Satd. Flow (perm)	0	3845	2104	0	3643	1983	523	3640	0	203	3687	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)			131			131						
Link Speed (mph)		40			40			45			40	
Link Distance (ft)		378			977			1545			744	
Travel Time (s)		6.4			16.7			23.4			12.7	
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%	1%	0%	0%	1%	2%	0%	1%	0%	2%	1%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	473	22	0	487	204	52	1248	0	140	700	0
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	6	6		2	2		3	8		7	4	
Permitted Phases			6			2	8			4		
Detector Phase	6	6	6	2	2	2	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	10.0	18.0		10.0	18.0	
Total Split (s)	34.0	34.0	34.0	37.0	37.0	37.0	10.0	44.0		10.0	44.0	
Total Split (%)	27.2%	27.2%	27.2%	29.6%	29.6%	29.6%	8.0%	35.2%		8.0%	35.2%	
Maximum Green (s)	27.0	27.0	27.0	30.0	30.0	30.0	7.0	36.0		7.0	36.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	4.0		0.0	4.0	
Lost Time Adjust (s)		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	3.0	8.0		3.0	8.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Recall Mode	Min	Min	Min	Max	Max	Max	None	Max		None	Max	
Act Effct Green (s)		21.1	21.1		30.0	30.0	48.0	36.0		48.7	38.1	
Actuated g/C Ratio		0.18	0.18		0.25	0.25	0.40	0.30		0.41	0.32	
v/c Ratio		0.69	0.05		0.53	0.34	0.18	1.14		0.79	0.59	
Control Delay		51.7	0.2		41.6	15.9	22.9	111.0		53.8	37.8	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		51.7	0.2		41.6	15.9	22.9	111.0		53.8	37.8	
LOS		D	A		D	B	C	F		D	D	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		49.4			34.0			107.5			40.4	
Approach LOS		D			C			F			D	
Queue Length 50th (ft)		181	0		170	44	23	~583		65	242	
Queue Length 95th (ft)		238	0		240	114	52	#778		#171	330	
Internal Link Dist (ft)		298			897			1465			664	
Turn Bay Length (ft)			150			75	60			110		
Base Capacity (vph)		871	578		917	597	290	1099		178	1179	
Starvation Cap Reductn		0	0		0	0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.54	0.04		0.53	0.34	0.18	1.14		0.79	0.59	

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 119.2

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.14

Intersection Signal Delay: 66.6

Intersection LOS: E

Intersection Capacity Utilization 81.9%

ICU Level of Service D

Analysis Period (min) 15

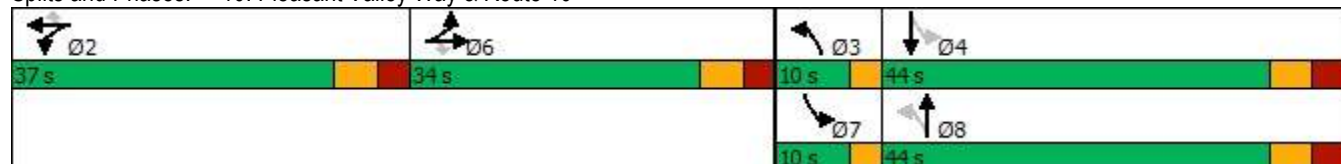
~ Volume exceeds capacity, queue is theoretically infinite.

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: 10: Pleasant Valley Way & Route 10



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	221	232	103	186	258	127	90	610	146	133	932	237
Future Volume (vph)	221	232	103	186	258	127	90	610	146	133	932	237
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	11	11	16	10	10	16	10	10	10	10	11	11
Grade (%)		-8%			0%			-2%			-1%	
Storage Length (ft)	0		150	0		75	60		0	110		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			50			20		
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.971			0.970	
Flt Protected		0.976			0.979		0.950			0.950		
Satd. Flow (prot)	0	3744	2043	0	3514	1964	1725	3581	0	1733	3701	0
Flt Permitted		0.976			0.979		0.103			0.223		
Satd. Flow (perm)	0	3744	2043	0	3514	1964	187	3581	0	407	3701	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)			131			131						
Link Speed (mph)		40			40			45			40	
Link Distance (ft)		378			977			1545			744	
Travel Time (s)		6.4			16.7			23.4			12.7	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	2%	7%	3%	2%	5%	3%	9%	2%	2%	8%	1%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	457	104	0	449	128	91	763	0	134	1180	0
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	6	6		2	2		3	8		7	4	
Permitted Phases			6			2	8			4		
Detector Phase	6	6	6	2	2	2	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	10.0	18.0		10.0	18.0	
Total Split (s)	34.0	34.0	34.0	34.0	34.0	34.0	10.0	47.0		10.0	47.0	
Total Split (%)	27.2%	27.2%	27.2%	27.2%	27.2%	27.2%	8.0%	37.6%		8.0%	37.6%	
Maximum Green (s)	27.0	27.0	27.0	27.0	27.0	27.0	7.0	39.0		7.0	39.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	4.0		0.0	4.0	
Lost Time Adjust (s)		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	3.0	8.0		3.0	8.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Recall Mode	Min	Min	Min	Max	Max	Max	None	Max		None	Max	
Act Effct Green (s)		21.2	21.2		27.0	27.0	51.0	39.0		51.0	39.0	
Actuated g/C Ratio		0.18	0.18		0.23	0.23	0.43	0.33		0.43	0.33	
v/c Ratio		0.69	0.22		0.56	0.23	0.54	0.65		0.53	0.98	
Control Delay		51.5	4.5		44.7	7.4	31.8	38.0		29.3	60.8	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		51.5	4.5		44.7	7.4	31.8	38.0		29.3	60.8	
LOS		D	A		D	A	C	D		C	E	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		42.8			36.4			37.4			57.6	
Approach LOS		D			D			D			E	
Queue Length 50th (ft)		175	0		163	0	40	264		60	472	
Queue Length 95th (ft)		231	29		230	49	79	354		109	#670	
Internal Link Dist (ft)		298			897			1465			664	
Turn Bay Length (ft)			150			75	60			110		
Base Capacity (vph)		847	563		795	546	170	1171		252	1210	
Starvation Cap Reductn		0	0		0	0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.54	0.18		0.56	0.23	0.54	0.65		0.53	0.98	

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 119.3

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 46.2

Intersection LOS: D

Intersection Capacity Utilization 80.6%

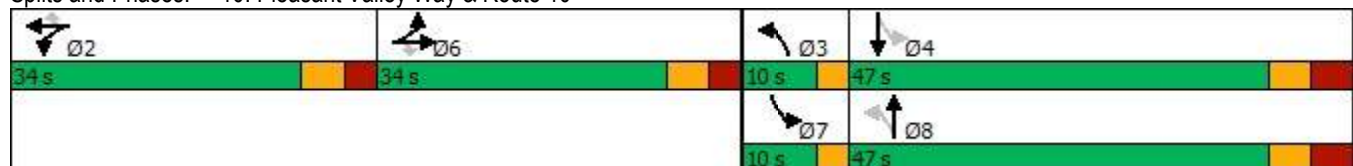
ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 10: Pleasant Valley Way & Route 10



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	185	264	21	144	318	194	49	996	190	133	500	165
Future Volume (vph)	185	264	21	144	318	194	49	996	190	133	500	165
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	11	11	16	10	10	16	10	10	10	10	11	11
Grade (%)		-8%			0%			-2%			-1%	
Storage Length (ft)	0		150	0		75	60		0	110		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			50			20		
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.976			0.963	
Flt Protected		0.980			0.985		0.950			0.950		
Satd. Flow (prot)	0	3845	2104	0	3643	1983	1881	3640	0	1835	3687	0
Flt Permitted		0.980			0.985		0.281			0.097		
Satd. Flow (perm)	0	3845	2104	0	3643	1983	556	3640	0	187	3687	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)			131			131						
Link Speed (mph)		40			40			45			40	
Link Distance (ft)		378			977			1545			744	
Travel Time (s)		6.4			16.7			23.4			12.7	
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%	1%	0%	0%	1%	2%	0%	1%	0%	2%	1%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	473	22	0	487	204	52	1248	0	140	700	0
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	6	6		2	2		3	8		7	4	
Permitted Phases			6			2	8			4		
Detector Phase	6	6	6	2	2	2	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	10.0	18.0		10.0	18.0	
Total Split (s)	34.0	34.0	34.0	34.0	34.0	34.0	10.0	47.0		10.0	47.0	
Total Split (%)	27.2%	27.2%	27.2%	27.2%	27.2%	27.2%	8.0%	37.6%		8.0%	37.6%	
Maximum Green (s)	27.0	27.0	27.0	27.0	27.0	27.0	7.0	39.0		7.0	39.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	4.0		0.0	4.0	
Lost Time Adjust (s)		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	3.0	8.0		3.0	8.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Recall Mode	Min	Min	Min	Max	Max	Max	None	Max		None	Max	
Act Effct Green (s)		21.1	21.1		27.0	27.0	51.0	39.0		51.7	41.1	
Actuated g/C Ratio		0.18	0.18		0.23	0.23	0.43	0.33		0.43	0.34	
v/c Ratio		0.69	0.05		0.59	0.37	0.16	1.05		0.79	0.55	
Control Delay		51.7	0.2		45.1	17.2	20.9	78.9		52.7	34.8	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		51.7	0.2		45.1	17.2	20.9	78.9		52.7	34.8	
LOS		D	A		D	B	C	E		D	C	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		49.4			36.9			76.6			37.8	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)		181	0		176	45	22	~545		62	232	
Queue Length 95th (ft)		238	0		248	118	50	#740		#172	318	
Internal Link Dist (ft)		298			897			1465			664	
Turn Bay Length (ft)			150			75	60			110		
Base Capacity (vph)		871	578		825	551	316	1191		177	1272	
Starvation Cap Reductn		0	0		0	0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.54	0.04		0.59	0.37	0.16	1.05		0.79	0.55	

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 119.2

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.05

Intersection Signal Delay: 54.5

Intersection LOS: D

Intersection Capacity Utilization 81.9%

ICU Level of Service D

Analysis Period (min) 15

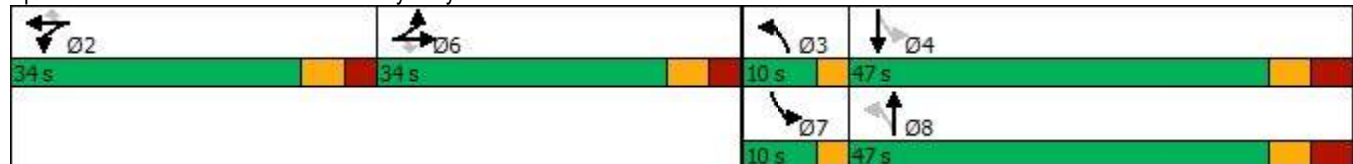
~ Volume exceeds capacity, queue is theoretically infinite.

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: 10: Pleasant Valley Way & Route 10



						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	12	10	49	773	878	173
Future Volume (vph)	12	10	49	773	878	173
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	11	12	12	12
Grade (%)	-9%			1%	2%	
Storage Length (ft)	0	150	190			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		60			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.978	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	2085	1865	1919	2069	2016	0
Flt Permitted	0.950		0.153			
Satd. Flow (perm)	2085	1865	309	2069	2016	0
Right Turn on Red		No				Yes
Satd. Flow (RTOR)					36	
Link Speed (mph)	25			45	45	
Link Distance (ft)	458			449	352	
Travel Time (s)	12.5			6.8	5.3	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	11	56	878	1195	0
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4	2			
Detector Phase	4	4	2	2	6	
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	
Total Split (s)	15.0	15.0	75.0	75.0	75.0	
Total Split (%)	16.7%	16.7%	83.3%	83.3%	83.3%	
Maximum Green (s)	10.0	10.0	70.0	70.0	70.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	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)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	Min	Min	Min	
Act Effct Green (s)	8.4	8.4	52.5	52.5	52.5	
Actuated g/C Ratio	0.15	0.15	0.92	0.92	0.92	
v/c Ratio	0.05	0.04	0.20	0.46	0.64	
Control Delay	34.2	34.5	3.4	2.6	4.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	34.2	34.5	3.4	2.6	4.4	
LOS	C	C	A	A	A	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	34.4			2.6	4.4	
Approach LOS	C			A	A	
Queue Length 50th (ft)	3	2	0	0	0	
Queue Length 95th (ft)	27	23	15	171	331	
Internal Link Dist (ft)	378			369	272	
Turn Bay Length (ft)		150	190			
Base Capacity (vph)	433	387	292	1956	1907	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.03	0.03	0.19	0.45	0.63	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 57.1

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 4.0

Intersection LOS: A

Intersection Capacity Utilization 65.5%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 20: Pleasant Valley Way & Kessler Driveway

75 s	15 s
75 s	

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	148	47	10	1068	719	32
Future Volume (vph)	148	47	10	1068	719	32
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	11	12	12	12
Grade (%)	-9%			1%	2%	
Storage Length (ft)	0	150	190			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		60			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.994	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	2085	1865	1919	2069	2047	0
Flt Permitted	0.950		0.268			
Satd. Flow (perm)	2085	1865	541	2069	2047	0
Right Turn on Red		No				Yes
Satd. Flow (RTOR)					8	
Link Speed (mph)	25			45	45	
Link Distance (ft)	458			449	352	
Travel Time (s)	12.5			6.8	5.3	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	159	51	11	1148	807	0
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4	2			
Detector Phase	4	4	2	2	6	
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	
Total Split (s)	15.0	15.0	75.0	75.0	75.0	
Total Split (%)	16.7%	16.7%	83.3%	83.3%	83.3%	
Maximum Green (s)	10.0	10.0	70.0	70.0	70.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	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)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	Min	Min	Min	
Act Effct Green (s)	9.4	9.4	42.0	42.0	42.0	
Actuated g/C Ratio	0.15	0.15	0.68	0.68	0.68	
v/c Ratio	0.50	0.18	0.03	0.81	0.58	
Control Delay	32.6	27.7	3.2	12.6	6.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	32.6	27.7	3.2	12.6	6.9	
LOS	C	C	A	B	A	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	31.4			12.5	6.9	
Approach LOS	C			B	A	
Queue Length 50th (ft)	49	15	1	252	128	
Queue Length 95th (ft)	#146	56	5	395	191	
Internal Link Dist (ft)	378			369	272	
Turn Bay Length (ft)		150	190			
Base Capacity (vph)	345	309	527	2016	1995	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.46	0.17	0.02	0.57	0.40	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 61.7

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 12.2

Intersection LOS: B

Intersection Capacity Utilization 66.6%

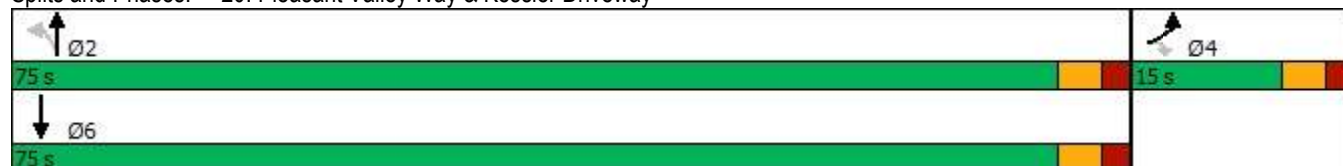
ICU Level of Service C

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 20: Pleasant Valley Way & Kessler Driveway



						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	12	10	49	804	913	173
Future Volume (vph)	12	10	49	804	913	173
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	11	12	12	12
Grade (%)	-9%			1%	2%	
Storage Length (ft)	0	150	190			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		60			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.978	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	2085	1865	1919	2069	2016	0
Flt Permitted	0.950		0.140			
Satd. Flow (perm)	2085	1865	283	2069	2016	0
Right Turn on Red		No				Yes
Satd. Flow (RTOR)					34	
Link Speed (mph)	25			45	45	
Link Distance (ft)	458			449	352	
Travel Time (s)	12.5			6.8	5.3	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	11	56	914	1235	0
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4	2			
Detector Phase	4	4	2	2	6	
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	
Total Split (s)	15.0	15.0	75.0	75.0	75.0	
Total Split (%)	16.7%	16.7%	83.3%	83.3%	83.3%	
Maximum Green (s)	10.0	10.0	70.0	70.0	70.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	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)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	Min	Min	Min	
Act Effct Green (s)	8.5	8.5	55.2	55.2	55.2	
Actuated g/C Ratio	0.14	0.14	0.92	0.92	0.92	
v/c Ratio	0.05	0.04	0.21	0.48	0.66	
Control Delay	36.4	36.7	3.7	2.6	4.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	36.4	36.7	3.7	2.6	4.6	
LOS	D	D	A	A	A	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	36.5			2.7	4.6	
Approach LOS	D			A	A	
Queue Length 50th (ft)	3	2	0	0	0	
Queue Length 95th (ft)	28	24	16	181	356	
Internal Link Dist (ft)	378			369	272	
Turn Bay Length (ft)		150	190			
Base Capacity (vph)	418	374	266	1943	1896	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.03	0.03	0.21	0.47	0.65	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 59.8

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 4.1

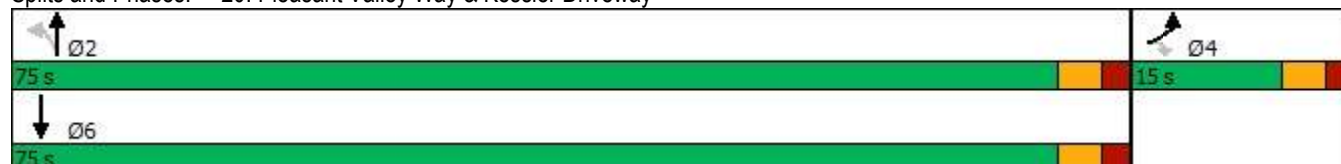
Intersection LOS: A

Intersection Capacity Utilization 67.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 20: Pleasant Valley Way & Kessler Driveway



						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	148	47	10	1111	748	32
Future Volume (vph)	148	47	10	1111	748	32
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	11	12	12	12
Grade (%)	-9%			1%	2%	
Storage Length (ft)	0	150	190			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		60			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.995	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	2085	1865	1919	2069	2049	0
Flt Permitted	0.950		0.258			
Satd. Flow (perm)	2085	1865	521	2069	2049	0
Right Turn on Red		No				Yes
Satd. Flow (RTOR)					8	
Link Speed (mph)	25			45	45	
Link Distance (ft)	458			449	352	
Travel Time (s)	12.5			6.8	5.3	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	159	51	11	1195	838	0
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4	2			
Detector Phase	4	4	2	2	6	
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	
Total Split (s)	15.0	15.0	75.0	75.0	75.0	
Total Split (%)	16.7%	16.7%	83.3%	83.3%	83.3%	
Maximum Green (s)	10.0	10.0	70.0	70.0	70.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	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)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	Min	Min	Min	
Act Effct Green (s)	9.5	9.5	45.5	45.5	45.5	
Actuated g/C Ratio	0.15	0.15	0.70	0.70	0.70	
v/c Ratio	0.52	0.19	0.03	0.83	0.59	
Control Delay	35.9	30.3	3.0	12.9	6.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	35.9	30.3	3.0	12.9	6.7	
LOS	D	C	A	B	A	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	34.6			12.9	6.7	
Approach LOS	C			B	A	
Queue Length 50th (ft)	52	16	1	276	137	
Queue Length 95th (ft)	#165	59	4	427	200	
Internal Link Dist (ft)	378			369	272	
Turn Bay Length (ft)		150	190			
Base Capacity (vph)	328	293	501	1990	1971	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.48	0.17	0.02	0.60	0.43	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 65.3

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 12.6

Intersection LOS: B

Intersection Capacity Utilization 68.7%

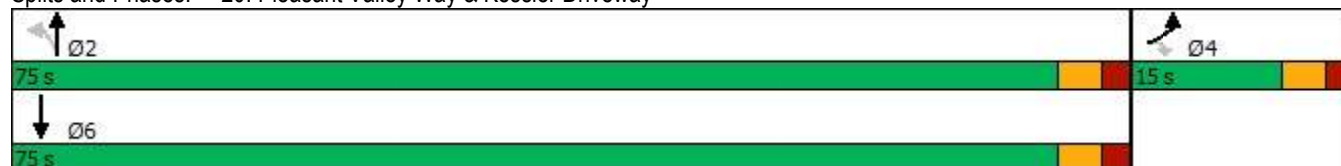
ICU Level of Service C

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 20: Pleasant Valley Way & Kessler Driveway



						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	12	10	49	802	917	173
Future Volume (vph)	12	10	49	802	917	173
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	11	12	12	12
Grade (%)	-9%			1%	2%	
Storage Length (ft)	0	150	190			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		60			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.979	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	2085	1865	1919	2069	2018	0
Flt Permitted	0.950		0.138			
Satd. Flow (perm)	2085	1865	279	2069	2018	0
Right Turn on Red		No				Yes
Satd. Flow (RTOR)					34	
Link Speed (mph)	25			45	45	
Link Distance (ft)	458			449	352	
Travel Time (s)	12.5			6.8	5.3	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	11	56	911	1239	0
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4	2			
Detector Phase	4	4	2	2	6	
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	
Total Split (s)	15.0	15.0	75.0	75.0	75.0	
Total Split (%)	16.7%	16.7%	83.3%	83.3%	83.3%	
Maximum Green (s)	10.0	10.0	70.0	70.0	70.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	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)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	Min	Min	Min	
Act Effct Green (s)	8.5	8.5	55.3	55.3	55.3	
Actuated g/C Ratio	0.14	0.14	0.92	0.92	0.92	
v/c Ratio	0.05	0.04	0.22	0.48	0.66	
Control Delay	36.4	36.7	3.8	2.6	4.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	36.4	36.7	3.8	2.6	4.6	
LOS	D	D	A	A	A	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	36.5			2.6	4.6	
Approach LOS	D			A	A	
Queue Length 50th (ft)	3	2	0	0	0	
Queue Length 95th (ft)	28	24	16	181	358	
Internal Link Dist (ft)	378			369	272	
Turn Bay Length (ft)		150	190			
Base Capacity (vph)	417	374	262	1942	1897	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.03	0.03	0.21	0.47	0.65	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 59.9

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 4.1

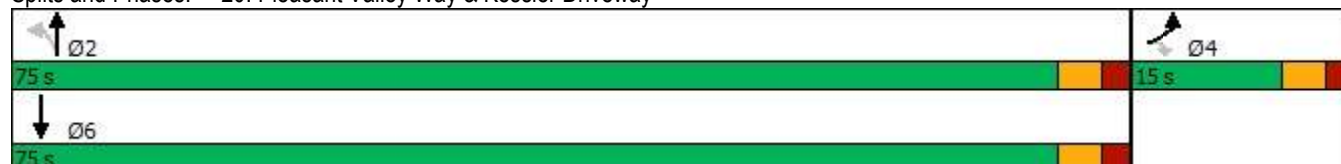
Intersection LOS: A

Intersection Capacity Utilization 67.3%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 20: Pleasant Valley Way & Kessler Driveway



						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	148	47	10	1113	743	32
Future Volume (vph)	148	47	10	1113	743	32
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	11	12	12	12
Grade (%)	-9%			1%	2%	
Storage Length (ft)	0	150	190			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		60			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.994	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	2085	1865	1919	2069	2047	0
Flt Permitted	0.950		0.261			
Satd. Flow (perm)	2085	1865	527	2069	2047	0
Right Turn on Red		No				Yes
Satd. Flow (RTOR)					8	
Link Speed (mph)	25			45	45	
Link Distance (ft)	458			449	352	
Travel Time (s)	12.5			6.8	5.3	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	159	51	11	1197	833	0
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4	2			
Detector Phase	4	4	2	2	6	
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	
Total Split (s)	15.0	15.0	75.0	75.0	75.0	
Total Split (%)	16.7%	16.7%	83.3%	83.3%	83.3%	
Maximum Green (s)	10.0	10.0	70.0	70.0	70.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	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)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	Min	Min	Min	
Act Effct Green (s)	9.5	9.5	45.7	45.7	45.7	
Actuated g/C Ratio	0.15	0.15	0.70	0.70	0.70	
v/c Ratio	0.53	0.19	0.03	0.83	0.58	
Control Delay	36.2	30.4	3.0	13.0	6.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	36.2	30.4	3.0	13.0	6.7	
LOS	D	C	A	B	A	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	34.8			12.9	6.7	
Approach LOS	C			B	A	
Queue Length 50th (ft)	52	16	1	277	135	
Queue Length 95th (ft)	#166	60	4	428	198	
Internal Link Dist (ft)	378			369	272	
Turn Bay Length (ft)		150	190			
Base Capacity (vph)	327	292	506	1988	1968	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.49	0.17	0.02	0.60	0.42	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 65.5

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 12.6

Intersection LOS: B

Intersection Capacity Utilization 68.8%

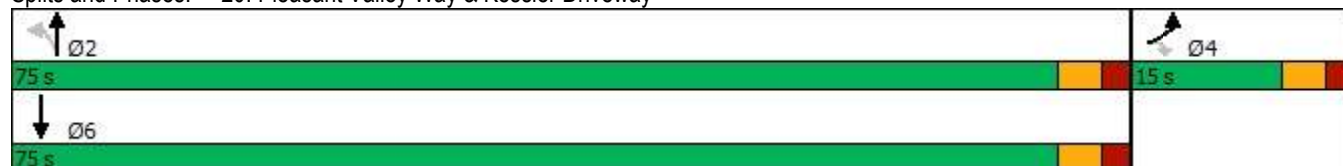
ICU Level of Service C

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 20: Pleasant Valley Way & Kessler Driveway



Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	0	1	778	1067	0
Future Vol, veh/h	1	0	1	778	1067	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	60	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-9	-	-	-2	1	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	1	1	2
Mvmt Flow	1	0	1	894	1226	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2122	1226	1226	0	-	0
Stage 1	1226	-	-	-	-	-
Stage 2	896	-	-	-	-	-
Critical Hdwy	4.62	5.32	4.12	-	-	-
Critical Hdwy Stg 1	3.62	-	-	-	-	-
Critical Hdwy Stg 2	3.62	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	159	296	569	-	-	-
Stage 1	512	-	-	-	-	-
Stage 2	624	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	159	296	569	-	-	-
Mov Cap-2 Maneuver	159	-	-	-	-	-
Stage 1	511	-	-	-	-	-
Stage 2	624	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	27.8	0		0		
HCM LOS	D					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	569	-	159	-	-	
HCM Lane V/C Ratio	0.002	-	0.007	-	-	
HCM Control Delay (s)	11.3	-	27.8	-	-	
HCM Lane LOS	B	-	D	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection

Int Delay, s/veh 0

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 1 1 1 1224 747 1

Future Vol, veh/h 1 1 1 1224 747 1

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - 60 - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % -9 - - -2 1 -

Peak Hour Factor 95 95 95 95 95 95

Heavy Vehicles, % 2 2 2 1 1 2

Mvmt Flow 1 1 1 1288 786 1

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 2077 787 787 0 - 0

Stage 1 787 - - - - -

Stage 2 1290 - - - - -

Critical Hdwy 4.62 5.32 4.12 - - -

Critical Hdwy Stg 1 3.62 - - - - -

Critical Hdwy Stg 2 3.62 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 166 477 832 - - -

Stage 1 665 - - - - -

Stage 2 492 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 166 477 832 - - -

Mov Cap-2 Maneuver 166 - - - - -

Stage 1 664 - - - - -

Stage 2 492 - - - - -

Approach EB NB SB

HCM Control Delay, s 19.8 0 0

HCM LOS C

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 832 - 246 - -

HCM Lane V/C Ratio 0.001 - 0.009 - -

HCM Control Delay (s) 9.3 - 19.8 - -

HCM Lane LOS A - C - -

HCM 95th %tile Q(veh) 0 - 0 - -

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	0	1	809	1103	0
Future Vol, veh/h	1	0	1	809	1103	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	60	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-9	-	-	-2	1	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	1	1	2
Mvmt Flow	1	0	1	930	1268	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2200	1268	1268	0	-	0
Stage 1	1268	-	-	-	-	-
Stage 2	932	-	-	-	-	-
Critical Hdwy	4.62	5.32	4.12	-	-	-
Critical Hdwy Stg 1	3.62	-	-	-	-	-
Critical Hdwy Stg 2	3.62	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	148	282	548	-	-	-
Stage 1	499	-	-	-	-	-
Stage 2	611	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	148	282	548	-	-	-
Mov Cap-2 Maneuver	148	-	-	-	-	-
Stage 1	498	-	-	-	-	-
Stage 2	611	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	29.5	0		0		
HCM LOS	D					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	548	-	148	-	-	
HCM Lane V/C Ratio	0.002	-	0.008	-	-	
HCM Control Delay (s)	11.6	-	29.5	-	-	
HCM Lane LOS	B	-	D	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	1268	775	1
Future Vol, veh/h	1	1	1	1268	775	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	60	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-9	-	-	-2	1	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	1	1	2
Mvmt Flow	1	1	1	1335	816	1

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2154	817	817	0	-	0
Stage 1	817	-	-	-	-	-
Stage 2	1337	-	-	-	-	-
Critical Hdwy	4.62	5.32	4.12	-	-	-
Critical Hdwy Stg 1	3.62	-	-	-	-	-
Critical Hdwy Stg 2	3.62	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	155	462	811	-	-	-
Stage 1	653	-	-	-	-	-
Stage 2	478	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	155	462	811	-	-	-
Mov Cap-2 Maneuver	155	-	-	-	-	-
Stage 1	652	-	-	-	-	-
Stage 2	478	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	811	-	232	-	-
HCM Lane V/C Ratio	0.001	-	0.009	-	-
HCM Control Delay (s)	9.4	-	20.7	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	2	3	813	1100	6
Future Vol, veh/h	3	2	3	813	1100	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	60	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-9	-	-	-2	1	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	1	1	2
Mvmt Flow	3	2	3	934	1264	7
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2208	1268	1271	0	-	0
Stage 1	1268	-	-	-	-	-
Stage 2	940	-	-	-	-	-
Critical Hdwy	4.62	5.32	4.12	-	-	-
Critical Hdwy Stg 1	3.62	-	-	-	-	-
Critical Hdwy Stg 2	3.62	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	147	282	547	-	-	-
Stage 1	499	-	-	-	-	-
Stage 2	608	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	146	282	547	-	-	-
Mov Cap-2 Maneuver	146	-	-	-	-	-
Stage 1	497	-	-	-	-	-
Stage 2	608	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	25.5	0		0		
HCM LOS	D					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	547	-	181	-	-	
HCM Lane V/C Ratio	0.006	-	0.032	-	-	
HCM Control Delay (s)	11.6	-	25.5	-	-	
HCM Lane LOS	B	-	D	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	4	2	1272	776	5
Future Vol, veh/h	7	4	2	1272	776	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	60	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-9	-	-	-2	1	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	1	1	2
Mvmt Flow	7	4	2	1339	817	5
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2163	820	822	0	-	0
Stage 1	820	-	-	-	-	-
Stage 2	1343	-	-	-	-	-
Critical Hdwy	4.62	5.32	4.12	-	-	-
Critical Hdwy Stg 1	3.62	-	-	-	-	-
Critical Hdwy Stg 2	3.62	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	153	460	807	-	-	-
Stage 1	652	-	-	-	-	-
Stage 2	476	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	153	460	807	-	-	-
Mov Cap-2 Maneuver	153	-	-	-	-	-
Stage 1	651	-	-	-	-	-
Stage 2	476	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	23.9	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	807	-	202	-	-	
HCM Lane V/C Ratio	0.003	-	0.057	-	-	
HCM Control Delay (s)	9.5	-	23.9	-	-	
HCM Lane LOS	A	-	C	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	1	10	775	1050	17
Future Vol, veh/h	4	1	10	775	1050	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	105	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	-2	2	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	1	1	2
Mvmt Flow	5	1	11	891	1207	20
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2130	1217	1227	0	-	0
Stage 1	1217	-	-	-	-	-
Stage 2	913	-	-	-	-	-
Critical Hdwy	5.62	5.82	4.12	-	-	-
Critical Hdwy Stg 1	4.62	-	-	-	-	-
Critical Hdwy Stg 2	4.62	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	88	252	568	-	-	-
Stage 1	367	-	-	-	-	-
Stage 2	479	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	86	252	568	-	-	-
Mov Cap-2 Maneuver	86	-	-	-	-	-
Stage 1	360	-	-	-	-	-
Stage 2	479	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	43.6	0.1		0		
HCM LOS	E					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	568	-	99	-	-	
HCM Lane V/C Ratio	0.02	-	0.058	-	-	
HCM Control Delay (s)	11.5	-	43.6	-	-	
HCM Lane LOS	B	-	E	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-	

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	13	4	1212	738	10
Future Vol, veh/h	13	13	4	1212	738	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	105	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	-2	2	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	1	1	2
Mvmt Flow	14	14	4	1276	777	11

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	2067	783	788
Stage 1	783	-	-
Stage 2	1284	-	-
Critical Hdwy	5.62	5.82	4.12
Critical Hdwy Stg 1	4.62	-	-
Critical Hdwy Stg 2	4.62	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	95	430	831
Stage 1	536	-	-
Stage 2	346	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	95	430	831
Mov Cap-2 Maneuver	95	-	-
Stage 1	533	-	-
Stage 2	346	-	-

Approach	EB	NB	SB
HCM Control Delay, s	32.9	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	831	-	156	-	-
HCM Lane V/C Ratio	0.005	-	0.175	-	-
HCM Control Delay (s)	9.4	-	32.9	-	-
HCM Lane LOS	A	-	D	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	1	10	806	1085	18
Future Vol, veh/h	4	1	10	806	1085	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	105	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	-2	2	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	1	1	2
Mvmt Flow	5	1	11	926	1247	21
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2206	1258	1268	0	-	0
Stage 1	1258	-	-	-	-	-
Stage 2	948	-	-	-	-	-
Critical Hdwy	5.62	5.82	4.12	-	-	-
Critical Hdwy Stg 1	4.62	-	-	-	-	-
Critical Hdwy Stg 2	4.62	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	80	240	548	-	-	-
Stage 1	354	-	-	-	-	-
Stage 2	465	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	78	240	548	-	-	-
Mov Cap-2 Maneuver	78	-	-	-	-	-
Stage 1	347	-	-	-	-	-
Stage 2	465	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	47.7	0.1		0		
HCM LOS	E					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	548	-	90	-	-	
HCM Lane V/C Ratio	0.021	-	0.064	-	-	
HCM Control Delay (s)	11.7	-	47.7	-	-	
HCM Lane LOS	B	-	E	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-	

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	14	4	1255	766	10
Future Vol, veh/h	14	14	4	1255	766	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	105	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	-2	2	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	1	1	2
Mvmt Flow	15	15	4	1321	806	11
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2141	812	817	0	-	0
Stage 1	812	-	-	-	-	-
Stage 2	1329	-	-	-	-	-
Critical Hdwy	5.62	5.82	4.12	-	-	-
Critical Hdwy Stg 1	4.62	-	-	-	-	-
Critical Hdwy Stg 2	4.62	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	86	415	811	-	-	-
Stage 1	523	-	-	-	-	-
Stage 2	332	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	86	415	811	-	-	-
Mov Cap-2 Maneuver	86	-	-	-	-	-
Stage 1	520	-	-	-	-	-
Stage 2	332	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	36.9	0		0		
HCM LOS	E					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	811	-	142	-	-	
HCM Lane V/C Ratio	0.005	-	0.208	-	-	
HCM Control Delay (s)	9.5	-	36.9	-	-	
HCM Lane LOS	A	-	E	-	-	
HCM 95th %tile Q(veh)	0	-	0.7	-	-	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	3	6	808	1087	15
Future Vol, veh/h	8	3	6	808	1087	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	105	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	-2	2	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	1	1	2
Mvmt Flow	9	3	7	929	1249	17
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2201	1258	1266	0	-	0
Stage 1	1258	-	-	-	-	-
Stage 2	943	-	-	-	-	-
Critical Hdwy	5.62	5.82	4.12	-	-	-
Critical Hdwy Stg 1	4.62	-	-	-	-	-
Critical Hdwy Stg 2	4.62	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	80	240	549	-	-	-
Stage 1	354	-	-	-	-	-
Stage 2	467	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	79	240	549	-	-	-
Mov Cap-2 Maneuver	79	-	-	-	-	-
Stage 1	349	-	-	-	-	-
Stage 2	467	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	47.6	0.1		0		
HCM LOS	E					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	549	-	97	-	-	
HCM Lane V/C Ratio	0.013	-	0.13	-	-	
HCM Control Delay (s)	11.6	-	47.6	-	-	
HCM Lane LOS	B	-	E	-	-	
HCM 95th %tile Q(veh)	0	-	0.4	-	-	

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	6	5	1256	769	11
Future Vol, veh/h	18	6	5	1256	769	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	105	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	-2	2	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	1	1	2
Mvmt Flow	19	6	5	1322	809	12
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2147	815	821	0	-	0
Stage 1	815	-	-	-	-	-
Stage 2	1332	-	-	-	-	-
Critical Hdwy	5.62	5.82	4.12	-	-	-
Critical Hdwy Stg 1	4.62	-	-	-	-	-
Critical Hdwy Stg 2	4.62	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	86	413	808	-	-	-
Stage 1	522	-	-	-	-	-
Stage 2	331	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	85	413	808	-	-	-
Mov Cap-2 Maneuver	85	-	-	-	-	-
Stage 1	519	-	-	-	-	-
Stage 2	331	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	49.3	0		0		
HCM LOS	E					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	808	-	106	-	-	
HCM Lane V/C Ratio	0.007	-	0.238	-	-	
HCM Control Delay (s)	9.5	-	49.3	-	-	
HCM Lane LOS	A	-	E	-	-	
HCM 95th %tile Q(veh)	0	-	0.9	-	-	