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TPD# TOLB.00045



TRAFFIC PLANNING AND DESIGN, INC.



Greenridge Road Development

Transportation Impact Study

Upper Uwchlan Township, Chester County, PA

For Submission To:

Upper Uwchlan Township

GREENRIDGE ROAD DEVELOPMENT TRANSPORTATION IMPACT STUDY

FOR SUBMISSION TO:

Upper Uwchlan Township, Chester County, PA

Prepared For:

Toll Mid-Atlantic LP Company, L.P

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EXECUTIVE SUMMARY

The purpose of this study is to examine the potential traffic impact associated with the proposed development on the roadway network in Upper Uwchlan Township, Chester County, PA. Based on this evaluation, the following conclusions were reached:

1. The study area intersections included in this TIS are as follows:
 - » Greenridge Road & Stonehedge Drive;
 - » Greenridge Road & Styer Road;
 - » Greenridge Road & Font Road;
 - » Greenridge Road & Krauser Road;
 - » Krauser Road & Milford Road.
2. The project site is located on the west side of Greenridge Road, southeast of Stonehedge Drive. The proposed site will consist of 64 single-family homes.
3. Access to the site is proposed via a full-access driveway to Greenridge Road, between Font Road and Styer Road, with emergency access to Lauren Lane.
4. The proposed driveway location sight distances will exceed PennDOT's Desirable and Safe Stopping Sight Distance (SSSD) criteria.
5. The proposed development will generate approximately 50 new trips during the weekday A.M. peak hour and 66 new trips during the weekday P.M. peak hour.
6. Under 2026 project conditions, all overall intersection levels of service (ILOS) are anticipated to operate at LOS A.
7. Under the 2026 projected conditions, all approaches and turning movements at the site driveway intersection with the external roadway network are anticipated to operate at LOS A during weekday A.M. and P.M. peak hours.
8. Levels of Service (LOS) for the study area intersections have been summarized in matrix form. **Table I** details the overall intersection LOS for each study area intersection.

TABLE I
OVERALL INTERSECTION LEVEL OF SERVICE SUMMARY

Intersection	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour		
	Existing	2026 Conditions		Existing	2026 Conditions	
		Base	Projected		Base	Projected
Greenridge Road & Stonehedge Drive	A (2.0)	A (2.1)	A (2.0)	A (1.0)	A (1.0)	A (1.0)
Styer Road & Greenridge Road	A (7.4)	A (7.4)	A (7.5)	A (7.8)	A (7.8)	A (7.9)
Styer Road & Extension	A (4.1)	A (4.1)	A (4.0)	A (2.8)	A (2.8)	A (2.6)
Greenridge Road & Extension	A (1.1)	A (1.1)	A (1.1)	A (1.0)	A (1.0)	A (1.0)
Krauser Road & Greenridge Road	A (1.4)	A (1.4)	A (1.6)	A (1.6)	A (1.7)	A (1.8)
Font Road & Greenridge Road/St. Andrews Lane	A (6.2)	A (5.9)	A (6.2)	A (8.7)	A (8.6)	A (9.4)
Milford Road & Krauser Road	A (3.3)	A (3.3)	A (3.5)	A (2.9)	A (2.9)	A (3.1)
Greenridge Road & Site Driveway	--	--	A (1.9)	--	--	A (1.2)

Base = No-Build scenario; Projected = Build scenario

INTRODUCTION

Traffic Planning and Design, Inc. (TPD) has completed a Transportation Impact Study (TIS) for the proposed development in Upper Uwchlan Township, Chester County, Pennsylvania. The project site is located on the west side of Greenridge Road, southeast of Stonehedge Drive as shown in **Figure 1**. As shown in **Figure 2**, the proposed site will consist of 64 single-family homes. The proposed site will be served by a full-access driveway to Greenridge Road, between Font Road and Styer Road, and emergency access to Lauren Lane.

This TIS has been revised to account for updated traffic counts and the above site access configuration.

This report has been prepared in accordance with PennDOT's *Policies and Procedures for Transportation Impact Studies*, found in PennDOT's Publication 282, Appendix A, dated July, 2017.

EXISTING ROADWAY NETWORK

A field review of the existing roadway system in the study area was conducted. The existing roadway characteristics within the study area are summarized in **Table 1**.

TABLE 1
ROADWAY CHARACTERISTICS WITHIN STUDY AREA

Roadway	Ownership	Functional Classification/ Roadway Type	Predominant Directional Orientation	Average Daily Traffic ¹	Posted Speed Limit
Greenridge Road	Local		East-West	1,435	35 mph
Stonehedge Drive	Local		North-South	470	25 mph
Styer Road	Local		North-South	980	35 mph
Font Road	Local		North-South	1,905	30 mph
Krasuer Road	Local		North-South	460	25 mph
Milford Road	Local		East-West	1,280	40 mph

¹Based on existing traffic volumes and a k-factor

Bicycle and Pedestrian Facilities

Based on observations during field visits at the study area intersections, there are no pedestrian accommodations present in the vicinity of the proposed development.

Mass Transit Facilities

There is no public transportation in the vicinity of the proposed development

Crash Data Investigation

Crash data were obtained from PennDOT for the study area intersections. PennDOT defines a reportable crash as follows, "A reportable (crash) is one in which an injury or fatality occurs or if at least one of the vehicles involved requires towing from the scene." Reportable crashes were tabulated for the five-year time period beginning 1/1/2016 and ending 12/31/2020. For a given intersection, PennDOT considers a crash occurrence of 5 reportable, correctable crashes over a continuous twelve-month period during the past five years to be a threshold value, above which the intersection design should be reviewed to examine if corrective measures can be taken to enhance safety. The number of reportable crashes at the study area intersections is shown in **Table 2**.

TABLE 2
PENNDOT REPORTABLE CRASH DATA

Study Area Intersection	Number of Reportable Crashes				
	2016	2017	2018	2019	2020
Greenridge Road & Stonehedge Drive	0	0	0	1	0
Styer Road & Greenridge Road	0	0	0	0	0
Greenridge Road & Krauser Road	0	0	0	0	0
Font Road & Greenridge Road/St. Andrews Lane	0	0	1	0	0
Milford Road & Krauser Road	0	0	0	0	0

Based on a review of the crash data, there were no continuous twelve-month periods during the past five years where 5 or more crashes occurred that were deemed correctable.

EXISTING TRAFFIC CONDITIONS

Manual traffic counts were conducted on 15-minute intervals during the weekday morning (7:00 to 9:00 A.M.), weekday evening (4:00 to 6:00 P.M.) peak periods. Please note, these traffic counts comply with PennDOT's current COVID-19 Traffic Data Guidance outlined in Strike-off Letter (SOL) 494-21-07, and no volume adjustments are required to the collected volumes. Peak hours and count dates for the study area intersections are identified in **Table 3**.

TABLE 3
MANUAL TRAFFIC COUNT INFORMATION

Intersection	Date of Traffic Counts	Time Period	Intersection Peak Hour ¹
Greenridge Road & Stonehedge Drive	Tuesday October 5, 2021	Weekday A.M.	8:00 to 9:00 A.M.
		Weekday P.M.	5:00 to 6:00 P.M.
Greenridge Road & Styer Road	Tuesday October 5, 2021	Weekday A.M.	7:30 to 8:30 A.M.
		Weekday P.M.	5:00 to 6:00 P.M.
Styer Road & Extension	Tuesday October 5, 2021	Weekday A.M.	7:45 to 8:45 A.M.
		Weekday P.M.	5:00 to 6:00 P.M.
Greenridge Road & Extension	Tuesday October 5, 2021	Weekday A.M.	7:30 to 8:30 A.M.
		Weekday P.M.	5:00 to 6:00 P.M.
Krauser Road & Greenridge Road	Tuesday October 5, 2021	Weekday A.M.	7:30 to 8:30 A.M.
		Weekday P.M.	5:00 to 6:00 P.M.
Font Road & Greenridge Road/St. Andrews Lane	Tuesday October 5, 2021	Weekday A.M.	7:45 to 8:45 A.M.
		Weekday P.M.	4:45 to 5:45 P.M.
Milford Road & Krauser Road	Tuesday October 5, 2021	Weekday A.M.	7:15 to 8:15 A.M.
		Weekday P.M.	5:00 to 6:00 P.M.

¹Peak Hour consists of the four consecutive 15-minute intervals where the highest traffic volumes occur.

The existing condition traffic volumes for the weekday A.M. and weekday P.M. peak hours are illustrated in **Figures 3 and 4**, respectively. Manual traffic count data sheets are provided in **Appendix A**.

BASE (NO-BUILD) CONDITIONS

Annual Background Growth

A background growth factor for the roadways in the study area was developed based on growth factors for August 2021 to July 2022 obtained from the PennDOT Bureau of Planning and Research (BPR). The PennDOT BPR suggests using a background growth trend factor of 0.61% per year in Chester County for urban non-interstate roadways. As such, the background growth factor was applied annually to yield overall growth percentages of 3.09% (0.61% per year, compounded over 5 years) for the 2026 opening year.

Nearby Proposed Developments

Base (no-build) traffic conditions were calculated to include traffic volumes from proposed developments. Please note, at the time of the traffic counts, a significant portion of most of the developments were occupied. However, in order to be consistent with the initial TIS and to provide a conservative evaluation (i.e. highest traffic volumes), the full development traffic was considered. Based on recent experience in the area, the following nearby planned development were specifically included in this study:

- **Village at Byers Station (5C)** - residential development consisting of 121 townhomes. The site is bounded by Route 100, Station Boulevard, Graphite Mine Road, and Darrell Drive. Trip generation and distribution for this site were developed based on the 5/18/16 TIS prepared by TPD.
- **Byers Station** - portions consisting of 40 townhomes (located along Sunderland Avenue), the Ewing Tract Phase 2 (located along Eagle Farms Road), and Parcel 6C (located on the eastern side of Graphite Mine Road, north of Byers Road). Trip generations and distribution for these sites were developed based on the 8/21/2014 and the 4/4/18 studies prepared by TPD.

- **McKee-Fetters Tract** - residential development consisting of 114 age-restricted single-family homes and 261 age-restricted townhomes located on the eastern side of Milford Road, south of Patricia Drive opposite Krauser Road. As such, a fourth leg to the existing Milford Road/Krauser Road intersection was considered in base (no-build) conditions. Trip generation and distribution for this site were developed based on the 5/18/2017 TIS prepared by TPD.
- **Gunner Property** - residential development consisting of 40 townhomes. The site is located at 270-290 Park Road, west of Little Conestoga Road. Trip generation and distribution for this site were developed based ITE data and existing travel patterns, respectively.

The additional traffic volumes due to background growth and nearby developments were added to the existing traffic data to produce 2026 base (no-build) condition traffic volumes. Base condition volumes for the weekday A.M. and weekday P.M. peak hours are illustrated in **Figures 5 and 6**.

PROPOSED SITE ACCESS

The proposed site will be served by a full-access driveway to Greenridge Road, between Font Road and Styer Road, and emergency access to Lauren Lane.

Sight Distance Analysis

A sight distance analysis was prepared for the proposed site driveway to Greenridge Road. In general, recommended safe sight distances depend upon the posted speed limit and roadway grades. The existing sight distances at the proposed driveways were measured in accordance with PennDOT Publication 282 Highway Occupancy Permit Operations Manual and compared to PennDOT's desirable sight distance standard, which is identified in 67 PA Code Chapter 441.8(h), "Access to and Occupancy of Highways by Driveways and Local Roads." In addition, measured sight distances at the proposed driveways were compared to PennDOT's safe stopping sight distance standard, which is calculated by the following equation:

$$SSSD = 1.47VT + V^2/[30(f \pm g)]$$

SSSD = safe stopping sight distance (acceptable sight distance)

V = Vehicle Speed

T = Perception Reaction Time of Driver (2.5 seconds)

f = Coefficient of Friction for Wet Pavements

g = Percent of Roadway Grade Divided by 100

Table 4 shows the measured, desirable, acceptable (SSSD), and required sight distances at the Greenridge Road site driveway for vehicles entering and exiting the site.

TABLE 4
SIGHT DISTANCE ANALYSIS
SITE DRIVEWAY TO GREENRIDGE ROAD

	Direction	Speed	Grade ¹	Sight Distances (feet)		
				DES	SSSD	EXIST
Exiting Movements	To the left	35 mph	1%	440	245	600+
	To the right	35 mph	-1%	350	252	500+
Entering Left Turns	Approaching same direction	35 mph	-1%	300	252	505
	Approaching opposite direction	35 mph	1%	300	245	600+

DES = PennDOT Desirable Sight Distance

1 = Roadway Grade Approaching Driveway

SSSD = PennDOT Acceptable Sight Distance

EXIST = Existing (measured) Sight Distance

As shown in **Table 4** above, the measured sight distances at the site driveway exceed PennDOT's desirable sight distance requirements.

TRIP GENERATION

The trip generation rates for the proposed development were obtained from the *Trip Generation Manual*, Tenth Edition, 2017, an institute of Transportation Engineers (ITE) Informational Report. For the proposed development, Land Use Code 210 (Single-family Detached Housing) from *Trip Generation* was used to calculate the number of vehicular trips the development will generate during the following time periods: (1) average weekday; (2) weekday A.M. peak hour; and (3) weekday P.M. peak hour. **Table 5** shows the rates/equations and directional percentages for the analyzed time periods.

TABLE 5
ITE TRIP GENERATION DATA

Land Use	ITE #	Time Period	Equations/Rates	Entering %	Exiting %
Single-Family Detached Housing	210	Weekday A.M. Peak Hour	$T = 0.71*(X)+4.80$	25%	75%
		Weekday P.M. Peak Hour	$\ln(T) = 0.96*\ln(X)+0.20$	63%	37%
		Weekday	$\ln(T) = 0.92*\ln(X)+2.71$	50%	50%

T = number of site-generated vehicular trips; X = independent variable (dwelling units)

The calculated trip generation for the proposed development is shown in **Table 6**.

TABLE 6
TRIP GENERATION SUMMARY

Time Period	Greenridge Road Development		
	Total	Enter	Exit
Weekday	690	345	345
A.M. Peak Hour	50	13	37
P.M. Peak Hour	66	42	24

As shown in **Table 6**, the proposed development will generate approximately 50 new trips during the weekday A.M. peak hour, and 66 new trips during the weekday P.M. peak hour

TRIP DISTRIBUTION

The distribution of trips generated by the proposed development was based on the local road network, the existing traffic patterns, the proposed use of the site, and the site driveway locations. The trips for the proposed development were distributed to the local roadway network based on the percentages shown in **Table 7**.

TABLE 7
TRIP DISTRIBUTION PERCENTAGES

Direction - To/From	Assignment (To/From)	Distribution Percentage
East	via Greenridge Road	4%
	via Milford Road	11%
West	via Greenridge Road	12%
	via Milford Road	14%
North	via Font Road	17%
South	via Font Road	33%
	via Styer Road	9%

The assignment of site-generated trips for the proposed development during the weekday A.M. and P.M. peak hours are shown in **Figures 7 and 8**, respectively.

PROJECTED (BUILD) CONDITION TRAFFIC VOLUMES

The site-generated trips for the proposed development were added to the 2026 base (no-build) condition traffic volumes to develop 2026 projected (build) condition traffic volumes. The 2026 projected condition traffic volumes for the weekday A.M. and P.M. peak hours are shown in **Figures 9 and 10**, respectively. Traffic volume development worksheets are contained in **Appendix B**.

LEVELS OF SERVICE FOR AN INTERSECTION

For analysis of intersections, level of service is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. LOS criteria is stated in terms of control delay per vehicle for a one-hour analysis period. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The criteria are shown in **Table 8**. Delay, as it relates to level of service, is a complex measure and is dependent upon a number of variables. For signalized intersections, these variables include the quality of vehicle progression, the cycle length, the green time ratio, and the volume/capacity ratio for the lane group in question. For unsignalized intersections, delay is related to the availability of gaps in the flow of traffic on the major street and the driver's discretion in selecting an appropriate gap for a particular movement from the minor street (straight across, left or right turn).

TABLE 8
LEVEL OF SERVICE CRITERIA
UNSIGNALIZED AND SIGNALIZED INTERSECTIONS ¹

Level of Service	Control Delay Per Vehicle (Seconds)	
	Signalized	Unsignalized
A	< 10	< 10
B	> 10 and < 20	> 10 and < 15
C	> 20 and < 35	> 15 and < 25
D	> 35 and < 55	> 25 and < 35
E	> 55 and < 80	> 35 and < 50
F	> 80 or v/c > 1.0	> 50 or v/c > 1.0

¹ Obtained from Exhibits 18-4 and 19-1 of the Transportation Research Board's Highway Capacity Manual 2010

CAPACITY ANALYSIS METHODOLOGY

Capacity analyses were conducted for the weekday A.M. and P.M. peak hours at the study area intersections. These analyses were conducted according to the methodologies contained in the *Highway Capacity Manual 6th Edition* (HCM) using *Synchro 10* software, a Trafficware product. The following conditions were analyzed, as applicable:

- » Existing conditions;
- » 2026 Base conditions (Future year without development);
- » 2026 Projected conditions (Future year with development);

In addition, capacity analyses were conducted at the proposed site driveway intersection under the 2026 projected conditions. The capacity analysis worksheets are included in **Appendix C**.

PennDOT's Transportation Impact Study Guidelines outlined in PennDOT's *Policies and Procedures for Transportation Impact Studies*, found in PennDOT's Publication 282, Appendix A, dated July, 2017 contain the following criteria regarding levels of service:

- » Page 29 of the Guidelines state that if evaluation of the With Development Horizon Year Scenario to the Without Development Horizon Year Scenario indicates that the overall intersection level of service has dropped, the applicant will be required to mitigate the level of service if the increase in overall intersection delay is greater than 10-seconds. If the overall intersection delay increase is less than or equal to 10-seconds, mitigation of the intersection will not be required.
- » Page 29 of the Guidelines state that for mitigation scenarios, applicants are expected to mitigate the overall intersection LOS to the original Without Development LOS; the 10-second delay variance is not applied to mitigation scenarios. Applicants may be required to address available storage and queue lengths at critical movements or approaches even if the overall LOS requirements are met.
- » Page 31 of the Guidelines state that if signalization is the preferred alternative for mitigation, overall intersection LOS C in rural areas and LOS D in urban areas is acceptable.
- » Page 31 of the Guidelines states new signalized or unsignalized intersection established to serve as access to the development shall be designed to operate at minimum LOS C for rural areas, and minimum LOS D for urban areas.

LEVELS OF SERVICE IN THE STUDY AREA

Level of service (LOS) matrices for the study area intersections are shown in **Table 9** for the weekday A.M., and weekday P.M. peak hours.

TABLE 9
LEVEL OF SERVICE DELAY (SECONDS) SUMMARY

Intersection	Movement	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour		
		Existing Condition	2026 Future Conditions Base	2026 Future Conditions Projected	Existing Condition	2026 Future Conditions Base	2026 Future Conditions Projected
Greenridge Road & Stonehedge Drive	EB L	A	A	A	A	A	A
	SB LR	A	A	A	A	A	A
	ILOS	A (2.0)	A (2.1)	A (2.0)	A (1.0)	A (1.0)	A (1.0)
Styer Road & Greenridge Road	EB TR	A	A	A	A	A	A
	WB LT	A	A	A	A	A	A
	NB LR	A	A	A	A	A	A
	ILOS	A (7.4)	A (7.4)	A (7.5)	A (7.8)	A (7.8)	A (7.9)
Styer Road & Extension	EB L	A	A	A	A	A	A
	SB LR	A	A	A	A	A	A
	ILOS	A (4.1)	A (4.1)	A (4.0)	A (2.8)	A (2.8)	A (2.6)
Greenridge Road & Extension	WB L	A	A	A	A	A	A
	NB LR	A	A	A	A	A	A
	ILOS	A (1.1)	A (1.1)	A (1.1)	A (1.0)	A (1.0)	A (1.0)
Krauser Road & Greenridge Road	WB L	A	A	A	A	A	A
	NB LR	A	A	A	A	A	A
	ILOS	A (1.4)	A (1.4)	A (1.6)	A (1.6)	A (1.7)	A (1.8)
Font Road & Greenridge Road/St. Andrews Lane	EB LTR	B	B	B	B	B	B
	WB LTR	A	B	B	B	B	B
	NB L	A	A	A	A	A	A
	SB L	A	A	A	A	A	A
	ILOS	A (6.2)	A (5.9)	A (6.2)	A (8.7)	A (8.6)	A (9.4)
Milford Road & Krauser Road	EB L	A	A	A	A	A	A
	WB L	--	A	A	--	A	A
	NB LTR	--	A	A	--	A	A
	SB L(T)R	A	A	A	A	A	A
	ILOS	A (3.3)	A (3.3)	A (3.5)	A (2.9)	A (2.9)	A (3.1)
Greenridge Road & Site Driveway	EB L	--	--	A	--	--	A
	SB LR	--	--	A	--	--	A
	ILOS	--	--	A (1.9)	--	--	A (1.2)

Base = No-Build scenario; Projected = Build scenario

As shown in **Table 9**, under 2026 projected conditions with the development of the proposed site, the study area intersections will operate at the same overall intersection level of service (ILOS) as under 2026 base conditions, during the weekday A.M. and P.M. peak hours.

All approaches and turning movements at the site driveway intersection are anticipated to operate at LOS A under 2026 projected conditions during the weekday A.M. and P.M. peak hours.

In addition, all levels of service at the study area intersection comply with the requirement outlined in PennDOT's TIS Guidelines.

95TH PERCENTILE QUEUE ANALYSIS

Queue analyses were conducted at the study area intersections using *Synchro 10* software. For this analysis, the 95th percentile queue is defined as the queue length that is exceeded during 5% of the peak hour. As an example, during the peak hour, this means that the 95th percentile queue length will be exceeded during 3 of the 60-minutes during the peak hour. The queue analysis results are summarized in **Table 10** for the analyzed peak hours.

TABLE 10
95TH PERCENTILE QUEUE ANALYSIS (IN FEET)

Intersection	Movement	Available Storage (feet)	2026 Future Conditions			
			Weekday A.M. Peak Hour		Weekday P.M. Peak Hour	
			Base	Projected	Base	Projected
Greenridge Road & Stonehedge Drive	EB L	70+	0	0	0	0
	SB LR	75+	3	3	3	3
Styer Road & Greenridge Road	EB TR	75+	8	8	5	8
	WB LT	75+	5	8	18	20
	NB LR	75+	3	3	3	3
Styer Road & Extension	EB L	75+	3	3	0	3
	SB LR	75+	3	3	3	3
Greenridge Road & Extension	WB L	75+	0	0	0	0
	NB LR	40	3	3	0	3
Krauser Road & Greenridge Road	WB L	75+	0	0	3	3
	NB LR	75+	3	3	3	3
Font Road & Greenridge Road/St. Andrews Lane	EB LTR	75+	10	13	10	13
	WB LTR	75+	8	8	45	53
	NB L	75+	0	0	0	3
	SB L	75+	0	0	0	0
Milford Road & Krauser Road	EB L	75+	0	0	3	3
	WB L	75+	0	0	0	0
	NB LTR	75+	3	3	3	3
	SB L(T)R	75+	8	5	3	3
Greenridge Road & Site Driveway	EB L	75+	--	0	--	0
	SB LR	75+	--	3	--	3

Base = No-Build scenario; Projected = Build scenario

As shown in **Table 10**, adequate queue storage will be provided under 2026 conditions. Queue analysis worksheets are included with the capacity analysis worksheets provided in **Appendix C**.

AUXILIARY TURN LANE ANALYSIS

TPD evaluated auxiliary turn lane warrants at the site driveway intersection and at the Stonehedge Road/Lauren Lane intersection. The warrant analysis methodology contained within Chapter 11 of

PennDOT's *Publication 46*, Section 11.17 and Strike-Off Letter 470-08-07 was utilized for this evaluation. **Table 11** summarizes the results of the auxiliary turn lane analysis at the site access intersection.

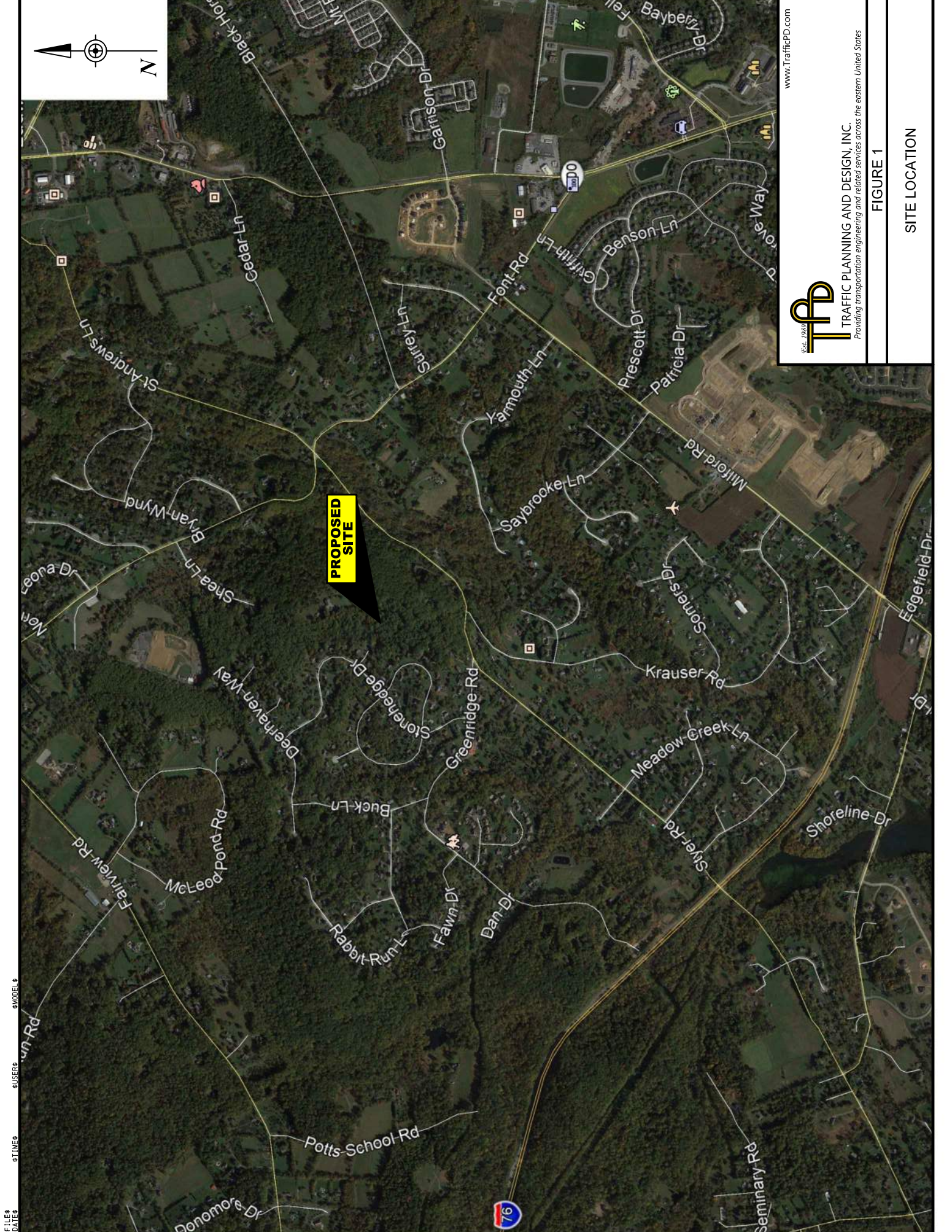
TABLE 11
AUXILIARY TURN LANE ANALYSIS SUMMARY

Intersection	Auxiliary Lane	Warrant Satisfied?	Required Lane Length
Greenridge Road & Site Driveway	EB Left Turn Lane	No	--
	WB Right Turn Lane	No	--

The calculations for the auxiliary turn lane warrants are included in **Appendix D**.

CONCLUSIONS

See the executive summary for the conclusions.



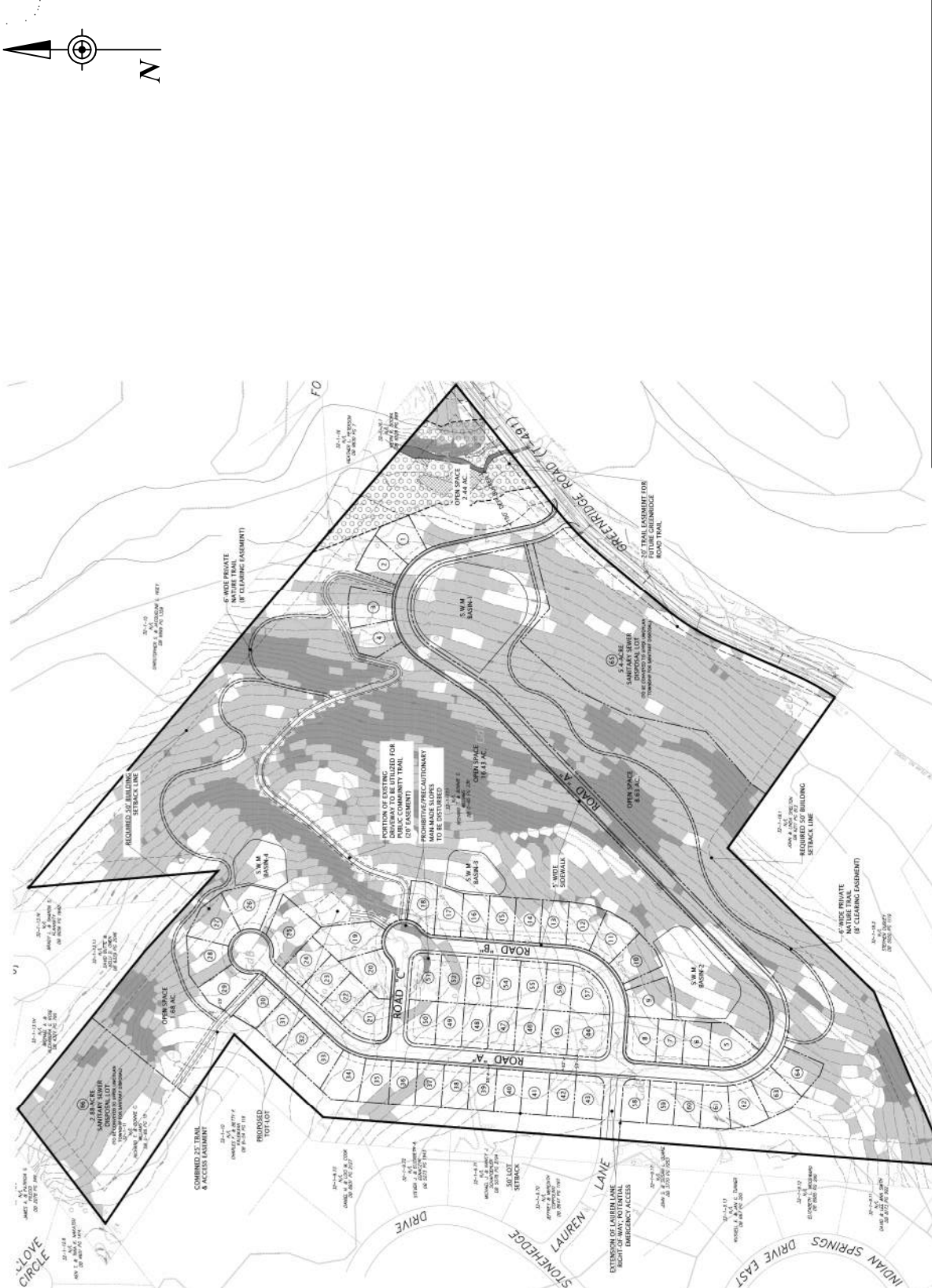
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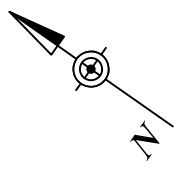


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Providing transportation engineering and related services across the eastern United States

FIGURE 1

SITE LOCATION





Proposed Site

Stonehedge Drive

Greenridge Road

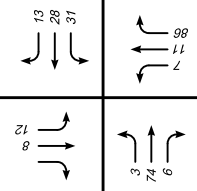
St. Andrews Lane

Krauser Road

Syer Road

Milford Road

Font Road



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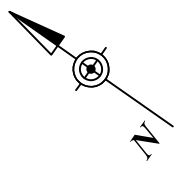
FIGURE 3

EXISTING CONDITIONS
WEEKDAY A.M. PEAK HOUR
TRAFFIC VOLUMES

KEY:

----- PROPOSED DRIVEWAY

SCHEMATIC DRAWING: NOT TO SCALE



Proposed Site

Font Road

Stonehedge Drive

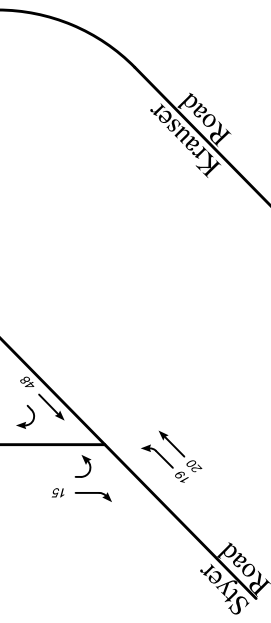
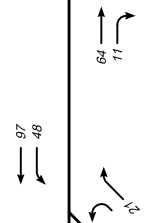
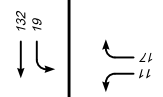
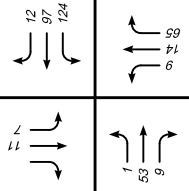
St. Andrews Lane

Greenridge Road

Krauser Road

Syer Road

Milford Road

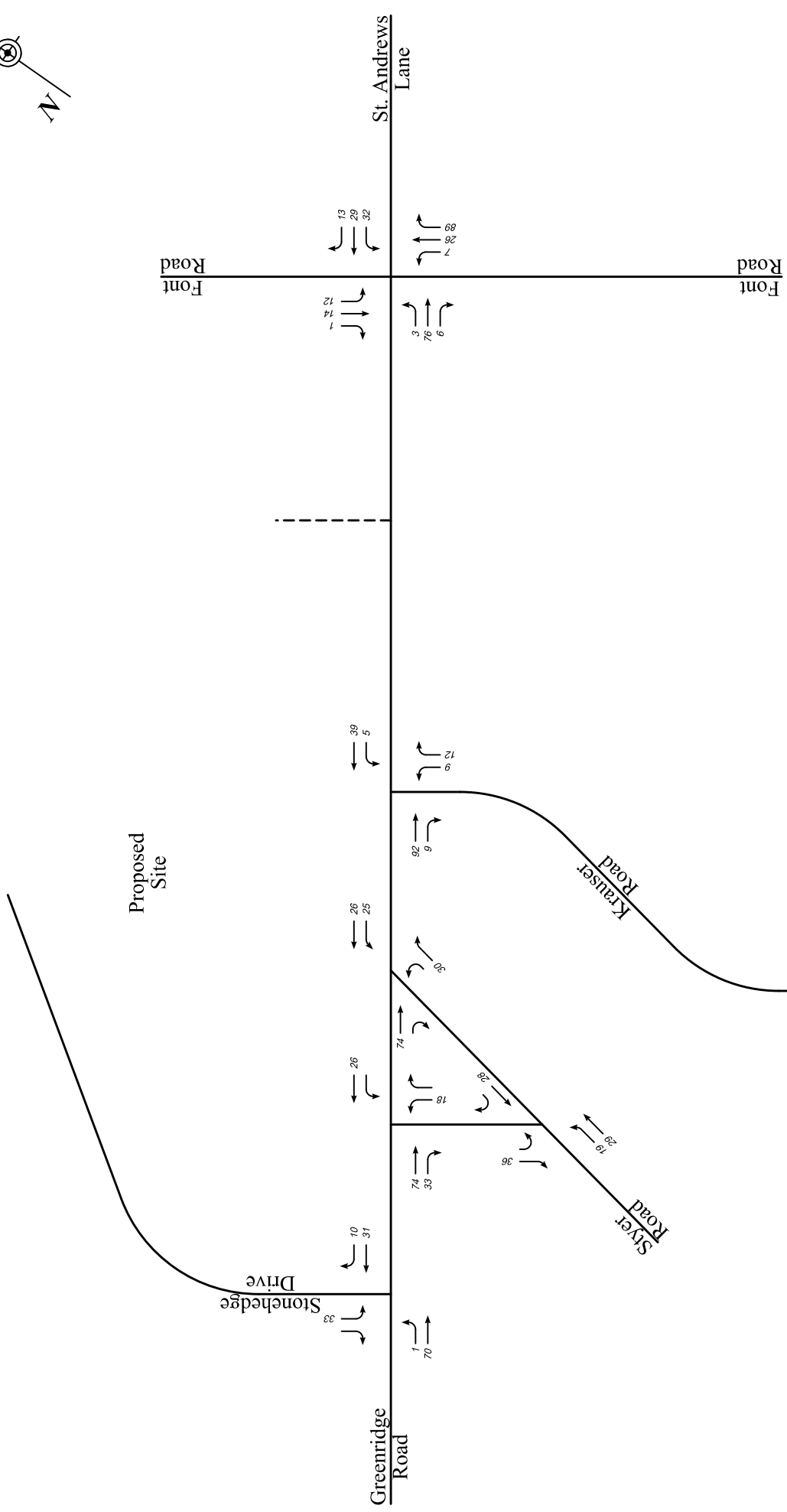
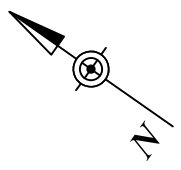


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FIGURE 4

EXISTING CONDITIONS
WEEKDAY P.M. PEAK HOUR
TRAFFIC VOLUMES

KEY:
----- PROPOSED DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE

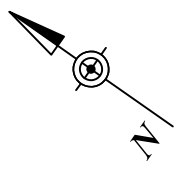


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FIGURE 5

2026 BASE CONDITIONS
WEEKDAY A.M. PEAK HOUR
TRAFFIC VOLUMES

KEY:
----- PROPOSED DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE



Proposed Site

Font Road

Stonehedge Drive

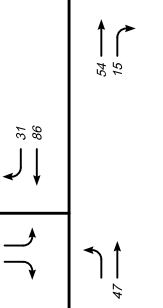
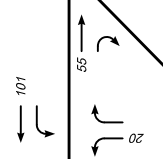
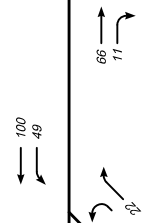
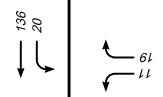
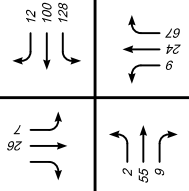
St. Andrews Lane

Greenridge Road

Krauser Road

Syer Road

Milford Road

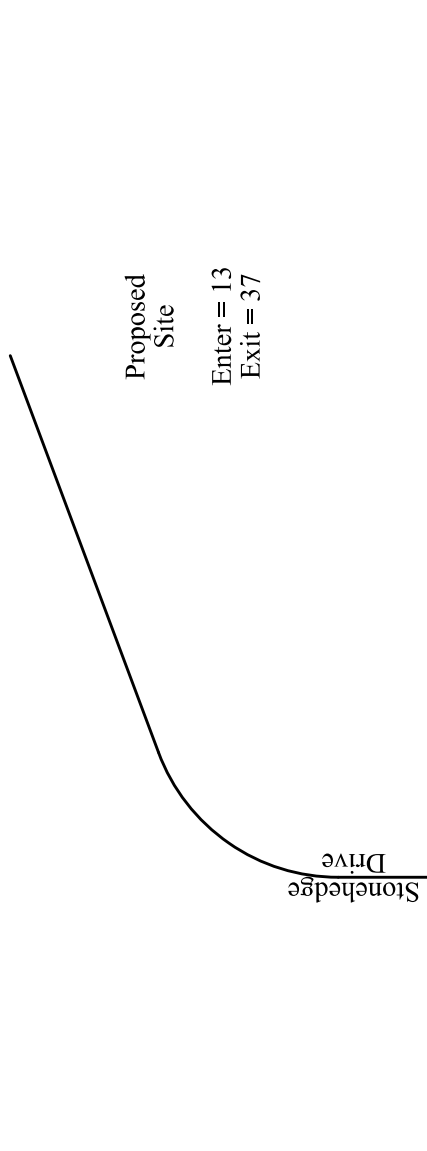
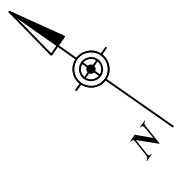


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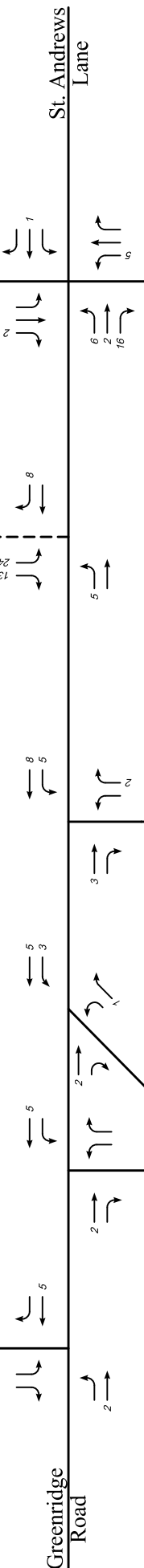
FIGURE 6

2026 BASE CONDITIONS
WEEKDAY P.M. PEAK HOUR
TRAFFIC VOLUMES

KEY:
----- PROPOSED DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE



Proposed Site
Enter = 13
Exit = 37



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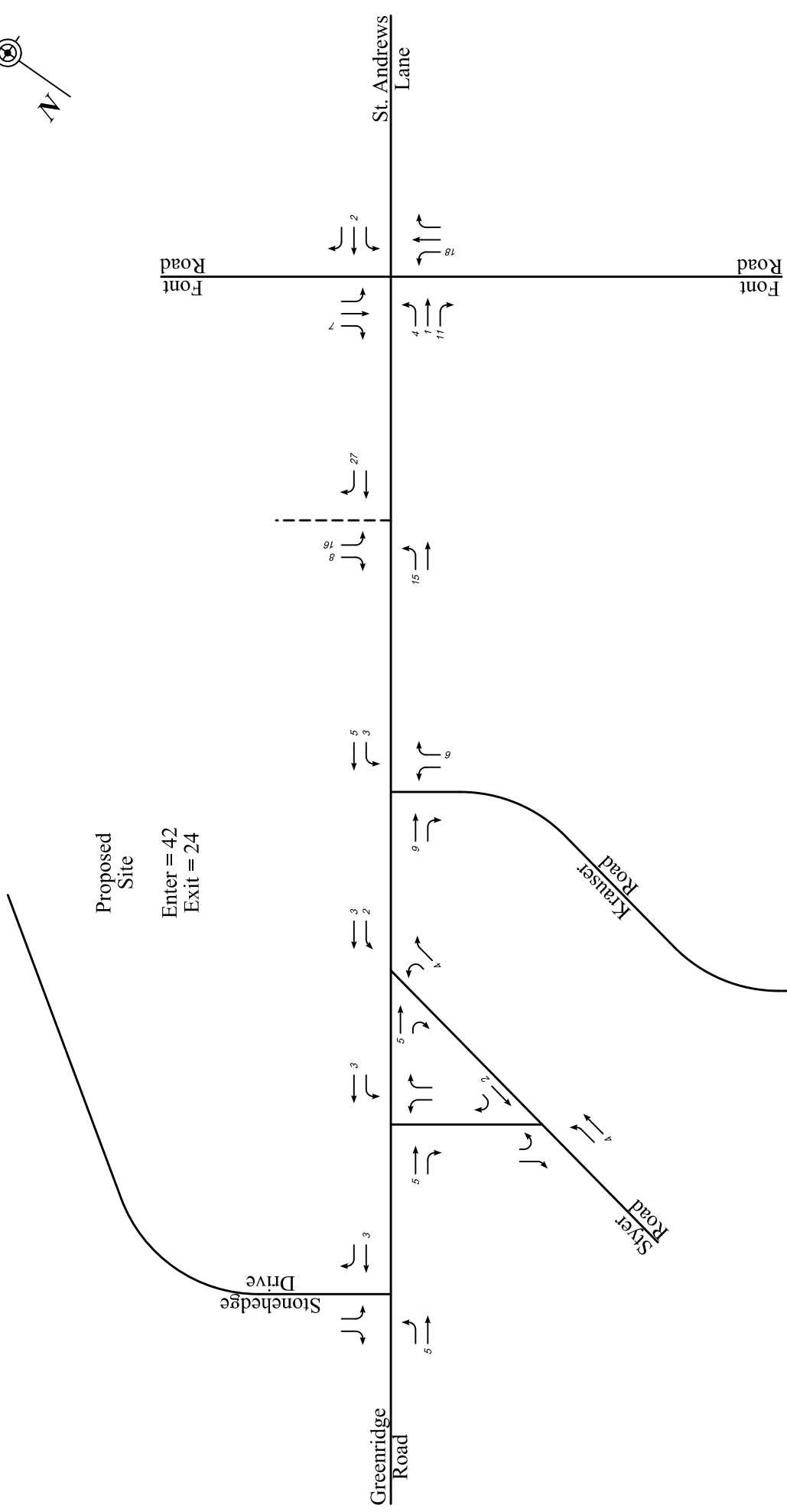
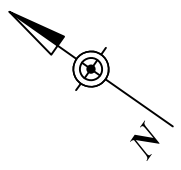
FIGURE 7

TRIP DISTRIBUTION

WEEKDAY A.M. PEAK HOUR

Milford Road

KEY:
----- PROPOSED DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE



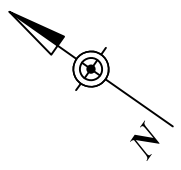
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FIGURE 8

TRIP DISTRIBUTION
WEEKDAY P.M. PEAK HOUR

Milford Road

KEY:
----- PROPOSED DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE



Proposed Site

Font Road

Stonehedge Drive

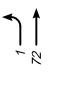
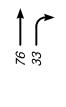
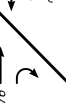
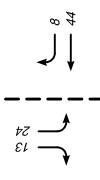
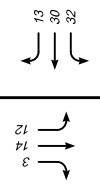
Greenridge Road

St. Andrews Lane

Krauser Road

Syer Road

Milford Road

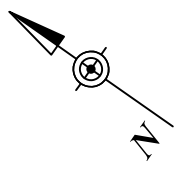


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FIGURE 9

2026 PROJECTED CONDITIONS
WEEKDAY A.M. PEAK HOUR
TRAFFIC VOLUMES

KEY:
----- PROPOSED DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE



Proposed Site

Font Road

Stonehedge Drive

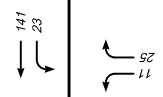
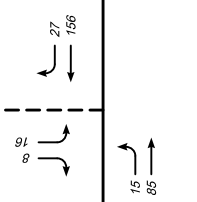
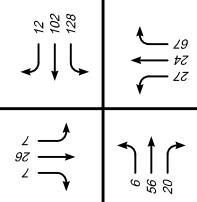
St. Andrews Lane

Greenridge Road

Krauser Road

Syer Road

Milford Road



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FIGURE 10

2026 PROJECTED CONDITIONS
WEEKDAY P.M. PEAK HOUR
TRAFFIC VOLUMES

KEY:
----- PROPOSED DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE

APPENDIX A:

Manual Traffic Count Printouts



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Counter:: Mio
Counted By:: Mio
Weather:: Clear

Count Name: Greenridge Road and
Stonehedge Drive
Site Code:
Start Date: 10/05/2021
Page No: 1

Turning Movement Data

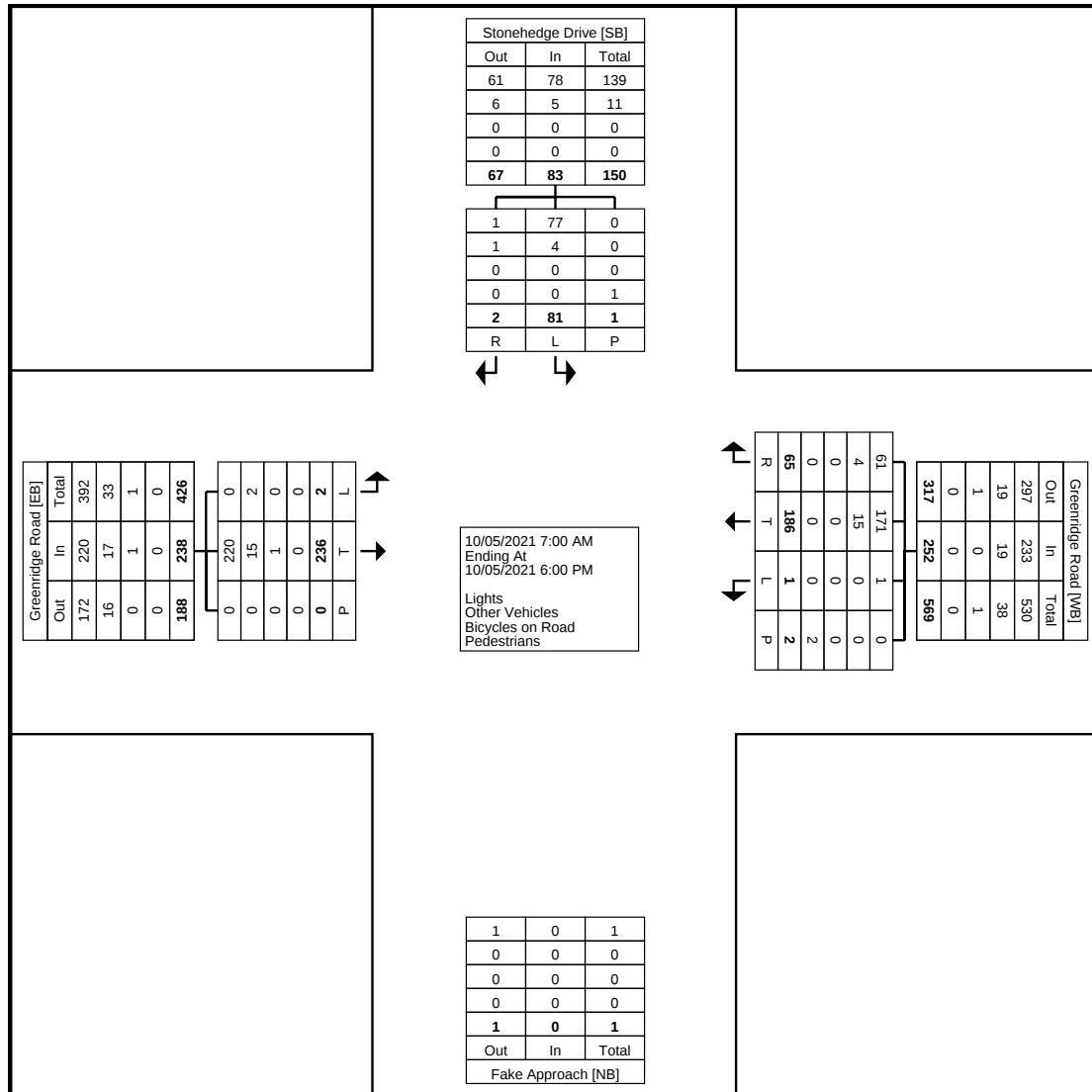
Start Time	Greenridge Road Eastbound				Greenridge Road Westbound					Stonehedge Drive Southbound				Int. Total
	Left	Thru	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	
7:00 AM	0	30	0	30	0	3	3	0	6	7	1	0	8	44
7:15 AM	0	17	0	17	0	4	2	2	6	3	0	0	3	26
7:30 AM	0	10	0	10	1	6	2	0	9	4	0	0	4	23
7:45 AM	0	15	0	15	0	5	2	0	7	7	0	0	7	29
Hourly Total	0	72	0	72	1	18	9	2	28	21	1	0	22	122
8:00 AM	1	26	0	27	0	12	2	0	14	8	0	0	8	49
8:15 AM	0	17	0	17	0	10	1	0	11	11	0	1	11	39
8:30 AM	0	12	0	12	0	4	3	0	7	4	0	0	4	23
8:45 AM	0	13	0	13	0	4	4	0	8	9	0	0	9	30
Hourly Total	1	68	0	69	0	30	10	0	40	32	0	1	32	141
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	18	0	18	0	17	7	0	24	0	0	0	0	42
4:15 PM	0	6	0	6	0	17	5	0	22	1	1	0	2	30
4:30 PM	0	11	0	11	0	6	2	0	8	4	0	0	4	23
4:45 PM	1	15	0	16	0	15	2	0	17	2	0	0	2	35
Hourly Total	1	50	0	51	0	55	16	0	71	7	1	0	8	130
5:00 PM	0	12	0	12	0	24	7	0	31	1	0	0	1	44
5:15 PM	0	11	0	11	0	18	5	0	23	10	0	0	10	44
5:30 PM	0	15	0	15	0	21	10	0	31	6	0	0	6	52
5:45 PM	0	8	0	8	0	20	8	0	28	4	0	0	4	40
Hourly Total	0	46	0	46	0	83	30	0	113	21	0	0	21	180
Grand Total	2	236	0	238	1	186	65	2	252	81	2	1	83	573
Approach %	0.8	99.2	-	-	0.4	73.8	25.8	-	-	97.6	2.4	-	-	-
Total %	0.3	41.2	-	41.5	0.2	32.5	11.3	-	44.0	14.1	0.3	-	14.5	-
Lights	0	220	-	220	1	171	61	-	233	77	1	-	78	531
% Lights	0.0	93.2	-	92.4	100.0	91.9	93.8	-	92.5	95.1	50.0	-	94.0	92.7
Other Vehicles	2	15	-	17	0	15	4	-	19	4	1	-	5	41
% Other Vehicles	100.0	6.4	-	7.1	0.0	8.1	6.2	-	7.5	4.9	50.0	-	6.0	7.2
Bicycles on Road	0	1	-	1	0	0	0	-	0	0	0	-	0	1
% Bicycles on Road	0.0	0.4	-	0.4	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Pedestrians	-	-	0	-	-	-	-	2	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	100.0	-	-	-	100.0	-	-



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Counter:: Mio
Counted By:: Mio
Weather:: Clear

Count Name: Greenridge Road and
Stonehedge Drive
Site Code:
Start Date: 10/05/2021
Page No: 2



Turning Movement Data Plot



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Counter:: Mio
Counted By:: Mio
Weather:: Clear

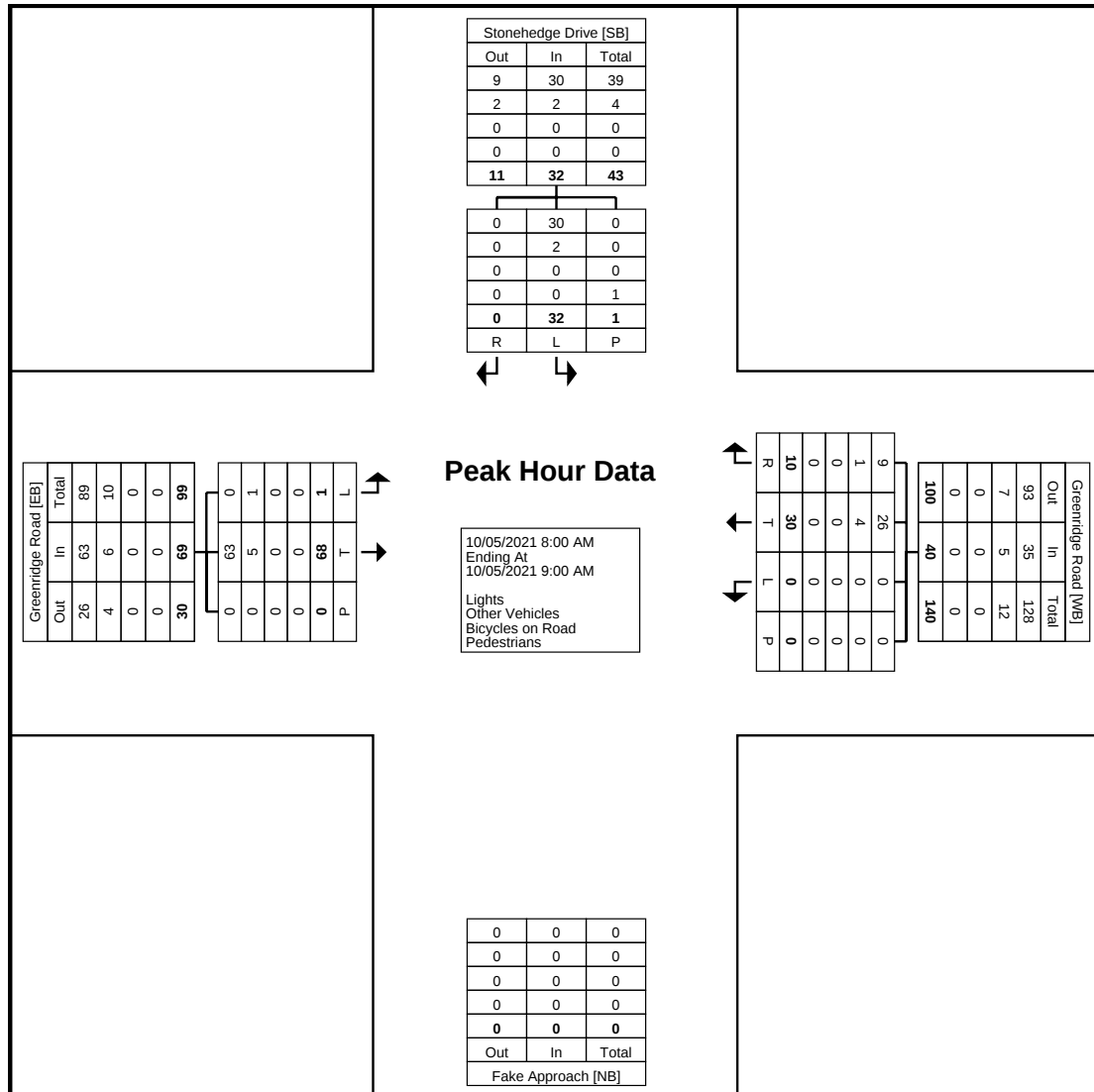
Count Name: Greenridge Road and
Stonehedge Drive
Site Code:
Start Date: 10/05/2021
Page No: 3

Turning Movement Peak Hour Data (8:00 AM)

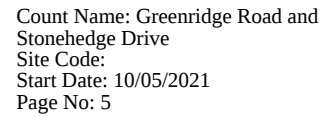
Start Time	Greenridge Road Eastbound				Greenridge Road Westbound					Stonehedge Drive Southbound				Int. Total
	Left	Thru	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	
8:00 AM	1	26	0	27	0	12	2	0	14	8	0	0	8	49
8:15 AM	0	17	0	17	0	10	1	0	11	11	0	1	11	39
8:30 AM	0	12	0	12	0	4	3	0	7	4	0	0	4	23
8:45 AM	0	13	0	13	0	4	4	0	8	9	0	0	9	30
Total	1	68	0	69	0	30	10	0	40	32	0	1	32	141
Approach %	1.4	98.6	-	-	0.0	75.0	25.0	-	-	100.0	0.0	-	-	-
Total %	0.7	48.2	-	48.9	0.0	21.3	7.1	-	28.4	22.7	0.0	-	22.7	-
PHF	0.250	0.654	-	0.639	0.000	0.625	0.625	-	0.714	0.727	0.000	-	0.727	0.719
Lights	0	63	-	63	0	26	9	-	35	30	0	-	30	128
% Lights	0.0	92.6	-	91.3	-	86.7	90.0	-	87.5	93.8	-	-	93.8	90.8
Other Vehicles	1	5	-	6	0	4	1	-	5	2	0	-	2	13
% Other Vehicles	100.0	7.4	-	8.7	-	13.3	10.0	-	12.5	6.3	-	-	6.3	9.2
Bicycles on Road	0	0	-	0	0	0	0	-	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	-	-	0.0	0.0
Pedestrians	-	-	0	-	-	-	-	0	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Counter:: Mio
Counted By:: Mio
Weather:: Clear

Count Name: Greenridge Road and
Stonehedge Drive
Site Code:
Start Date: 10/05/2021
Page No: 4



Turning Movement Peak Hour Data Plot (8:00 AM)

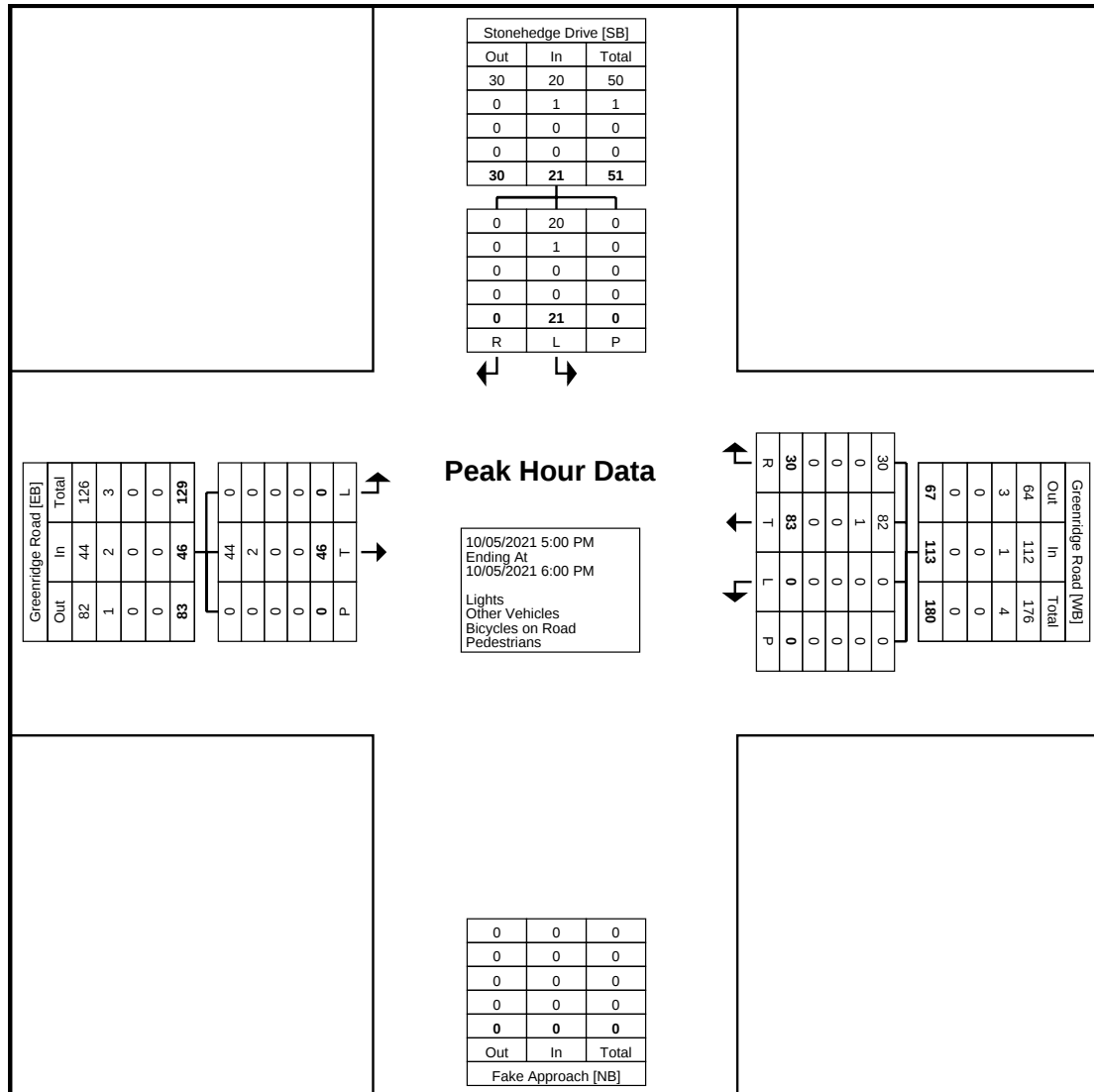
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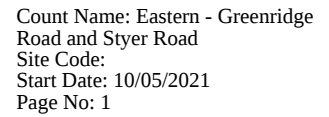
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Pottstown, Pennsylvania, United States 19464
610.326.3100 mbressler@trafficpd.com

Counter:: Mio
Counted By:: Mio
Weather:: Clear

Count Name: Greenridge Road and
Stonehedge Drive
Site Code:
Start Date: 10/05/2021
Page No: 6



Turning Movement Peak Hour Data Plot (5:00 PM)

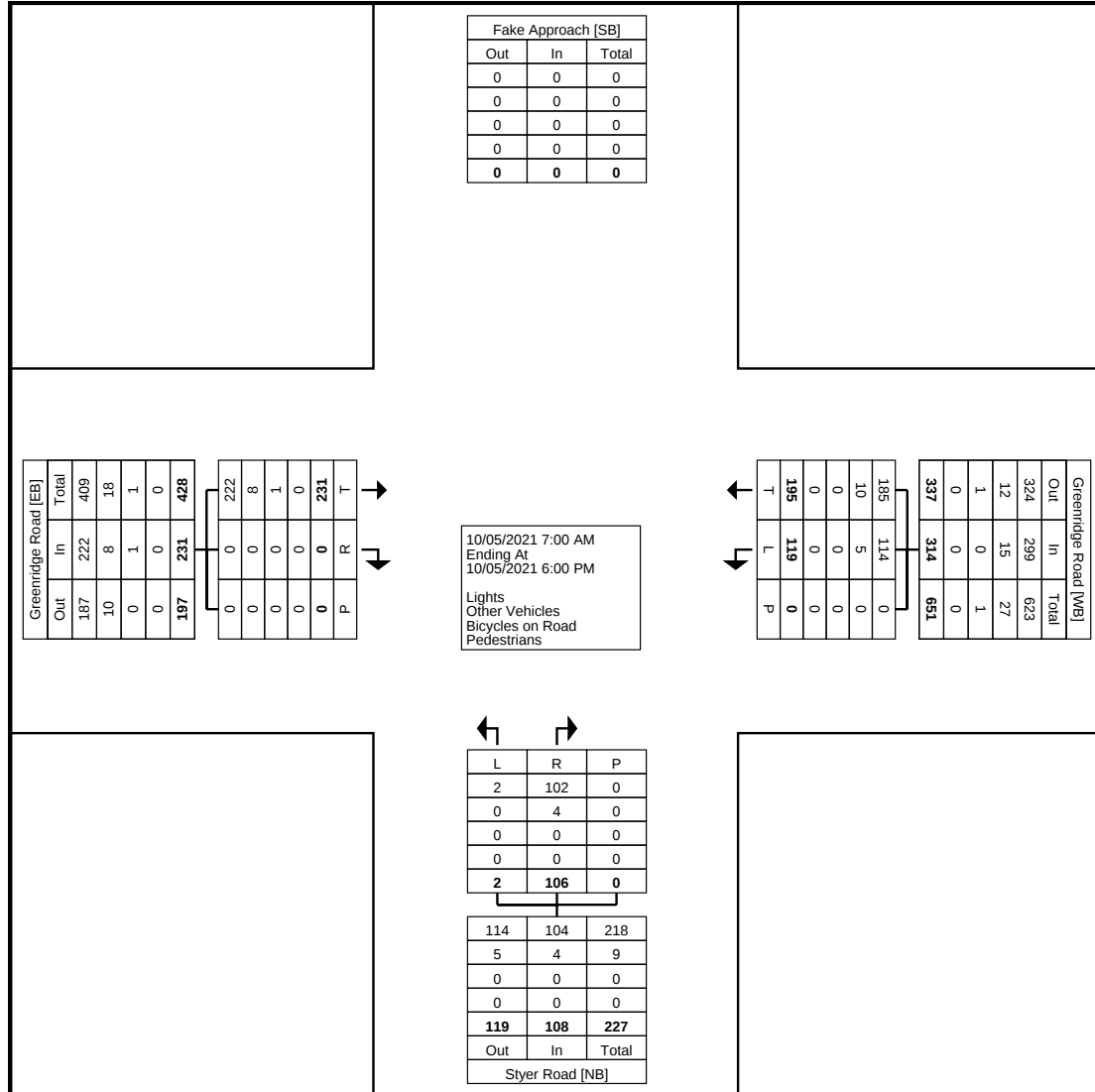
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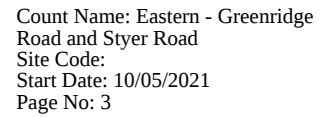
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Counter:: Mio
Counted By:: Mio
Weather:: Clear

Count Name: Eastern - Greenridge
Road and Styer Road
Site Code:
Start Date: 10/05/2021
Page No: 2



Turning Movement Data Plot

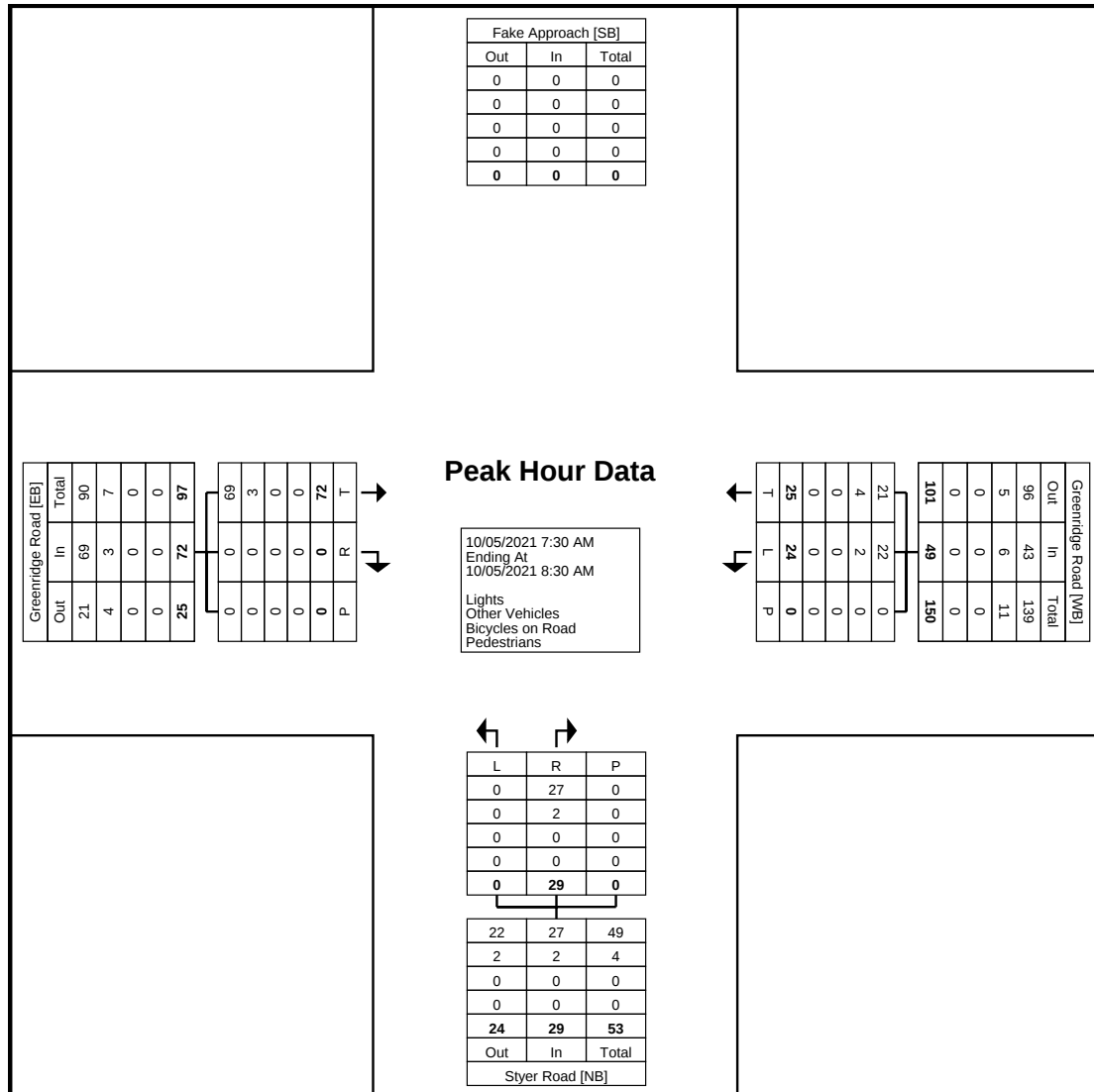
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Counter:: Mio
Counted By:: Mio
Weather:: Clear

Count Name: Eastern - Greenridge
Road and Styer Road
Site Code:
Start Date: 10/05/2021
Page No: 4



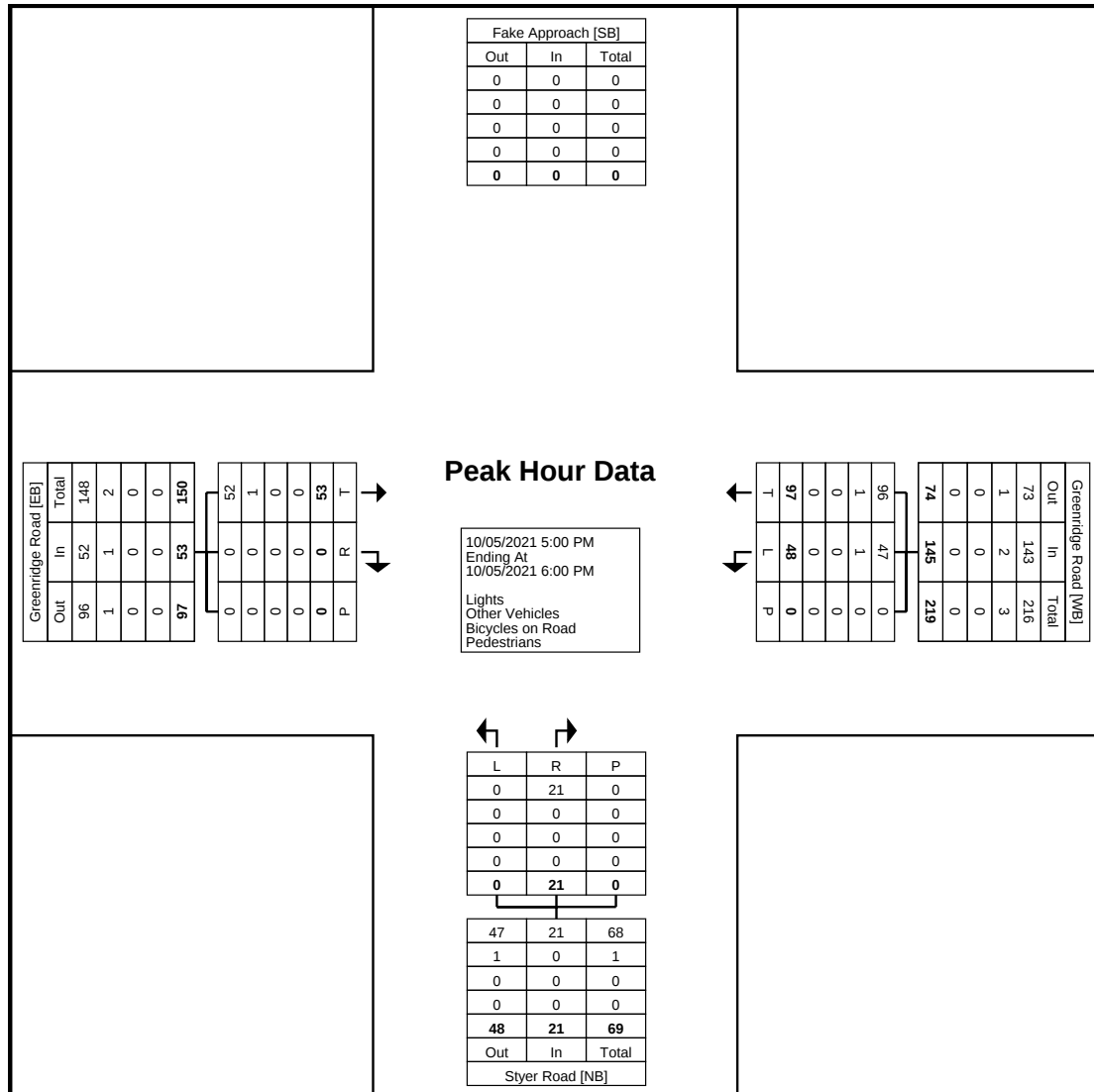
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Counted By:: Mio
Weather:: Clear

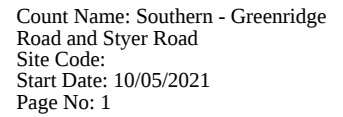
Count Name: Eastern - Greenridge
Road and Styer Road
Site Code:
Start Date: 10/05/2021
Page No: 5

Turning Movement Peak Hour Data (5:00 PM)

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Turning Movement Peak Hour Data Plot (5:00 PM)

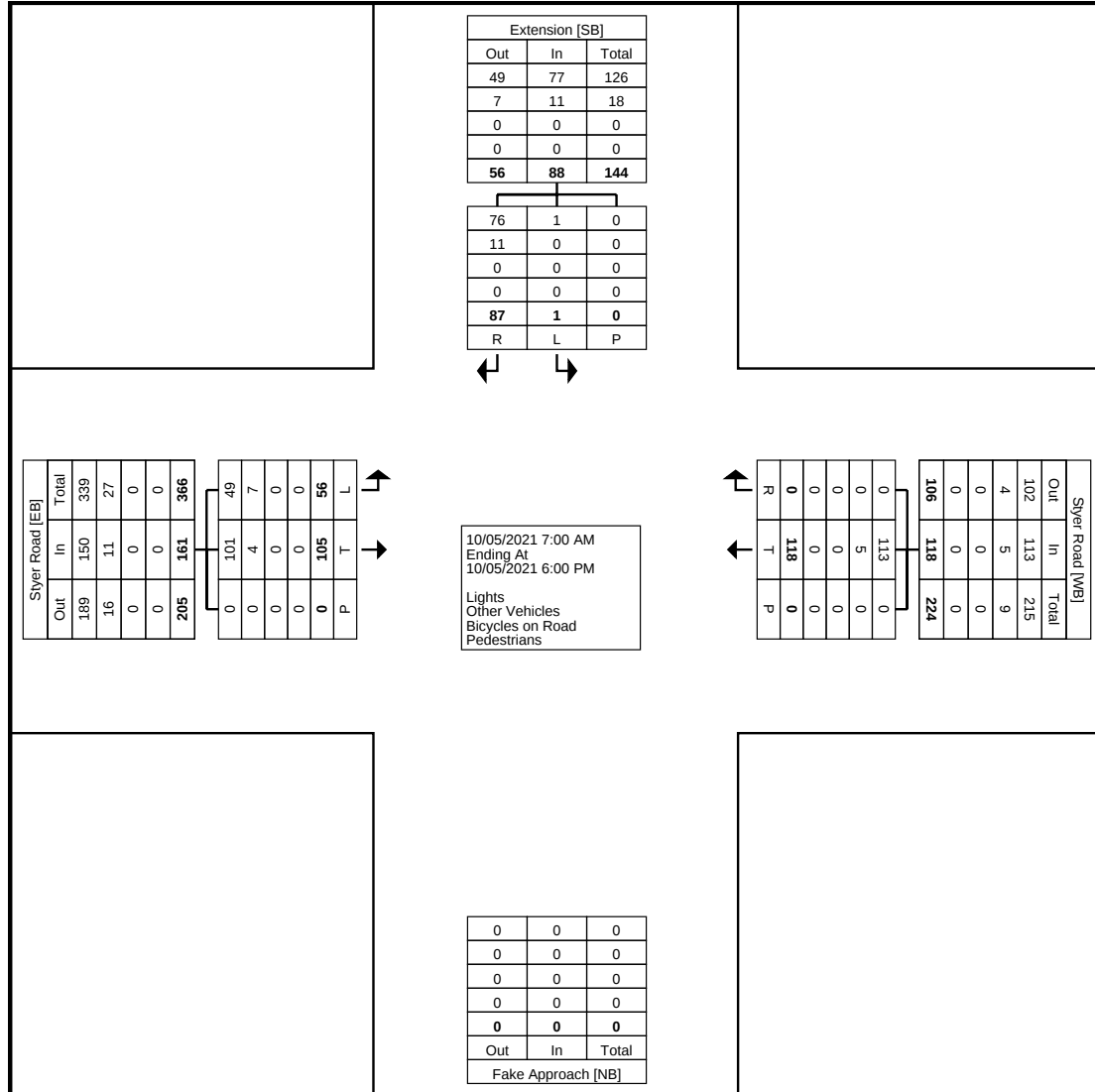
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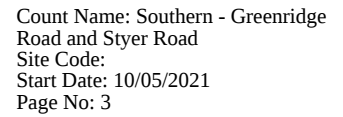
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610.326.3100 mbressler@trafficpd.com

Count Name: Southern - Greenridge
Road and Styer Road
Site Code:
Start Date: 10/05/2021
Page No: 2

Counter:: Mio
Counted By:: Mio
Weather:: Clear



Turning Movement Data Plot

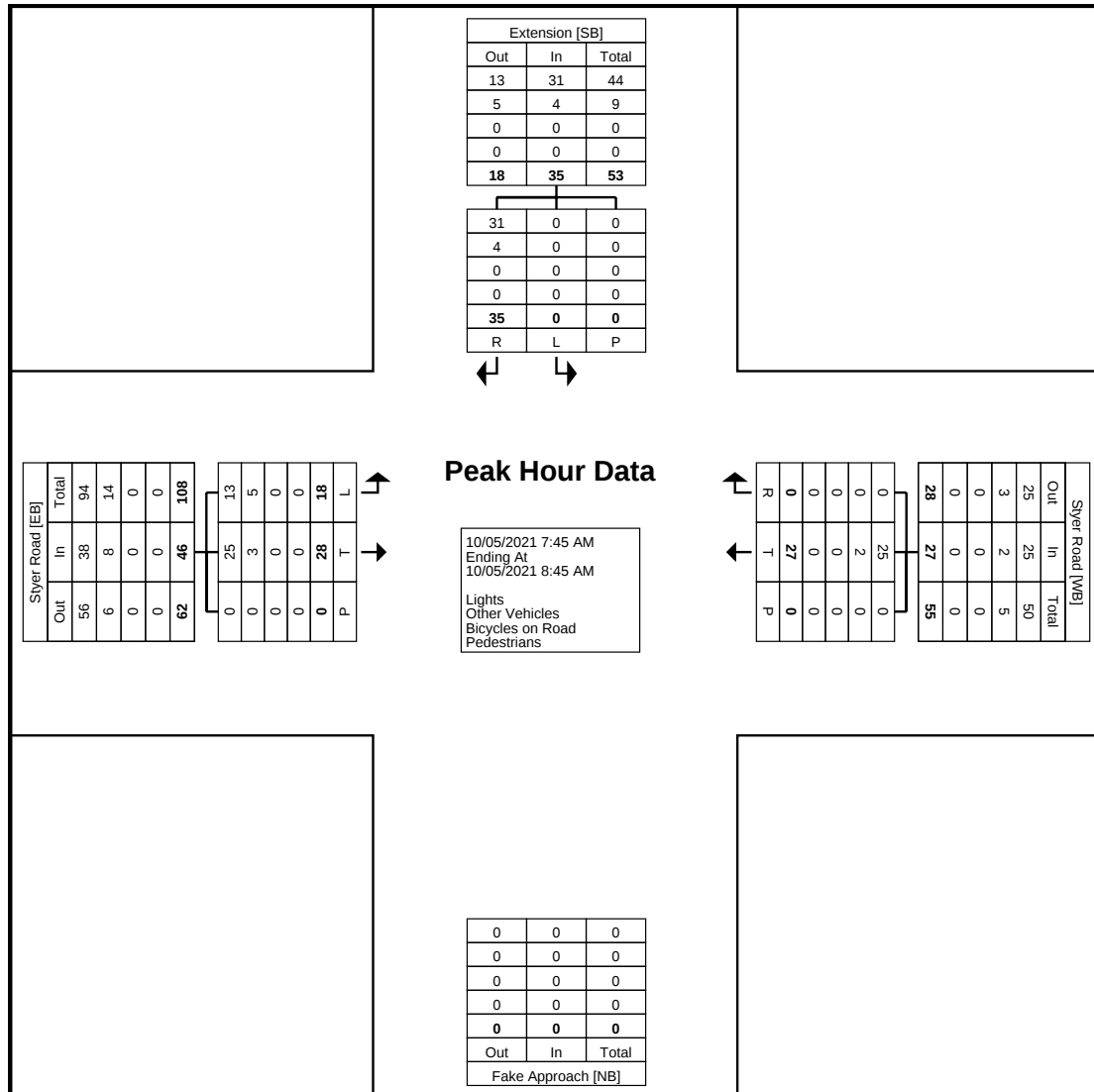
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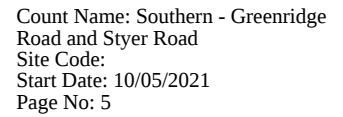
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Pottstown, Pennsylvania, United States 19464
610.326.3100 mbressler@trafficpd.com

Count Name: Southern - Greenridge
Road and Styer Road
Site Code:
Start Date: 10/05/2021
Page No: 4

Counter:: Mio
Counted By:: Mio
Weather:: Clear



Turning Movement Peak Hour Data Plot (7:45 AM)

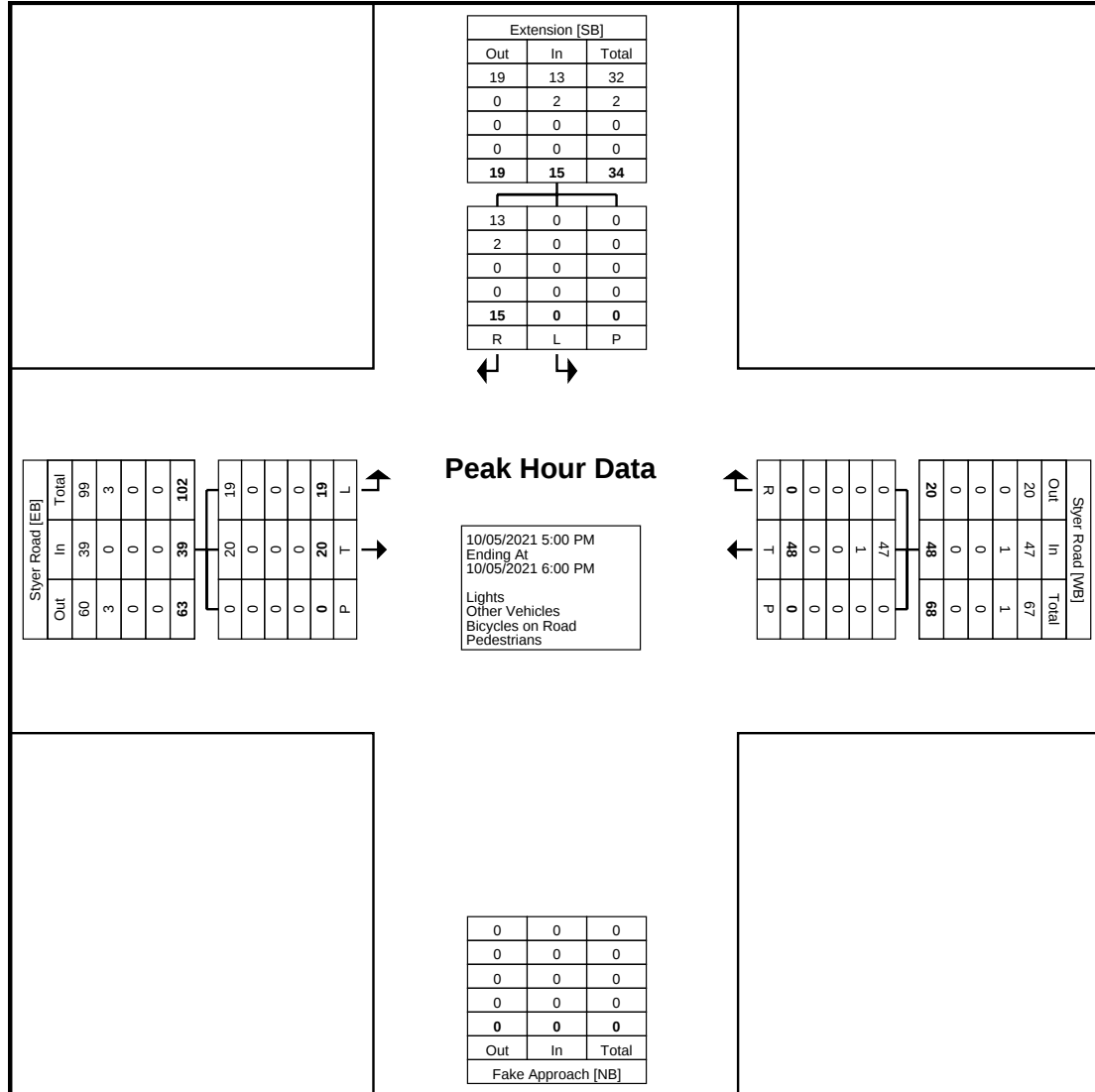
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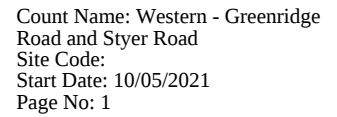
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Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100 mbressler@trafficpd.com

Count Name: Southern - Greenridge
Road and Styer Road
Site Code:
Start Date: 10/05/2021
Page No: 6

Counter:: Mio
Counted By:: Mio
Weather:: Clear



Turning Movement Peak Hour Data Plot (5:00 PM)

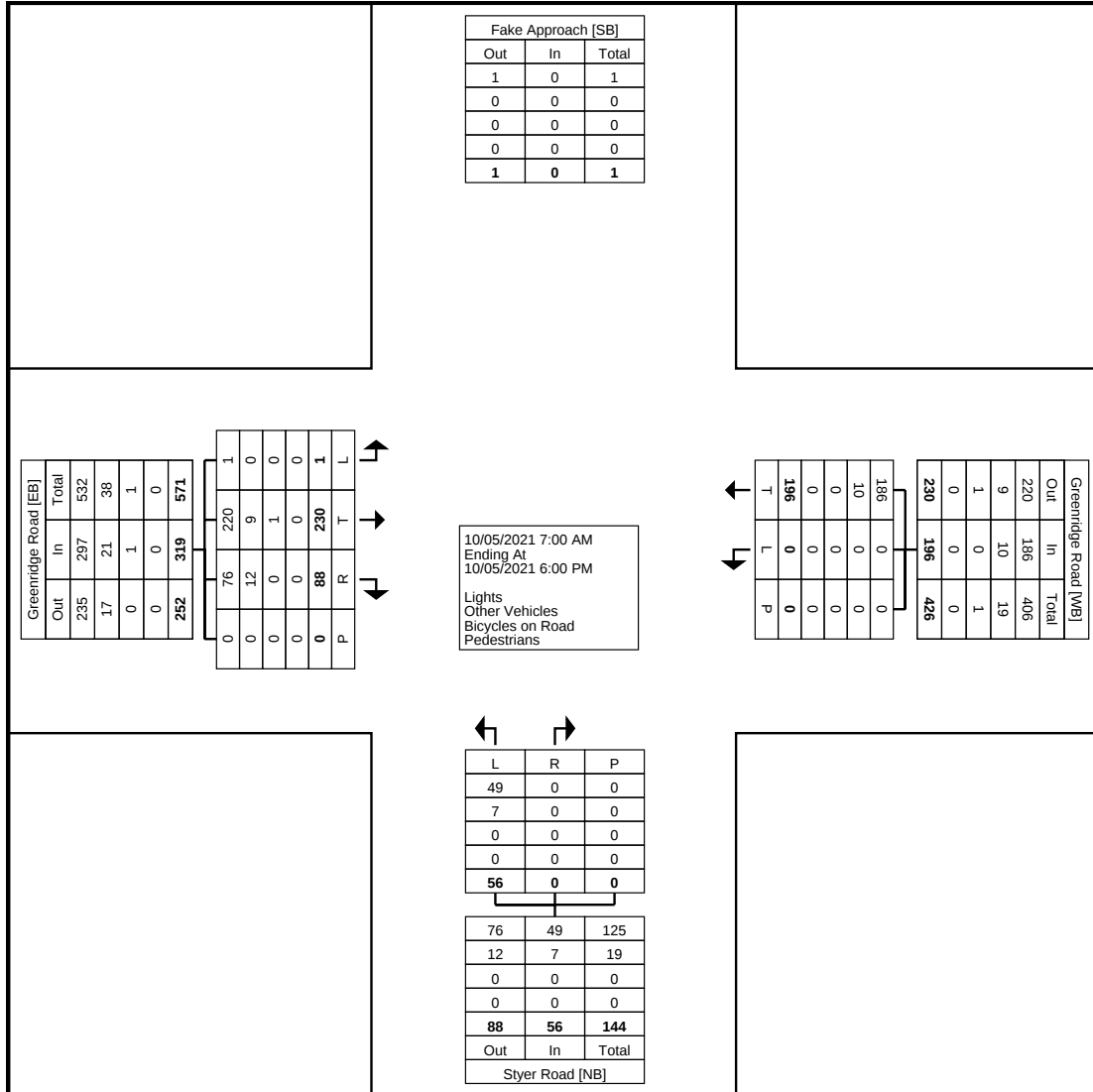
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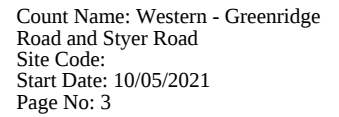
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Pottstown, Pennsylvania, United States 19464
610.326.3100 mbressler@trafficpd.com

Counter:: Mio
Counted By:: Mio
Weather:: Clear

Count Name: Western - Greenridge
Road and Styer Road
Site Code:
Start Date: 10/05/2021
Page No: 2



Turning Movement Data Plot

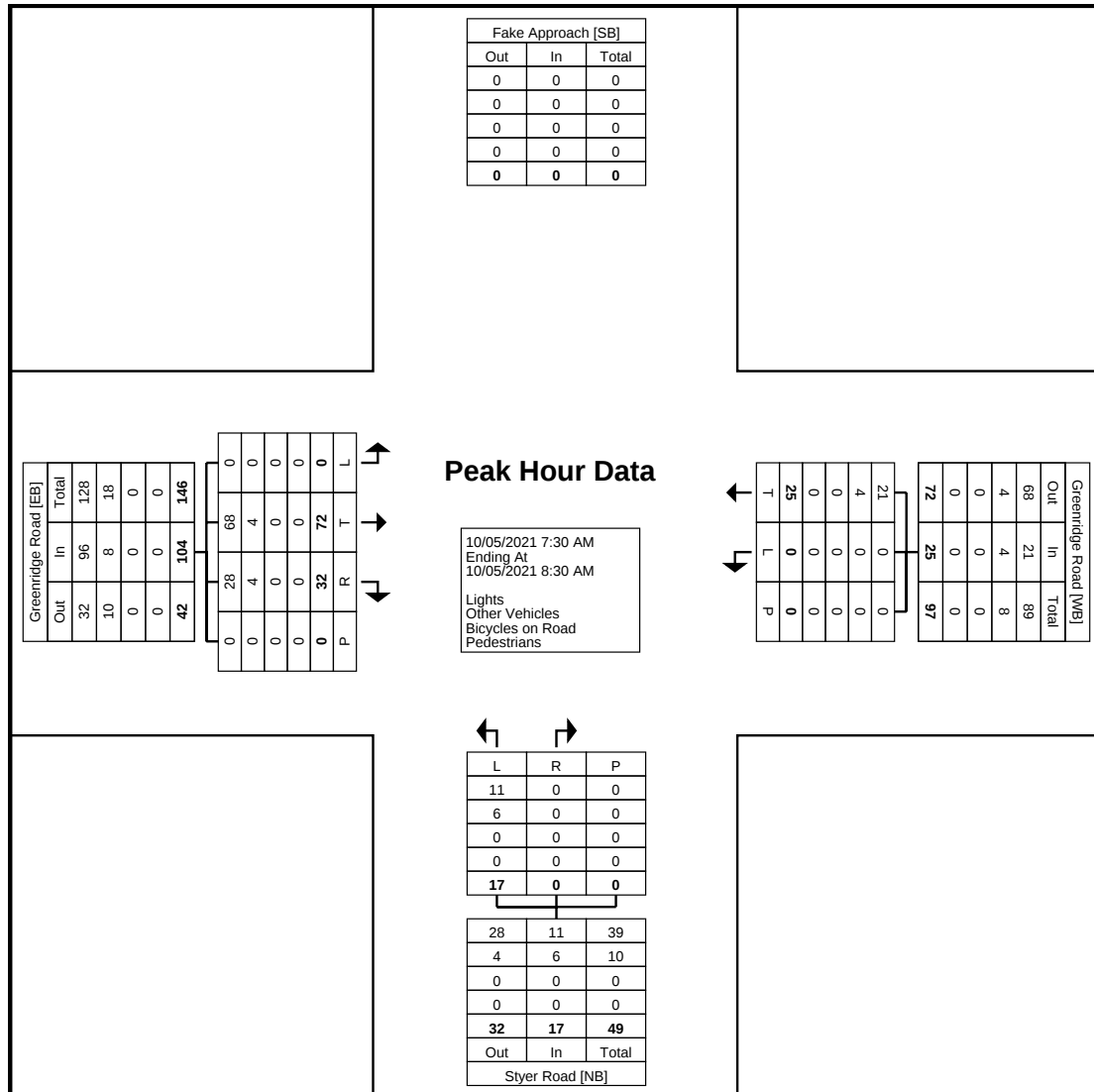
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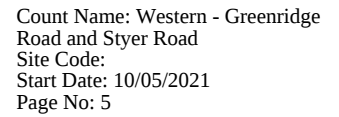
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610.326.3100 mbressler@trafficpd.com

Counter:: Mio
Counted By:: Mio
Weather:: Clear

Count Name: Western - Greenridge
Road and Styer Road
Site Code:
Start Date: 10/05/2021
Page No: 4



Turning Movement Peak Hour Data Plot (7:30 AM)

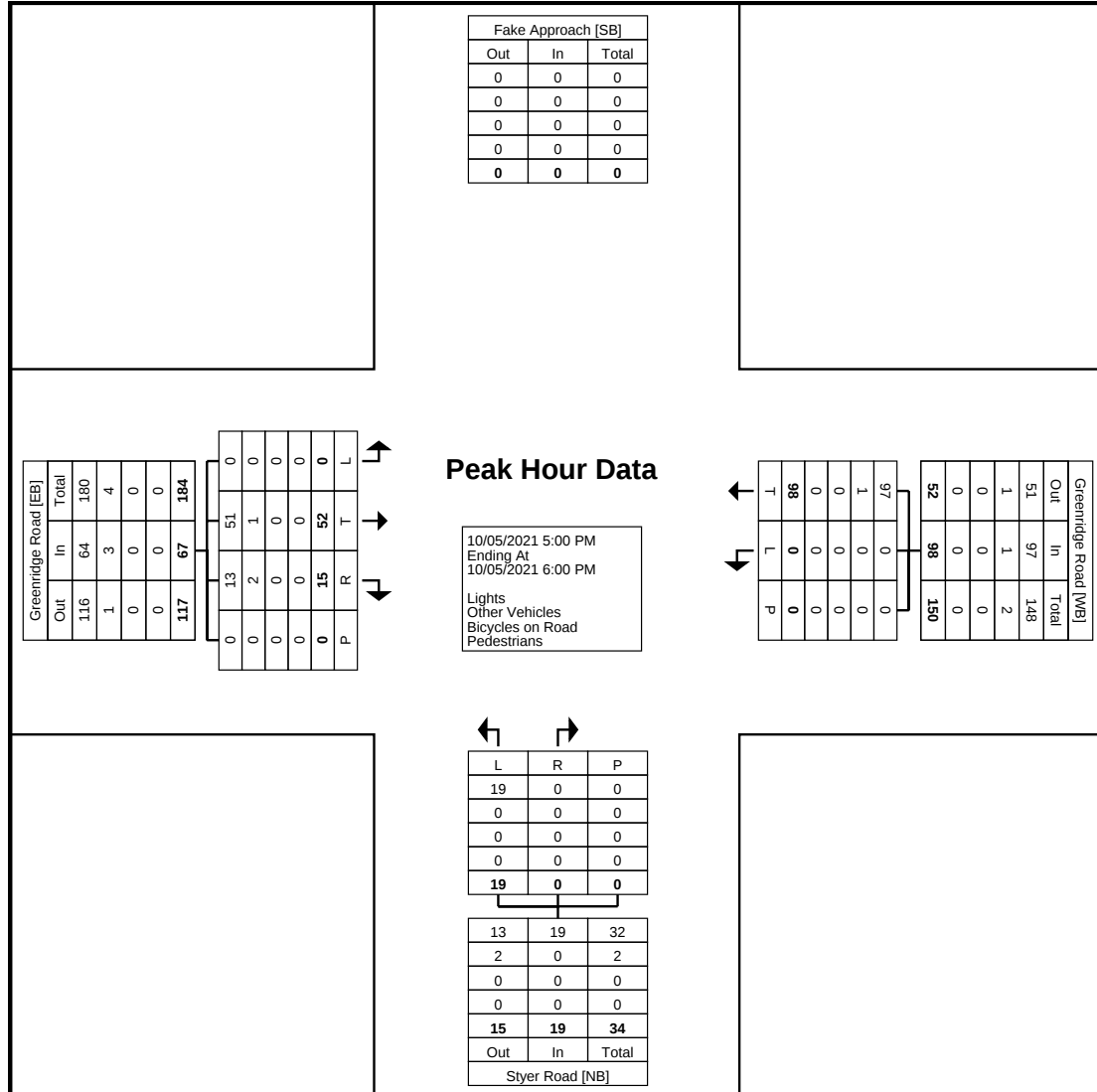
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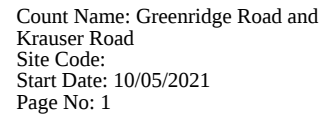
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Count Name: Western - Greenridge
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Counter:: Mio
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Turning Movement Peak Hour Data Plot (5:00 PM)

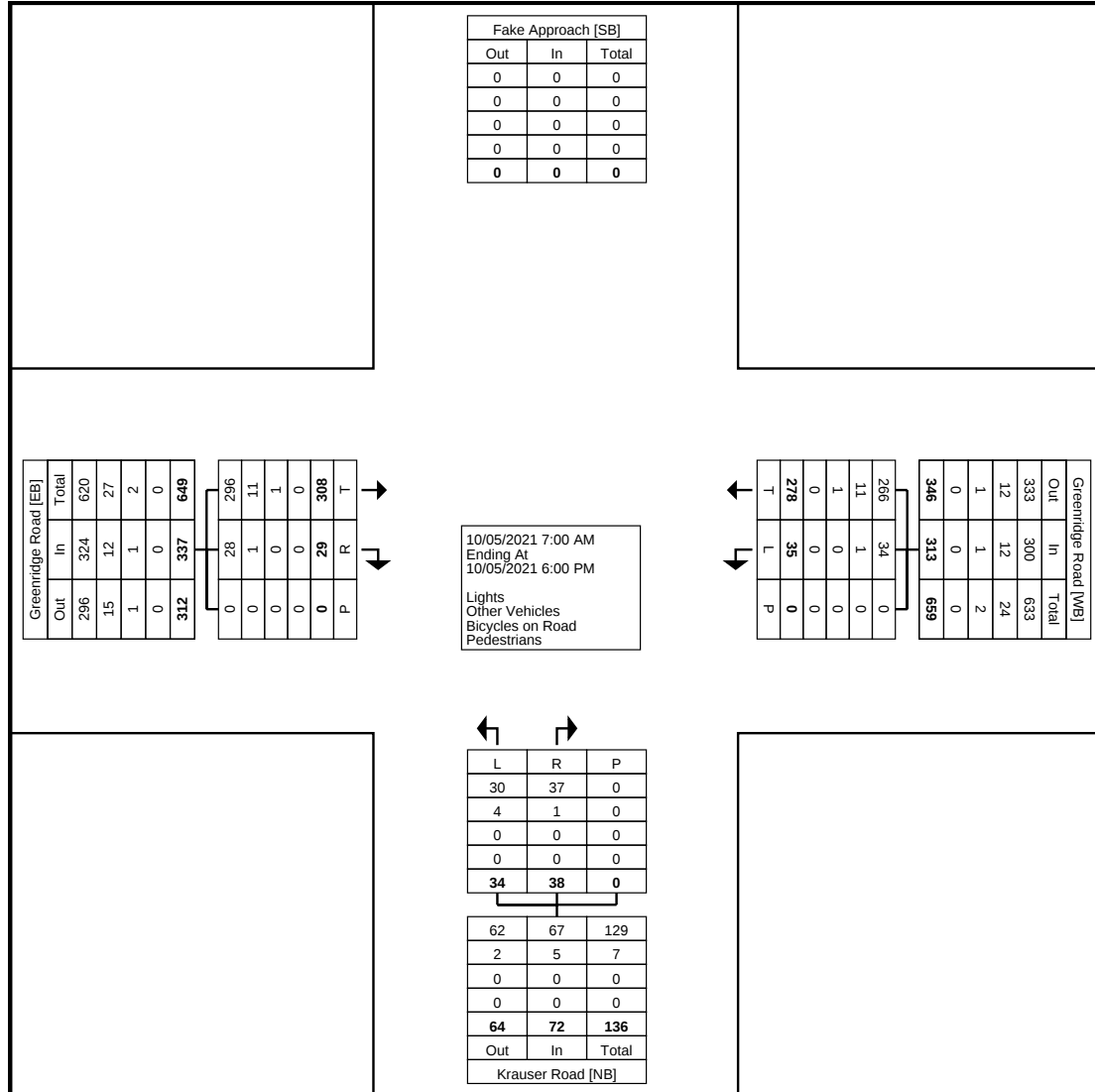
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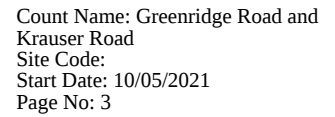
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Counter:: Mio
Counted By:: Mio
Weather:: Clear

Count Name: Greenridge Road and
Krauser Road
Site Code:
Start Date: 10/05/2021
Page No: 2



Turning Movement Data Plot

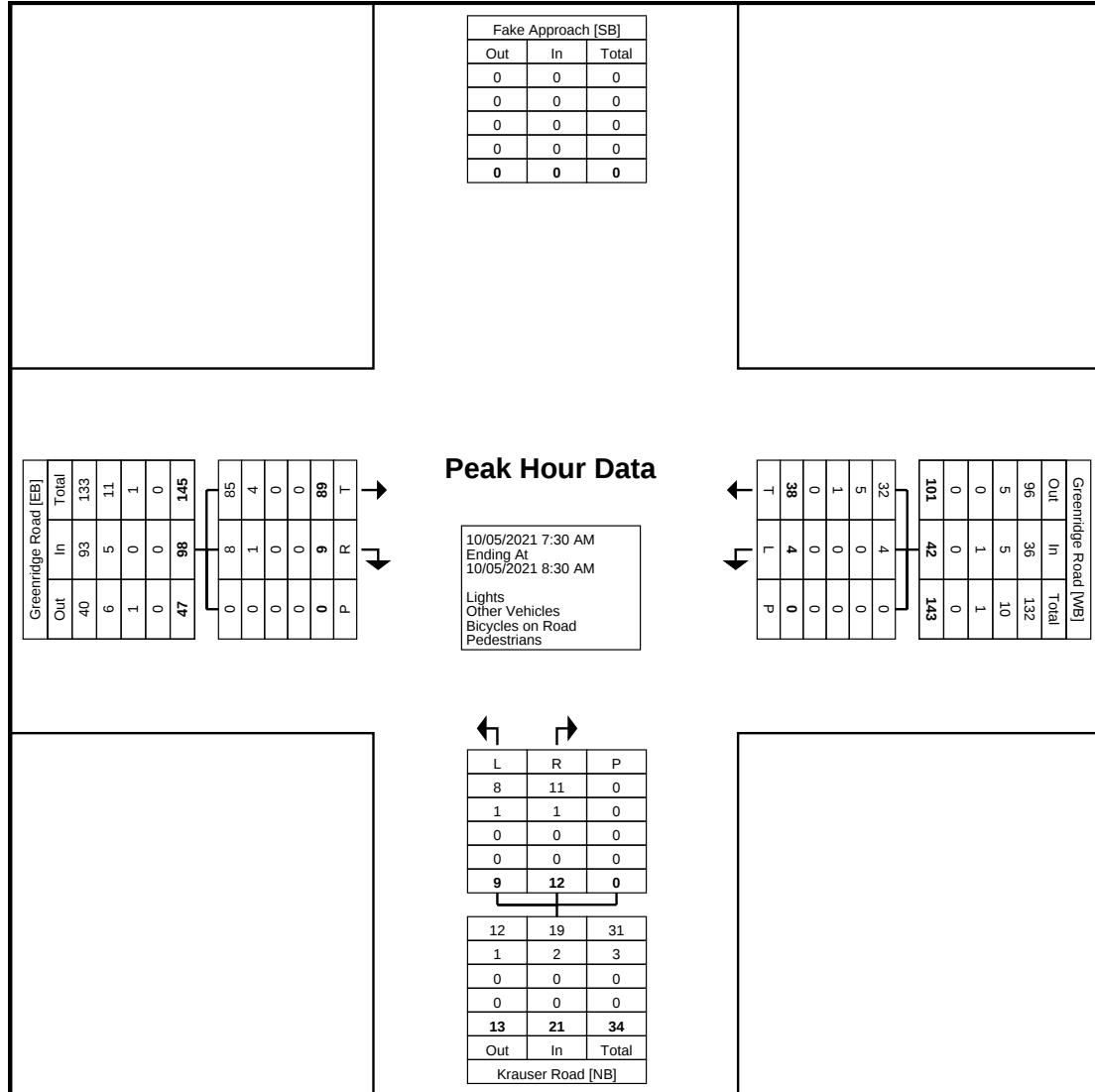
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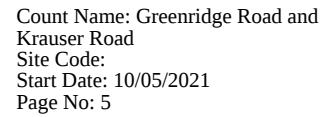
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Counter:: Mio
Counted By:: Mio
Weather:: Clear

Count Name: Greenridge Road and
Krauser Road
Site Code:
Start Date: 10/05/2021
Page No: 4



Turning Movement Peak Hour Data Plot (7:30 AM)

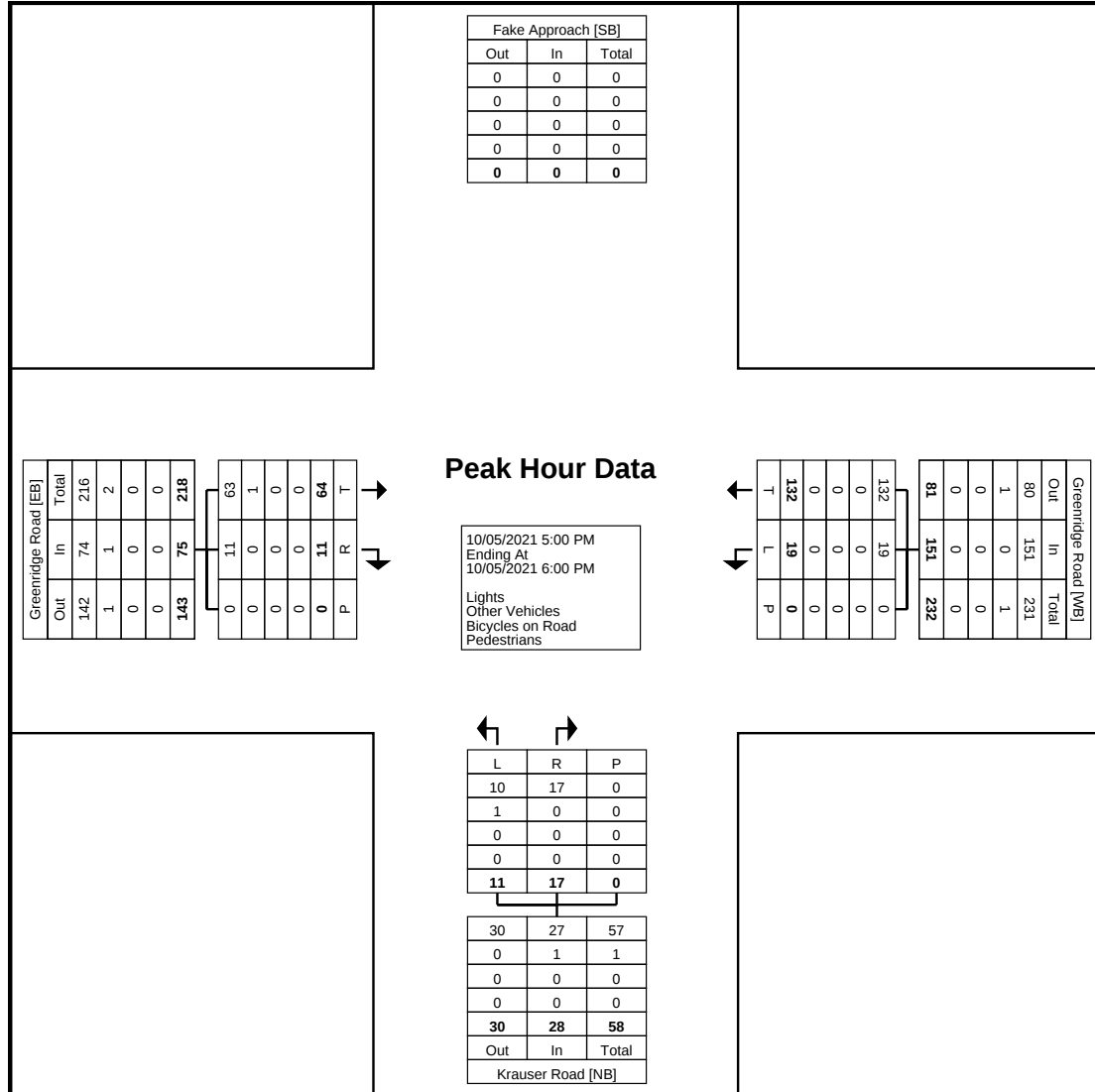
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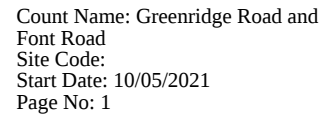
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Counter:: Mio
Counted By:: Mio
Weather:: Clear

Count Name: Greenridge Road and
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Site Code:
Start Date: 10/05/2021
Page No: 6

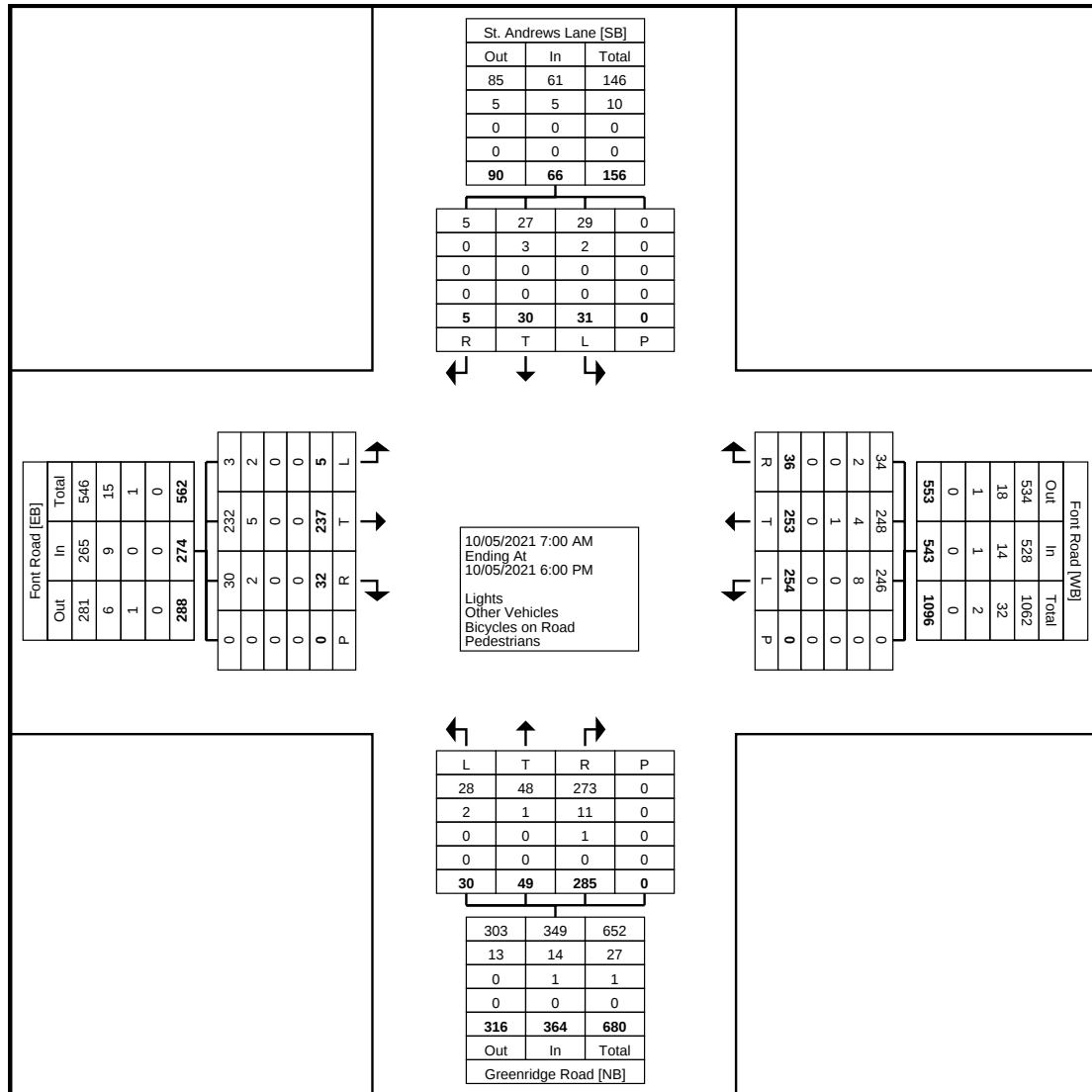


Turning Movement Peak Hour Data Plot (5:00 PM)

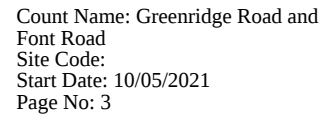


Counter:: Mio
Counted By:: Mio
Weather:: Clear

Count Name: Greenridge Road and
Font Road
Site Code:
Start Date: 10/05/2021
Page No: 2



Turning Movement Data Plot

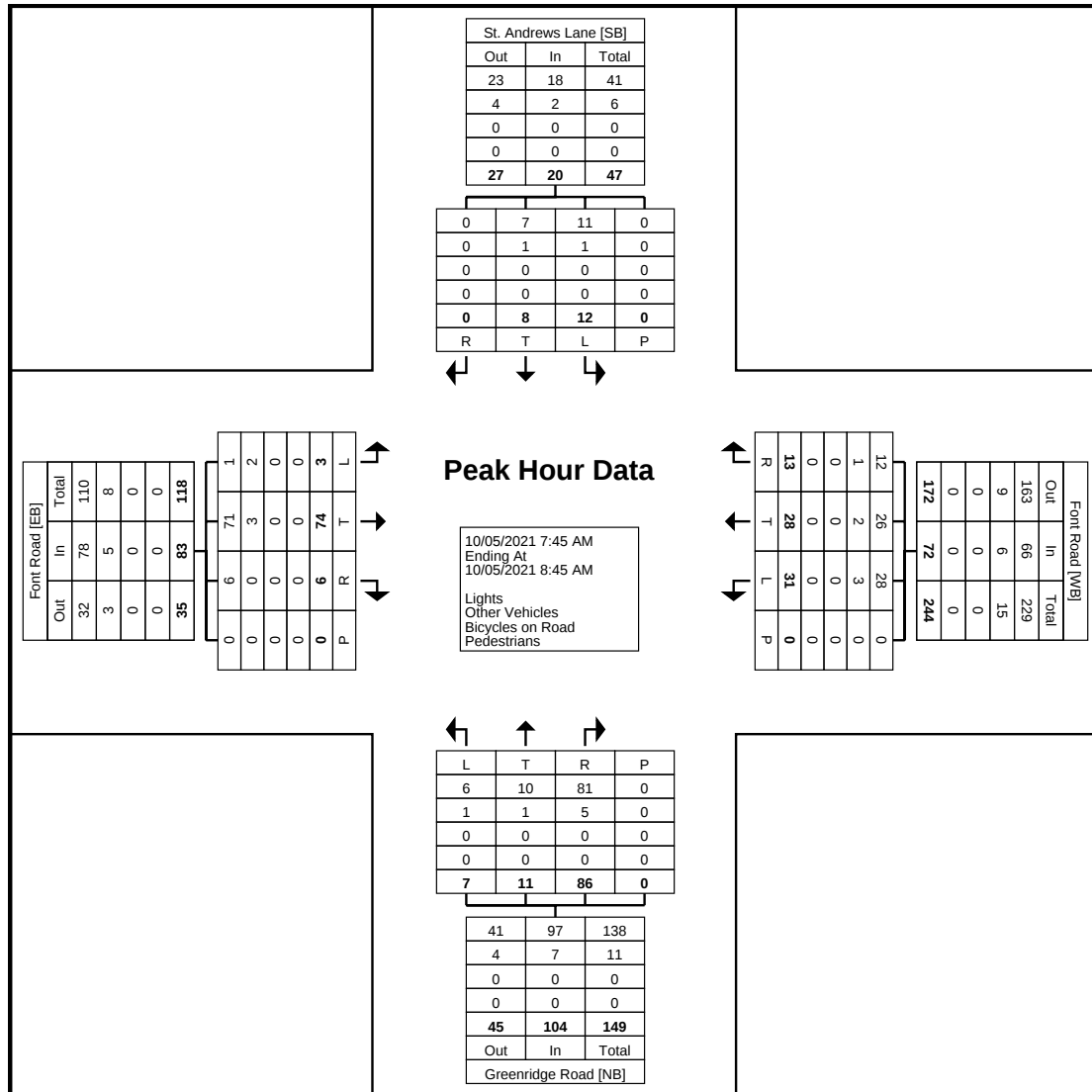




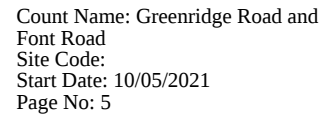
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Counter:: Mio
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Turning Movement Peak Hour Data Plot (7:45 AM)

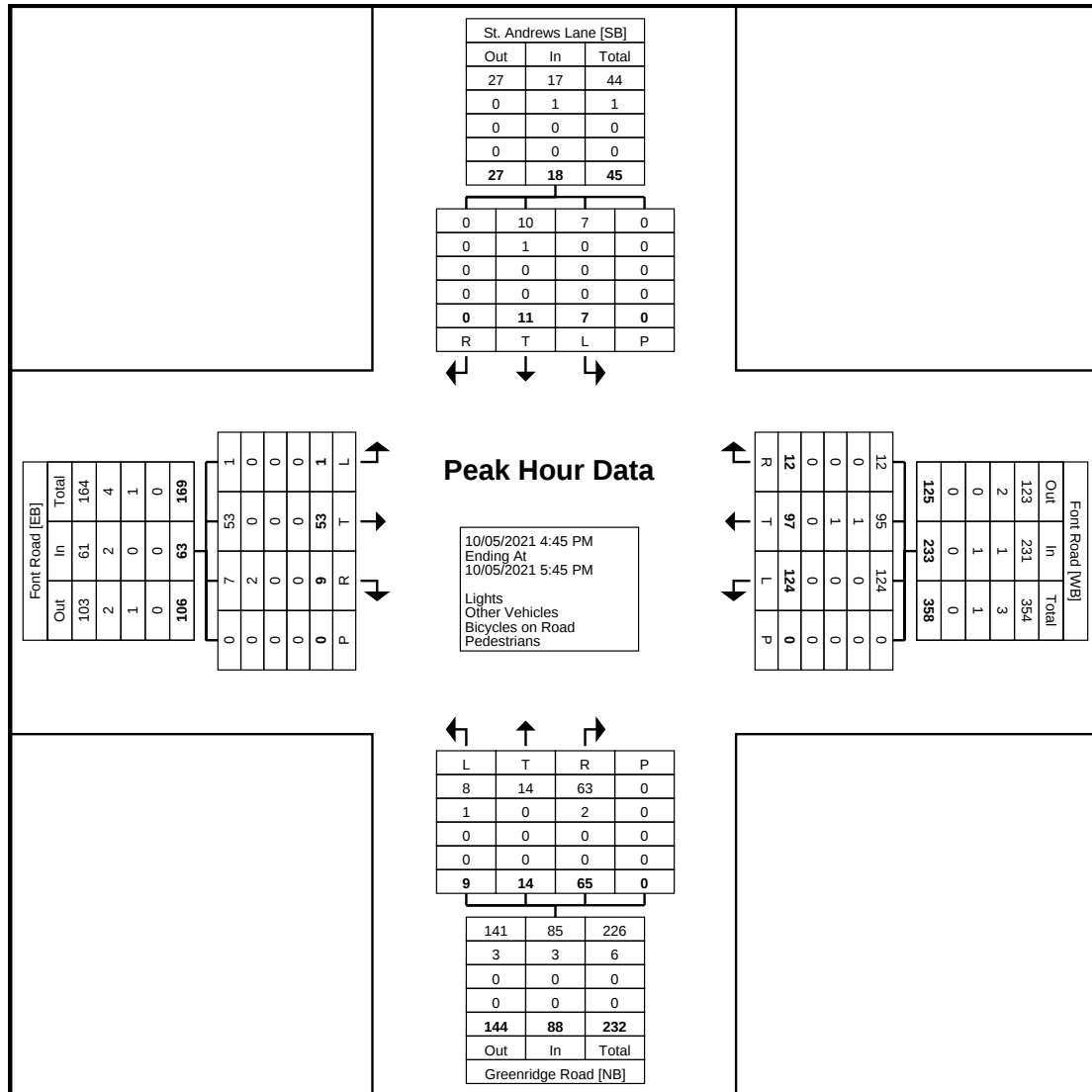




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Count Name: Greenridge Road and
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Turning Movement Peak Hour Data Plot (4:45 PM)



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Weather:: Clear

Count Name: Milford Road and
Krauser Road
Site Code:
Start Date: 10/05/2021
Page No: 1

Turning Movement Data

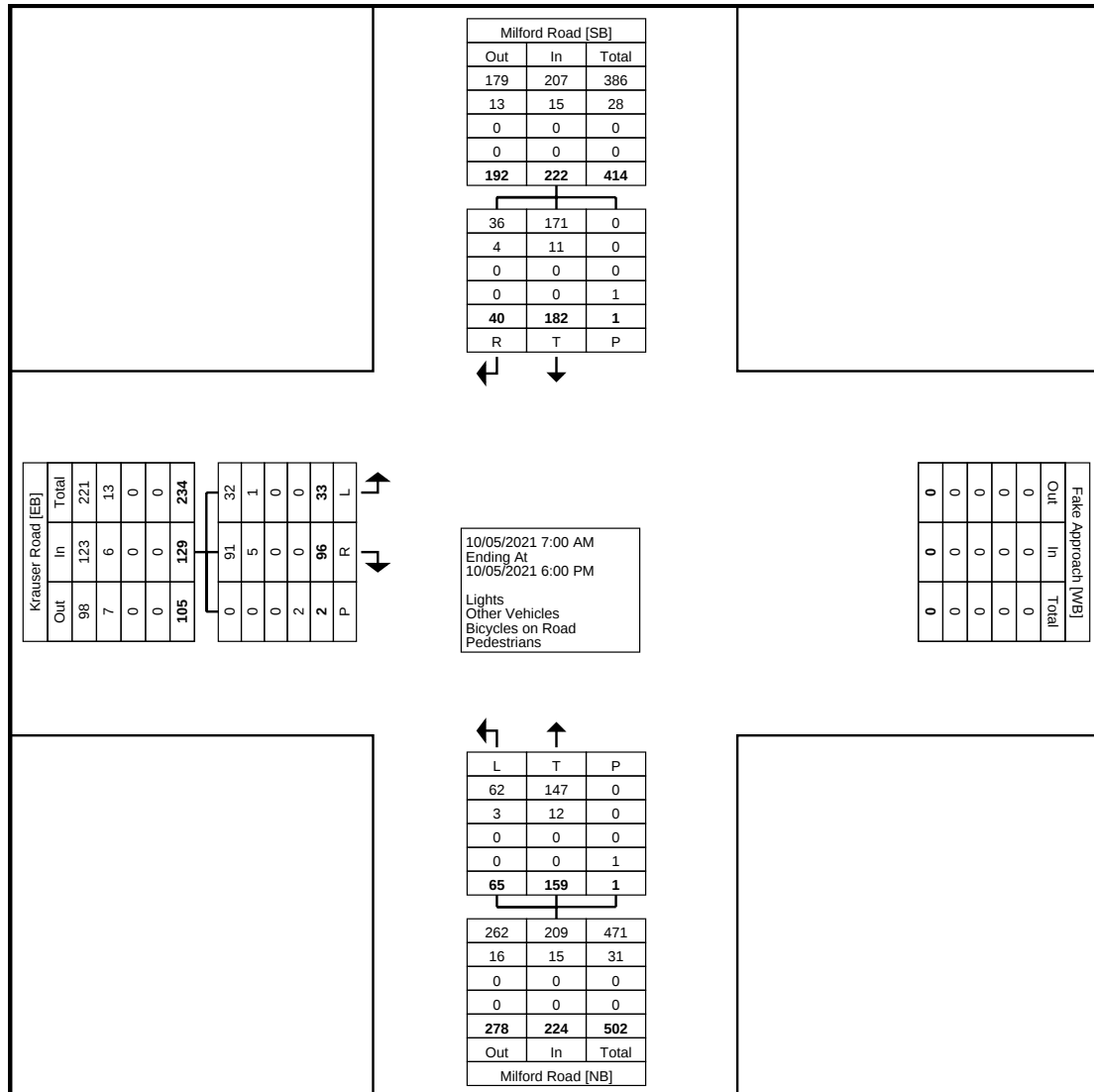
Start Time	Krauser Road Eastbound				Milford Road Northbound				Milford Road Southbound				Int. Total
	Left	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	
7:00 AM	3	5	0	8	0	8	0	8	12	1	0	13	29
7:15 AM	4	12	0	16	0	8	0	8	5	0	0	5	29
7:30 AM	1	8	0	9	2	8	1	10	10	2	0	12	31
7:45 AM	0	6	0	6	2	16	0	18	4	2	0	6	30
Hourly Total	8	31	0	39	4	40	1	44	31	5	0	36	119
8:00 AM	5	9	0	14	3	11	0	14	14	3	0	17	45
8:15 AM	1	6	0	7	3	7	0	10	12	0	0	12	29
8:30 AM	2	7	0	9	1	8	0	9	11	1	0	12	30
8:45 AM	2	5	0	7	1	12	0	13	8	0	0	8	28
Hourly Total	10	27	0	37	8	38	0	46	45	4	0	49	132
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	1	7	0	8	6	13	0	19	15	4	0	19	46
4:15 PM	3	4	0	7	5	6	0	11	14	5	0	19	37
4:30 PM	1	7	0	8	5	13	0	18	13	2	0	15	41
4:45 PM	2	3	0	5	7	10	0	17	12	3	0	15	37
Hourly Total	7	21	0	28	23	42	0	65	54	14	0	68	161
5:00 PM	1	4	0	5	12	6	0	18	17	2	0	19	42
5:15 PM	3	3	0	6	5	9	0	14	12	5	0	17	37
5:30 PM	3	7	1	10	5	11	0	16	13	5	0	18	44
5:45 PM	1	3	1	4	8	13	0	21	10	5	1	15	40
Hourly Total	8	17	2	25	30	39	0	69	52	17	1	69	163
Grand Total	33	96	2	129	65	159	1	224	182	40	1	222	575
Approach %	25.6	74.4	-	-	29.0	71.0	-	-	82.0	18.0	-	-	-
Total %	5.7	16.7	-	22.4	11.3	27.7	-	39.0	31.7	7.0	-	38.6	-
Lights	32	91	-	123	62	147	-	209	171	36	-	207	539
% Lights	97.0	94.8	-	95.3	95.4	92.5	-	93.3	94.0	90.0	-	93.2	93.7
Other Vehicles	1	5	-	6	3	12	-	15	11	4	-	15	36
% Other Vehicles	3.0	5.2	-	4.7	4.6	7.5	-	6.7	6.0	10.0	-	6.8	6.3
Bicycles on Road	0	0	-	0	0	0	-	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	2	-	-	-	1	-	-	-	1	-	-
% Pedestrians	-	-	100.0	-	-	-	100.0	-	-	-	100.0	-	-



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Count Name: Milford Road and
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Page No: 2



Turning Movement Data Plot



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Count Name: Milford Road and
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Site Code:
Start Date: 10/05/2021
Page No: 3

Turning Movement Peak Hour Data (7:15 AM)

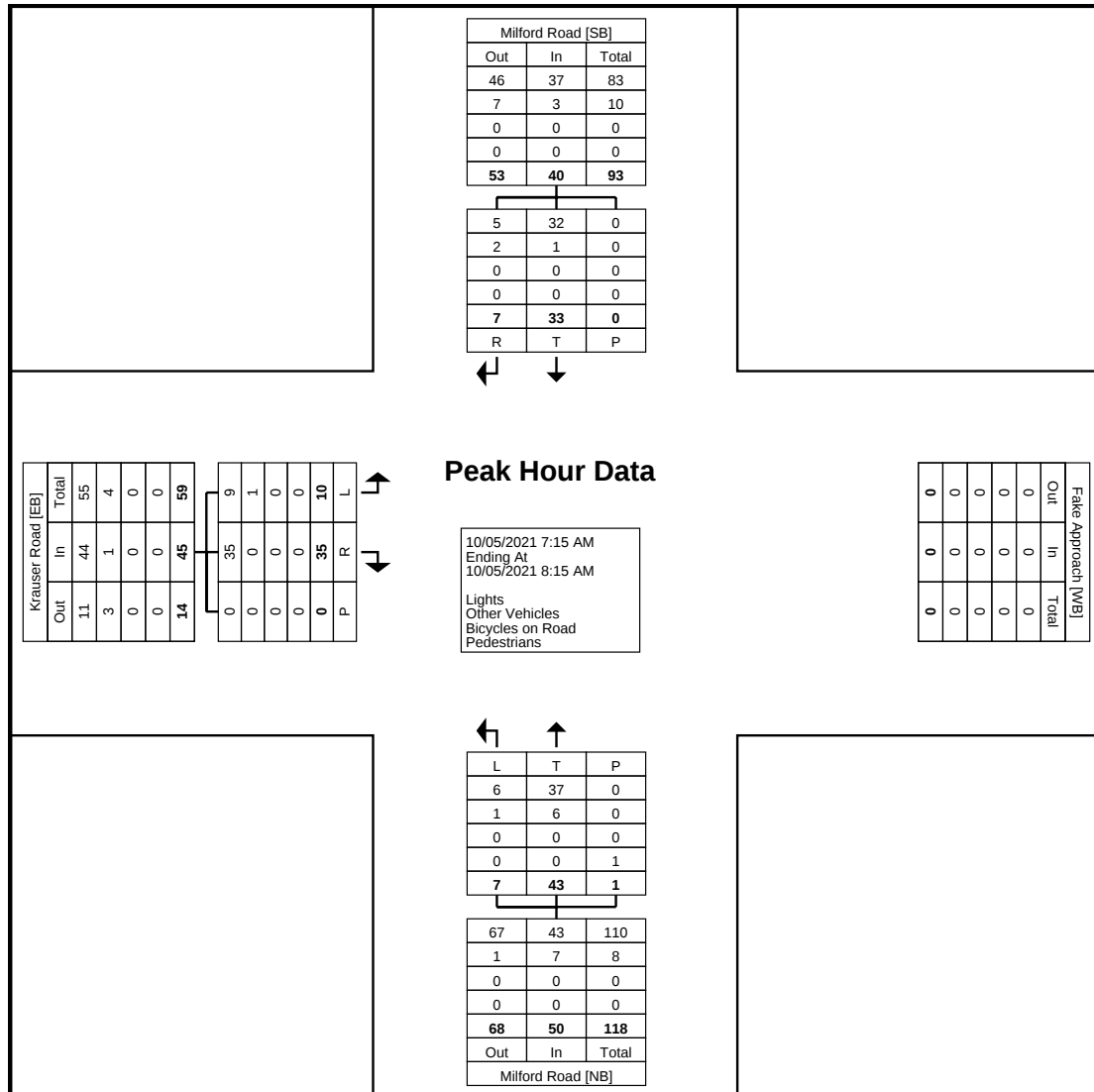
Start Time	Krauser Road Eastbound				Milford Road Northbound				Milford Road Southbound				Int. Total
	Left	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	
7:15 AM	4	12	0	16	0	8	0	8	5	0	0	5	29
7:30 AM	1	8	0	9	2	8	1	10	10	2	0	12	31
7:45 AM	0	6	0	6	2	16	0	18	4	2	0	6	30
8:00 AM	5	9	0	14	3	11	0	14	14	3	0	17	45
Total	10	35	0	45	7	43	1	50	33	7	0	40	135
Approach %	22.2	77.8	-	-	14.0	86.0	-	-	82.5	17.5	-	-	-
Total %	7.4	25.9	-	33.3	5.2	31.9	-	37.0	24.4	5.2	-	29.6	-
PHF	0.500	0.729	-	0.703	0.583	0.672	-	0.694	0.589	0.583	-	0.588	0.750
Lights	9	35	-	44	6	37	-	43	32	5	-	37	124
% Lights	90.0	100.0	-	97.8	85.7	86.0	-	86.0	97.0	71.4	-	92.5	91.9
Other Vehicles	1	0	-	1	1	6	-	7	1	2	-	3	11
% Other Vehicles	10.0	0.0	-	2.2	14.3	14.0	-	14.0	3.0	28.6	-	7.5	8.1
Bicycles on Road	0	0	-	0	0	0	-	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	0	-	-	-	1	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	100.0	-	-	-	-	-	-



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Site Code:
Start Date: 10/05/2021
Page No: 4



Turning Movement Peak Hour Data Plot (7:15 AM)



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Weather:: Clear

Count Name: Milford Road and
Krauser Road
Site Code:
Start Date: 10/05/2021
Page No: 5

Turning Movement Peak Hour Data (5:00 PM)

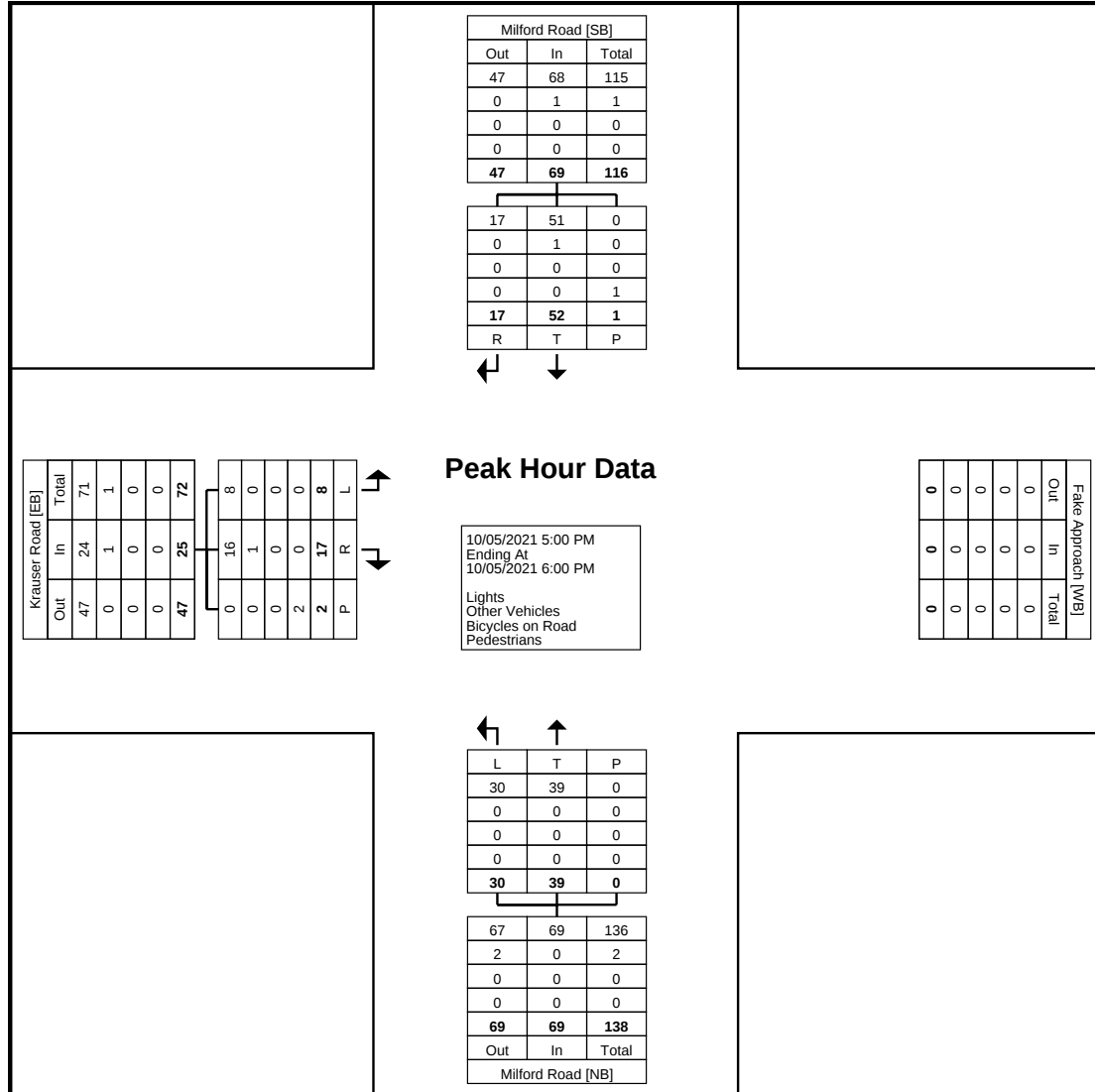
Start Time	Krauser Road Eastbound				Milford Road Northbound				Milford Road Southbound				Int. Total
	Left	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	
5:00 PM	1	4	0	5	12	6	0	18	17	2	0	19	42
5:15 PM	3	3	0	6	5	9	0	14	12	5	0	17	37
5:30 PM	3	7	1	10	5	11	0	16	13	5	0	18	44
5:45 PM	1	3	1	4	8	13	0	21	10	5	1	15	40
Total	8	17	2	25	30	39	0	69	52	17	1	69	163
Approach %	32.0	68.0	-	-	43.5	56.5	-	-	75.4	24.6	-	-	-
Total %	4.9	10.4	-	15.3	18.4	23.9	-	42.3	31.9	10.4	-	42.3	-
PHF	0.667	0.607	-	0.625	0.625	0.750	-	0.821	0.765	0.850	-	0.908	0.926
Lights	8	16	-	24	30	39	-	69	51	17	-	68	161
% Lights	100.0	94.1	-	96.0	100.0	100.0	-	100.0	98.1	100.0	-	98.6	98.8
Other Vehicles	0	1	-	1	0	0	-	0	1	0	-	1	2
% Other Vehicles	0.0	5.9	-	4.0	0.0	0.0	-	0.0	1.9	0.0	-	1.4	1.2
Bicycles on Road	0	0	-	0	0	0	-	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	2	-	-	-	0	-	-	-	1	-	-
% Pedestrians	-	-	100.0	-	-	-	-	-	-	-	100.0	-	-



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Weather:: Clear



Turning Movement Peak Hour Data Plot (5:00 PM)

APPENDIX B:

Volume Development Worksheets

TPD# TOLB.00045

10/20/2021

Traffic Volumes Worksheet

Intersection:

Synchro Node:

Greenridge Road & Stonehedge Drive									
1	Adjacent intersections:	West		East		North		South	

Time Period: Weekday A.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
2021 Counts	1	68			30	10				32		0	141
Adjustment													0
Existing Volumes (Adjusted)	1	68	0	0	30	10	0	0	0	32	0	0	141

Base growth (0.61% compounded for 5 yrs)	0	2	0	0	1	0	0	0	0	1	0	0	4
Byers Station 5C													
Byers Station - 40 Town Homes													
Byers Station - Ewing Tract													
Byers Station - Parcel 6C													
Gunner Property													
McKee Feters Tract													
Nearby Total	0	0	0	0	0	0	0	0	0	0	0	0	0
2026 Base Volumes	1	70	0	0	31	10	0	0	0	33	0	0	145

New Trips		2			5								
Pass By Trips													
													0
Total Trip Distribution	0	2	0	0	5	0	0	0	0	0	0	0	7
2026 Projected Volumes	1	72	0	0	36	10	0	0	0	33	0	0	152

Time Period: Weekday P.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
2021 Counts	0	46			83	30				21		0	180
Adjustment													0
Existing Volumes (Adjusted)	0	46	0	0	83	30	0	0	0	21	0	0	180

Base growth (0.61% compounded for 5 yrs)	0	1	0	0	3	1	0	0	0	1	0	0	6
Byers Station 5C													
Byers Station - 40 Town Homes													
Byers Station - Ewing Tract													
Byers Station - Parcel 6C													
Gunner Property													
McKee Feters Tract													
Nearby Total	0	0	0	0	0	0	0	0	0	0	0	0	0
2026 Base Volumes	0	47	0	0	86	31	0	0	0	22	0	0	186

New Trips		5			3								
Pass By Trips													
	0												0
	0												0
Total Trip Distribution	0	5	0	0	3	0	0	0	0	0	0	0	8
2026 Projected Volumes	0	52	0	0	89	31	0	0	0	22	0	0	194

TPD# TOLB.00045

10/20/2021

Traffic Volumes Worksheet

Intersection:

Synchro Node:

Styer Road & Greenridge Road									
2	Adjacent intersections:	West		East		North		South	

Time Period: Weekday A.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
2021 Counts		72		24	25				29				150
Adjustment													0
Existing Volumes (Adjusted)	0	72	0	24	25	0	0	0	29	0	0	0	150

Base growth (0.61% compounded for 5 yrs)	0	2	0	1	1	0	0	0	1	0	0	0	5
Byers Station 5C													
Byers Station - 40 Town Homes													
Byers Station - Ewing Tract													
Byers Station - Parcel 6C													
Gunner Property													
McKee Fettes Tract													
Nearby Total	0	0	0	0	0	0	0	0	0	0	0	0	0
2026 Base Volumes	0	74	0	25	26	0	0	0	30	0	0	0	155

New Trips		2		3	5				1				
Pass By Trips													
													0
Total Trip Distribution	0	2	0	3	5	0	0	0	1	0	0	0	11
2026 Projected Volumes	0	76	0	28	31	0	0	0	31	0	0	0	166

Time Period: Weekday P.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
2021 Counts		53		48	97		0		21				219
Adjustment													0
Existing Volumes (Adjusted)	0	53	0	48	97	0	0	0	21	0	0	0	219
Base growth (0.61% compounded for 5 yrs)	0	2	0	1	3	0	0	0	1	0	0	0	7
Byers Station 5C													
Byers Station - 40 Town Homes													
Byers Station - Ewing Tract													
Byers Station - Parcel 6C													
Gunner Property													
McKee Fettes Tract													
Nearby Total	0	0	0	0	0	0	0	0	0	0	0	0	0
2026 Base Volumes	0	55	0	49	100	0	0	0	22	0	0	0	226

New Trips		5		2	3				4				
Pass By Trips													
	0												0
	0												0
Total Trip Distribution	0	5	0	2	3	0	0	0	4	0	0	0	14
2026 Projected Volumes	0	60	0	51	103	0	0	0	26	0	0	0	240

TPD# TOLB.00045

10/20/2021

Traffic Volumes Worksheet

Intersection:

Synchro Node:

Styer Road & Extension												
8	Adjacent intersections:	West		East		North		South				

Time Period: Weekday A.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
2021 Counts	18	28			27							35	108
Adjustment													0
Existing Volumes (Adjusted)	18	28	0	0	27	0	0	0	0	0	0	35	108

Base growth (0.61% compounded for 5 yrs)	1	1	0	0	1	0	0	0	0	0	0	1	4
Byers Station 5C													
Byers Station - 40 Town Homes													
Byers Station - Ewing Tract													
Byers Station - Parcel 6C													
Gunner Property													
McKee Feters Tract													
Nearby Total	0	0	0	0	0	0	0	0	0	0	0	0	0
2026 Base Volumes	19	29	0	0	28	0	0	0	0	0	0	36	112

New Trips		1			3								
Pass By Trips													
													0
Total Trip Distribution	0	1	0	0	3	0	0	0	0	0	0	0	4
2026 Projected Volumes	19	30	0	0	31	0	0	0	0	0	0	36	116

Time Period: Weekday P.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
2021 Counts	19	20			48							15	102
Adjustment													0
Existing Volumes (Adjusted)	19	20	0	0	48	0	0	0	0	0	0	15	102

Base growth (0.61% compounded for 5 yrs)	1	1	0	0	1	0	0	0	0	0	0	0	3
Byers Station 5C													
Byers Station - 40 Town Homes													
Byers Station - Ewing Tract													
Byers Station - Parcel 6C													
Gunner Property													
McKee Feters Tract													
Nearby Total	0	0	0	0	0	0	0	0	0	0	0	0	0
2026 Base Volumes	20	21	0	0	49	0	0	0	0	0	0	15	105

New Trips		4			2								
Pass By Trips													
	0												0
	0												0
Total Trip Distribution	0	4	0	0	2	0	0	0	0	0	0	0	6
2026 Projected Volumes	20	25	0	0	51	0	0	0	0	0	0	15	111

TPD# TOLB.00045

10/20/2021

Traffic Volumes Worksheet

Intersection:

Synchro Node:

Greenridge Road & Extension									
9	Adjacent intersections:	West		East		North		South	

Time Period: Weekday A.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
2021 Counts		72	32		25		17						146
Adjustment													0
Existing Volumes (Adjusted)	0	72	32	0	25	0	17	0	0	0	0	0	146

Base growth (0.61% compounded for 5 yrs)	0	2	1	0	1	0	1	0	0	0	0	0	5
Byers Station 5C													
Byers Station - 40 Town Homes													
Byers Station - Ewing Tract													
Byers Station - Parcel 6C													
Gunner Property													
McKee Feters Tract													
Nearby Total	0	0	0	0	0	0	0	0	0	0	0	0	0
2026 Base Volumes	0	74	33	0	26	0	18	0	0	0	0	0	151

New Trips		2			5								
Pass By Trips													
													0
Total Trip Distribution	0	2	0	0	5	0	0	0	0	0	0	0	7
2026 Projected Volumes	0	76	33	0	31	0	18	0	0	0	0	0	158

Time Period: Weekday P.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
2021 Counts		52	15		98		19						184
Adjustment													0
Existing Volumes (Adjusted)	0	52	15	0	98	0	19	0	0	0	0	0	184

Base growth (0.61% compounded for 5 yrs)	0	2	0	0	3	0	1	0	0	0	0	0	6
Byers Station 5C													
Byers Station - 40 Town Homes													
Byers Station - Ewing Tract													
Byers Station - Parcel 6C													
Gunner Property													
McKee Feters Tract													
Nearby Total	0	0	0	0	0	0	0	0	0	0	0	0	0
2026 Base Volumes	0	54	15	0	101	0	20	0	0	0	0	0	190

New Trips		5			3								
Pass By Trips													
	0												0
	0												0
Total Trip Distribution	0	5	0	0	3	0	0	0	0	0	0	0	8
2026 Projected Volumes	0	59	15	0	104	0	20	0	0	0	0	0	198

TPD# TOLB.00045

10/20/2021

Traffic Volumes Worksheet

Intersection:

Synchro Node:

Krauser Road & Greenridge Road												
3	Adjacent intersections:	West		East		North		South				

Time Period: Weekday A.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
2021 Counts		89	9	4	38		9		12				161
Adjustment													0
Existing Volumes (Adjusted)	0	89	9	4	38	0	9	0	12	0	0	0	161

Base growth (0.61% compounded for 5 yrs)	0	3	0	0	1	0	0	0	0	0	0	0	4
Byers Station 5C				0					0				
Byers Station - 40 Town Homes				0					0				
Byers Station - Ewing Tract				0					0				
Byers Station - Parcel 6C				0					0				
Gunner Property				1					0				
McKee Feters Tract				0					0				
Nearby Total	0	0	0	1	0	0	0	0	0	0	0	0	0
2026 Base Volumes	0	92	9	5	39	0	9	0	12	0	0	0	166

New Trips		3		5	8				2				
Pass By Trips													
													0
Total Trip Distribution	0	3	0	5	8	0	0	0	2	0	0	0	18
2026 Projected Volumes	0	95	9	10	47	0	9	0	14	0	0	0	184

Time Period: Weekday P.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
2021 Counts		64	11	19	132		11		17				254
Adjustment													0
Existing Volumes (Adjusted)	0	64	11	19	132	0	11	0	17	0	0	0	254
Base growth (0.61% compounded for 5 yrs)	0	2	0	1	4	0	0	0	1	0	0	0	8
Byers Station 5C				0					0				
Byers Station - 40 Town Homes				0					0				
Byers Station - Ewing Tract				0					0				
Byers Station - Parcel 6C				0					0				
Gunner Property				0					1				
McKee Feters Tract				0					0				
Nearby Total	0	0	0	0	0	0	0	0	1	0	0	0	0
2026 Base Volumes	0	66	11	20	136	0	11	0	19	0	0	0	263

New Trips		9		3	5				6				
Pass By Trips													
	0												0
	0												0
Total Trip Distribution	0	9	0	3	5	0	0	0	6	0	0	0	23
2026 Projected Volumes	0	75	11	23	141	0	11	0	25	0	0	0	286

TPD# TOLB.00045

10/20/2021

Traffic Volumes Worksheet

Intersection:

Synchro Node:

Font Road & Greenridge Road/St. Andrews Lane												
4	Adjacent intersections:	West		East		North		South				

Time Period: Weekday A.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
2021 Counts	3	74	6	31	28	13	7	11	86	12	8	0	279
Adjustment													0
Existing Volumes (Adjusted)	3	74	6	31	28	13	7	11	86	12	8	0	279

Base growth (0.61% compounded for 5 yrs)	0	2	0	1	1	0	0	0	3	0	0	0	7
Byers Station 5C	0							2				0	
Byers Station - 40 Town Homes	0							1				0	
Byers Station - Ewing Tract	0							3			1	0	
Byers Station - Parcel 6C	0							1			1	0	
Gunner Property	0							1				1	
McKee Feters Tract	0							7			4	0	
Nearby Total	0	0	0	0	0	0	0	15	0	0	6	1	
2026 Base Volumes	3	76	6	32	29	13	7	26	89	12	14	1	308

New Trips	6	2	16		1		5					2	
Pass By Trips													
													0
Total Trip Distribution	6	2	16	0	1	0	5	0	0	0	0	2	32
2026 Projected Volumes	9	78	22	32	30	13	12	26	89	12	14	3	340

Time Period: Weekday P.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
2021 Counts	1	53	9	124	97	12	9	14	65	7	11	0	402
Adjustment													0
Existing Volumes (Adjusted)	1	53	9	124	97	12	9	14	65	7	11	0	402

Base growth (0.61% compounded for 5 yrs)	0	2	0	4	3	0	0	0	2	0	0	0	11
Byers Station 5C	0							1			1	0	
Byers Station - 40 Town Homes	0										1	0	
Byers Station - Ewing Tract	0							2			3	0	
Byers Station - Parcel 6C	0							2			2	0	
Gunner Property	1										1	0	
McKee Feters Tract	0							5			7	0	
Nearby Total	1	0	0	0	0	0	0	10	0	0	15	0	
2026 Base Volumes	2	55	9	128	100	12	9	24	67	7	26	0	439

New Trips	4	1	11		2		18					7	
Pass By Trips													
	0												0
	0												0
Total Trip Distribution	4	1	11	0	2	0	18	0	0	0	0	7	43
2026 Projected Volumes	6	56	20	128	102	12	27	24	67	7	26	7	482

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10/20/2021

Traffic Volumes Worksheet

Intersection:

Synchro Node:

Milford Road & Krauser Road									
5	Adjacent intersections:	West		East		North		South	

Time Period: Weekday A.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
2021 Counts	7	43			33	7				10		35	135
Adjustment													0
Existing Volumes (Adjusted)	7	43	0	0	33	7	0	0	0	10	0	35	135

Base growth (0.61% compounded for 5 yrs)	0	1	0	0	1	0	0	0	0	0	0	1	3
Byers Station 5C													
Byers Station - 40 Town Homes													
Byers Station - Ewing Tract													
Byers Station - Parcel 6C													
Gunner Property											1		
McKee Fettes Tract		(9)	4	5	26		12		5				
Nearby Total	0	9	4	5	26	0	12	0	5	0	1	0	
2026 Base Volumes	7	53	4	5	60	7	12	0	5	10	1	36	200

New Trips	2											5	
Pass By Trips													
													0
Total Trip Distribution	2	0	0	0	0	0	0	0	0	0	0	5	7
2026 Projected Volumes	9	53	4	5	60	7	12	0	5	10	1	41	207

Time Period: Weekday P.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
2021 Counts	30	39			52	17				8		17	163
Adjustment													0
Existing Volumes (Adjusted)	30	39	0	0	52	17	0	0	0	8	0	17	163

Base growth (0.61% compounded for 5 yrs)	1	1	0	0	2	1	0	0	0	0	0	1	6
Byers Station 5C													
Byers Station - 40 Town Homes													
Byers Station - Ewing Tract													
Byers Station - Parcel 6C													
Gunner Property								1					
McKee Fettes Tract		17	8	9	20		9		3				
Nearby Total	0	17	8	9	20	0	9	1	3	0	0	0	
2026 Base Volumes	31	57	8	9	74	18	9	1	3	8	0	18	236

New Trips	6											3	
Pass By Trips													
	0												0
	0												0
Total Trip Distribution	6	0	0	0	0	0	0	0	0	0	0	3	9
2026 Projected Volumes	37	57	8	9	74	18	9	1	3	8	0	21	245

TPD# TOLB.00045

10/20/2021

Traffic Volumes Worksheet

Intersection:

Synchro Node:

Greenridge Road & Site Driveway											
6	Adjacent intersections:	West		East		North		South			

Time Period: Weekday A.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
2021 Counts		101			42								143
Adjustment													0
Existing Volumes (Adjusted)	0	101	0	0	42	0	0	0	0	0	0	0	143

Base growth (0.61% compounded for 5 yrs)	0	3	0	0	1	0	0	0	0	0	0	0	4
Byers Station 5C					0								
Byers Station - 40 Town Homes					0								
Byers Station - Ewing Tract					0								
Byers Station - Parcel 6C					0								
Gunner Property					1								
McKee Feters Tract					0								
Nearby Total	0	0	0	0	1	0	0	0	0	0	0	0	0
2026 Base Volumes	0	104	0	0	44	0	0	0	0	0	0	0	148

New Trips	5					8				24		13	
Pass By Trips													
													0
Total Trip Distribution	5	0	0	0	0	8	0	0	0	24	0	13	50
2026 Projected Volumes	5	104	0	0	44	8	0	0	0	24	0	13	198

Time Period: Weekday P.M. Peak Hour

	Eastbound			Westbound			Northbound			Southbound			Intersection Volume
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	
2021 Counts		81			151								232
Adjustment													0
Existing Volumes (Adjusted)	0	81	0	0	151	0	0	0	0	0	0	0	232
Base growth (0.61% compounded for 5 yrs)	0	3	0	0	5	0	0	0	0	0	0	0	8
Byers Station 5C					0								
Byers Station - 40 Town Homes					0								
Byers Station - Ewing Tract					0								
Byers Station - Parcel 6C					0								
Gunner Property		(1)			0								
McKee Feters Tract					0								
Nearby Total	0	1	0	0	0	0	0	0	0	0	0	0	0
2026 Base Volumes	0	85	0	0	156	0	0	0	0	0	0	0	241

New Trips	15					27				16		8	
Pass By Trips													
	0												0
	0												0
Total Trip Distribution	15	0	0	0	0	27	0	0	0	16	0	8	66
2026 Projected Volumes	15	85	0	0	156	27	0	0	0	16	0	8	307

APPENDIX C:

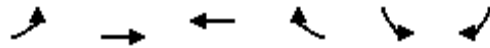
Capacity Analyses

Existing Conditions

1: Greenridge Road & Stonehedge Drive

Existing Conditions

Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	68	30	10	32	0
Future Volume (vph)	1	68	30	10	32	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	15	15
Grade (%)		-2%	-3%		-4%	
Link Speed (mph)		35	35		25	
Link Distance (ft)		356	601		828	
Travel Time (s)		6.9	11.7		22.6	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	100%	7%	13%	10%	6%	0%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

1: Greenridge Road & Stonehedge Drive

Existing Conditions

Timing Plan: AM Peak Hour

Intersection

Int Delay, s/veh 2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
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Lane Configurations						
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Traffic Vol, veh/h	1	68	30	10	32	0
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Future Vol, veh/h	1	68	30	10	32	0
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Conflicting Peds, #/hr	1	0	0	1	0	0
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Sign Control	Free	Free	Free	Free	Stop	Stop
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RT Channelized	-	None	-	None	-	None
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Storage Length	-	-	-	-	0	-
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Veh in Median Storage, #	-	0	0	-	0	-
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Grade, %	-	-2	-3	-	-4	-
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Peak Hour Factor	72	72	72	72	72	72
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Heavy Vehicles, %	100	7	13	10	6	0
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Mvmt Flow	1	94	42	14	44	0
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Major/Minor	Major1	Major2	Minor2
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Conflicting Flow All	57	0	0
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Stage 1	-	-	-
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Stage 2	-	-	-
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Critical Hdwy	4.4	-	-
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Critical Hdwy Stg 1	-	-	-
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Critical Hdwy Stg 2	-	-	-
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Follow-up Hdwy	3	-	-
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Pot Cap-1 Maneuver	1146	-	-
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Stage 1	-	-	-
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Stage 2	-	-	-
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Platoon blocked, %	-	-	-
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Mov Cap-1 Maneuver	1145	-	-
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Mov Cap-2 Maneuver	-	-	-
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Stage 1	-	-	-
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Stage 2	-	-	-
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Approach	EB	WB	SB
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HCM Control Delay, s	0.1	0	8.7
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HCM LOS			A
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Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
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Capacity (veh/h)	1145	-	-	-	1010
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HCM Lane V/C Ratio	0.001	-	-	-	0.044
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HCM Control Delay (s)	8.1	0	-	-	8.7
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HCM Lane LOS	A	A	-	-	A
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HCM 95th %tile Q(veh)	0	-	-	-	0.1
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2: Styer Road & Greenridge Road

Existing Conditions

Timing Plan: AM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	72	0	24	25	0	29
Future Volume (vph)	72	0	24	25	0	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	10	10	10
Grade (%)	-10%			10%	2%	
Link Speed (mph)	35			35	35	
Link Distance (ft)	115			786	165	
Travel Time (s)	2.2			15.3	3.2	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	4%	0%	8%	16%	0%	7%
Shared Lane Traffic (%)						
Sign Control	Stop			Stop	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2: Styer Road & Greenridge Road

Existing Conditions

Timing Plan: AM Peak Hour

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	72	0	24	25	0	29
Future Vol, veh/h	72	0	24	25	0	29
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	4	0	8	16	0	7
Mvmt Flow	83	0	28	29	0	33
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.5	7.6	6.7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	0%	0%	49%
Vol Thru, %	0%	100%	51%
Vol Right, %	100%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	29	72	49
LT Vol	0	0	24
Through Vol	0	72	25
RT Vol	29	0	0
Lane Flow Rate	33	83	56
Geometry Grp	1	1	1
Degree of Util (X)	0.033	0.094	0.067
Departure Headway (Hd)	3.538	4.069	4.256
Convergence, Y/N	Yes	Yes	Yes
Cap	998	881	842
Service Time	1.609	2.09	2.279
HCM Lane V/C Ratio	0.033	0.094	0.067
HCM Control Delay	6.7	7.5	7.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.3	0.2

3: Krauser Road & Greenridge Road

Existing Conditions

Timing Plan: AM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	89	9	4	38	9	12
Future Volume (vph)	89	9	4	38	9	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11
Grade (%)	-7%			-3%	4%	
Link Speed (mph)	35			35	25	
Link Distance (ft)	786			699	259	
Travel Time (s)	15.3			13.6	7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	11%	0%	13%	11%	8%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

3: Krauser Road & Greenridge Road

Existing Conditions

Timing Plan: AM Peak Hour

Intersection

Int Delay, s/veh 1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	89	9	4	38	9	12
Future Vol, veh/h	89	9	4	38	9	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-7	-	-	-3	4	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	11	0	13	11	8
Mvmt Flow	97	10	4	41	10	13

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	107
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.3
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3
Pot Cap-1 Maneuver	-	-	1104
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1104
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	944	-	-	1104	-
HCM Lane V/C Ratio	0.024	-	-	0.004	-
HCM Control Delay (s)	8.9	-	-	8.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

4: Font Road & Greenridge Road/St. Andrews Lane

Existing Conditions

Timing Plan: AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	74	6	31	28	13	7	11	86	12	8	0
Future Volume (vph)	3	74	6	31	28	13	7	11	86	12	8	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			1%			-5%			1%	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1076			903			900			964	
Travel Time (s)		21.0			17.6			20.5			21.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	67%	4%	0%	10%	7%	8%	14%	9%	6%	8%	13%	0%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

4: Font Road & Greenridge Road/St. Andrews Lane

Existing Conditions

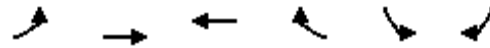
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	6.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	74	6	31	28	13	7	11	86	12	8	0
Future Vol, veh/h	3	74	6	31	28	13	7	11	86	12	8	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	1	-	-	-5	-	-	1	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	67	4	0	10	7	8	14	9	6	8	13	0
Mvmt Flow	3	80	6	33	30	14	8	12	92	13	9	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	131	155	9	152	109	58	9	0	0	104	0	0
Stage 1	35	35	-	74	74	-	-	-	-	-	-	-
Stage 2	96	120	-	78	35	-	-	-	-	-	-	-
Critical Hdwy	7.37	6.14	6	7.4	6.8	6.38	4.4	-	-	4.3	-	-
Critical Hdwy Stg 1	6.37	5.14	-	6.4	5.77	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.37	5.14	-	6.4	5.77	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.036	3.1	3	4.063	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	969	746	1148	935	766	1074	1191	-	-	1106	-	-
Stage 1	1144	865	-	1085	820	-	-	-	-	-	-	-
Stage 2	1054	803	-	1079	854	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	914	732	1148	841	751	1074	1191	-	-	1106	-	-
Mov Cap-2 Maneuver	914	732	-	841	751	-	-	-	-	-	-	-
Stage 1	1136	855	-	1077	814	-	-	-	-	-	-	-
Stage 2	995	797	-	961	844	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	10.4		9.8		0.5		5					
HCM LOS	B		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1191	-	-	757	835	1106	-	-				
HCM Lane V/C Ratio	0.006	-	-	0.118	0.093	0.012	-	-				
HCM Control Delay (s)	8	0	-	10.4	9.8	8.3	0	-				
HCM Lane LOS	A	A	-	B	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.4	0.3	0	-	-				

5: Milford Road & Kauser Road

Existing Conditions

Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	7	43	33	7	10	35
Future Volume (vph)	7	43	33	7	10	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	10	16	16
Grade (%)		1%	-1%		2%	
Link Speed (mph)		40	40		25	
Link Distance (ft)		1442	2003		508	
Travel Time (s)		24.6	34.1		13.9	
Confl. Peds. (#/hr)						1
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles (%)	14%	14%	3%	29%	10%	0%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

5: Milford Road & Kauser Road

Existing Conditions

Timing Plan: AM Peak Hour

Intersection

Int Delay, s/veh 3.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
----------	-----	-----	-----	-----	-----	-----

Lane Configurations

Traffic Vol, veh/h 7 43 33 7 10 35

Future Vol, veh/h 7 43 33 7 10 35

Conflicting Peds, #/hr 0 0 0 0 0 1

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

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

Grade, % - 1 -1 - 2 -

Peak Hour Factor 75 75 75 75 75 75

Heavy Vehicles, % 14 14 3 29 10 0

Mvmt Flow 9 57 44 9 13 47

Major/Minor	Major1	Major2	Minor2
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Conflicting Flow All 53 0 - 0 124 50

Stage 1 - - - - 49 -

Stage 2 - - - - 75 -

Critical Hdwy 4.4 - - - 6.9 6.4

Critical Hdwy Stg 1 - - - - 5.9 -

Critical Hdwy Stg 2 - - - - 5.9 -

Follow-up Hdwy 3.1 - - - 3 3.2

Pot Cap-1 Maneuver 1113 - - - 996 1052

Stage 1 - - - - 1130 -

Stage 2 - - - - 1095 -

Platoon blocked, % - - - -

Mov Cap-1 Maneuver 1113 - - - 988 1051

Mov Cap-2 Maneuver - - - - 988 -

Stage 1 - - - - 1121 -

Stage 2 - - - - 1095 -

Approach	EB	WB	SB
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HCM Control Delay, s 1.2 0 8.7

HCM LOS A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
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Capacity (veh/h) 1113 - - - 1036

HCM Lane V/C Ratio 0.008 - - - 0.058

HCM Control Delay (s) 8.3 0 - - 8.7

HCM Lane LOS A A - - A

HCM 95th %tile Q(veh) 0 - - - 0.2

8: Styer Road & Extension

Existing Conditions

Timing Plan: AM Peak Hour

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	18	28	27	0	0	35
Future Volume (vph)	18	28	27	0	0	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	10	10	12	12
Grade (%)		7%	2%		-15%	
Link Speed (mph)		35	35		25	
Link Distance (ft)		2939	165		120	
Travel Time (s)		57.3	3.2		3.3	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	28%	11%	7%	0%	0%	11%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

8: Styer Road & Extension

Existing Conditions

Timing Plan: AM Peak Hour

Intersection						
Int Delay, s/veh	4.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	28	27	0	0	35
Future Vol, veh/h	18	28	27	0	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	2	-	-15	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	28	11	7	0	0	11
Mvmt Flow	22	34	33	0	0	43
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	33	0	-	0	111	33
Stage 1	-	-	-	-	33	-
Stage 2	-	-	-	-	78	-
Critical Hdwy	4.38	-	-	-	4.4	5.2
Critical Hdwy Stg 1	-	-	-	-	2.4	-
Critical Hdwy Stg 2	-	-	-	-	2.4	-
Follow-up Hdwy	3.1	-	-	-	3	3.1
Pot Cap-1 Maneuver	1132	-	-	-	1097	1123
Stage 1	-	-	-	-	1190	-
Stage 2	-	-	-	-	1177	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1132	-	-	-	1075	1123
Mov Cap-2 Maneuver	-	-	-	-	1075	-
Stage 1	-	-	-	-	1166	-
Stage 2	-	-	-	-	1177	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.2	0		8.3		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1132	-	-	-	-	1123
HCM Lane V/C Ratio	0.019	-	-	-	-	0.038
HCM Control Delay (s)	8.2	0	-	-	-	8.3
HCM Lane LOS	A	A	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.1

9: Extension & Greenridge Road

Existing Conditions

Timing Plan: AM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	72	32	0	25	17	0
Future Volume (vph)	72	32	0	25	17	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	10	14	14
Grade (%)	-10%			-3%	15%	
Link Speed (mph)	35			35	25	
Link Distance (ft)	601			115	120	
Travel Time (s)	11.7			2.2	3.3	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles (%)	6%	13%	0%	16%	35%	0%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

9: Extension & Greenridge Road

Existing Conditions

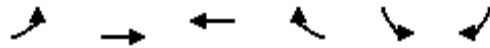
Timing Plan: AM Peak Hour

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	72	32	0	25	17	0
Future Vol, veh/h	72	32	0	25	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	-3	15	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	6	13	0	16	35	0
Mvmt Flow	92	41	0	32	22	0
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	133	0	145	113
Stage 1	-	-	-	-	113	-
Stage 2	-	-	-	-	32	-
Critical Hdwy	-	-	4.3	-	9.75	7.7
Critical Hdwy Stg 1	-	-	-	-	8.75	-
Critical Hdwy Stg 2	-	-	-	-	8.75	-
Follow-up Hdwy	-	-	3	-	3.1	3.1
Pot Cap-1 Maneuver	-	-	1082	-	834	957
Stage 1	-	-	-	-	926	-
Stage 2	-	-	-	-	1089	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1082	-	834	957
Mov Cap-2 Maneuver	-	-	-	-	834	-
Stage 1	-	-	-	-	926	-
Stage 2	-	-	-	-	1089	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		9.4		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	834	-	-	1082	-	
HCM Lane V/C Ratio	0.026	-	-	-	-	
HCM Control Delay (s)	9.4	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

1: Greenridge Road & Stonehedge Drive

Existing Conditions

Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	46	83	30	21	0
Future Volume (vph)	0	46	83	30	21	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	15	15
Grade (%)		-2%	-3%		-4%	
Link Speed (mph)		35	35		25	
Link Distance (ft)		356	601		828	
Travel Time (s)		6.9	11.7		22.6	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	4%	1%	0%	5%	0%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

1: Greenridge Road & Stonehedge Drive

Existing Conditions

Timing Plan: PM Peak Hour

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
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Lane Configurations

Traffic Vol, veh/h 0 46 83 30 21 0

Future Vol, veh/h 0 46 83 30 21 0

Conflicting Peds, #/hr 1 0 0 1 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

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

Grade, % - -2 -3 - -4 -

Peak Hour Factor 87 87 87 87 87 87

Heavy Vehicles, % 0 4 1 0 5 0

Mvmt Flow 0 53 95 34 24 0

Major/Minor	Major1	Major2	Minor2
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Conflicting Flow All 130 0 - 0 166 113

Stage 1 - - - - 113 -

Stage 2 - - - - 53 -

Critical Hdwy 4.4 - - - 5.65 5.8

Critical Hdwy Stg 1 - - - - 4.65 -

Critical Hdwy Stg 2 - - - - 4.65 -

Follow-up Hdwy 3 - - - 3 3.1

Pot Cap-1 Maneuver 1080 - - - 990 1016

Stage 1 - - - - 1087 -

Stage 2 - - - - 1146 -

Platoon blocked, % - - - -

Mov Cap-1 Maneuver 1079 - - - 988 1015

Mov Cap-2 Maneuver - - - - 988 -

Stage 1 - - - - 1086 -

Stage 2 - - - - 1145 -

Approach	EB	WB	SB
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HCM Control Delay, s 0 0 8.7

HCM LOS A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
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Capacity (veh/h) 1079 - - - 988

HCM Lane V/C Ratio - - - - 0.024

HCM Control Delay (s) 0 - - - 8.7

HCM Lane LOS A - - - A

HCM 95th %tile Q(veh) 0 - - - 0.1

2: Styer Road & Greenridge Road

Existing Conditions

Timing Plan: PM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	53	0	48	97	0	21
Future Volume (vph)	53	0	48	97	0	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	10	10	10
Grade (%)	-10%			10%	2%	
Link Speed (mph)	35			35	35	
Link Distance (ft)	115			786	165	
Travel Time (s)	2.2			15.3	3.2	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	2%	0%	2%	1%	0%	0%
Shared Lane Traffic (%)						
Sign Control	Stop			Stop	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2: Styer Road & Greenridge Road

Existing Conditions

Timing Plan: PM Peak Hour

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	53	0	48	97	0	21
Future Vol, veh/h	53	0	48	97	0	21
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	2	0	2	1	0	0
Mvmt Flow	61	0	55	111	0	24
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.4	8.1	6.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	0%	0%	33%
Vol Thru, %	0%	100%	67%
Vol Right, %	100%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	21	53	145
LT Vol	0	0	48
Through Vol	0	53	97
RT Vol	21	0	0
Lane Flow Rate	24	61	167
Geometry Grp	1	1	1
Degree of Util (X)	0.025	0.069	0.189
Departure Headway (Hd)	3.793	4.1	4.087
Convergence, Y/N	Yes	Yes	Yes
Cap	950	870	878
Service Time	1.793	2.143	2.108
HCM Lane V/C Ratio	0.025	0.07	0.19
HCM Control Delay	6.9	7.4	8.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.2	0.7

3: Krauser Road & Greenridge Road

Existing Conditions

Timing Plan: PM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	64	11	19	132	11	17
Future Volume (vph)	64	11	19	132	11	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11
Grade (%)	-7%			-3%	4%	
Link Speed (mph)	35			35	25	
Link Distance (ft)	786			699	259	
Travel Time (s)	15.3			13.6	7.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	0%	0%	9%	0%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

3: Krauser Road & Greenridge Road

Existing Conditions

Timing Plan: PM Peak Hour

Intersection						
Int Delay, s/veh	1.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	64	11	19	132	11	17
Future Vol, veh/h	64	11	19	132	11	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-7	-	-	-3	4	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	0	0	0	9	0
Mvmt Flow	69	12	20	142	12	18
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	81	0	257	75
Stage 1	-	-	-	-	75	-
Stage 2	-	-	-	-	182	-
Critical Hdwy	-	-	4.3	-	7.29	6.6
Critical Hdwy Stg 1	-	-	-	-	6.29	-
Critical Hdwy Stg 2	-	-	-	-	6.29	-
Follow-up Hdwy	-	-	3	-	3.1	3.2
Pot Cap-1 Maneuver	-	-	1127	-	769	1014
Stage 1	-	-	-	-	1052	-
Stage 2	-	-	-	-	913	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1127	-	754	1014
Mov Cap-2 Maneuver	-	-	-	-	754	-
Stage 1	-	-	-	-	1052	-
Stage 2	-	-	-	-	896	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	1		9.2		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	893	-	-	1127	-	
HCM Lane V/C Ratio	0.034	-	-	0.018	-	
HCM Control Delay (s)	9.2	-	-	8.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	

4: Font Road & Greenridge Road/St. Andrews Lane

Existing Conditions

Timing Plan: PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	53	9	124	97	12	9	14	65	7	11	0
Future Volume (vph)	1	53	9	124	97	12	9	14	65	7	11	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			1%			-5%			1%	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1076			903			900			964	
Travel Time (s)		21.0			17.6			20.5			21.9	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	0%	0%	22%	0%	1%	0%	11%	0%	3%	0%	9%	0%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

4: Font Road & Greenridge Road/St. Andrews Lane

Existing Conditions

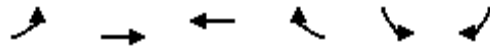
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	8.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	53	9	124	97	12	9	14	65	7	11	0
Future Vol, veh/h	1	53	9	124	97	12	9	14	65	7	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	1	-	-	-5	-	-	1	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	22	0	1	0	11	0	3	0	9	0
Mvmt Flow	1	65	11	153	120	15	11	17	80	9	14	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	179	151	14	149	111	57	14	0	0	97	0	0
Stage 1	32	32	-	79	79	-	-	-	-	-	-	-
Stage 2	147	119	-	70	32	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.1	6.22	7.3	6.8	6.3	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	5.7	5.1	-	6.3	5.71	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.1	-	6.3	5.71	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4.009	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	926	757	1140	943	774	1077	1187	-	-	1112	-	-
Stage 1	1156	875	-	1080	828	-	-	-	-	-	-	-
Stage 2	1010	812	-	1093	869	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	792	743	1140	859	760	1077	1187	-	-	1112	-	-
Mov Cap-2 Maneuver	792	743	-	859	760	-	-	-	-	-	-	-
Stage 1	1144	868	-	1069	820	-	-	-	-	-	-	-
Stage 2	842	804	-	993	862	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	10.1		11.7			0.8			3.2			
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1187	-	-	783	823	1112	-	-				
HCM Lane V/C Ratio	0.009	-	-	0.099	0.35	0.008	-	-				
HCM Control Delay (s)	8.1	0	-	10.1	11.7	8.3	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.3	1.6	0	-	-				

5: Milford Road & Kauser Road

Existing Conditions

Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	30	39	52	17	8	17
Future Volume (vph)	30	39	52	17	8	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	10	16	16
Grade (%)		1%	-1%		2%	
Link Speed (mph)		40	40		25	
Link Distance (ft)		1442	2003		508	
Travel Time (s)		24.6	34.1		13.9	
Confl. Peds. (#/hr)	2			2	1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	2%	0%	0%	6%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

5: Milford Road & Kauser Road

Existing Conditions

Timing Plan: PM Peak Hour

Intersection

Int Delay, s/veh 2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
----------	-----	-----	-----	-----	-----	-----

Lane Configurations

Traffic Vol, veh/h 30 39 52 17 8 17

Future Vol, veh/h 30 39 52 17 8 17

Conflicting Peds, #/hr 2 0 0 2 1 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

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

Grade, % - 1 -1 - 2 -

Peak Hour Factor 93 93 93 93 93 93

Heavy Vehicles, % 0 0 2 0 0 6

Mvmt Flow 32 42 56 18 9 18

Major/Minor	Major1	Major2	Minor2
-------------	--------	--------	--------

Conflicting Flow All 76 0 - 0 174 67

Stage 1 - - - - 67 -

Stage 2 - - - - 107 -

Critical Hdwy 4.3 - - - 6.8 6.46

Critical Hdwy Stg 1 - - - - 5.8 -

Critical Hdwy Stg 2 - - - - 5.8 -

Follow-up Hdwy 3 - - - 3 3.2

Pot Cap-1 Maneuver 1131 - - - 928 1028

Stage 1 - - - - 1108 -

Stage 2 - - - - 1056 -

Platoon blocked, % - - - -

Mov Cap-1 Maneuver 1128 - - - 897 1026

Mov Cap-2 Maneuver - - - - 897 -

Stage 1 - - - - 1074 -

Stage 2 - - - - 1054 -

Approach	EB	WB	SB
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HCM Control Delay, s 3.6 0 8.8

HCM LOS A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
-----------------------	-----	-----	-----	-----	-------

Capacity (veh/h) 1128 - - - 981

HCM Lane V/C Ratio 0.029 - - - 0.027

HCM Control Delay (s) 8.3 0 - - 8.8

HCM Lane LOS A A - - A

HCM 95th %tile Q(veh) 0.1 - - - 0.1

8: Styer Road & Extension

Existing Conditions

Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	19	20	48	0	0	15
Future Volume (vph)	19	20	48	0	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	10	10	12	12
Grade (%)		7%	2%		-15%	
Link Speed (mph)		35	35		25	
Link Distance (ft)		2939	165		120	
Travel Time (s)		57.3	3.2		3.3	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	2%	0%	0%	13%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

8: Styer Road & Extension

Existing Conditions

Timing Plan: PM Peak Hour

Intersection

Int Delay, s/veh 2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	20	48	0	0	15
Future Vol, veh/h	19	20	48	0	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	2	-	-15	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	2	0	0	13
Mvmt Flow	23	24	59	0	0	18

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	59	0	0 129 59
Stage 1	-	-	- 59 -
Stage 2	-	-	- 70 -
Critical Hdwy	4.3	-	- 4.4 5.2
Critical Hdwy Stg 1	-	-	- 2.4 -
Critical Hdwy Stg 2	-	-	- 2.4 -
Follow-up Hdwy	3	-	- 3 3.1
Pot Cap-1 Maneuver	1146	-	- 1081 1094
Stage 1	-	-	- 1182 -
Stage 2	-	-	- 1179 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1146	-	- 1059 1094
Mov Cap-2 Maneuver	-	-	- 1059 -
Stage 1	-	-	- 1158 -
Stage 2	-	-	- 1179 -

Approach	EB	WB	SB
HCM Control Delay, s	4	0	8.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1146	-	-	-	1094
HCM Lane V/C Ratio	0.02	-	-	-	0.017
HCM Control Delay (s)	8.2	0	-	-	8.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

9: Extension & Greenridge Road

Existing Conditions

Timing Plan: PM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	52	15	0	98	19	0
Future Volume (vph)	52	15	0	98	19	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	10	14	14
Grade (%)	-10%			-3%	15%	
Link Speed (mph)	35			35	25	
Link Distance (ft)	601			115	120	
Travel Time (s)	11.7			2.2	3.3	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	2%	13%	0%	1%	0%	0%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

9: Extension & Greenridge Road

Existing Conditions

Timing Plan: PM Peak Hour

Intersection

Int Delay, s/veh 1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	52	15	0	98	19	0
Future Vol, veh/h	52	15	0	98	19	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	-3	15	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	13	0	1	0	0
Mvmt Flow	60	17	0	113	22	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	77
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.3
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3
Pot Cap-1 Maneuver	-	-	1130
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1130
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

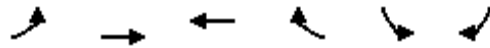
Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	804	-	-	1130	-
HCM Lane V/C Ratio	0.027	-	-	-	-
HCM Control Delay (s)	9.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Base Conditions

1: Greenridge Road & Stonehedge Drive

Base Conditions
Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	70	31	10	33	0
Future Volume (vph)	1	70	31	10	33	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	15	15
Grade (%)		-2%	-3%		-4%	
Link Speed (mph)		35	35		25	
Link Distance (ft)		356	601		828	
Travel Time (s)		6.9	11.7		22.6	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	100%	7%	13%	10%	6%	0%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

1: Greenridge Road & Stonehedge Drive

Base Conditions
Timing Plan: AM Peak Hour

Intersection

Int Delay, s/veh 2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
----------	-----	-----	-----	-----	-----	-----

Lane Configurations

Traffic Vol, veh/h 1 70 31 10 33 0

Future Vol, veh/h 1 70 31 10 33 0

Conflicting Peds, #/hr 1 0 0 1 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

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

Grade, % - -2 -3 - -4 -

Peak Hour Factor 72 72 72 72 72 72

Heavy Vehicles, % 100 7 13 10 6 0

Mvmt Flow 1 97 43 14 46 0

Major/Minor	Major1	Major2	Minor2
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Conflicting Flow All 58 0 - 0 150 51

Stage 1 - - - - 51 -

Stage 2 - - - - 99 -

Critical Hdwy 4.4 - - - 5.66 5.9

Critical Hdwy Stg 1 - - - - 4.66 -

Critical Hdwy Stg 2 - - - - 4.66 -

Follow-up Hdwy 3 - - - 3 3.2

Pot Cap-1 Maneuver 1145 - - - 1008 1058

Stage 1 - - - - 1147 -

Stage 2 - - - - 1100 -

Platoon blocked, % - - - -

Mov Cap-1 Maneuver 1144 - - - 1005 1057

Mov Cap-2 Maneuver - - - - 1005 -

Stage 1 - - - - 1145 -

Stage 2 - - - - 1099 -

Approach	EB	WB	SB
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HCM Control Delay, s 0.1 0 8.8

HCM LOS A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
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Capacity (veh/h) 1144 - - - 1005

HCM Lane V/C Ratio 0.001 - - - 0.046

HCM Control Delay (s) 8.2 0 - - 8.8

HCM Lane LOS A A - - A

HCM 95th %tile Q(veh) 0 - - - 0.1

2: Styer Road & Greenridge Road

Base Conditions
Timing Plan: AM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	74	0	25	26	0	30
Future Volume (vph)	74	0	25	26	0	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	10	10	10
Grade (%)	-10%			10%	2%	
Link Speed (mph)	35			35	35	
Link Distance (ft)	115			786	165	
Travel Time (s)	2.2			15.3	3.2	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	4%	0%	8%	16%	0%	7%
Shared Lane Traffic (%)						
Sign Control	Stop			Stop	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2: Styer Road & Greenridge Road

Base Conditions

Timing Plan: AM Peak Hour

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	74	0	25	26	0	30
Future Vol, veh/h	74	0	25	26	0	30
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	4	0	8	16	0	7
Mvmt Flow	85	0	29	30	0	34
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.5	7.6	6.7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	0%	0%	49%
Vol Thru, %	0%	100%	51%
Vol Right, %	100%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	30	74	51
LT Vol	0	0	25
Through Vol	0	74	26
RT Vol	30	0	0
Lane Flow Rate	34	85	59
Geometry Grp	1	1	1
Degree of Util (X)	0.034	0.096	0.069
Departure Headway (Hd)	3.546	4.073	4.26
Convergence, Y/N	Yes	Yes	Yes
Cap	996	880	841
Service Time	1.616	2.094	2.283
HCM Lane V/C Ratio	0.034	0.097	0.07
HCM Control Delay	6.7	7.5	7.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.3	0.2

3: Krauser Road & Greenridge Road

Base Conditions
Timing Plan: AM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	92	9	5	39	9	12
Future Volume (vph)	92	9	5	39	9	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11
Grade (%)	-7%			-3%	4%	
Link Speed (mph)	35			35	25	
Link Distance (ft)	786			699	259	
Travel Time (s)	15.3			13.6	7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	11%	0%	13%	11%	8%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

3: Krauser Road & Greenridge Road

Base Conditions
Timing Plan: AM Peak Hour

Intersection

Int Delay, s/veh 1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	92	9	5	39	9	12
Future Vol, veh/h	92	9	5	39	9	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-7	-	-	-3	4	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	11	0	13	11	8
Mvmt Flow	100	10	5	42	10	13

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	110
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.3
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3
Pot Cap-1 Maneuver	-	-	1101
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1101
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	938	-	-	1101	-
HCM Lane V/C Ratio	0.024	-	-	0.005	-
HCM Control Delay (s)	8.9	-	-	8.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

4: Font Road & Greenridge Road/St. Andrews Lane

Base Conditions

Timing Plan: AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	76	6	32	29	13	7	26	89	12	14	1
Future Volume (vph)	3	76	6	32	29	13	7	26	89	12	14	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			1%			-5%			1%	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1076			903			900			964	
Travel Time (s)		21.0			17.6			20.5			21.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	67%	4%	0%	10%	7%	8%	14%	9%	6%	8%	13%	0%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

4: Font Road & Greenridge Road/St. Andrews Lane

Base Conditions

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	5.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	76	6	32	29	13	7	26	89	12	14	1
Future Vol, veh/h	3	76	6	32	29	13	7	26	89	12	14	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	1	-	-	-5	-	-	1	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	67	4	0	10	7	8	14	9	6	8	13	0
Mvmt Flow	3	82	6	34	31	14	8	28	96	13	15	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	157	182	16	178	134	76	16	0	0	124	0	0
Stage 1	42	42	-	92	92	-	-	-	-	-	-	-
Stage 2	115	140	-	86	42	-	-	-	-	-	-	-
Critical Hdwy	7.37	6.14	6	7.4	6.8	6.38	4.4	-	-	4.3	-	-
Critical Hdwy Stg 1	6.37	5.14	-	6.4	5.77	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.37	5.14	-	6.4	5.77	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.036	3.1	3	4.063	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	928	723	1139	896	741	1049	1185	-	-	1089	-	-
Stage 1	1134	860	-	1059	805	-	-	-	-	-	-	-
Stage 2	1027	789	-	1067	848	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	873	709	1139	801	727	1049	1185	-	-	1089	-	-
Mov Cap-2 Maneuver	873	709	-	801	727	-	-	-	-	-	-	-
Stage 1	1126	850	-	1052	799	-	-	-	-	-	-	-
Stage 2	967	783	-	947	838	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.6		10		0.5		3.7	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1185	-	-	733	802	1089	-
HCM Lane V/C Ratio	0.006	-	-	0.125	0.099	0.012	-
HCM Control Delay (s)	8.1	0	-	10.6	10	8.3	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.4	0.3	0	-

5: Future Driveway/Kauser Road & Milford Road

Base Conditions
Timing Plan: AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	53	4	5	60	7	12	0	5	10	1	36
Future Volume (vph)	7	53	4	5	60	7	12	0	5	10	1	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	10	10	12	12	12	16	12	16
Grade (%)		1%			-1%			0%			2%	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1442			2003			501			508	
Travel Time (s)		24.6			34.1			13.7			13.9	
Confl. Peds. (#/hr)												1
Peak Hour Factor	0.75	0.75	0.92	0.92	0.75	0.75	0.92	0.92	0.92	0.75	0.92	0.75
Heavy Vehicles (%)	14%	14%	2%	2%	3%	29%	2%	2%	2%	10%	2%	0%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

5: Future Driveway/Kauser Road & Milford Road

Base Conditions
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	53	4	5	60	7	12	0	5	10	1	36
Future Vol, veh/h	7	53	4	5	60	7	12	0	5	10	1	36
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-1	-	-	0	-	-	2	-
Peak Hour Factor	75	75	92	92	75	75	92	92	92	75	92	75
Heavy Vehicles, %	14	14	2	2	3	29	2	2	2	10	2	0
Mvmt Flow	9	71	4	5	80	9	13	0	5	13	1	48

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	89	0	0	75	0	0	211	190	73	189	188	86
Stage 1	-	-	-	-	-	-	91	91	-	95	95	-
Stage 2	-	-	-	-	-	-	120	99	-	94	93	-
Critical Hdwy	4.4	-	-	4.4	-	-	7.12	6.52	6.22	7.6	6.92	6.4
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.6	5.92	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.6	5.92	-
Follow-up Hdwy	3.1	-	-	3.1	-	-	3	4.018	3.2	3	4.018	3.2
Pot Cap-1 Maneuver	1082	-	-	1094	-	-	862	705	1024	870	692	1003
Stage 1	-	-	-	-	-	-	1067	820	-	1049	808	-
Stage 2	-	-	-	-	-	-	1028	813	-	1050	810	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1082	-	-	1094	-	-	810	695	1024	856	682	1002
Mov Cap-2 Maneuver	-	-	-	-	-	-	810	695	-	856	682	-
Stage 1	-	-	-	-	-	-	1057	813	-	1040	804	-
Stage 2	-	-	-	-	-	-	972	809	-	1035	803	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0.5	9.3	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	863	1082	-	-	1094	-	-	959
HCM Lane V/C Ratio	0.021	0.009	-	-	0.005	-	-	0.065
HCM Control Delay (s)	9.3	8.4	0	-	8.3	0	-	9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2

8: Styer Road & Extension

Base Conditions
Timing Plan: AM Peak Hour

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	19	29	28	0	0	36
Future Volume (vph)	19	29	28	0	0	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	10	10	12	12
Grade (%)		7%	2%		-15%	
Link Speed (mph)		35	35		25	
Link Distance (ft)		2939	165		120	
Travel Time (s)		57.3	3.2		3.3	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	28%	11%	7%	0%	0%	11%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

8: Styer Road & Extension

Base Conditions

Timing Plan: AM Peak Hour

Intersection						
Int Delay, s/veh	4.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	29	28	0	0	36
Future Vol, veh/h	19	29	28	0	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	2	-	-15	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	28	11	7	0	0	11
Mvmt Flow	23	35	34	0	0	44
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	34	0	-	0	115	34
Stage 1	-	-	-	-	34	-
Stage 2	-	-	-	-	81	-
Critical Hdwy	4.38	-	-	-	4.4	5.2
Critical Hdwy Stg 1	-	-	-	-	2.4	-
Critical Hdwy Stg 2	-	-	-	-	2.4	-
Follow-up Hdwy	3.1	-	-	-	3	3.1
Pot Cap-1 Maneuver	1131	-	-	-	1093	1122
Stage 1	-	-	-	-	1190	-
Stage 2	-	-	-	-	1176	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1131	-	-	-	1070	1122
Mov Cap-2 Maneuver	-	-	-	-	1070	-
Stage 1	-	-	-	-	1165	-
Stage 2	-	-	-	-	1176	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.3	0		8.3		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1131	-	-	-	-	1122
HCM Lane V/C Ratio	0.02	-	-	-	-	0.039
HCM Control Delay (s)	8.2	0	-	-	-	8.3
HCM Lane LOS	A	A	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.1

9: Extension & Greenridge Road

Base Conditions
Timing Plan: AM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	74	33	0	26	18	0
Future Volume (vph)	74	33	0	26	18	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	10	14	14
Grade (%)	-10%			-3%	15%	
Link Speed (mph)	35			35	25	
Link Distance (ft)	601			115	120	
Travel Time (s)	11.7			2.2	3.3	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles (%)	6%	13%	0%	16%	35%	0%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

9: Extension & Greenridge Road

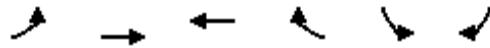
Base Conditions
Timing Plan: AM Peak Hour

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	74	33	0	26	18	0
Future Vol, veh/h	74	33	0	26	18	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	-3	15	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	6	13	0	16	35	0
Mvmt Flow	95	42	0	33	23	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	137	0	149	116
Stage 1	-	-	-	-	116	-
Stage 2	-	-	-	-	33	-
Critical Hdwy	-	-	4.3	-	9.75	7.7
Critical Hdwy Stg 1	-	-	-	-	8.75	-
Critical Hdwy Stg 2	-	-	-	-	8.75	-
Follow-up Hdwy	-	-	3	-	3.1	3.1
Pot Cap-1 Maneuver	-	-	1078	-	827	952
Stage 1	-	-	-	-	920	-
Stage 2	-	-	-	-	1087	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1078	-	827	952
Mov Cap-2 Maneuver	-	-	-	-	827	-
Stage 1	-	-	-	-	920	-
Stage 2	-	-	-	-	1087	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		9.5	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	827	-	-	1078	-	
HCM Lane V/C Ratio	0.028	-	-	-	-	
HCM Control Delay (s)	9.5	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

1: Greenridge Road & Stonehedge Drive

Base Conditions

Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	47	86	31	22	0
Future Volume (vph)	0	47	86	31	22	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	15	15
Grade (%)		-2%	-3%		-4%	
Link Speed (mph)		35	35		25	
Link Distance (ft)		356	601		828	
Travel Time (s)		6.9	11.7		22.6	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	4%	1%	0%	5%	0%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

1: Greenridge Road & Stonehedge Drive

Base Conditions
Timing Plan: PM Peak Hour

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
----------	-----	-----	-----	-----	-----	-----

Lane Configurations

Traffic Vol, veh/h 0 47 86 31 22 0

Future Vol, veh/h 0 47 86 31 22 0

Conflicting Peds, #/hr 1 0 0 1 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

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

Grade, % - -2 -3 - -4 -

Peak Hour Factor 87 87 87 87 87 87

Heavy Vehicles, % 0 4 1 0 5 0

Mvmt Flow 0 54 99 36 25 0

Major/Minor	Major1	Major2	Minor2
-------------	--------	--------	--------

Conflicting Flow All 136 0 - 0 172 118

Stage 1 - - - - 118 -

Stage 2 - - - - 54 -

Critical Hdwy 4.4 - - - 5.65 5.8

Critical Hdwy Stg 1 - - - - 4.65 -

Critical Hdwy Stg 2 - - - - 4.65 -

Follow-up Hdwy 3 - - - 3 3.1

Pot Cap-1 Maneuver 1075 - - - 983 1010

Stage 1 - - - - 1082 -

Stage 2 - - - - 1145 -

Platoon blocked, % - - - -

Mov Cap-1 Maneuver 1074 - - - 981 1009

Mov Cap-2 Maneuver - - - - 981 -

Stage 1 - - - - 1081 -

Stage 2 - - - - 1144 -

Approach	EB	WB	SB
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HCM Control Delay, s 0 0 8.8

HCM LOS A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
-----------------------	-----	-----	-----	-----	-------

Capacity (veh/h) 1074 - - - 981

HCM Lane V/C Ratio - - - - 0.026

HCM Control Delay (s) 0 - - - 8.8

HCM Lane LOS A - - - A

HCM 95th %tile Q(veh) 0 - - - 0.1

2: Styer Road & Greenridge Road

Base Conditions
Timing Plan: PM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	55	0	49	100	0	22
Future Volume (vph)	55	0	49	100	0	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	10	10	10
Grade (%)	-10%			10%	2%	
Link Speed (mph)	35			35	35	
Link Distance (ft)	115			786	165	
Travel Time (s)	2.2			15.3	3.2	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	2%	0%	2%	1%	0%	0%
Shared Lane Traffic (%)						
Sign Control	Stop			Stop	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2: Styer Road & Greenridge Road

Base Conditions
Timing Plan: PM Peak Hour**Intersection**Intersection Delay, s/veh 7.8
Intersection LOS A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	55	0	49	100	0	22
Future Vol, veh/h	55	0	49	100	0	22
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	2	0	2	1	0	0
Mvmt Flow	63	0	56	115	0	25
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.5	8.1	6.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	0%	0%	33%
Vol Thru, %	0%	100%	67%
Vol Right, %	100%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	22	55	149
LT Vol	0	0	49
Through Vol	0	55	100
RT Vol	22	0	0
Lane Flow Rate	25	63	171
Geometry Grp	1	1	1
Degree of Util (X)	0.027	0.072	0.195
Departure Headway (Hd)	3.809	4.105	4.09
Convergence, Y/N	Yes	Yes	Yes
Cap	945	868	877
Service Time	1.809	2.152	2.114
HCM Lane V/C Ratio	0.026	0.073	0.195
HCM Control Delay	6.9	7.5	8.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.2	0.7

3: Krauser Road & Greenridge Road

Base Conditions
Timing Plan: PM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	66	11	20	136	11	19
Future Volume (vph)	66	11	20	136	11	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11
Grade (%)	-7%			-3%	4%	
Link Speed (mph)	35			35	25	
Link Distance (ft)	786			699	259	
Travel Time (s)	15.3			13.6	7.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	0%	0%	9%	0%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

3: Krauser Road & Greenridge Road

Base Conditions
Timing Plan: PM Peak Hour

Intersection

Int Delay, s/veh 1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	66	11	20	136	11	19
Future Vol, veh/h	66	11	20	136	11	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-7	-	-	-3	4	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	0	0	0	9	0
Mvmt Flow	71	12	22	146	12	20

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	83
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.3
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3
Pot Cap-1 Maneuver	-	-	1125
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1125
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	892	-	-	1125	-
HCM Lane V/C Ratio	0.036	-	-	0.019	-
HCM Control Delay (s)	9.2	-	-	8.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

4: Font Road & Greenridge Road/St. Andrews Lane

Base Conditions

Timing Plan: PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	55	9	128	100	12	9	24	67	7	26	0
Future Volume (vph)	2	55	9	128	100	12	9	24	67	7	26	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			1%			-5%			1%	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1076			903			900			964	
Travel Time (s)		21.0			17.6			20.5			21.9	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	0%	0%	22%	0%	1%	0%	11%	0%	3%	0%	9%	0%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

4: Font Road & Greenridge Road/St. Andrews Lane

Base Conditions

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	8.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	55	9	128	100	12	9	24	67	7	26	0
Future Vol, veh/h	2	55	9	128	100	12	9	24	67	7	26	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	1	-	-	-5	-	-	1	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	22	0	1	0	11	0	3	0	9	0
Mvmt Flow	2	68	11	158	123	15	11	30	83	9	32	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	213	185	32	184	144	72	32	0	0	113	0	0
Stage 1	50	50	-	94	94	-	-	-	-	-	-	-
Stage 2	163	135	-	90	50	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.1	6.22	7.3	6.8	6.3	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	5.7	5.1	-	6.3	5.71	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.1	-	6.3	5.71	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4.009	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	881	728	1114	891	740	1056	1170	-	-	1099	-	-
Stage 1	1132	862	-	1058	815	-	-	-	-	-	-	-
Stage 2	991	800	-	1064	853	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	745	715	1114	807	727	1056	1170	-	-	1099	-	-
Mov Cap-2 Maneuver	745	715	-	807	727	-	-	-	-	-	-	-
Stage 1	1121	855	-	1047	807	-	-	-	-	-	-	-
Stage 2	819	792	-	962	846	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	10.4		12.4			0.7			1.8			
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1170	-	-	753	780	1099	-	-				
HCM Lane V/C Ratio	0.009	-	-	0.108	0.38	0.008	-	-				
HCM Control Delay (s)	8.1	0	-	10.4	12.4	8.3	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.4	1.8	0	-	-				

5: Future Driveway/Kauser Road & Milford Road

Base Conditions

Timing Plan: PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	57	8	9	74	18	9	1	3	8	0	18
Future Volume (vph)	31	57	8	9	74	18	9	1	3	8	0	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	10	10	12	12	12	16	12	16
Grade (%)		1%			-1%			0%			2%	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1442			2003			552			508	
Travel Time (s)		24.6			34.1			15.1			13.9	
Confl. Peds. (#/hr)	2					2				1		
Peak Hour Factor	0.93	0.93	0.92	0.92	0.93	0.93	0.92	0.92	0.92	0.93	0.92	0.93
Heavy Vehicles (%)	0%	0%	2%	2%	2%	0%	2%	2%	2%	0%	2%	6%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

5: Future Driveway/Kauser Road & Milford Road

Base Conditions
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	31	57	8	9	74	18	9	1	3	8	0	18
Future Vol, veh/h	31	57	8	9	74	18	9	1	3	8	0	18
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-1	-	-	0	-	-	2	-
Peak Hour Factor	93	93	92	92	93	93	92	92	92	93	92	93
Heavy Vehicles, %	0	0	2	2	2	0	2	2	2	0	2	6
Mvmt Flow	33	61	9	10	80	19	10	1	3	9	0	19
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	101	0	0	70	0	0	251	253	67	247	248	92
Stage 1	-	-	-	-	-	-	132	132	-	112	112	-
Stage 2	-	-	-	-	-	-	119	121	-	135	136	-
Critical Hdwy	4.3	-	-	4.3	-	-	7.12	6.52	6.22	7.5	6.92	6.46
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.5	5.92	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.5	5.92	-
Follow-up Hdwy	3	-	-	3	-	-	3	4.018	3.2	3	4.018	3.2
Pot Cap-1 Maneuver	1109	-	-	1136	-	-	809	650	1032	794	637	993
Stage 1	-	-	-	-	-	-	1012	787	-	1027	793	-
Stage 2	-	-	-	-	-	-	1030	796	-	994	772	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1107	-	-	1136	-	-	769	623	1031	765	610	991
Mov Cap-2 Maneuver	-	-	-	-	-	-	769	623	-	765	610	-
Stage 1	-	-	-	-	-	-	981	763	-	993	784	-
Stage 2	-	-	-	-	-	-	1001	787	-	958	748	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.7			0.7			9.6			9.1		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	802	1107	-	-	1136	-	-	908				
HCM Lane V/C Ratio	0.018	0.03	-	-	0.009	-	-	0.031				
HCM Control Delay (s)	9.6	8.4	0	-	8.2	0	-	9.1				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.1				

8: Styer Road & Extension

Base Conditions
Timing Plan: PM Peak Hour

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	20	21	49	0	0	15
Future Volume (vph)	20	21	49	0	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	10	10	12	12
Grade (%)		7%	2%		-15%	
Link Speed (mph)		35	35		25	
Link Distance (ft)		2939	165		120	
Travel Time (s)		57.3	3.2		3.3	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	2%	0%	0%	13%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

8: Styer Road & Extension

Base Conditions
Timing Plan: PM Peak Hour

Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	21	49	0	0	15
Future Vol, veh/h	20	21	49	0	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	2	-	-15	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	2	0	0	13
Mvmt Flow	24	26	60	0	0	18
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	60	0	-	0	134	60
Stage 1	-	-	-	-	60	-
Stage 2	-	-	-	-	74	-
Critical Hdwy	4.3	-	-	-	4.4	5.2
Critical Hdwy Stg 1	-	-	-	-	2.4	-
Critical Hdwy Stg 2	-	-	-	-	2.4	-
Follow-up Hdwy	3	-	-	-	3	3.1
Pot Cap-1 Maneuver	1145	-	-	-	1077	1093
Stage 1	-	-	-	-	1182	-
Stage 2	-	-	-	-	1178	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1145	-	-	-	1054	1093
Mov Cap-2 Maneuver	-	-	-	-	1054	-
Stage 1	-	-	-	-	1157	-
Stage 2	-	-	-	-	1178	-
Approach	EB	WB		SB		
HCM Control Delay, s	4	0		8.4		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1145	-	-	-	1093	
HCM Lane V/C Ratio	0.021	-	-	-	0.017	
HCM Control Delay (s)	8.2	0	-	-	8.4	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	

9: Extension & Greenridge Road

Base Conditions
Timing Plan: PM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	54	15	0	101	20	0
Future Volume (vph)	54	15	0	101	20	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	10	14	14
Grade (%)	-10%			-3%	15%	
Link Speed (mph)	35			35	25	
Link Distance (ft)	601			115	120	
Travel Time (s)	11.7			2.2	3.3	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	2%	13%	0%	1%	0%	0%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

9: Extension & Greenridge Road

Base Conditions
Timing Plan: PM Peak Hour

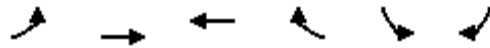
Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	54	15	0	101	20	0
Future Vol, veh/h	54	15	0	101	20	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	-3	15	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	13	0	1	0	0
Mvmt Flow	62	17	0	116	23	0
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	79	0	187	71
Stage 1	-	-	-	-	71	-
Stage 2	-	-	-	-	116	-
Critical Hdwy	-	-	4.3	-	9.4	7.7
Critical Hdwy Stg 1	-	-	-	-	8.4	-
Critical Hdwy Stg 2	-	-	-	-	8.4	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1128	-	795	1028
Stage 1	-	-	-	-	1047	-
Stage 2	-	-	-	-	960	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1128	-	795	1028
Mov Cap-2 Maneuver	-	-	-	-	795	-
Stage 1	-	-	-	-	1047	-
Stage 2	-	-	-	-	960	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		9.7		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	795	-	-	1128	-	
HCM Lane V/C Ratio	0.029	-	-	-	-	
HCM Control Delay (s)	9.7	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Projected Conditions

1: Greenridge Road & Stonehedge Drive

Projected Conditions

Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	72	36	10	33	0
Future Volume (vph)	1	72	36	10	33	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	15	15
Grade (%)		-2%	-3%		-4%	
Link Speed (mph)		35	35		25	
Link Distance (ft)		356	601		828	
Travel Time (s)		6.9	11.7		22.6	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	100%	7%	13%	10%	6%	0%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

1: Greenridge Road & Stonehedge Drive

Projected Conditions

Timing Plan: AM Peak Hour

Intersection

Int Delay, s/veh 2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
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Lane Configurations						
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Traffic Vol, veh/h	1	72	36	10	33	0
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Future Vol, veh/h	1	72	36	10	33	0
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Conflicting Peds, #/hr	1	0	0	1	0	0
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Sign Control	Free	Free	Free	Free	Stop	Stop
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RT Channelized	-	None	-	None	-	None
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Storage Length	-	-	-	-	0	-
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Veh in Median Storage, #	-	0	0	-	0	-
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Grade, %	-	-2	-3	-	-4	-
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Peak Hour Factor	72	72	72	72	72	72
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Heavy Vehicles, %	100	7	13	10	6	0
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Mvmt Flow	1	100	50	14	46	0
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Major/Minor	Major1	Major2	Minor2
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Conflicting Flow All	65	0	0	160	58
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Stage 1	-	-	-	58	-
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Stage 2	-	-	-	102	-
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Critical Hdwy	4.4	-	-	5.66	5.9
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Critical Hdwy Stg 1	-	-	-	4.66	-
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Critical Hdwy Stg 2	-	-	-	4.66	-
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Follow-up Hdwy	3	-	-	3	3.2
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Pot Cap-1 Maneuver	1139	-	-	997	1050
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Stage 1	-	-	-	1140	-
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Stage 2	-	-	-	1097	-
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Platoon blocked, %	-	-	-	-	-
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Mov Cap-1 Maneuver	1138	-	-	994	1049
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Mov Cap-2 Maneuver	-	-	-	994	-
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Stage 1	-	-	-	1138	-
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Stage 2	-	-	-	1096	-
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Approach	EB	WB	SB
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HCM Control Delay, s	0.1	0	8.8
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HCM LOS			A
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Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
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Capacity (veh/h)	1138	-	-	-	994
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HCM Lane V/C Ratio	0.001	-	-	-	0.046
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HCM Control Delay (s)	8.2	0	-	-	8.8
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HCM Lane LOS	A	A	-	-	A
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HCM 95th %tile Q(veh)	0	-	-	-	0.1
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2: Styer Road & Greenridge Road

Projected Conditions

Timing Plan: AM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	76	0	28	31	0	31
Future Volume (vph)	76	0	28	31	0	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	10	10	10
Grade (%)	-10%			10%	2%	
Link Speed (mph)	35			35	35	
Link Distance (ft)	115			786	165	
Travel Time (s)	2.2			15.3	3.2	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	4%	0%	8%	16%	0%	7%
Shared Lane Traffic (%)						
Sign Control	Stop			Stop	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2: Styer Road & Greenridge Road

Projected Conditions

Timing Plan: AM Peak Hour

Intersection

Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	76	0	28	31	0	31
Future Vol, veh/h	76	0	28	31	0	31
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	4	0	8	16	0	7
Mvmt Flow	87	0	32	36	0	36
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.6	7.7	6.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	0%	0%	47%
Vol Thru, %	0%	100%	53%
Vol Right, %	100%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	31	76	59
LT Vol	0	0	28
Through Vol	0	76	31
RT Vol	31	0	0
Lane Flow Rate	36	87	68
Geometry Grp	1	1	1
Degree of Util (X)	0.035	0.099	0.08
Departure Headway (Hd)	3.565	4.082	4.26
Convergence, Y/N	Yes	Yes	Yes
Cap	989	878	842
Service Time	1.643	2.105	2.284
HCM Lane V/C Ratio	0.036	0.099	0.081
HCM Control Delay	6.8	7.6	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.3	0.3

3: Krauser Road & Greenridge Road

Projected Conditions

Timing Plan: AM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	95	9	10	47	9	14
Future Volume (vph)	95	9	10	47	9	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11
Grade (%)	-7%			-3%	4%	
Link Speed (mph)	35			35	25	
Link Distance (ft)	786			699	259	
Travel Time (s)	15.3			13.6	7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	11%	0%	13%	11%	8%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

3: Krauser Road & Greenridge Road

Projected Conditions

Timing Plan: AM Peak Hour

Intersection						
Int Delay, s/veh	1.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	95	9	10	47	9	14
Future Vol, veh/h	95	9	10	47	9	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-7	-	-	-3	4	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	11	0	13	11	8
Mvmt Flow	103	10	11	51	10	15

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	113	0	181
Stage 1	-	-	-	-	108
Stage 2	-	-	-	-	73
Critical Hdwy	-	-	4.3	-	7.31
Critical Hdwy Stg 1	-	-	-	-	6.31
Critical Hdwy Stg 2	-	-	-	-	6.31
Follow-up Hdwy	-	-	3	-	3.1
Pot Cap-1 Maneuver	-	-	1099	-	868
Stage 1	-	-	-	-	1006
Stage 2	-	-	-	-	1054
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1099	-	859
Mov Cap-2 Maneuver	-	-	-	-	859
Stage 1	-	-	-	-	1006
Stage 2	-	-	-	-	1043

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	921	-	-	1099	-
HCM Lane V/C Ratio	0.027	-	-	0.01	-
HCM Control Delay (s)	9	-	-	8.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

4: Font Road & Greenridge Road/St. Andrews Lane

Projected Conditions

Timing Plan: AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	78	22	32	30	13	12	26	89	12	14	3
Future Volume (vph)	9	78	22	32	30	13	12	26	89	12	14	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			1%			-5%			1%	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1076			903			900			964	
Travel Time (s)		21.0			17.6			20.5			21.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	67%	4%	0%	10%	7%	8%	14%	9%	6%	8%	13%	0%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

4: Font Road & Greenridge Road/St. Andrews Lane

Projected Conditions

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	6.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	78	22	32	30	13	12	26	89	12	14	3
Future Vol, veh/h	9	78	22	32	30	13	12	26	89	12	14	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	1	-	-	-5	-	-	1	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	67	4	0	10	7	8	14	9	6	8	13	0
Mvmt Flow	10	84	24	34	32	14	13	28	96	13	15	3
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	168	193	17	199	146	76	18	0	0	124	0	0
Stage 1	43	43	-	102	102	-	-	-	-	-	-	-
Stage 2	125	150	-	97	44	-	-	-	-	-	-	-
Critical Hdwy	7.37	6.14	6	7.4	6.8	6.38	4.4	-	-	4.3	-	-
Critical Hdwy Stg 1	6.37	5.14	-	6.4	5.77	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.37	5.14	-	6.4	5.77	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.036	3.1	3	4.063	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	912	714	1137	865	729	1049	1183	-	-	1089	-	-
Stage 1	1132	859	-	1044	797	-	-	-	-	-	-	-
Stage 2	1013	782	-	1051	846	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	853	697	1137	755	712	1049	1183	-	-	1089	-	-
Mov Cap-2 Maneuver	853	697	-	755	712	-	-	-	-	-	-	-
Stage 1	1118	849	-	1031	787	-	-	-	-	-	-	-
Stage 2	947	773	-	916	836	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	10.5		10.2		0.8		3.5					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1183	-	-	769	774	1089	-	-				
HCM Lane V/C Ratio	0.011	-	-	0.152	0.104	0.012	-	-				
HCM Control Delay (s)	8.1	0	-	10.5	10.2	8.3	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.5	0.3	0	-	-				

5: Future Driveway/Kauser Road & Milford Road

Projected Conditions

Timing Plan: AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	53	4	5	60	7	12	0	5	10	1	41
Future Volume (vph)	9	53	4	5	60	7	12	0	5	10	1	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	10	10	12	12	12	16	12	16
Grade (%)		1%			-1%			0%			2%	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1442			2003			405			508	
Travel Time (s)		24.6			34.1			11.0			13.9	
Confl. Peds. (#/hr)												1
Peak Hour Factor	0.75	0.75	0.92	0.92	0.75	0.75	0.92	0.92	0.92	0.75	0.92	0.75
Heavy Vehicles (%)	14%	14%	2%	2%	3%	29%	2%	2%	2%	10%	2%	0%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

5: Future Driveway/Kauser Road & Milford Road

Projected Conditions

Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	53	4	5	60	7	12	0	5	10	1	41
Future Vol, veh/h	9	53	4	5	60	7	12	0	5	10	1	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-1	-	-	0	-	-	2	-
Peak Hour Factor	75	75	92	92	75	75	92	92	92	75	92	75
Heavy Vehicles, %	14	14	2	2	3	29	2	2	2	10	2	0
Mvmt Flow	12	71	4	5	80	9	13	0	5	13	1	55
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	89	0	0	75	0	0	221	196	73	195	194	86
Stage 1	-	-	-	-	-	-	97	97	-	95	95	-
Stage 2	-	-	-	-	-	-	124	99	-	100	99	-
Critical Hdwy	4.4	-	-	4.4	-	-	7.12	6.52	6.22	7.6	6.92	6.4
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.6	5.92	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.6	5.92	-
Follow-up Hdwy	3.1	-	-	3.1	-	-	3	4.018	3.2	3	4.018	3.2
Pot Cap-1 Maneuver	1082	-	-	1094	-	-	849	699	1024	861	686	1003
Stage 1	-	-	-	-	-	-	1059	815	-	1049	808	-
Stage 2	-	-	-	-	-	-	1023	813	-	1041	804	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1082	-	-	1094	-	-	790	687	1024	846	674	1002
Mov Cap-2 Maneuver	-	-	-	-	-	-	790	687	-	846	674	-
Stage 1	-	-	-	-	-	-	1046	805	-	1036	804	-
Stage 2	-	-	-	-	-	-	960	809	-	1023	794	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.2			0.5			9.3			9		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	847	1082	-	-	1094	-	-	960				
HCM Lane V/C Ratio	0.022	0.011	-	-	0.005	-	-	0.072				
HCM Control Delay (s)	9.3	8.4	0	-	8.3	0	-	9				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2				

6: Greenridge Road & Site Driveway

Projected Conditions

Timing Plan: AM Peak Hour

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	5	104	44	8	24	13
Future Volume (vph)	5	104	44	8	24	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-2%	0%		0%	
Link Speed (mph)		35	35		25	
Link Distance (ft)		1101	1076		881	
Travel Time (s)		21.4	21.0		24.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

6: Greenridge Road & Site Driveway

Projected Conditions

Timing Plan: AM Peak Hour

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	104	44	8	24	13
Future Vol, veh/h	5	104	44	8	24	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	113	48	9	26	14
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	57	0	-	0	176	53
Stage 1	-	-	-	-	53	-
Stage 2	-	-	-	-	123	-
Critical Hdwy	4.3	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	3	-	-	-	3	3.1
Pot Cap-1 Maneuver	1148	-	-	-	943	1084
Stage 1	-	-	-	-	1133	-
Stage 2	-	-	-	-	1049	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1148	-	-	-	938	1084
Mov Cap-2 Maneuver	-	-	-	-	938	-
Stage 1	-	-	-	-	1127	-
Stage 2	-	-	-	-	1049	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.4	0		8.8		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1148	-	-	-	985	
HCM Lane V/C Ratio	0.005	-	-	-	0.041	
HCM Control Delay (s)	8.2	0	-	-	8.8	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

8: Styer Road & Extension

Projected Conditions

Timing Plan: AM Peak Hour

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	19	30	31	0	0	36
Future Volume (vph)	19	30	31	0	0	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	10	10	12	12
Grade (%)		7%	2%		-15%	
Link Speed (mph)		35	35		25	
Link Distance (ft)		2939	165		120	
Travel Time (s)		57.3	3.2		3.3	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	28%	11%	7%	0%	0%	11%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

8: Styer Road & Extension

Projected Conditions

Timing Plan: AM Peak Hour

Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	30	31	0	0	36
Future Vol, veh/h	19	30	31	0	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	2	-	-15	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	28	11	7	0	0	11
Mvmt Flow	23	37	38	0	0	44
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	38	0	-	0	121	38
Stage 1	-	-	-	-	38	-
Stage 2	-	-	-	-	83	-
Critical Hdwy	4.38	-	-	-	4.4	5.2
Critical Hdwy Stg 1	-	-	-	-	2.4	-
Critical Hdwy Stg 2	-	-	-	-	2.4	-
Follow-up Hdwy	3.1	-	-	-	3	3.1
Pot Cap-1 Maneuver	1127	-	-	-	1088	1117
Stage 1	-	-	-	-	1189	-
Stage 2	-	-	-	-	1175	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1127	-	-	-	1065	1117
Mov Cap-2 Maneuver	-	-	-	-	1065	-
Stage 1	-	-	-	-	1164	-
Stage 2	-	-	-	-	1175	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.2	0		8.4		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1127	-	-	-	1117	
HCM Lane V/C Ratio	0.021	-	-	-	0.039	
HCM Control Delay (s)	8.3	0	-	-	8.4	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	

9: Extension & Greenridge Road

Projected Conditions

Timing Plan: AM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	76	33	0	31	18	0
Future Volume (vph)	76	33	0	31	18	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	10	14	14
Grade (%)	-10%			-3%	15%	
Link Speed (mph)	35			35	25	
Link Distance (ft)	601			115	120	
Travel Time (s)	11.7			2.2	3.3	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles (%)	6%	13%	0%	16%	35%	0%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

9: Extension & Greenridge Road

Projected Conditions

Timing Plan: AM Peak Hour

Intersection

Int Delay, s/veh 1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	76	33	0	31	18	0
Future Vol, veh/h	76	33	0	31	18	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	-3	15	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	6	13	0	16	35	0
Mvmt Flow	97	42	0	40	23	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	139
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.3
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3
Pot Cap-1 Maneuver	-	-	1076
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1076
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

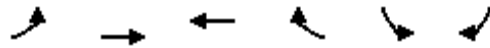
Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	810	-	-	1076	-
HCM Lane V/C Ratio	0.028	-	-	-	-
HCM Control Delay (s)	9.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

1: Greenridge Road & Stonehedge Drive

Projected Conditions

Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	52	89	31	22	0
Future Volume (vph)	0	52	89	31	22	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	15	15
Grade (%)		-2%	-3%		-4%	
Link Speed (mph)		35	35		25	
Link Distance (ft)		356	601		828	
Travel Time (s)		6.9	11.7		22.6	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	4%	1%	0%	5%	0%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

1: Greenridge Road & Stonehedge Drive

Projected Conditions

Timing Plan: PM Peak Hour

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
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Lane Configurations						
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Traffic Vol, veh/h	0	52	89	31	22	0
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Future Vol, veh/h	0	52	89	31	22	0
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Conflicting Peds, #/hr	1	0	0	1	0	0
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Sign Control	Free	Free	Free	Free	Stop	Stop
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RT Channelized	-	None	-	None	-	None
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Storage Length	-	-	-	-	0	-
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Veh in Median Storage, #	-	0	0	-	0	-
--------------------------	---	---	---	---	---	---

Grade, %	-	-2	-3	-	-4	-
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Peak Hour Factor	87	87	87	87	87	87
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Heavy Vehicles, %	0	4	1	0	5	0
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Mvmt Flow	0	60	102	36	25	0
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Major/Minor	Major1	Major2	Minor2
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Conflicting Flow All	139	0	0
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Stage 1	-	-	-
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Stage 2	-	-	-
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Critical Hdwy	4.4	-	-
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Critical Hdwy Stg 1	-	-	-
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Critical Hdwy Stg 2	-	-	-
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Follow-up Hdwy	3	-	-
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Pot Cap-1 Maneuver	1072	-	-
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Stage 1	-	-	-
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Stage 2	-	-	-
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Platoon blocked, %	-	-	-
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Mov Cap-1 Maneuver	1071	-	-
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Mov Cap-2 Maneuver	-	-	-
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Stage 1	-	-	-
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Stage 2	-	-	-
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Approach	EB	WB	SB
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HCM Control Delay, s	0	0	8.8
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HCM LOS			A
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Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
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Capacity (veh/h)	1071	-	-	-	971
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HCM Lane V/C Ratio	-	-	-	-	0.026
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HCM Control Delay (s)	0	-	-	-	8.8
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HCM Lane LOS	A	-	-	-	A
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HCM 95th %tile Q(veh)	0	-	-	-	0.1
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2: Styer Road & Greenridge Road

Projected Conditions

Timing Plan: PM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	60	0	51	103	0	26
Future Volume (vph)	60	0	51	103	0	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	10	10	10
Grade (%)	-10%			10%	2%	
Link Speed (mph)	35			35	35	
Link Distance (ft)	115			786	165	
Travel Time (s)	2.2			15.3	3.2	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	2%	0%	2%	1%	0%	0%
Shared Lane Traffic (%)						
Sign Control	Stop			Stop	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2: Styer Road & Greenridge Road

Projected Conditions

Timing Plan: PM Peak Hour

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	60	0	51	103	0	26
Future Vol, veh/h	60	0	51	103	0	26
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	2	0	2	1	0	0
Mvmt Flow	69	0	59	118	0	30
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.5	8.2	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	0%	0%	33%
Vol Thru, %	0%	100%	67%
Vol Right, %	100%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	26	60	154
LT Vol	0	0	51
Through Vol	0	60	103
RT Vol	26	0	0
Lane Flow Rate	30	69	177
Geometry Grp	1	1	1
Degree of Util (X)	0.032	0.079	0.202
Departure Headway (Hd)	3.835	4.12	4.105
Convergence, Y/N	Yes	Yes	Yes
Cap	939	865	874
Service Time	1.835	2.168	2.13
HCM Lane V/C Ratio	0.032	0.08	0.203
HCM Control Delay	7	7.5	8.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.3	0.8

3: Krauser Road & Greenridge Road

Projected Conditions

Timing Plan: PM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	75	11	23	141	11	25
Future Volume (vph)	75	11	23	141	11	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11
Grade (%)	-7%			-3%	4%	
Link Speed (mph)	35			35	25	
Link Distance (ft)	786			699	259	
Travel Time (s)	15.3			13.6	7.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	0%	0%	9%	0%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

3: Krauser Road & Greenridge Road

Projected Conditions

Timing Plan: PM Peak Hour

Intersection

Int Delay, s/veh 1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	75	11	23	141	11	25
Future Vol, veh/h	75	11	23	141	11	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-7	-	-	-3	4	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	0	0	0	9	0
Mvmt Flow	81	12	25	152	12	27

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	93
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.3
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3
Pot Cap-1 Maneuver	-	-	1116
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1116
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	889	-	-	1116	-
HCM Lane V/C Ratio	0.044	-	-	0.022	-
HCM Control Delay (s)	9.2	-	-	8.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

4: Font Road & Greenridge Road/St. Andrews Lane

Projected Conditions

Timing Plan: PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	56	20	128	102	12	27	24	67	7	26	7
Future Volume (vph)	6	56	20	128	102	12	27	24	67	7	26	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			1%			-5%			1%	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1076			903			900			964	
Travel Time (s)		21.0			17.6			20.5			21.9	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	0%	0%	22%	0%	1%	0%	11%	0%	3%	0%	9%	0%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

4: Font Road & Greenridge Road/St. Andrews Lane

Projected Conditions

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	9.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	56	20	128	102	12	27	24	67	7	26	7
Future Vol, veh/h	6	56	20	128	102	12	27	24	67	7	26	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	1	-	-	-5	-	-	1	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	22	0	1	0	11	0	3	0	9	0
Mvmt Flow	7	69	25	158	126	15	33	30	83	9	32	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	263	234	37	240	197	72	41	0	0	113	0	0
Stage 1	55	55	-	138	138	-	-	-	-	-	-	-
Stage 2	208	179	-	102	59	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.1	6.22	7.3	6.8	6.3	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	5.7	5.1	-	6.3	5.71	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.1	-	6.3	5.71	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4.009	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	819	688	1107	814	689	1056	1162	-	-	1099	-	-
Stage 1	1125	858	-	998	778	-	-	-	-	-	-	-
Stage 2	940	770	-	1047	845	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	670	661	1107	711	662	1056	1162	-	-	1099	-	-
Mov Cap-2 Maneuver	670	661	-	711	662	-	-	-	-	-	-	-
Stage 1	1090	851	-	967	754	-	-	-	-	-	-	-
Stage 2	748	746	-	933	838	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.7		13.9		1.9		1.5	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1162	-	-	734	700	1099	-
HCM Lane V/C Ratio	0.029	-	-	0.138	0.427	0.008	-
HCM Control Delay (s)	8.2	0	-	10.7	13.9	8.3	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.5	2.1	0	-

5: Future Driveway/Kauser Road & Milford Road

Projected Conditions

Timing Plan: PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	57	8	9	74	18	9	1	3	8	0	21
Future Volume (vph)	37	57	8	9	74	18	9	1	3	8	0	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	10	10	12	12	12	16	12	16
Grade (%)		1%			-1%			0%			2%	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1442			2003			522			508	
Travel Time (s)		24.6			34.1			14.2			13.9	
Confl. Peds. (#/hr)	2					2				1		
Peak Hour Factor	0.93	0.93	0.92	0.92	0.93	0.93	0.92	0.92	0.92	0.93	0.92	0.93
Heavy Vehicles (%)	0%	0%	2%	2%	2%	0%	2%	2%	2%	0%	2%	6%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

5: Future Driveway/Kauser Road & Milford Road

Projected Conditions

Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	37	57	8	9	74	18	9	1	3	8	0	21
Future Vol, veh/h	37	57	8	9	74	18	9	1	3	8	0	21
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-1	-	-	0	-	-	2	-
Peak Hour Factor	93	93	92	92	93	93	92	92	92	93	92	93
Heavy Vehicles, %	0	0	2	2	2	0	2	2	2	0	2	6
Mvmt Flow	40	61	9	10	80	19	10	1	3	9	0	23
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	101	0	0	70	0	0	267	267	67	261	262	92
Stage 1	-	-	-	-	-	-	146	146	-	112	112	-
Stage 2	-	-	-	-	-	-	121	121	-	149	150	-
Critical Hdwy	4.3	-	-	4.3	-	-	7.12	6.52	6.22	7.5	6.92	6.46
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.5	5.92	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.5	5.92	-
Follow-up Hdwy	3	-	-	3	-	-	3	4.018	3.2	3	4.018	3.2
Pot Cap-1 Maneuver	1109	-	-	1136	-	-	789	639	1032	775	624	993
Stage 1	-	-	-	-	-	-	994	776	-	1027	793	-
Stage 2	-	-	-	-	-	-	1027	796	-	975	760	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1107	-	-	1136	-	-	743	608	1031	742	593	991
Mov Cap-2 Maneuver	-	-	-	-	-	-	743	608	-	742	593	-
Stage 1	-	-	-	-	-	-	956	747	-	986	784	-
Stage 2	-	-	-	-	-	-	995	787	-	933	731	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	3			0.7			9.7			9.1		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	780	1107	-	-	1136	-	-	907				
HCM Lane V/C Ratio	0.018	0.036	-	-	0.009	-	-	0.034				
HCM Control Delay (s)	9.7	8.4	0	-	8.2	0	-	9.1				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.1				

6: Greenridge Road & Site Driveway

Projected Conditions

Timing Plan: PM Peak Hour

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	15	85	156	27	16	8
Future Volume (vph)	15	85	156	27	16	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-2%	0%		0%	
Link Speed (mph)		35	35		25	
Link Distance (ft)		1101	1076		881	
Travel Time (s)		21.4	21.0		24.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

6: Greenridge Road & Site Driveway

Projected Conditions

Timing Plan: PM Peak Hour

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	85	156	27	16	8
Future Vol, veh/h	15	85	156	27	16	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	92	170	29	17	9
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	199	0	-	0	309	185
Stage 1	-	-	-	-	185	-
Stage 2	-	-	-	-	124	-
Critical Hdwy	4.3	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	3	-	-	-	3	3.1
Pot Cap-1 Maneuver	1027	-	-	-	784	913
Stage 1	-	-	-	-	980	-
Stage 2	-	-	-	-	1048	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1027	-	-	-	771	913
Mov Cap-2 Maneuver	-	-	-	-	771	-
Stage 1	-	-	-	-	964	-
Stage 2	-	-	-	-	1048	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.3	0		9.6		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1027	-	-	-	813	
HCM Lane V/C Ratio	0.016	-	-	-	0.032	
HCM Control Delay (s)	8.6	0	-	-	9.6	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

8: Styer Road & Extension

Projected Conditions

Timing Plan: PM Peak Hour

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	20	25	51	0	0	15
Future Volume (vph)	20	25	51	0	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	10	10	12	12
Grade (%)		7%	2%		-15%	
Link Speed (mph)		35	35		25	
Link Distance (ft)		2939	165		120	
Travel Time (s)		57.3	3.2		3.3	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	2%	0%	0%	13%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

8: Styer Road & Extension

Projected Conditions

Timing Plan: PM Peak Hour

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	25	51	0	0	15
Future Vol, veh/h	20	25	51	0	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	2	-	-15	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	2	0	0	13
Mvmt Flow	24	30	62	0	0	18
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	62	0	-	0	140	62
Stage 1	-	-	-	-	62	-
Stage 2	-	-	-	-	78	-
Critical Hdwy	4.3	-	-	-	4.4	5.2
Critical Hdwy Stg 1	-	-	-	-	2.4	-
Critical Hdwy Stg 2	-	-	-	-	2.4	-
Follow-up Hdwy	3	-	-	-	3	3.1
Pot Cap-1 Maneuver	1143	-	-	-	1071	1090
Stage 1	-	-	-	-	1181	-
Stage 2	-	-	-	-	1177	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1143	-	-	-	1049	1090
Mov Cap-2 Maneuver	-	-	-	-	1049	-
Stage 1	-	-	-	-	1156	-
Stage 2	-	-	-	-	1177	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.7	0		8.4		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1143	-	-	-	1090	
HCM Lane V/C Ratio	0.021	-	-	-	0.017	
HCM Control Delay (s)	8.2	0	-	-	8.4	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	

9: Extension & Greenridge Road

Projected Conditions

Timing Plan: PM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	59	15	0	104	20	0
Future Volume (vph)	59	15	0	104	20	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	10	14	14
Grade (%)	-10%			-3%	15%	
Link Speed (mph)	35			35	25	
Link Distance (ft)	601			115	120	
Travel Time (s)	11.7			2.2	3.3	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	2%	13%	0%	1%	0%	0%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

9: Extension & Greenridge Road

Projected Conditions

Timing Plan: PM Peak Hour

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	59	15	0	104	20	0
Future Vol, veh/h	59	15	0	104	20	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	-3	15	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	13	0	1	0	0
Mvmt Flow	68	17	0	120	23	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	85	0	197	77
Stage 1	-	-	-	-	77	-
Stage 2	-	-	-	-	120	-
Critical Hdwy	-	-	4.3	-	9.4	7.7
Critical Hdwy Stg 1	-	-	-	-	8.4	-
Critical Hdwy Stg 2	-	-	-	-	8.4	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1123	-	778	1018
Stage 1	-	-	-	-	1035	-
Stage 2	-	-	-	-	953	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1123	-	778	1018
Mov Cap-2 Maneuver	-	-	-	-	778	-
Stage 1	-	-	-	-	1035	-
Stage 2	-	-	-	-	953	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		9.8	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	778	-	-	1123	-	
HCM Lane V/C Ratio	0.03	-	-	-	-	
HCM Control Delay (s)	9.8	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

APPENDIX D:

Auxiliary Turn Lane Warrant Analyses

Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality: Upper Uwchlan Township County: Chester County PennDOT Engineering District: 6	Analysis Date: 8/5/2021 Conducted By: SL Checked By: Agency/Company Name: Traffic Planning and Design, Inc.
Intersection & Approach Description: Greenridge Road & Site Driveway	
Analysis Period: 2026 Projected Design Hour: AM Peak Hour Intersection Control: Unsignalized Posted Speed Limit (MPH): 35 Type of Terrain: Level	Number of Approach Lanes: 1 Undivided or Divided Highway: Undivided Type of Analysis Left or Right-Turn Lane Analysis?: Left Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	5	2.0%	6
	Through	-	104	2.0%	106
	Right	Yes	0	2.0%	0
Opposing	Left	Yes	0	2.0%	0
	Through	-	44	2.0%	45
	Right	Yes	8	2.0%	9
Advancing Volume: 112 Opposing Volume: 54 Left Turn Volume: 6 % Left Turns in Advancing Volume: 5.36%					
Right Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	0	2.0%	N/A
	Through	-	44	2.0%	N/A
	Right	-	8	2.0%	N/A
Advancing Volume: N/A Right Turn Volume: N/A					

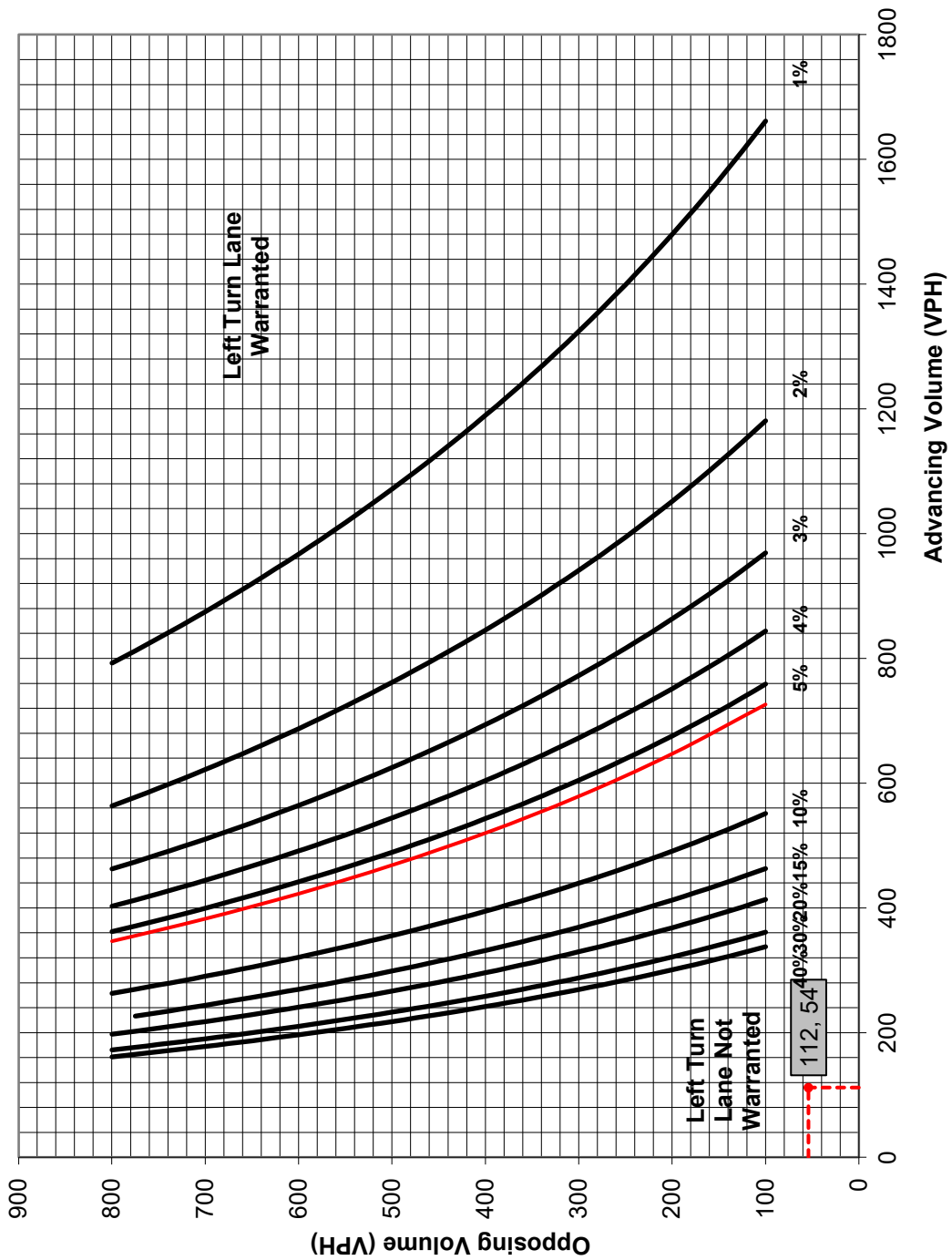
TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: Figure 1 Warrant Met?: No	Applicable Warrant Figure: N/A Warrant Met?: N/A

TURN LANE LENGTH CALCULATIONS

Intersection Control: Unsignalized Design Hour Volume of Turning Lane: 6 Cycles Per Hour (Assumed): 60 Cycles Per Hour (If Known): 	Average # of Vehicles/Cycle: N/A																																								
PennDOT Publication 46, Exhibit 11-6																																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="3">Type of Traffic Control</th> <th colspan="6">Speed (MPH)</th> </tr> <tr> <th colspan="2">25-35</th> <th colspan="2">40-45</th> <th colspan="2">50-60</th> </tr> <tr> <th colspan="6">Turn Demand Volume</th> </tr> <tr> <th></th> <th>High</th> <th>Low</th> <th>High</th> <th>Low</th> <th>High</th> <th>Low</th> </tr> </thead> <tbody> <tr> <td>Signalized</td> <td>A</td> <td>A</td> <td>B or C</td> <td>B or C</td> <td>B or C</td> <td>B or C</td> </tr> <tr> <td>Unsignalized</td> <td>A</td> <td>A</td> <td>C</td> <td>B</td> <td>B or C</td> <td>B</td> </tr> </tbody> </table>		Type of Traffic Control	Speed (MPH)						25-35		40-45		50-60		Turn Demand Volume							High	Low	High	Low	High	Low	Signalized	A	A	B or C	B or C	B or C	B or C	Unsignalized	A	A	C	B	B or C	B
Type of Traffic Control	Speed (MPH)																																								
	25-35		40-45		50-60																																				
	Turn Demand Volume																																								
	High	Low	High	Low	High	Low																																			
Signalized	A	A	B or C	B or C	B or C	B or C																																			
Unsignalized	A	A	C	B	B or C	B																																			
Left Turn Lane Storage Length, Condition A: N/A Feet Condition B: N/A Feet Condition C: N/A Feet Required Left Turn Lane Storage Length: N/A Feet Additional Findings: N/A																																									
Additional Comments / Justifications: 																																									

Figure 1. Warrant for left turn lanes on two-lane roadways
(speeds to 35 mph, unsignalized and signalized intersections)
(L = % Left Turns in Advancing Volume)



• Volume Data Point
— 5.4%

Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality: Upper Uwchlan Township County: Chester County PennDOT Engineering District: 6	Analysis Date: 8/5/2021 Conducted By: SL Checked By: Agency/Company Name: Traffic Planning and Design, Inc.
Intersection & Approach Description: Greenridge Road & Site Driveway	
Analysis Period: 2026 Projected Design Hour: AM Peak Hour Intersection Control: Unsignalized Posted Speed Limit (MPH): 35 Type of Terrain: Level	Number of Approach Lanes: 1 Undivided or Divided Highway: Undivided Type of Analysis Left or Right-Turn Lane Analysis?: Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	5	2.0%	N/A
	Through	-	104	2.0%	N/A
	Right	Yes	0	2.0%	N/A
Opposing	Left	Yes	0	2.0%	N/A
	Through	-	44	2.0%	N/A
	Right	Yes	8	2.0%	N/A
Advancing Volume: N/A Opposing Volume: N/A Left Turn Volume: N/A % Left Turns in Advancing Volume: N/A					
Right Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	0	2.0%	0
	Through	-	44	2.0%	45
	Right	-	8	2.0%	9
Advancing Volume: 54 Right Turn Volume: 9					

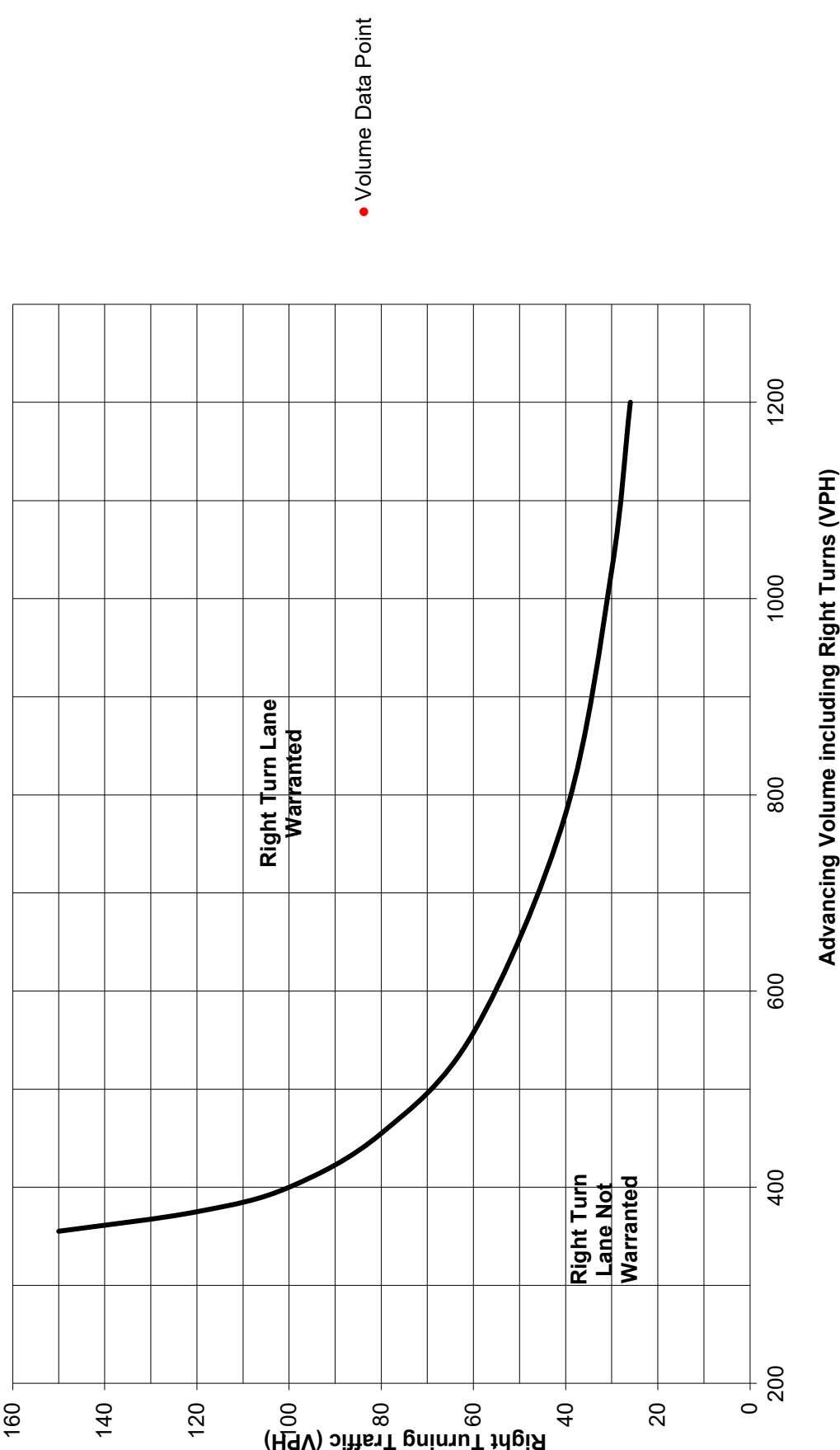
TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: N/A Warrant Met?: N/A	Applicable Warrant Figure: Figure 9 Warrant Met?: No

TURN LANE LENGTH CALCULATIONS

Intersection Control: Unsignalized Design Hour Volume of Turning Lane: 9 Cycles Per Hour (Assumed): 60 Cycles Per Hour (If Known): 	Average # of Vehicles/Cycle: N/A																																								
PennDOT Publication 46, Exhibit 11-6																																									
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Type of Traffic Control	Speed (MPH)																																								
	25-35		40-45		50-60																																				
	Turn Demand Volume																																								
	High	Low	High	Low	High	Low																																			
Signalized	A	A	B or C	B or C	B or C	B or C																																			
Unsignalized	A	A	C	B	B or C	B																																			
Right Turn Lane Storage Length, Condition A: N/A Feet Condition B: N/A Feet Condition C: N/A Feet Required Right Turn Lane Storage Length: N/A Feet																																									
Additional Findings: N/A																																									
Additional Comments / Justifications: 																																									

Figure 9. Warrant for right turn lanes on two-lane roadways
(40 mph or lower speeds, unsignalized and signalized intersections)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality: Upper Uwchlan Township County: Chester County PennDOT Engineering District: 6	Analysis Date: 8/5/2021 Conducted By: SL Checked By: Agency/Company Name: Traffic Planning and Design, Inc.
Intersection & Approach Description: Greenridge Road & Site Driveway	
Analysis Period: 2026 Projected Design Hour: PM Peak Hour Intersection Control: Unsignalized Posted Speed Limit (MPH): 35 Type of Terrain: Level	Number of Approach Lanes: 1 Undivided or Divided Highway: Undivided Type of Analysis Left or Right-Turn Lane Analysis?: Left Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	15	2.0%	16
	Through	-	85	2.0%	86
	Right	Yes	0	2.0%	0
Opposing	Left	Yes	0	2.0%	0
	Through	-	156	2.0%	158
	Right	Yes	27	2.0%	28
Advancing Volume: 102 Opposing Volume: 186 Left Turn Volume: 16 % Left Turns in Advancing Volume: 15.69%					
Right Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	0	2.0%	N/A
	Through	-	156	2.0%	N/A
	Right	-	27	2.0%	N/A
Advancing Volume: N/A Right Turn Volume: N/A					

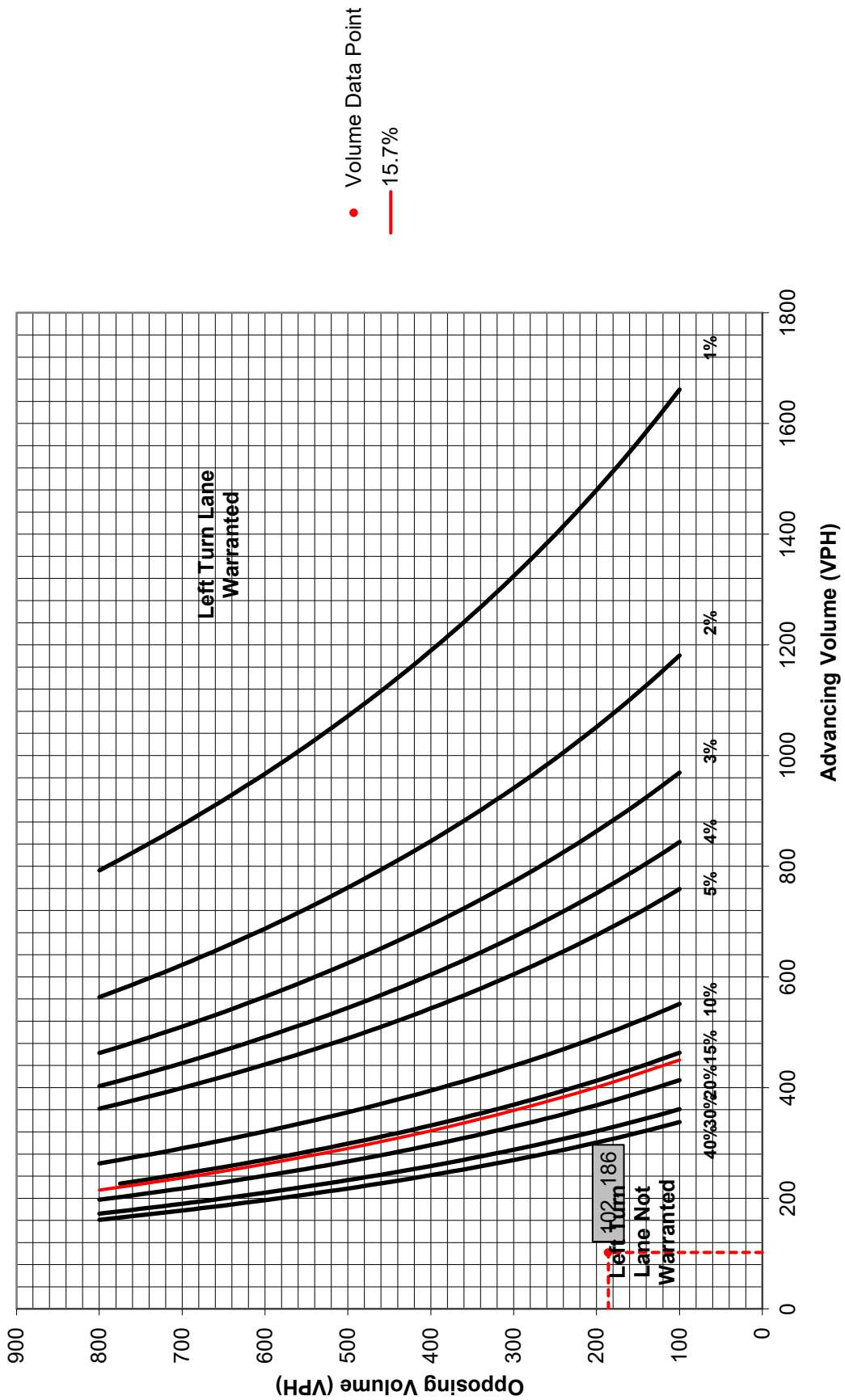
TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: Figure 1 Warrant Met?: No	Applicable Warrant Figure: N/A Warrant Met?: N/A

TURN LANE LENGTH CALCULATIONS

Intersection Control: Unsignalized Design Hour Volume of Turning Lane: 16 Cycles Per Hour (Assumed): 60 Cycles Per Hour (If Known): 	Average # of Vehicles/Cycle: N/A																																								
PennDOT Publication 46, Exhibit 11-6																																									
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Signalized	A	A	B or C	B or C	B or C	B or C																																			
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Figure 1. Warrant for left turn lanes on two-lane roadways
(speeds to 35 mph, unsignalized and signalized intersections)
(L = % Left Turns in Advancing Volume)



Turn Lane Warrant and Length Analysis Workbook

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Intersection & Approach Description: Greenridge Road & Site Driveway	
Analysis Period: 2026 Projected Design Hour: PM Peak Hour Intersection Control: Unsignalized Posted Speed Limit (MPH): 35 Type of Terrain: Level	Number of Approach Lanes: 1 Undivided or Divided Highway: Undivided Type of Analysis Left or Right-Turn Lane Analysis?: Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	15	2.0%	N/A
	Through	-	85	2.0%	N/A
	Right	Yes	0	2.0%	N/A
Opposing	Left	Yes	0	2.0%	N/A
	Through	-	156	2.0%	N/A
	Right	Yes	27	2.0%	N/A
Advancing Volume: N/A Opposing Volume: N/A Left Turn Volume: N/A % Left Turns in Advancing Volume: N/A					
Right Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	0	2.0%	0
	Through	-	156	2.0%	158
	Right	-	27	2.0%	28
Advancing Volume: 186 Right Turn Volume: 28					

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: N/A Warrant Met?: N/A	Applicable Warrant Figure: Figure 9 Warrant Met?: No

TURN LANE LENGTH CALCULATIONS

Intersection Control: Unsignalized Design Hour Volume of Turning Lane: 28 Cycles Per Hour (Assumed): 60 Cycles Per Hour (If Known): 	Average # of Vehicles/Cycle: N/A																																								
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th rowspan="3" style="width: 20%;">Type of Traffic Control</th> <th colspan="6" style="background-color: #f5deb3;">Speed (MPH)</th> </tr> <tr> <th colspan="2" style="background-color: #f5deb3;">25-35</th> <th colspan="2" style="background-color: #f5deb3;">40-45</th> <th colspan="2" style="background-color: #f5deb3;">50-60</th> </tr> <tr> <th colspan="6" style="background-color: #f5deb3;">Turn Demand Volume</th> </tr> <tr> <th></th> <th>High</th> <th>Low</th> <th>High</th> <th>Low</th> <th>High</th> <th>Low</th> </tr> <tr> <td>Signalized</td> <td>A</td> <td>A</td> <td>B or C</td> <td>B or C</td> <td>B or C</td> <td>B or C</td> </tr> <tr> <td>Unsignalized</td> <td>A</td> <td>A</td> <td>C</td> <td>B</td> <td>B or C</td> <td>B</td> </tr> </table>		Type of Traffic Control	Speed (MPH)						25-35		40-45		50-60		Turn Demand Volume							High	Low	High	Low	High	Low	Signalized	A	A	B or C	B or C	B or C	B or C	Unsignalized	A	A	C	B	B or C	B
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	Turn Demand Volume																																								
	High	Low	High	Low	High	Low																																			
Signalized	A	A	B or C	B or C	B or C	B or C																																			
Unsignalized	A	A	C	B	B or C	B																																			
Right Turn Lane Storage Length, Condition A: N/A Feet Condition B: N/A Feet Condition C: N/A Feet Required Right Turn Lane Storage Length: N/A Feet																																									
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Figure 9. Warrant for right turn lanes on two-lane roadways
(40 mph or lower speeds, unsignalized and signalized intersections)

