

# Stokes Estate Residential Project Traffic Impact Study

## Westtown Township, Chester County

Prepared for submission to:

**Westtown Township**

May 2021



# Stokes Estate Residential Project

## Traffic Impact Study

Westtown Township  
Chester County, Pennsylvania

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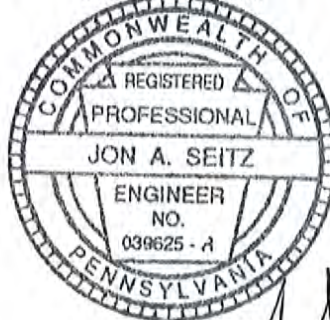
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Project No. 278.012.21

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## SCOPE AND NATURE OF PROPOSED DEVELOPMENT

This report describes the transportation impact analysis for the proposed residential development located in Westtown Township, Chester County. The development is proposed east of Shiloh Road (T-626) and west of the east branch of the Chester Creek. See Figure 1 for a site location map. The site is referred to as the Stokes Estate Tract which is currently undeveloped. Keystone Custom Homes proposes a 68-unit single family residential development with two means of access. The development will consist entirely of single family (detached) homes. The development tract measures 65.047 acres. A sketch plan which depicts the scope and nature of the proposed development is attached as Figure 2.

Keystone Custom Homes would like to obtain the necessary approval so that they can institute construction as early as the Spring of 2022. They anticipate full buildout of the development in 2026. A design year of 2031 was used for the analysis.

The purpose of this study is to identify significant traffic problems associated with the ability of the existing roadways to accommodate the volume of traffic anticipated from the development and to assure safe and efficient site access. If necessary, improvements will be recommended to mitigate the impact of development traffic on the surrounding roadway network. This study is prepared in accordance with Westtown Township's guidelines on traffic impact studies as detailed in Chapter 149 of their Subdivision and Land Development Ordinance (SALDO).

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## DESCRIPTION OF PROPOSED ACCESS POINTS

The project is proposed to include two access points. The southern access point is proposed on Shiloh Road (T-626) directly across from the existing Hunt Drive (T-546), creating a four-legged intersection. Stop sign control will remain on Hunt Drive and the proposed access road will also be stop controlled. Free-flow traffic on Shiloh Road would remain unchanged. In this area, Shiloh Road, is slightly rolling, with the Hunt Drive – proposed access intersection located at the apex of a hill, therefore allowing sight distance in excess of the Township requirements when appropriate embankment removal is performed. The speed limit on Shiloh Road is posted at 30 mph. SALDO Section 149-908 was used to determine the sight distance at the proposed access intersections. The SALDO sight distance criteria calls for clear sight triangles of 75 feet for roadways below collector level, 100 feet for roadways at collector level, and 150 feet for roadways if either is an arterial highway. Details of the sight distance will be shown on the land development plans.

The northern access point will connect the development to the existing Shiloh Hill Drive (T-559), which ultimately accesses Little Shiloh Road (T-367). The existing stub at Shiloh Hill Drive will be extended into the development continuing the two-lane roadway, providing one travel lane in each direction. Shiloh Hill Drive is currently a 22 foot curbed roadway which abuts a six-foot paved lane providing access to several residential homes.

Field views were conducted at the access points and study intersections and forms are included in the Appendices showing lane widths, grades, and traffic control.

## EXISTING CONDITIONS

The development is proposed in a mainly residential area of Westtown Township. The West Chester Bayard Rustin High School is located south of the site just north of S.R.0926. The major roadway system in the study area is comprised of state and township roads. Table 1 summarizes the roadway system characteristics for the roadways in Westtown Township, while Figure 3 shows the existing lane configuration and traffic control at the study intersections.

**Table 1: Roadway System Characteristics**

Road Name	Ownership (State or Township)	Number of Travel Lanes	Lane Widths	Shoulder Widths	Speed Limit	ADT	Functional Classification
Street Road	S.R.0926	2	12'	4'	45 mph	10,600	Arterial Highway
Little Shiloh Road	S.R.2005/ T-367	2	10'	2'	25 mph	3,800	Collector
Westtown Road	S.R.2007	2	10'	1'-2'	35 mph	1,800	Collector
Shiloh Road	T-626	2	10'	1'-2'	30 mph	6,100	Collector
Hunt Drive	T-546	2	10'	curbed	Not Posted	300	Local Road
Oakbourne Road	T-359	2	10'	1'	35 mph	2,000	Collector
Shiloh Hill Drive	T-559	2	10'	curbed	Not Posted	300	Local Road

The ADT volumes on the state roadways were obtained from PennDOT's Traffic Information Repository (TIRe) website. ADT volumes on the Township roads were calculated using the PM peak hour volumes and a "k" factor of 10. The right-of-way on Shiloh Road is 68' per the PennDOT signal plan at S.R.0926. Right-of-way on Shiloh Road in the vicinity of the access roadway opposite Hunt Drive is shown on the site plan developed by D.L. Howell & Associates, Inc., the project's civil engineer.

Based on the characteristics of the proposed development, the weekday AM and PM peak hours were analyzed. Turning movement counts were conducted on Thursday, March 10, 2021 from 6:00 AM to 9:00 AM and 2:00 PM to 6:00 PM at the following study intersections:

- Street Road (S.R.0926)/Shiloh Road (T-626) – Westtown Thornton Road (S.R.2005)
- Hunt Drive (T-546)/Shiloh Road (T-626)
- Oakbourne Road (T-359)/Shiloh Road (T-626)
- Little Shiloh Road (S.R.2005 – T-367)/Shiloh Road (T-626)
- Little Shiloh Road (T-367)/Shiloh Hill Drive (T-559)
- Little Shiloh Road (T-367) – Falcon Lane/Westtown Road (S.R.2007)

All intersections in the study area are unsignalized except for the Street Road (S.R.0926)/Shiloh Road (T-626) – Westtown Thornton Road intersection which is signalized. Five of the six study intersections are “off-site intersections”. Only one intersection, Hunt Drive/Shiloh Road is an “on-site intersection”, due to the construction of a new fourth leg for the intersection which provides direct access to the proposed development.

Counts were recorded in 15-minute intervals, with the peak hour being selected from the four highest consecutive 15-minute periods. The following AM and PM peak hours occurred at the study intersections:

<u>Intersection</u>	<u>AM Peak Hour</u>	<u>PM Peak Hour</u>
Street Road (S.R.0926)/Shiloh Road (T-626) – Westtown Thornton Road (S.R.2005)	7:15 AM – 8:15 AM	4:30 PM – 5:30 PM
Hunt Drive (T-546)/Shiloh Road (T-626)	6:45 AM – 7:45 AM	4:45 PM – 5:45 PM
Oakbourne Road (T-359)/Shiloh Road (T-626)	6:45 AM – 7:45 AM	4:45 PM – 5:45 PM
Little Shiloh Road (S.R.2005 – T-367)/Shiloh Road (T-626)	7:15 AM – 8:15 AM	4:30 PM – 5:30 PM
Little Shiloh Road (T-367)/Shiloh Hill Drive (T-559)	7:15 AM – 8:15 AM	4:30 PM – 5:30 PM
Little Shiloh Road (T-367) – Falcon Lane/Westtown Road (S.R.2007)	7:30 AM – 8:30 AM	4:30 PM – 5:30 PM

Due to a reduction in traffic volumes as a result of the Covid-19 pandemic, traffic volumes from PennDOT’s Traffic Information Repository (TIRe) site were used to determine a multiplicative growth factor to adjust the turning movement counts at the study intersections. The 2018 PennDOT hourly TIRe counts were adjusted to the year 2021 and then compared to the TMC counts at the Street Road (S.R.0926)/Shiloh Road (T-626) intersection. In order to “normalize” 2021 traffic counts at the study intersections, a multiplicative factor was calculated based on the comparison, and applied to the intersection counts. Figure 4 in the Appendices shows the existing weekday AM and PM peak hour traffic volumes at the study intersections. A more detailed explanation of the Covid-19 adjustment along with the TMC count summaries are included in the Appendices.



## CALCULATION OF INTERSECTION CAPACITY

This section discusses the methodology used in calculating levels of service and capacity analysis at the study intersections. The Highway Capacity Manual (6<sup>th</sup> Ed.) procedures were used to determine level of service (LOS) and capacity for intersections. Synchro version 10.3, build 151, revision 0 (10.3.151.0) was used for the analysis. Unsignalized intersections are rarely at capacity from an overall standpoint. Traffic movements from minor crossroads and major road left turns are largely affected by the distribution of gaps in the major street traffic stream, and motorist judgment in choosing gaps through which to execute their maneuvers. Gaps in the traffic stream depend on several factors, including the type of maneuvers being executed, type of minor street control, the average speed of the major street and geometric and environmental conditions. LOS criteria for unsignalized and signalized intersections are based on control delay (in seconds per vehicle) to motorists. Various factors affect delay, including traffic volumes, lane configurations and widths, traffic signal phasing and cycle lengths, trucks percentages, etc. All the methodologies and factors identified in Section 19-804 (A)(4) were used in the analysis.

LOS ranges from “A” to “F” with “A” having the most favorable performance. PennDOT’s “Policy and Procedures for Transportation Impact Studies” suggests new intersections must be designed to at least operate at an LOS C or better for rural conditions and an LOS D or better for urban conditions. Also, the overall intersection LOS for “With Development” scenarios should be no worse than “Without Development” scenarios. Level of service ranges for unsignalized and signalized intersections can be found in Table 2.

**Table 2: Level of Service Ranges – Unsignalized and Signalized Intersections**

Level of Service	Expected Traffic Delay	Average Control Delay <sup>(1)</sup>	Control Delay <sup>(2)</sup>
A	Little or No Delay	<10	<10
B	Short Traffic Delays	>10 and ≤15	>10 and ≤ 20
C	Average Traffic Delays	>15 and ≤ 25	>20 and ≤ 35
D	Long Traffic Delays	>25 and ≤ 35	>35 and ≤ 55
E	Very Long Traffic Delays	>35 and ≤ 50	>55 and ≤ 80
F	Failure, Extreme Congestion	>50	>80

<sup>(1)</sup> UNSIGNALIZED – SEC/VEH  
<sup>(2)</sup> SIGNALIZED – SEC/VEH

## ESTIMATE OF TRIP GENERATION

The level of traffic likely to be generated by the proposed development has been estimated using procedures in the Institute of Transportation Engineers (ITE) Trip Generation Manual (10<sup>th</sup> Ed. 2017) to determine the potential traffic impact on the study intersections. Land use code 210, Single-family Detached Housing was utilized for the development. The number of units was used as the independent variable. Details of this trip generation analysis can be found in the Appendices. Table 1 summarizes the estimated site trip generation for the proposed development during the typical weekday AM and PM peak hours and during the typical weekday.

**Table 3: Estimated Site Trip Generation**

Land Use (Code)	# Units	AM Peak Hour			PM Peak Hour			ADWT
		Enter	Exit	Total	Enter	Exit	Total	
Single-Family Detached Housing	68	13	40	53	44	26	70	729

## DISTRIBUTION OF TRAFFIC

Figure 5 shows the trip distribution percentages for the new site traffic on the roadway system. The site trip distribution was based on a cordon line methodology which used the traffic volumes entering and exiting the study area. The trip distribution was favored to Street Road (S.R.0926) for eastbound traffic accessing the Greater Philadelphia area and Street Road (S.R.0926) to the west for traffic to access U.S. 202. The proposed distribution used for the new site traffic is as follows:

- 35% oriented to/from the east on Street Road (S.R.0926)
- 35% oriented to/from the west on Street Road (S.R.0926)
- 15% oriented to/from the west on Little Shiloh Road (S.R.2005)
- 10% oriented to/from the south on Westtown Road (S.R.2007)
- 5% oriented to/from the south on Westtown Thornton Road

The distribution of traffic assigned to the access points was based on the development layout and proximity to the roadway system. The following site traffic was assigned to each access point:

- 75% will use the Shiloh Road (T-626) access
- 25% will use the Shiloh Hill Drive (T-559) access

Figure 6 shows the site trips generated by the proposed development and assigned to the roadway network. Details of the site trip distribution and assignment are included in the Appendices.

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## COMPARISON OF COUNTS AND CAPACITIES, EXISTING

Based on the level of service methodologies previously discussed, an analysis of existing conditions was analyzed. Table A in the Appendices shows the results of the existing level of service/capacity analysis. Figure 7 graphically shows the existing level of service results at the study intersections during the AM and PM peak hours. As shown in Table A, the study intersections are all operating at an overall LOS A, except for the Street Road (S.R.0926)/Shiloh Road (T-626) – Westtown Thornton Road (S.R.2005) signalized intersection which operates at an LOS D overall based on the existing signal timings. The northbound approach is operating at an LOS F.

## COMPARISON OF COUNTS AND CAPACITIES, FUTURE

An analysis of future conditions for both the No Build (Without Development) and Build (With Development) scenarios was completed for the 2026 opening year and the 2031 design year.

Some level of external traffic growth on the roadway system can be expected even without the proposed development. This growth can be attributed to a nominal increase in through traffic and traffic generated by developments outside the study area. There are no known developments planned within the immediate study area to be included in the base traffic volumes. A 0.48 percent average annual growth rate was used to factor the existing traffic counts to the opening year 2026 and the design year 2031 as recommended by PennDOT Bureau of Planning and Research's Table "Growth Factors for August 2020 to July 2021". Figures 8 and 9 in the Appendices show the AM and PM opening year (2026) and design year (2031) peak hour without development traffic volumes at the study intersections.

A level of service analysis was conducted at the study intersections for both the opening year (2026) and the design year (2031) without development scenarios to determine the future level of service without the proposed development. Traffic signal timings were optimized for both the Build and No Build scenarios. Table A in the Appendices shows the results of the level of service analysis, while Figures 10 and 11 in the Appendices graphically show the level of service results for the 2026 and 2031 No Build conditions. During both scenarios, all unsignalized intersections will continue to operate at an overall LOS A, while the signalized intersection will operate at an LOS C.

The opening year (2026) and the design year (2031) with development peak hour volumes were derived by combining existing traffic, growth in background and through traffic, and the site trips generated by the proposed development. Figures 12 and 13 in the Appendices shows the AM and PM opening year (2026) and design year (2031) with development traffic volumes at the study intersections.

A level of service analysis was conducted at the study area intersections for the opening year (2026) and design year (2031) with development scenario to determine the level of service with the proposed development. Table A in the Appendices shows the results of the level of service analysis, and Figures 14 and 15 in the Appendices show the peak hour opening year (2026) and design year (2031) level of service results. As with the No Build conditions, the unsignalized intersections will continue to operate at an overall LOS A. The signalized intersection will operate at an overall LOS C during the AM peak hour and at an LOS D during the PM peak hour.

As shown in Table A in the Appendices, there is no change in level of service results at the study intersections between existing, future without development, future with development scenarios. The site access intersection is forecasted to operate at an overall LOS A during the peak hours.

## NECESSARY IMPROVEMENTS

The proposed access intersection with Shiloh Road (T-626) will operate with acceptable levels of service. Additionally, the need for left and right turn lanes on Shiloh Road (T-626) at the access intersection was evaluated for with development traffic conditions utilizing PennDOT guidelines outlined in Publication 46 Chapter 11.17. The analysis found that neither left nor right turn lanes are warranted at the access intersection. Details of the turn lane analysis are included in the Appendices.

The impact of the project on the local roadway system and study intersections is minimal. The project will generate 53 new trips during the AM peak hour and 70 PM peak hour trips. No physical roadway improvements are needed to mitigate the impacts of the site and no turning movement restrictions need to be placed on the proposed access points.

## CONDITIONAL USE DISCUSSION

As presented in the Township's Zoning Code in regard to Conditional Use cases,

*"The burden of proof shall be upon the applicant to prove to the satisfaction of the Board of Supervisors, by credible evidence, that the use will not result in or substantially add to a significant traffic hazard or significant traffic congestion. The peak traffic generated by the development shall be accommodated in a safe and efficient manner. Such analysis shall consider any improvements to streets that the applicant is committed to complete or fund."*

After reviewing the data contained in this traffic impact study (TIS), including the crash analysis, I believe the use will not result in or substantially add to a significant traffic hazard or significant traffic congestion. The site trips from the development shall be accommodated in a safe and efficient manner as demonstrated in this TIS.

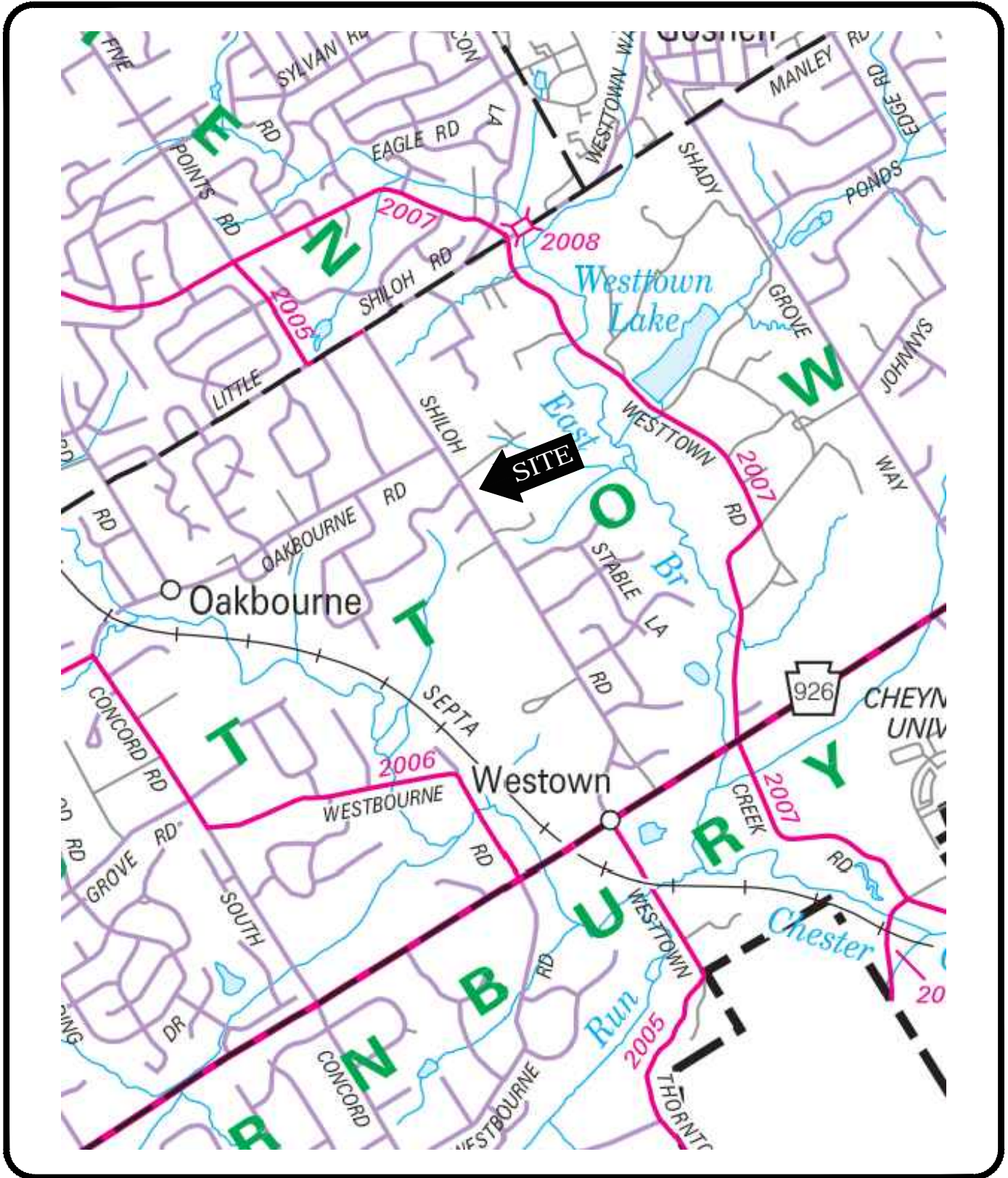
## TECHNICAL APPENDICES

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## FIGURES

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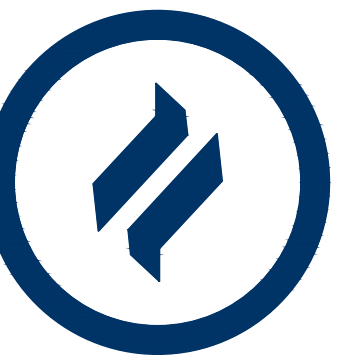
**FIGURE 1**

SITE LOCATION

**TRAFFIC IMPACT STUDY**

Stokes Estate Residential Project

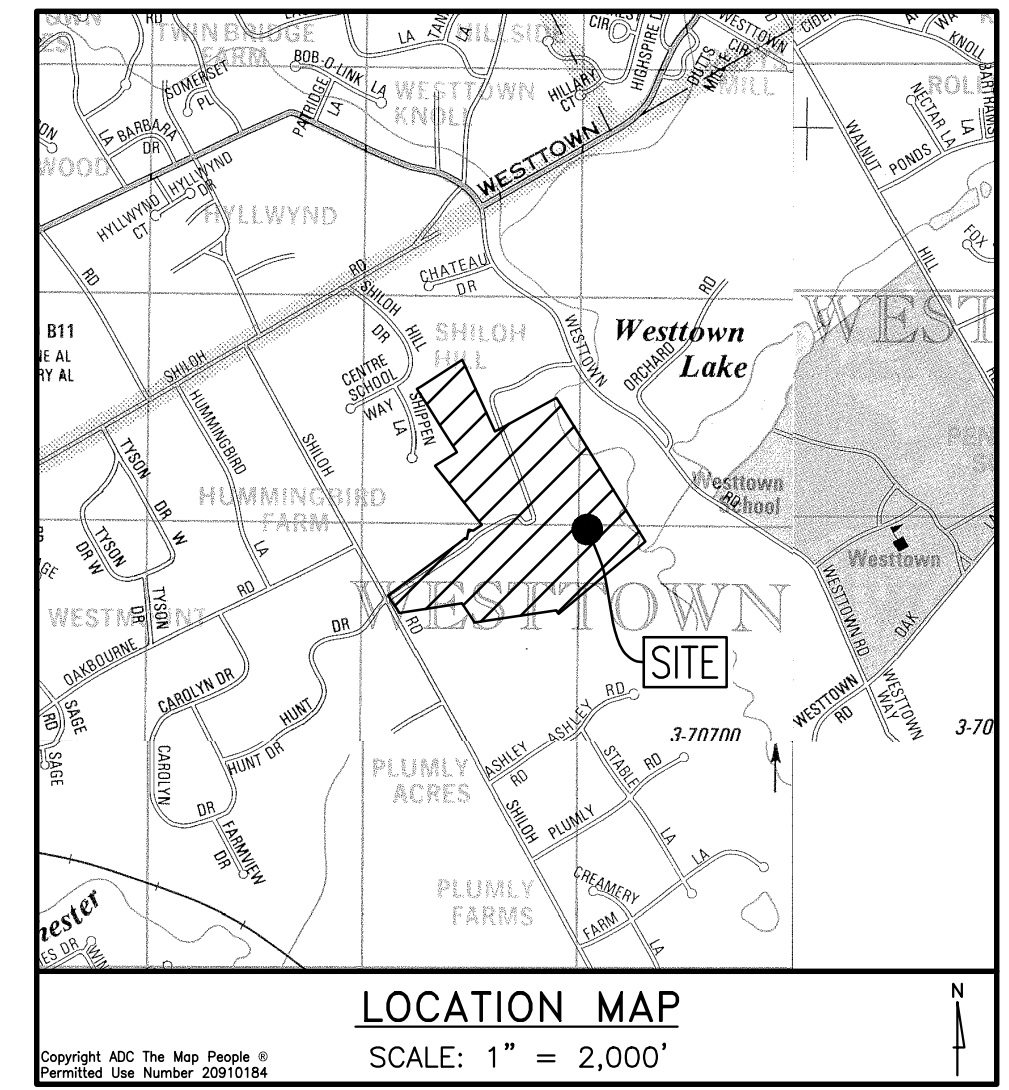
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**GENERAL NOTES:**

- THIS PLAN WAS PREPARED FOR SKETCH PLAN SUBMISSION. NO ENGINEERING OR SWM DESIGN HAS BEEN PREPARED FOR THIS LAYOUT WITH THIS APPLICATION.
- BOUNDARY INFORMATION PLOTTED FROM DEED. PIPELINE INFORMATION PLOTTED FROM DEED DESCRIPTION AND FIELD SURVEY. TOPOGRAPHY AND EXISTING CONDITIONS BASED ON AERIAL IMAGERY AND GIS DATA.
- WETLAND DELINEATION PERFORMED BY BRICKHOUSE ENVIRONMENTAL, IN OCTOBER 2020, AND FIELD LOCATED BY HOWELLKLINE SURVEYING.
- THE SITE IS CLASSIFIED AS "2-OF LOCAL HISTORIC VALUE" ON THE TOWNSHIP HISTORIC RESOURCES MAP.

**RESIDENTIAL DEVELOPMENT**

ART. VI - R1 RESIDENTIAL DISTRICT  
 SECT. 170-501.C: CONDITIONAL USES  
 (2) RESIDENTIAL DEVELOPMENT (FLEXIBLE DEVELOPMENT PROCEDURE - ARTICLE IX)  
 ART. IX - FLEXIBLE DEVELOPMENT PROCEDURE  
 SECT. 170-903: PERMITTED USES  
 A. SINGLE FAMILY DETACHED DWELLINGS  
 SECT. 170-904: DENSITY STANDARDS

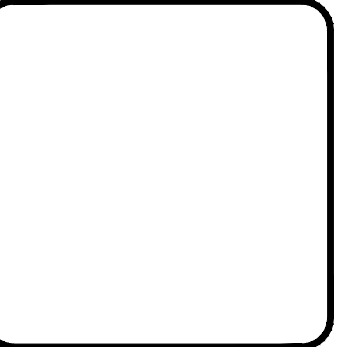
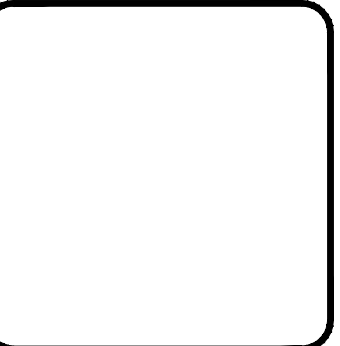
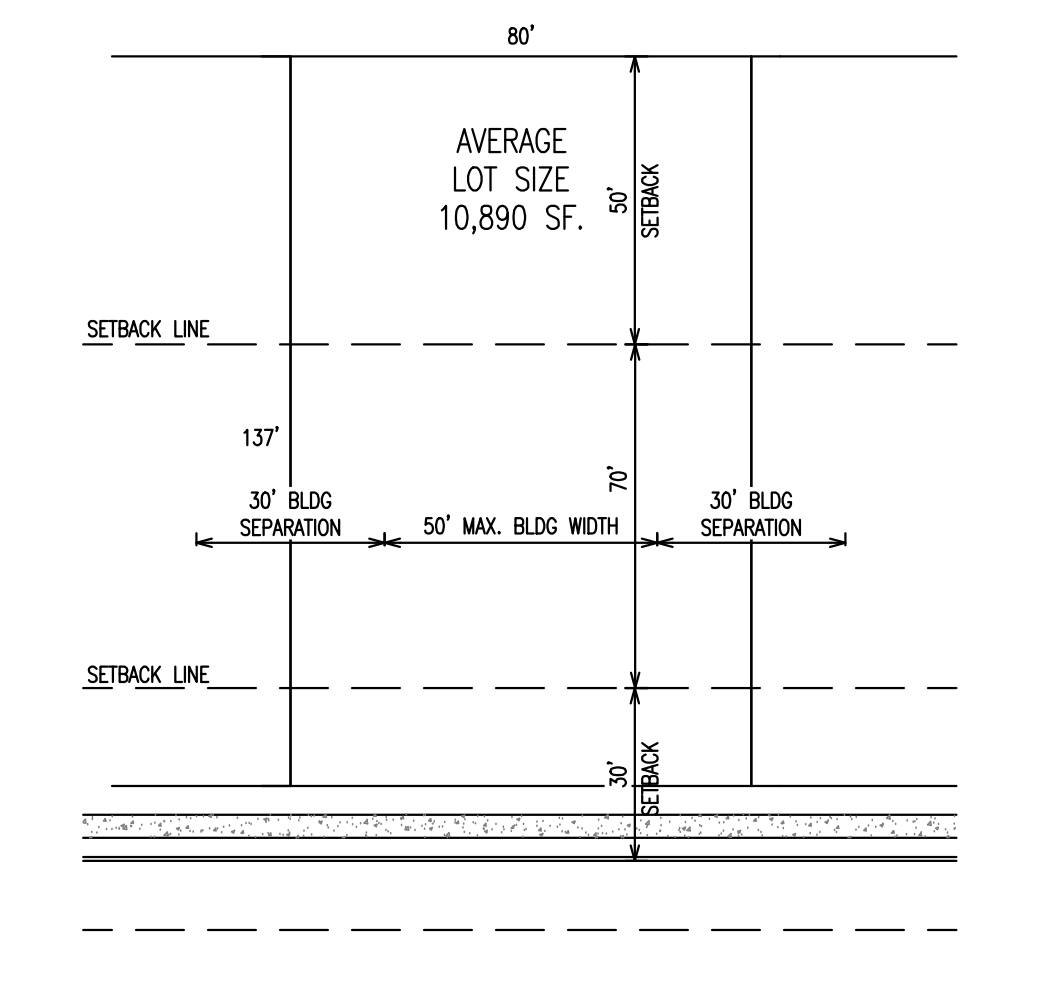
AREA AND BULK REGULATIONS	REQUIRED	PROPOSED
MAX. NET RESIDENTIAL DENSITY	4 UNITS/ACRE	3.96 UNITS/ACRE
MIN. DISTANCE FROM CURB	30 FT.	30 FT.
MIN. DISTANCE BETWEEN BUILDINGS	30 FT.	< 30 FT.
MAX. BUILDING HEIGHT	3 STORES/30 FT.	3 STORES/30 FT.
SETBACK FROM TRACT BOUNDARY	50'	51'

TRACT AREA CALCULATION	
TRACT AREA (GROSS)	2,833,432 S.F. / 65,047 ACS (±)
UTILITY EASEMENTS OR R.O.W.	-269,060 S.F.
STREET R.O.W.	-0 S.F.
AREA EQUAL TO 75% OF FLOORPLAN	-236,840 S.F.
PROHIBITIVE SLOPES	-80,832 S.F.
WETLANDS	-38,863 S.F.
AREA EQUAL TO 25% OF SEASONALLY HIGH WATER TABLE SOILS	-86,890 S.F.
TRACT AREA =	2,140,882 S.F. (49,140 AC.)
BASE DENSITY (1.1 MULTIPLIER)=	54 LOTS

OPEN SPACE	DENSITY TABULATION
MINIMUM OPEN SPACE = 40% GROSS TRACT AREA	RESIDENTIAL LOT AREA 19.52 ACRES
REQUIRED:	PROPOSED LOTS 68
GROSS TRACT = 65,047 ACRES	DENSITY 3.48 DU/AC.
65,047 ACRES X 40% = 26,019 ACRES	AVERAGE SIZE 0.29 ACRES
PROPOSED:	
39,709 ACRES OPEN SPACE (61.05%)	

**DENSITY CALCULATION**

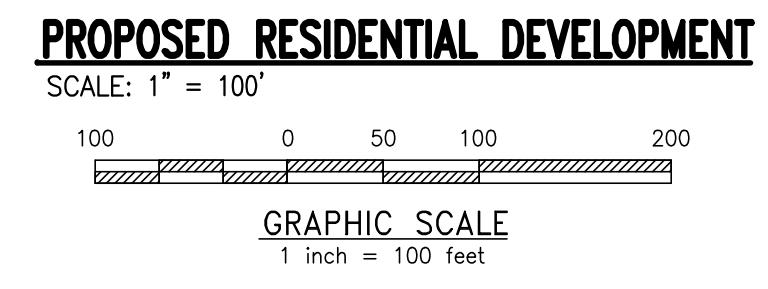
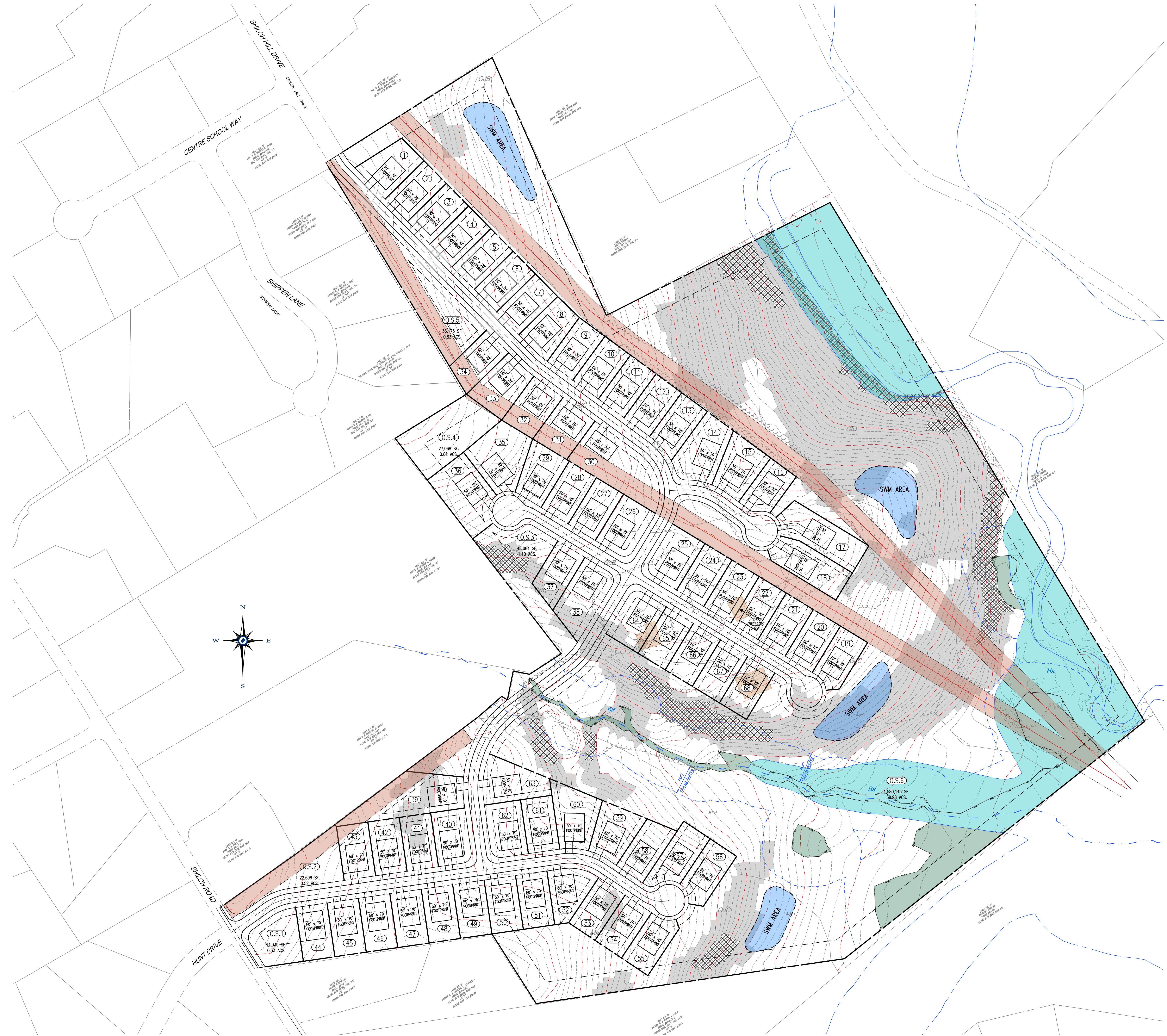
BASE DENSITY: 1.1 D.U. / TRACT AREA  
 BONUS DENSITY: +0.075 D.U. / 5% OF ADDITIONAL OPEN SPACE = (61.05-40 = 21.05% EXTRA) = 0.075 \* 4 = 0.300 BONUS  
 MAXIMUM DENSITY = 1.1 + 0.300 = 1.400 D.U. \* 49,149 ACS. = 68 LOTS ACHIEVABLE  
 ADDITIONAL BONUS FOR HISTORIC PRESERVATION:  
 BONUS DENSITY FOR HISTORIC PRESERVATION: (1 D.U. / 2 ACRES OF HISTORIC SITE) = N/A  
 BONUS DENSITY FOR HISTORIC RESTORATION/REHABILITATION:  
 1 D.U. / (2,000 S.F. EXCEEDING 1,000 S.F. RESTORED) = N/A  
**TOTAL COMBINED DENSITY = 68 LOTS ACHIEVABLE**

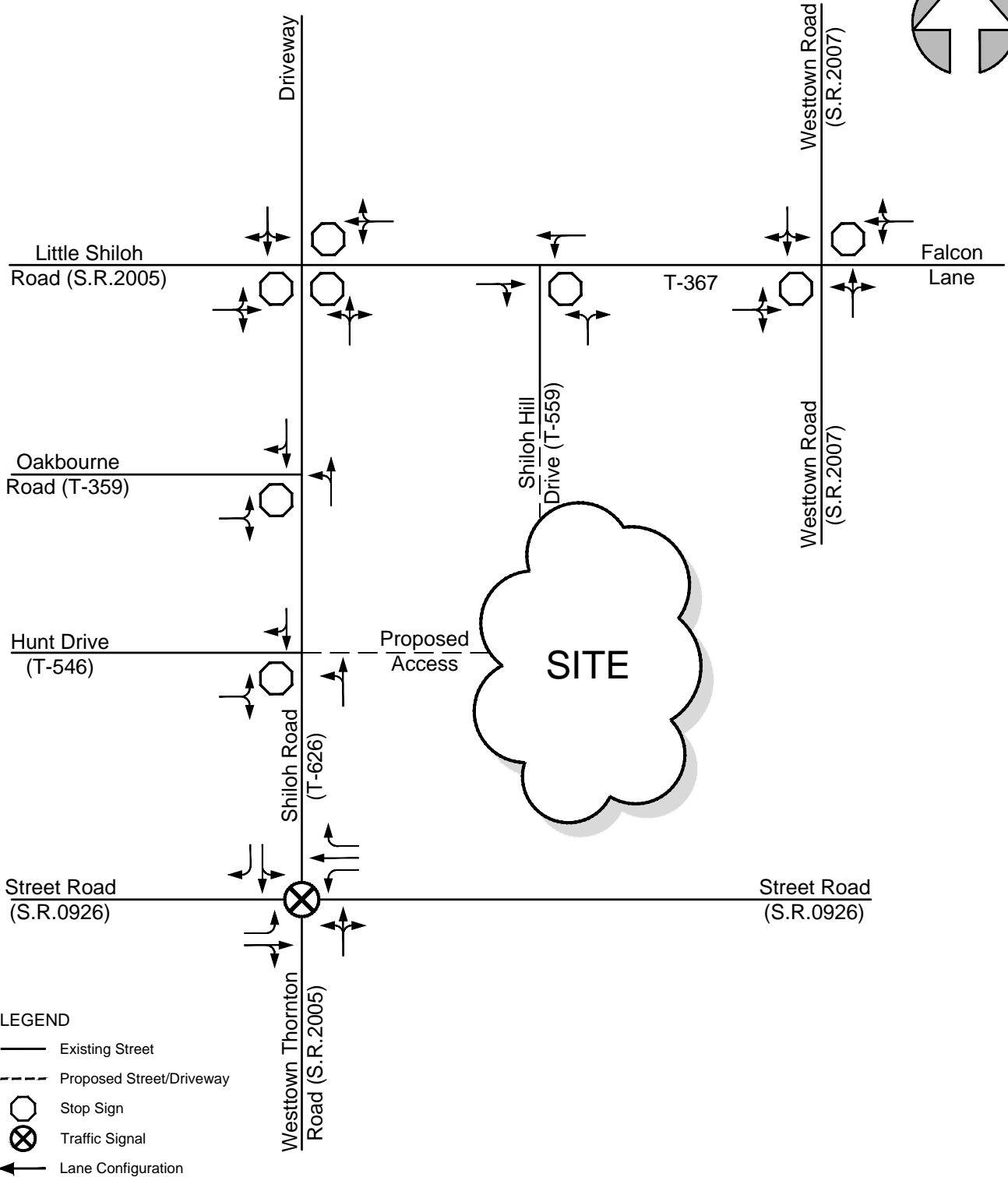
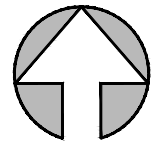


NO.	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		
8		

**SKETCH**  
**PROPOSED RESIDENTIAL DEVELOPMENT**  
 CLIENT: KENT GOUGH  
 PROJECT: STOKES PROPERTY  
 LOCATION: 1013 SHILOH ROAD  
 WESTTOWN TWP., CHESTER COUNTY, PA.

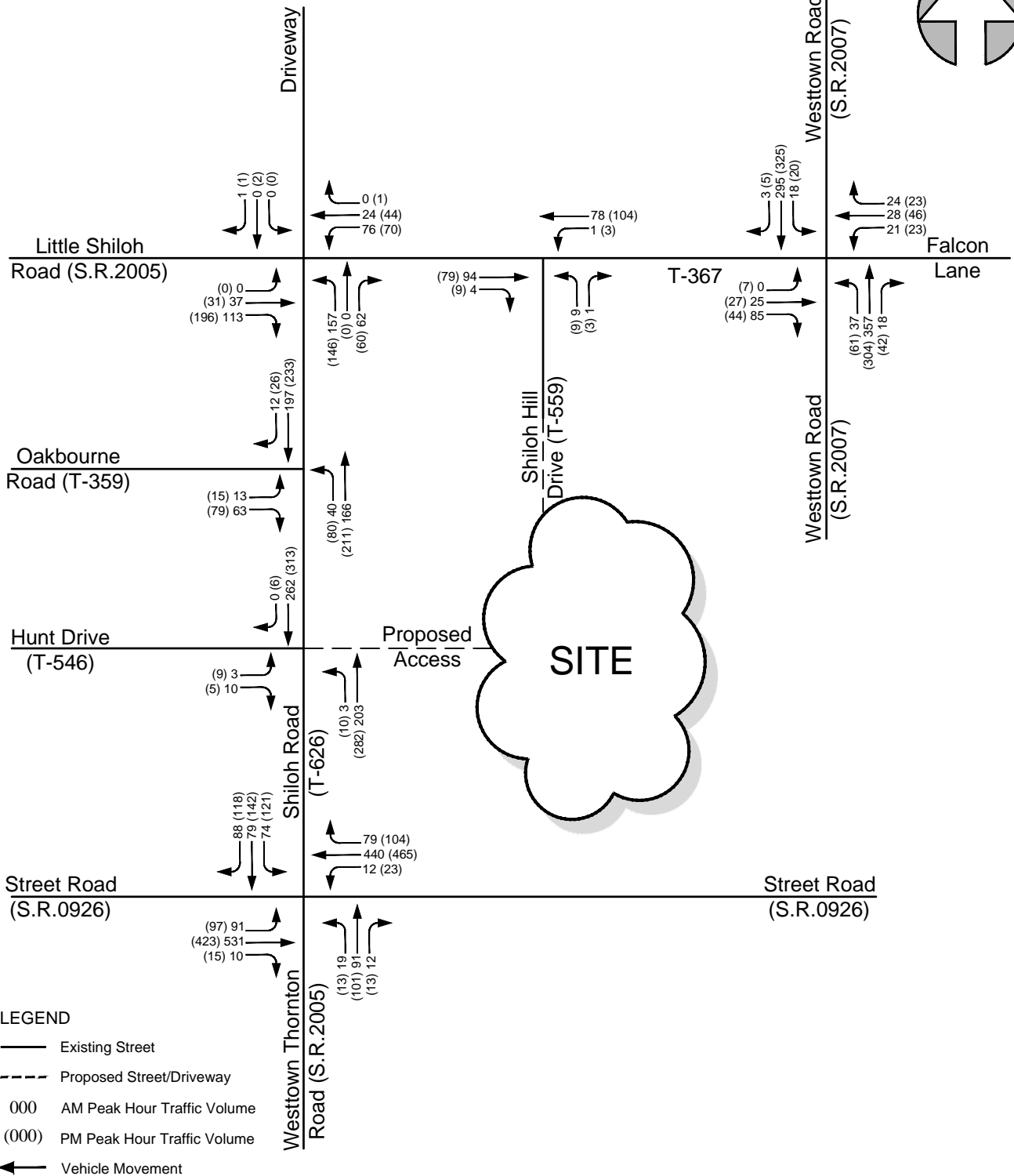
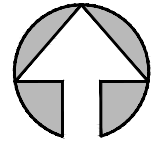
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SCALE:	1" = 100'
DRAWN BY:	RBV
CHECKED BY:	RBV
PROJECT NO.:	3868
CAD FILE NAME:	20-10-12-09-2000.dwg
PLOTTED:	12/09/2020
DRAWING NO.:	SK-1G
SHEET:	1 of 1





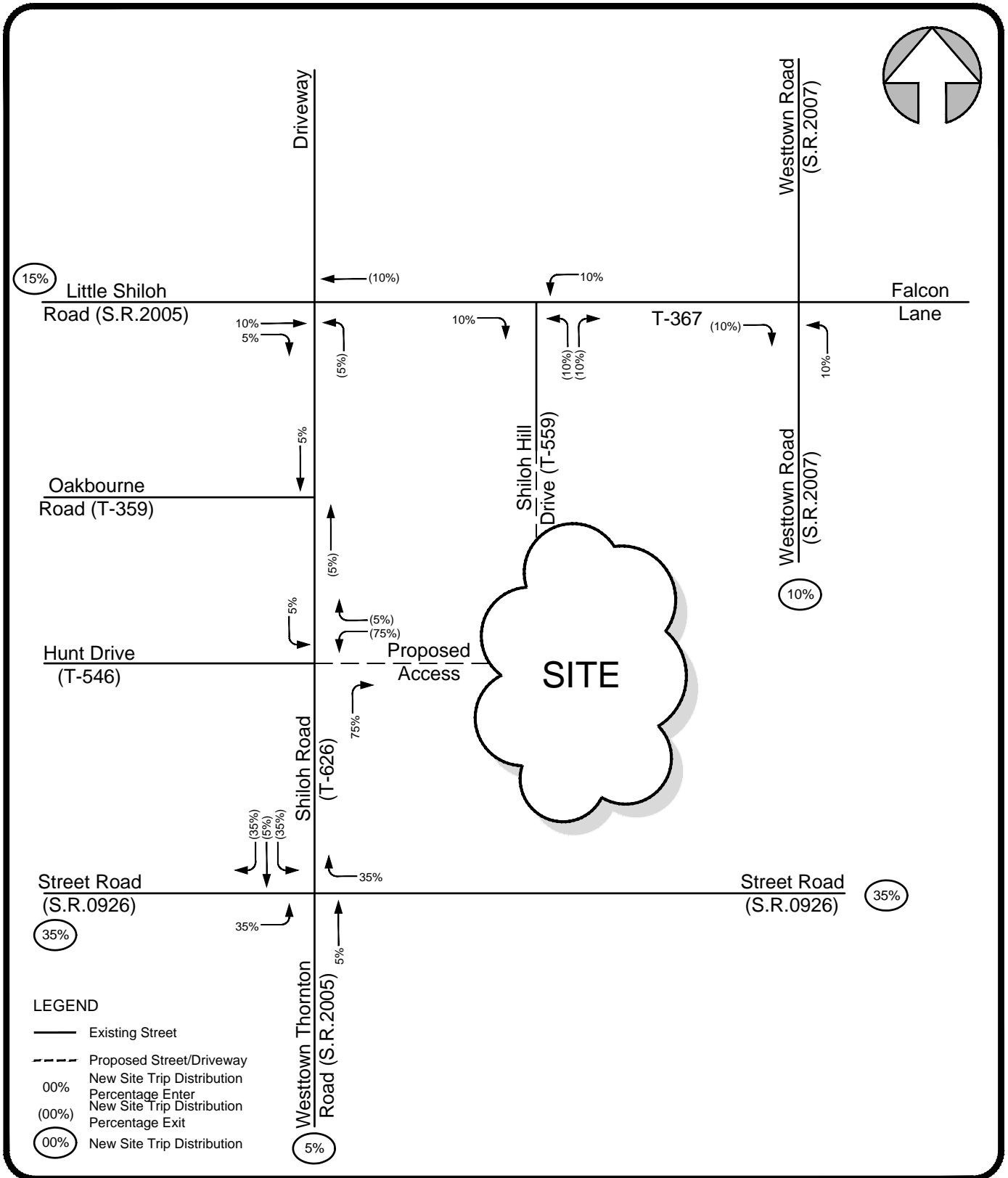
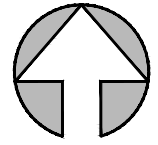
**FIGURE 3**  
EXISTING LANE CONFIGURATION  
AND TRAFFIC CONTROL

**TRAFFIC IMPACT STUDY**  
Stokes Estate Residential Project  
  
WESTTOWN TOWNSHIP  
CHESTER COUNTY, PA



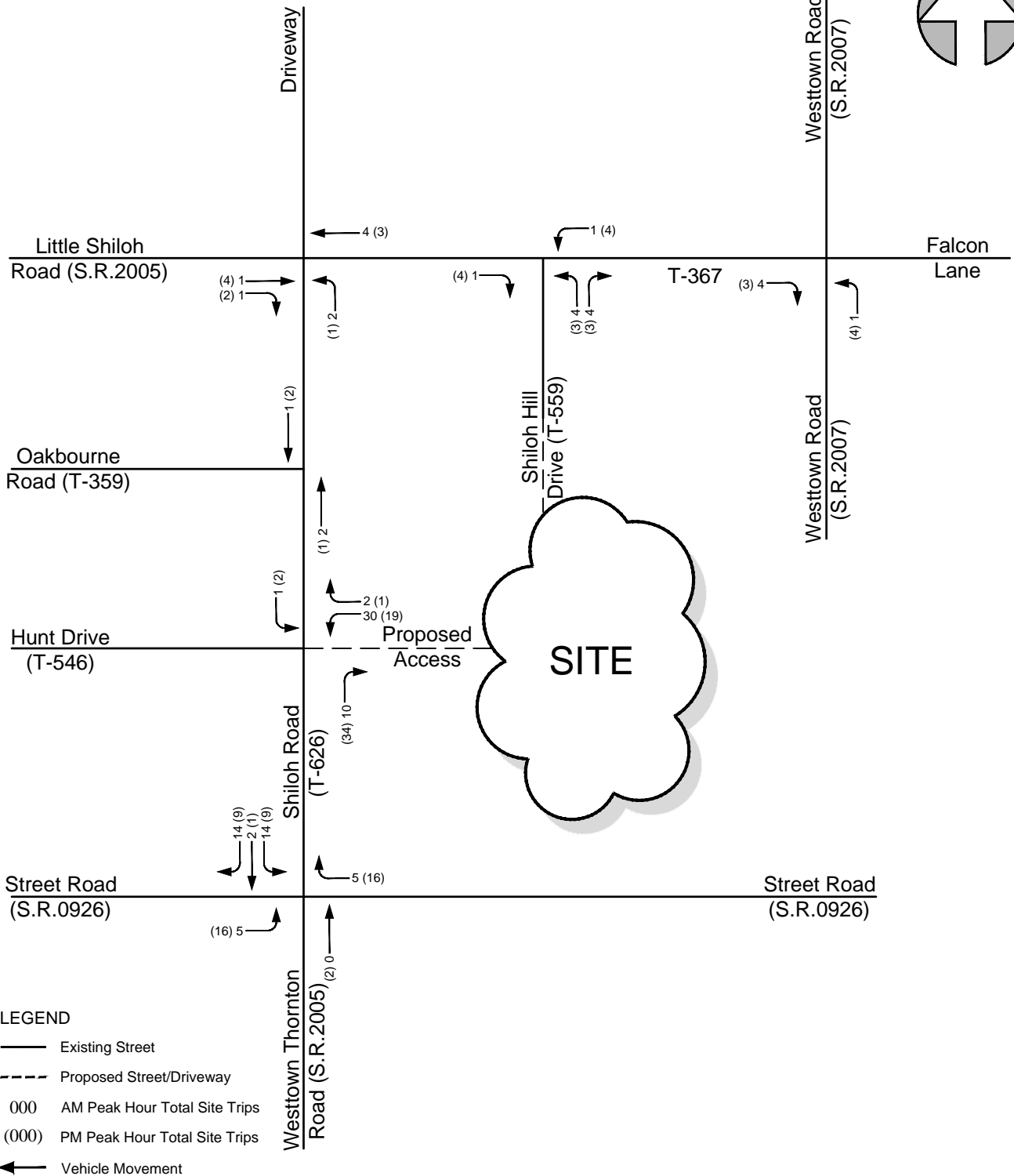
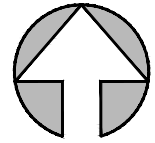
**FIGURE 4**  
EXISTING PEAK HOUR TRAFFIC VOLUMES

**TRAFFIC IMPACT STUDY**  
Stokes Estate Residential Project  
  
WESTTOWN TOWNSHIP  
CHESTER COUNTY, PA



**FIGURE 5**  
NEW SITE TRIP DISTRIBUTION AND ASSIGNMENT

**TRAFFIC IMPACT STUDY**  
Stokes Estate Residential Project  
WESTTOWN TOWNSHIP  
CHESTER COUNTY, PA



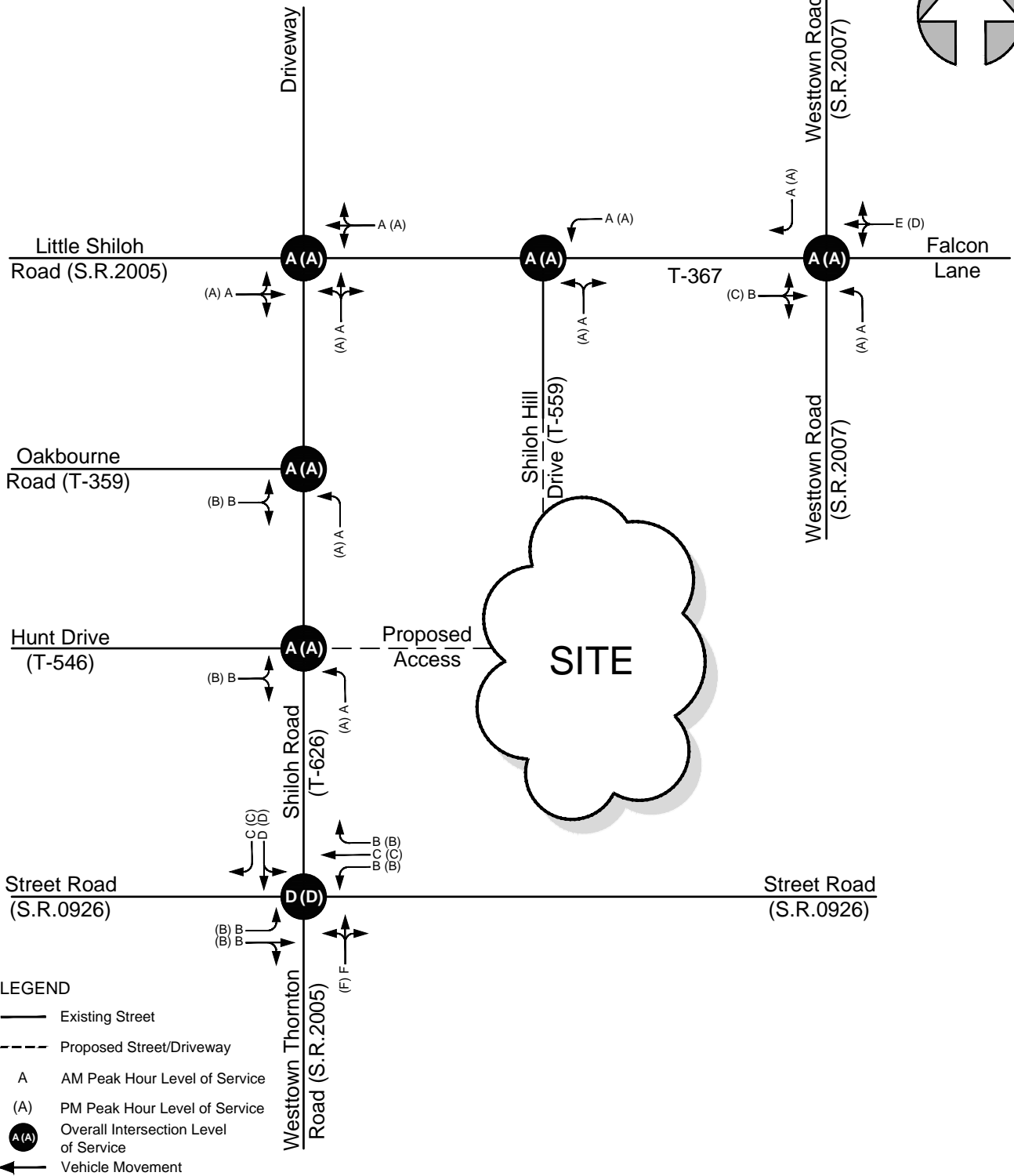
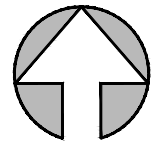
**FIGURE 6**

TOTAL SITE TRIPS  
AM & PM PEAK HOURS

**TRAFFIC IMPACT STUDY**

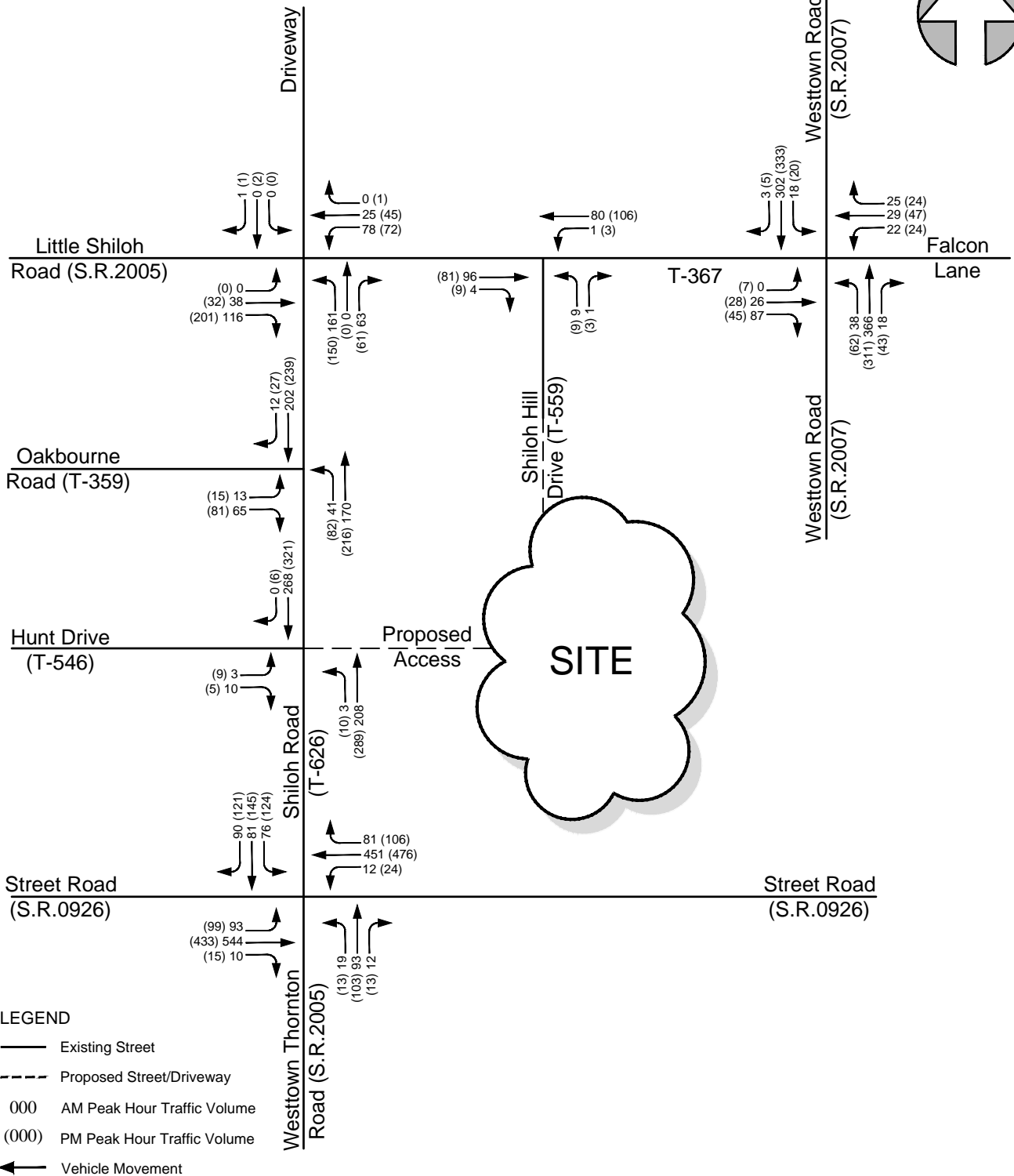
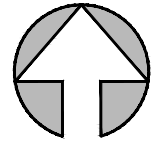
Stokes Estate Residential Project

WESTTOWN TOWNSHIP  
CHESTER COUNTY, PA



**FIGURE 7**  
EXISTING PEAK HOUR  
LEVEL OF SERVICE RESULTS

**TRAFFIC IMPACT STUDY**  
Stokes Estate Residential Project  
  
WESTTOWN TOWNSHIP  
CHESTER COUNTY, PA



**FIGURE 8**

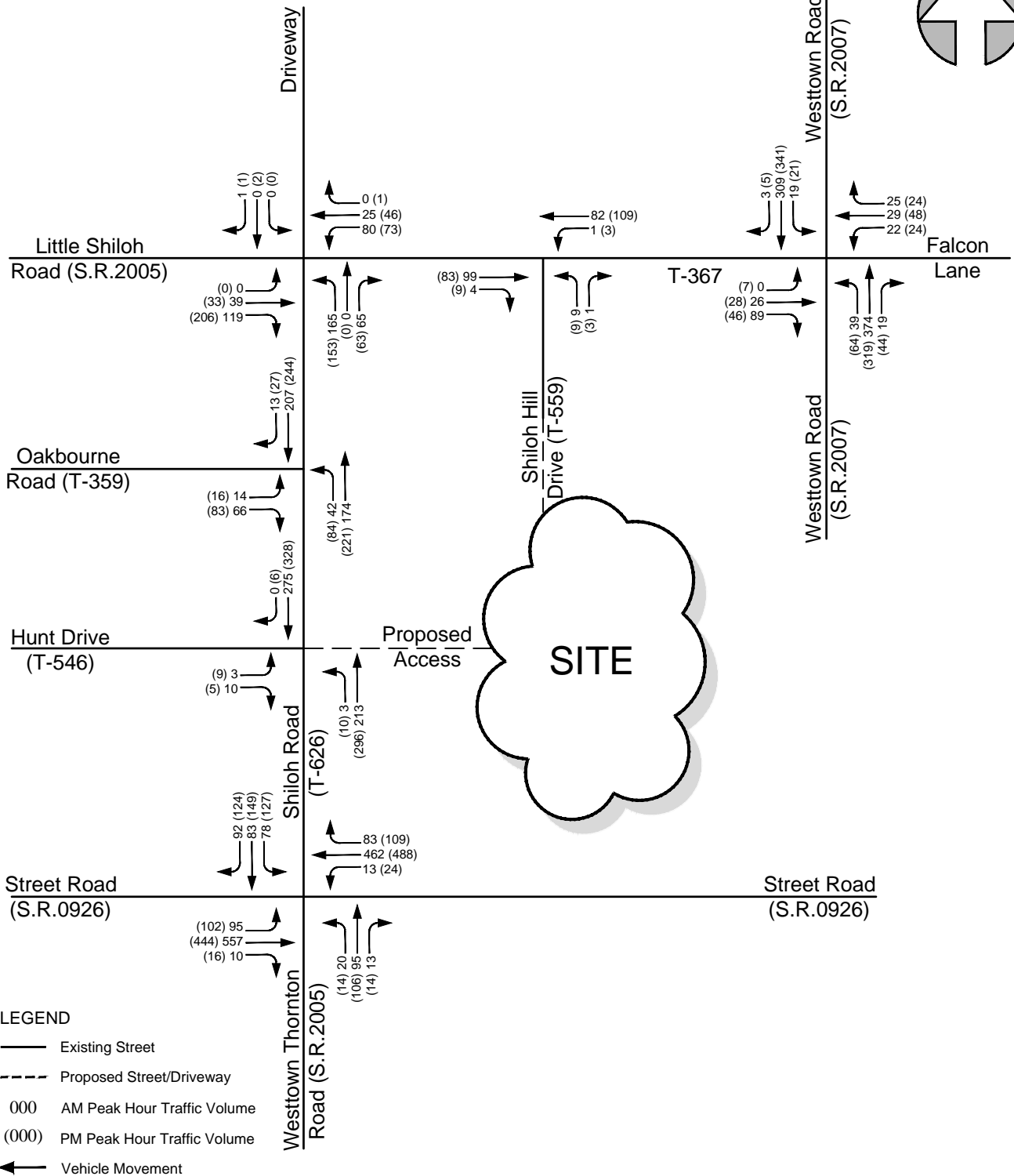
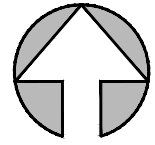
OPENING YEAR (2026)  
NO BUILD PEAK HOUR  
TRAFFIC VOLUMES

**TRAFFIC IMPACT STUDY**

Stokes Estate Residential Project

WESTTOWN TOWNSHIP  
CHESTER COUNTY, PA





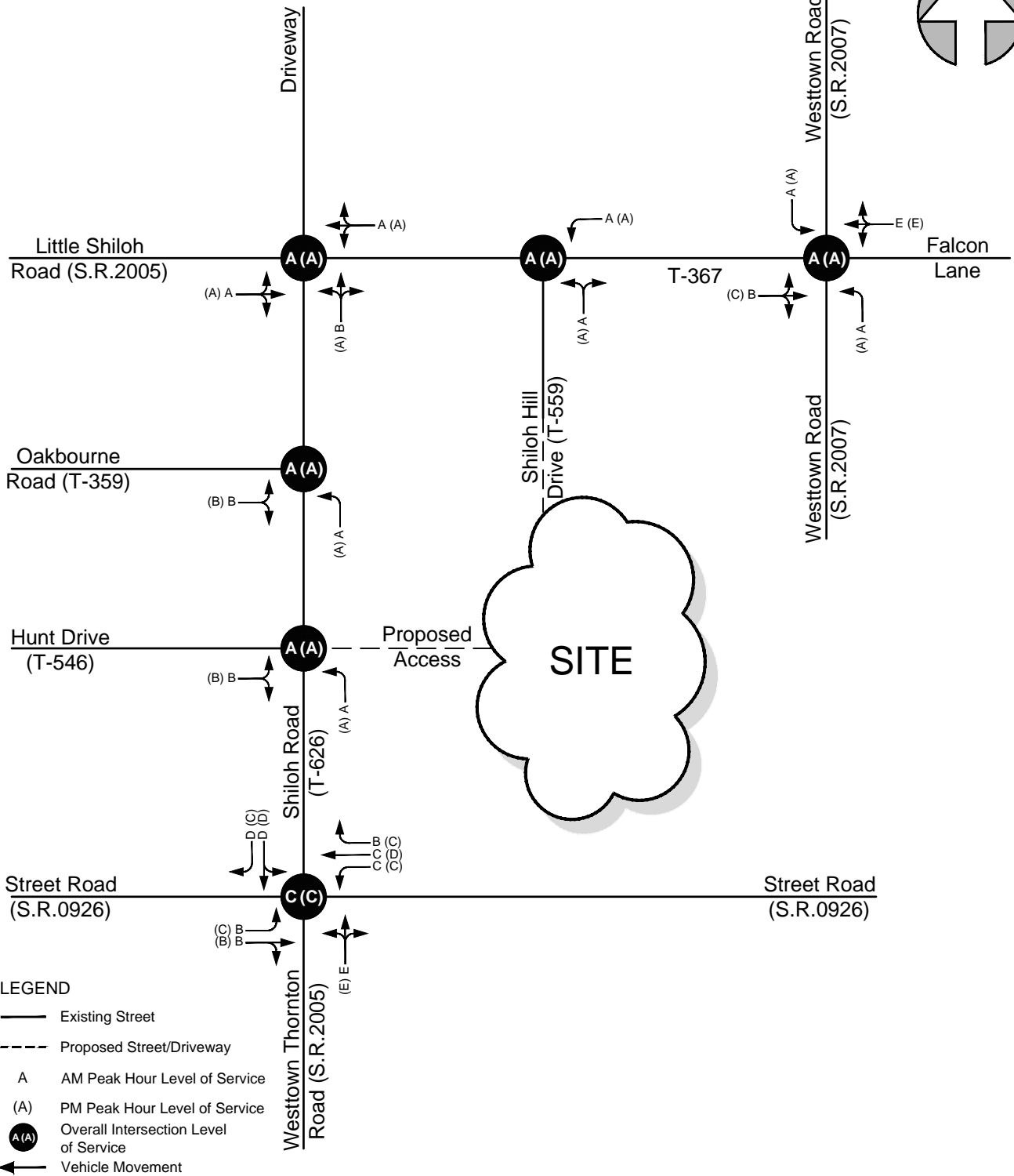
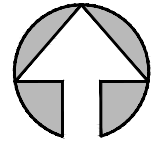
**FIGURE 9**

DESIGN YEAR (2031)  
NO BUILD PEAK HOUR  
TRAFFIC VOLUMES

**TRAFFIC IMPACT STUDY**

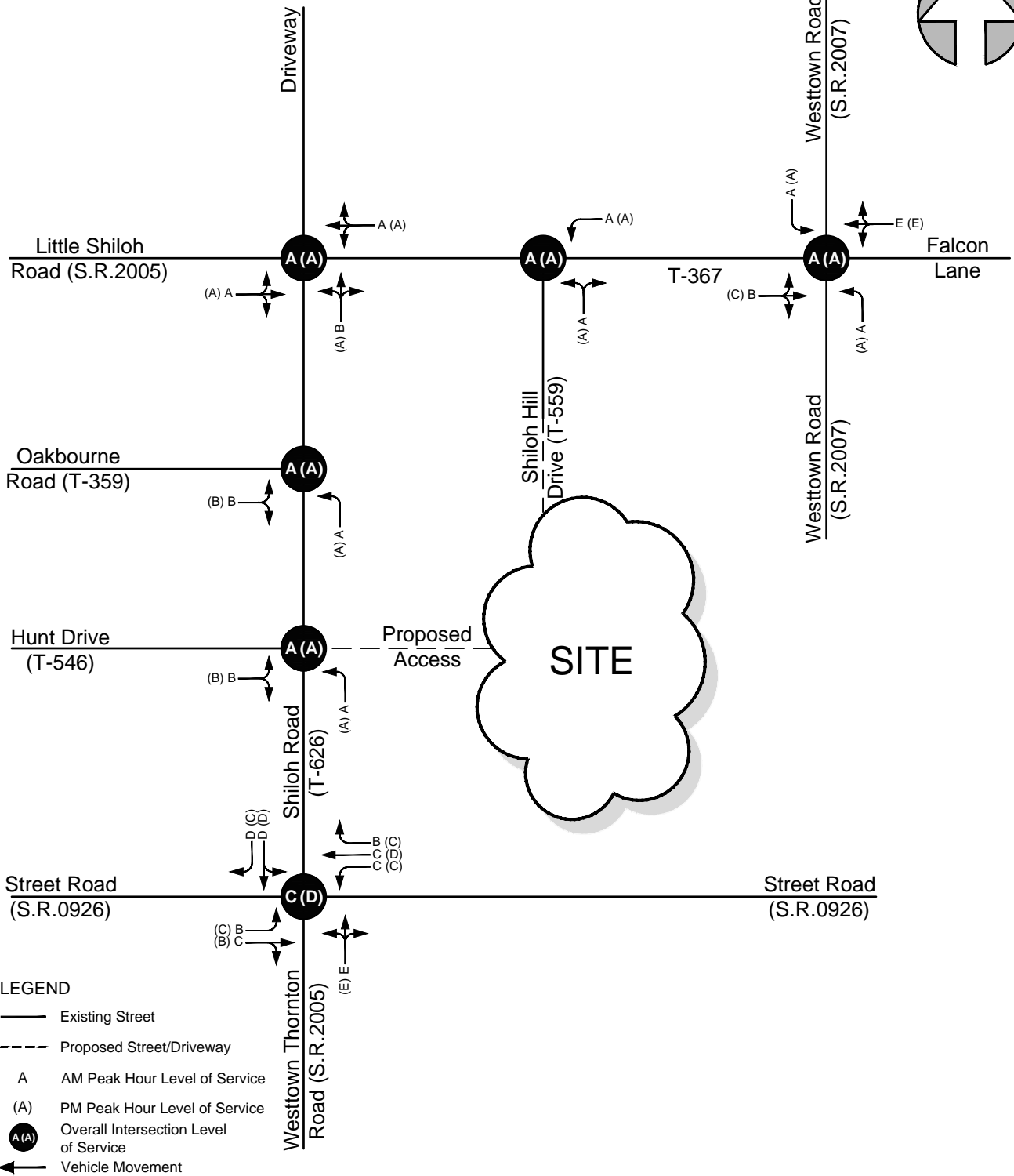
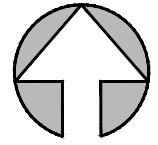
Stokes Estate Residential Project

WESTTOWN TOWNSHIP  
CHESTER COUNTY, PA



**FIGURE 10**  
 OPENING YEAR (2026)  
 NO BUILD PEAK HOUR  
 LEVELS OF SERVICE

**TRAFFIC IMPACT STUDY**  
 Stokes Estate Residential Project  
 WESTTOWN TOWNSHIP  
 CHESTER COUNTY, PA



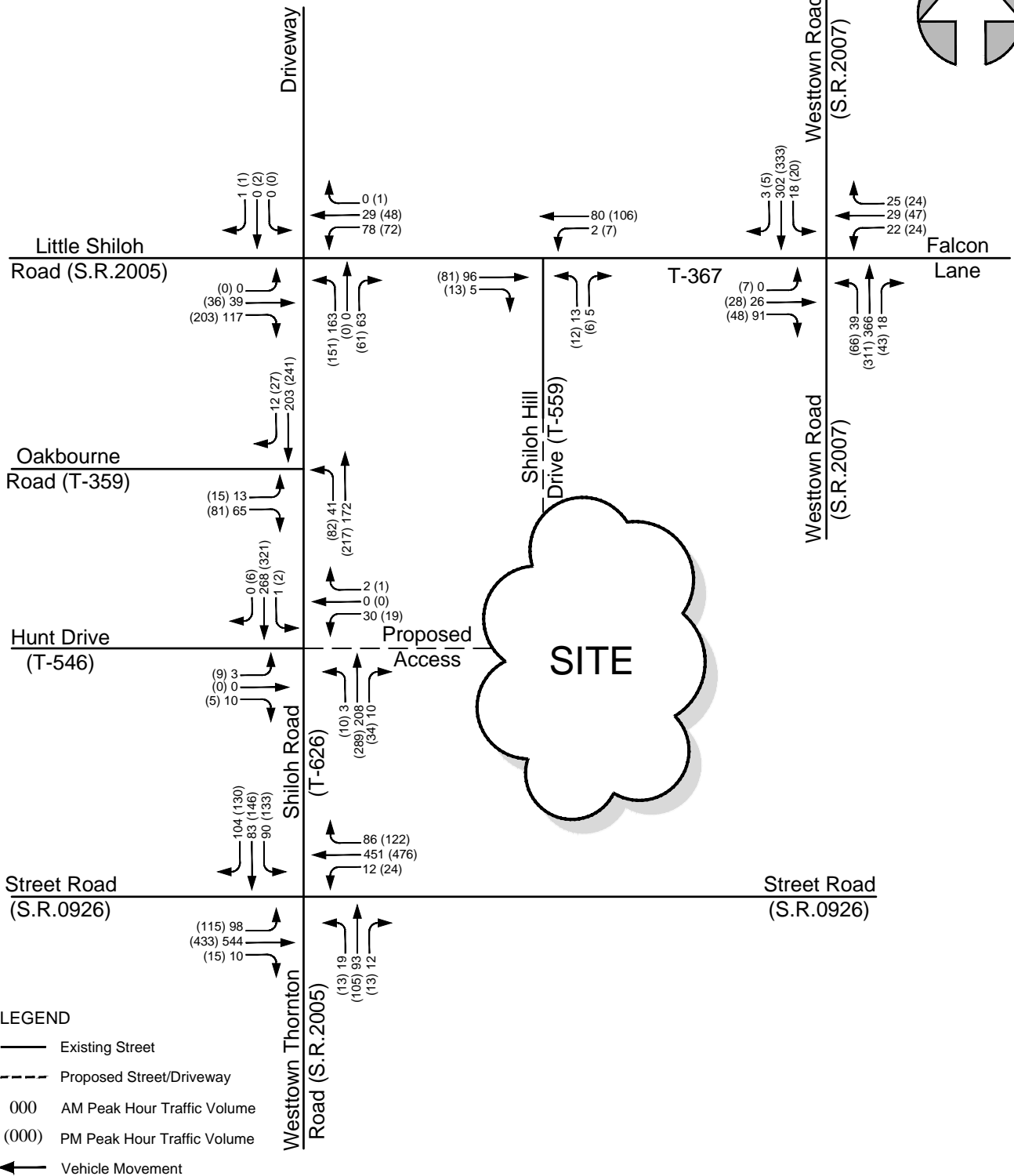
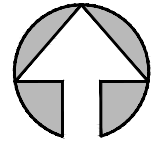
**FIGURE 11**

DESIGN YEAR (2031)  
NO BUILD PEAK HOUR  
LEVELS OF SERVICE

**TRAFFIC IMPACT STUDY**

Stokes Estate Residential Project

WESTTOWN TOWNSHIP  
CHESTER COUNTY, PA



**FIGURE 12**

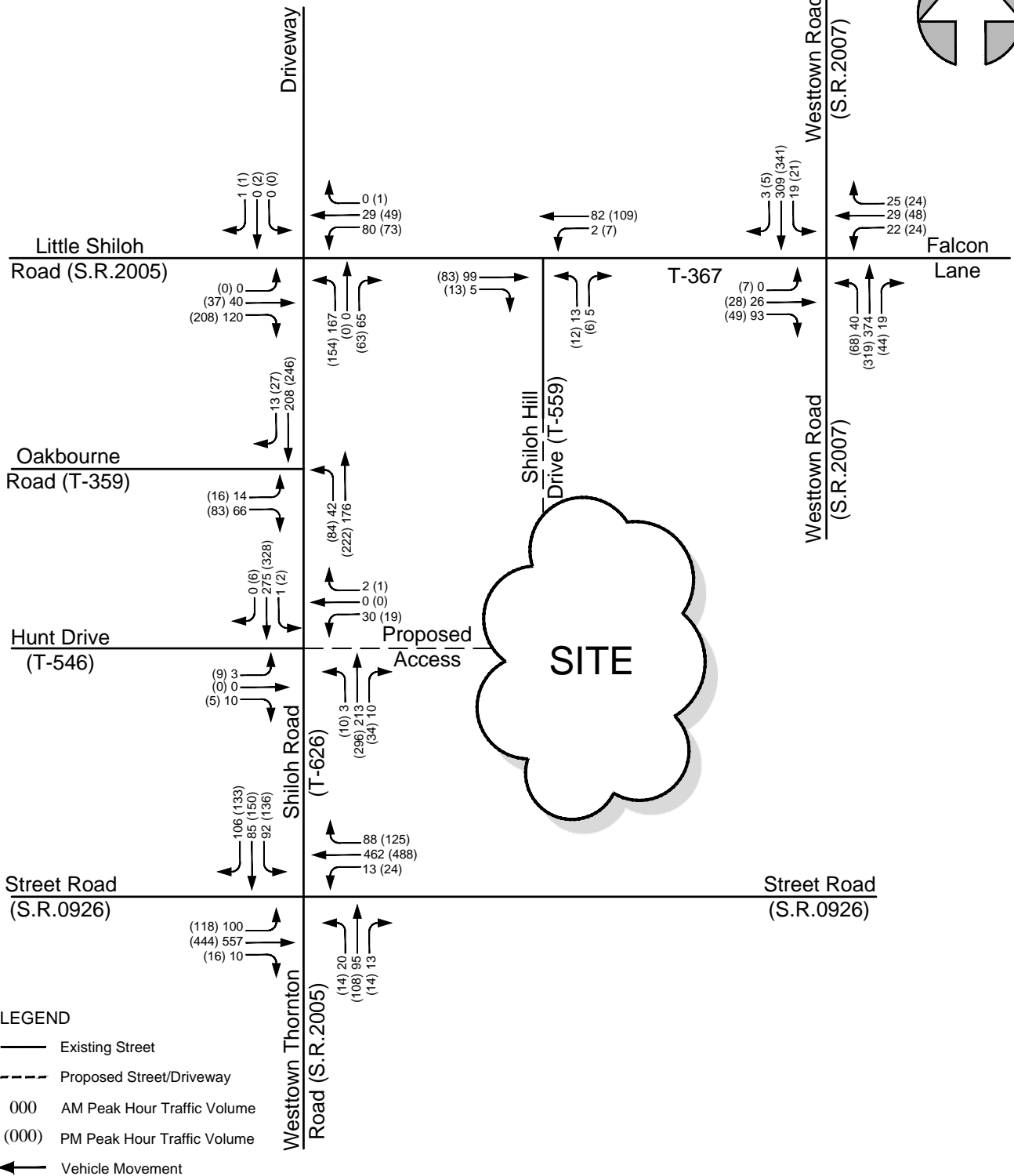
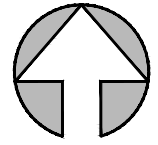
OPENING YEAR (2026)  
 BUILD PEAK HOUR  
 TRAFFIC VOLUMES

**TRAFFIC IMPACT STUDY**

Stokes Estate Residential Project

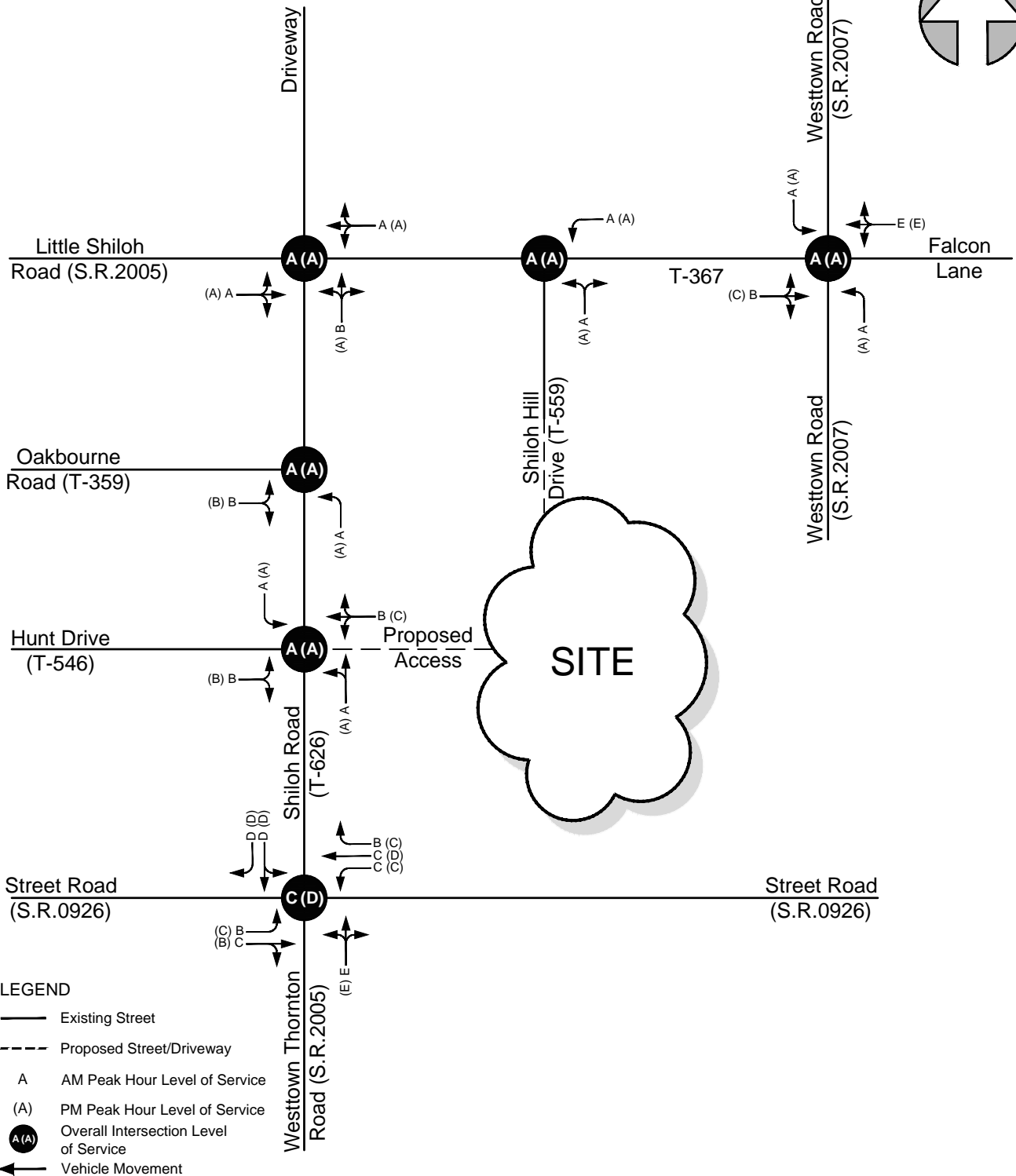
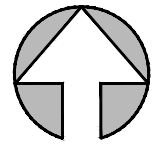
WESTTOWN TOWNSHIP  
 CHESTER COUNTY, PA





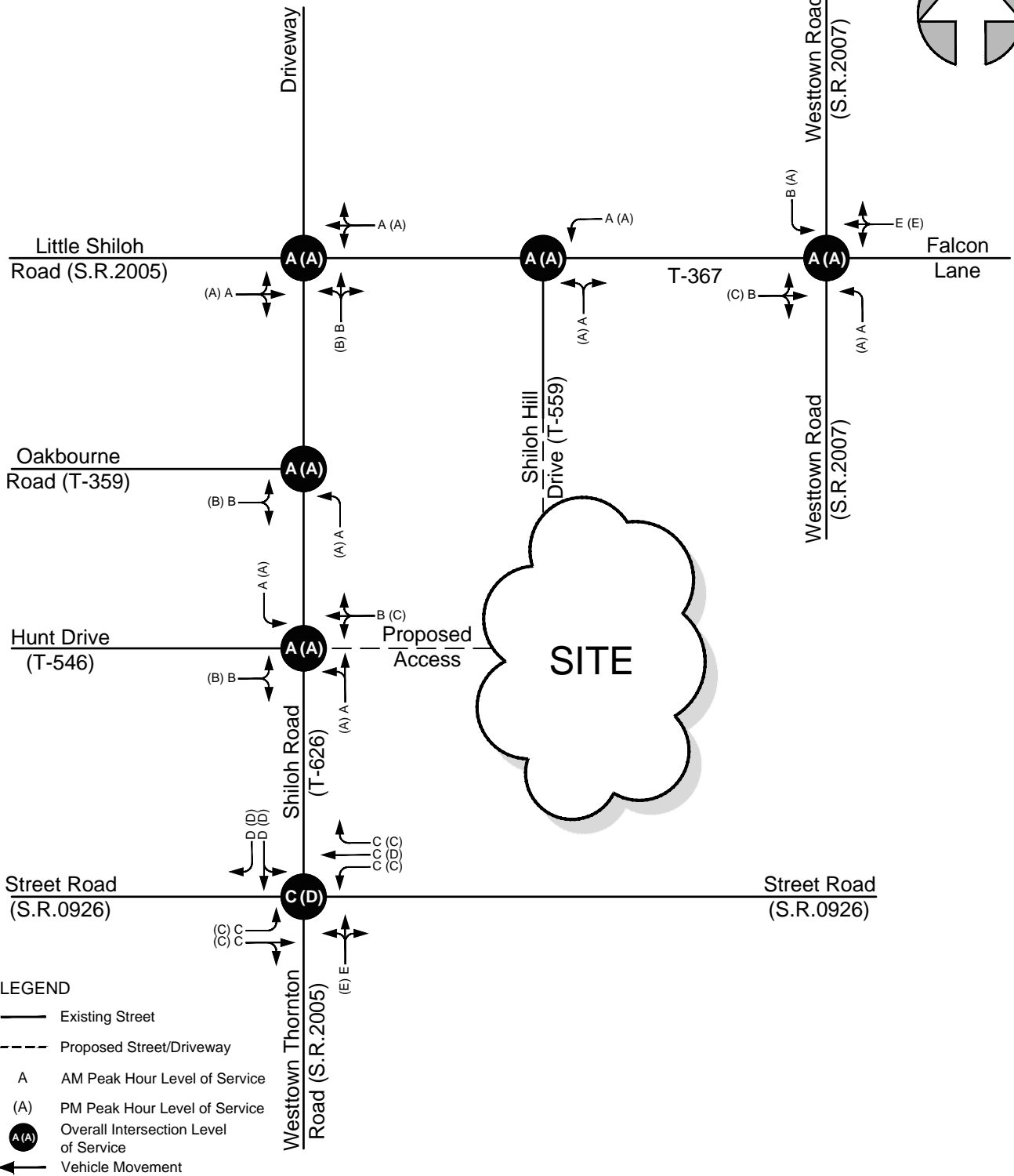
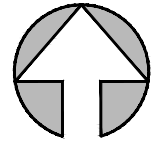
**FIGURE 13**  
 DESIGN YEAR (2031)  
 BUILD PEAK HOUR  
 TRAFFIC VOLUMES

**TRAFFIC IMPACT STUDY**  
 Stokes Estate Residential Project  
 WESTTOWN TOWNSHIP  
 CHESTER COUNTY, PA



**FIGURE 14**  
 OPENING YEAR (2026)  
 BUILD PEAK HOUR  
 LEVELS OF SERVICE

**TRAFFIC IMPACT STUDY**  
 Stokes Estate Residential Project  
 WESTTOWN TOWNSHIP  
 CHESTER COUNTY, PA



**FIGURE 15**

DESIGN YEAR (2031)  
BUILD PEAK HOUR  
LEVELS OF SERVICE

**TRAFFIC IMPACT STUDY**

Stokes Estate Residential Project

WESTTOWN TOWNSHIP  
CHESTER COUNTY, PA

## LEVELS OF SERVICE / QUEUE TABLES

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**Table A**  
**Future Intersection Level of Service Results**

Intersection	Approach (Movement)	Existing Traffic Volumes		2026 Traffic Volumes w/out Development		2026 Traffic Volumes with Development		2031 Traffic Volumes w/out Development		2031 Traffic Volumes with Development	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Street Road (S.R.0926) / Shiloh Road (T-626) - Westtown Thornton Road (S.R.2005)	EB	B	B	B	B	B	B	C	C	C	C
	EBL	B	B	B	C	B	C	B	C	C	C
	EBTR	B	B	B	B	C	B	C	B	C	C
	WB	B	C	C	C	C	C	C	D	C	D
	WBL	B	B	C	C	C	C	C	C	C	C
	WBT	C	C	C	D	C	D	C	D	C	D
	WBR	B	B	B	C	B	C	B	C	C	C
	NB	F (278.7)	F (281.6)	E	E	E	E	E	E	E	E
	SB	C	D	D	D	D	D	D	D	D	D
	SBLT	D	D	D	D	D	D	D	D	D	D
	SBR	C	C	D	C	D	D	D	C	D	D
OVERALL	D (40.1)	D (44.8)	C (28.9)	C (33.7)	C (30.5)	D (35.5)	C (30.9)	D (35.8)	C (32.4)	D (37.7)	
Hunt Drive (T-546) / Shiloh Road (T-626)	EB	B	B	B	B	B	B	B	B	B	B
	WB	--	--	--	--	B	C	--	--	B	C
	NBL	A	A	A	A	A	A	A	A	A	A
	SBL	--	--	--	--	A	A	--	--	A	A
	OVERALL	A (0.3)	A (0.4)	A (0.3)	A (0.4)	A (1.2)	A (0.9)	A (0.3)	A (0.4)	A (1.2)	A (0.9)
Oakbourne Road (T-359) / Shiloh Road (T-626)	EB	B	B	B	B	B	B	B	B	B	B
	NBL	A	A	A	A	A	A	A	A	A	A
	OVERALL	A (2.5)	A (2.8)	A (2.5)	A (2.8)	A (2.5)	A (2.8)	A (2.5)	A (2.9)	A (2.5)	A (2.9)
Little Shiloh Road (S.R.2005/T-367) / Shiloh Road (T-626)	EB	A	A	A	A	A	A	A	A	A	A
	WB	A	A	A	A	A	A	A	A	A	A
	NB	A	A	B	A	B	A	B	A	B	B
	OVERALL	A (9.3)	A (9.3)	A (9.4)	A (9.4)	A (9.4)	A (9.4)	A (9.5)	A (9.5)	A (9.5)	A (9.6)
Little Shiloh Road (T-367) / Shiloh Hill Drive (T-559)	WBL	A	A	A	A	A	A	A	A	A	A
	NB	A	A	A	A	A	A	A	A	A	A
	OVERALL	A (0.6)	A (0.6)	A (0.6)	A (0.6)	A (1.0)	A (1.0)	A (0.5)	A (0.6)	A (0.9)	A (1.0)
Little Shiloh Road (T-367) - Falcoln Lane / Westtown Road (S.R.2007)	EB	B	C	B	C	B	C	B	C	B	C
	WB	E	D	E	E	E	E	E	E	E	E
	NBL	A	A	A	A	A	A	A	A	A	A
	SBL	A	A	A	A	A	A	B	A	B	A
	OVERALL	A (5.1)	A (5.5)	A (5.6)	A (5.9)	A (5.7)	A (6.0)	A (5.8)	A (6.2)	A (5.9)	A (6.4)

Table B

Queue Analysis (In Feet) - HCM (6th Edition)

Intersection	Lanes	Existing Storage / Proposed Storage (in feet)	Existing Traffic Volumes		2026 Traffic Volumes without Development		2026 Traffic Volumes with Development	
			AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
Street Road (S.R.0926) / Shiloh Road (T-626) - Westtown Thornton Road (S.R.2005)	EBL	125'	38	43	53	60	58	73
	EBTR	+800'	265	208	360	280	375	288
	WBL	100'	8	13	10	18	10	18
	WBT	+800'	285	295	373	408	390	425
	WBR	175'	43	58	55	75	63	93
	NB	+800'	373	365	195	188	200	198
	SBLT	+800'	153	293	185	305	213	330
	SBR	150'	83	100	100	118	118	130
Hunt Drive (T-546) / Shiloh Road (T-626)	EB	+500'	3	3	3	3	3	3
	WB	+500'	-	-	-	-	8	5
	NBL	+500'	0	0	0	0	0	0
	SBL	+500'	-	-	-	-	0	0
Oakbourne Road (T-359) / Shiloh Road (T-626)	EB	+500'	13	15	13	15	13	15
	NBL	+500'	5	8	5	8	5	8
Little Shiloh Road (S.R.2005 / T-367) / Shiloh Road (T-626)	EB	+500'	20	30	20	33	20	33
	WB	+500'	15	15	15	15	15	18
	NB	+500'	38	33	38	33	38	33
Little Shiloh Road (S.R.2005) / Shiloh Hill Drive (T-559)	WBL	+500'	0	0	0	0	0	0
	NB	+500'	0	0	0	0	3	3
Little Shiloh Road (T-367) - Falcoln Lane / Westtown Road (S.R.2007)	EB	+500'	25	20	28	20	28	23
	WB	+500'	53	55	60	63	60	63
	NBL	260'	5	5	5	8	5	8
	SBL	+500'	3	3	3	3	3	3

Table B (cont.)

Queue Analysis (In Feet) - HCM (6th Edition)

Intersection	Lanes	Existing Storage / Proposed Storage (in feet)	Existing Traffic Volumes		2031 Traffic Volumes without Development		2031 Traffic Volumes with Development	
			AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
Street Road (S.R.0926) / Shiloh Road (T-626) - Westtown Thornton Road (S.R.2005)	EBL	125'	38	43	58	65	63	78
	EBTR	+800'	265	208	388	300	403	310
	WBL	100'	8	13	13	20	13	20
	WBT	+800'	285	295	398	445	413	468
	WBR	175'	43	58	60	80	65	100
	NB	+800'	373	365	210	205	218	215
	SBLT	+800'	153	293	205	310	230	335
	SBR	150'	83	100	105	123	128	138
Hunt Drive (T-546) / Shiloh Road (T-626)	EB	+500'	3	3	3	3	3	3
	WB	+500'	-	-	-	-	8	5
	NBL	+500'	0	0	0	0	0	0
	SBL	+500'	-	-	-	-	0	0
Oakbourne Road (T-359) / Shiloh Road (T-626)	EB	+500'	13	15	15	15	15	15
	NBL	+500'	5	8	5	10	5	10
Little Shiloh Road (S.R.2005 / T-367) / Shiloh Road (T-626)	EB	+500'	20	30	23	33	23	35
	WB	+500'	15	15	15	18	15	18
	NB	+500'	38	33	40	35	40	35
Little Shiloh Road (S.R.2005) / Shiloh Hill Drive (T-559)	WBL	+500'	0	0	0	0	0	0
	NB	+500'	0	0	0	0	3	3
Little Shiloh Road (T-367) - Falcoln Lane / Westtown Road (S.R.2007)	EB	+500'	25	20	28	23	30	23
	WB	+500'	53	55	65	68	65	70
	NBL	260'	5	5	5	8	5	8
	SBL	+500'	3	3	3	3	3	3

Table C

Queue Analysis (In Feet) - Synchro

Intersection	Lanes	Existing Storage / Proposed Storage (in feet)	Existing Traffic Volumes				2026 Traffic Volumes without Development				2026 Traffic Volumes with Development				2031 Traffic Volumes without Development				2031 Traffic Volumes with Development			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			50th	95th	50th	95th	50th	95th	50th	95th	50th	95th	50th	95th	50th	95th	50th	95th	50th	95th	50th	95th
Street Road (S.R.0926) / Shiloh Road (T-626) - Westtown Thornton Road (S.R.2005)	EBL	125'	26	51	25	48	33	62	34	69	36	64	40	78	34	61	37	72	37	64	44	83
	EBTR	+800'	226	338	144	218	297	413	198	315	302	413	198	315	308	420	217	333	308	420	218	333
	WBL	100'	5	16	8	24	6	19	11	31	6	19	11	31	6	19	11	31	6	19	11	31
	WBT	+800'	239	351	224	337	293	409	285	482	297	409	285	482	304	416	308	512	304	416	309	512
	WBR	175'	32	63	39	74	39	73	49	95	42	76	57	108	40	73	52	99	43	77	61	112
	NB	+800'	73	214	66	194	81	147	79	142	82	147	80	145	86	152	85	150	86	152	87	151
	SBLT	+800'	84	166	135	330	103	180	170	340	116	209	179	356	108	198	180	326	120	227	189	344
	SBR	150'	47	105	55	125	57	113	70	136	67	128	76	144	59	117	74	135	70	133	80	144

## EXISTING CONDITIONS (Signal Plans, Sketches)

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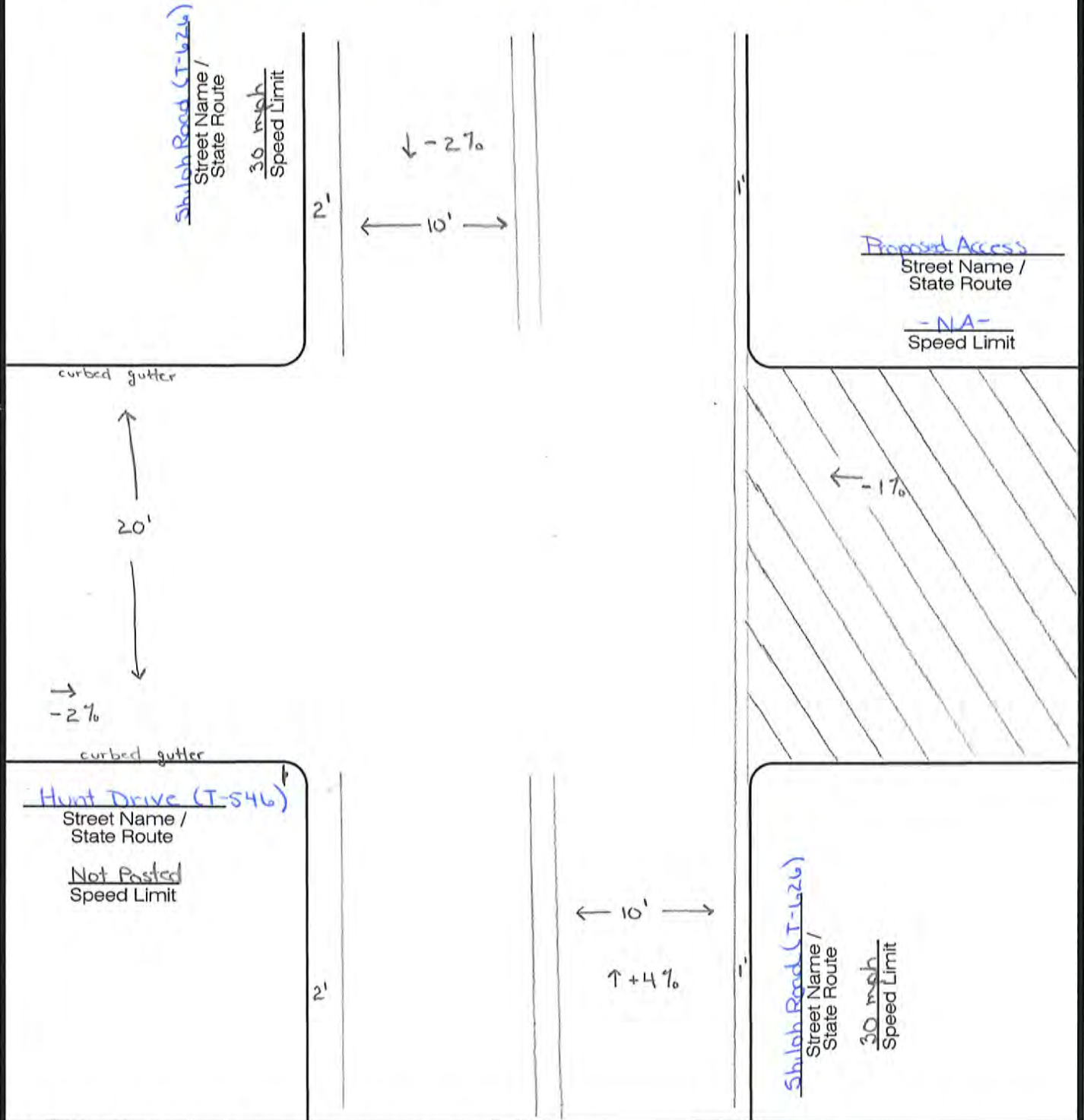
# SITE INVENTORY - FIELD SHEET



Intersection: Shiloh Road (T-626) / Hunt Drive (T-546) - Proposed Access

Project Name: Stokes Estates Residential Dr Municipality: Westtown Township

Project Number: 278.012.21 Recorder(s): JAS / LJS Date: 4/16/21



1. Identify lane configuration and lane widths
2. Note shoulder widths / type and / or curb
3. Note any medians, islands, or channelization
4. Note grade of approaches
5. Note sight distance and restrictions
6. Identify segment / offset if state road
7. Note surrounding land uses
8. Note signs, traffic control, pavement markings, bus stops, and parking locations
9. Take pictures in ALL four directions



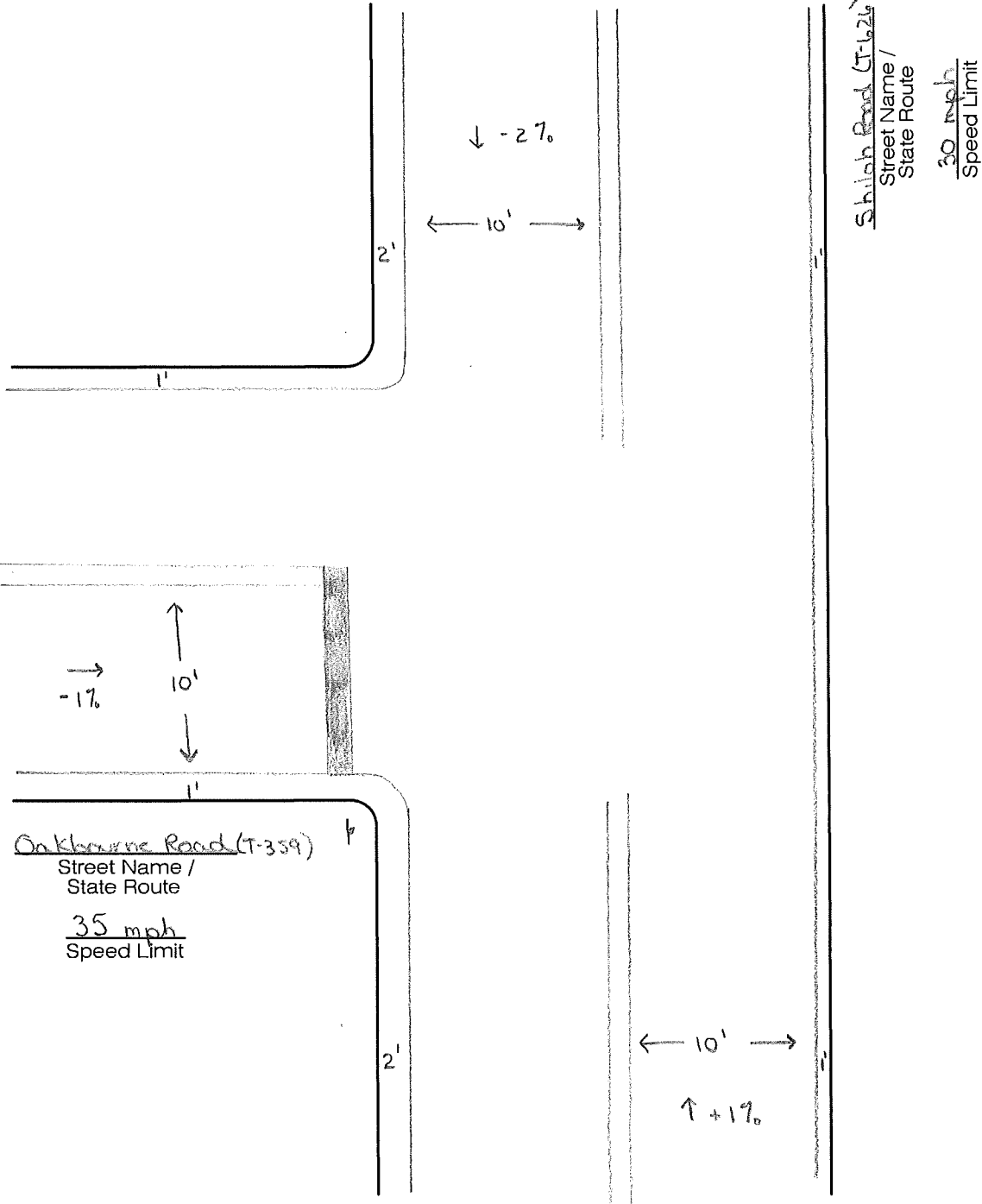
# SITE INVENTORY - FIELD SHEET



Intersection: Shiloh Road (T-626) / Oakbourne Road (T-359)

Project Name: Stokes Estate Residential Dev. Municipality: Westtown Twp

Project Number: 278.021.21 Recorder(s): JAS/LJS Date: 4/16/21



- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. Identify lane configuration and lane widths</li> <li>2. Note shoulder widths / type and / or curb</li> <li>3. Note any medians, islands, or channelization</li> <li>4. Note grade of approaches</li> <li>5. Note sight distance and restrictions</li> </ol> | <ol style="list-style-type: none"> <li>6. Identify segment / offset if state road</li> <li>7. Note surrounding land uses</li> <li>8. Note signs, traffic control, pavement markings, bus stops, and parking locations</li> <li>9. Take pictures in ALL four directions</li> </ol> |
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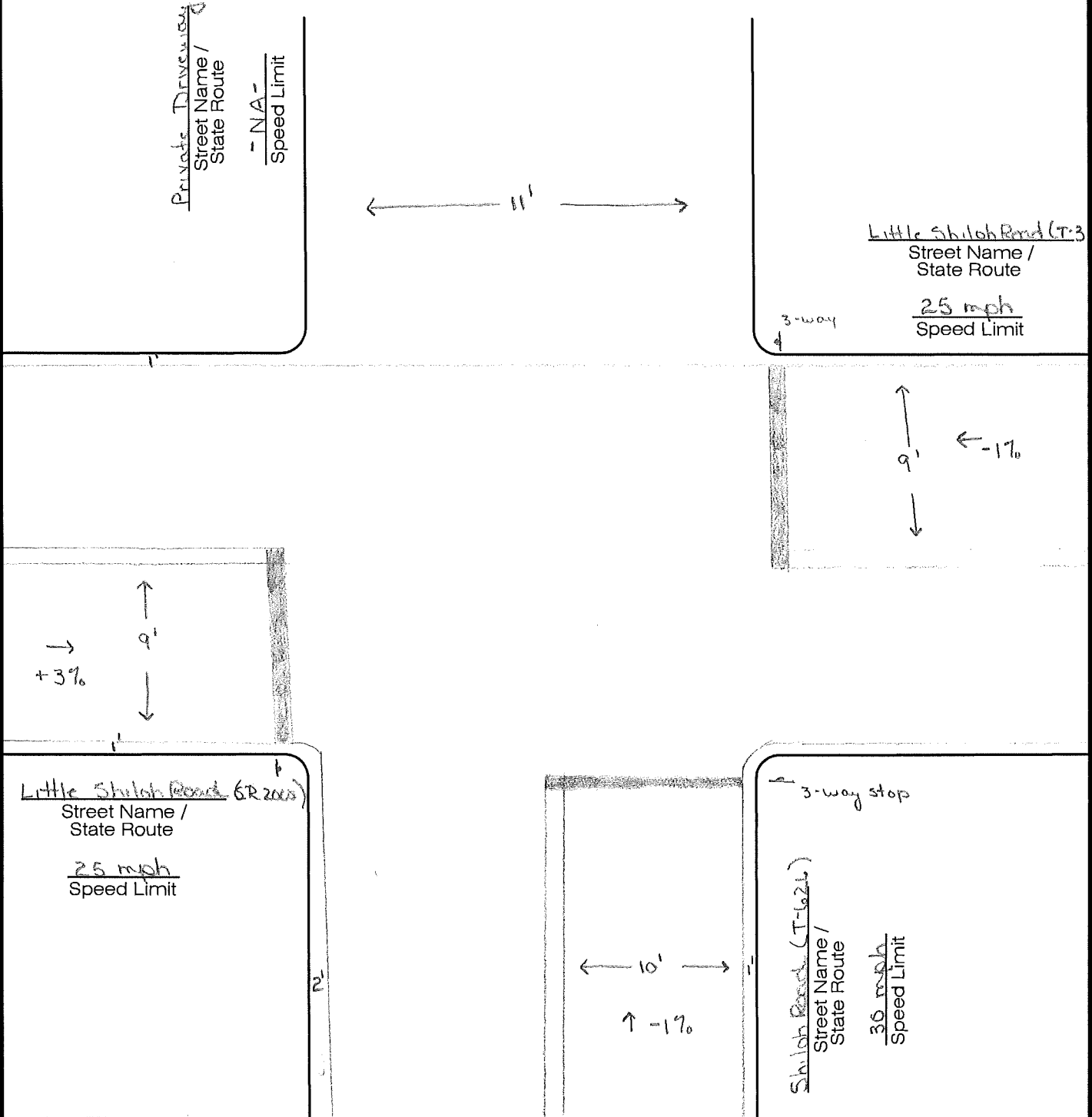




# SITE INVENTORY - FIELD SHEET



Intersection: Shiloh Road (T-626) / Little Shiloh Road (SR2005)  
 Project Name: Stokes Estates Residential Dev Municipality: Westtown Township  
 Project Number: 278.021.21 Recorder(s): JAS / LIS Date: 4/16/21



1. Identify lane configuration and lane widths
2. Note shoulder widths / type and / or curb
3. Note any medians, islands, or channelization
4. Note grade of approaches
5. Note sight distance and restrictions
6. Identify segment / offset if state road
7. Note surrounding land uses
8. Note signs, traffic control, pavement markings, bus stops, and parking locations
9. Take pictures in ALL four directions



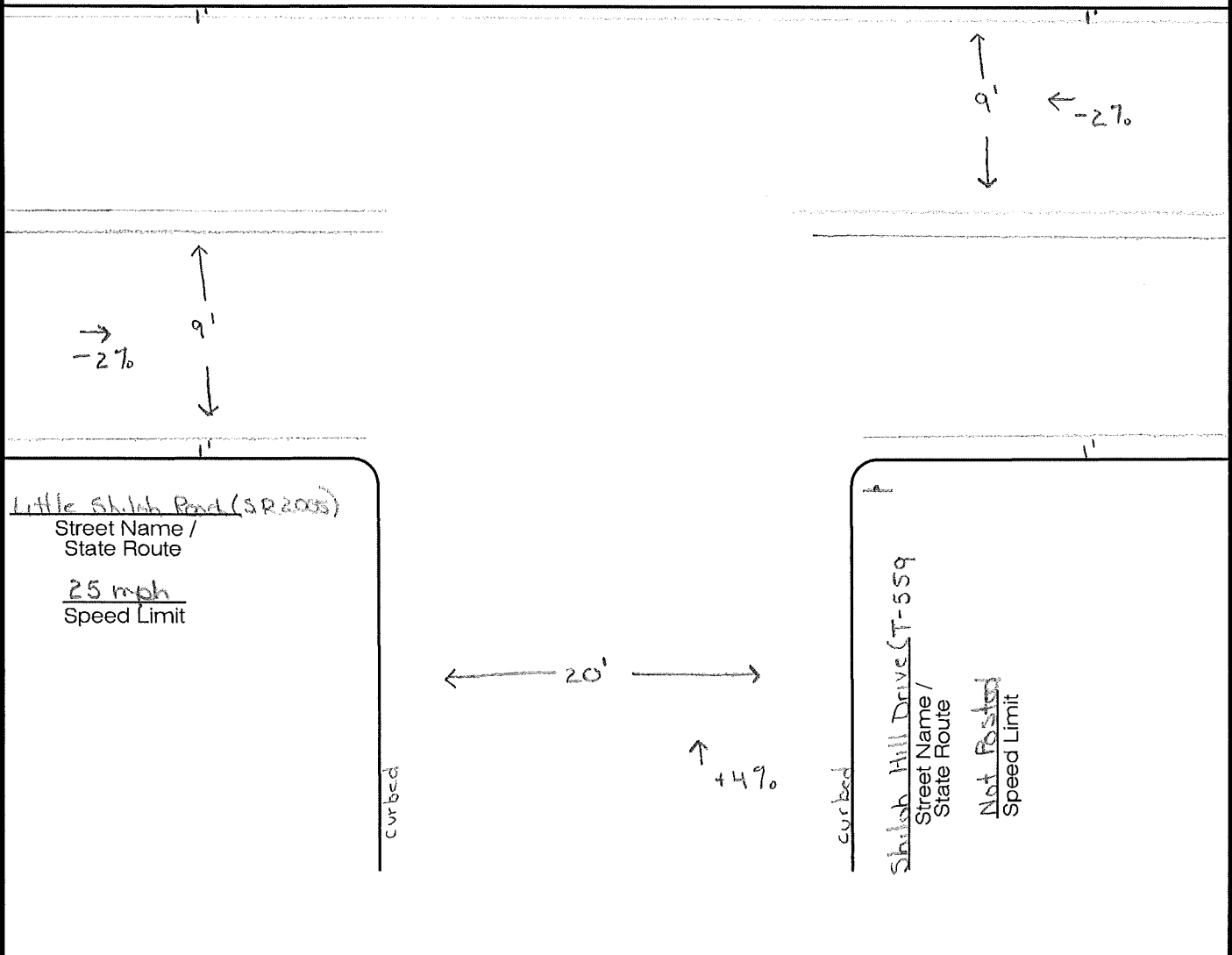
# SITE INVENTORY - FIELD SHEET



Intersection: Little Shiloh Road (S.R. 2005) / Shiloh Hill Drive (T-559)

Project Name: Stokes Estates Residential Dev. Municipality: Westtown Township

Project Number: 278.021.21 Recorder(s): JAS/LJS Date: 4/16/21



- |   |   |
|---|---|
| 1. Identify lane configuration and lane widths  | 6. Identify segment / offset if state road  |
| 2. Note shoulder widths / type and / or curb    | 7. Note surrounding land uses   |
| 3. Note any medians, islands, or channelization | 8. Note signs, traffic control, pavement markings, bus stops, and parking locations |
| 4. Note grade of approaches                     | 9. Take pictures in ALL four directions   |
| 5. Note sight distance and restrictions         |   |



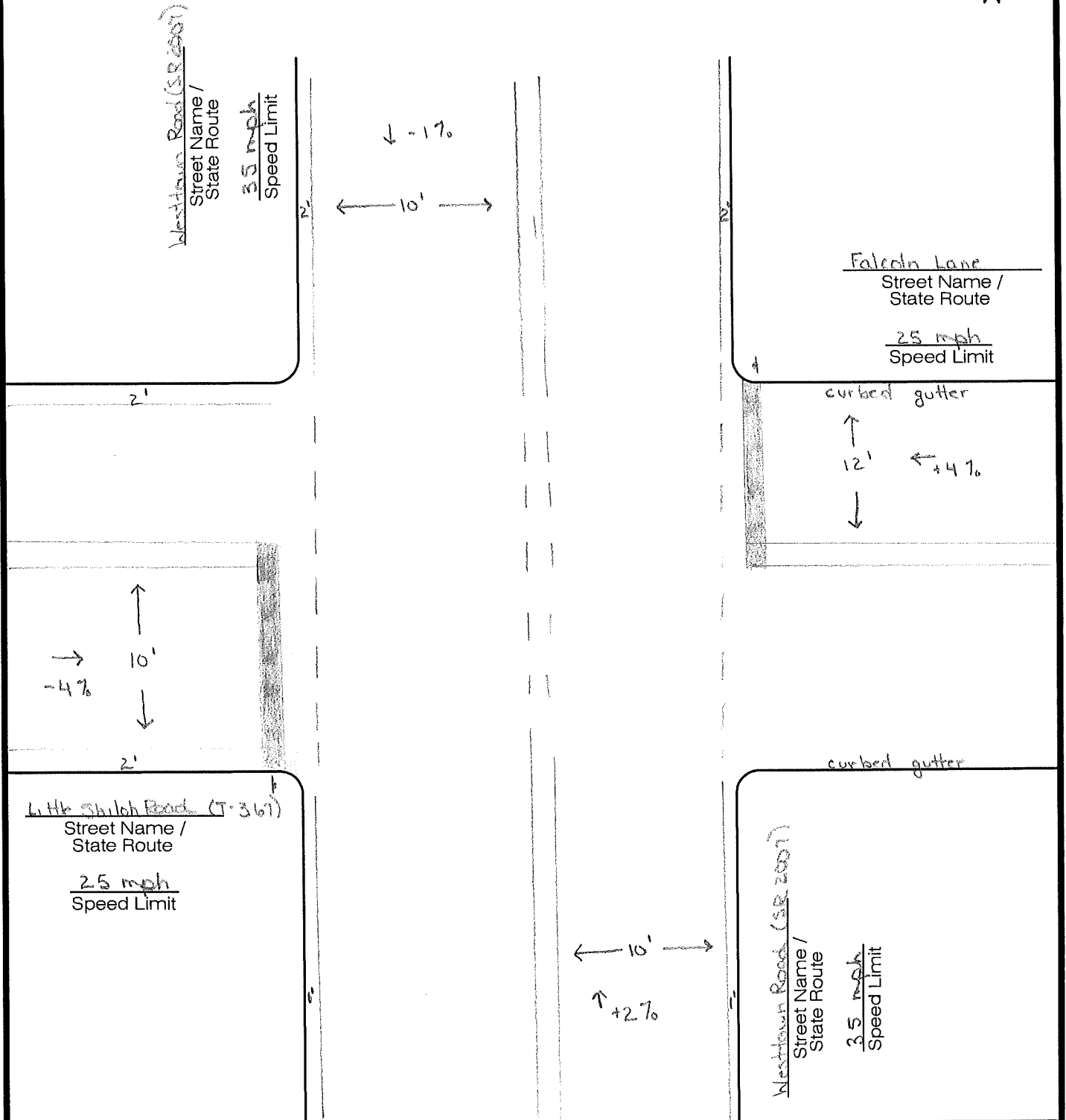
# SITE INVENTORY - FIELD SHEET



Intersection: Little Shiloh Road (T-367) - Falcoln Lane / Westtown Road (SR 2007)

Project Name: Stokes Estates Residential Dev. Municipality: Westtown Township

Project Number: 218.021.21 Recorder(s): JAS/LJS Date: 4/16/21



- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. Identify lane configuration and lane widths</li> <li>2. Note shoulder widths / type and / or curb</li> <li>3. Note any medians, islands, or channelization</li> <li>4. Note grade of approaches</li> <li>5. Note sight distance and restrictions</li> </ol> | <ol style="list-style-type: none"> <li>6. Identify segment / offset if state road</li> <li>7. Note surrounding land uses</li> <li>8. Note signs, traffic control, pavement markings, bus stops, and parking locations</li> <li>9. Take pictures in ALL four directions</li> </ol> |
|---|---|

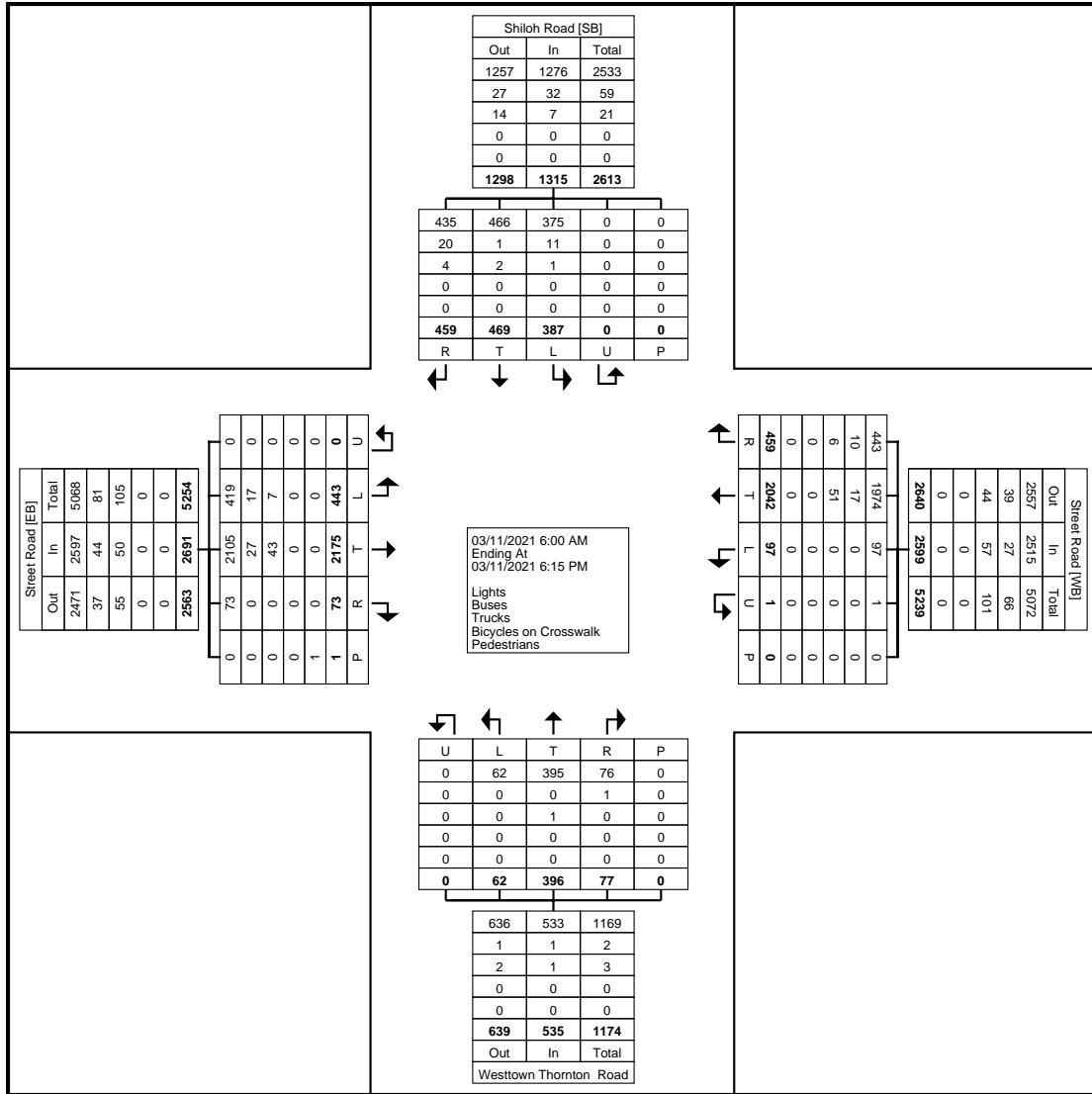


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## TRAFFIC COUNTS

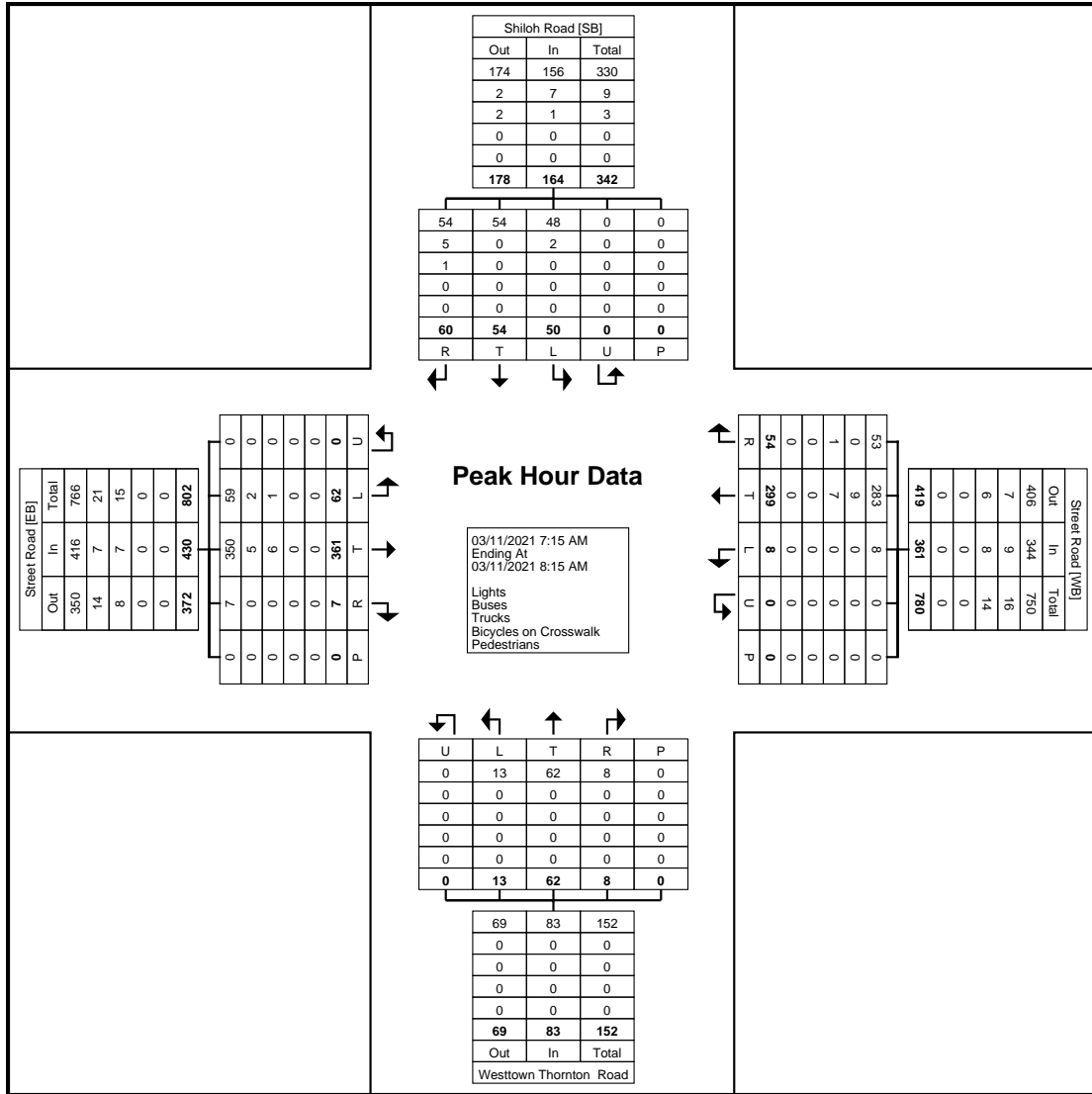
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Turning Movement Data Plot

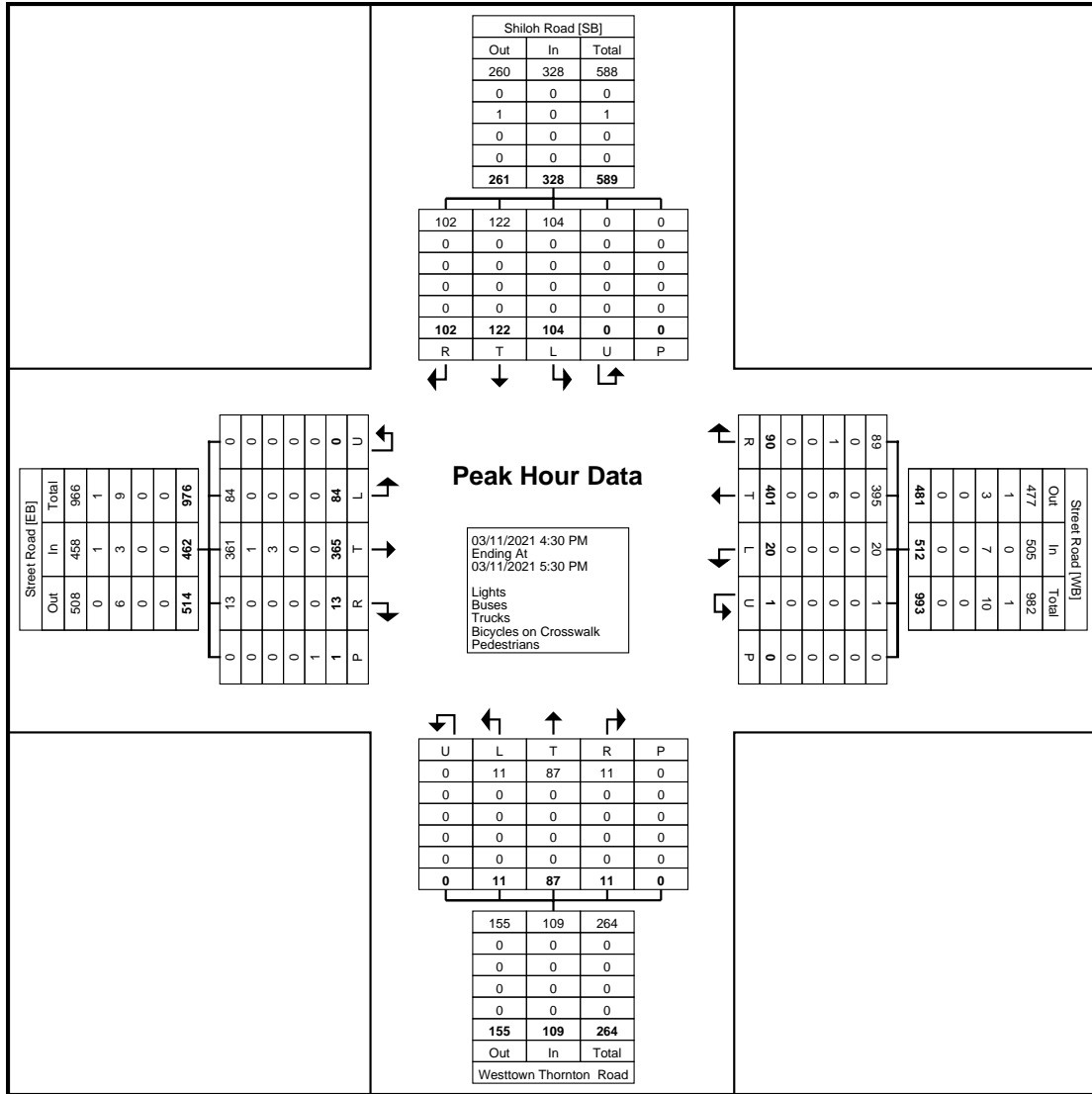




Turning Movement Peak Hour Data Plot (7:15 AM)







Turning Movement Peak Hour Data Plot (4:30 PM)



www.TSTData.com  
184 Baker Rd

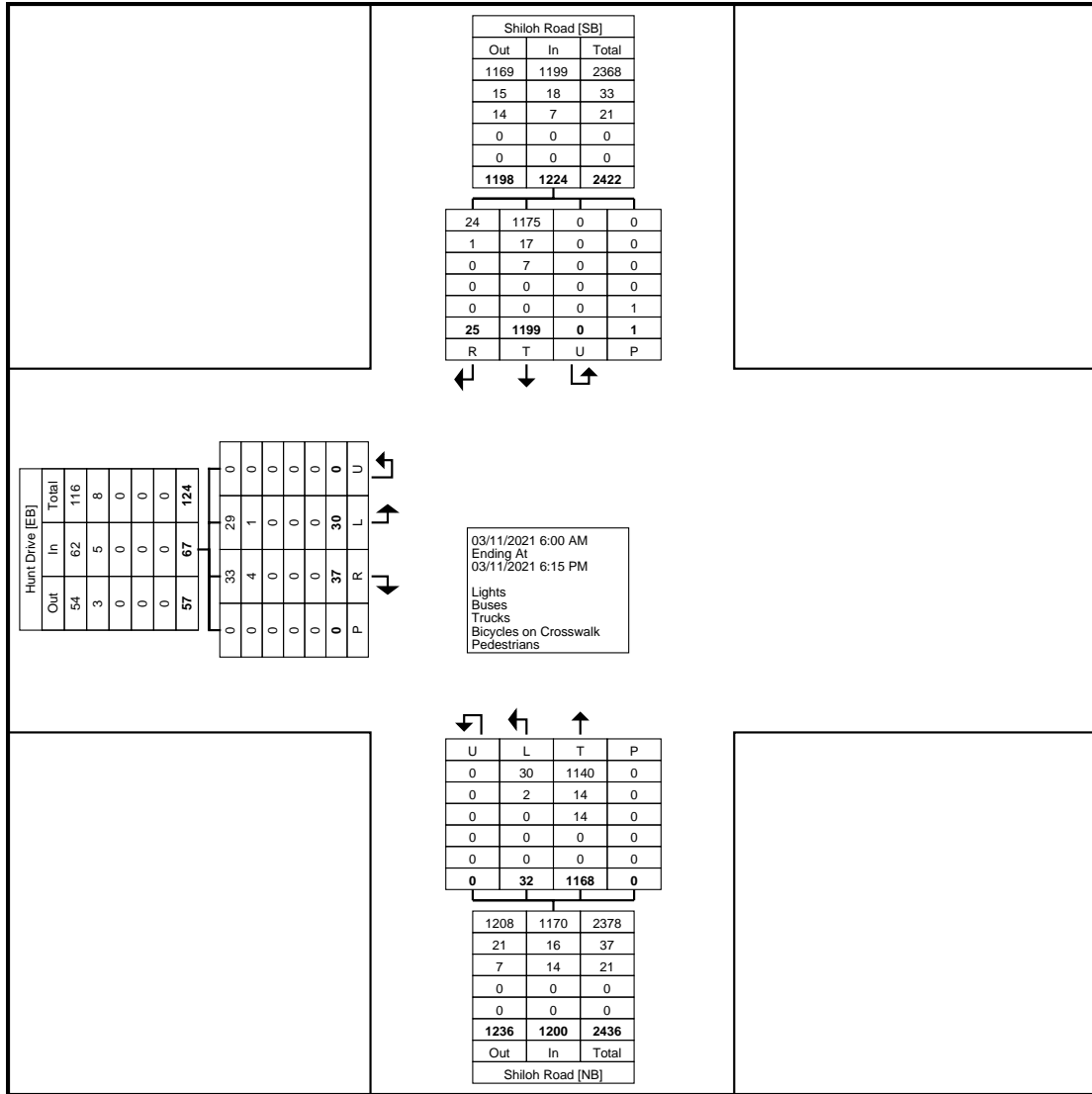
Coatesville, Pennsylvania, United States 19320  
610-466-1469  
Serving Transportation Professionals Since 1995

Chester County, PA  
Shiloh Rd & Hunt Dr  
Thursday, March 11, 2021  
Location: 39.946701, -  
75.554599

Count Name: Shiloh Rd & Hunt Drive  
Site Code:  
Start Date: 03/11/2021  
Page No: 1

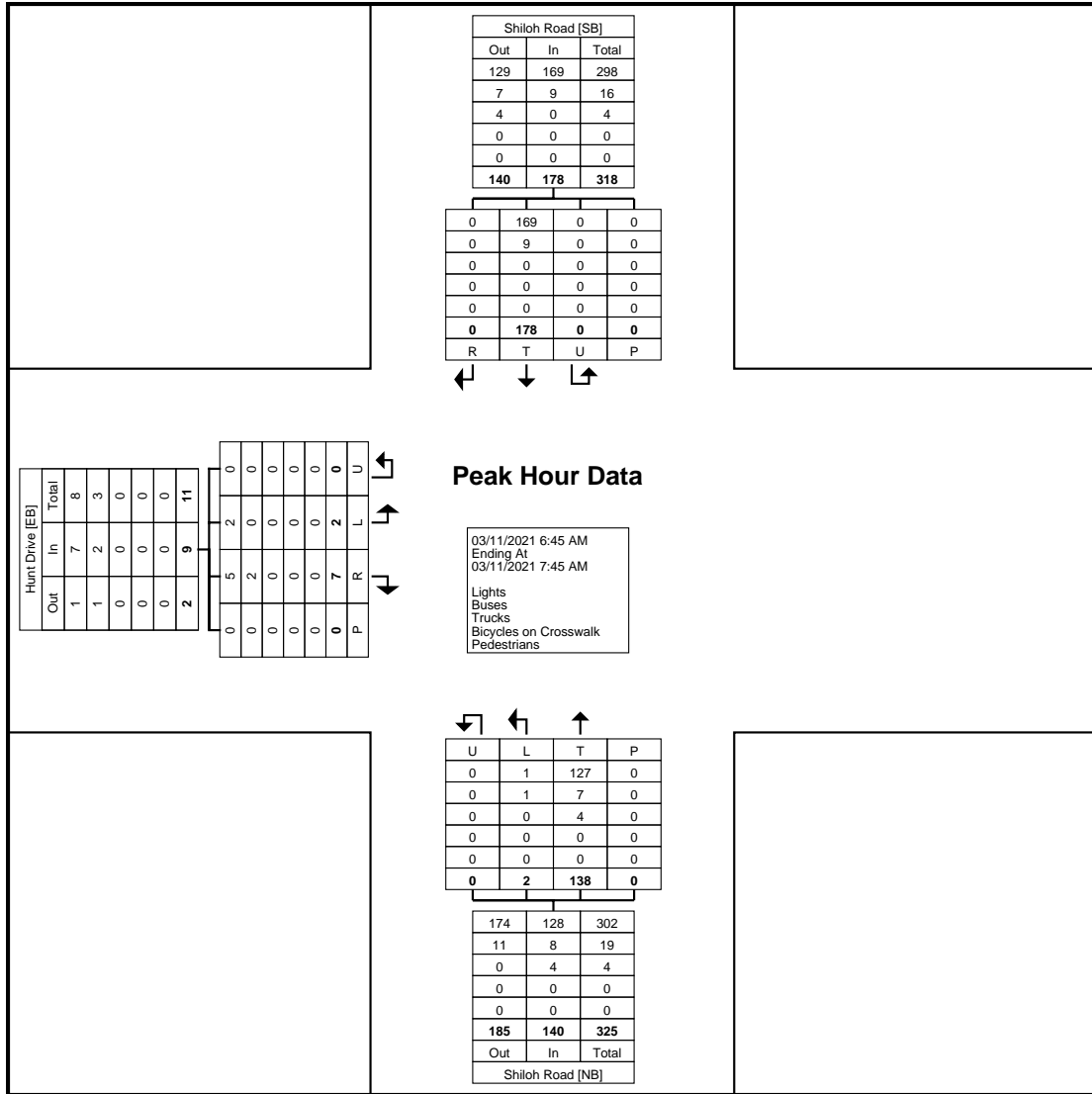
### Turning Movement Data

Start Time	Hunt Drive Eastbound					Shiloh Road Northbound					Shiloh Road Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	
6:00 AM	0	2	0	0	2	0	11	0	0	11	5	0	0	0	5	18
6:15 AM	1	0	0	0	1	0	13	0	0	13	6	0	0	0	6	20
6:30 AM	0	0	0	0	0	0	15	0	0	15	23	0	0	0	23	38
6:45 AM	0	2	0	0	2	2	30	0	0	32	41	0	0	0	41	75
Hourly Total	1	4	0	0	5	2	69	0	0	71	75	0	0	0	75	151
7:00 AM	1	2	0	0	3	0	23	0	0	23	41	0	0	0	41	67
7:15 AM	0	2	0	0	2	0	48	0	0	48	62	0	0	0	62	112
7:30 AM	1	1	0	0	2	0	37	0	0	37	34	0	0	0	34	73
7:45 AM	2	0	0	0	2	2	31	0	0	33	28	1	0	0	29	64
Hourly Total	4	5	0	0	9	2	139	0	0	141	165	1	0	0	166	316
8:00 AM	3	2	0	0	5	0	30	0	0	30	33	0	0	0	33	68
8:15 AM	0	0	0	0	0	0	33	0	0	33	32	0	0	0	32	65
8:30 AM	0	4	0	0	4	0	26	0	0	26	37	1	0	0	38	68
8:45 AM	0	2	0	0	2	2	37	0	0	39	35	2	0	0	37	78
Hourly Total	3	8	0	0	11	2	126	0	0	128	137	3	0	0	140	279
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	2	52	0	0	54	29	1	0	0	30	84
2:15 PM	0	1	0	0	1	3	42	0	0	45	35	2	0	0	37	83
2:30 PM	1	3	0	0	4	2	62	0	0	64	54	3	0	0	57	125
2:45 PM	1	0	0	0	1	0	72	0	0	72	50	1	0	0	51	124
Hourly Total	2	4	0	0	6	7	228	0	0	235	168	7	0	0	175	416
3:00 PM	2	1	0	0	3	0	46	0	0	46	35	1	0	0	36	85
3:15 PM	0	0	0	0	0	0	37	0	0	37	52	2	0	0	54	91
3:30 PM	1	1	0	0	2	3	37	0	0	40	42	2	0	0	44	86
3:45 PM	2	1	0	0	3	3	40	0	0	43	53	0	0	1	53	99
Hourly Total	5	3	0	0	8	6	160	0	0	166	182	5	0	1	187	361
4:00 PM	3	4	0	0	7	2	39	0	0	41	55	1	0	0	56	104
4:15 PM	2	1	0	0	3	0	58	0	0	58	45	0	0	0	45	106
4:30 PM	1	1	0	0	2	1	52	0	0	53	60	1	0	0	61	116
4:45 PM	1	2	0	0	3	2	62	0	0	64	70	0	0	0	70	137
Hourly Total	7	8	0	0	15	5	211	0	0	216	230	2	0	0	232	463
5:00 PM	1	1	0	0	2	3	69	0	0	72	87	0	0	0	87	161
5:15 PM	4	0	0	0	4	1	52	0	0	53	61	1	0	0	62	119
5:30 PM	2	1	0	0	3	3	60	0	0	63	52	4	0	0	56	122
5:45 PM	1	3	0	0	4	1	54	0	0	55	42	2	0	0	44	103
Hourly Total	8	5	0	0	13	8	235	0	0	243	242	7	0	0	249	505
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	30	37	0	0	67	32	1168	0	0	1200	1199	25	0	1	1224	2491
Approach %	44.8	55.2	0.0	-	-	2.7	97.3	0.0	-	-	98.0	2.0	0.0	-	-	-
Total %	1.2	1.5	0.0	-	2.7	1.3	46.9	0.0	-	48.2	48.1	1.0	0.0	-	49.1	-
Lights	29	33	0	-	62	30	1140	0	-	1170	1175	24	0	-	1199	2431
% Lights	96.7	89.2	-	-	92.5	93.8	97.6	-	-	97.5	98.0	96.0	-	-	98.0	97.6
Buses	1	4	0	-	5	2	14	0	-	16	17	1	0	-	18	39
% Buses	3.3	10.8	-	-	7.5	6.3	1.2	-	-	1.3	1.4	4.0	-	-	1.5	1.6
Trucks	0	0	0	-	0	0	14	0	-	14	7	0	0	-	7	21
% Trucks	0.0	0.0	-	-	0.0	0.0	1.2	-	-	1.2	0.6	0.0	-	-	0.6	0.8
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



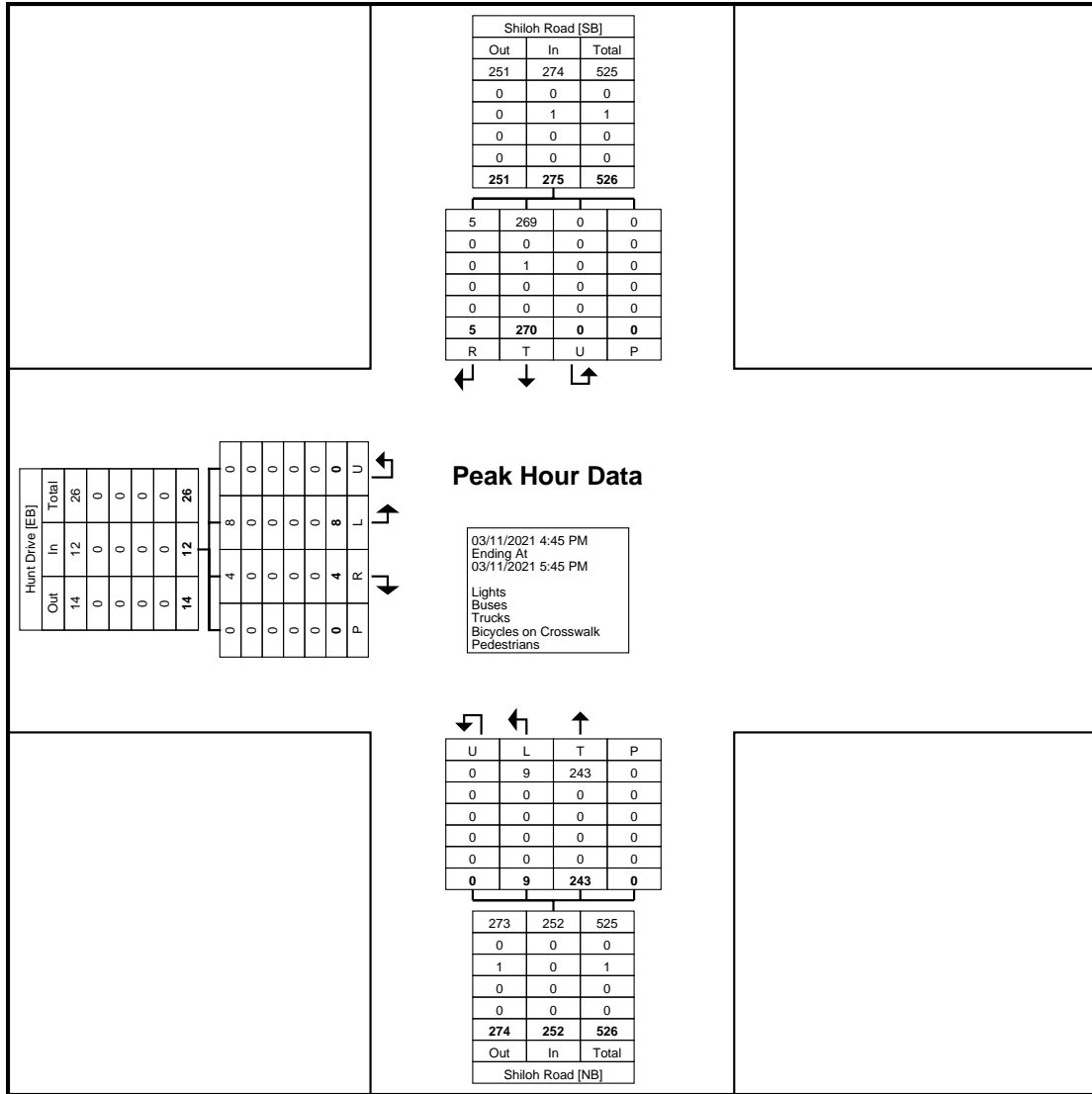
Turning Movement Data Plot





Turning Movement Peak Hour Data Plot (6:45 AM)





Turning Movement Peak Hour Data Plot (4:45 PM)





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184 Baker Rd

Chester County, PA  
Shiloh Rd & Oakbourne Rd  
Thursday, March 11, 2021  
Location: 39.94812, -75.55575

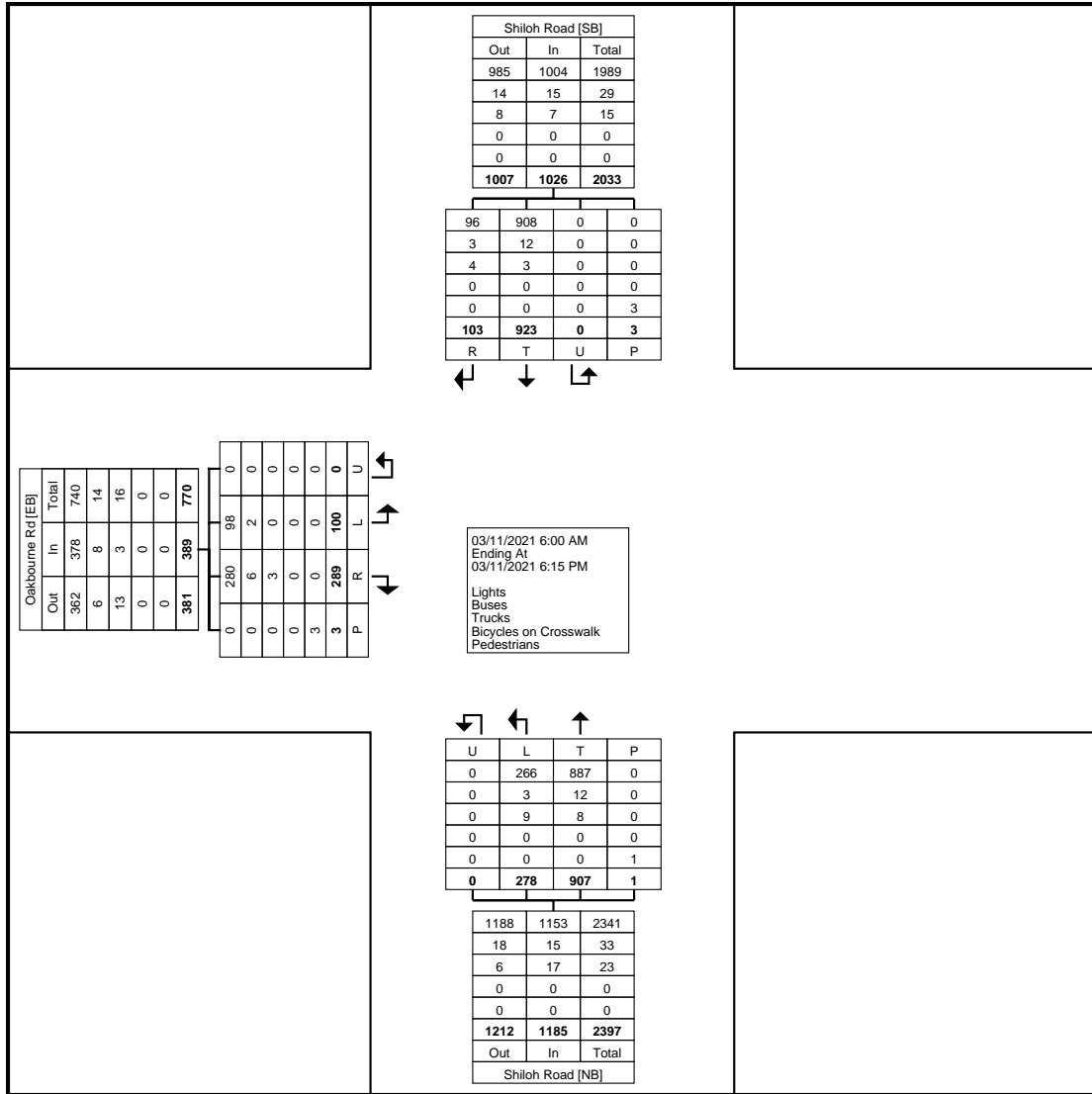
Coatesville, Pennsylvania, United States 19320  
610-466-1469  
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Count Name: Shiloh Rd &  
Oakbourne Rd  
Site Code:  
Start Date: 03/11/2021  
Page No: 1

### Turning Movement Data

Start Time	Oakbourne Rd Eastbound					Shiloh Road Northbound					Shiloh Road Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	
6:00 AM	1	1	0	0	2	2	10	0	0	12	4	0	0	0	4	18
6:15 AM	7	1	0	0	8	3	11	0	0	14	5	2	0	0	7	29
6:30 AM	0	5	0	0	5	2	13	0	0	15	18	0	0	0	18	38
6:45 AM	0	9	0	0	9	4	23	0	0	27	34	1	0	0	35	71
Hourly Total	8	16	0	0	24	11	57	0	0	68	61	3	0	0	64	156
7:00 AM	3	9	0	0	12	7	20	0	0	27	30	3	0	2	33	72
7:15 AM	2	17	0	0	19	9	37	0	0	46	45	3	0	0	48	113
7:30 AM	4	8	0	2	12	7	33	0	0	40	25	1	0	0	26	78
7:45 AM	6	5	0	0	11	4	29	0	0	33	23	3	0	0	26	70
Hourly Total	15	39	0	2	54	27	119	0	0	146	123	10	0	2	133	333
8:00 AM	5	12	0	0	17	4	26	0	0	30	19	6	0	0	25	72
8:15 AM	6	5	0	0	11	6	23	0	0	29	26	1	0	0	27	67
8:30 AM	0	6	0	0	6	6	23	0	0	29	37	1	0	0	38	73
8:45 AM	5	9	0	0	14	9	27	0	0	36	26	2	0	0	28	78
Hourly Total	16	32	0	0	48	25	99	0	0	124	108	10	0	0	118	290
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	5	11	0	0	16	11	39	0	0	50	18	1	0	0	19	85
2:15 PM	2	16	0	0	18	2	36	0	0	38	20	9	0	0	29	85
2:30 PM	5	24	0	0	29	15	51	0	0	66	34	8	0	0	42	137
2:45 PM	2	11	0	0	13	22	52	0	0	74	38	6	0	0	44	131
Hourly Total	14	62	0	0	76	50	178	0	0	228	110	24	0	0	134	438
3:00 PM	3	7	0	0	10	11	37	0	0	48	29	4	0	0	33	91
3:15 PM	4	9	0	0	13	10	26	0	0	36	46	5	0	0	51	100
3:30 PM	3	6	0	0	9	9	29	0	0	38	37	3	0	0	40	87
3:45 PM	4	10	0	0	14	9	33	0	0	42	44	7	0	0	51	107
Hourly Total	14	32	0	0	46	39	125	0	0	164	156	19	0	0	175	385
4:00 PM	6	6	0	0	12	9	32	0	0	41	49	4	0	0	53	106
4:15 PM	5	10	0	0	15	21	40	0	0	61	35	4	0	0	39	115
4:30 PM	2	15	0	0	17	8	42	0	0	50	46	5	0	0	51	118
4:45 PM	2	22	0	0	24	20	43	0	0	63	47	9	0	0	56	143
Hourly Total	15	53	0	0	68	58	157	0	0	215	177	22	0	0	199	482
5:00 PM	5	18	0	0	23	23	46	0	0	69	68	3	0	1	71	163
5:15 PM	2	15	0	0	17	11	42	0	0	53	46	6	0	0	52	122
5:30 PM	4	13	0	0	17	15	51	0	0	66	40	4	0	0	44	127
5:45 PM	7	9	0	1	16	19	33	0	1	52	34	2	0	0	36	104
Hourly Total	18	55	0	1	73	68	172	0	1	240	188	15	0	1	203	516
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	100	289	0	3	389	278	907	0	1	1185	923	103	0	3	1026	2600
Approach %	25.7	74.3	0.0	-	-	23.5	76.5	0.0	-	-	90.0	10.0	0.0	-	-	-
Total %	3.8	11.1	0.0	-	15.0	10.7	34.9	0.0	-	45.6	35.5	4.0	0.0	-	39.5	-
Lights	98	280	0	-	378	266	887	0	-	1153	908	96	0	-	1004	2535
% Lights	98.0	96.9	-	-	97.2	95.7	97.8	-	-	97.3	98.4	93.2	-	-	97.9	97.5
Buses	2	6	0	-	8	3	12	0	-	15	12	3	0	-	15	38
% Buses	2.0	2.1	-	-	2.1	1.1	1.3	-	-	1.3	1.3	2.9	-	-	1.5	1.5
Trucks	0	3	0	-	3	9	8	0	-	17	3	4	0	-	7	27
% Trucks	0.0	1.0	-	-	0.8	3.2	0.9	-	-	1.4	0.3	3.9	-	-	0.7	1.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	0.0	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	3	-	-	-	-	1	-	-	-	-	3	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Chester County, PA  
Shiloh Rd & Oakbourne Rd  
Thursday, March 11, 2021  
Location: 39.94812, -75.55575



Turning Movement Data Plot



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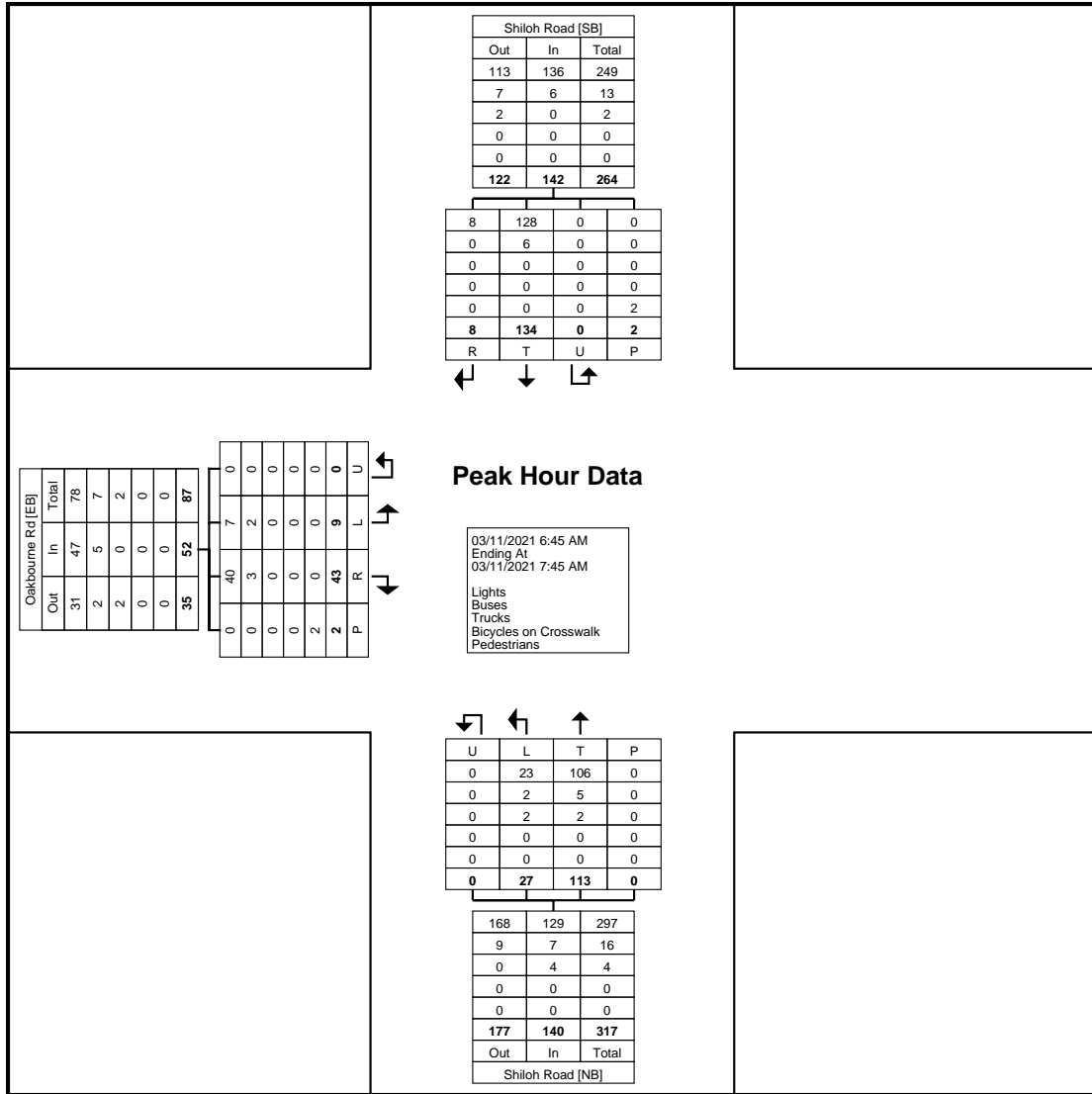
Count Name: Shiloh Rd &  
Oakbourne Rd  
Site Code:  
Start Date: 03/11/2021  
Page No: 3

Chester County, PA  
Shiloh Rd & Oakbourne Rd  
Thursday, March 11, 2021  
Location: 39.94812, -75.55575

### Turning Movement Peak Hour Data (6:45 AM)

Start Time	Oakbourne Rd Eastbound					Shiloh Road Northbound					Shiloh Road Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	
6:45 AM	0	9	0	0	9	4	23	0	0	27	34	1	0	0	35	71
7:00 AM	3	9	0	0	12	7	20	0	0	27	30	3	0	2	33	72
7:15 AM	2	17	0	0	19	9	37	0	0	46	45	3	0	0	48	113
7:30 AM	4	8	0	2	12	7	33	0	0	40	25	1	0	0	26	78
<b>Total</b>	<b>9</b>	<b>43</b>	<b>0</b>	<b>2</b>	<b>52</b>	<b>27</b>	<b>113</b>	<b>0</b>	<b>0</b>	<b>140</b>	<b>134</b>	<b>8</b>	<b>0</b>	<b>2</b>	<b>142</b>	<b>334</b>
Approach %	17.3	82.7	0.0	-	-	19.3	80.7	0.0	-	-	94.4	5.6	0.0	-	-	-
Total %	2.7	12.9	0.0	-	15.6	8.1	33.8	0.0	-	41.9	40.1	2.4	0.0	-	42.5	-
PHF	0.563	0.632	0.000	-	0.684	0.750	0.764	0.000	-	0.761	0.744	0.667	0.000	-	0.740	0.739
Lights	7	40	0	-	47	23	106	0	-	129	128	8	0	-	136	312
% Lights	77.8	93.0	-	-	90.4	85.2	93.8	-	-	92.1	95.5	100.0	-	-	95.8	93.4
Buses	2	3	0	-	5	2	5	0	-	7	6	0	0	-	6	18
% Buses	22.2	7.0	-	-	9.6	7.4	4.4	-	-	5.0	4.5	0.0	-	-	4.2	5.4
Trucks	0	0	0	-	0	2	2	0	-	4	0	0	0	-	0	4
% Trucks	0.0	0.0	-	-	0.0	7.4	1.8	-	-	2.9	0.0	0.0	-	-	0.0	1.2
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	2	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-

Chester County, PA  
Shiloh Rd & Oakbourne Rd  
Thursday, March 11, 2021  
Location: 39.94812, -75.55575



Turning Movement Peak Hour Data Plot (6:45 AM)



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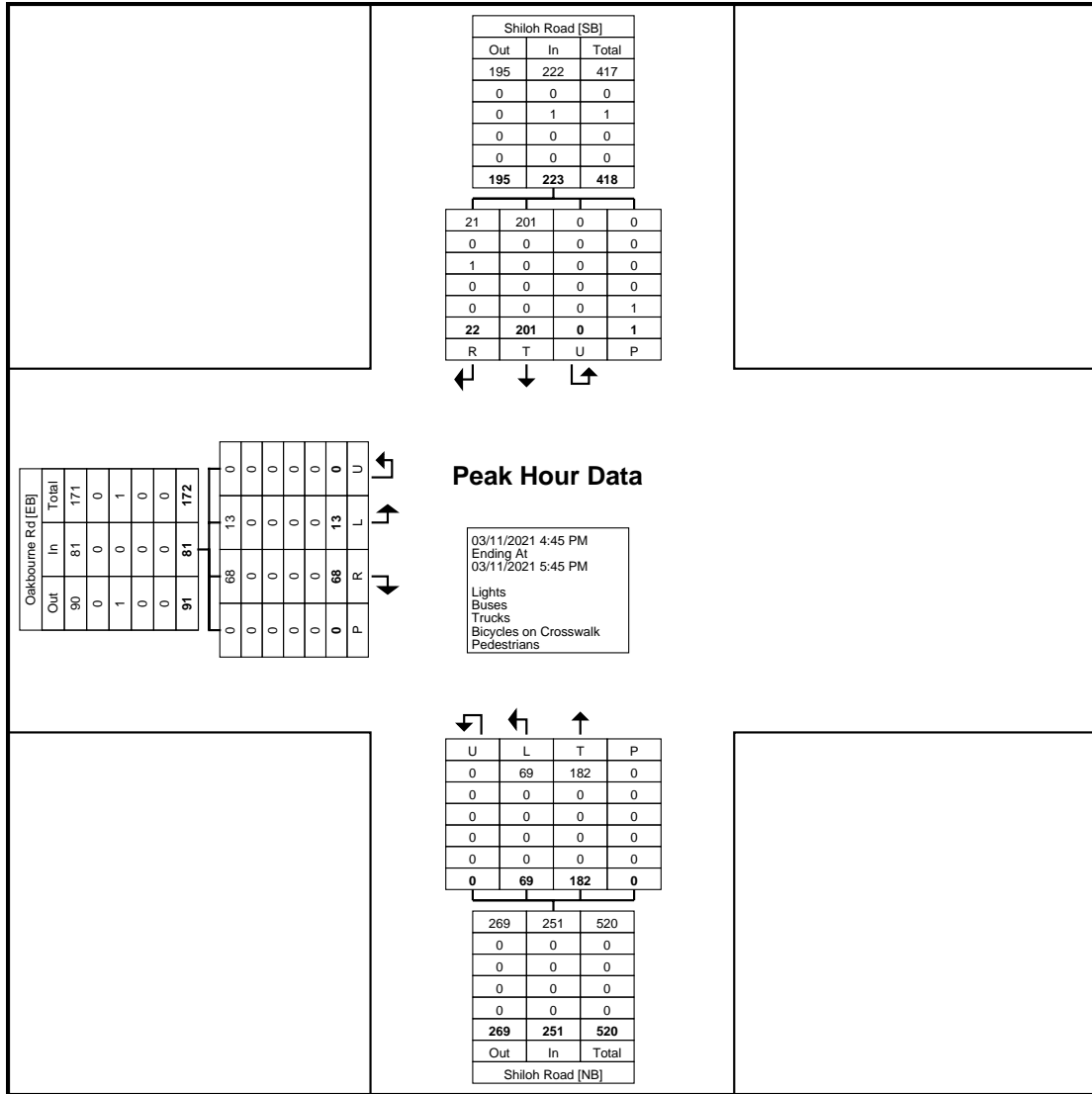
Count Name: Shiloh Rd &  
Oakbourne Rd  
Site Code:  
Start Date: 03/11/2021  
Page No: 5

Chester County, PA  
Shiloh Rd & Oakbourne Rd  
Thursday, March 11, 2021  
Location: 39.94812, -75.55575

### Turning Movement Peak Hour Data (4:45 PM)

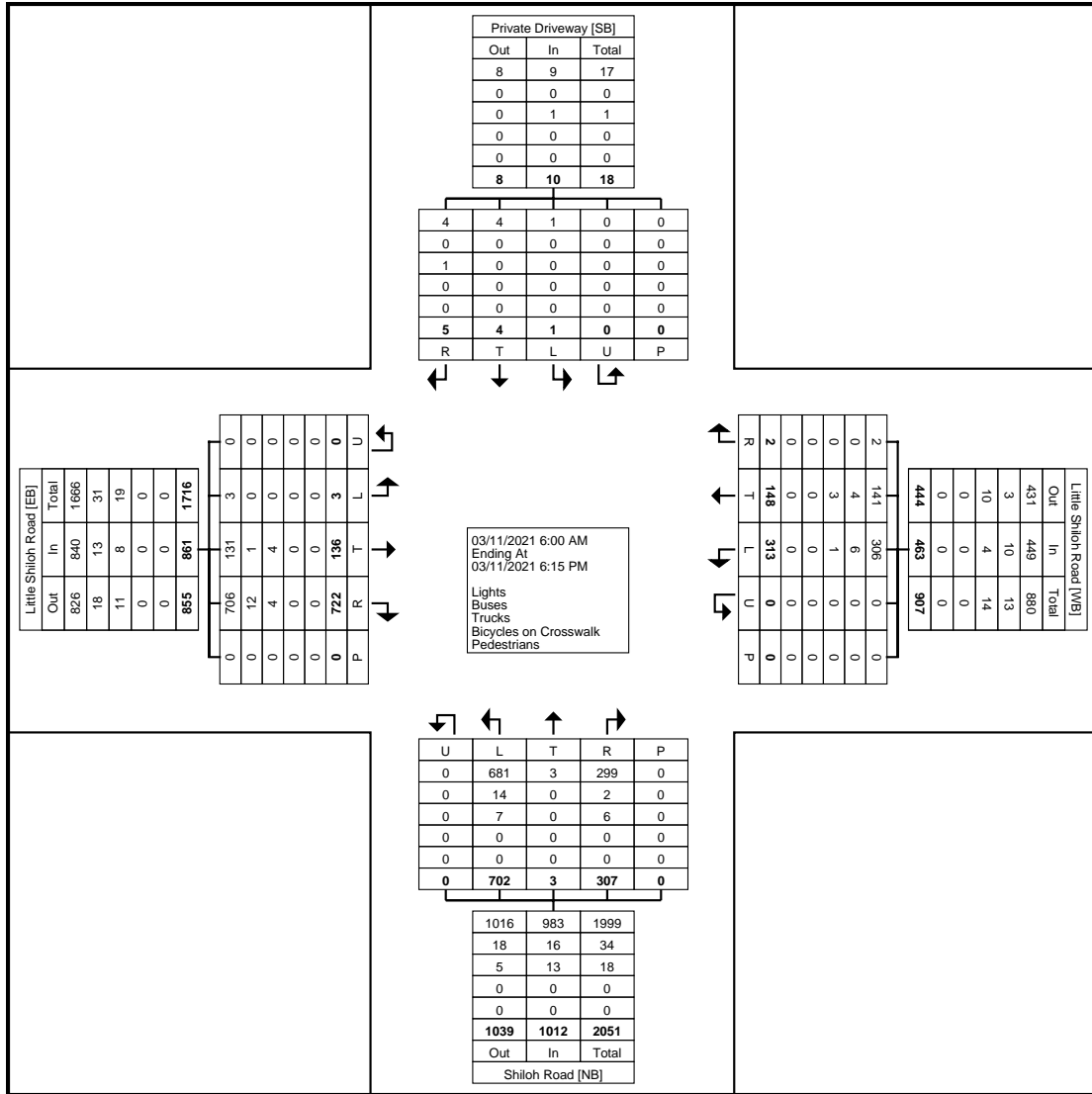
Start Time	Oakbourne Rd Eastbound					Shiloh Road Northbound					Shiloh Road Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	
4:45 PM	2	22	0	0	24	20	43	0	0	63	47	9	0	0	56	143
5:00 PM	5	18	0	0	23	23	46	0	0	69	68	3	0	1	71	163
5:15 PM	2	15	0	0	17	11	42	0	0	53	46	6	0	0	52	122
5:30 PM	4	13	0	0	17	15	51	0	0	66	40	4	0	0	44	127
<b>Total</b>	<b>13</b>	<b>68</b>	<b>0</b>	<b>0</b>	<b>81</b>	<b>69</b>	<b>182</b>	<b>0</b>	<b>0</b>	<b>251</b>	<b>201</b>	<b>22</b>	<b>0</b>	<b>1</b>	<b>223</b>	<b>555</b>
Approach %	16.0	84.0	0.0	-	-	27.5	72.5	0.0	-	-	90.1	9.9	0.0	-	-	-
Total %	2.3	12.3	0.0	-	14.6	12.4	32.8	0.0	-	45.2	36.2	4.0	0.0	-	40.2	-
PHF	0.650	0.773	0.000	-	0.844	0.750	0.892	0.000	-	0.909	0.739	0.611	0.000	-	0.785	0.851
Lights	13	68	0	-	81	69	182	0	-	251	201	21	0	-	222	554
% Lights	100.0	100.0	-	-	100.0	100.0	100.0	-	-	100.0	100.0	95.5	-	-	99.6	99.8
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Trucks	0	0	0	-	0	0	0	0	-	0	0	1	0	-	1	1
% Trucks	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	4.5	-	-	0.4	0.2
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Chester County, PA  
Shiloh Rd & Oakbourne Rd  
Thursday, March 11, 2021  
Location: 39.94812, -75.55575



Turning Movement Peak Hour Data Plot (4:45 PM)





Turning Movement Data Plot





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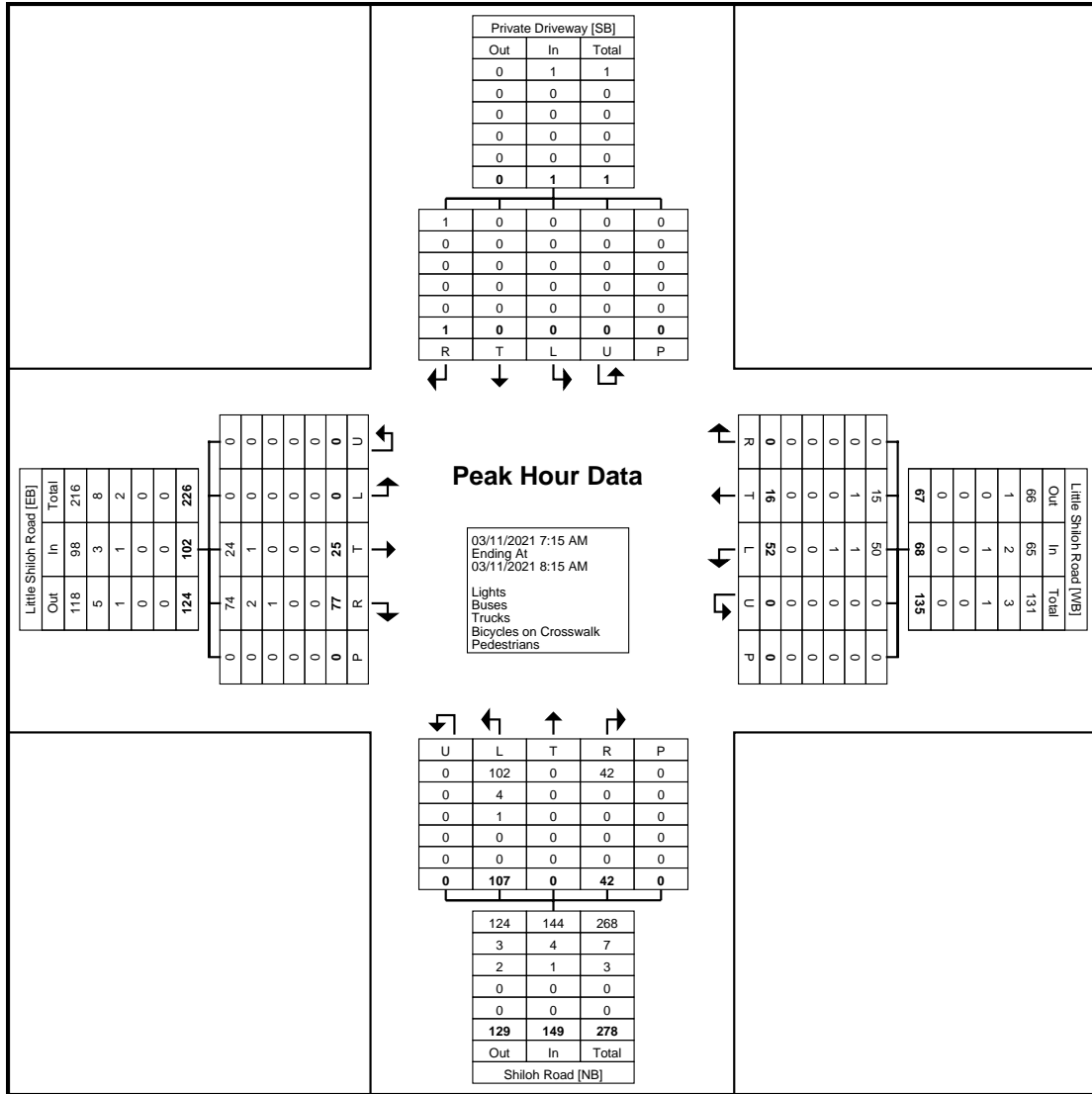
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Chester County, PA  
Shiloh Rd & Little Shiloh Rd  
Thursday, March 11, 2021  
Location: 39.952875, -  
75.559402

Count Name: Shiloh Rd & Little  
Shiloh Rd  
Site Code:  
Start Date: 03/11/2021  
Page No: 3

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

Start Time	Little Shiloh Road Eastbound						Little Shiloh Road Westbound						Shiloh Road Northbound						Private Driveway Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:15 AM	0	6	28	0	0	34	18	2	0	0	0	20	30	0	9	0	0	39	0	0	1	0	0	1	94
7:30 AM	0	6	16	0	0	22	11	5	0	0	0	16	30	0	11	0	0	41	0	0	0	0	0	0	79
7:45 AM	0	5	16	0	0	21	13	1	0	0	0	14	24	0	10	0	0	34	0	0	0	0	0	0	69
8:00 AM	0	8	17	0	0	25	10	8	0	0	0	18	23	0	12	0	0	35	0	0	0	0	0	0	78
Total	0	25	77	0	0	102	52	16	0	0	0	68	107	0	42	0	0	149	0	0	1	0	0	1	320
Approach %	0.0	24.5	75.5	0.0	-	-	76.5	23.5	0.0	0.0	-	-	71.8	0.0	28.2	0.0	-	-	0.0	0.0	100.0	0.0	-	-	-
Total %	0.0	7.8	24.1	0.0	-	31.9	16.3	5.0	0.0	0.0	-	21.3	33.4	0.0	13.1	0.0	-	46.6	0.0	0.0	0.3	0.0	-	0.3	-
PHF	0.000	0.781	0.688	0.000	-	0.750	0.722	0.500	0.000	0.000	-	0.850	0.892	0.000	0.875	0.000	-	0.909	0.000	0.000	0.250	0.000	-	0.250	0.851
Lights	0	24	74	0	-	98	50	15	0	0	-	65	102	0	42	0	-	144	0	0	1	0	-	1	308
% Lights	-	96.0	96.1	-	-	96.1	96.2	93.8	-	-	-	95.6	95.3	-	100.0	-	-	96.6	-	-	100.0	-	-	100.0	96.3
Buses	0	1	2	0	-	3	1	1	0	0	-	2	4	0	0	0	-	4	0	0	0	0	-	0	9
% Buses	-	4.0	2.6	-	-	2.9	1.9	6.3	-	-	-	2.9	3.7	-	0.0	-	-	2.7	-	-	0.0	-	-	0.0	2.8
Trucks	0	0	1	0	-	1	1	0	0	0	-	1	1	0	0	0	-	1	0	0	0	0	-	0	3
% Trucks	-	0.0	1.3	-	-	1.0	1.9	0.0	-	-	-	1.5	0.9	-	0.0	-	-	0.7	-	-	0.0	-	-	0.0	0.9
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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



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184 Baker Rd

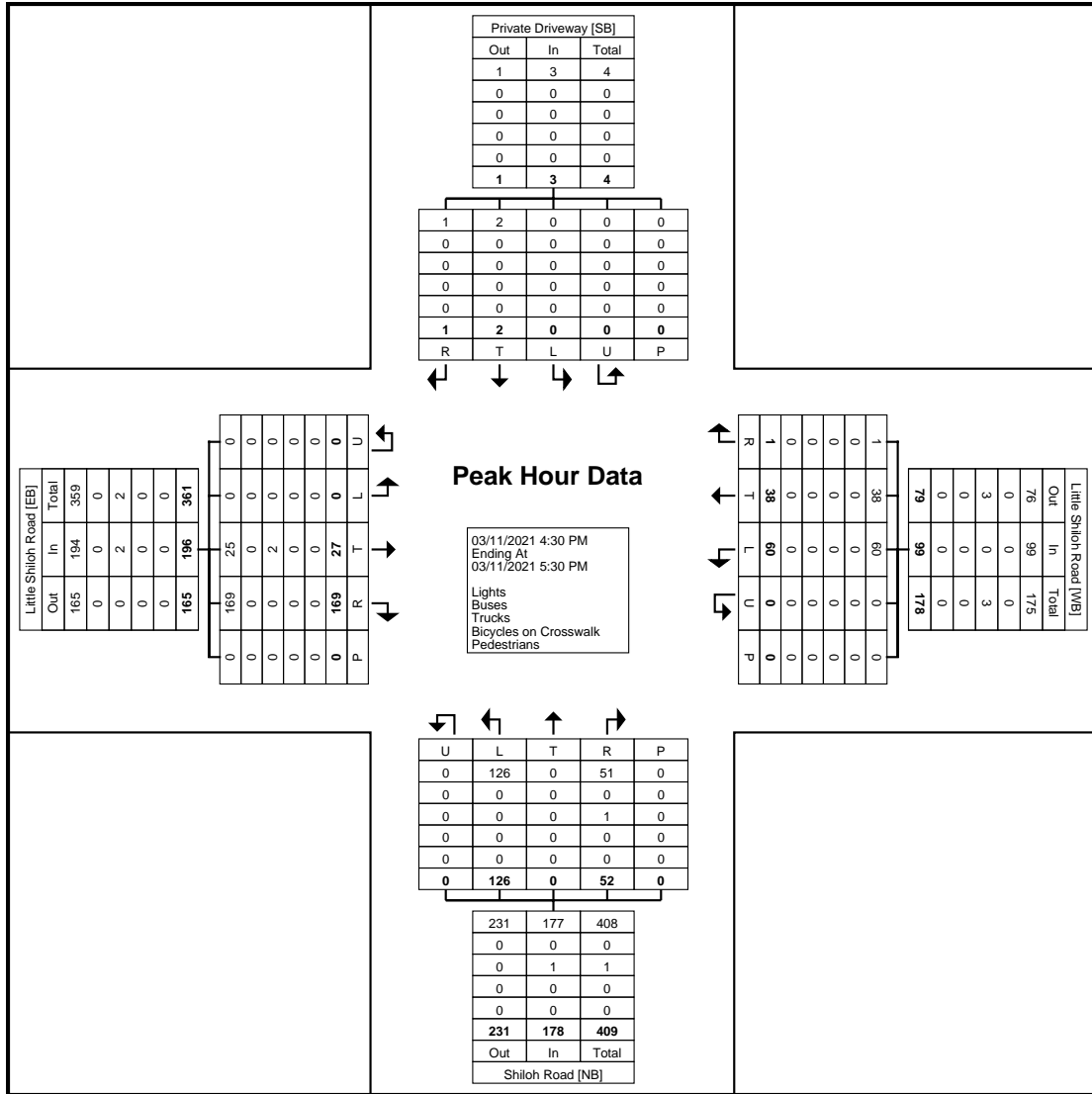
Coatesville, Pennsylvania, United States 19320  
610-466-1469  
Serving Transportation Professionals Since 1995

Chester County, PA  
Shiloh Rd & Little Shiloh Rd  
Thursday, March 11, 2021  
Location: 39.952875, -  
75.559402

Count Name: Shiloh Rd & Little  
Shiloh Rd  
Site Code:  
Start Date: 03/11/2021  
Page No: 5

### Turning Movement Peak Hour Data (4:30 PM)

Start Time	Little Shiloh Road Eastbound						Little Shiloh Road Westbound						Shiloh Road Northbound						Private Driveway Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
4:30 PM	0	9	37	0	0	46	12	11	1	0	0	24	37	0	12	0	0	49	0	1	0	0	0	1	120
4:45 PM	0	5	44	0	0	49	17	7	0	0	0	24	35	0	7	0	0	42	0	0	0	0	0	0	115
5:00 PM	0	6	47	0	0	53	18	10	0	0	0	28	31	0	19	0	0	50	0	0	1	0	0	1	132
5:15 PM	0	7	41	0	0	48	13	10	0	0	0	23	23	0	14	0	0	37	0	1	0	0	0	1	109
Total	0	27	169	0	0	196	60	38	1	0	0	99	126	0	52	0	0	178	0	2	1	0	0	3	476
Approach %	0.0	13.8	86.2	0.0	-	-	60.6	38.4	1.0	0.0	-	-	70.8	0.0	29.2	0.0	-	-	0.0	66.7	33.3	0.0	-	-	-
Total %	0.0	5.7	35.5	0.0	-	41.2	12.6	8.0	0.2	0.0	-	20.8	26.5	0.0	10.9	0.0	-	37.4	0.0	0.4	0.2	0.0	-	0.6	-
PHF	0.000	0.750	0.899	0.000	-	0.925	0.833	0.864	0.250	0.000	-	0.884	0.851	0.000	0.684	0.000	-	0.890	0.000	0.500	0.250	0.000	-	0.750	0.902
Lights	0	25	169	0	-	194	60	38	1	0	-	99	126	0	51	0	-	177	0	2	1	0	-	3	473
% Lights	-	92.6	100.0	-	-	99.0	100.0	100.0	100.0	-	-	100.0	100.0	-	98.1	-	-	99.4	-	100.0	100.0	-	-	100.0	99.4
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	-	0.0	0.0	-	-	0.0	0.0
Trucks	0	2	0	0	-	2	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	3
% Trucks	-	7.4	0.0	-	-	1.0	0.0	0.0	0.0	-	-	0.0	0.0	-	1.9	-	-	0.6	-	0.0	0.0	-	-	0.0	0.6
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Turning Movement Peak Hour Data Plot (4:30 PM)



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184 Baker Rd

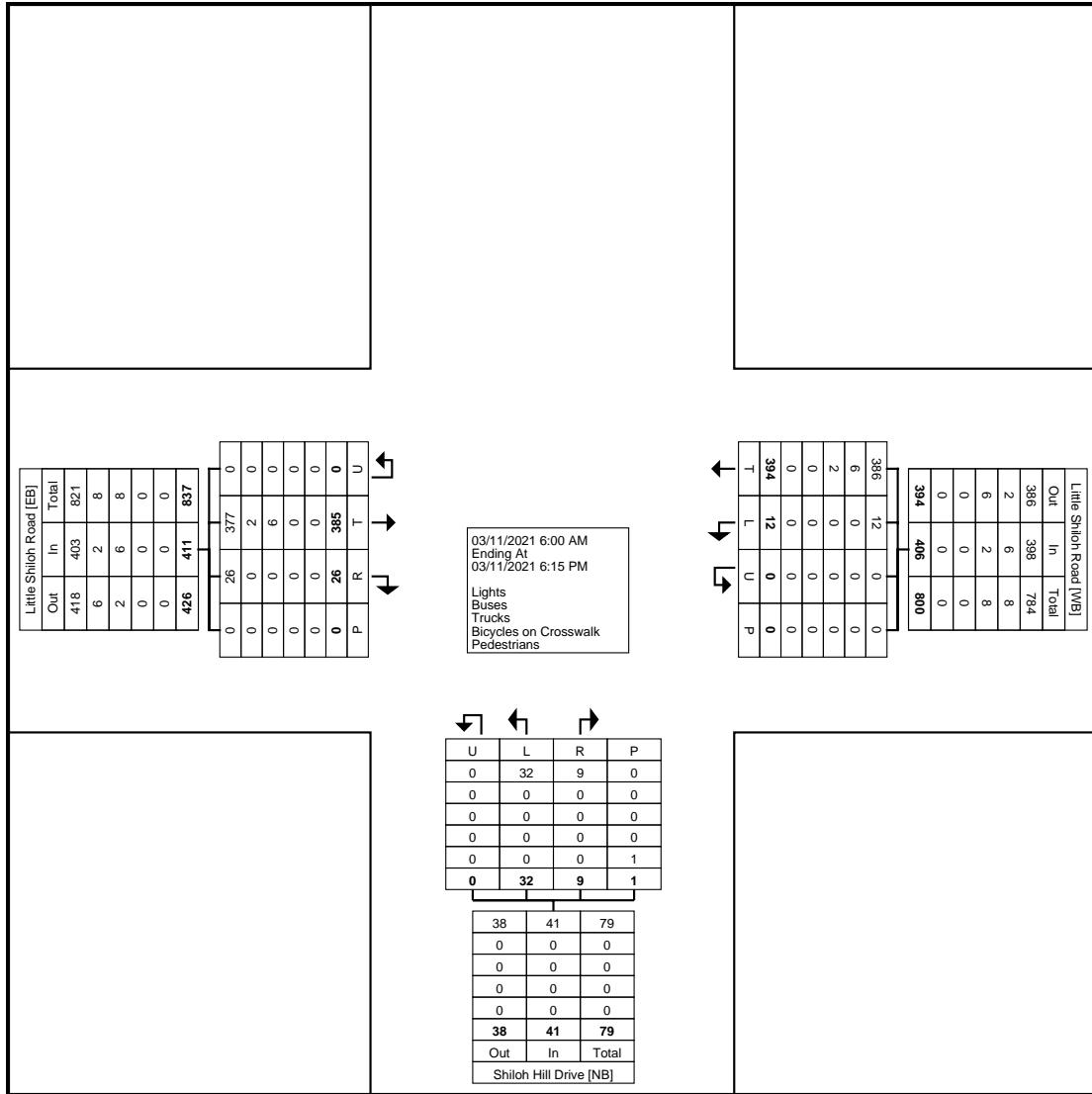
Coatesville, Pennsylvania, United States 19320  
610-466-1469  
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Chester County, PA  
Little Shiloh Rd & Shiloh Hill Dr  
Thursday, March 11, 2021  
Location: 39.954384, -  
75.556061

Count Name: Little Shiloh Rd &  
Shiloh Hill Drive  
Site Code:  
Start Date: 03/11/2021  
Page No: 1

### Turning Movement Data

Start Time	Little Shiloh Road Eastbound					Little Shiloh Road Westbound					Shiloh Hill Drive Northbound					Int. Total
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
6:00 AM	2	0	0	0	2	1	1	0	0	2	0	0	0	0	0	4
6:15 AM	8	0	0	0	8	0	3	0	0	3	2	0	0	0	2	13
6:30 AM	3	0	0	0	3	0	3	0	0	3	0	0	0	0	0	6
6:45 AM	10	0	0	0	10	0	9	0	0	9	0	1	0	0	1	20
Hourly Total	23	0	0	0	23	1	16	0	0	17	2	1	0	0	3	43
7:00 AM	14	0	0	0	14	1	6	0	0	7	0	0	0	0	0	21
7:15 AM	12	2	0	0	14	0	17	0	0	17	1	0	0	0	1	32
7:30 AM	18	0	0	0	18	0	10	0	0	10	2	1	0	0	3	31
7:45 AM	15	1	0	0	16	0	10	0	0	10	2	0	0	0	2	28
Hourly Total	59	3	0	0	62	1	43	0	0	44	5	1	0	0	6	112
8:00 AM	19	0	0	0	19	1	16	0	0	17	1	0	0	1	1	37
8:15 AM	19	0	0	0	19	0	10	0	0	10	1	0	0	0	1	30
8:30 AM	17	0	0	0	17	0	9	0	0	9	0	0	0	0	0	26
8:45 AM	10	1	0	0	11	0	12	0	0	12	1	1	0	0	2	25
Hourly Total	65	1	0	0	66	1	47	0	0	48	3	1	0	1	4	118
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	18	1	0	0	19	1	6	0	0	7	1	0	0	0	1	27
2:15 PM	12	1	0	0	13	0	18	0	0	18	1	0	0	0	1	32
2:30 PM	13	2	0	0	15	0	15	0	0	15	0	2	0	0	2	32
2:45 PM	22	1	0	0	23	0	20	0	0	20	2	0	0	0	2	45
Hourly Total	65	5	0	0	70	1	59	0	0	60	4	2	0	0	6	136
3:00 PM	11	0	0	0	11	1	16	0	0	17	0	0	0	0	0	28
3:15 PM	10	0	0	0	10	1	27	0	0	28	1	1	0	0	2	40
3:30 PM	9	2	0	0	11	1	14	0	0	15	2	0	0	0	2	28
3:45 PM	11	1	0	0	12	1	15	0	0	16	1	0	0	0	1	29
Hourly Total	41	3	0	0	44	4	72	0	0	76	4	1	0	0	5	125
4:00 PM	15	3	0	0	18	0	16	0	0	16	1	0	0	0	1	35
4:15 PM	13	3	0	0	16	0	11	0	0	11	4	0	0	0	4	31
4:30 PM	16	2	0	0	18	0	20	0	0	20	3	1	0	0	4	42
4:45 PM	13	3	0	0	16	1	21	0	0	22	3	0	0	0	3	41
Hourly Total	57	11	0	0	68	1	68	0	0	69	11	1	0	0	12	149
5:00 PM	19	1	0	0	20	1	26	0	0	27	2	2	0	0	4	51
5:15 PM	20	2	0	0	22	1	23	0	0	24	0	0	0	0	0	46
5:30 PM	21	0	0	0	21	1	17	0	0	18	0	0	0	0	0	39
5:45 PM	15	0	0	0	15	0	23	0	0	23	1	0	0	0	1	39
Hourly Total	75	3	0	0	78	3	89	0	0	92	3	2	0	0	5	175
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	385	26	0	0	411	12	394	0	0	406	32	9	0	1	41	858
Approach %	93.7	6.3	0.0	-	-	3.0	97.0	0.0	-	-	78.0	22.0	0.0	-	-	-
Total %	44.9	3.0	0.0	-	47.9	1.4	45.9	0.0	-	47.3	3.7	1.0	0.0	-	4.8	-
Lights	377	26	0	-	403	12	386	0	-	398	32	9	0	-	41	842
% Lights	97.9	100.0	-	-	98.1	100.0	98.0	-	-	98.0	100.0	100.0	-	-	100.0	98.1
Buses	2	0	0	-	2	0	6	0	-	6	0	0	0	-	0	8
% Buses	0.5	0.0	-	-	0.5	0.0	1.5	-	-	1.5	0.0	0.0	-	-	0.0	0.9
Trucks	6	0	0	-	6	0	2	0	-	2	0	0	0	-	0	8
% Trucks	1.6	0.0	-	-	1.5	0.0	0.5	-	-	0.5	0.0	0.0	-	-	0.0	0.9
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



Turning Movement Data Plot



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184 Baker Rd

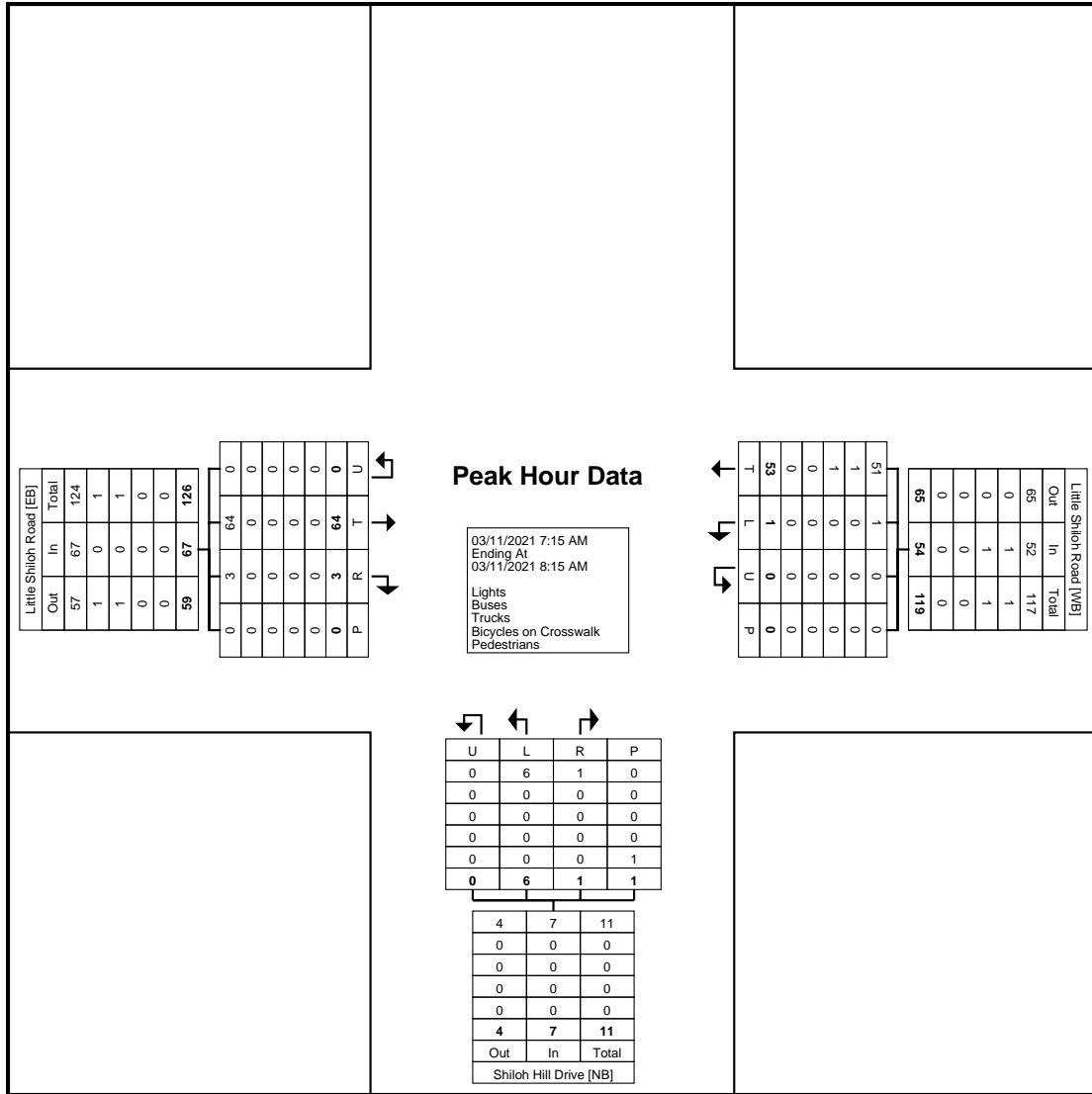
Coatesville, Pennsylvania, United States 19320  
610-466-1469  
Serving Transportation Professionals Since 1995

Chester County, PA  
Little Shiloh Rd & Shiloh Hill Dr  
Thursday, March 11, 2021  
Location: 39.954384, -  
75.556061

Count Name: Little Shiloh Rd &  
Shiloh Hill Drive  
Site Code:  
Start Date: 03/11/2021  
Page No: 3

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

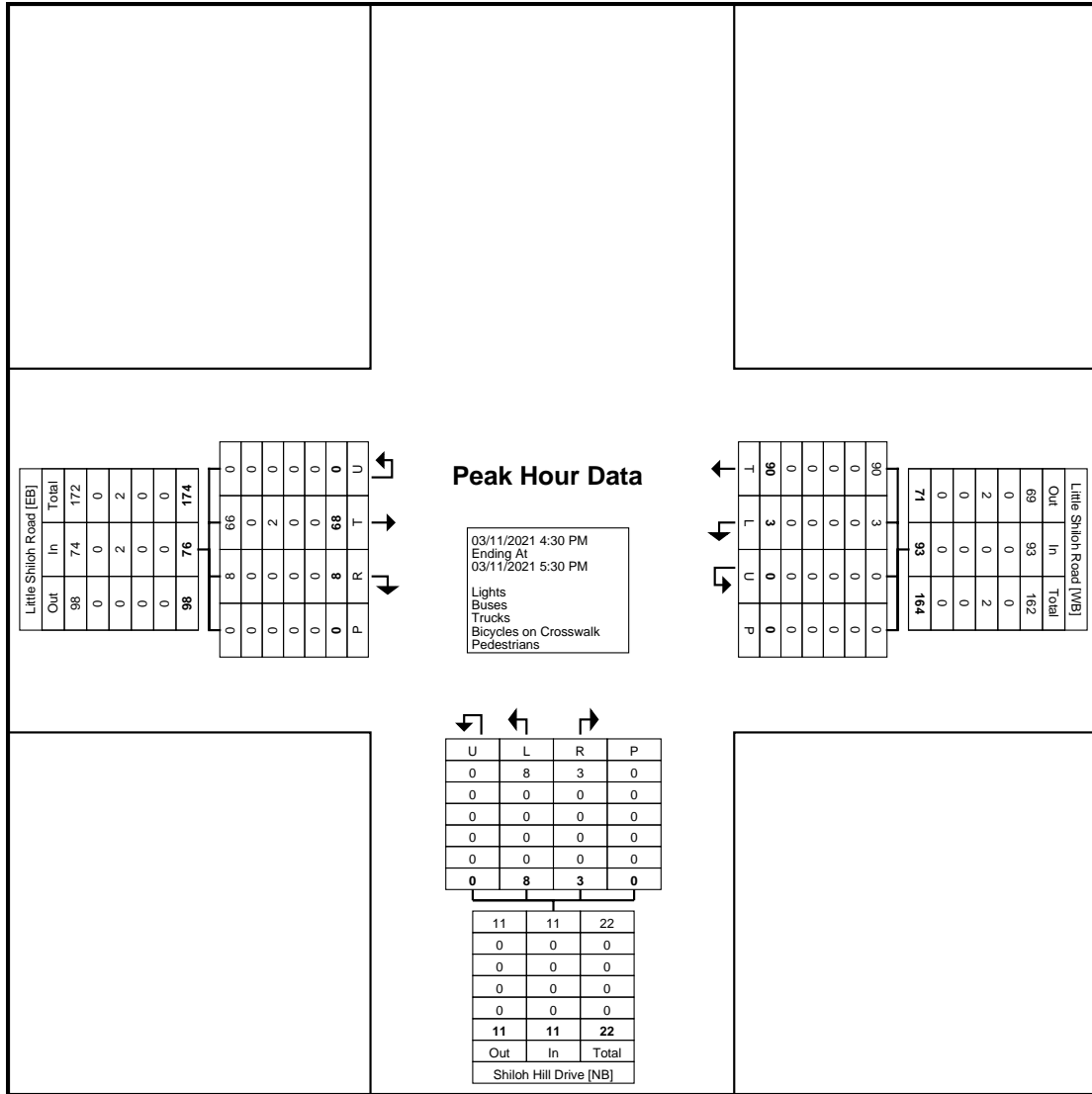
Start Time	Little Shiloh Road Eastbound					Little Shiloh Road Westbound					Shiloh Hill Drive Northbound					Int. Total
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
7:15 AM	12	2	0	0	14	0	17	0	0	17	1	0	0	0	1	32
7:30 AM	18	0	0	0	18	0	10	0	0	10	2	1	0	0	3	31
7:45 AM	15	1	0	0	16	0	10	0	0	10	2	0	0	0	2	28
8:00 AM	19	0	0	0	19	1	16	0	0	17	1	0	0	1	1	37
<b>Total</b>	<b>64</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>67</b>	<b>1</b>	<b>53</b>	<b>0</b>	<b>0</b>	<b>54</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>128</b>
Approach %	95.5	4.5	0.0	-	-	1.9	98.1	0.0	-	-	85.7	14.3	0.0	-	-	-
Total %	50.0	2.3	0.0	-	52.3	0.8	41.4	0.0	-	42.2	4.7	0.8	0.0	-	5.5	-
PHF	0.842	0.375	0.000	-	0.882	0.250	0.779	0.000	-	0.794	0.750	0.250	0.000	-	0.583	0.865
Lights	64	3	0	-	67	1	51	0	-	52	6	1	0	-	7	126
% Lights	100.0	100.0	-	-	100.0	100.0	96.2	-	-	96.3	100.0	100.0	-	-	100.0	98.4
Buses	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	1
% Buses	0.0	0.0	-	-	0.0	0.0	1.9	-	-	1.9	0.0	0.0	-	-	0.0	0.8
Trucks	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	1
% Trucks	0.0	0.0	-	-	0.0	0.0	1.9	-	-	1.9	0.0	0.0	-	-	0.0	0.8
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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

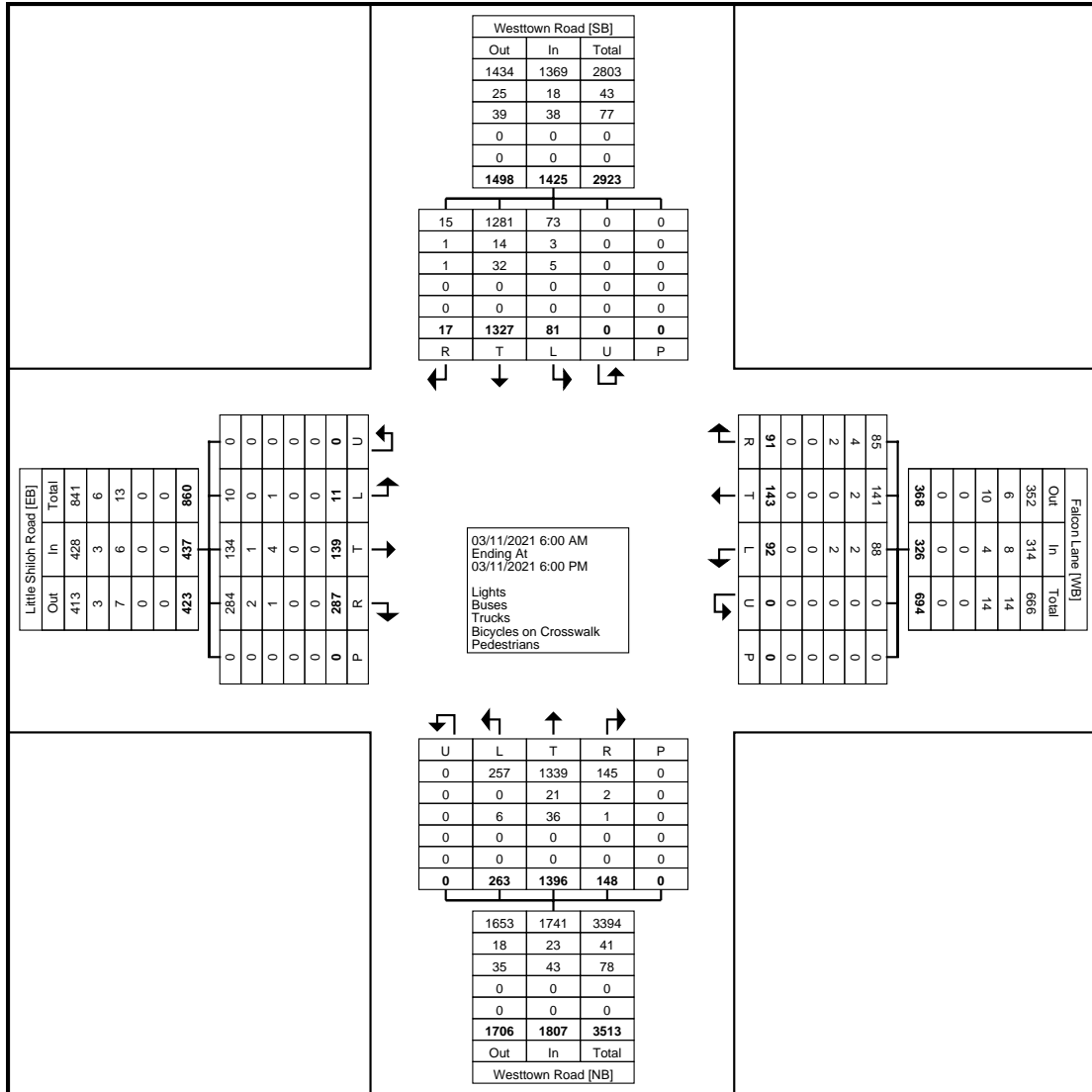






Turning Movement Peak Hour Data Plot (4:30 PM)





Turning Movement Data Plot



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184 Baker Rd

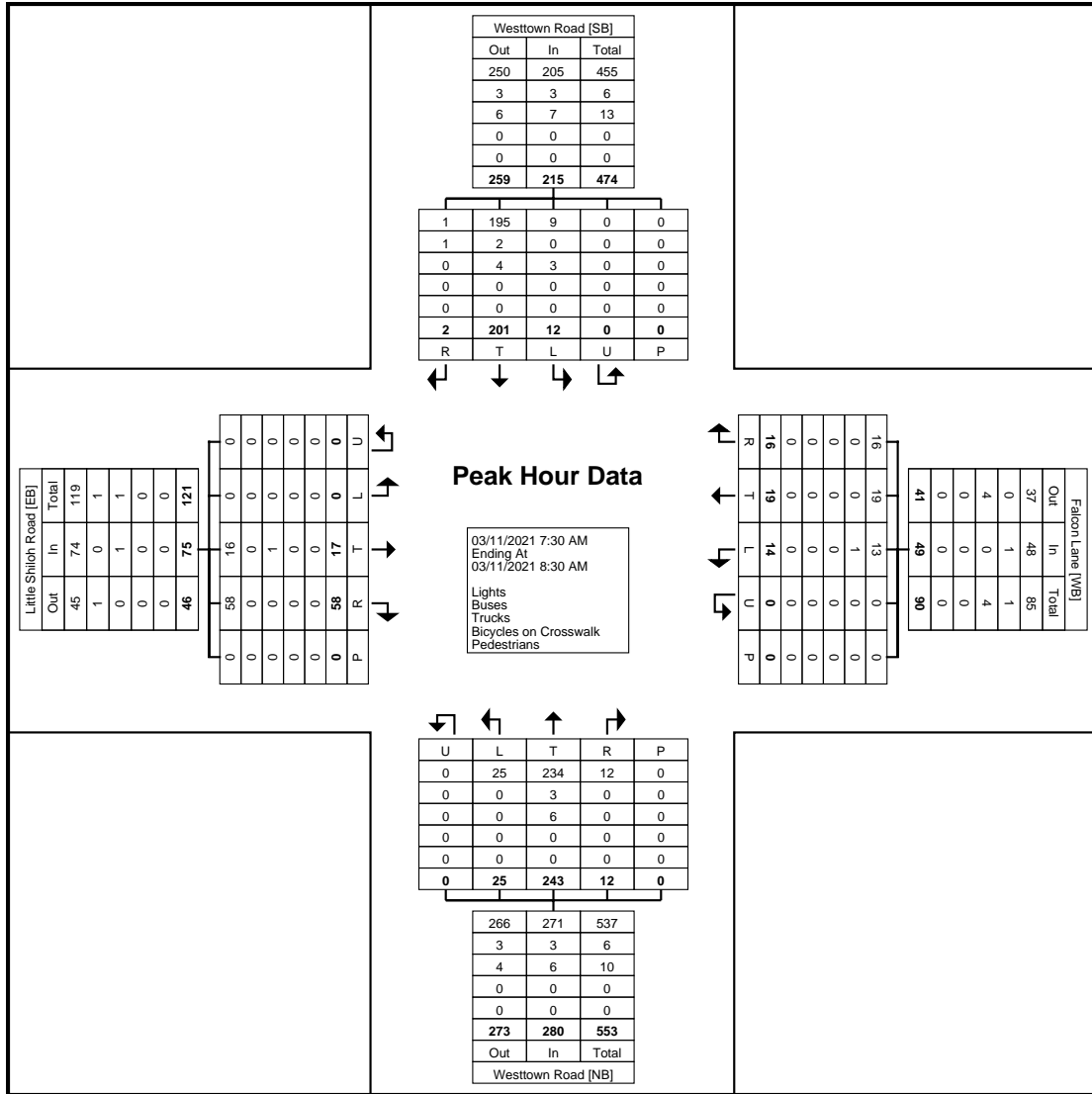
Coatesville, Pennsylvania, United States 19320  
610-466-1469  
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Chester County, PA  
Westtown Rd & Little Shiloh  
Rd/Falcon Lane  
Thursday, March 11, 2021  
Location: 39.95684, -75.552712

Count Name: Westtown Rd &  
Little Shiloh Rd-Falcon Lane  
Site Code:  
Start Date: 03/11/2021  
Page No: 3

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

Start Time	Little Shiloh Road Eastbound						Falcon Lane Westbound						Westtown Road Northbound						Westtown Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:30 AM	0	4	18	0	0	22	3	5	6	0	0	14	4	59	1	0	0	64	6	34	1	0	0	41	141
7:45 AM	0	3	11	0	0	14	4	5	4	0	0	13	5	57	3	0	0	65	2	48	0	0	0	50	142
8:00 AM	0	4	17	0	0	21	6	5	3	0	0	14	11	67	4	0	0	82	1	75	1	0	0	77	194
8:15 AM	0	6	12	0	0	18	1	4	3	0	0	8	5	60	4	0	0	69	3	44	0	0	0	47	142
Total	0	17	58	0	0	75	14	19	16	0	0	49	25	243	12	0	0	280	12	201	2	0	0	215	619
Approach %	0.0	22.7	77.3	0.0	-	-	28.6	38.8	32.7	0.0	-	-	8.9	86.8	4.3	0.0	-	-	5.6	93.5	0.9	0.0	-	-	-
Total %	0.0	2.7	9.4	0.0	-	12.1	2.3	3.1	2.6	0.0	-	7.9	4.0	39.3	1.9	0.0	-	45.2	1.9	32.5	0.3	0.0	-	34.7	-
PHF	0.000	0.708	0.806	0.000	-	0.852	0.583	0.950	0.667	0.000	-	0.875	0.568	0.907	0.750	0.000	-	0.854	0.500	0.670	0.500	0.000	-	0.698	0.798
Lights	0	16	58	0	-	74	13	19	16	0	-	48	25	234	12	0	-	271	9	195	1	0	-	205	598
% Lights	-	94.1	100.0	-	-	98.7	92.9	100.0	100.0	-	-	98.0	100.0	96.3	100.0	-	-	96.8	75.0	97.0	50.0	-	-	95.3	96.6
Buses	0	0	0	0	-	0	1	0	0	0	-	1	0	3	0	0	-	3	0	2	1	0	-	3	7
% Buses	-	0.0	0.0	-	-	0.0	7.1	0.0	0.0	-	-	2.0	0.0	1.2	0.0	-	-	1.1	0.0	1.0	50.0	-	-	1.4	1.1
Trucks	0	1	0	0	-	1	0	0	0	0	-	0	0	6	0	0	-	6	3	4	0	0	-	7	14
% Trucks	-	5.9	0.0	-	-	1.3	0.0	0.0	0.0	-	-	0.0	0.0	2.5	0.0	-	-	2.1	25.0	2.0	0.0	-	-	3.3	2.3
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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



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184 Baker Rd

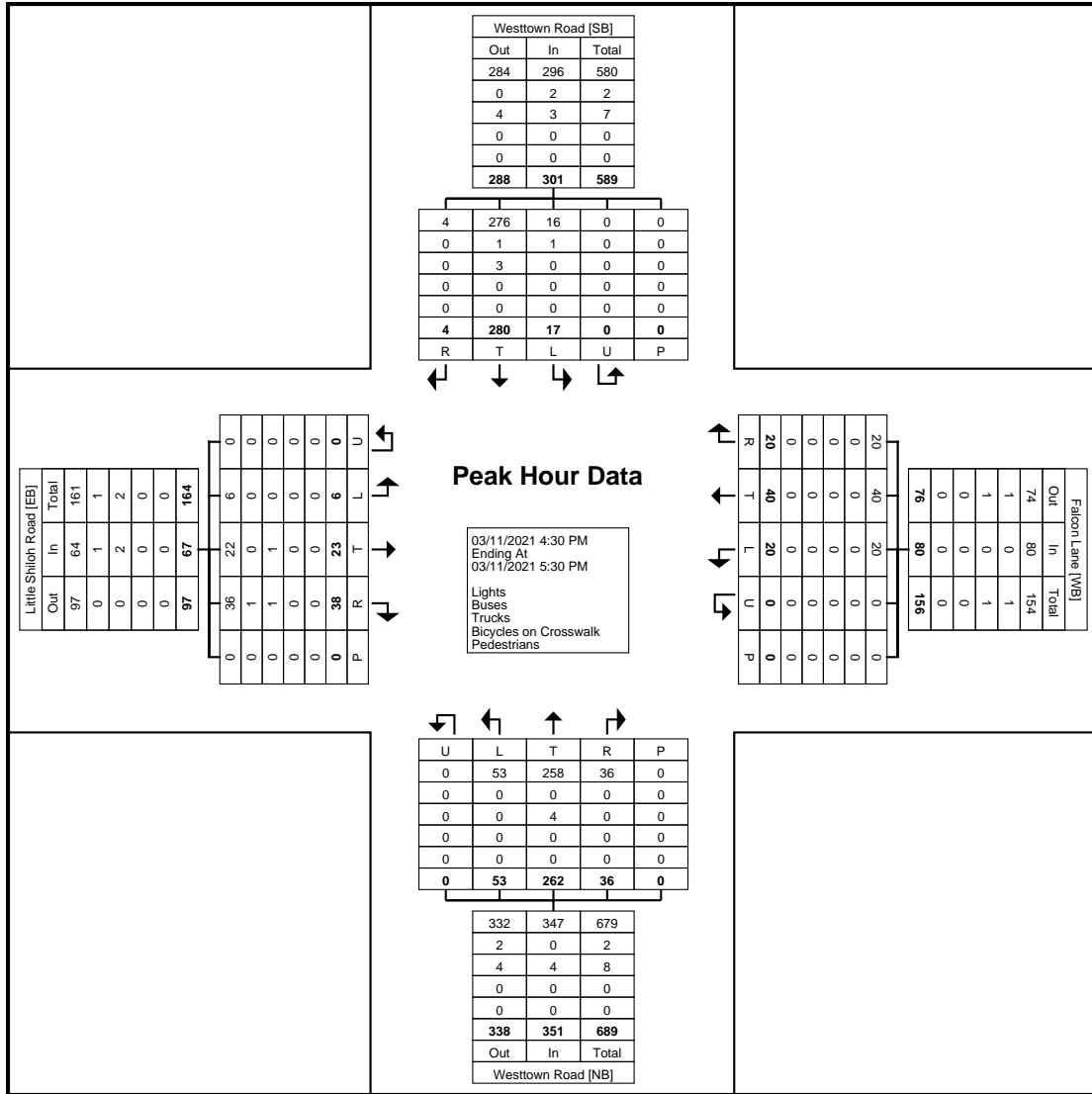
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610-466-1469  
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Chester County, PA  
Westtown Rd & Little Shiloh  
Rd/Falcon Lane  
Thursday, March 11, 2021  
Location: 39.95684, -75.552712

Count Name: Westtown Rd &  
Little Shiloh Rd-Falcon Lane  
Site Code:  
Start Date: 03/11/2021  
Page No: 5

### Turning Movement Peak Hour Data (4:30 PM)

Start Time	Little Shiloh Road Eastbound						Falcon Lane Westbound						Westtown Road Northbound						Westtown Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
4:30 PM	1	7	8	0	0	16	4	10	3	0	0	17	10	46	8	0	0	64	6	76	1	0	0	83	180
4:45 PM	2	2	10	0	0	14	7	12	5	0	0	24	13	73	16	0	0	102	2	60	1	0	0	63	203
5:00 PM	0	9	11	0	0	20	7	10	11	0	0	28	12	76	7	0	0	95	4	75	2	0	0	81	224
5:15 PM	3	5	9	0	0	17	2	8	1	0	0	11	18	67	5	0	0	90	5	69	0	0	0	74	192
Total	6	23	38	0	0	67	20	40	20	0	0	80	53	262	36	0	0	351	17	280	4	0	0	301	799
Approach %	9.0	34.3	56.7	0.0	-	-	25.0	50.0	25.0	0.0	-	-	15.1	74.6	10.3	0.0	-	-	5.6	93.0	1.3	0.0	-	-	-
Total %	0.8	2.9	4.8	0.0	-	8.4	2.5	5.0	2.5	0.0	-	10.0	6.6	32.8	4.5	0.0	-	43.9	2.1	35.0	0.5	0.0	-	37.7	-
PHF	0.500	0.639	0.864	0.000	-	0.838	0.714	0.833	0.455	0.000	-	0.714	0.736	0.862	0.563	0.000	-	0.860	0.708	0.921	0.500	0.000	-	0.907	0.892
Lights	6	22	36	0	-	64	20	40	20	0	-	80	53	258	36	0	-	347	16	276	4	0	-	296	787
% Lights	100.0	95.7	94.7	-	-	95.5	100.0	100.0	100.0	-	-	100.0	100.0	98.5	100.0	-	-	98.9	94.1	98.6	100.0	-	-	98.3	98.5
Buses	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1	1	0	0	-	2	3
% Buses	0.0	0.0	2.6	-	-	1.5	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	5.9	0.4	0.0	-	-	0.7	0.4
Trucks	0	1	1	0	-	2	0	0	0	0	-	0	0	4	0	0	-	4	0	3	0	0	-	3	9
% Trucks	0.0	4.3	2.6	-	-	3.0	0.0	0.0	0.0	-	-	0.0	0.0	1.5	0.0	-	-	1.1	0.0	1.1	0.0	-	-	1.0	1.1
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Turning Movement Peak Hour Data Plot (4:30 PM)



## COVID-19 TRAFFIC COUNT ADJUSTMENTS

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**DATA COLLECTION CALCULATIONS AND METHODOLOGY**  
**for the**  
**STOKES ESTATE RESIDENTIAL DEVELOPMENT**  
**(TRG Project # 278.012.21)**

PennDOT issued strike-off letter (494-20-04) dated April 23, 2020. The letter contained guidance on traffic count adjustments related to the COVID-19 pandemic. In light of the challenges presented for data collection efforts during this time, TRG is proposing using the following traffic counts / methodology for the Stokes Estates Residential Development project located in Westtown Township, Chester County, PA. The methodologies and assumptions are outlined below along with information on the development:

1. The Stokes Estate Residential Development will be comprised of 68 single family homes.
2. Access to the existing road network will be via two access points. The southern access point will connect to Shiloh Road (T-626), directly opposite Hunt Drive (T-546). The northern access point will connect to an existing stub of Shiloh Hill Drive (T-559) and ultimately access Little Shiloh Road (T-367).
3. PennDOT Traffic counts at TMS Site 25054 were conducted on September 18, 2018. The PennDOT count location is located on S.R.0926, between Westbourne Road and Westtown Road.
4. The 2018 counts at TMS Site 25054 were adjusted by a growth factor of 0.48% per year as recommended by PennDOT's Bureau of Planning and Research's Table "Growth Factors for August 2020 to July 2021" to develop 2021 existing condition volumes.
5. Turning movement counts were conducted at the Street Road (S.R.0926) / Westtown Thornton Road intersection on March 11, 2021 from 6:00 to 9:00 AM and from 3:00 to 6:00 PM. This study intersection is located approximately 1,280' east of TMS 25054.
6. The 2018 PennDOT hourly counts adjusted to the year 2021 were then compared to the TMC counts on S.R.0296 conducted on March 11, 2021 to obtain a COVID-19 factor to be applied to the intersection counts. To account for the peak hour time periods for the intersection counts, an average hourly factor was taken from the 7:00 – 9:00 AM count and 4:00 – 6:00 PM count. The peak hour times for the manual counts occurred from 7:15-8:15 AM and from 4:30-5:30 PM.
7. The AM COVID-19 factor was calculated as 1.47 and the PM COVID-19 factor was calculated at 1.16. The multiplicative factors for the AM and PM peak hours were then applied to the 2021 manual counts at all the study intersections to obtain 2021 COVID-19 adjusted volumes to utilize in the Stokes Estate Residential Development TIS.

**Stokes Estate Residential Project  
COVID-19 Traffic Count Adjustment**

**TMS 25054 (S.R.0926) & Street Rd (S.R.0926) / Westtown Thornton Road Intersection**

	<u>2018 TMS</u> <sup>1</sup>	<u>2021 TMS (Factored)</u> <sup>2</sup>	<u>2021 Manual Count</u> <sup>3</sup>	<u>Covid-19 Factor</u> <sup>4</sup>
12:00 AM	22	22		
1:00 AM	14	14		
2:00 AM	6	6		
3:00 AM	8	8		
4:00 AM	26	26		
5:00 AM	122	124		
6:00 AM	411	417	275	1.52
7:00 AM	1154	1170	719	1.63
8:00 AM	934	947	717	1.32
9:00 AM	691	701		
10:00 AM	583	591		
11:00 AM	629	638		
12:00 PM	558	566		
1:00 PM	583	591		
2:00 PM	818	829		
3:00 PM	956	969	824	1.18
4:00 PM	957	970	900	1.08
5:00 PM	1116	1132	911	1.24
6:00 PM	863	875	907	0.96
7:00 PM	535	542		
8:00 PM	388	393		
9:00 PM	257	261		
10:00 PM	133	135		
11:00 PM	77	78		
TOTAL	11,841	12,007		

<sup>1</sup> PennDOT Traffic Counts from TMS Site 25054 were conducted on September 18, 2018, on S.R.0926 approximately 1,280' west of Westtown Thornton Road

<sup>2</sup> PennDOT counts were factored by the annual growth rate of 0.48 compounded over 3 years  
The growth rate is per PennDOT Table "Growth Factors for August 2020 to July 2021"

<sup>3</sup> Manual turning movement counts were conducted March 11, 2021 at the intersection of Westtown Road - Shiloh Road / Street Road (S.R.0926). The intersection is located approximately 1,280' east of TMS 25054.

<sup>4</sup> An hourly COVID-19 factor was calculated between the 2021 PennDOT factored count and the 2021 TMC counts. This factor will be used to adjust the TMC counts for the COVID-19 impact.

Annual Growth Factor: 0.48  
3-Year (Compounded) Factor: 1.014

Peak hour of interest is:

7:15 - 8:15 AM  
4:30 - 5:30 PM

To calculate factor use data from 7:00 - 9:00 AM and 4:00 - 6:00 PM

AM Factor: 1.47 (1,170 + 947) / (719 + 717)  
PM Factor: 1.16 (970 + 1132) / (900 + 911)

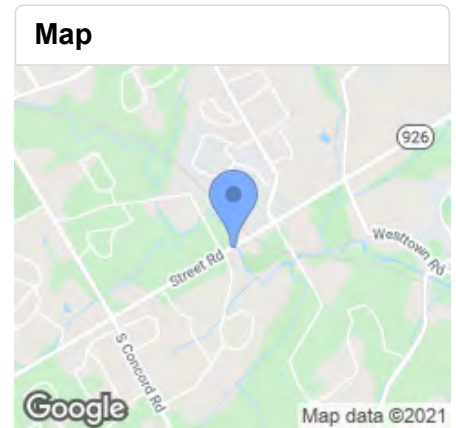


# TMS Site 25054: Traffic Monitoring Report

**Location Description:** Btwn Westbourne Rd & Westtown Rd.

Details	
Type of Count	MACHINE CLASS
Type of Site	Portable
Schedule	1 TIME/YR
Duration	24 HRS
Frequency Cycle	03
Cycle Year	01

Location	
County	CHESTER (15)
Route	0926
Segment	0440
Offset	0265
Latitude	39.93138
Longitude	-75.55124



## Traffic Data September 18, 2018

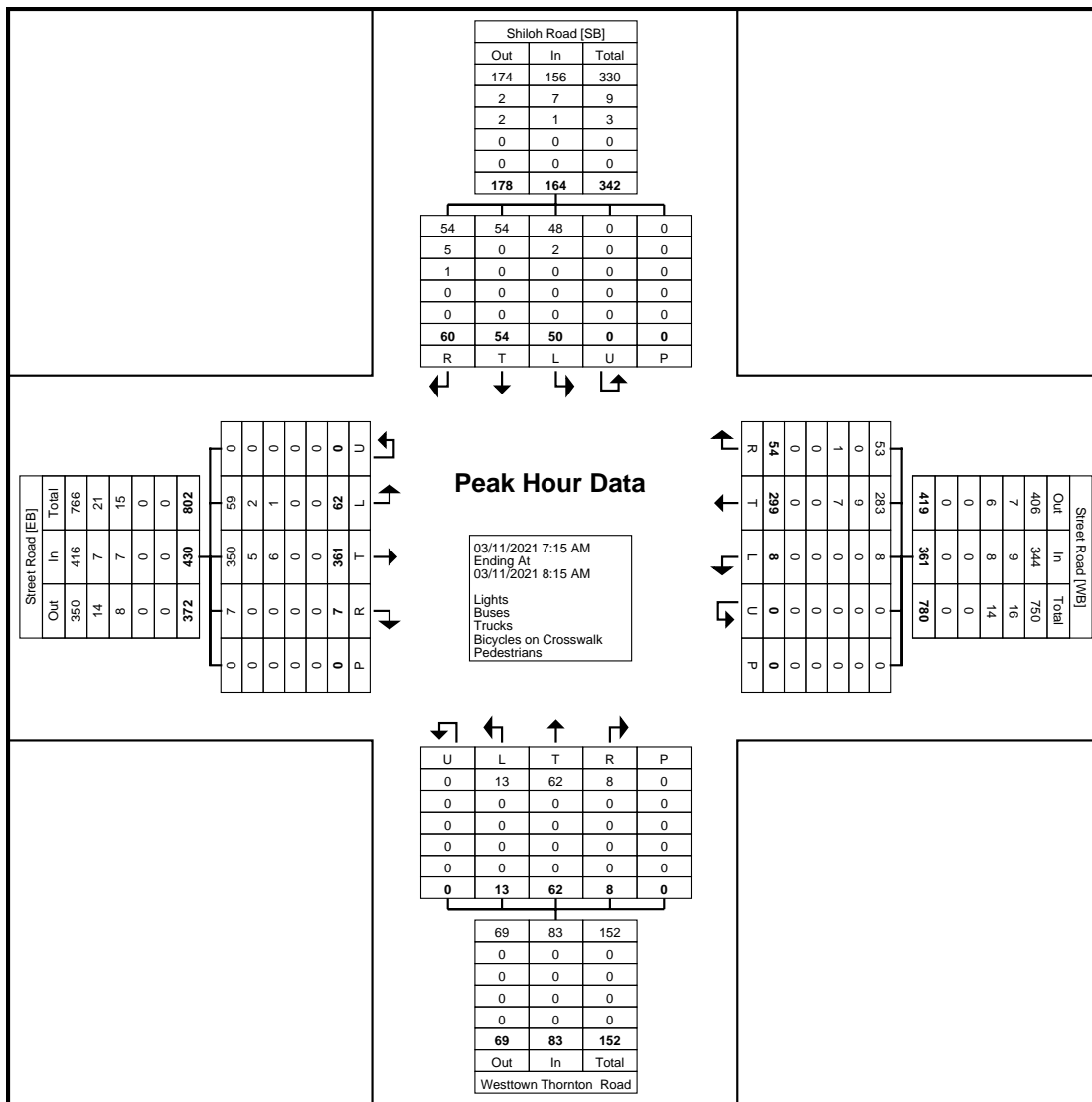
Hour	Volume	Volume Graph
12:00 AM	22	
01:00 AM	14	
02:00 AM	6	
03:00 AM	8	
04:00 AM	26	
05:00 AM	122	
06:00 AM	411	
07:00 AM	1,154	
08:00 AM	934	
09:00 AM	691	
10:00 AM	583	
11:00 AM	629	
12:00 PM	558	
01:00 PM	583	
02:00 PM	818	
03:00 PM	956	
04:00 PM	957	
05:00 PM	1,116	
06:00 PM	863	
07:00 PM	535	
08:00 PM	388	
09:00 PM	257	
10:00 PM	133	
11:00 PM	77	

11,841





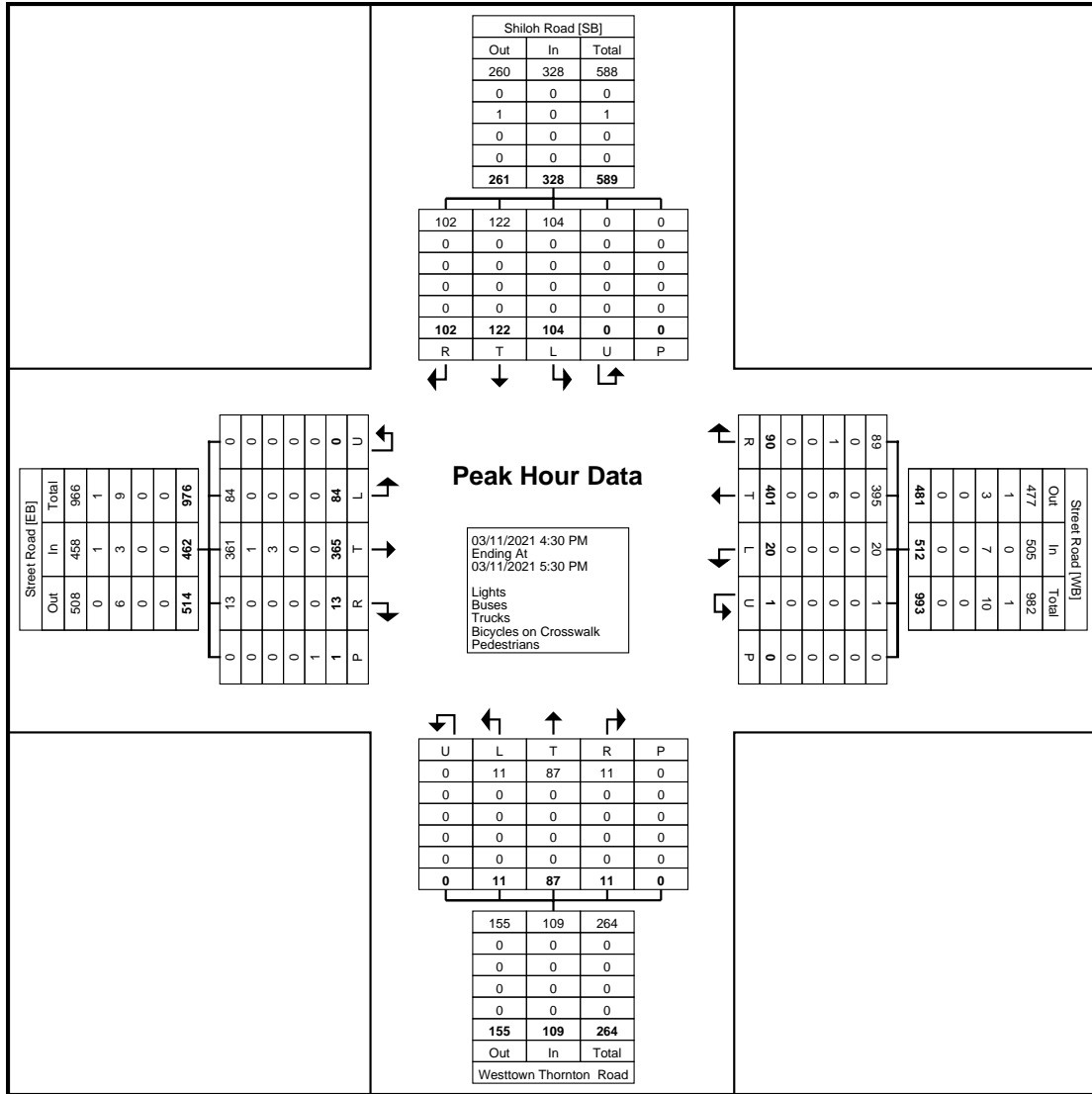




Turning Movement Peak Hour Data Plot (7:15 AM)







Turning Movement Peak Hour Data Plot (4:30 PM)

## TRIP GENERATION WORKSHEETS

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# Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units  
On a: Weekday

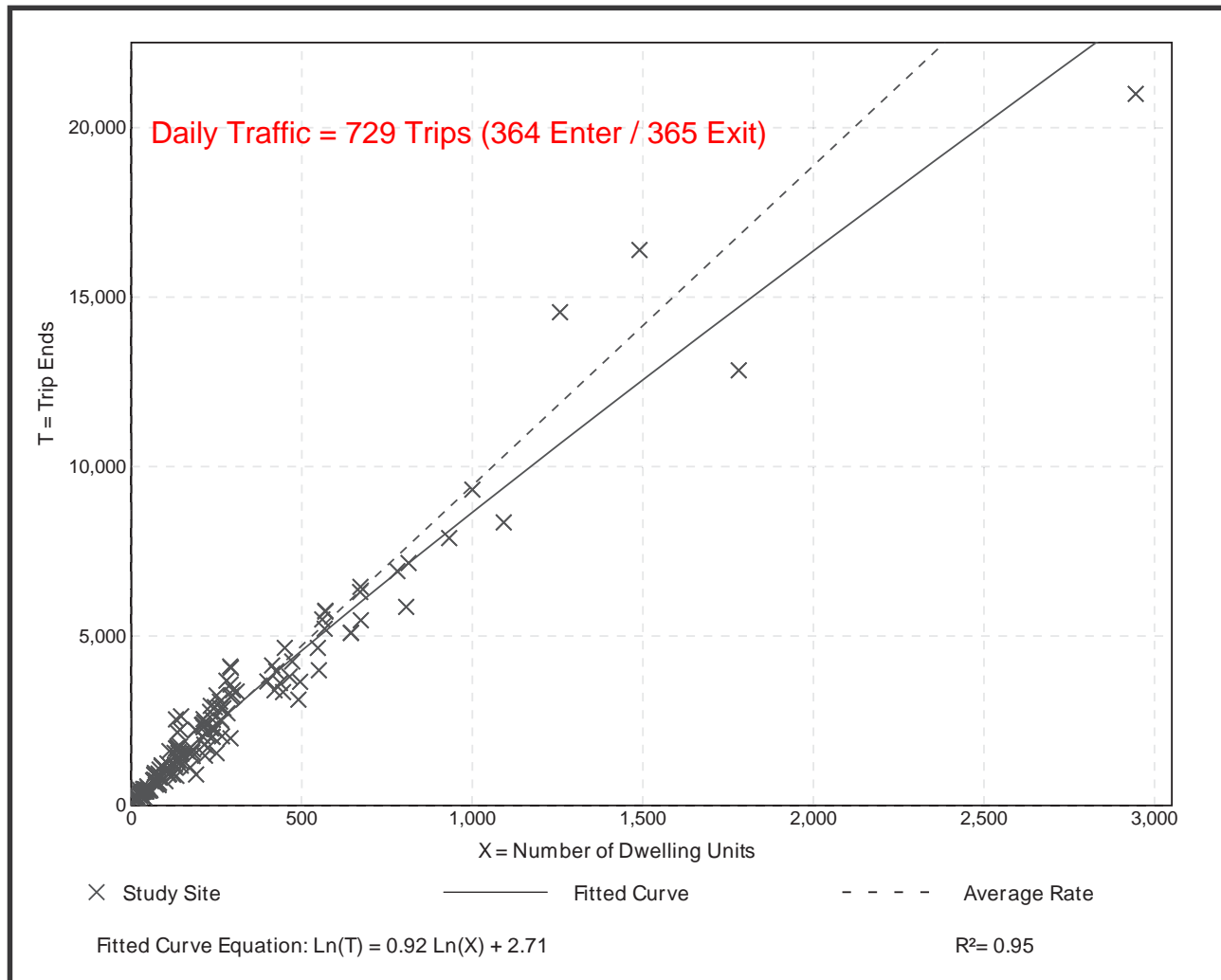
Setting/Location: General Urban/Suburban  
Number of Studies: 159  
Avg. Num. of Dwelling Units: 264  
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.44	4.81 - 19.39	2.10

## Data Plot and Equation

68 Units



# Single-Family Detached Housing (210)

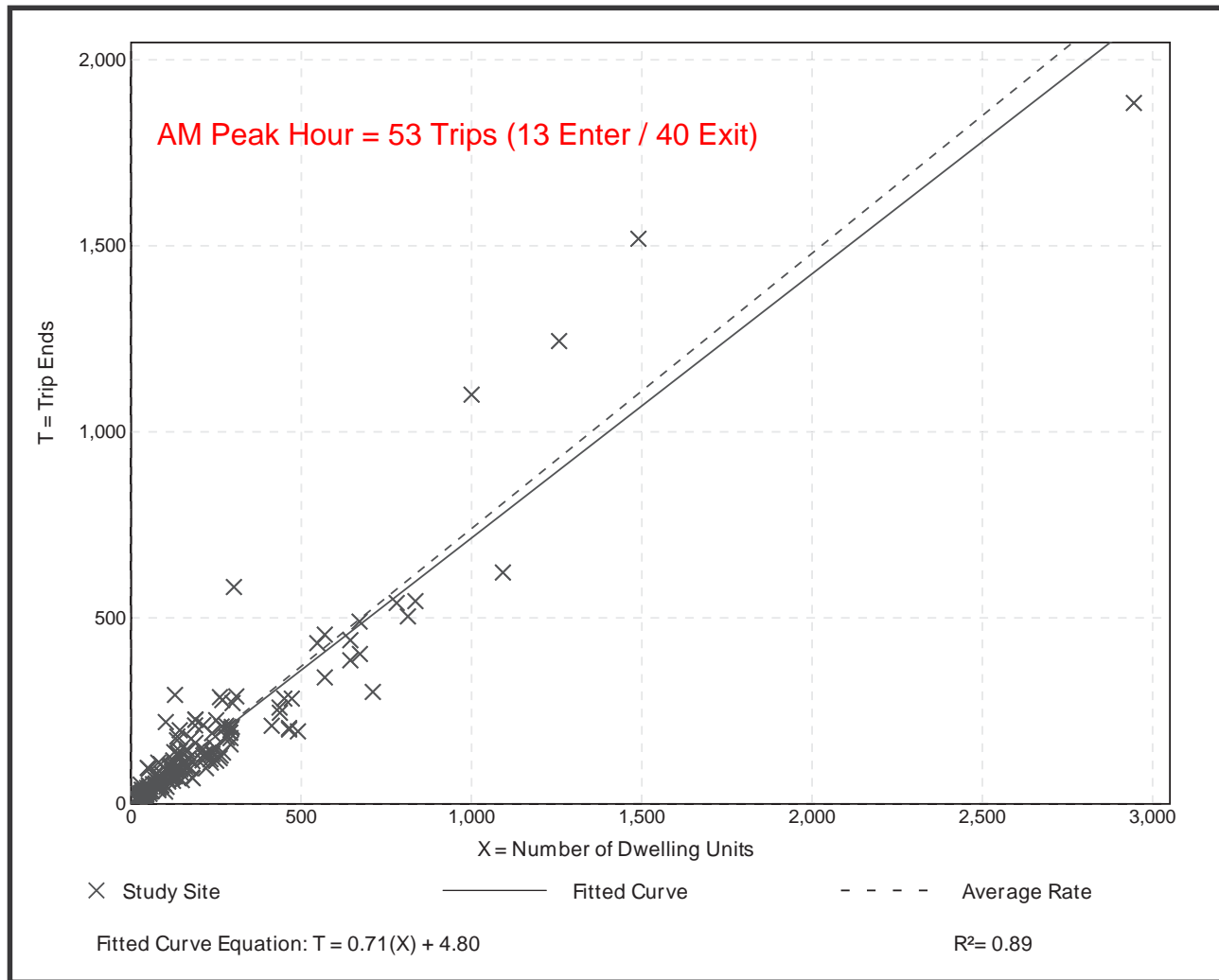
Vehicle Trip Ends vs: Dwelling Units  
 On a: Weekday,  
 Peak Hour of Adjacent Street Traffic,  
 One Hour Between 7 and 9 a.m.  
 Setting/Location: General Urban/Suburban  
 Number of Studies: 173  
 Avg. Num. of Dwelling Units: 219  
 Directional Distribution: 25% entering, 75% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.74	0.33 - 2.27	0.27

## Data Plot and Equation

68 Units



# Single-Family Detached Housing (210)

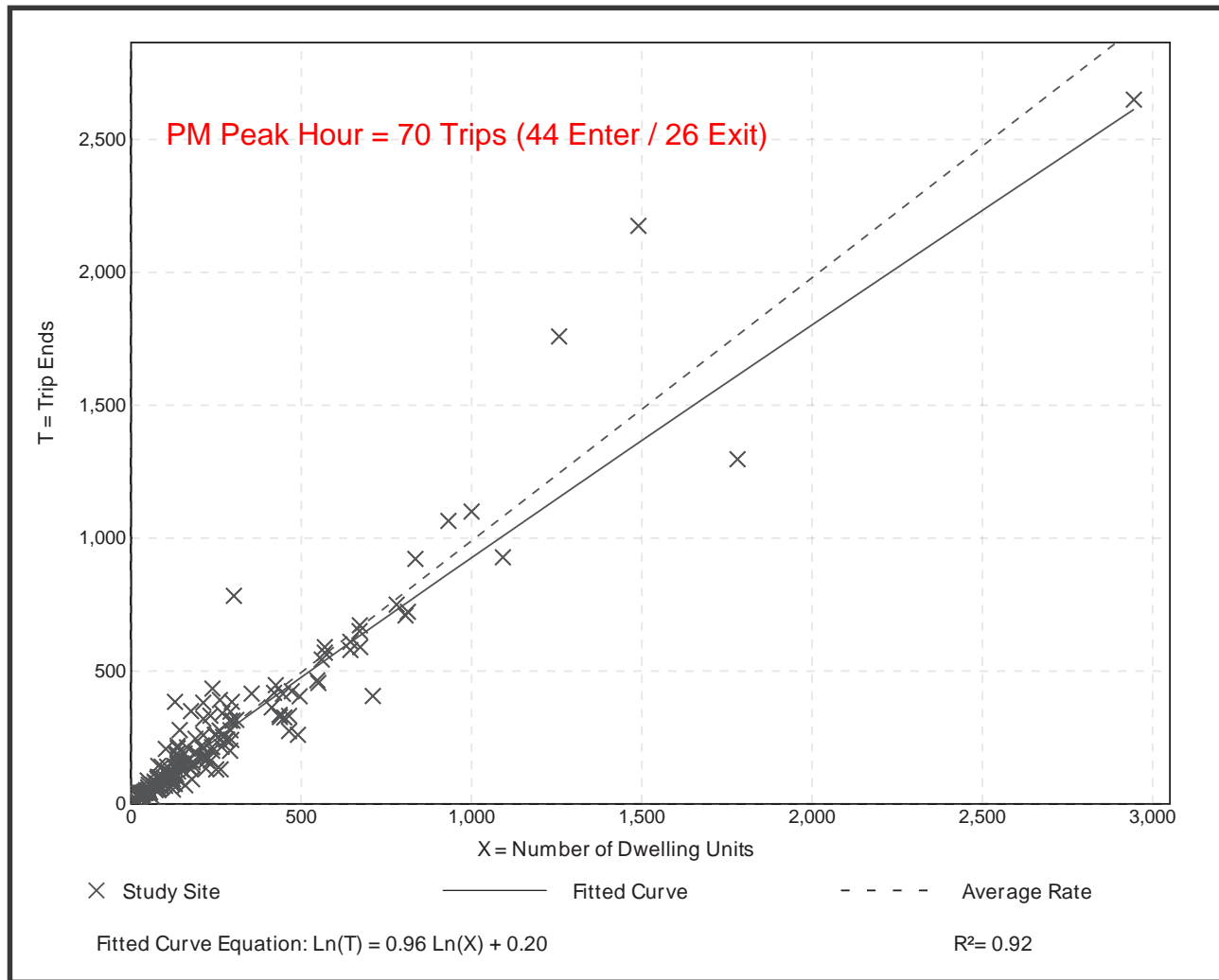
Vehicle Trip Ends vs: Dwelling Units  
 On a: Weekday,  
 Peak Hour of Adjacent Street Traffic,  
 One Hour Between 4 and 6 p.m.  
 Setting/Location: General Urban/Suburban  
 Number of Studies: 190  
 Avg. Num. of Dwelling Units: 242  
 Directional Distribution: 63% entering, 37% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.99	0.44 - 2.98	0.31

## Data Plot and Equation

68 Units



## TRIP DISTRIBUTION

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Trip Distribution Methodology  
Cordon Line

Project: Stokes Estate Residential  
Project #: 278.012.21  
Computed by: JAS

Using the Cordon Line Methodology, the volume entering and exiting the the study area was used to determine the trip distribution.

Trip distribution was favored to Street Road - East to the Greater Philadelphia area and Street Road - West to access US 202. Westtown Road to the Northwest does not appear to be a favorable route, Little Shiloh Road to the west appears better.

	AM Peak Trips	% AM Peak Hr Trips	PM Peak Trips	% PM Peak Hr Trips	Comb. Peak Trips	% Combined Peak Trips	% Assumed for Analysis
<b>TOTAL TRAFFIC ENTERING/EXITING STUDY AREA</b>	2513	100%	3281	100%	5794	100%	100%
Little Shiloh Road to the West	226	9.0%	361	11.0%	587	10.1%	15%
Westtown Road to the South	553	22.0%	689	21.0%	1242	21.4%	10%
Street Road to the West	802	31.9%	976	29.7%	1778	30.7%	35%
Westtown Thornton Road to the South	152	6.0%	264	8.0%	416	7.2%	5%
Street Road to the East	780	31.0%	991	30.2%	1771	30.6%	35%
	0	0.0%	0	0.0%	0	0.0%	0%



## INTERSECTION TRAFFIC VOLUME WORKSHEETS

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SITE IMPACT TRAFFIC EVALUATION

----- GENERAL INFORMATION FOR SITETRIP WORKSHEET -----

Title: **Stokes Estate Residential Development**  
 TRANSPORTATION IMPACT STUDY  
 Location: **Westtown Township, Chester County**  
 Performed By: **LJS** Date: **03/23/21**

Intersection 1: **Shiloh Road - Westtown Thornton Rd /Street Road (S.R.0926)** Site A: **Residential**  
 Intersection 2: **Shiloh Road / Hunt Drive** Site B: **(Site)**  
 Intersection 3: **Shiloh Road / Oakbourne Road** Site C: **(Site)**  
 Intersection 4: **Shiloh Road / Little Shiloh Road (S.R.2005)** Site D: **(Site)**  
 Intersection 5: **Shiloh Hill Drive / Little Shiloh Road (S.R.2005)** Site E: **(Site)**  
 Intersection 6: **Westtown Road (S.R.2007) / Little Shiloh Road (S.R.2005)** Site F: **(Site)**  
 Intersection 7: **( STREET NAMES )** Design Hour: **AM Peak**  
 Intersection 8: **( STREET NAMES )** Design Year: **2026**  
 Intersection 9: **( STREET NAMES )** Background Factor: **1.02**  
 Intersection 10: **( STREET NAMES )** Background Growth Rate: **0.48**  
 Intersection 11: **( STREET NAMES )** COVID-19 Adjustment: **1.47**  
 Intersection 12: **( STREET NAMES )**

----- EXISTING AND FUTURE TRAFFIC WITHOUT DEVELOPMENT -----

APPROACH	EXISTING TRAFFIC	COVID-19 Adjustment	FUTURE TRAFFIC		PHF	RTOR	Trucks	Truck Percentage
			W/ COM DEV	W/O PRO DEV				
<b>INTERSECTION 1: Shiloh Road - Westtown Thornton Rd /Street Road (S.R.0926)</b>								
EB LEFT	62	91	93				3	5%
THROUGH	361	531	544				11	3%
RIGHT	7	10	10			1	0	0%
WB LEFT	8	12	12				0	0%
THROUGH	299	440	451				16	5%
RIGHT	54	79	81			3	1	2%
NB LEFT	13	19	19				0	0%
THROUGH	62	91	93				0	0%
RIGHT	8	12	12			0	0	0%
SB LEFT	50	74	76				2	4%
THROUGH	54	79	81				0	0%
RIGHT	60	88	90			1	6	10%
***TOTAL***	1038	1526	1562		0.85		39	
<b>INTERSECTION 2: Shiloh Road / Hunt Drive</b>								
EB LEFT	2	3	3				0	0%
THROUGH	0	0	0				0	0%
RIGHT	7	10	10			0	2	29%
WB LEFT	0	0	0				0	0%
THROUGH	0	0	0				0	0%
RIGHT	0	0	0			0	0	0%
NB LEFT	2	3	3				1	50%
THROUGH	138	203	208				11	8%
RIGHT	0	0	0			0	0	0%
SB LEFT	0	0	0				0	0%
THROUGH	178	262	268				9	5%
RIGHT	0	0	0			0	0	0%
***TOTAL***	327	481	492		0.73		23	
<b>INTERSECTION 3: Shiloh Road / Oakbourne Road</b>								
EB LEFT	9	13	13				2	22%
THROUGH	0	0	0				0	0%
RIGHT	43	63	65			0	3	7%
WB LEFT	0	0	0				0	0%
THROUGH	0	0	0				0	0%
RIGHT	0	0	0			0	0	0%
NB LEFT	27	40	41				4	15%
THROUGH	113	166	170				7	6%
RIGHT	0	0	0			0	0	0%
SB LEFT	0	0	0				0	0%
THROUGH	134	197	202				6	4%
RIGHT	8	12	12			0	0	0%
***TOTAL***	334	491	503		0.74		22	
<b>INTERSECTION 4: Shiloh Road / Little Shiloh Road (S.R.2005)</b>								
EB LEFT	0	0	0				0	0%
THROUGH	25	37	38				1	4%
RIGHT	77	113	116			0	3	4%
WB LEFT	52	76	78				2	4%
THROUGH	16	24	25				1	6%
RIGHT	0	0	0			0	0	0%
NB LEFT	107	157	161				5	5%
THROUGH	0	0	0				0	0%
RIGHT	42	62	63			0	0	0%
SB LEFT	0	0	0				0	0%
THROUGH	0	0	0				0	0%
RIGHT	1	1	1			0	0	0%
***TOTAL***	320	470	482		0.85		12	
<b>INTERSECTION 5: Shiloh Hill Drive / Little Shiloh Road (S.R.2005)</b>								
EB LEFT	0	0	0				0	0%
THROUGH	64	94	96				0	0%
RIGHT	3	4	4			0	0	0%
WB LEFT	1	1	1				0	0%
THROUGH	53	78	80				2	4%
RIGHT	0	0	0			0	0	0%
NB LEFT	6	9	9				0	0%
THROUGH	0	0	0				0	0%
RIGHT	1	1	1			0	0	0%
SB LEFT	0	0	0				0	0%
THROUGH	0	0	0				0	0%
RIGHT	0	0	0			0	0	0%
***TOTAL***	128	187	191		0.87		2	
<b>INTERSECTION 6: Westtown Road (S.R.2007) / Little Shiloh Road (S.R.2005) - Falcon Lane</b>								
EB LEFT	0	0	0				0	0%
THROUGH	17	25	26				1	6%
RIGHT	58	85	87			0	0	0%
WB LEFT	14	21	22				1	7%
THROUGH	19	28	29				0	0%
RIGHT	16	24	25			0	0	0%
NB LEFT	25	37	38				0	0%
THROUGH	243	357	366				9	4%
RIGHT	12	18	18			0	0	0%
SB LEFT	12	18	18				3	25%
THROUGH	201	295	302				6	3%
RIGHT	2	3	3			0	1	50%
***TOTAL***	619	911	934		0.80		21	

----- DATA INPUT/RESULTS FOR TRIP GENERATION -----

SITE A .....	Residential					
DESIGN HOUR .....	AM Peak					
	TOTAL					
Land Use Type	( type )	( type )	( type )	( type )	( type )	( type )
Trips Per Unit:						
Inbound	0.00	0.00	0.00	0.00	0.00	0.00
Outbound	0.00	0.00	0.00	0.00	0.00	0.00
Number of Units	0.00	0.00	0.00	0.00	0.00	0.00
Buildout	0%	0%	0%	0%	0%	0%
Pass-By Trips	0%	0%	0%	0%	0%	0%
New Site Trips:						
Inbound	13	0	0	0	0	13
Outbound	40	0	0	0	0	40
Pass-By Trips:						
Inbound	0	0	0	0	0	0
Outbound	0	0	0	0	0	0
Total Site Trips:						
Inbound	13	0	0	0	0	13
Outbound	40	0	0	0	0	40
Total	53	0	0	0	0	53

----- SINGLE SITE TRAFFIC ASSIGNMENT -----

SITE A .....	Residential											
DESIGN HOUR .....	AM Peak											
	FUTURE TRAFFIC						FUTURE TRAFFIC					
	W/ COM DEV		% NEW SITE TRIPS		% PASS-BY TRIPS		NEW SITE TRIPS	PASS-BY	PASS-BY ADJUSTMENT	TOTAL SITE TRIPS	W/ COM DEV	
APPROACH	COVID-19 Adjustment	W/O PRO	INBOUND	OUTBOUND	INBOUND	OUTBOUND					W/O COM DEV	W/ PRO DEV
INTERSECTION 1: Shiloh Road - Westtown Thornton Rd /Street Road (S.R.0926)												
EB LEFT	91	93	35%	0%	0%	0%	5	0		5	96	98
THROUGH	531	544	0%	0%	0%	0%	0	0		0	531	544
RIGHT	10	10	0%	0%	0%	0%	0	0		0	10	10
WB LEFT	12	12	0%	0%	0%	0%	0	0		0	12	12
THROUGH	440	451	0%	0%	0%	0%	0	0		0	440	451
RIGHT	79	81	35%	0%	0%	0%	5	0		5	84	86
NB LEFT	19	19	0%	0%	0%	0%	0	0		0	19	19
THROUGH	91	93	5%	0%	0%	0%	0	0		0	91	93
RIGHT	12	12	0%	0%	0%	0%	0	0		0	12	12
SB LEFT	74	76	0%	35%	0%	0%	14	0		14	88	90
THROUGH	79	81	0%	5%	0%	0%	2	0		2	81	83
RIGHT	88	90	0%	35%	0%	0%	14	0		14	102	104
***TOTAL***	1526	1562	75%	75%	0%	0%	40	0	0	40	1566	1602
INTERSECTION 2: Shiloh Road / Hunt Drive												
EB LEFT	3	3	0%	0%	0%	0%	0	0		0	3	3
THROUGH	0	0	0%	0%	0%	0%	0	0		0	0	0
RIGHT	10	10	0%	0%	0%	0%	0	0		0	10	10
WB LEFT	0	0	0%	75%	0%	0%	30	0		30	30	30
THROUGH	0	0	0%	0%	0%	0%	0	0		0	0	0
RIGHT	0	0	0%	5%	0%	0%	2	0		2	2	2
NB LEFT	3	3	0%	0%	0%	0%	0	0		0	3	3
THROUGH	203	208	0%	0%	0%	0%	0	0		0	203	208
RIGHT	0	0	75%	0%	0%	0%	10	0		10	10	10
SB LEFT	0	0	5%	0%	0%	0%	1	0		1	1	1
THROUGH	262	268	0%	0%	0%	0%	0	0		0	262	268
RIGHT	0	0	0%	0%	0%	0%	0	0		0	0	0
***TOTAL***	481	492	80%	80%	0%	0%	43	0	0	43	524	535
INTERSECTION 3: Shiloh Road / Oakbourne Road												
EB LEFT	13	13	0%	0%	0%	0%	0	0		0	13	13
THROUGH	0	0	0%	0%	0%	0%	0	0		0	0	0
RIGHT	63	65	0%	0%	0%	0%	0	0		0	63	65
WB LEFT	0	0	0%	0%	0%	0%	0	0		0	0	0
THROUGH	0	0	0%	0%	0%	0%	0	0		0	0	0
RIGHT	0	0	0%	0%	0%	0%	0	0		0	0	0
NB LEFT	40	41	0%	0%	0%	0%	0	0		0	40	41
THROUGH	166	170	0%	5%	0%	0%	2	0		2	168	172
RIGHT	0	0	0%	0%	0%	0%	0	0		0	0	0
SB LEFT	0	0	0%	0%	0%	0%	0	0		0	0	0
THROUGH	197	202	5%	0%	0%	0%	1	0		1	198	203
RIGHT	12	12	0%	0%	0%	0%	0	0		0	12	12
***TOTAL***	491	503	5%	5%	0%	0%	3	0	0	3	494	506
INTERSECTION 4: Shiloh Road / Little Shiloh Road (S.R.2005)												
EB LEFT	0	0	0%	0%	0%	0%	0	0		0	0	0
THROUGH	37	38	10%	0%	0%	0%	1	0		1	38	39
RIGHT	113	116	5%	0%	0%	0%	1	0		1	114	117
WB LEFT	76	78	0%	0%	0%	0%	0	0		0	76	78
THROUGH	24	25	0%	10%	0%	0%	4	0		4	28	29
RIGHT	0	0	0%	0%	0%	0%	0	0		0	0	0
NB LEFT	157	161	0%	5%	0%	0%	2	0		2	159	163
THROUGH	0	0	0%	0%	0%	0%	0	0		0	0	0
RIGHT	62	63	0%	0%	0%	0%	0	0		0	62	63
SB LEFT	0	0	0%	0%	0%	0%	0	0		0	0	0
THROUGH	0	0	0%	0%	0%	0%	0	0		0	0	0
RIGHT	1	1	0%	0%	0%	0%	0	0		0	1	1
***TOTAL***	470	482	15%	15%	0%	0%	8	0	0	8	478	490
INTERSECTION 5: Shiloh Hill Drive / Little Shiloh Road (S.R.2005)												
EB LEFT	0	0	0%	0%	0%	0%	0	0		0	0	0
THROUGH	94	96	0%	0%	0%	0%	0	0		0	94	96
RIGHT	4	4	10%	0%	0%	0%	1	0		1	5	5
WB LEFT	1	1	10%	0%	0%	0%	1	0		1	2	2
THROUGH	78	80	0%	0%	0%	0%	0	0		0	78	80
RIGHT	0	0	0%	0%	0%	0%	0	0		0	0	0
NB LEFT	9	9	0%	10%	0%	0%	4	0		4	13	13
THROUGH	0	0	0%	0%	0%	0%	0	0		0	0	0
RIGHT	1	1	0%	10%	0%	0%	4	0		4	5	5
SB LEFT	0	0	0%	0%	0%	0%	0	0		0	0	0
THROUGH	0	0	0%	0%	0%	0%	0	0		0	0	0
RIGHT	0	0	0%	0%	0%	0%	0	0		0	0	0
***TOTAL***	187	191	20%	20%	0%	0%	10	0	0	10	197	201
INTERSECTION 6: Westtown Road (S.R.2007) / Little Shiloh Road (S.R.2005) - Falcon Lane												
EB LEFT	0	0	0%	0%	0%	0%	0	0		0	0	0
THROUGH	25	26	0%	0%	0%	0%	0	0		0	25	26
RIGHT	85	87	0%	10%	0%	0%	4	0		4	89	91
WB LEFT	21	22	0%	0%	0%	0%	0	0		0	21	22
THROUGH	28	29	0%	0%	0%	0%	0	0		0	28	29
RIGHT	24	25	0%	0%	0%	0%	0	0		0	24	25
NB LEFT	37	38	10%	0%	0%	0%	1	0		1	38	39
THROUGH	357	366	0%	0%	0%	0%	0	0		0	357	366
RIGHT	18	18	0%	0%	0%	0%	0	0		0	18	18
SB LEFT	18	18	0%	0%	0%	0%	0	0		0	18	18
THROUGH	295	302	0%	0%	0%	0%	0	0		0	295	302
RIGHT	3	3	0%	0%	0%	0%	0	0		0	3	3
***TOTAL***	911	934	10%	10%	0%	0%	5	0	0	5	916	939

SITE IMPACT TRAFFIC EVALUATION

----- GENERAL INFORMATION FOR SITETRIP WORKSHEET -----

Title: Stokes Estate Residential Development  
 TRANSPORTATION IMPACT STUDY  
 Location: Westtown Township, Chester County  
 Performed By: LJS Date: 03/23/21

Intersection 1: Shiloh Road - Westtown Thornton Rd /Street Road (S.R.0926) Site A: Residential  
 Intersection 2: Shiloh Road / Hunt Drive Site B: (Site)  
 Intersection 3: Shiloh Road / Oakbourne Road Site C: (Site)  
 Intersection 4: Shiloh Road / Little Shiloh Road (S.R.2005) Site D: (Site)  
 Intersection 5: Shiloh Hill Drive / Little Shiloh Road (S.R.2005) Site E: (Site)  
 Intersection 6: Westtown Road (S.R.2007) / Little Shiloh Road (S.R.2005) Site F: (Site)  
 Intersection 7: ( STREET NAMES ) Design Hour: PM Peak  
 Intersection 8: ( STREET NAMES ) Design Year: 2026  
 Intersection 9: ( STREET NAMES ) Background Factor: 1.02  
 Intersection 10: ( STREET NAMES ) Background Growth Rate: 0.48  
 Intersection 11: ( STREET NAMES ) COVID-19 Adjustment: 1.16  
 Intersection 12: ( STREET NAMES )

----- EXISTING AND FUTURE TRAFFIC WITHOUT DEVELOPMENT -----

APPROACH	EXISTING TRAFFIC	COVID-19 Adjustment	FUTURE TRAFFIC W/ COM DEV W/O PRO DEV	Committed Developments			
				PHF	RTOR	Trucks	Truck Percentage
<b>INTERSECTION 1: Shiloh Road - Westtown Thornton Rd /Street Road (S.R.0926)</b>							
EB LEFT	84	97	99			0	0%
THROUGH	365	423	433			4	1%
RIGHT	13	15	15		4	0	0%
WB LEFT	20	23	24			0	0%
THROUGH	401	465	476			6	1%
RIGHT	90	104	106		4	1	1%
NB LEFT	11	13	13			0	0%
THROUGH	87	101	103			0	0%
RIGHT	11	13	13		0	0	0%
SB LEFT	104	121	124			0	0%
THROUGH	122	142	145			0	0%
RIGHT	102	118	121		3	0	0%
***TOTAL***	1410	1635	1672	0.92		11	
<b>INTERSECTION 2: Shiloh Road / Hunt Drive</b>							
EB LEFT	8	9	9			0	0%
THROUGH	0	0	0			0	0%
RIGHT	4	5	5		0	0	0%
WB LEFT	0	0	0			0	0%
THROUGH	0	0	0			0	0%
RIGHT	0	0	0		0	0	0%
NB LEFT	9	10	10			0	0%
THROUGH	243	282	289			0	0%
RIGHT	0	0	0		0	0	0%
SB LEFT	0	0	0			0	0%
THROUGH	270	313	321			1	0%
RIGHT	5	6	6		0	0	0%
***TOTAL***	539	625	640	0.84		1	
<b>INTERSECTION 3: Shiloh Road / Oakbourne Road</b>							
EB LEFT	13	15	15			0	0%
THROUGH	0	0	0			0	0%
RIGHT	68	79	81		0	0	0%
WB LEFT	0	0	0			0	0%
THROUGH	0	0	0			0	0%
RIGHT	0	0	0		0	0	0%
NB LEFT	69	80	82			0	0%
THROUGH	182	211	216			0	0%
RIGHT	0	0	0		0	0	0%
SB LEFT	0	0	0			0	0%
THROUGH	201	233	239			0	0%
RIGHT	22	26	27		0	1	5%
***TOTAL***	555	644	660	0.85		1	
<b>INTERSECTION 4: Shiloh Road / Little Shiloh Road (S.R.2005)</b>							
EB LEFT	0	0	0			0	0%
THROUGH	27	31	32			2	7%
RIGHT	169	196	201		0	0	0%
WB LEFT	60	70	72			0	0%
THROUGH	38	44	45			0	0%
RIGHT	1	1	1		0	0	0%
NB LEFT	126	146	150			0	0%
THROUGH	0	0	0			0	0%
RIGHT	52	60	61		0	1	2%
SB LEFT	0	0	0			0	0%
THROUGH	2	2	2			0	0%
RIGHT	1	1	1		0	0	0%
***TOTAL***	476	551	565	0.90		3	
<b>INTERSECTION 5: Shiloh Hill Drive / Little Shiloh Road (S.R.2005)</b>							
EB LEFT	0	0	0			0	0%
THROUGH	68	79	81			2	3%
RIGHT	8	9	9		0	0	0%
WB LEFT	3	3	3			0	0%
THROUGH	90	104	106			0	0%
RIGHT	0	0	0		0	0	0%
NB LEFT	8	9	9			0	0%
THROUGH	0	0	0			0	0%
RIGHT	3	3	3		0	0	0%
SB LEFT	0	0	0			0	0%
THROUGH	0	0	0			0	0%
RIGHT	0	0	0		0	0	0%
***TOTAL***	180	207	211	0.88		2	
<b>INTERSECTION 6: Westtown Road (S.R.2007) / Little Shiloh Road (S.R.2005) - Falcon Lane</b>							
EB LEFT	6	7	7			0	0%
THROUGH	23	27	28			1	4%
RIGHT	38	44	45		0	2	5%
WB LEFT	20	23	24			0	0%
THROUGH	40	46	47			0	0%
RIGHT	20	23	24		0	0	0%
NB LEFT	53	61	62			0	0%
THROUGH	262	304	311			4	2%
RIGHT	36	42	43		0	0	0%
SB LEFT	17	20	20			1	6%
THROUGH	280	325	333			4	1%
RIGHT	4	5	5		0	0	0%
***TOTAL***	799	927	949	0.89		12	

----- DATA INPUT/RESULTS FOR TRIP GENERATION -----

SITE A .....	Residential						
DESIGN HOUR ....	PM Peak						TOTAL
Land Use Type	( type )	( type )	( type )	( type )	( type )	( type )	
<b>Trips Per Unit:</b>							
Inbound	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Outbound	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Number of Units</b>							
Buildout	0%	0%	0%	0%	0%	0%	0%
Pass-By Trips	0%	0%	0%	0%	0%	0%	0%
<b>New Site Trips:</b>							
Inbound	44	0	0	0	0	0	44
Outbound	26	0	0	0	0	0	26
<b>Pass-By Trips:</b>							
Inbound	0	0	0	0	0	0	0
Outbound	0	0	0	0	0	0	0
<b>Total Site Trips:</b>							
Inbound	44	0	0	0	0	0	44
Outbound	26	0	0	0	0	0	26
<b>Total</b>	<b>70</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>70</b>

----- SINGLE SITE TRAFFIC ASSIGNMENT -----

SITE A .....	Residential											
DESIGN HOUR ....	PM Peak											
APPROACH	COVID-19 Adjustment	FUTURE TRAFFIC W/ COM DEV W/O PRO	% NEW SITE TRIPS		% PASS-BY TRIPS		NEW SITE TRIPS	PASS-BY	PASS-BY ADJUSTMENT	TOTAL SITE TRIPS	FUTURE TRAFFIC W/O COM DEV W/ PRO	FUTURE TRAFFIC W/ COM DEV W/ PRO DEV
			INBOUND	OUTBOUND	INBOUND	OUTBOUND						
<b>INTERSECTION 1: Shiloh Road - Westtown Thornton Rd /Street Road (S.R.0926)</b>												
EB LEFT	97	99	35%	0%	0%	0%	16	0	0	16	113	115
THROUGH	423	433	0%	0%	0%	0%	0	0	0	0	423	433
RIGHT	15	15	0%	0%	0%	0%	0	0	0	0	15	15
WB LEFT	23	24	0%	0%	0%	0%	0	0	0	0	23	24
THROUGH	465	476	0%	0%	0%	0%	0	0	0	0	465	476
RIGHT	104	106	35%	0%	0%	0%	16	0	0	16	120	122
NB LEFT	13	13	0%	0%	0%	0%	0	0	0	0	13	13
THROUGH	101	103	5%	0%	0%	0%	2	0	0	2	103	105
RIGHT	13	13	0%	0%	0%	0%	0	0	0	0	13	13
SB LEFT	121	124	0%	35%	0%	0%	9	0	0	9	130	133
THROUGH	142	145	0%	5%	0%	0%	1	0	0	1	143	146
RIGHT	118	121	0%	35%	0%	0%	9	0	0	9	127	130
***TOTAL***	1635	1672	75%	75%	0%	0%	53	0	0	53	1688	1725
<b>INTERSECTION 2: Shiloh Road / Hunt Drive</b>												
EB LEFT	9	9	0%	0%	0%	0%	0	0	0	0	9	9
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	5	5	0%	0%	0%	0%	0	0	0	0	5	5
WB LEFT	0	0	0%	75%	0%	0%	19	0	0	19	19	19
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	0	0	0%	5%	0%	0%	1	0	0	1	1	1
NB LEFT	10	10	0%	0%	0%	0%	0	0	0	0	10	10
THROUGH	282	289	0%	0%	0%	0%	0	0	0	0	282	289
RIGHT	0	0	75%	0%	0%	0%	34	0	0	34	34	34
SB LEFT	0	0	5%	0%	0%	0%	2	0	0	2	2	2
THROUGH	313	321	0%	0%	0%	0%	0	0	0	0	313	321
RIGHT	6	6	0%	0%	0%	0%	0	0	0	0	6	6
***TOTAL***	625	640	80%	80%	0%	0%	56	0	0	56	681	696
<b>INTERSECTION 3: Shiloh Road / Oakbourne Road</b>												
EB LEFT	15	15	0%	0%	0%	0%	0	0	0	0	15	15
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	79	81	0%	0%	0%	0%	0	0	0	0	79	81
WB LEFT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
NB LEFT	80	82	0%	0%	0%	0%	0	0	0	0	80	82
THROUGH	211	216	0%	5%	0%	0%	1	0	0	1	212	217
RIGHT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
SB LEFT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
THROUGH	233	239	5%	0%	0%	0%	2	0	0	2	235	241
RIGHT	26	27	0%	0%	0%	0%	0	0	0	0	26	27
***TOTAL***	644	660	5%	5%	0%	0%	3	0	0	3	647	663
<b>INTERSECTION 4: Shiloh Road / Little Shiloh Road (S.R.2005)</b>												
EB LEFT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
THROUGH	31	32	10%	0%	0%	0%	4	0	0	4	35	36
RIGHT	196	201	5%	0%	0%	0%	2	0	0	2	198	203
WB LEFT	70	72	0%	0%	0%	0%	0	0	0	0	70	72
THROUGH	44	45	0%	10%	0%	0%	3	0	0	3	47	48
RIGHT	1	1	0%	0%	0%	0%	0	0	0	0	1	1
NB LEFT	146	150	0%	5%	0%	0%	1	0	0	1	147	151
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	60	61	0%	0%	0%	0%	0	0	0	0	60	61
SB LEFT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
THROUGH	2	2	0%	0%	0%	0%	0	0	0	0	2	2
RIGHT	1	1	0%	0%	0%	0%	0	0	0	0	1	1
***TOTAL***	551	565	15%	15%	0%	0%	10	0	0	10	561	575
<b>INTERSECTION 5: Shiloh Hill D Shiloh Hill Drive / Little Shiloh Road (S.R.2005)</b>												
EB LEFT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
THROUGH	79	81	0%	0%	0%	0%	0	0	0	0	79	81
RIGHT	9	9	10%	0%	0%	0%	4	0	0	4	13	13
WB LEFT	3	3	10%	0%	0%	0%	4	0	0	4	7	7
THROUGH	104	106	0%	0%	0%	0%	0	0	0	0	104	106
RIGHT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
NB LEFT	9	9	0%	10%	0%	0%	3	0	0	3	12	12
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	3	3	0%	10%	0%	0%	3	0	0	3	6	6
SB LEFT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
***TOTAL***	207	211	20%	20%	0%	0%	14	0	0	14	221	225
<b>INTERSECTION 6: Westtown Road (S.R.2007) / Little Shiloh Road (S.R.2005) - Falcon Lane</b>												
EB LEFT	7	7	0%	0%	0%	0%	0	0	0	0	7	7
THROUGH	27	28	0%	0%	0%	0%	0	0	0	0	27	28
RIGHT	44	45	0%	10%	0%	0%	3	0	0	3	47	48
WB LEFT	23	24	0%	0%	0%	0%	0	0	0	0	23	24
THROUGH	46	47	0%	0%	0%	0%	0	0	0	0	46	47
RIGHT	23	24	0%	0%	0%	0%	0	0	0	0	23	24
NB LEFT	61	62	10%	0%	0%	0%	4	0	0	4	65	66
THROUGH	304	311	0%	0%	0%	0%	0	0	0	0	304	311
RIGHT	42	43	0%	0%	0%	0%	0	0	0	0	42	43
SB LEFT	20	20	0%	0%	0%	0%	0	0	0	0	20	20
THROUGH	325	333	0%	0%	0%	0%	0	0	0	0	325	333
RIGHT	5	5	0%	0%	0%	0%	0	0	0	0	5	5
***TOTAL***	927	949	10%	10%	0%	0%	7	0	0	7	934	956

SITE IMPACT TRAFFIC EVALUATION

----- GENERAL INFORMATION FOR SITETRIP WORKSHEET -----

Title: Stokes Estate Residential Development  
 TRANSPORTATION IMPACT STUDY  
 Location: Westtown Township, Chester County  
 Performed By: LJS Date: 03/23/21

Intersection 1: Shiloh Road - Westtown Thornton Rd /Street Road (S.R. Site A: Residential  
 Intersection 2: Shiloh Road / Hunt Drive Site B: (Site)  
 Intersection 3: Shiloh Road / Oakbourne Road Site C: (Site)  
 Intersection 4: Shiloh Road / Little Shiloh Road (S.R.2005) Site D: (Site)  
 Intersection 5: Shiloh Hill Drive / Little Shiloh Road (S.R.2005) Site E: (Site)  
 Intersection 6: Westtown Road (S.R.2007) / Little Shiloh Road (S.R.2005) Site F: (Site)  
 Intersection 7: (STREET NAMES) Design Hour: AM Peak  
 Intersection 8: (STREET NAMES) Design Year: 2031  
 Intersection 9: (STREET NAMES) Background Factor: 1.05  
 Intersection 10: (STREET NAMES) Background Growth Rate: 0.48  
 Intersection 11: (STREET NAMES) COVID-19 Adjustment: 1.47  
 Intersection 12: (STREET NAMES)

----- EXISTING AND FUTURE TRAFFIC WITHOUT DEVELOPMENT -----

APPROACH	EXISTING TRAFFIC	COVID-19 Adjustment	FUTURE TRAFFIC		PHF	RTOR	Trucks	Truck Percentage
			W/ COM DEV	W/O PRO DEV				
<b>INTERSECTION 1: Shiloh Road - Westtown Thornton Rd /Street Road (S.R.0926)</b>								
EB LEFT	62	91	95				3	5%
THROUGH	361	531	557				11	3%
RIGHT	7	10	10			1	0	0%
WB LEFT	8	12	13				0	0%
THROUGH	299	440	462				16	5%
RIGHT	54	79	83			3	1	2%
NB LEFT	13	19	20				0	0%
THROUGH	62	91	95				0	0%
RIGHT	8	12	13			0	0	0%
SB LEFT	50	74	78				2	4%
THROUGH	54	79	83				0	0%
RIGHT	60	88	92			1	6	10%
***TOTAL***	1038	1526	1601		0.85			
<b>INTERSECTION 2: Shiloh Road / Hunt Drive</b>								
EB LEFT	2	3	3				0	0%
THROUGH	0	0	0				0	0%
RIGHT	7	10	10			0	2	29%
WB LEFT	0	0	0				0	0%
THROUGH	0	0	0				0	0%
RIGHT	0	0	0			0	0	0%
NB LEFT	2	3	3				1	50%
THROUGH	138	203	213				11	8%
RIGHT	0	0	0			0	0	0%
SB LEFT	0	0	0				0	0%
THROUGH	178	262	275				9	5%
RIGHT	0	0	0			0	0	0%
***TOTAL***	327	481	504		0.73			
<b>INTERSECTION 3: Shiloh Road / Oakbourne Road</b>								
EB LEFT	9	13	14				2	22%
THROUGH	0	0	0				0	0%
RIGHT	43	63	66			0	3	7%
WB LEFT	0	0	0				0	0%
THROUGH	0	0	0				0	0%
RIGHT	0	0	0			0	0	0%
NB LEFT	27	40	42				4	15%
THROUGH	113	166	174				7	6%
RIGHT	0	0	0			0	0	0%
SB LEFT	0	0	0				0	0%
THROUGH	134	197	207				6	4%
RIGHT	8	12	13			0	0	0%
***TOTAL***	334	491	516		0.74			
<b>INTERSECTION 4: Shiloh Road / Little Shiloh Road (S.R.2005)</b>								
EB LEFT	0	0	0				0	0%
THROUGH	25	37	39				1	4%
RIGHT	77	113	119			0	3	4%
WB LEFT	52	76	80				2	4%
THROUGH	16	24	25				1	6%
RIGHT	0	0	0			0	0	0%
NB LEFT	107	157	165				5	5%
THROUGH	0	0	0				0	0%
RIGHT	42	62	65			0	0	0%
SB LEFT	0	0	0				0	0%
THROUGH	0	0	0				0	0%
RIGHT	1	1	1			0	0	0%
***TOTAL***	320	470	494		0.85			
<b>INTERSECTION 5: Shiloh Hill Drive / Little Shiloh Road (S.R.2005)</b>								
EB LEFT	0	0	0				0	0%
THROUGH	64	94	99				0	0%
RIGHT	3	4	4			0	0	0%
WB LEFT	1	1	1				0	0%
THROUGH	53	78	82				2	4%
RIGHT	0	0	0			0	0	0%
NB LEFT	6	9	9				0	0%
THROUGH	0	0	0				0	0%
RIGHT	1	1	1			0	0	0%
SB LEFT	0	0	0				0	0%
THROUGH	0	0	0				0	0%
RIGHT	0	0	0			0	0	0%
***TOTAL***	128	187	196		0.87			
<b>INTERSECTION 6: Westtown Road (S.R.2007) / Little Shiloh Road (S.R.2005) - Falcon Lane</b>								
EB LEFT	0	0	0				0	0%
THROUGH	17	25	26				1	6%
RIGHT	58	85	89			0	0	0%
WB LEFT	14	21	22				1	7%
THROUGH	19	28	29				0	0%
RIGHT	16	24	25			0	0	0%
NB LEFT	25	37	39				0	0%
THROUGH	243	357	374				9	4%
RIGHT	12	18	19			0	0	0%
SB LEFT	12	18	19				3	25%
THROUGH	201	295	309				6	3%
RIGHT	2	3	3			0	1	50%
***TOTAL***	619	911	954		0.80			

----- DATA INPUT/RESULTS FOR TRIP GENERATION -----

SITE A .....	Residential					TOTAL
	AM Peak					
DESIGN HOUR ....	(type)	(type)	(type)	(type)	(type)	(type)
=====						
Land Use Type	(type)	(type)	(type)	(type)	(type)	(type)
=====						
Trips Per Unit:						
Inbound	0.00	0.00	0.00	0.00	0.00	0.00
Outbound	0.00	0.00	0.00	0.00	0.00	0.00
=====						
Number of Units	0.00	0.00	0.00	0.00	0.00	0.00
Bulldout	0%	0%	0%	0%	0%	0%
Pass-By Trips	0%	0%	0%	0%	0%	0%
=====						
New Site Trips:						
Inbound	13	0	0	0	0	13
Outbound	40	0	0	0	0	40
=====						
Pass-By Trips:						
Inbound	0	0	0	0	0	0
Outbound	0	0	0	0	0	0
=====						
Total Site Trips:						
Inbound	13	0	0	0	0	13
Outbound	40	0	0	0	0	40
Total	53	0	0	0	0	53

----- SINGLE SITE TRAFFIC ASSIGNMENT -----

SITE A .....	Residential					NEW SITE TRIPS	PASS-BY	PASS-BY ADJUSTMENT	TOTAL SITE TRIPS	FUTURE TRAFFIC	
	AM Peak									W/O COM DEV	W/ PRO DEV
APPROACH	COVID-19 Adjustment	FUTURE TRAFFIC		% NEW SITE TRIPS		% PASS-BY TRIPS		TOTAL SITE TRIPS	FUTURE TRAFFIC	FUTURE TRAFFIC	
		W/ COM DEV	W/O PRO	INBOUND	OUTBOUND	INBOUND	OUTBOUND				
=====											
<b>INTERSECTION 1: Shiloh Road - Westtown Thornton Rd /Street Road (S.R.0926)</b>											
EB LEFT	91	95	35%	0%	0%	5	0	0	5	96	100
THROUGH	531	557	0%	0%	0%	0	0	0	0	531	557
RIGHT	10	10	0%	0%	0%	0	0	0	0	10	10
WB LEFT	12	13	0%	0%	0%	0	0	0	0	12	13
THROUGH	440	462	0%	0%	0%	0	0	0	0	440	462
RIGHT	79	83	35%	0%	0%	5	0	0	5	84	88
NB LEFT	19	20	0%	0%	0%	0	0	0	0	19	20
THROUGH	91	95	5%	0%	0%	0	0	0	0	91	95
RIGHT	12	13	0%	0%	0%	0	0	0	0	12	13
SB LEFT	74	78	0%	35%	0%	14	0	0	14	88	92
THROUGH	79	83	0%	5%	0%	2	0	0	2	81	85
RIGHT	88	92	0%	35%	0%	14	0	0	14	102	106
***TOTAL***	1526	1601	75%	75%	0%	40	0	0	40	1566	1641
-----											
<b>INTERSECTION 2: Shiloh Road / Hunt Drive</b>											
EB LEFT	3	3	0%	0%	0%	0	0	0	0	3	3
THROUGH	0	0	0%	0%	0%	0	0	0	0	0	0
RIGHT	10	10	0%	0%	0%	0	0	0	0	10	10
WB LEFT	0	0	0%	75%	0%	30	0	0	30	30	30
THROUGH	0	0	0%	0%	0%	0	0	0	0	0	0
RIGHT	0	0	0%	5%	0%	2	0	0	2	2	2
NB LEFT	3	3	0%	0%	0%	0	0	0	0	3	3
THROUGH	203	213	0%	0%	0%	0	0	0	0	203	213
RIGHT	0	0	75%	0%	0%	10	0	0	10	10	10
SB LEFT	0	0	5%	0%	0%	1	0	0	1	1	1
THROUGH	262	275	0%	0%	0%	0	0	0	0	262	275
RIGHT	0	0	0%	0%	0%	0	0	0	0	0	0
***TOTAL***	481	504	80%	80%	0%	43	0	0	43	524	547
-----											
<b>INTERSECTION 3: Shiloh Road / Oakbourne Road</b>											
EB LEFT	13	14	0%	0%	0%	0	0	0	0	13	14
THROUGH	0	0	0%	0%	0%	0	0	0	0	0	0
RIGHT	63	66	0%	0%	0%	0	0	0	0	63	66
WB LEFT	0	0	0%	0%	0%	0	0	0	0	0	0
THROUGH	0	0	0%	0%	0%	0	0	0	0	0	0
RIGHT	0	0	0%	0%	0%	0	0	0	0	0	0
NB LEFT	40	42	0%	0%	0%	0	0	0	0	40	42
THROUGH	166	174	0%	5%	0%	2	0	0	2	168	176
RIGHT	0	0	0%	0%	0%	0	0	0	0	0	0
SB LEFT	0	0	0%	0%	0%	0	0	0	0	0	0
THROUGH	197	207	5%	0%	0%	1	0	0	1	198	208
RIGHT	12	13	0%	0%	0%	0	0	0	0	12	13
***TOTAL***	491	516	5%	5%	0%	3	0	0	3	494	519
-----											
<b>INTERSECTION 4: Shiloh Road / Little Shiloh Road (S.R.2005)</b>											
EB LEFT	0	0	0%	0%	0%	0	0	0	0	0	0
THROUGH	37	39	10%	0%	0%	1	0	0	1	38	40
RIGHT	113	119	5%	0%	0%	1	0	0	1	114	120
WB LEFT	76	80	0%	0%	0%	0	0	0	0	76	80
THROUGH	24	25	0%	10%	0%	4	0	0	4	28	29
RIGHT	0	0	0%	0%	0%	0	0	0	0	0	0
NB LEFT	157	165	0%	5%	0%	2	0	0	2	159	167
THROUGH	0	0	0%	0%	0%	0	0	0	0	0	0
RIGHT	62	65	0%	0%	0%	0	0	0	0	62	65
SB LEFT	0	0	0%	0%	0%	0	0	0	0	0	0
THROUGH	0	0	0%	0%	0%	0	0	0	0	0	0
RIGHT	1	1	0%	0%	0%	0	0	0	0	1	1
***TOTAL***	470	494	15%	15%	0%	8	0	0	8	478	502
-----											
<b>INTERSECTION 5: Shiloh Hill Drive / Little Shiloh Road (S.R.2005)</b>											
EB LEFT	0	0	0%	0%	0%	0	0	0	0	0	0
THROUGH	94	99	0%	0%	0%	0	0	0	0	94	99
RIGHT	4	4	10%	0%	0%	1	0	0	1	5	5
WB LEFT	1	1	10%	0%	0%	1	0	0	1	2	2
THROUGH	78	82	0%	0%	0%	0	0	0	0	78	82
RIGHT	0	0	0%	0%	0%	0	0	0	0	0	0
NB LEFT	9	9	0%	10%	0%	4	0	0	4	13	13
THROUGH	0	0	0%	0%	0%	0	0	0	0	0	0
RIGHT	1	1	0%	10%	0%	4	0	0	4	5	5
SB LEFT	0	0	0%	0%	0%	0	0	0	0	0	0
THROUGH	0	0	0%	0%	0%	0	0	0	0	0	0
RIGHT	0	0	0%	0%	0%	0	0	0	0	0	0
***TOTAL***	187	196	20%	20%	0%	10	0	0	10	197	206
-----											
<b>INTERSECTION 6: Westtown Road (S.R.2007) / Little Shiloh Road (S.R.2005) - Falcon Lane</b>											
EB LEFT	0	0	0%	0%	0%	0	0	0	0	0	0
THROUGH	25	26	0%	0%	0%	0	0	0	0	25	26
RIGHT	85	89	0%	10%	0%	4	0	0	4	89	93
WB LEFT	21	22	0%	0%	0%	0	0	0	0	21	22
THROUGH	28	29	0%	0%	0%	0	0	0	0	28	29
RIGHT	24	25	0%	0%	0%	0	0	0	0	24	25
NB LEFT	37	39	10%	0%	0%	1	0	0	1	38	40
THROUGH	357	374	0%	0%	0%	0	0	0	0	357	374
RIGHT	18	19	0%	0%	0%	0	0	0	0	18	19
SB LEFT	18	19	0%	0%	0%	0	0	0	0	18	19
THROUGH	295	309	0%	0%	0%	0	0	0	0	295	309
RIGHT	3	3	0%	0%	0%	0	0	0	0	3	3
***TOTAL***	911	954	10%	10%	0%	5	0	0	5	916	959

SITE IMPACT TRAFFIC EVALUATION

----- GENERAL INFORMATION FOR SITETRIP WORKSHEET -----

Title: Stokes Estate Residential Development  
 TRANSPORTATION IMPACT STUDY  
 Location: Westtown Township, Chester County  
 Performed By: LJS Date: 03/23/21

Intersection 1: Shiloh Road - Westtown Thornton Rd /Street Road (S.R. Site A: Residential  
 Intersection 2: Shiloh Road / Hunt Drive Site B: (Site)  
 Intersection 3: Shiloh Road / Oakbourne Road Site C: (Site)  
 Intersection 4: Shiloh Road / Little Shiloh Road (S.R.2005) Site D: (Site)  
 Intersection 5: Shiloh Hill Drive / Little Shiloh Road (S.R.2005) Site E: (Site)  
 Intersection 6: Westtown Road (S.R.2007) / Little Shiloh Road (S.R.2005) Site F: (Site)  
 Intersection 7: (STREET NAMES) Design Hour: PM Peak  
 Intersection 8: (STREET NAMES) Design Year: 2031  
 Intersection 9: (STREET NAMES) Background Factor: 1.05  
 Intersection 10: (STREET NAMES) Background Growth Rate 0.48  
 Intersection 11: (STREET NAMES) COVID-19 Adjustment: 1.47  
 Intersection 12: (STREET NAMES)

----- EXISTING AND FUTURE TRAFFIC WITHOUT DEVELOPMENT -----

APPROACH	EXISTING TRAFFIC	COVID-19 Adjustment	FUTURE TRAFFIC W/ COM DEV	Committed Developments		
				PHF	RTOR	Trucks
<b>INTERSECTION 1: Shiloh Road - Westtown Thornton Rd /Street Road (S.R.0926)</b>						
EB LEFT	84	97	102			0 0%
THROUGH	365	423	444			4 1%
RIGHT	13	15	16		4	0 0%
WB LEFT	20	23	24			0 0%
THROUGH	401	465	488			6 1%
RIGHT	90	104	109		4	1 1%
NB LEFT	11	13	14			0 0%
THROUGH	87	101	106			0 0%
RIGHT	11	13	14		0	0 0%
SB LEFT	104	121	127			0 0%
THROUGH	122	142	149			0 0%
RIGHT	102	118	124		3	0 0%
***TOTAL***	1410	1635	1717	0.92		
<b>INTERSECTION 2: Shiloh Road / Hunt Drive</b>						
EB LEFT	8	9	9			0 0%
THROUGH	0	0	0			0 0%
RIGHT	4	5	5		0	0 0%
WB LEFT	0	0	0			0 0%
THROUGH	0	0	0			0 0%
RIGHT	0	0	0		0	0 0%
NB LEFT	9	10	10			0 0%
THROUGH	243	282	296			0 0%
RIGHT	0	0	0		0	0 0%
SB LEFT	0	0	0			0 0%
THROUGH	270	313	328			1 0%
RIGHT	5	6	6		0	0 0%
***TOTAL***	539	625	654	0.84		
<b>INTERSECTION 3: Shiloh Road / Oakbourne Road</b>						
EB LEFT	13	15	16			0 0%
THROUGH	0	0	0			0 0%
RIGHT	68	79	83		0	0 0%
WB LEFT	0	0	0			0 0%
THROUGH	0	0	0			0 0%
RIGHT	0	0	0		0	0 0%
NB LEFT	69	80	84			0 0%
THROUGH	182	211	221			0 0%
RIGHT	0	0	0		0	0 0%
SB LEFT	0	0	0			0 0%
THROUGH	201	233	244			0 0%
RIGHT	22	26	27		0	1 5%
***TOTAL***	555	644	675	0.85		
<b>INTERSECTION 4: Shiloh Road / Little Shiloh Road (S.R.2005)</b>						
EB LEFT	0	0	0			0 0%
THROUGH	27	31	33			2 7%
RIGHT	169	196	206		0	0 0%
WB LEFT	60	70	73			0 0%
THROUGH	38	44	46			0 0%
RIGHT	1	1	1		0	0 0%
NB LEFT	126	146	153			0 0%
THROUGH	0	0	0			0 0%
RIGHT	52	60	63		0	1 2%
SB LEFT	0	0	0			0 0%
THROUGH	2	2	2			0 0%
RIGHT	1	1	1		0	0 0%
***TOTAL***	476	551	578	0.90		
<b>INTERSECTION 5: Shiloh Hill Drive / Little Shiloh Road (S.R.2005)</b>						
EB LEFT	0	0	0			0 0%
THROUGH	68	79	83			2 3%
RIGHT	8	9	9		0	0 0%
WB LEFT	3	3	3			0 0%
THROUGH	90	104	109			0 0%
RIGHT	0	0	0		0	0 0%
NB LEFT	8	9	9			0 0%
THROUGH	0	0	0			0 0%
RIGHT	3	3	3		0	0 0%
SB LEFT	0	0	0			0 0%
THROUGH	0	0	0			0 0%
RIGHT	0	0	0		0	0 0%
***TOTAL***	180	207	216	0.88		
<b>INTERSECTION 6: Westtown Road (S.R.2007) / Little Shiloh Road (S.R.2005) - Falcon Lane</b>						
EB LEFT	6	7	7			0 0%
THROUGH	23	27	28			1 4%
RIGHT	38	44	46		0	2 5%
WB LEFT	20	23	24			0 0%
THROUGH	40	46	48			0 0%
RIGHT	20	23	24		0	0 0%
NB LEFT	53	61	64			0 0%
THROUGH	262	304	319			4 2%
RIGHT	36	42	44		0	0 0%
SB LEFT	17	20	21			1 6%
THROUGH	280	325	341			4 1%
RIGHT	4	5	5		0	0 0%
***TOTAL***	799	927	971	0.89		



----- DATA INPUT/RESULTS FOR TRIP GENERATION -----

SITE A .....	Residential					TOTAL
DESIGN HOUR ....	PM Peak					
Land Use Type	(type)	(type)	(type)	(type)	(type)	(type)
Trips Per Unit:						
Inbound	0.00	0.00	0.00	0.00	0.00	0.00
Outbound	0.00	0.00	0.00	0.00	0.00	0.00
Number of Units						
Buildout	0%	0%	0%	0%	0%	0%
Pass-By Trips	0%	0%	0%	0%	0%	0%
New Site Trips:						
Inbound	44	0	0	0	0	44
Outbound	26	0	0	0	0	26
Pass-By Trips:						
Inbound	0	0	0	0	0	0
Outbound	0	0	0	0	0	0
Total Site Trips:						
Inbound	44	0	0	0	0	44
Outbound	26	0	0	0	0	26
Total	70	0	0	0	0	70

----- SINGLE SITE TRAFFIC ASSIGNMENT -----

SITE A .....	Residential					FUTURE TRAFFIC		FUTURE TRAFFIC				
DESIGN HOUR ....	PM Peak					W/O COM DEV		W/ COM DEV				
APPROACH	COVID-19 Adjustment	FUTURE TRAFFIC W/O PRO	% NEW SITE TRIPS		% PASS-BY TRIPS		NEW SITE TRIPS	PASS-BY	PASS-BY ADJUSTMENT	TOTAL SITE TRIPS	FUTURE TRAFFIC W/O COM DEV	FUTURE TRAFFIC W/ COM DEV
			INBOUND	OUTBOUND	INBOUND	OUTBOUND						
<b>INTERSECTION 1: Shiloh Road - Westtown Thornton Rd /Street Road (S.R.0926)</b>												
EB LEFT	97	102	35%	0%	0%	0%	16	0	0	16	113	118
THROUGH	423	444	0%	0%	0%	0%	0	0	0	0	423	444
RIGHT	15	16	0%	0%	0%	0%	0	0	0	0	15	16
WB LEFT	23	24	0%	0%	0%	0%	0	0	0	0	23	24
THROUGH	485	488	0%	0%	0%	0%	0	0	0	0	485	488
RIGHT	104	109	35%	0%	0%	0%	16	0	0	16	120	125
NB LEFT	13	14	0%	0%	0%	0%	0	0	0	0	13	14
THROUGH	101	106	5%	0%	0%	0%	2	0	0	2	103	108
RIGHT	13	14	0%	0%	0%	0%	0	0	0	0	13	14
SB LEFT	121	127	0%	35%	0%	0%	9	0	0	9	130	136
THROUGH	142	149	0%	5%	0%	0%	1	0	0	1	143	150
RIGHT	118	124	0%	35%	0%	0%	9	0	0	9	127	133
***TOTAL***	1635	1717	75%	75%	0%	0%	53	0	0	53	1688	1770
<b>INTERSECTION 2: Shiloh Road / Hunt Drive</b>												
EB LEFT	9	9	0%	0%	0%	0%	0	0	0	0	9	9
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	5	5	0%	0%	0%	0%	0	0	0	0	5	5
WB LEFT	0	0	0%	75%	0%	0%	19	0	0	19	19	19
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	0	0	0%	5%	0%	0%	1	0	0	1	1	1
NB LEFT	10	10	0%	0%	0%	0%	0	0	0	0	10	10
THROUGH	282	296	0%	0%	0%	0%	0	0	0	0	282	296
RIGHT	0	0	75%	0%	0%	0%	34	0	0	34	34	34
SB LEFT	0	0	5%	0%	0%	0%	2	0	0	2	2	2
THROUGH	313	328	0%	0%	0%	0%	0	0	0	0	313	328
RIGHT	6	6	0%	0%	0%	0%	0	0	0	0	6	6
***TOTAL***	625	654	80%	80%	0%	0%	56	0	0	56	681	710
<b>INTERSECTION 3: Shiloh Road / Oakbourne Road</b>												
EB LEFT	15	16	0%	0%	0%	0%	0	0	0	0	15	16
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	79	83	0%	0%	0%	0%	0	0	0	0	79	83
WB LEFT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
NB LEFT	80	84	0%	0%	0%	0%	0	0	0	0	80	84
THROUGH	211	221	0%	5%	0%	0%	1	0	0	1	212	222
RIGHT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
SB LEFT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
THROUGH	233	244	5%	0%	0%	0%	2	0	0	2	235	246
RIGHT	26	27	0%	0%	0%	0%	0	0	0	0	26	27
***TOTAL***	644	675	5%	5%	0%	0%	3	0	0	3	647	678
<b>INTERSECTION 4: Shiloh Road / Little Shiloh Road (S.R.2005)</b>												
EB LEFT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
THROUGH	31	33	10%	0%	0%	0%	4	0	0	4	35	37
RIGHT	196	206	5%	0%	0%	0%	2	0	0	2	198	208
WB LEFT	70	73	0%	0%	0%	0%	0	0	0	0	70	73
THROUGH	44	46	0%	10%	0%	0%	3	0	0	3	47	49
RIGHT	1	1	0%	0%	0%	0%	0	0	0	0	1	1
NB LEFT	146	153	0%	5%	0%	0%	1	0	0	1	147	154
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	60	63	0%	0%	0%	0%	0	0	0	0	60	63
SB LEFT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
THROUGH	2	2	0%	0%	0%	0%	0	0	0	0	2	2
RIGHT	1	1	0%	0%	0%	0%	0	0	0	0	1	1
***TOTAL***	551	578	15%	15%	0%	0%	10	0	0	10	561	588
<b>INTERSECTION 5: Shiloh Hill Drive / Little Shiloh Road (S.R.2005)</b>												
EB LEFT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
THROUGH	79	83	0%	0%	0%	0%	0	0	0	0	79	83
RIGHT	9	9	10%	0%	0%	0%	4	0	0	4	13	13
WB LEFT	3	3	10%	0%	0%	0%	4	0	0	4	7	7
THROUGH	104	109	0%	0%	0%	0%	0	0	0	0	104	109
RIGHT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
NB LEFT	9	9	0%	10%	0%	0%	3	0	0	3	12	12
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	3	3	0%	10%	0%	0%	3	0	0	3	6	6
SB LEFT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
***TOTAL***	207	216	20%	20%	0%	0%	14	0	0	14	221	230
<b>INTERSECTION 6: Westtown Road (S.R.2007) / Little Shiloh Road (S.R.2005) - Falcon Lane</b>												
EB LEFT	7	7	0%	0%	0%	0%	0	0	0	0	7	7
THROUGH	27	28	0%	0%	0%	0%	0	0	0	0	27	28
RIGHT	44	46	0%	10%	0%	0%	3	0	0	3	47	49
WB LEFT	23	24	0%	0%	0%	0%	0	0	0	0	23	24
THROUGH	46	48	0%	0%	0%	0%	0	0	0	0	46	48
RIGHT	23	24	0%	0%	0%	0%	0	0	0	0	23	24
NB LEFT	61	64	10%	0%	0%	0%	4	0	0	4	65	68
THROUGH	304	319	0%	0%	0%	0%	0	0	0	0	304	319
RIGHT	42	44	0%	0%	0%	0%	0	0	0	0	42	44
SB LEFT	20	21	0%	0%	0%	0%	0	0	0	0	20	21
THROUGH	325	341	0%	0%	0%	0%	0	0	0	0	325	341
RIGHT	5	5	0%	0%	0%	0%	0	0	0	0	5	5
***TOTAL***	927	971	10%	10%	0%	0%	7	0	0	7	934	978

## GROWTH RATE INFORMATION

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Growth Factors for August 2020 to July 2021				
County	Urban Interstate	Rural Interstate	Urban Non-Interstate	Rural Non-Interstate
ADAMS	*	*	0.89	0.72
ALLEGHENY	0.77	*	0.00	0.36
ARMSTRONG	0.73	*	0.00	0.35
BEAVER	0.68	1.87	0.00	0.31
BEDFORD	*	2.04	0.00	0.41
BERKS	1.05	2.37	0.16	0.55
BLAIR	0.70	1.87	0.00	0.34
BRADFORD	1.02	*	0.00	0.47
BUCKS	1.28	2.27	0.50	0.58
BUTLER	1.72	2.73	0.61	0.74
CAMBRIA	0.29	*	0.00	0.16
CAMERON	*	*	*	0.13
CARBON	1.26	2.53	0.28	0.61
CENTRE	1.46	2.50	0.61	0.66
CHESTER	1.67	2.96	0.48	0.79
CLARION	0.85	1.95	0.00	0.38
CLEARFIELD	0.88	2.02	0.00	0.41
CLINTON	0.81	2.14	0.00	0.43
COLUMBIA	1.09	2.19	0.25	0.52
CRAWFORD	0.83	1.91	0.00	0.40
CUMBERLAND	1.50	2.51	0.70	0.68
DAUPHIN	1.28	*	0.37	0.61
DELAWARE	0.88	*	0.00	*
ELK	*	*	0.00	0.28
ERIE	0.90	2.10	0.00	0.42
FAYETTE	0.71	*	0.00	0.36
FOREST	*	*	*	0.63
FRANKLIN	1.28	2.50	0.42	0.63
FULTON	*	2.06	*	0.48
GREENE	1.15	2.60	0.00	0.54
HUNTINGDON	*	1.84	0.00	0.35
INDIANA	1.13	*	0.07	0.50
JEFFERSON	*	2.06	0.00	0.41
JUNIATA	*	*	*	0.53
LACKAWANNA	0.73	2.23	0.00	0.41
LANCASTER	1.69	2.60	1.04	0.77
LAWRENCE	0.68	1.99	0.00	0.33
LEBANON	*	2.39	0.35	0.59
LEHIGH	1.50	2.83	0.38	0.71
LUZERNE	0.66	2.10	0.00	0.38
LYCOMING	0.91	2.12	0.00	0.44
MCKEAN	0.54	*	0.00	0.31
MERCER	0.57	1.91	0.00	0.31
MIFFLIN	0.67	*	0.00	0.35
MONROE	1.36	2.42	0.63	0.65
MONTGOMERY	1.14	*	0.24	0.56
MONTOUR	1.44	2.57	0.24	0.64
NORTHAMPTON	1.25	2.49	0.37	0.62
NORTHUMBERLAND	0.69	1.97	0.00	0.37
PERRY	*	*	0.87	0.61
PHILADELPHIA	0.64	*	0.00	*
PIKE	2.09	2.74	1.54	0.94
POTTER	*	*	*	0.45
SCHUYLKILL	0.52	1.84	0.00	0.31
SNYDER	1.11	*	0.31	0.53
SOMERSET	0.52	1.66	0.00	0.30
SULLIVAN	*	*	*	0.40
SUSQUEHANNA	1.08	2.18	0.23	0.51
TIOGA	*	*	*	0.47
UNION	1.48	2.36	0.78	0.67
VENANGO	*	1.61	0.00	0.26
WARREN	*	*	0.00	0.35
WASHINGTON	1.24	2.60	0.05	0.57
WAYNE	*	2.16	0.12	0.49
WESTMORELAND	0.84	2.00	0.00	0.38
WYOMING	*	*	0.00	0.42
YORK	1.30	2.48	0.50	0.64

\* = Functional Class Doesn't Exist in County

Questions? Please contact Andrew O'Neill at the Bureau of Planning and Research, 717-346-3250 or andoneill@pa.gov

**NOTE:** The projected growth factors are derived using historical VMT (Vehicle Miles Traveled) data (1994 to 2019), as well as Woods and Poole demographic and economic data. The factors should be compounded when calculating future values. The factors should not be used to project traffic beyond a 20-year period. Please be aware that these factors are estimates, and unforeseen events (opening of shopping centers, fast food franchises, gas stations, etc) could cause growth to change over time.



## CAPACITY AND QUEUE ANALYSIS WORKSHEETS

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### Critical Headway and Follow-up Headway Calculations

Equation 19-30

$$t_{c,x} = t_{c,base} + t_{c,hv}P_{hv} + t_{c,g}G - t_{3,it}$$

from HCM 6 Manual

Equation 19-31

$$t_{f,x} = t_{f,base} + t_{f,hv}P_{hv}$$

Shiloh Road / Hunt Drive - Proposed Access		$t_{c,base}$	$t_{c,hv}$	$P_{hv}$	$t_{c,g}$	G	$t_{3,it}$	Critical Headway $t_{c,x}$	$t_{f,base}$	$t_{f,hv}$	$P_{hv}$	Follow-up Headway $t_{f,x}$
AM Peak	EBL	7.1	1	0	0.2	-2	0	6.7	3	0.9	0	3.0
	EBT	6.5	1	0.02	0.2	-2	0	6.1	4	0.9	0.02	4.0
	EBR	6.2	1	0.29	0.1	-2	0	6.3	3.1	0.9	0.29	3.4
	WBL	7.1	1	0.02	0.2	-1	0	6.9	3	0.9	0.02	3.0
	WBT	6.5	1	0.02	0.2	-1	0	6.3	4	0.9	0.02	4.0
	WBR	6.2	1	0.02	0.1	-1	0	6.1	3.1	0.9	0.02	3.1
	NBL	4.3	1	0.5	0	4	0	4.8	3	0.9	0.5	3.5
SBL	4.3	1	0.02	0	-2	0	4.3	3	0.9	0.02	3.0	
PM Peak	EBL	7.1	1	0	0.2	-2	0	6.7	3	0.9	0	3.0
	EBT	6.5	1	0.02	0.2	-2	0	6.1	4	0.9	0.02	4.0
	EBR	6.2	1	0	0.1	-2	0	6.0	3.1	0.9	0	3.1
	WBL	7.1	1	0.02	0.2	-1	0	6.9	3	0.9	0.02	3.0
	WBT	6.5	1	0.02	0.2	-1	0	6.3	4	0.9	0.02	4.0
	WBR	6.2	1	0.02	0.1	-1	0	6.1	3.1	0.9	0.02	3.1
	NBL	4.3	1	0	0	4	0	4.3	3	0.9	0	3.0
SBL	4.3	1	0.02	0	-2	0	4.3	3	0.9	0.02	3.0	

Shiloh Road / Oakbourne Road		$t_{c,base}$	$t_{c,hv}$	$P_{hv}$	$t_{c,g}$	G	$t_{3,it}$	Critical Headway $t_{c,x}$	$t_{f,base}$	$t_{f,hv}$	$P_{hv}$	Follow-up Headway $t_{f,x}$
AM Peak	EBL	7.1	1	0.22	0.2	-1	0.7	6.4	3	0.9	0.22	3.2
	EBR	6.2	1	0.07	0.1	-1	0	6.2	3.1	0.9	0.07	3.2
	NBL	4.3	1	0.15	0	1	0	4.5	3	0.9	0.15	3.1
PM Peak	WBL	7.1	1	0	0.2	-1	0.7	6.2	3	0.9	0	3.0
	WBR	6.2	1	0	0.1	-1	0	6.1	3.1	0.9	0	3.1
	NBL	4.3	1	0	0	1	0	4.3	3	0.9	0	3.0

Little Shiloh Road / Shiloh Hill Drive		$t_{c,base}$	$t_{c,hv}$	$P_{hv}$	$t_{c,g}$	G	$t_{3,it}$	Critical Headway $t_{c,x}$	$t_{f,base}$	$t_{f,hv}$	$P_{hv}$	Follow-up Headway $t_{f,x}$
AM Peak	NBL	7.1	1	0.05	0.2	4	0.7	7.3	3	0.9	0.05	3.0
	NBR	6.2	1	0	0.1	4	0	6.6	3.1	0.9	0	3.1
	WBL	4.3	1	0.04	0	-2	0	4.3	3	0.9	0.04	3.0
PM Peak	NBL	7.1	1	0	0.2	4	0.7	7.2	3	0.9	0	3.0
	NBR	6.2	1	0.02	0.1	4	0	6.6	3.1	0.9	0.02	3.1
	WBL	4.3	1	0	0	-2	0	4.3	3	0.9	0	3.0

Little Shiloh Road - Falcon Lane / Westtown Road		$t_{c,base}$	$t_{c,hv}$	$P_{hv}$	$t_{c,g}$	G	$t_{3,it}$	Critical Headway $t_{c,x}$	$t_{f,base}$	$t_{f,hv}$	$P_{hv}$	Follow-up Headway $t_{f,x}$
AM Peak	EBL	7.1	1	0	0.2	-4	0	6.3	3	0.9	0	3.0
	EBT	6.5	1	0.06	0.2	-4	0	5.8	4	0.9	0.06	4.1
	EBR	6.2	1	0	0.1	-4	0	5.8	3.1	0.9	0	3.1
	WBL	7.1	1	0.07	0.2	4	0	8.0	3	0.9	0.07	3.1
	WBT	6.5	1	0	0.2	4	0	7.3	4	0.9	0	4.0
	WBR	6.2	1	0	0.1	4	0	6.6	3.1	0.9	0	3.1
	NBL	4.3	1	0	0	2	0	4.3	3	0.9	0	3.0
SBL	4.3	1	0.25	0	-1	0	4.6	3	0.9	0.25	3.2	
PM Peak	EBL	7.1	1	0	0.2	-4	0	6.3	3	0.9	0	3.0
	EBT	6.5	1	0.04	0.2	-4	0	5.7	4	0.9	0.04	4.0
	EBR	6.2	1	0.05	0.1	-4	0	5.9	3.1	0.9	0.05	3.1
	WBL	7.1	1	0	0.2	4	0	7.9	3	0.9	0	3.0
	WBT	6.5	1	0	0.2	4	0	7.3	4	0.9	0	4.0
	WBR	6.2	1	0	0.1	4	0	6.6	3.1	0.9	0	3.1
	NBL	4.3	1	0	0	2	0	4.3	3	0.9	0	3.0
SBL	4.3	1	0.06	0	-1	0	4.4	3	0.9	0.06	3.1	

1: Westtown Thornton Road/Shiloh Road & Street Road  
Existing Traffic Volumes - AM Peak

04/22/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	531	10	12	440	79	19	91	12	74	79	88
Future Volume (veh/h)	91	531	10	12	440	79	19	91	12	74	79	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1766	1795	1837	1875	1803	1846	996	996	996	1892	1949	1807
Adj Flow Rate, veh/h	107	625	12	14	518	93	22	107	14	87	93	104
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	5	3	0	0	5	2	0	0	0	4	0	10
Cap, veh/h	341	974	19	342	732	635	15	75	10	126	135	210
Arrive On Green	0.07	0.56	0.54	0.41	0.41	0.41	0.09	0.10	0.09	0.12	0.14	0.14
Sat Flow, veh/h	1682	1755	34	793	1803	1564	150	727	95	920	983	1531
Grp Volume(v), veh/h	107	0	637	14	518	93	143	0	0	180	0	104
Grp Sat Flow(s),veh/h/ln	1682	0	1789	793	1803	1564	972	0	0	1903	0	1531
Q Serve(g_s), s	2.6	0.0	19.2	1.0	18.7	2.9	8.0	0.0	0.0	7.0	0.0	4.9
Cycle Q Clear(g_c), s	2.6	0.0	19.2	8.0	18.7	2.9	8.0	0.0	0.0	7.0	0.0	4.9
Prop In Lane	1.00		0.02	1.00		1.00	0.15		0.10	0.48		1.00
Lane Grp Cap(c), veh/h	341	0	993	342	732	635	100	0	0	261	0	210
V/C Ratio(X)	0.31	0.00	0.64	0.04	0.71	0.15	1.43	0.00	0.00	0.69	0.00	0.49
Avail Cap(c_a), veh/h	392	0	1421	508	1110	963	100	0	0	463	0	373
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.3	0.0	12.0	18.6	19.3	14.6	35.1	0.0	0.0	32.3	0.0	31.1
Incr Delay (d2), s/veh	0.5	0.0	1.5	0.0	1.3	0.1	243.6	0.0	0.0	3.2	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	0.0	10.6	0.3	11.4	1.7	14.9	0.0	0.0	6.1	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.9	0.0	13.5	18.7	20.6	14.7	278.7	0.0	0.0	35.5	0.0	32.9
LnGrp LOS	B	A	B	B	C	B	F	A	A	D	A	C
Approach Vol, veh/h		744			625			143			284	
Approach Delay, s/veh		13.5			19.7			278.7			34.6	
Approach LOS		B			B			F			C	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		49.3		15.7	11.6	37.7		13.0				
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s		61.0		18.0	7.0	47.0		7.0				
Max Q Clear Time (g_c+I1), s		21.2		9.0	5.1	21.2		10.0				
Green Ext Time (p_c), s		20.8		0.7	0.0	9.5		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			40.1									
HCM 6th LOS			D									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

1: Westtown Thornton Road/Shiloh Road & Street Road  
Existing Traffic Volumes - AM Peak

04/22/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	531	10	12	440	79	19	91	12	74	79	88
Future Volume (vph)	91	531	10	12	440	79	19	91	12	74	79	88
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	12	11	12	12	11	11	11	12	12	12
Grade (%)		-1%			-2%			12%			-4%	
Storage Length (ft)	125		0	100		175	0		0	0		150
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997				0.850		0.987				0.850
Flt Protected	0.950			0.950				0.992			0.976	
Satd. Flow (prot)	1582	1752	0	1670	1731	1515	0	1601	0	0	1758	1419
Flt Permitted	0.195			0.379				0.992			0.976	
Satd. Flow (perm)	325	1752	0	666	1731	1515	0	1601	0	0	1758	1419
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			30	
Link Distance (ft)		1768			2485			1371			5597	
Travel Time (s)		26.8			37.7			26.7			127.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	5%	3%	0%	0%	5%	2%	0%	0%	0%	4%	0%	10%
Adj. Flow (vph)	107	625	12	14	518	93	22	107	14	87	93	104
Shared Lane Traffic (%)												
Lane Group Flow (vph)	107	637	0	14	518	93	0	143	0	0	180	104
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.07	1.07	1.11	1.06	1.06	1.21	1.21	1.21	1.05	1.05	1.05
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	1		1	1	1
Detector Template	Left			Left		Right	Left			Left		Right
Leading Detector (ft)	40	336		6	336	6	20	40		20	40	40
Trailing Detector (ft)	0	330		0	330	0	0	0		0	0	0
Detector 1 Position(ft)	0	330		0	330	0	0	0		0	0	0
Detector 1 Size(ft)	40	6		6	6	6	20	40		20	40	40
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases	2			6		6						4
Detector Phase	5	2		6	6	6	8	8		4	4	4
Switch Phase												

1: Westtown Thornton Road/Shiloh Road & Street Road  
Existing Traffic Volumes - AM Peak

04/22/2021

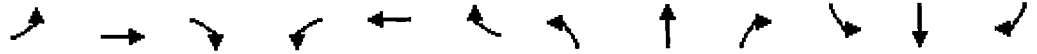


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	17.0		17.0	17.0	17.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	10.0	25.0		25.0	25.0	25.0	21.0	21.0		21.0	21.0	21.0
Total Split (s)	14.0	68.0		54.0	54.0	54.0	13.0	13.0		24.0	24.0	24.0
Total Split (%)	13.3%	64.8%		51.4%	51.4%	51.4%	12.4%	12.4%		22.9%	22.9%	22.9%
Maximum Green (s)	7.0	61.0		47.0	47.0	47.0	7.0	7.0		18.0	18.0	18.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	5.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	2.7		2.7	2.7	2.7	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	35.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	39.5	39.5		29.1	29.1	29.1		8.4			14.4	14.4
Actuated g/C Ratio	0.50	0.50		0.37	0.37	0.37		0.11			0.18	0.18
v/c Ratio	0.37	0.73		0.06	0.82	0.17		0.84			0.57	0.41
Control Delay	13.6	20.6		17.8	35.0	18.8		80.0			40.4	37.9
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay	13.6	20.6		17.8	35.0	18.8		80.0			40.4	37.9
LOS	B	C		B	C	B		E			D	D
Approach Delay		19.6			32.2			80.0			39.5	
Approach LOS		B			C			E			D	
90th %ile Green (s)	7.0	57.4		43.4	43.4	43.4	7.0	7.0		18.0	18.0	18.0
90th %ile Term Code	Max	Hold		Gap	Gap	Gap	Max	Max		Max	Max	Max
70th %ile Green (s)	7.0	47.5		33.5	33.5	33.5	7.0	7.0		16.4	16.4	16.4
70th %ile Term Code	Max	Hold		Gap	Gap	Gap	Max	Max		Gap	Gap	Gap
50th %ile Green (s)	7.0	41.2		27.2	27.2	27.2	7.0	7.0		13.5	13.5	13.5
50th %ile Term Code	Max	Hold		Gap	Gap	Gap	Max	Max		Gap	Gap	Gap
30th %ile Green (s)	7.0	35.8		21.8	21.8	21.8	7.0	7.0		11.1	11.1	11.1
30th %ile Term Code	Max	Hold		Gap	Gap	Gap	Max	Max		Gap	Gap	Gap
10th %ile Green (s)	0.0	17.0		17.0	17.0	17.0	7.0	7.0		8.2	8.2	8.2
10th %ile Term Code	Skip	Min		Min	Min	Min	Max	Max		Gap	Gap	Gap
Stops (vph)	40	380		9	370	48		87			130	73
Fuel Used(gal)	2	13		0	15	2		4			9	5
CO Emissions (g/hr)	125	923		24	1037	152		269			605	344
NOx Emissions (g/hr)	24	180		5	202	30		52			118	67
VOC Emissions (g/hr)	29	214		6	240	35		62			140	80
Dilemma Vehicles (#)	0	9		0	10	0		6			0	0
Queue Length 50th (ft)	26	226		5	239	32		73			84	47
Queue Length 95th (ft)	51	338		16	351	63		#214			166	105
Internal Link Dist (ft)		1688			2405			1291			5517	
Turn Bay Length (ft)	125			100		175						150
Base Capacity (vph)	296	1373		426	1107	969		170			445	359



1: Westtown Thornton Road/Shiloh Road & Street Road  
Existing Traffic Volumes - AM Peak

04/22/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.36	0.46		0.03	0.47	0.10		0.84			0.40	0.29

Intersection Summary

Area Type: Other  
 Cycle Length: 105  
 Actuated Cycle Length: 79.2  
 Natural Cycle: 80  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 31.9  
 Intersection LOS: C  
 Intersection Capacity Utilization 73.8%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 90th %ile Actuated Cycle: 101.4  
 70th %ile Actuated Cycle: 89.9  
 50th %ile Actuated Cycle: 80.7  
 30th %ile Actuated Cycle: 72.9  
 10th %ile Actuated Cycle: 51.2  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Westtown Thornton Road/Shiloh Road & Street Road

Ø2	Ø4	Ø8
68 s	24 s	13 s
Ø5	Ø6	
14 s	54 s	

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2026 Traffic Volumes without Development - AM Peak

04/22/2021























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	544	10	12	451	81	19	93	12	76	81	90
Future Volume (veh/h)	93	544	10	12	451	81	19	93	12	76	81	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1766	1795	1837	1875	1803	1846	996	996	996	1892	1949	1807
Adj Flow Rate, veh/h	109	640	12	14	531	95	22	109	14	89	95	106
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	5	3	0	0	5	2	0	0	0	4	0	10
Cap, veh/h	288	903	17	269	678	588	26	127	16	122	130	203
Arrive On Green	0.07	0.51	0.50	0.38	0.38	0.38	0.16	0.17	0.16	0.12	0.13	0.13
Sat Flow, veh/h	1682	1756	33	782	1803	1564	148	731	94	920	983	1531
Grp Volume(v), veh/h	109	0	652	14	531	95	145	0	0	184	0	106
Grp Sat Flow(s),veh/h/ln	1682	0	1789	782	1803	1564	972	0	0	1903	0	1531
Q Serve(g_s), s	3.3	0.0	24.9	1.2	23.3	3.6	12.9	0.0	0.0	8.3	0.0	5.8
Cycle Q Clear(g_c), s	3.3	0.0	24.9	13.2	23.3	3.6	12.9	0.0	0.0	8.3	0.0	5.8
Prop In Lane	1.00		0.02	1.00		1.00	0.15		0.10	0.48		1.00
Lane Grp Cap(c), veh/h	288	0	920	269	678	588	169	0	0	252	0	203
V/C Ratio(X)	0.38	0.00	0.71	0.05	0.78	0.16	0.86	0.00	0.00	0.73	0.00	0.52
Avail Cap(c_a), veh/h	318	0	1100	334	827	717	185	0	0	362	0	291
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.5	0.0	16.6	26.2	24.7	18.5	36.0	0.0	0.0	37.5	0.0	36.2
Incr Delay (d2), s/veh	0.8	0.0	2.6	0.1	4.0	0.1	28.9	0.0	0.0	4.3	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	0.0	14.4	0.4	14.9	2.2	7.8	0.0	0.0	7.4	0.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	0.0	19.2	26.3	28.7	18.7	64.8	0.0	0.0	41.8	0.0	38.2
LnGrp LOS	B	A	B	C	C	B	E	A	A	D	A	D
Approach Vol, veh/h		761			640			145			290	
Approach Delay, s/veh		19.1			27.2			64.8			40.5	
Approach LOS		B			C			E			D	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		52.0		16.8	12.4	39.6		20.6				
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s		54.0		16.0	7.0	40.0		16.0				
Max Q Clear Time (g_c+I1), s		26.9		10.3	5.8	25.8		14.9				
Green Ext Time (p_c), s		16.6		0.5	0.0	6.8		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		28.9
HCM 6th LOS		C

Notes  
 User approved pedestrian interval to be less than phase max green.

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2026 Traffic Volumes without Development - AM Peak

04/22/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	544	10	12	451	81	19	93	12	76	81	90
Future Volume (vph)	93	544	10	12	451	81	19	93	12	76	81	90
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	12	11	12	12	11	11	11	12	12	12
Grade (%)		-1%			-2%			12%			-4%	
Storage Length (ft)	125		0	100		175	0		0	0		150
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Friction		0.997				0.850		0.987				0.850
Flt Protected	0.950			0.950				0.992			0.976	
Satd. Flow (prot)	1582	1752	0	1670	1731	1515	0	1601	0	0	1758	1419
Flt Permitted	0.170			0.322				0.992			0.976	
Satd. Flow (perm)	283	1752	0	566	1731	1515	0	1601	0	0	1758	1419
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			30	
Link Distance (ft)		1768			2485			1371			5597	
Travel Time (s)		26.8			37.7			26.7			127.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	5%	3%	0%	0%	5%	2%	0%	0%	0%	4%	0%	10%
Adj. Flow (vph)	109	640	12	14	531	95	22	109	14	89	95	106
Shared Lane Traffic (%)												
Lane Group Flow (vph)	109	652	0	14	531	95	0	145	0	0	184	106
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.07	1.07	1.11	1.06	1.06	1.21	1.21	1.21	1.05	1.05	1.05
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	1		1	1	1
Detector Template	Left			Left		Right	Left			Left		Right
Leading Detector (ft)	40	336		6	336	6	20	40		20	40	40
Trailing Detector (ft)	0	330		0	330	0	0	0		0	0	0
Detector 1 Position(ft)	0	330		0	330	0	0	0		0	0	0
Detector 1 Size(ft)	40	6		6	6	6	20	40		20	40	40
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases	2			6		6						4
Detector Phase	5	2		6	6	6	8	8		4	4	4
Switch Phase												

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2026 Traffic Volumes without Development - AM Peak

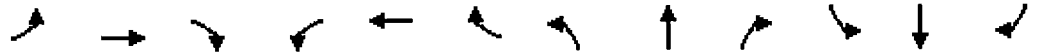
04/22/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	17.0		17.0	17.0	17.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	14.0	25.0		25.0	25.0	25.0	21.0	21.0		21.0	21.0	21.0
Total Split (s)	14.0	61.0		47.0	47.0	47.0	22.0	22.0		22.0	22.0	22.0
Total Split (%)	13.3%	58.1%		44.8%	44.8%	44.8%	21.0%	21.0%		21.0%	21.0%	21.0%
Maximum Green (s)	7.0	54.0		40.0	40.0	40.0	16.0	16.0		16.0	16.0	16.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag		Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	5.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	2.7		2.7	2.7	2.7	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	35.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0
Pedestrian Calls (##/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	41.6	41.6		31.3	31.3	31.3		14.0			14.7	14.7
Actuated g/C Ratio	0.48	0.48		0.36	0.36	0.36		0.16			0.17	0.17
v/c Ratio	0.42	0.78		0.07	0.86	0.18		0.57			0.62	0.45
Control Delay	17.8	26.4		21.4	42.2	22.0		47.7			48.0	44.4
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay	17.8	26.4		21.4	42.2	22.0		47.7			48.0	44.4
LOS	B	C		C	D	C		D			D	D
Approach Delay		25.2			38.7			47.7			46.7	
Approach LOS		C			D			D			D	
90th %ile Green (s)	7.0	54.0		40.0	40.0	40.0	16.0	16.0		16.0	16.0	16.0
90th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
70th %ile Green (s)	7.0	53.0		39.0	39.0	39.0	16.0	16.0		16.0	16.0	16.0
70th %ile Term Code	Max	Hold		Gap	Gap	Gap	Max	Max		Max	Max	Max
50th %ile Green (s)	7.0	46.2		32.2	32.2	32.2	13.9	13.9		15.2	15.2	15.2
50th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Gap	Gap	Gap
30th %ile Green (s)	7.0	39.1		25.1	25.1	25.1	11.0	11.0		12.1	12.1	12.1
30th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Gap	Gap	Gap
10th %ile Green (s)	0.0	17.0		17.0	17.0	17.0	7.8	7.8		8.6	8.6	8.6
10th %ile Term Code	Skip	Min		Min	Min	Min	Gap	Gap		Gap	Gap	Gap
Stops (vph)	44	421		9	386	49		107			137	76
Fuel Used(gal)	2	15		0	16	2		3			9	5
CO Emissions (g/hr)	136	1018		25	1115	159		225			635	361
NOx Emissions (g/hr)	27	198		5	217	31		44			124	70
VOC Emissions (g/hr)	32	236		6	258	37		52			147	84
Dilemma Vehicles (#)	0	9		0	13	0		6			0	0
Queue Length 50th (ft)	33	297		6	293	39		81			103	57
Queue Length 95th (ft)	62	413		19	409	73		147			180	113
Internal Link Dist (ft)		1688			2405			1291			5517	
Turn Bay Length (ft)	125			100		175						150
Base Capacity (vph)	261	1160		283	867	759		332			365	294

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2026 Traffic Volumes without Development - AM Peak

04/22/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.42	0.56		0.05	0.61	0.13		0.44			0.50	0.36

Intersection Summary

Area Type: Other  
 Cycle Length: 105  
 Actuated Cycle Length: 87.4  
 Natural Cycle: 85  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 35.1  
 Intersection Capacity Utilization 74.8%  
 Analysis Period (min) 15  
 90th %ile Actuated Cycle: 105  
 70th %ile Actuated Cycle: 104  
 50th %ile Actuated Cycle: 94.3  
 30th %ile Actuated Cycle: 81.2  
 10th %ile Actuated Cycle: 52.4

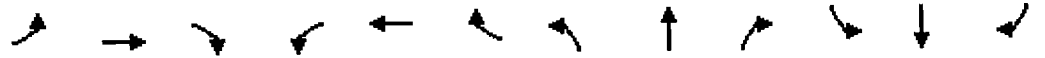
Intersection LOS: D  
 ICU Level of Service D

Splits and Phases: 1: Westtown Thornton Road/Shiloh Road & Street Road

Ø2	Ø4	Ø8
61 s	22 s	22 s
Ø5	Ø6	
14 s	47 s	

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2026 Traffic Volumes with Development - AM Peak

04/22/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗		↕			↖	↗
Traffic Volume (veh/h)	98	544	10	12	451	86	19	93	12	90	83	104
Future Volume (veh/h)	98	544	10	12	451	86	19	93	12	90	83	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1766	1795	1837	1875	1803	1846	996	996	996	1892	1949	1807
Adj Flow Rate, veh/h	115	640	12	14	531	101	22	109	14	106	98	122
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	5	3	0	0	5	2	0	0	0	4	0	10
Cap, veh/h	284	896	17	262	670	581	26	127	16	140	129	217
Arrive On Green	0.07	0.51	0.50	0.37	0.37	0.37	0.16	0.17	0.16	0.13	0.14	0.14
Sat Flow, veh/h	1682	1756	33	782	1803	1564	148	731	94	987	913	1531
Grp Volume(v), veh/h	115	0	652	14	531	101	145	0	0	204	0	122
Grp Sat Flow(s), veh/h/ln	1682	0	1789	782	1803	1564	972	0	0	1900	0	1531
Q Serve(g_s), s	3.6	0.0	25.8	1.3	24.1	4.0	13.3	0.0	0.0	9.5	0.0	6.8
Cycle Q Clear(g_c), s	3.6	0.0	25.8	13.8	24.1	4.0	13.3	0.0	0.0	9.5	0.0	6.8
Prop In Lane	1.00		0.02	1.00		1.00	0.15		0.10	0.52		1.00
Lane Grp Cap(c), veh/h	284	0	913	262	670	581	169	0	0	269	0	217
V/C Ratio(X)	0.40	0.00	0.71	0.05	0.79	0.17	0.86	0.00	0.00	0.76	0.00	0.56
Avail Cap(c_a), veh/h	307	0	1071	321	805	698	180	0	0	351	0	283
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.3	0.0	17.3	27.4	25.7	19.4	37.0	0.0	0.0	38.2	0.0	36.8
Incr Delay (d2), s/veh	0.9	0.0	2.8	0.1	4.6	0.1	30.4	0.0	0.0	6.8	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.3	0.0	15.0	0.4	15.5	2.5	8.0	0.0	0.0	8.5	0.0	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.2	0.0	20.1	27.5	30.3	19.5	67.4	0.0	0.0	44.9	0.0	39.1
LnGrp LOS	B	A	C	C	C	B	E	A	A	D	A	D
Approach Vol, veh/h		767			646			145			326	
Approach Delay, s/veh		20.0			28.5			67.4			42.7	
Approach LOS		B			C			E			D	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		52.9		18.0	12.8	40.1		21.0				
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s		54.0		16.0	7.0	40.0		16.0				
Max Q Clear Time (g_c+I1), s		27.8		11.5	6.1	26.6		15.3				
Green Ext Time (p_c), s		16.2		0.5	0.0	6.6		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	30.5
HCM 6th LOS	C

Notes  
 User approved pedestrian interval to be less than phase max green.

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2026 Traffic Volumes with Development - AM Peak

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	544	10	12	451	86	19	93	12	90	83	104
Future Volume (vph)	98	544	10	12	451	86	19	93	12	90	83	104
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	12	11	12	12	11	11	11	12	12	12
Grade (%)		-1%			-2%			12%				-4%
Storage Length (ft)	125		0	100		175	0		0	0		150
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997				0.850		0.987				0.850
Flt Protected	0.950			0.950				0.992			0.975	
Satd. Flow (prot)	1582	1752	0	1670	1731	1515	0	1601	0	0	1754	1419
Flt Permitted	0.167			0.316				0.992			0.975	
Satd. Flow (perm)	278	1752	0	555	1731	1515	0	1601	0	0	1754	1419
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			30	
Link Distance (ft)		1768			2485			1371			5597	
Travel Time (s)		26.8			37.7			26.7			127.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	5%	3%	0%	0%	5%	2%	0%	0%	0%	4%	0%	10%
Adj. Flow (vph)	115	640	12	14	531	101	22	109	14	106	98	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	115	652	0	14	531	101	0	145	0	0	204	122
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.07	1.07	1.11	1.06	1.06	1.21	1.21	1.21	1.05	1.05	1.05
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	1		1	1	1
Detector Template	Left			Left		Right	Left			Left		Right
Leading Detector (ft)	40	336		6	336	6	20	40		20	40	40
Trailing Detector (ft)	0	330		0	330	0	0	0		0	0	0
Detector 1 Position(ft)	0	330		0	330	0	0	0		0	0	0
Detector 1 Size(ft)	40	6		6	6	6	20	40		20	40	40
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases	2			6		6						4
Detector Phase	5	2		6	6	6	8	8		4	4	4
Switch Phase												

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2026 Traffic Volumes with Development - AM Peak

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	17.0		17.0	17.0	17.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	14.0	25.0		25.0	25.0	25.0	21.0	21.0		21.0	21.0	21.0
Total Split (s)	14.0	61.0		47.0	47.0	47.0	22.0	22.0		22.0	22.0	22.0
Total Split (%)	13.3%	58.1%		44.8%	44.8%	44.8%	21.0%	21.0%		21.0%	21.0%	21.0%
Maximum Green (s)	7.0	54.0		40.0	40.0	40.0	16.0	16.0		16.0	16.0	16.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	5.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	2.7		2.7	2.7	2.7	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	35.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	41.8	41.8		31.5	31.5	31.5		14.0			15.5	15.5
Actuated g/C Ratio	0.47	0.47		0.36	0.36	0.36		0.16			0.18	0.18
v/c Ratio	0.45	0.79		0.07	0.86	0.19		0.57			0.66	0.49
Control Delay	18.7	26.9		21.6	42.8	22.3		48.2			49.8	45.4
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay	18.7	26.9		21.6	42.8	22.3		48.2			49.8	45.4
LOS	B	C		C	D	C		D			D	D
Approach Delay		25.7			39.2			48.2			48.1	
Approach LOS		C			D			D			D	
90th %ile Green (s)	7.0	54.0		40.0	40.0	40.0	16.0	16.0		16.0	16.0	16.0
90th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
70th %ile Green (s)	7.0	53.0		39.0	39.0	39.0	16.0	16.0		16.0	16.0	16.0
70th %ile Term Code	Max	Hold		Gap	Gap	Gap	Max	Max		Max	Max	Max
50th %ile Green (s)	7.0	46.2		32.2	32.2	32.2	13.9	13.9		16.0	16.0	16.0
50th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Max	Max	Max
30th %ile Green (s)	7.0	39.6		25.6	25.6	25.6	11.1	11.1		13.4	13.4	13.4
30th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Gap	Gap	Gap
10th %ile Green (s)	0.0	17.2		17.2	17.2	17.2	7.8	7.8		9.7	9.7	9.7
10th %ile Term Code	Skip	Gap		Gap	Gap	Gap	Gap	Gap		Gap	Gap	Gap
Stops (vph)	47	424		9	388	53		107			148	88
Fuel Used(gal)	2	15		0	16	2		3			10	6
CO Emissions (g/hr)	146	1025		25	1121	170		226			707	418
NOx Emissions (g/hr)	28	199		5	218	33		44			138	81
VOC Emissions (g/hr)	34	238		6	260	39		52			164	97
Dilemma Vehicles (#)	0	9		0	13	0		6			0	0
Queue Length 50th (ft)	36	302		6	297	42		82			116	67
Queue Length 95th (ft)	64	413		19	409	76		147			#209	128
Internal Link Dist (ft)		1688			2405			1291			5517	
Turn Bay Length (ft)	125			100		175						150
Base Capacity (vph)	257	1153		274	856	749		328			359	290



1: Westtown Thornton Road/Shiloh Road & Street Road  
 2026 Traffic Volumes with Development - AM Peak

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.45	0.57		0.05	0.62	0.13		0.44			0.57	0.42

Intersection Summary

Area Type: Other  
 Cycle Length: 105  
 Actuated Cycle Length: 88.2  
 Natural Cycle: 85  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 35.9  
 Intersection Capacity Utilization 75.7%  
 Analysis Period (min) 15  
 90th %ile Actuated Cycle: 105  
 70th %ile Actuated Cycle: 104  
 50th %ile Actuated Cycle: 95.1  
 30th %ile Actuated Cycle: 83.1  
 10th %ile Actuated Cycle: 53.7  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Intersection LOS: D  
 ICU Level of Service D

Splits and Phases: 1: Westtown Thornton Road/Shiloh Road & Street Road

Ø2	Ø4	Ø8
61 s	22 s	22 s
Ø5	Ø6	
14 s	47 s	

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2031 Traffic Volumes without Development - AM Peak

04/28/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↘		↙	↑	↗		↕			↕	↗
Traffic Volume (veh/h)	95	557	10	13	462	83	20	95	13	78	83	92
Future Volume (veh/h)	95	557	10	13	462	83	20	95	13	78	83	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1766	1795	1837	1875	1803	1846	996	996	996	1892	1949	1807
Adj Flow Rate, veh/h	112	655	12	15	544	98	24	112	15	92	98	108
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	5	3	0	0	5	2	0	0	0	4	0	10
Cap, veh/h	280	905	17	256	683	593	28	130	17	123	131	204
Arrive On Green	0.07	0.51	0.50	0.38	0.38	0.38	0.17	0.18	0.17	0.12	0.13	0.13
Sat Flow, veh/h	1682	1757	32	771	1803	1564	154	721	96	921	982	1531
Grp Volume(v), veh/h	112	0	667	15	544	98	151	0	0	190	0	108
Grp Sat Flow(s),veh/h/ln	1682	0	1789	771	1803	1564	971	0	0	1903	0	1531
Q Serve(g_s), s	3.5	0.0	26.8	1.4	24.9	3.9	14.0	0.0	0.0	9.0	0.0	6.1
Cycle Q Clear(g_c), s	3.5	0.0	26.8	15.1	24.9	3.9	14.0	0.0	0.0	9.0	0.0	6.1
Prop In Lane	1.00		0.02	1.00		1.00	0.16		0.10	0.48		1.00
Lane Grp Cap(c), veh/h	280	0	921	256	683	593	175	0	0	253	0	204
V/C Ratio(X)	0.40	0.00	0.72	0.06	0.80	0.17	0.86	0.00	0.00	0.75	0.00	0.53
Avail Cap(c_a), veh/h	304	0	1078	313	815	707	178	0	0	328	0	264
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.4	0.0	17.4	28.0	25.7	19.1	37.1	0.0	0.0	39.0	0.0	37.6
Incr Delay (d2), s/veh	0.9	0.0	3.0	0.1	4.7	0.1	32.7	0.0	0.0	6.9	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.3	0.0	15.5	0.5	15.9	2.4	8.4	0.0	0.0	8.2	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	0.0	20.4	28.1	30.4	19.3	69.9	0.0	0.0	45.9	0.0	39.7
LnGrp LOS	B	A	C	C	C	B	E	A	A	D	A	D
Approach Vol, veh/h		779			657			151			298	
Approach Delay, s/veh		20.2			28.7			69.9			43.7	
Approach LOS		C			C			E			D	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		53.9		17.4	12.7	41.2		21.7				
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s		55.0		15.0	7.0	41.0		16.0				
Max Q Clear Time (g_c+I1), s		28.8		11.0	6.0	27.4		16.0				
Green Ext Time (p_c), s		16.5		0.4	0.0	6.8		0.0				

Intersection Summary

HCM 6th Ctrl Delay	30.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.












1: Westtown Thornton Road/Shiloh Road & Street Road  
 2031 Traffic Volumes without Development - AM Peak

04/28/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	557	10	13	462	83	20	95	13	78	83	92
Future Volume (vph)	95	557	10	13	462	83	20	95	13	78	83	92
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	12	11	12	12	11	11	11	12	12	12
Grade (%)		-1%			-2%			12%			-4%	
Storage Length (ft)	125		0	100		175	0		0	0		150
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997				0.850		0.987				0.850
Flt Protected	0.950			0.950				0.992			0.976	
Satd. Flow (prot)	1582	1752	0	1670	1731	1515	0	1601	0	0	1758	1419
Flt Permitted	0.163			0.306				0.992			0.976	
Satd. Flow (perm)	271	1752	0	538	1731	1515	0	1601	0	0	1758	1419
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35				30
Link Distance (ft)		1768			2485			1371				5597
Travel Time (s)		26.8			37.7			26.7				127.2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	5%	3%	0%	0%	5%	2%	0%	0%	0%	4%	0%	10%
Adj. Flow (vph)	112	655	12	15	544	98	24	112	15	92	98	108
Shared Lane Traffic (%)												
Lane Group Flow (vph)	112	667	0	15	544	98	0	151	0	0	190	108
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.07	1.07	1.11	1.06	1.06	1.21	1.21	1.21	1.05	1.05	1.05
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	1		1	1	1
Detector Template	Left			Left		Right	Left			Left		Right
Leading Detector (ft)	40	336		6	336	6	20	40		20	40	40
Trailing Detector (ft)	0	330		0	330	0	0	0		0	0	0
Detector 1 Position(ft)	0	330		0	330	0	0	0		0	0	0
Detector 1 Size(ft)	40	6		6	6	6	20	40		20	40	40
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases	2			6		6						4
Detector Phase	5	2		6	6	6	8	8		4	4	4
Switch Phase												

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2031 Traffic Volumes without Development - AM Peak

04/28/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	17.0		17.0	17.0	17.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	14.0	25.0		25.0	25.0	25.0	21.0	21.0		21.0	21.0	21.0
Total Split (s)	14.0	62.0		48.0	48.0	48.0	22.0	22.0		21.0	21.0	21.0
Total Split (%)	13.3%	59.0%		45.7%	45.7%	45.7%	21.0%	21.0%		20.0%	20.0%	20.0%
Maximum Green (s)	7.0	55.0		41.0	41.0	41.0	16.0	16.0		15.0	15.0	15.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0			-1.0	-1.0	-1.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	5.0			5.0	5.0	5.0
Lead/Lag	Lead			Lag			Lag					
Lead-Lag Optimize?	Yes			Yes			Yes					
Vehicle Extension (s)	3.0	5.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	2.7		2.7	2.7	2.7	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	35.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	42.5	42.5		32.2	32.2	32.2		14.1			14.6	14.6
Actuated g/C Ratio	0.48	0.48		0.36	0.36	0.36		0.16			0.17	0.17
v/c Ratio	0.44	0.79		0.08	0.86	0.18		0.59			0.65	0.46
Control Delay	18.0	26.6		21.1	42.3	21.6		48.7			50.4	45.7
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay	18.0	26.6		21.1	42.3	21.6		48.7			50.4	45.7
LOS	B	C		C	D	C		D			D	D
Approach Delay		25.4			38.7			48.7			48.7	
Approach LOS		C			D			D			D	
90th %ile Green (s)	7.0	55.0		41.0	41.0	41.0	16.0	16.0		15.0	15.0	15.0
90th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
70th %ile Green (s)	7.0	53.7		39.7	39.7	39.7	16.0	16.0		15.0	15.0	15.0
70th %ile Term Code	Max	Hold		Gap	Gap	Gap	Max	Max		Max	Max	Max
50th %ile Green (s)	7.0	47.0		33.0	33.0	33.0	14.2	14.2		15.0	15.0	15.0
50th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Max	Max	Max
30th %ile Green (s)	7.0	40.3		26.3	26.3	26.3	11.4	11.4		12.8	12.8	12.8
30th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Gap	Gap	Gap
10th %ile Green (s)	0.0	17.7		17.7	17.7	17.7	8.0	8.0		9.2	9.2	9.2
10th %ile Term Code	Skip	Gap		Gap	Gap	Gap	Gap	Gap		Gap	Gap	Gap
Stops (vph)	44	434		9	397	51		111			139	78
Fuel Used(gal)	2	15		0	16	2		3			9	5
CO Emissions (g/hr)	139	1047		26	1144	163		236			664	371
NOx Emissions (g/hr)	27	204		5	223	32		46			129	72
VOC Emissions (g/hr)	32	243		6	265	38		55			154	86
Dilemma Vehicles (#)	0	9		0	13	0		7			0	0
Queue Length 50th (ft)	34	308		6	304	40		86			108	59
Queue Length 95th (ft)	61	420		19	416	73		152			#198	117
Internal Link Dist (ft)		1688			2405			1291			5517	
Turn Bay Length (ft)	125			100		175						150
Base Capacity (vph)	256	1167		272	875	766		327			338	273

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2031 Traffic Volumes without Development - AM Peak

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.44	0.57		0.06	0.62	0.13		0.46			0.56	0.40

Intersection Summary

Area Type: Other  
 Cycle Length: 105  
 Actuated Cycle Length: 88.3  
 Natural Cycle: 85  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 35.6  
 Intersection LOS: D  
 Intersection Capacity Utilization 75.8%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 90th %ile Actuated Cycle: 105  
 70th %ile Actuated Cycle: 103.7  
 50th %ile Actuated Cycle: 95.2  
 30th %ile Actuated Cycle: 83.5  
 10th %ile Actuated Cycle: 53.9  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Westtown Thornton Road/Shiloh Road & Street Road

Ø2	Ø4	Ø3
62 s	21 s	22 s
Ø5	Ø6	
14 s	48 s	

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2031 Traffic Volumes with Development - AM Peak

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















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	557	10	13	462	88	20	95	13	92	85	106
Future Volume (veh/h)	100	557	10	13	462	88	20	95	13	92	85	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1766	1795	1837	1875	1803	1846	996	996	996	1892	1949	1807
Adj Flow Rate, veh/h	118	655	12	15	544	104	24	112	15	108	100	125
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	5	3	0	0	5	2	0	0	0	4	0	10
Cap, veh/h	277	899	16	251	677	587	28	129	17	139	129	216
Arrive On Green	0.07	0.51	0.50	0.38	0.38	0.38	0.17	0.18	0.17	0.13	0.14	0.14
Sat Flow, veh/h	1682	1757	32	771	1803	1564	154	721	96	986	913	1531
Grp Volume(v), veh/h	118	0	667	15	544	104	151	0	0	208	0	125
Grp Sat Flow(s),veh/h/ln	1682	0	1789	771	1803	1564	971	0	0	1900	0	1531
Q Serve(g_s), s	3.8	0.0	27.6	1.5	25.7	4.2	14.4	0.0	0.0	10.1	0.0	7.3
Cycle Q Clear(g_c), s	3.8	0.0	27.6	15.6	25.7	4.2	14.4	0.0	0.0	10.1	0.0	7.3
Prop In Lane	1.00		0.02	1.00		1.00	0.16		0.10	0.52		1.00
Lane Grp Cap(c), veh/h	277	0	916	251	677	587	174	0	0	268	0	216
V/C Ratio(X)	0.43	0.00	0.73	0.06	0.80	0.18	0.87	0.00	0.00	0.78	0.00	0.58
Avail Cap(c_a), veh/h	295	0	1053	302	796	691	174	0	0	320	0	258
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.1	0.0	18.1	29.0	26.6	19.9	38.1	0.0	0.0	39.7	0.0	38.2
Incr Delay (d2), s/veh	1.0	0.0	3.1	0.1	5.2	0.1	34.6	0.0	0.0	9.6	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.5	0.0	16.1	0.5	16.5	2.6	8.7	0.0	0.0	9.2	0.0	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.1	0.0	21.2	29.1	31.8	20.0	72.8	0.0	0.0	49.2	0.0	40.6
LnGrp LOS	C	A	C	C	C	C	E	A	A	D	A	D
Approach Vol, veh/h		785			663			151			333	
Approach Delay, s/veh		21.0			29.9			72.8			46.0	
Approach LOS		C			C			E			D	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		54.7		18.4	13.0	41.7		22.0				
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s		55.0		15.0	7.0	41.0		16.0				
Max Q Clear Time (g_c+I1), s		29.6		12.1	6.3	28.2		16.4				
Green Ext Time (p_c), s		16.1		0.4	0.0	6.5		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		32.4
HCM 6th LOS		C

**Notes**  
 User approved pedestrian interval to be less than phase max green.













1: Westtown Thornton Road/Shiloh Road & Street Road  
 2031 Traffic Volumes with Development - AM Peak

04/28/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	557	10	13	462	88	20	95	13	92	85	106
Future Volume (vph)	100	557	10	13	462	88	20	95	13	92	85	106
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	12	11	12	12	11	11	11	12	12	12
Grade (%)		-1%			-2%			12%			-4%	
Storage Length (ft)	125		0	100		175	0		0	0		150
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997				0.850		0.987				0.850
Flt Protected	0.950			0.950				0.992			0.975	
Satd. Flow (prot)	1582	1752	0	1670	1731	1515	0	1601	0	0	1754	1419
Flt Permitted	0.162			0.304				0.992			0.975	
Satd. Flow (perm)	270	1752	0	534	1731	1515	0	1601	0	0	1754	1419
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35				30
Link Distance (ft)		1768			2485			1371				5597
Travel Time (s)		26.8			37.7			26.7				127.2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	5%	3%	0%	0%	5%	2%	0%	0%	0%	4%	0%	10%
Adj. Flow (vph)	118	655	12	15	544	104	24	112	15	108	100	125
Shared Lane Traffic (%)												
Lane Group Flow (vph)	118	667	0	15	544	104	0	151	0	0	208	125
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.07	1.07	1.11	1.06	1.06	1.21	1.21	1.21	1.05	1.05	1.05
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	1		1	1	1
Detector Template	Left			Left		Right	Left			Left		Right
Leading Detector (ft)	40	336		6	336	6	20	40		20	40	40
Trailing Detector (ft)	0	330		0	330	0	0	0		0	0	0
Detector 1 Position(ft)	0	330		0	330	0	0	0		0	0	0
Detector 1 Size(ft)	40	6		6	6	6	20	40		20	40	40
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases	2			6		6						4
Detector Phase	5	2		6	6	6	8	8		4	4	4
Switch Phase												

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2031 Traffic Volumes with Development - AM Peak

04/28/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	17.0		17.0	17.0	17.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	14.0	25.0		25.0	25.0	25.0	21.0	21.0		21.0	21.0	21.0
Total Split (s)	14.0	62.0		48.0	48.0	48.0	22.0	22.0		21.0	21.0	21.0
Total Split (%)	13.3%	59.0%		45.7%	45.7%	45.7%	21.0%	21.0%		20.0%	20.0%	20.0%
Maximum Green (s)	7.0	55.0		41.0	41.0	41.0	16.0	16.0		15.0	15.0	15.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag		Lag	Lag	Lag				
Lead-Lag Optimize?	Yes			Yes		Yes	Yes	Yes				
Vehicle Extension (s)	3.0	5.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	2.7		2.7	2.7	2.7	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	35.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	42.6	42.6		32.3	32.3	32.3		14.1			15.2	15.2
Actuated g/C Ratio	0.48	0.48		0.36	0.36	0.36		0.16			0.17	0.17
v/c Ratio	0.47	0.79		0.08	0.86	0.19		0.59			0.70	0.52
Control Delay	18.8	26.9		21.2	42.7	21.9		49.0			52.4	47.1
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay	18.8	26.9		21.2	42.7	21.9		49.0			52.4	47.1
LOS	B	C		C	D	C		D			D	D
Approach Delay		25.7			38.9			49.0			50.4	
Approach LOS		C			D			D			D	
90th %ile Green (s)	7.0	55.0		41.0	41.0	41.0	16.0	16.0		15.0	15.0	15.0
90th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
70th %ile Green (s)	7.0	53.7		39.7	39.7	39.7	16.0	16.0		15.0	15.0	15.0
70th %ile Term Code	Max	Hold		Gap	Gap	Gap	Max	Max		Max	Max	Max
50th %ile Green (s)	7.0	47.0		33.0	33.0	33.0	14.2	14.2		15.0	15.0	15.0
50th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Max	Max	Max
30th %ile Green (s)	7.0	40.5		26.5	26.5	26.5	11.4	11.4		14.1	14.1	14.1
30th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Gap	Gap	Gap
10th %ile Green (s)	0.0	18.1		18.1	18.1	18.1	8.0	8.0		10.2	10.2	10.2
10th %ile Term Code	Skip	Gap		Hold	Hold	Hold	Gap	Gap		Gap	Gap	Gap
Stops (vph)	47	436		9	398	54		112			150	91
Fuel Used(gal)	2	15		0	16	2		3			10	6
CO Emissions (g/hr)	148	1051		26	1147	174		237			730	429
NOx Emissions (g/hr)	29	205		5	223	34		46			142	84
VOC Emissions (g/hr)	34	244		6	266	40		55			169	100
Dilemma Vehicles (#)	0	9		0	13	0		7			0	0
Queue Length 50th (ft)	37	308		6	304	43		86			120	70
Queue Length 95th (ft)	64	420		19	416	77		152			#227	133
Internal Link Dist (ft)		1688			2405			1291			5517	
Turn Bay Length (ft)	125			100		175						150
Base Capacity (vph)	254	1163		266	865	757		324			334	270



1: Westtown Thornton Road/Shiloh Road & Street Road  
 2031 Traffic Volumes with Development - AM Peak

04/28/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.46	0.57		0.06	0.63	0.14		0.47			0.62	0.46

Intersection Summary

Area Type: Other  
 Cycle Length: 105  
 Actuated Cycle Length: 88.8  
 Natural Cycle: 85  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 36.3  
 Intersection Capacity Utilization 76.7%  
 Analysis Period (min) 15  
 90th %ile Actuated Cycle: 105  
 70th %ile Actuated Cycle: 103.7  
 50th %ile Actuated Cycle: 95.2  
 30th %ile Actuated Cycle: 85  
 10th %ile Actuated Cycle: 55.3  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Westtown Thornton Road/Shiloh Road & Street Road

Ø2	Ø4	Ø8
62 s	21 s	22 s
Ø5	Ø6	
14 s	48 s	

1: Westtown Thornton Road/Shiloh Road & Street Road  
Existing Traffic Volumes - PM Peak

04/22/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	423	15	23	465	104	13	101	13	121	142	118
Future Volume (veh/h)	97	423	15	23	465	104	13	101	13	121	142	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1837	1823	1837	1875	1860	1860	996	996	996	1949	1949	1949
Adj Flow Rate, veh/h	105	460	16	25	505	113	14	110	14	132	154	128
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	1	0	0	1	1	0	0	0	0	0	0
Cap, veh/h	337	930	32	429	719	609	10	77	10	152	177	285
Arrive On Green	0.07	0.53	0.52	0.39	0.39	0.39	0.09	0.10	0.09	0.16	0.17	0.17
Sat Flow, veh/h	1750	1751	61	920	1860	1577	99	776	99	879	1026	1652
Grp Volume(v), veh/h	105	0	476	25	505	113	138	0	0	286	0	128
Grp Sat Flow(s), veh/h/ln	1750	0	1812	920	1860	1577	974	0	0	1905	0	1652
Q Serve(g_s), s	2.6	0.0	13.5	1.4	18.5	3.8	8.0	0.0	0.0	11.8	0.0	5.6
Cycle Q Clear(g_c), s	2.6	0.0	13.5	2.8	18.5	3.8	8.0	0.0	0.0	11.8	0.0	5.6
Prop In Lane	1.00		0.03	1.00		1.00	0.10		0.10	0.46		1.00
Lane Grp Cap(c), veh/h	337	0	962	429	719	609	96	0	0	329	0	285
V/C Ratio(X)	0.31	0.00	0.49	0.06	0.70	0.19	1.43	0.00	0.00	0.87	0.00	0.45
Avail Cap(c_a), veh/h	386	0	1387	619	1102	934	96	0	0	329	0	285
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.5	0.0	12.1	16.5	20.9	16.4	36.6	0.0	0.0	32.8	0.0	30.0
Incr Delay (d2), s/veh	0.5	0.0	0.8	0.1	1.3	0.1	245.0	0.0	0.0	21.1	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.7	0.0	8.3	0.5	11.8	2.3	14.6	0.0	0.0	11.7	0.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.0	0.0	12.9	16.6	22.2	16.6	281.6	0.0	0.0	54.0	0.0	31.1
LnGrp LOS	B	A	B	B	C	B	F	A	A	D	A	C
Approach Vol, veh/h		581			643			138			414	
Approach Delay, s/veh		13.3			21.0			281.6			46.9	
Approach LOS		B			C			F			D	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		49.0		19.0	11.7	37.3		13.0				
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s		61.0		13.0	7.0	47.0		7.0				
Max Q Clear Time (g_c+I1), s		15.5		13.8	5.1	21.0		10.0				
Green Ext Time (p_c), s		15.5		0.0	0.0	9.3		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			44.8									
HCM 6th LOS			D									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

1: Westtown Thornton Road/Shiloh Road & Street Road  
Existing Traffic Volumes - PM Peak

04/22/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	423	15	23	465	104	13	101	13	121	142	118
Future Volume (vph)	97	423	15	23	465	104	13	101	13	121	142	118
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	12	11	12	12	11	11	11	12	12	12
Grade (%)		-1%			-2%			12%				-4%
Storage Length (ft)	125		0	100		175	0		0	0		150
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995				0.850		0.986				0.850
Flt Protected	0.950			0.950				0.995			0.977	
Satd. Flow (prot)	1661	1783	0	1670	1800	1530	0	1605	0	0	1794	1561
Flt Permitted	0.181			0.491				0.995			0.977	
Satd. Flow (perm)	317	1783	0	863	1800	1530	0	1605	0	0	1794	1561
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			30	
Link Distance (ft)		1768			2485			1371			5597	
Travel Time (s)		26.8			37.7			26.7			127.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	105	460	16	25	505	113	14	110	14	132	154	128
Shared Lane Traffic (%)												
Lane Group Flow (vph)	105	476	0	25	505	113	0	138	0	0	286	128
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.07	1.07	1.11	1.06	1.06	1.21	1.21	1.21	1.05	1.05	1.05
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	1		1	1	1
Detector Template	Left			Left		Right	Left			Left		Right
Leading Detector (ft)	40	336		6	336	6	20	40		20	40	40
Trailing Detector (ft)	0	330		0	330	0	0	0		0	0	0
Detector 1 Position(ft)	0	330		0	330	0	0	0		0	0	0
Detector 1 Size(ft)	40	6		6	6	6	20	40		20	40	40
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases	2			6		6						4
Detector Phase	5	2		6	6	6	8	8		4	4	4
Switch Phase												

1: Westtown Thornton Road/Shiloh Road & Street Road  
Existing Traffic Volumes - PM Peak

04/22/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	17.0		17.0	17.0	17.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	10.0	25.0		25.0	25.0	25.0	21.0	21.0		21.0	21.0	21.0
Total Split (s)	14.0	68.0		54.0	54.0	54.0	13.0	13.0		19.0	19.0	19.0
Total Split (%)	14.0%	68.0%		54.0%	54.0%	54.0%	13.0%	13.0%		19.0%	19.0%	19.0%
Maximum Green (s)	7.0	61.0		47.0	47.0	47.0	7.0	7.0		13.0	13.0	13.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	5.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	2.7		2.7	2.7	2.7	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	35.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	36.5	36.5		25.9	25.9	25.9		8.2			14.4	14.4
Actuated g/C Ratio	0.48	0.48		0.34	0.34	0.34		0.11			0.19	0.19
v/c Ratio	0.36	0.55		0.08	0.82	0.22		0.79			0.84	0.43
Control Delay	12.9	15.5		17.7	34.8	19.1		69.8			56.2	36.1
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay	12.9	15.5		17.7	34.8	19.1		69.8			56.2	36.1
LOS	B	B		B	C	B		E			E	D
Approach Delay		15.1			31.4			69.8			50.0	
Approach LOS		B			C			E			D	
90th %ile Green (s)	7.0	50.9		36.9	36.9	36.9	7.0	7.0		13.0	13.0	13.0
90th %ile Term Code	Max	Hold		Gap	Gap	Gap	Max	Max		Max	Max	Max
70th %ile Green (s)	7.0	42.5		28.5	28.5	28.5	7.0	7.0		13.0	13.0	13.0
70th %ile Term Code	Max	Hold		Gap	Gap	Gap	Max	Max		Max	Max	Max
50th %ile Green (s)	7.0	38.0		24.0	24.0	24.0	7.0	7.0		13.0	13.0	13.0
50th %ile Term Code	Max	Hold		Gap	Gap	Gap	Max	Max		Max	Max	Max
30th %ile Green (s)	7.0	34.0		20.0	20.0	20.0	7.0	7.0		13.0	13.0	13.0
30th %ile Term Code	Max	Hold		Gap	Gap	Gap	Max	Max		Max	Max	Max
10th %ile Green (s)	0.0	17.0		17.0	17.0	17.0	7.0	7.0		13.0	13.0	13.0
10th %ile Term Code	Skip	Min		Min	Min	Min	Max	Max		Max	Max	Max
Stops (vph)	43	271		16	398	66		98			208	101
Fuel Used(gal)	2	10		1	16	3		4			16	7
CO Emissions (g/hr)	133	684		46	1101	203		266			1093	460
NOx Emissions (g/hr)	26	133		9	214	39		52			213	89
VOC Emissions (g/hr)	31	158		11	255	47		62			253	107
Dilemma Vehicles (#)	0	8		0	11	0		7			0	0
Queue Length 50th (ft)	25	144		8	224	39		66			135	55
Queue Length 95th (ft)	48	218		24	337	74		#194			#330	125
Internal Link Dist (ft)		1688			2405			1291			5517	
Turn Bay Length (ft)	125			100		175						150
Base Capacity (vph)	299	1463		562	1174	997		174			341	297

1: Westtown Thornton Road/Shiloh Road & Street Road  
Existing Traffic Volumes - PM Peak

04/22/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.35	0.33		0.04	0.43	0.11		0.79			0.84	0.43

Intersection Summary

Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 75.5  
 Natural Cycle: 80  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 33.4  
 Intersection LOS: C  
 Intersection Capacity Utilization 74.4%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 90th %ile Actuated Cycle: 89.9  
 70th %ile Actuated Cycle: 81.5  
 50th %ile Actuated Cycle: 77  
 30th %ile Actuated Cycle: 73  
 10th %ile Actuated Cycle: 56  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Westtown Thornton Road/Shiloh Road & Street Road

Ø2 68 s	Ø4 19 s	Ø8 13 s
Ø5 14 s	Ø6 54 s	

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2026 Traffic Volumes without Development - PM Peak

04/22/2021























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗		↕			↖	↗
Traffic Volume (veh/h)	99	433	15	24	476	106	13	103	13	124	145	121
Future Volume (veh/h)	99	433	15	24	476	106	13	103	13	124	145	121
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1837	1823	1837	1875	1860	1860	996	996	996	1949	1949	1949
Adj Flow Rate, veh/h	108	471	16	26	517	115	14	112	14	135	158	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	1	0	0	1	1	0	0	0	0	0	0
Cap, veh/h	267	829	28	338	626	530	16	131	16	162	189	304
Arrive On Green	0.07	0.47	0.46	0.34	0.34	0.34	0.16	0.17	0.16	0.17	0.18	0.18
Sat Flow, veh/h	1750	1753	60	911	1860	1577	97	779	97	878	1027	1652
Grp Volume(v), veh/h	108	0	487	26	517	115	140	0	0	293	0	132
Grp Sat Flow(s),veh/h/ln	1750	0	1812	911	1860	1577	974	0	0	1905	0	1652
Q Serve(g_s), s	3.4	0.0	17.8	1.9	23.4	4.8	12.8	0.0	0.0	13.6	0.0	6.5
Cycle Q Clear(g_c), s	3.4	0.0	17.8	6.6	23.4	4.8	12.8	0.0	0.0	13.6	0.0	6.5
Prop In Lane	1.00		0.03	1.00		1.00	0.10		0.10	0.46		1.00
Lane Grp Cap(c), veh/h	267	0	857	338	626	530	164	0	0	351	0	304
V/C Ratio(X)	0.41	0.00	0.57	0.08	0.83	0.22	0.85	0.00	0.00	0.84	0.00	0.43
Avail Cap(c_a), veh/h	294	0	948	369	689	584	191	0	0	374	0	324
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.9	0.0	17.4	24.2	28.0	21.8	37.1	0.0	0.0	36.3	0.0	33.2
Incr Delay (d2), s/veh	1.0	0.0	1.3	0.1	7.6	0.2	26.4	0.0	0.0	14.5	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	0.0	11.2	0.7	16.3	3.0	7.5	0.0	0.0	12.2	0.0	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	0.0	18.7	24.3	35.6	22.0	63.5	0.0	0.0	50.8	0.0	34.2
LnGrp LOS	C	A	B	C	D	C	E	A	A	D	A	C
Approach Vol, veh/h		595			658			140			425	
Approach Delay, s/veh		19.1			32.8			63.5			45.6	
Approach LOS		B			C			E			D	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		49.4		21.9	12.6	36.9		20.5				
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s		47.0		17.0	7.0	33.0		17.0				
Max Q Clear Time (g_c+I1), s		19.8		15.6	5.9	25.9		14.8				
Green Ext Time (p_c), s		12.2		0.3	0.0	3.9		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		33.7
HCM 6th LOS		C

Notes  
 User approved pedestrian interval to be less than phase max green.

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2026 Traffic Volumes without Development - PM Peak

04/22/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	99	433	15	24	476	106	13	103	13	124	145	121
Future Volume (vph)	99	433	15	24	476	106	13	103	13	124	145	121
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	12	11	12	12	11	11	11	12	12	12
Grade (%)		-1%			-2%			12%				-4%
Storage Length (ft)	125		0	100		175	0		0	0		150
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995				0.850		0.986				0.850
Flt Protected	0.950			0.950				0.995			0.977	
Satd. Flow (prot)	1661	1783	0	1670	1800	1530	0	1605	0	0	1794	1561
Flt Permitted	0.142			0.486				0.995			0.977	
Satd. Flow (perm)	248	1783	0	854	1800	1530	0	1605	0	0	1794	1561
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			30	
Link Distance (ft)		1768			2485			1371			5597	
Travel Time (s)		26.8			37.7			26.7			127.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	108	471	16	26	517	115	14	112	14	135	158	132
Shared Lane Traffic (%)												
Lane Group Flow (vph)	108	487	0	26	517	115	0	140	0	0	293	132
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.07	1.07	1.11	1.06	1.06	1.21	1.21	1.21	1.05	1.05	1.05
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	1		1	1	1
Detector Template	Left			Left		Right	Left			Left		Right
Leading Detector (ft)	40	336		6	336	6	20	40		20	40	40
Trailing Detector (ft)	0	330		0	330	0	0	0		0	0	0
Detector 1 Position(ft)	0	330		0	330	0	0	0		0	0	0
Detector 1 Size(ft)	40	6		6	6	6	20	40		20	40	40
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases	2			6		6						4
Detector Phase	5	2		6	6	6	8	8		4	4	4
Switch Phase												

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2026 Traffic Volumes without Development - PM Peak

04/22/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	17.0		17.0	17.0	17.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	14.0	25.0		25.0	25.0	25.0	21.0	21.0		21.0	21.0	21.0
Total Split (s)	14.0	54.0		40.0	40.0	40.0	23.0	23.0		23.0	23.0	23.0
Total Split (%)	14.0%	54.0%		40.0%	40.0%	40.0%	23.0%	23.0%		23.0%	23.0%	23.0%
Maximum Green (s)	7.0	47.0		33.0	33.0	33.0	17.0	17.0		17.0	17.0	17.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	5.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	2.7		2.7	2.7	2.7	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	35.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	39.1	39.1		28.7	28.7	28.7		13.9			18.0	18.0
Actuated g/C Ratio	0.45	0.45		0.33	0.33	0.33		0.16			0.21	0.21
v/c Ratio	0.45	0.61		0.09	0.88	0.23		0.55			0.79	0.41
Control Delay	20.1	22.0		23.3	46.8	24.6		45.5			54.0	39.1
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay	20.1	22.0		23.3	46.8	24.6		45.5			54.0	39.1
LOS	C	C		C	D	C		D			D	D
Approach Delay		21.6			42.0			45.5			49.4	
Approach LOS		C			D			D			D	
90th %ile Green (s)	7.0	47.0		33.0	33.0	33.0	17.0	17.0		17.0	17.0	17.0
90th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
70th %ile Green (s)	7.0	47.0		33.0	33.0	33.0	16.0	16.0		17.0	17.0	17.0
70th %ile Term Code	Max	Hold		Max	Max	Max	Gap	Gap		Max	Max	Max
50th %ile Green (s)	7.0	44.5		30.5	30.5	30.5	13.5	13.5		17.0	17.0	17.0
50th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Max	Max	Max
30th %ile Green (s)	7.0	38.8		24.8	24.8	24.8	10.9	10.9		17.0	17.0	17.0
30th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Max	Max	Max
10th %ile Green (s)	0.0	17.7		17.7	17.7	17.7	7.7	7.7		14.7	14.7	14.7
10th %ile Term Code	Skip	Hold		Gap	Gap	Gap	Gap	Gap		Gap	Gap	Gap
Stops (vph)	51	314		18	409	72		113			221	100
Fuel Used(gal)	2	11		1	17	3		3			16	7
CO Emissions (g/hr)	152	773		51	1209	219		232			1116	475
NOx Emissions (g/hr)	30	150		10	235	43		45			217	92
VOC Emissions (g/hr)	35	179		12	280	51		54			259	110
Dilemma Vehicles (#)	0	7		0	17	0		7			0	0
Queue Length 50th (ft)	34	198		11	285	49		78			170	70
Queue Length 95th (ft)	69	315		31	#482	95		142			#340	136
Internal Link Dist (ft)		1688			2405			1291			5517	
Turn Bay Length (ft)	125			100		175						150
Base Capacity (vph)	244	1015		344	726	617		342			383	333



1: Westtown Thornton Road/Shiloh Road & Street Road  
 2026 Traffic Volumes without Development - PM Peak

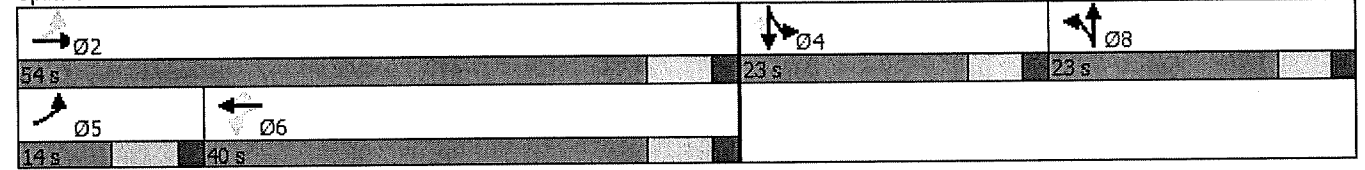
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.44	0.48		0.08	0.71	0.19		0.41			0.77	0.40

**Intersection Summary**  
 Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 87.6  
 Natural Cycle: 85  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 37.3      Intersection LOS: D  
 Intersection Capacity Utilization 75.3%      ICU Level of Service D  
 Analysis Period (min) 15  
 90th %ile Actuated Cycle: 100  
 70th %ile Actuated Cycle: 99  
 50th %ile Actuated Cycle: 94  
 30th %ile Actuated Cycle: 85.7  
 10th %ile Actuated Cycle: 59.1  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Westtown Thornton Road/Shiloh Road & Street Road



1: Westtown Thornton Road/Shiloh Road & Street Road  
 2026 Traffic Volumes with Development - PM Peak

04/22/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗		↘	↗	↗		↕			↖	↗
Traffic Volume (veh/h)	115	433	15	24	476	122	13	105	13	133	146	130
Future Volume (veh/h)	115	433	15	24	476	122	13	105	13	133	146	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj. Sat Flow, veh/h/ln	1837	1823	1837	1875	1860	1860	996	996	996	1949	1949	1949
Adj Flow Rate, veh/h	125	471	16	26	517	133	14	114	14	145	159	141
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	1	0	0	1	1	0	0	0	0	0	0
Cap, veh/h	270	829	28	336	617	523	16	133	16	170	186	309
Arrive On Green	0.08	0.47	0.46	0.33	0.33	0.33	0.16	0.17	0.16	0.18	0.19	0.19
Sat Flow, veh/h	1750	1753	60	911	1860	1577	96	782	96	908	996	1652
Grp Volume(v), veh/h	125	0	487	26	517	133	142	0	0	304	0	141
Grp Sat Flow(s), veh/h/ln	1750	0	1812	911	1860	1577	974	0	0	1904	0	1652
Q Serve(g_s), s	4.1	0.0	18.3	2.0	24.3	5.8	13.4	0.0	0.0	14.6	0.0	7.2
Cycle Q Clear(g_c), s	4.1	0.0	18.3	6.4	24.3	5.8	13.4	0.0	0.0	14.6	0.0	7.2
Prop In Lane	1.00		0.03	1.00		1.00	0.10		0.10	0.48		1.00
Lane Grp Cap(c), veh/h	270	0	858	336	617	523	166	0	0	357	0	309
V/C Ratio(X)	0.46	0.00	0.57	0.08	0.84	0.25	0.86	0.00	0.00	0.85	0.00	0.46
Avail Cap(c_a), veh/h	282	0	921	361	670	568	186	0	0	363	0	315
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.7	0.0	17.9	24.9	29.2	23.0	38.2	0.0	0.0	37.4	0.0	34.1
Incr Delay (d2), s/veh	1.2	0.0	1.4	0.1	8.7	0.3	28.4	0.0	0.0	17.3	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	0.0	11.5	0.7	17.0	3.7	7.9	0.0	0.0	13.2	0.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.9	0.0	19.3	25.0	37.9	23.3	66.6	0.0	0.0	54.6	0.0	35.1
LnGrp LOS	C	A	B	C	D	C	E	A	A	D	A	D
Approach Vol, veh/h		612			676			142			445	
Approach Delay, s/veh		19.8			34.5			66.6			48.5	
Approach LOS		B			C			E			D	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		50.7		22.7	13.4	37.3		21.1				
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s		47.0		17.0	7.0	33.0		17.0				
Max Q Clear Time (g_c+I1), s		20.3		16.6	6.6	26.8		15.4				
Green Ext Time (p_c), s		12.1		0.1	0.0	3.5		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		35.5
HCM 6th LOS		D

Notes  
 User approved pedestrian interval to be less than phase max green.

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2026 Traffic Volumes with Development - PM Peak

04/22/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	433	15	24	476	122	13	105	13	133	146	130
Future Volume (vph)	115	433	15	24	476	122	13	105	13	133	146	130
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	12	11	12	12	11	11	11	12	12	12
Grade (%)		-1%			-2%			12%				-4%
Storage Length (ft)	125		0	100		175	0		0	0		150
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frnt		0.995				0.850		0.987				0.850
Flt Protected	0.950			0.950				0.995			0.977	
Satd. Flow (prot)	1661	1783	0	1670	1800	1530	0	1606	0	0	1794	1561
Flt Permitted	0.131			0.486				0.995			0.977	
Satd. Flow (perm)	229	1783	0	854	1800	1530	0	1606	0	0	1794	1561
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			30	
Link Distance (ft)		1768			2485			1371			5597	
Travel Time (s)		26.8			37.7			26.7			127.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	125	471	16	26	517	133	14	114	14	145	159	141
Shared Lane Traffic (%)												
Lane Group Flow (vph)	125	487	0	26	517	133	0	142	0	0	304	141
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.07	1.07	1.11	1.06	1.06	1.21	1.21	1.21	1.05	1.05	1.05
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	1		1	1	1
Detector Template	Left			Left		Right	Left			Left		Right
Leading Detector (ft)	40	336		6	336	6	20	40		20	40	40
Trailing Detector (ft)	0	330		0	330	0	0	0		0	0	0
Detector 1 Position(ft)	0	330		0	330	0	0	0		0	0	0
Detector 1 Size(ft)	40	6		6	6	6	20	40		20	40	40
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases	2			6		6						4
Detector Phase	5	2		6	6	6	8	8		4	4	4
Switch Phase												

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2026 Traffic Volumes with Development - PM Peak

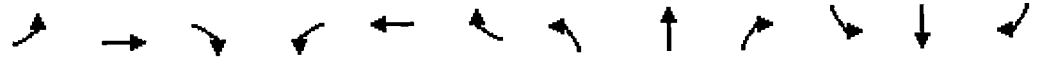
04/22/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	17.0		17.0	17.0	17.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	14.0	25.0		25.0	25.0	25.0	21.0	21.0		21.0	21.0	21.0
Total Split (s)	14.0	54.0		40.0	40.0	40.0	23.0	23.0		23.0	23.0	23.0
Total Split (%)	14.0%	54.0%		40.0%	40.0%	40.0%	23.0%	23.0%		23.0%	23.0%	23.0%
Maximum Green (s)	7.0	47.0		33.0	33.0	33.0	17.0	17.0		17.0	17.0	17.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	5.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	2.7		2.7	2.7	2.7	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	35.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	42.7	42.7		28.5	28.5	28.5		13.9			18.0	18.0
Actuated g/C Ratio	0.47	0.47		0.31	0.31	0.31		0.15			0.20	0.20
v/c Ratio	0.53	0.58		0.10	0.92	0.28		0.58			0.86	0.46
Control Delay	22.8	21.2		23.4	52.7	25.3		46.8			61.0	40.1
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay	22.8	21.2		23.4	52.7	25.3		46.8			61.0	40.1
LOS	C	C		C	D	C		D			E	D
Approach Delay		21.5			46.2			46.8			54.4	
Approach LOS		C			D			D			D	
90th %ile Green (s)	7.0	47.0		33.0	33.0	33.0	17.0	17.0		17.0	17.0	17.0
90th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
70th %ile Green (s)	7.0	47.0		33.0	33.0	33.0	16.2	16.2		17.0	17.0	17.0
70th %ile Term Code	Max	Hold		Max	Max	Max	Gap	Gap		Max	Max	Max
50th %ile Green (s)	7.0	44.6		30.6	30.6	30.6	13.6	13.6		17.0	17.0	17.0
50th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Max	Max	Max
30th %ile Green (s)	7.0	38.8		24.8	24.8	24.8	10.9	10.9		17.0	17.0	17.0
30th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Max	Max	Max
10th %ile Green (s)	6.9	31.8		17.9	17.9	17.9	7.8	7.8		16.2	16.2	16.2
10th %ile Term Code	Gap	Hold		Gap	Gap	Gap	Gap	Gap		Gap	Gap	Gap
Stops (vph)	62	310		18	420	84		115			232	111
Fuel Used(gal)	3	11		1	18	4		3			17	7
CO Emissions (g/hr)	183	764		51	1259	255		238			1187	514
NOx Emissions (g/hr)	36	149		10	245	50		46			231	100
VOC Emissions (g/hr)	43	177		12	292	59		55			275	119
Dilemma Vehicles (#)	0	7		0	17	0		7			0	0
Queue Length 50th (ft)	40	198		11	285	57		80			179	76
Queue Length 95th (ft)	78	315		31	#482	108		145			#356	144
Internal Link Dist (ft)		1688			2405			1291			5517	
Turn Bay Length (ft)	125			100		175						150
Base Capacity (vph)	235	953		323	682	580		322			359	313

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2026 Traffic Volumes with Development - PM Peak

04/22/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.53	0.51		0.08	0.76	0.23		0.44			0.85	0.45

Intersection Summary

Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 90.8  
 Natural Cycle: 85  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 40.1  
 Intersection LOS: D  
 Intersection Capacity Utilization 75.9%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 90th %ile Actuated Cycle: 100  
 70th %ile Actuated Cycle: 99.2  
 50th %ile Actuated Cycle: 94.2  
 30th %ile Actuated Cycle: 85.7  
 10th %ile Actuated Cycle: 74.8  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Westtown Thornton Road/Shiloh Road & Street Road

Ø2	Ø4	Ø8
34 s	23 s	23 s
Ø5	Ø6	
14 s	40 s	

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2031 Traffic Volumes without Development - PM Peak

04/28/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗		↕			↖	↗
Traffic Volume (veh/h)	102	444	16	24	488	109	14	106	14	127	149	124
Future Volume (veh/h)	102	444	16	24	488	109	14	106	14	127	149	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1837	1823	1837	1875	1860	1860	996	996	996	1949	1949	1949
Adj Flow Rate, veh/h	111	483	17	26	530	118	15	115	15	138	162	135
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	1	0	0	1	1	0	0	0	0	0	0
Cap, veh/h	254	819	29	320	617	523	17	134	17	166	194	312
Arrive On Green	0.07	0.47	0.46	0.33	0.33	0.33	0.16	0.17	0.16	0.18	0.19	0.19
Sat Flow, veh/h	1750	1750	62	900	1860	1577	101	772	101	876	1029	1652
Grp Volume(v), veh/h	111	0	500	26	530	118	145	0	0	300	0	135
Grp Sat Flow(s), veh/h/ln	1750	0	1812	900	1860	1577	973	0	0	1905	0	1652
Q Serve(g_s), s	3.6	0.0	19.1	2.0	25.0	5.1	13.6	0.0	0.0	14.3	0.0	6.8
Cycle Q Clear(g_c), s	3.6	0.0	19.1	7.8	25.0	5.1	13.6	0.0	0.0	14.3	0.0	6.8
Prop In Lane	1.00		0.03	1.00		1.00	0.10		0.10	0.46		1.00
Lane Grp Cap(c), veh/h	254	0	848	320	617	523	168	0	0	360	0	312
V/C Ratio(X)	0.44	0.00	0.59	0.08	0.86	0.23	0.86	0.00	0.00	0.83	0.00	0.43
Avail Cap(c_a), veh/h	276	0	905	337	652	553	176	0	0	405	0	351
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.0	0.0	18.4	25.8	29.4	22.7	37.9	0.0	0.0	37.0	0.0	33.7
Incr Delay (d2), s/veh	1.2	0.0	1.6	0.1	10.7	0.2	31.8	0.0	0.0	12.7	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.6	0.0	12.0	0.8	17.8	3.2	8.2	0.0	0.0	12.4	0.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.2	0.0	20.0	25.9	40.1	22.9	69.7	0.0	0.0	49.7	0.0	34.7
LnGrp LOS	C	A	B	C	D	C	E	A	A	D	A	C
Approach Vol, veh/h		611			674			145			435	
Approach Delay, s/veh		20.4			36.5			69.7			45.0	
Approach LOS		C			D			E			D	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		50.0		22.8	12.8	37.2		21.3				
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s		46.0		19.0	7.0	32.0		16.0				
Max Q Clear Time (g_c+1), s		21.1		16.3	6.1	27.5		15.6				
Green Ext Time (p_c), s		11.9		0.5	0.0	2.7		0.0				

Intersection Summary





















HCM 6th Ctrl Delay	35.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2031 Traffic Volumes without Development - PM Peak

04/28/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	102	444	16	24	488	109	14	106	14	127	149	124
Future Volume (vph)	102	444	16	24	488	109	14	106	14	127	149	124
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	12	11	12	12	11	11	11	12	12	12
Grade (%)		-1%			-2%			12%				-4%
Storage Length (ft)	125		0	100		175	0		0	0		150
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr t		0.995				0.850		0.986				0.850
Fl t Protected	0.950			0.950				0.995			0.978	
Satd. Flow (prot)	1661	1783	0	1670	1800	1530	0	1605	0	0	1796	1561
Fl t Permitted	0.133			0.470				0.995			0.978	
Satd. Flow (perm)	233	1783	0	826	1800	1530	0	1605	0	0	1796	1561
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			30	
Link Distance (ft)		1768			2485			1371			5597	
Travel Time (s)		26.8			37.7			26.7			127.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	111	483	17	26	530	118	15	115	15	138	162	135
Shared Lane Traffic (%)												
Lane Group Flow (vph)	111	500	0	26	530	118	0	145	0	0	300	135
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.07	1.07	1.11	1.06	1.06	1.21	1.21	1.21	1.05	1.05	1.05
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	1		1	1	1
Detector Template	Left			Left		Right	Left			Left		Right
Leading Detector (ft)	40	336		6	336	6	20	40		20	40	40
Trailing Detector (ft)	0	330		0	330	0	0	0		0	0	0
Detector 1 Position(ft)	0	330		0	330	0	0	0		0	0	0
Detector 1 Size(ft)	40	6		6	6	6	20	40		20	40	40
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases	2			6		6						4
Detector Phase	5	2		6	6	6	8	8		4	4	4
Switch Phase												

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2031 Traffic Volumes without Development - PM Peak

04/28/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	17.0		17.0	17.0	17.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	14.0	25.0		25.0	25.0	25.0	21.0	21.0		21.0	21.0	21.0
Total Split (s)	14.0	53.0		39.0	39.0	39.0	22.0	22.0		25.0	25.0	25.0
Total Split (%)	14.0%	53.0%		39.0%	39.0%	39.0%	22.0%	22.0%		25.0%	25.0%	25.0%
Maximum Green (s)	7.0	46.0		32.0	32.0	32.0	16.0	16.0		19.0	19.0	19.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	5.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	2.7		2.7	2.7	2.7	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	35.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	40.1	40.1		29.8	29.8	29.8		14.0			19.2	19.2
Actuated g/C Ratio	0.45	0.45		0.33	0.33	0.33		0.16			0.21	0.21
v/c Ratio	0.47	0.63		0.10	0.89	0.23		0.58			0.78	0.41
Control Delay	21.8	23.2		24.2	49.1	25.4		48.0			52.0	38.2
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay	21.8	23.2		24.2	49.1	25.4		48.0			52.0	38.2
LOS	C	C		C	D	C		D			D	D
Approach Delay		22.9			44.0			48.0			47.7	
Approach LOS		C			D			D			D	
90th %ile Green (s)	7.0	46.0		32.0	32.0	32.0	16.0	16.0		19.0	19.0	19.0
90th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
70th %ile Green (s)	7.0	46.0		32.0	32.0	32.0	16.0	16.0		19.0	19.0	19.0
70th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
50th %ile Green (s)	7.0	46.0		32.0	32.0	32.0	14.0	14.0		19.0	19.0	19.0
50th %ile Term Code	Max	Hold		Max	Max	Max	Gap	Gap		Max	Max	Max
30th %ile Green (s)	7.0	41.9		27.9	27.9	27.9	11.4	11.4		19.0	19.0	19.0
30th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Max	Max	Max
10th %ile Green (s)	0.0	19.5		19.5	19.5	19.5	7.9	7.9		13.6	13.6	13.6
10th %ile Term Code	Skip	Hold		Gap	Gap	Gap	Gap	Gap		Gap	Gap	Gap
Stops (vph)	54	328		18	415	74		117			235	102
Fuel Used(gal)	2	12		1	18	3		3			16	7
CO Emissions (g/hr)	160	806		51	1252	227		244			1137	485
NOx Emissions (g/hr)	31	157		10	244	44		48			221	94
VOC Emissions (g/hr)	37	187		12	290	53		57			263	112
Dilemma Vehicles (#)	0	7		0	20	0		7			0	0
Queue Length 50th (ft)	37	217		11	308	52		85			180	74
Queue Length 95th (ft)	72	333		31	#512	99		150			#326	135
Internal Link Dist (ft)		1688			2405			1291			5517	
Turn Bay Length (ft)	125			100		175						150
Base Capacity (vph)	236	969		315	687	583		315			415	361



1: Westtown Thornton Road/Shiloh Road & Street Road  
 2031 Traffic Volumes without Development - PM Peak

04/28/2021

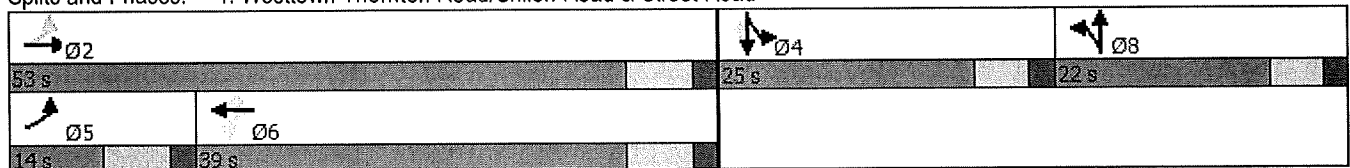


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.47	0.52		0.08	0.77	0.20		0.46			0.72	0.37

Intersection Summary

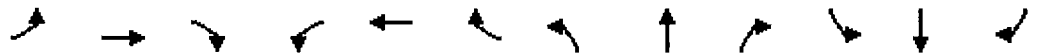
Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 89.9  
 Natural Cycle: 85  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 38.3  
 Intersection LOS: D  
 Intersection Capacity Utilization 76.4%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 90th %ile Actuated Cycle: 100  
 70th %ile Actuated Cycle: 100  
 50th %ile Actuated Cycle: 98  
 30th %ile Actuated Cycle: 91.3  
 10th %ile Actuated Cycle: 60  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Westtown Thornton Road/Shiloh Road & Street Road



1: Westtown Thornton Road/Shiloh Road & Street Road  
 2031 Traffic Volumes with Development - PM Peak





















04/28/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗		↕			↖	↗
Traffic Volume (veh/h)	118	444	16	24	488	125	14	108	14	136	150	133
Future Volume (veh/h)	118	444	16	24	488	125	14	108	14	136	150	133
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1837	1823	1837	1875	1860	1860	996	996	996	1949	1949	1949
Adj Flow Rate, veh/h	128	483	17	26	530	136	15	117	15	148	163	145
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	1	0	0	1	1	0	0	0	0	0	0
Cap, veh/h	257	819	29	317	608	515	17	135	17	174	192	318
Arrive On Green	0.08	0.47	0.46	0.33	0.33	0.33	0.16	0.17	0.16	0.18	0.19	0.19
Sat Flow, veh/h	1750	1750	62	900	1860	1577	99	775	99	906	998	1652
Grp Volume(v), veh/h	128	0	500	26	530	136	147	0	0	311	0	145
Grp Sat Flow(s),veh/h/ln	1750	0	1812	900	1860	1577	974	0	0	1904	0	1652
Q Serve(g_s), s	4.3	0.0	19.6	2.1	26.0	6.2	14.2	0.0	0.0	15.3	0.0	7.5
Cycle Q Clear(g_c), s	4.3	0.0	19.6	7.6	26.0	6.2	14.2	0.0	0.0	15.3	0.0	7.5
Prop In Lane	1.00		0.03	1.00		1.00	0.10		0.10	0.48		1.00
Lane Grp Cap(c), veh/h	257	0	847	317	608	515	170	0	0	366	0	318
V/C Ratio(X)	0.50	0.00	0.59	0.08	0.87	0.26	0.86	0.00	0.00	0.85	0.00	0.46
Avail Cap(c_a), veh/h	263	0	880	330	634	537	171	0	0	393	0	341
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.9	0.0	19.0	26.6	30.7	24.0	38.9	0.0	0.0	38.0	0.0	34.6
Incr Delay (d2), s/veh	1.5	0.0	1.6	0.1	12.3	0.3	33.9	0.0	0.0	15.2	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.1	0.0	12.4	0.8	18.7	4.0	8.6	0.0	0.0	13.4	0.0	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.4	0.0	20.6	26.7	43.0	24.3	72.9	0.0	0.0	53.1	0.0	35.6
LnGrp LOS	C	A	C	C	D	C	E	A	A	D	A	D
Approach Vol, veh/h		628			692			147			456	
Approach Delay, s/veh		21.2			38.7			72.9			47.6	
Approach LOS		C			D			E			D	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		51.3		23.6	13.6	37.7		21.9				
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s		46.0		19.0	7.0	32.0		16.0				
Max Q Clear Time (g_c+11), s		21.6		17.3	6.8	28.5		16.2				
Green Ext Time (p_c), s		11.7		0.3	0.0	2.2		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			37.7									
HCM 6th LOS			D									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2031 Traffic Volumes with Development - PM Peak

04/28/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	118	444	16	24	488	125	14	108	14	136	150	133
Future Volume (vph)	118	444	16	24	488	125	14	108	14	136	150	133
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	12	11	12	12	11	11	11	12	12	12
Grade (%)		-1%			-2%			12%			-4%	
Storage Length (ft)	125		0	100		175	0		0	0		150
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frnt		0.995				0.850		0.986				0.850
Flt Protected	0.950			0.950				0.995			0.977	
Satd. Flow (prot)	1661	1783	0	1670	1800	1530	0	1605	0	0	1794	1561
Flt Permitted	0.121			0.480				0.995			0.977	
Satd. Flow (perm)	212	1783	0	844	1800	1530	0	1605	0	0	1794	1561
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			30	
Link Distance (ft)		1768			2485			1371			5597	
Travel Time (s)		26.8			37.7			26.7			127.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	128	483	17	26	530	136	15	117	15	148	163	145
Shared Lane Traffic (%)												
Lane Group Flow (vph)	128	500	0	26	530	136	0	147	0	0	311	145
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.07	1.07	1.11	1.06	1.06	1.21	1.21	1.21	1.05	1.05	1.05
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	1		1	1	1
Detector Template	Left			Left		Right	Left			Left		Right
Leading Detector (ft)	40	336		6	336	6	20	40		20	40	40
Trailing Detector (ft)	0	330		0	330	0	0	0		0	0	0
Detector 1 Position(ft)	0	330		0	330	0	0	0		0	0	0
Detector 1 Size(ft)	40	6		6	6	6	20	40		20	40	40
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases	2			6		6						4
Detector Phase	5	2		6	6	6	8	8		4	4	4
Switch Phase												

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2031 Traffic Volumes with Development - PM Peak

04/28/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	17.0		17.0	17.0	17.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	14.0	25.0		25.0	25.0	25.0	21.0	21.0		21.0	21.0	21.0
Total Split (s)	14.0	53.0		39.0	39.0	39.0	22.0	22.0		25.0	25.0	25.0
Total Split (%)	14.0%	53.0%		39.0%	39.0%	39.0%	22.0%	22.0%		25.0%	25.0%	25.0%
Maximum Green (s)	7.0	46.0		32.0	32.0	32.0	16.0	16.0		19.0	19.0	19.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	5.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	2.7		2.7	2.7	2.7	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	35.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	43.7	43.7		29.6	29.6	29.6		14.0			19.1	19.1
Actuated g/C Ratio	0.47	0.47		0.32	0.32	0.32		0.15			0.21	0.21
v/c Ratio	0.57	0.60		0.10	0.93	0.28		0.61			0.84	0.45
Control Delay	25.2	22.3		24.3	55.5	26.2		49.5			58.6	39.3
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay	25.2	22.3		24.3	55.5	26.2		49.5			58.6	39.3
LOS	C	C		C	E	C		D			E	D
Approach Delay		22.9			48.6			49.5			52.4	
Approach LOS		C			D			D			D	
90th %ile Green (s)	7.0	46.0		32.0	32.0	32.0	16.0	16.0		19.0	19.0	19.0
90th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
70th %ile Green (s)	7.0	46.0		32.0	32.0	32.0	16.0	16.0		19.0	19.0	19.0
70th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
50th %ile Green (s)	7.0	46.0		32.0	32.0	32.0	14.2	14.2		19.0	19.0	19.0
50th %ile Term Code	Max	Hold		Max	Max	Max	Gap	Gap		Max	Max	Max
30th %ile Green (s)	7.0	41.9		27.9	27.9	27.9	11.6	11.6		19.0	19.0	19.0
30th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Max	Max	Max
10th %ile Green (s)	7.0	33.9		19.9	19.9	19.9	8.0	8.0		14.6	14.6	14.6
10th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Gap	Gap	Gap
Stops (vph)	65	325		18	425	89		120			247	113
Fuel Used(gal)	3	11		1	19	4		4			17	7
CO Emissions (g/hr)	194	798		51	1305	265		252			1206	524
NOx Emissions (g/hr)	38	155		10	254	52		49			235	102
VOC Emissions (g/hr)	45	185		12	303	61		58			280	121
Dilemma Vehicles (#)	0	7		0	19	0		7			0	0
Queue Length 50th (ft)	44	218		11	309	61		87			189	80
Queue Length 95th (ft)	#83	333		31	#512	112		151			#344	144
Internal Link Dist (ft)		1688			2405			1291			5517	
Turn Bay Length (ft)	125			100		175						150
Base Capacity (vph)	225	911		302	645	548		296			390	339

1: Westtown Thornton Road/Shiloh Road & Street Road  
 2031 Traffic Volumes with Development - PM Peak

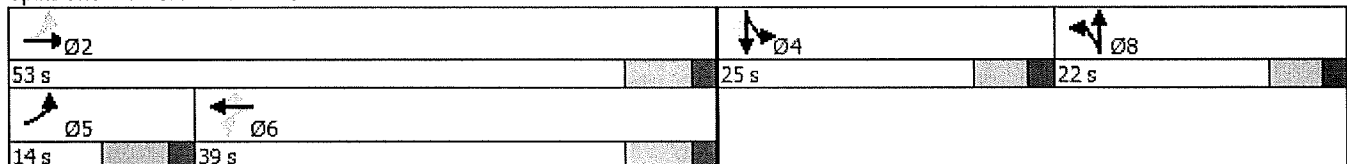
04/28/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.57	0.55		0.09	0.82	0.25		0.50			0.80	0.43

**Intersection Summary**  
 Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 93  
 Natural Cycle: 85  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 41.2      Intersection LOS: D  
 Intersection Capacity Utilization 82.2%      ICU Level of Service E  
 Analysis Period (min) 15  
 90th %ile Actuated Cycle: 100  
 70th %ile Actuated Cycle: 100  
 50th %ile Actuated Cycle: 98.2  
 30th %ile Actuated Cycle: 91.5  
 10th %ile Actuated Cycle: 75.5  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Westtown Thornton Road/Shiloh Road & Street Road



2: Shiloh Road & Hunt Drive  
Existing Traffic Volumes - AM Peak

04/22/2021

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘			↙	↘	
Traffic Vol, veh/h	3	10	3	203	262	0
Future Vol, veh/h	3	10	3	203	262	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	4	-2	-
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	0	29	50	8	5	0
Mvmt Flow	4	14	4	278	359	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	645	359	359	0	0
Stage 1	359	-	-	-	-
Stage 2	286	-	-	-	-
Critical Hdwy	6.7	6.29	4.8	-	-
Critical Hdwy Stg 1	5	-	-	-	-
Critical Hdwy Stg 2	5	-	-	-	-
Follow-up Hdwy	3	3.4	3.5	-	-
Pot Cap-1 Maneuver	467	667	755	-	-
Stage 1	843	-	-	-	-
Stage 2	907	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	464	667	755	-	-
Mov Cap-2 Maneuver	464	-	-	-	-
Stage 1	838	-	-	-	-
Stage 2	907	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.1	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	755	-	606	-	-
HCM Lane V/C Ratio	0.005	-	0.029	-	-
HCM Control Delay (s)	9.8	0	11.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

2: Shiloh Road & Hunt Drive  
Existing Traffic Volumes - AM Peak

04/22/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↙↘			↑	↓	
Traffic Volume (vph)	3	10	3	203	262	0
Future Volume (vph)	3	10	3	203	262	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-2%			4%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.895					
Flt Protected	0.989			0.999		
Satd. Flow (prot)	1226	0	0	1515	1616	0
Flt Permitted	0.989			0.999		
Satd. Flow (perm)	1226	0	0	1515	1616	0
Link Speed (mph)	25			30	30	
Link Distance (ft)	1089			5597	607	
Travel Time (s)	29.7			127.2	13.8	
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles (%)	0%	29%	50%	8%	5%	0%
Adj. Flow (vph)	4	14	4	278	359	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	18	0	0	282	359	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.16	1.16	1.20	1.20	1.16	1.16
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 24.6% ICU Level of Service A  
 Analysis Period (min) 15

2: Shiloh Road & Hunt Drive  
 2026 Traffic Volumes without Development - AM Peak

04/22/2021

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	3	10	3	208	268	0
Future Vol, veh/h	3	10	3	208	268	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	4	-2	-
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	0	29	50	8	5	0
Mvmt Flow	4	14	4	285	367	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	660	367	367	0	0
Stage 1	367	-	-	-	-
Stage 2	293	-	-	-	-
Critical Hdwy	6.7	6.29	4.8	-	-
Critical Hdwy Stg 1	5	-	-	-	-
Critical Hdwy Stg 2	5	-	-	-	-
Follow-up Hdwy	3	3.4	3.5	-	-
Pot Cap-1 Maneuver	457	660	750	-	-
Stage 1	837	-	-	-	-
Stage 2	900	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	454	660	750	-	-
Mov Cap-2 Maneuver	454	-	-	-	-
Stage 1	832	-	-	-	-
Stage 2	900	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.2	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	750	-	597	-	-
HCM Lane V/C Ratio	0.005	-	0.03	-	-
HCM Control Delay (s)	9.8	0	11.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



2: Shiloh Road & Hunt Drive  
 2026 Traffic Volumes without Development - AM Peak

04/22/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘			↕	↕	
Traffic Volume (vph)	3	10	3	208	268	0
Future Volume (vph)	3	10	3	208	268	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-2%			4%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.895					
Flt Protected	0.989			0.999		
Satd. Flow (prot)	1226	0	0	1515	1616	0
Flt Permitted	0.989			0.999		
Satd. Flow (perm)	1226	0	0	1515	1616	0
Link Speed (mph)	25			30	30	
Link Distance (ft)	1089			5597	607	
Travel Time (s)	29.7			127.2	13.8	
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles (%)	0%	29%	50%	8%	5%	0%
Adj. Flow (vph)	4	14	4	285	367	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	18	0	0	289	367	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.16	1.16	1.20	1.20	1.16	1.16
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	24.9%
	ICU Level of Service A
Analysis Period (min)	15

2: Shiloh Road & Hunt Drive/Proposed Access  
 2026 Traffic Volumes with Development - AM Peak

04/22/2021

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Traffic Vol, veh/h	3	0	10	30	0	2	3	208	10	1	268	0
Future Vol, veh/h	3	0	10	30	0	2	3	208	10	1	268	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	-	-	4	-	-	-2	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	2	29	2	2	2	50	8	2	2	5	0
Mvmt Flow	4	0	14	41	0	3	4	285	14	1	367	0

















Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	671	676	367	676	669	292	367	0	0	299	0	0
Stage 1	369	369	-	300	300	-	-	-	-	-	-	-
Stage 2	302	307	-	376	369	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.12	6.29	6.92	6.32	6.12	4.8	-	-	4.3	-	-
Critical Hdwy Stg 1	5.7	5.12	-	5.92	5.32	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.12	-	5.92	5.32	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.018	3.4	3	4.018	3.1	3.5	-	-	3	-	-
Pot Cap-1 Maneuver	449	404	660	428	393	799	750	-	-	949	-	-
Stage 1	777	647	-	828	677	-	-	-	-	-	-	-
Stage 2	841	684	-	753	634	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	445	401	660	417	390	799	750	-	-	949	-	-
Mov Cap-2 Maneuver	445	401	-	417	390	-	-	-	-	-	-	-
Stage 1	772	646	-	823	673	-	-	-	-	-	-	-
Stage 2	833	680	-	737	633	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	14.3	0.1	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	750	-	-	594	430	949	-	-
HCM Lane V/C Ratio	0.005	-	-	0.03	0.102	0.001	-	-
HCM Control Delay (s)	9.8	0	-	11.2	14.3	8.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

2: Shiloh Road & Hunt Drive/Proposed Access  
 2026 Traffic Volumes with Development - AM Peak

04/22/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	0	10	30	0	2	3	208	10	1	268	0
Future Volume (vph)	3	0	10	30	0	2	3	208	10	1	268	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-2%			-1%			4%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.895			0.991			0.994				
Flt Protected		0.989			0.955			0.999				
Satd. Flow (prot)	0	1226	0	0	1678	0	0	1510	0	0	1616	0
Flt Permitted		0.989			0.955			0.999				
Satd. Flow (perm)	0	1226	0	0	1678	0	0	1510	0	0	1616	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		1089			715			5597			607	
Travel Time (s)		29.7			19.5			127.2			13.8	
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles (%)	0%	2%	29%	2%	2%	2%	50%	8%	2%	2%	5%	0%
Adj. Flow (vph)	4	0	14	41	0	3	4	285	14	1	367	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	18	0	0	44	0	0	303	0	0	368	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	1.16	1.16	1.07	1.07	1.07	1.20	1.20	1.20	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 28.2%

ICU Level of Service A

Analysis Period (min) 15

2: Shiloh Road & Hunt Drive  
 2031 Traffic Volumes without Development - AM Peak

04/28/2021

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔		↔	
Traffic Vol, veh/h	3	10	3	213	275	0
Future Vol, veh/h	3	10	3	213	275	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	4	-2	-
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	0	29	50	8	5	0
Mvmt Flow	4	14	4	292	377	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	677	377	377	0	-	0
Stage 1	377	-	-	-	-	-
Stage 2	300	-	-	-	-	-
Critical Hdwy	6.7	6.29	4.8	-	-	-
Critical Hdwy Stg 1	5	-	-	-	-	-
Critical Hdwy Stg 2	5	-	-	-	-	-
Follow-up Hdwy	3	3.4	3.5	-	-	-
Pot Cap-1 Maneuver	445	651	743	-	-	-
Stage 1	828	-	-	-	-	-
Stage 2	894	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	442	651	743	-	-	-
Mov Cap-2 Maneuver	442	-	-	-	-	-
Stage 1	823	-	-	-	-	-
Stage 2	894	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	743	-	587	-	-
HCM Lane V/C Ratio	0.006	-	0.03	-	-
HCM Control Delay (s)	9.9	0	11.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

2: Shiloh Road & Hunt Drive  
 2031 Traffic Volumes without Development - AM Peak

04/28/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘			↕	↕	
Traffic Volume (vph)	3	10	3	213	275	0
Future Volume (vph)	3	10	3	213	275	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-2%			4%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.895					
Flt Protected	0.989			0.999		
Satd. Flow (prot)	1226	0	0	1515	1616	0
Flt Permitted	0.989			0.999		
Satd. Flow (perm)	1226	0	0	1515	1616	0
Link Speed (mph)	25			30	30	
Link Distance (ft)	1089			5597	607	
Travel Time (s)	29.7			127.2	13.8	
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles (%)	0%	29%	50%	8%	5%	0%
Adj. Flow (vph)	4	14	4	292	377	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	18	0	0	296	377	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.16	1.16	1.20	1.20	1.16	1.16
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	25.3%
	ICU Level of Service A
Analysis Period (min)	15

2: Shiloh Road & Hunt Drive/Proposed Access  
 2031 Traffic Volumes with Development - AM Peak

04/28/2021

**Intersection**

Int Delay, s/veh 1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Traffic Vol, veh/h	3	0	10	30	0	2	3	213	10	1	275	0
Future Vol, veh/h	3	0	10	30	0	2	3	213	10	1	275	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	-	-	4	-	-	-2	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	2	29	2	2	2	50	8	2	2	5	0
Mvmt Flow	4	0	14	41	0	3	4	292	14	1	377	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	688	693	377	693	686	299	377	0	0	306	0	0
Stage 1	379	379	-	307	307	-	-	-	-	-	-	-
Stage 2	309	314	-	386	379	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.12	6.29	6.92	6.32	6.12	4.8	-	-	4.3	-	-
Critical Hdwy Stg 1	5.7	5.12	-	5.92	5.32	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.12	-	5.92	5.32	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.018	3.4	3	4.018	3.1	3.5	-	-	3	-	-
Pot Cap-1 Maneuver	438	396	651	417	385	792	743	-	-	943	-	-
Stage 1	768	641	-	821	672	-	-	-	-	-	-	-
Stage 2	834	680	-	744	628	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	434	393	651	406	382	792	743	-	-	943	-	-
Mov Cap-2 Maneuver	434	393	-	406	382	-	-	-	-	-	-	-
Stage 1	763	640	-	816	668	-	-	-	-	-	-	-
Stage 2	826	676	-	728	627	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.4		14.6		0.1		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	743	-	-	584	419	943	-	-
HCM Lane V/C Ratio	0.006	-	-	0.03	0.105	0.001	-	-
HCM Control Delay (s)	9.9	0	-	11.4	14.6	8.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

2: Shiloh Road & Hunt Drive/Proposed Access  
 2031 Traffic Volumes with Development - AM Peak

04/28/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	3	0	10	30	0	2	3	213	10	1	275	0
Future Volume (vph)	3	0	10	30	0	2	3	213	10	1	275	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-2%			-1%			4%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.895			0.991			0.994				
Flt Protected		0.989			0.955			0.999				
Satd. Flow (prot)	0	1226	0	0	1678	0	0	1510	0	0	1616	0
Flt Permitted		0.989			0.955			0.999				
Satd. Flow (perm)	0	1226	0	0	1678	0	0	1510	0	0	1616	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		1089			715			5597			607	
Travel Time (s)		29.7			19.5			127.2			13.8	
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles (%)	0%	2%	29%	2%	2%	2%	50%	8%	2%	2%	5%	0%
Adj. Flow (vph)	4	0	14	41	0	3	4	292	14	1	377	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	18	0	0	44	0	0	310	0	0	378	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	1.16	1.16	1.07	1.07	1.07	1.20	1.20	1.20	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	28.6%					ICU Level of Service A						
Analysis Period (min)	15											

2: Shiloh Road & Hunt Drive  
Existing Traffic Volumes - PM Peak

04/22/2021

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			↑	↑	
Traffic Vol, veh/h	9	5	10	282	313	6
Future Vol, veh/h	9	5	10	282	313	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	4	-2	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	6	12	336	373	7

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	737	377	380	0	-	0
Stage 1	377	-	-	-	-	-
Stage 2	360	-	-	-	-	-
Critical Hdwy	6.7	6	4.3	-	-	-
Critical Hdwy Stg 1	5	-	-	-	-	-
Critical Hdwy Stg 2	5	-	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-	-
Pot Cap-1 Maneuver	407	726	889	-	-	-
Stage 1	828	-	-	-	-	-
Stage 2	842	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	400	726	889	-	-	-
Mov Cap-2 Maneuver	400	-	-	-	-	-
Stage 1	814	-	-	-	-	-
Stage 2	842	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.8	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	889	-	476	-	-
HCM Lane V/C Ratio	0.013	-	0.035	-	-
HCM Control Delay (s)	9.1	0	12.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



2: Shiloh Road & Hunt Drive  
Existing Traffic Volumes - PM Peak

04/22/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↕	↕	
Traffic Volume (vph)	9	5	10	282	313	6
Future Volume (vph)	9	5	10	282	313	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-2%			4%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.952				0.998	
Flt Protected	0.969			0.998		
Satd. Flow (prot)	1565	0	0	1643	1693	0
Flt Permitted	0.969			0.998		
Satd. Flow (perm)	1565	0	0	1643	1693	0
Link Speed (mph)	25			30	30	
Link Distance (ft)	1089			5597	607	
Travel Time (s)	29.7			127.2	13.8	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	11	6	12	336	373	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	17	0	0	348	380	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.16	1.16	1.20	1.20	1.16	1.16
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.2%
Analysis Period (min)	15
	ICU Level of Service A

2: Shiloh Road & Hunt Drive  
 2026 Traffic Volumes without Development - PM Peak

04/22/2021

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	9	5	10	289	321	6
Future Vol, veh/h	9	5	10	289	321	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	4	-2	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	6	12	344	382	7

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	754	386	389	0	0
Stage 1	386	-	-	-	-
Stage 2	368	-	-	-	-
Critical Hdwy	6.7	6	4.3	-	-
Critical Hdwy Stg 1	5	-	-	-	-
Critical Hdwy Stg 2	5	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-
Pot Cap-1 Maneuver	397	717	883	-	-
Stage 1	821	-	-	-	-
Stage 2	836	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	390	717	883	-	-
Mov Cap-2 Maneuver	390	-	-	-	-
Stage 1	807	-	-	-	-
Stage 2	836	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	883	-	466	-	-
HCM Lane V/C Ratio	0.013	-	0.036	-	-
HCM Control Delay (s)	9.1	0	13	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

2: Shiloh Road & Hunt Drive  
 2026 Traffic Volumes without Development - PM Peak

04/22/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↕	↕	
Traffic Volume (vph)	9	5	10	289	321	6
Future Volume (vph)	9	5	10	289	321	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-2%			4%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.952				0.998	
Flt Protected	0.969			0.998		
Satd. Flow (prot)	1565	0	0	1643	1693	0
Flt Permitted	0.969			0.998		
Satd. Flow (perm)	1565	0	0	1643	1693	0
Link Speed (mph)	25			30	30	
Link Distance (ft)	1089			5597	607	
Travel Time (s)	29.7			127.2	13.8	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	11	6	12	344	382	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	17	0	0	356	389	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.16	1.16	1.20	1.20	1.16	1.16
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 34.6% ICU Level of Service A  
 Analysis Period (min) 15

2: Shiloh Road & Hunt Drive/Proposed Access  
 2026 Traffic Volumes with Development - PM Peak

04/22/2021

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Traffic Vol, veh/h	9	0	5	19	0	1	10	289	34	2	321	6
Future Vol, veh/h	9	0	5	19	0	1	10	289	34	2	321	6
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	-	-	4	-	-	-2	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	2	0	2	2	2	0	0	2	2	0	0
Mvmt Flow	11	0	6	23	0	1	12	344	40	2	382	7

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	779	798	386	781	781	364	389	0	0	384	0	0
Stage 1	390	390	-	388	388	-	-	-	-	-	-	-
Stage 2	389	408	-	393	393	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.12	6	6.92	6.32	6.12	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	5.7	5.12	-	5.92	5.32	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.12	-	5.92	5.32	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.018	3.1	3	4.018	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	383	349	717	364	341	729	883	-	-	886	-	-
Stage 1	758	635	-	742	622	-	-	-	-	-	-	-
Stage 2	759	624	-	737	619	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	376	342	717	356	334	729	883	-	-	886	-	-
Mov Cap-2 Maneuver	376	342	-	356	334	-	-	-	-	-	-	-
Stage 1	745	633	-	729	611	-	-	-	-	-	-	-
Stage 2	745	613	-	729	617	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.3	15.6	0.3	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	883	-	-	453	365	886	-	-
HCM Lane V/C Ratio	0.013	-	-	0.037	0.065	0.003	-	-
HCM Control Delay (s)	9.1	0	-	13.3	15.6	9.1	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-	-

2: Shiloh Road & Hunt Drive/Proposed Access  
 2026 Traffic Volumes with Development - PM Peak

04/22/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	9	0	5	19	0	1	10	289	34	2	321	6
Future Volume (vph)	9	0	5	19	0	1	10	289	34	2	321	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-2%			-1%			4%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.952			0.994			0.986			0.998	
Frt Protected		0.969			0.954			0.998				
Satd. Flow (prot)	0	1565	0	0	1682	0	0	1617	0	0	1693	0
Frt Permitted		0.969			0.954			0.998				
Satd. Flow (perm)	0	1565	0	0	1682	0	0	1617	0	0	1693	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		1089			844			5597			607	
Travel Time (s)		29.7			23.0			127.2			13.8	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	2%	0%	2%	2%	2%	0%	0%	2%	2%	0%	0%
Adj. Flow (vph)	11	0	6	23	0	1	12	344	40	2	382	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	17	0	0	24	0	0	396	0	0	391	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	1.16	1.16	1.07	1.07	1.07	1.20	1.20	1.20	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	35.6%
Analysis Period (min)	15
	ICU Level of Service A

2: Shiloh Road & Hunt Drive  
 2031 Traffic Volumes without Development - PM Peak

04/28/2021

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		L		T	
Traffic Vol, veh/h	9	5	10	296	328	6
Future Vol, veh/h	9	5	10	296	328	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	4	-2	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	6	12	352	390	7

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	770	394	397	0	-	0
Stage 1	394	-	-	-	-	-
Stage 2	376	-	-	-	-	-
Critical Hdwy	6.7	6	4.3	-	-	-
Critical Hdwy Stg 1	5	-	-	-	-	-
Critical Hdwy Stg 2	5	-	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-	-
Pot Cap-1 Maneuver	388	710	877	-	-	-
Stage 1	814	-	-	-	-	-
Stage 2	829	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	381	710	877	-	-	-
Mov Cap-2 Maneuver	381	-	-	-	-	-
Stage 1	800	-	-	-	-	-
Stage 2	829	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.2	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	877	-	457	-	-
HCM Lane V/C Ratio	0.014	-	0.036	-	-
HCM Control Delay (s)	9.2	0	13.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

2: Shiloh Road & Hunt Drive  
 2031 Traffic Volumes without Development - PM Peak

04/28/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			4	4	
Traffic Volume (vph)	9	5	10	296	328	6
Future Volume (vph)	9	5	10	296	328	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-2%			4%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.952				0.998	
Flt Protected	0.969			0.998		
Satd. Flow (prot)	1565	0	0	1643	1693	0
Flt Permitted	0.969			0.998		
Satd. Flow (perm)	1565	0	0	1643	1693	0
Link Speed (mph)	25			30	30	
Link Distance (ft)	1089			5597	607	
Travel Time (s)	29.7			127.2	13.8	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	11	6	12	352	390	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	17	0	0	364	397	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.16	1.16	1.20	1.20	1.16	1.16
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	35.0%			ICU Level of Service A		
Analysis Period (min)	15					

2: Shiloh Road & Hunt Drive/Proposed Access  
 2031 Traffic Volumes with Development - PM Peak

04/30/2021

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Traffic Vol, veh/h	9	0	5	19	0	1	10	296	34	2	328	6
Future Vol, veh/h	9	0	5	19	0	1	10	296	34	2	328	6
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	-	-	4	-	-	-2	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	2	0	2	2	2	0	0	2	2	0	0
Mvmt Flow	11	0	6	23	0	1	12	352	40	2	390	7

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	795	814	394	797	797	372	397	0	0	392	0	0
Stage 1	398	398	-	396	396	-	-	-	-	-	-	-
Stage 2	397	416	-	401	401	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.12	6	6.92	6.32	6.12	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	5.7	5.12	-	5.92	5.32	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.12	-	5.92	5.32	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.018	3.1	3	4.018	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	374	342	710	355	334	721	877	-	-	881	-	-
Stage 1	751	630	-	735	617	-	-	-	-	-	-	-
Stage 2	752	620	-	730	614	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	367	335	710	346	327	721	877	-	-	881	-	-
Mov Cap-2 Maneuver	367	335	-	346	327	-	-	-	-	-	-	-
Stage 1	737	628	-	722	606	-	-	-	-	-	-	-
Stage 2	737	609	-	722	612	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.4	15.9	0.3	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	877	-	-	444	355	881	-	-
HCM Lane V/C Ratio	0.014	-	-	0.038	0.067	0.003	-	-
HCM Control Delay (s)	9.2	0	-	13.4	15.9	9.1	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-	-



2: Shiloh Road & Hunt Drive/Proposed Access  
 2031 Traffic Volumes with Development - PM Peak

04/30/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	9	0	5	19	0	1	10	296	34	2	328	6
Future Volume (vph)	9	0	5	19	0	1	10	296	34	2	328	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-2%			-1%			4%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.952			0.994			0.987			0.998	
Flt Protected		0.969			0.954			0.999				
Satd. Flow (prot)	0	1565	0	0	1682	0	0	1620	0	0	1693	0
Flt Permitted		0.969			0.954			0.999				
Satd. Flow (perm)	0	1565	0	0	1682	0	0	1620	0	0	1693	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		1089			844			5597			607	
Travel Time (s)		29.7			23.0			127.2			13.8	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	2%	0%	2%	2%	2%	0%	0%	2%	2%	0%	0%
Adj. Flow (vph)	11	0	6	23	0	1	12	352	40	2	390	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	17	0	0	24	0	0	404	0	0	399	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	1.16	1.16	1.07	1.07	1.07	1.20	1.20	1.20	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	36.0%
Analysis Period (min)	15
	ICU Level of Service A

3: Shiloh Road & Oakbourne Road  
Existing Traffic Volumes - AM Peak

04/22/2021

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↙			↘	↘	
Traffic Vol, veh/h	13	63	40	166	197	12
Future Vol, veh/h	13	63	40	166	197	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-1	-	-	1	-2	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	22	7	15	6	4	0
Mvmt Flow	18	85	54	224	266	16

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	606	274	282	0	0
Stage 1	274	-	-	-	-
Stage 2	332	-	-	-	-
Critical Hdwy	6.42	6.17	4.5	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.2	3.2	3.1	-	-
Pot Cap-1 Maneuver	494	793	919	-	-
Stage 1	839	-	-	-	-
Stage 2	788	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	461	793	919	-	-
Mov Cap-2 Maneuver	461	-	-	-	-
Stage 1	783	-	-	-	-
Stage 2	788	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11	1.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	919	-	706	-	-
HCM Lane V/C Ratio	0.059	-	0.145	-	-
HCM Control Delay (s)	9.2	0	11	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.5	-	-

3: Shiloh Road & Oakbourne Road  
Existing Traffic Volumes - AM Peak

04/22/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘			↕	↕	
Traffic Volume (vph)	13	63	40	166	197	12
Future Volume (vph)	13	63	40	166	197	12
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-1%			1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.889				0.992	
Flt Protected	0.991			0.990		
Satd. Flow (prot)	1357	0	0	1536	1622	0
Flt Permitted	0.991			0.990		
Satd. Flow (perm)	1357	0	0	1536	1622	0
Link Speed (mph)	35			30	30	
Link Distance (ft)	1059			607	2010	
Travel Time (s)	20.6			13.8	45.7	
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles (%)	22%	7%	15%	6%	4%	0%
Adj. Flow (vph)	18	85	54	224	266	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	103	0	0	278	282	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.16	1.16	1.18	1.18	1.16	1.16
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 38.1% ICU Level of Service A  
 Analysis Period (min) 15

3: Shiloh Road & Oakbourne Road  
 2026 Traffic Volumes without Development - AM Peak

04/22/2021

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘			↗		
Traffic Vol, veh/h	13	65	41	170	202	12
Future Vol, veh/h	13	65	41	170	202	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-1	-	-	1	-2	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	22	7	15	6	4	0
Mvmt Flow	18	88	55	230	273	16

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	621	281	289	0	0
Stage 1	281	-	-	-	-
Stage 2	340	-	-	-	-
Critical Hdwy	6.42	6.17	4.5	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.2	3.2	3.1	-	-
Pot Cap-1 Maneuver	484	785	914	-	-
Stage 1	833	-	-	-	-
Stage 2	781	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	451	785	914	-	-
Mov Cap-2 Maneuver	451	-	-	-	-
Stage 1	776	-	-	-	-
Stage 2	781	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.1	1.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	914	-	699	-	-
HCM Lane V/C Ratio	0.061	-	0.151	-	-
HCM Control Delay (s)	9.2	0	11.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.5	-	-

3: Shiloh Road & Oakbourne Road  
 2026 Traffic Volumes without Development - AM Peak

04/22/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘			↕	↕	
Traffic Volume (vph)	13	65	41	170	202	12
Future Volume (vph)	13	65	41	170	202	12
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-1%			1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.888				0.993	
Flt Protected	0.992			0.990		
Satd. Flow (prot)	1358	0	0	1536	1624	0
Flt Permitted	0.992			0.990		
Satd. Flow (perm)	1358	0	0	1536	1624	0
Link Speed (mph)	35			30	30	
Link Distance (ft)	1059			607	2010	
Travel Time (s)	20.6			13.8	45.7	
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles (%)	22%	7%	15%	6%	4%	0%
Adj. Flow (vph)	18	88	55	230	273	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	106	0	0	285	289	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.16	1.16	1.18	1.18	1.16	1.16
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 38.8% ICU Level of Service A  
 Analysis Period (min) 15

3: Shiloh Road & Oakbourne Road  
 2026 Traffic Volumes with Development - AM Peak

04/22/2021

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	13	65	41	172	203	12
Future Vol, veh/h	13	65	41	172	203	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-1	-	-	1	-2	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	22	7	15	6	4	0
Mvmt Flow	18	88	55	232	274	16

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	624	282	290	0	0
Stage 1	282	-	-	-	-
Stage 2	342	-	-	-	-
Critical Hdwy	6.42	6.17	4.5	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.2	3.2	3.1	-	-
Pot Cap-1 Maneuver	482	784	913	-	-
Stage 1	832	-	-	-	-
Stage 2	780	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	449	784	913	-	-
Mov Cap-2 Maneuver	449	-	-	-	-
Stage 1	775	-	-	-	-
Stage 2	780	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.1	1.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	913	-	697	-	-
HCM Lane V/C Ratio	0.061	-	0.151	-	-
HCM Control Delay (s)	9.2	0	11.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.5	-	-

3: Shiloh Road & Oakbourne Road  
 2026 Traffic Volumes with Development - AM Peak

04/22/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	13	65	41	172	203	12
Future Volume (vph)	13	65	41	172	203	12
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-1%			1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.888				0.993	
Flt Protected	0.992			0.991		
Satd. Flow (prot)	1358	0	0	1538	1624	0
Flt Permitted	0.992			0.991		
Satd. Flow (perm)	1358	0	0	1538	1624	0
Link Speed (mph)	35			30	30	
Link Distance (ft)	1059			607	2010	
Travel Time (s)	20.6			13.8	45.7	
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles (%)	22%	7%	15%	6%	4%	0%
Adj. Flow (vph)	18	88	55	232	274	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	106	0	0	287	290	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.16	1.16	1.18	1.18	1.16	1.16
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 39.0% ICU Level of Service A  
 Analysis Period (min) 15

3: Shiloh Road & Oakbourne Road  
 2031 Traffic Volumes without Development - AM Peak

04/28/2021

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	14	66	42	174	207	13
Future Vol, veh/h	14	66	42	174	207	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-1	-	-	1	-2	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	22	7	15	6	4	0
Mvmt Flow	19	89	57	235	280	18

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	638	289	298	0	0
Stage 1	289	-	-	-	-
Stage 2	349	-	-	-	-
Critical Hdwy	6.42	6.17	4.5	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.2	3.2	3.1	-	-
Pot Cap-1 Maneuver	472	777	907	-	-
Stage 1	826	-	-	-	-
Stage 2	774	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	438	777	907	-	-
Mov Cap-2 Maneuver	438	-	-	-	-
Stage 1	767	-	-	-	-
Stage 2	774	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.2	1.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	907	-	684	-	-
HCM Lane V/C Ratio	0.063	-	0.158	-	-
HCM Control Delay (s)	9.2	0	11.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.6	-	-



3: Shiloh Road & Oakbourne Road  
 2031 Traffic Volumes without Development - AM Peak

04/28/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			↕	↕	
Traffic Volume (vph)	14	66	42	174	207	13
Future Volume (vph)	14	66	42	174	207	13
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-1%			1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.889				0.992	
Flt Protected	0.991			0.990		
Satd. Flow (prot)	1357	0	0	1536	1622	0
Flt Permitted	0.991			0.990		
Satd. Flow (perm)	1357	0	0	1536	1622	0
Link Speed (mph)	35			30	30	
Link Distance (ft)	1059			607	2010	
Travel Time (s)	20.6			13.8	45.7	
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles (%)	22%	7%	15%	6%	4%	0%
Adj. Flow (vph)	19	89	57	235	280	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	0	292	298	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.16	1.16	1.18	1.18	1.16	1.16
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	39.6% ICU Level of Service A
Analysis Period (min)	15

3: Shiloh Road & Oakbourne Road  
 2031 Traffic Volumes with Development - AM Peak

04/28/2021

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↕		↔	
Traffic Vol, veh/h	14	66	42	176	208	13
Future Vol, veh/h	14	66	42	176	208	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-1	-	-	1	-2	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	22	7	15	6	4	0
Mvmt Flow	19	89	57	238	281	18

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	642	290	299	0	-	0
Stage 1	290	-	-	-	-	-
Stage 2	352	-	-	-	-	-
Critical Hdwy	6.42	6.17	4.5	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.2	3.2	3.1	-	-	-
Pot Cap-1 Maneuver	470	776	906	-	-	-
Stage 1	825	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	436	776	906	-	-	-
Mov Cap-2 Maneuver	436	-	-	-	-	-
Stage 1	766	-	-	-	-	-
Stage 2	771	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	1.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	906	-	683	-	-
HCM Lane V/C Ratio	0.063	-	0.158	-	-
HCM Control Delay (s)	9.2	0	11.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.6	-	-

3: Shiloh Road & Oakbourne Road  
 2031 Traffic Volumes with Development - AM Peak

04/28/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘			↕	↕	
Traffic Volume (vph)	14	66	42	176	208	13
Future Volume (vph)	14	66	42	176	208	13
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-1%			1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.889				0.992	
Flt Protected	0.991			0.990		
Satd. Flow (prot)	1357	0	0	1536	1622	0
Flt Permitted	0.991			0.990		
Satd. Flow (perm)	1357	0	0	1536	1622	0
Link Speed (mph)	35			30	30	
Link Distance (ft)	1059			607	2010	
Travel Time (s)	20.6			13.8	45.7	
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles (%)	22%	7%	15%	6%	4%	0%
Adj. Flow (vph)	19	89	57	238	281	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	0	295	299	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.16	1.16	1.18	1.18	1.16	1.16
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 39.7% ICU Level of Service A  
 Analysis Period (min) 15

3: Shiloh Road & Oakbourne Road  
Existing Traffic Volumes - PM Peak

04/22/2021

Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		↑		↑	
Traffic Vol, veh/h	15	79	80	211	233	26
Future Vol, veh/h	15	79	80	211	233	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-1	-	-	1	-2	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	5
Mvmt Flow	18	93	94	248	274	31

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	726	290	305	0	0
Stage 1	290	-	-	-	-
Stage 2	436	-	-	-	-
Critical Hdwy	6.2	6.1	4.3	-	-
Critical Hdwy Stg 1	5.2	-	-	-	-
Critical Hdwy Stg 2	5.2	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-
Pot Cap-1 Maneuver	458	803	944	-	-
Stage 1	889	-	-	-	-
Stage 2	762	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	405	803	944	-	-
Mov Cap-2 Maneuver	405	-	-	-	-
Stage 1	786	-	-	-	-
Stage 2	762	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.2	2.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	944	-	694	-	-
HCM Lane V/C Ratio	0.1	-	0.159	-	-
HCM Control Delay (s)	9.2	0	11.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.6	-	-

3: Shiloh Road & Oakbourne Road  
Existing Traffic Volumes - PM Peak

04/22/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↕	↕	
Traffic Volume (vph)	15	79	80	211	233	26
Future Volume (vph)	15	79	80	211	233	26
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-1%			1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.887				0.986	
Flt Protected	0.992			0.986		
Satd. Flow (prot)	1486	0	0	1648	1665	0
Flt Permitted	0.992			0.986		
Satd. Flow (perm)	1486	0	0	1648	1665	0
Link Speed (mph)	35			30	30	
Link Distance (ft)	1059			607	2010	
Travel Time (s)	20.6			13.8	45.7	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	5%
Adj. Flow (vph)	18	93	94	248	274	31
Shared Lane Traffic (%)						
Lane Group Flow (vph)	111	0	0	342	305	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.16	1.16	1.18	1.18	1.16	1.16
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 47.0% ICU Level of Service A  
 Analysis Period (min) 15

3: Shiloh Road & Oakbourne Road  
 2026 Traffic Volumes without Development - PM Peak

04/22/2021

Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↙		↖↗		↕	
Traffic Vol, veh/h	15	81	82	216	239	27
Future Vol, veh/h	15	81	82	216	239	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-1	-	-	1	-2	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	5
Mvmt Flow	18	95	96	254	281	32

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	743	297	313	0	0
Stage 1	297	-	-	-	-
Stage 2	446	-	-	-	-
Critical Hdwy	6.2	6.1	4.3	-	-
Critical Hdwy Stg 1	5.2	-	-	-	-
Critical Hdwy Stg 2	5.2	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-
Pot Cap-1 Maneuver	448	796	938	-	-
Stage 1	882	-	-	-	-
Stage 2	754	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	395	796	938	-	-
Mov Cap-2 Maneuver	395	-	-	-	-
Stage 1	777	-	-	-	-
Stage 2	754	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	2.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	938	-	687	-	-
HCM Lane V/C Ratio	0.103	-	0.164	-	-
HCM Control Delay (s)	9.3	0	11.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.6	-	-

3: Shiloh Road & Oakbourne Road  
 2026 Traffic Volumes without Development - PM Peak

04/22/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↑	↓	
Traffic Volume (vph)	15	81	82	216	239	27
Future Volume (vph)	15	81	82	216	239	27
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-1%			1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.887				0.986	
Flt Protected	0.992			0.986		
Satd. Flow (prot)	1486	0	0	1648	1665	0
Flt Permitted	0.992			0.986		
Satd. Flow (perm)	1486	0	0	1648	1665	0
Link Speed (mph)	35			30	30	
Link Distance (ft)	1059			607	2010	
Travel Time (s)	20.6			13.8	45.7	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	5%
Adj. Flow (vph)	18	95	96	254	281	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	113	0	0	350	313	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.16	1.16	1.18	1.18	1.16	1.16
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 47.9% ICU Level of Service A  
 Analysis Period (min) 15

3: Shiloh Road & Oakbourne Road  
 2026 Traffic Volumes with Development - PM Peak

04/22/2021

Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔		↔	
Traffic Vol, veh/h	15	81	82	217	241	27
Future Vol, veh/h	15	81	82	217	241	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-1	-	-	1	-2	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	5
Mvmt Flow	18	95	96	255	284	32

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	747	300	316	0	0
Stage 1	300	-	-	-	-
Stage 2	447	-	-	-	-
Critical Hdwy	6.2	6.1	4.3	-	-
Critical Hdwy Stg 1	5.2	-	-	-	-
Critical Hdwy Stg 2	5.2	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-
Pot Cap-1 Maneuver	445	793	936	-	-
Stage 1	879	-	-	-	-
Stage 2	754	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	392	793	936	-	-
Mov Cap-2 Maneuver	392	-	-	-	-
Stage 1	774	-	-	-	-
Stage 2	754	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	2.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	936	-	684	-	-
HCM Lane V/C Ratio	0.103	-	0.165	-	-
HCM Control Delay (s)	9.3	0	11.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.6	-	-



3: Shiloh Road & Oakbourne Road  
 2026 Traffic Volumes with Development - PM Peak

04/22/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	15	81	82	217	241	27
Future Volume (vph)	15	81	82	217	241	27
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-1%			1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.887				0.986	
Flt Protected	0.992			0.987		
Satd. Flow (prot)	1486	0	0	1650	1665	0
Flt Permitted	0.992			0.987		
Satd. Flow (perm)	1486	0	0	1650	1665	0
Link Speed (mph)	35			30	30	
Link Distance (ft)	1059			607	2010	
Travel Time (s)	20.6			13.8	45.7	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	5%
Adj. Flow (vph)	18	95	96	255	284	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	113	0	0	351	316	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.16	1.16	1.18	1.18	1.16	1.16
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 48.1% ICU Level of Service A  
 Analysis Period (min) 15

3: Shiloh Road & Oakbourne Road  
 2031 Traffic Volumes without Development - PM Peak

04/28/2021

Intersection

Int Delay, s/veh 2.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘			↙	↗	
Traffic Vol, veh/h	16	83	84	221	244	27
Future Vol, veh/h	16	83	84	221	244	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-1	-	-	1	-2	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	5
Mvmt Flow	19	98	99	260	287	32

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	761	303	319	0	-	0
Stage 1	303	-	-	-	-	-
Stage 2	458	-	-	-	-	-
Critical Hdwy	6.2	6.1	4.3	-	-	-
Critical Hdwy Stg 1	5.2	-	-	-	-	-
Critical Hdwy Stg 2	5.2	-	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-	-
Pot Cap-1 Maneuver	437	790	934	-	-	-
Stage 1	877	-	-	-	-	-
Stage 2	745	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	383	790	934	-	-	-
Mov Cap-2 Maneuver	383	-	-	-	-	-
Stage 1	768	-	-	-	-	-
Stage 2	745	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	2.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	934	-	674	-	-
HCM Lane V/C Ratio	0.106	-	0.173	-	-
HCM Control Delay (s)	9.3	0	11.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %ile Q(veh)	0.4	-	0.6	-	-

3: Shiloh Road & Oakbourne Road  
 2031 Traffic Volumes without Development - PM Peak

04/28/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘			↕	↕	
Traffic Volume (vph)	16	83	84	221	244	27
Future Volume (vph)	16	83	84	221	244	27
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-1%			1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.887			0.986		
Flt Protected	0.992			0.986		
Satd. Flow (prot)	1486	0	0	1648	1665	0
Flt Permitted	0.992			0.986		
Satd. Flow (perm)	1486	0	0	1648	1665	0
Link Speed (mph)	35			30	30	
Link Distance (ft)	1059			607	2010	
Travel Time (s)	20.6			13.8	45.7	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	5%
Adj. Flow (vph)	19	98	99	260	287	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	117	0	0	359	319	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.16	1.16	1.18	1.18	1.16	1.16
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	48.8%
	ICU Level of Service A
Analysis Period (min)	15

3: Shiloh Road & Oakbourne Road  
 2031 Traffic Volumes with Development - PM Peak

04/28/2021

Intersection						
Int Delay, s/veh	2.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y*		←		→	
Traffic Vol, veh/h	16	83	84	222	246	27
Future Vol, veh/h	16	83	84	222	246	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-1	-	-	1	-2	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	5
Mvmt Flow	19	98	99	261	289	32

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	764	305	321	0	-	0
Stage 1	305	-	-	-	-	-
Stage 2	459	-	-	-	-	-
Critical Hdwy	6.2	6.1	4.3	-	-	-
Critical Hdwy Stg 1	5.2	-	-	-	-	-
Critical Hdwy Stg 2	5.2	-	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-	-
Pot Cap-1 Maneuver	435	788	932	-	-	-
Stage 1	875	-	-	-	-	-
Stage 2	744	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	381	788	932	-	-	-
Mov Cap-2 Maneuver	381	-	-	-	-	-
Stage 1	767	-	-	-	-	-
Stage 2	744	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	2.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	932	-	672	-	-
HCM Lane V/C Ratio	0.106	-	0.173	-	-
HCM Control Delay (s)	9.3	0	11.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.4	-	0.6	-	-

3: Shiloh Road & Oakbourne Road  
 2031 Traffic Volumes with Development - PM Peak

04/28/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↙			↑	↓	
Traffic Volume (vph)	16	83	84	222	246	27
Future Volume (vph)	16	83	84	222	246	27
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-1%			1%	-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.887				0.987	
Flt Protected	0.992			0.986		
Satd. Flow (prot)	1486	0	0	1648	1666	0
Flt Permitted	0.992			0.986		
Satd. Flow (perm)	1486	0	0	1648	1666	0
Link Speed (mph)	35			30	30	
Link Distance (ft)	1059			607	2010	
Travel Time (s)	20.6			13.8	45.7	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	5%
Adj. Flow (vph)	19	98	99	261	289	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	117	0	0	360	321	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.16	1.16	1.18	1.18	1.16	1.16
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	49.0%
	ICU Level of Service A
Analysis Period (min)	15

4: Shiloh Road & Little Shiloh Road  
Existing Traffic Volumes - AM Peak

04/22/2021

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

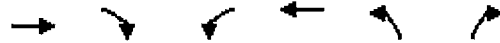
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	
Traffic Vol, veh/h	37	113	76	24	157	62
Future Vol, veh/h	37	113	76	24	157	62
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	4	4	4	6	5	0
Mvmt Flow	44	133	89	28	185	73
Number of Lanes	1	0	0	1	1	0

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	8.5	8.9	10
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	72%	0%	76%
Vol Thru, %	0%	25%	24%
Vol Right, %	28%	75%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	219	150	100
LT Vol	157	0	76
Through Vol	0	37	24
RT Vol	62	113	0
Lane Flow Rate	258	176	118
Geometry Grp	1	1	1
Degree of Util (X)	0.331	0.21	0.162
Departure Headway (Hd)	4.627	4.291	4.944
Convergence, Y/N	Yes	Yes	Yes
Cap	776	835	725
Service Time	2.662	2.323	2.979
HCM Lane V/C Ratio	0.332	0.211	0.163
HCM Control Delay	10	8.5	8.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.5	0.8	0.6

4: Shiloh Road & Little Shiloh Road  
Existing Traffic Volumes - AM Peak

04/22/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (vph)	37	113	76	24	157	62
Future Volume (vph)	37	113	76	24	157	62
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	3%			-1%	-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.899				0.962	
Flt Protected				0.963	0.965	
Satd. Flow (prot)	1379	0	0	1501	1513	0
Flt Permitted				0.963	0.965	
Satd. Flow (perm)	1379	0	0	1501	1513	0
Link Speed (mph)	25			25	30	
Link Distance (ft)	1782			1077	2010	
Travel Time (s)	48.6			29.4	45.7	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	4%	4%	4%	6%	5%	0%
Adj. Flow (vph)	44	133	89	28	185	73
Shared Lane Traffic (%)						
Lane Group Flow (vph)	177	0	0	117	258	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.25	1.25	1.22	1.22	1.16	1.16
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 38.3% ICU Level of Service A  
 Analysis Period (min) 15

4: Shiloh Road & Little Shiloh Road  
 2026 Traffic Volumes without Development - AM Peak

04/22/2021

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↕	↕	
Traffic Vol, veh/h	38	116	78	25	161	63
Future Vol, veh/h	38	116	78	25	161	63
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	4	4	4	6	5	0
Mvmt Flow	45	136	92	29	189	74
Number of Lanes	1	0	0	1	1	0

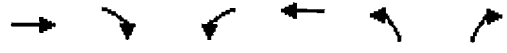
Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.5	9	10.1
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	72%	0%	76%
Vol Thru, %	0%	25%	24%
Vol Right, %	28%	75%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	224	154	103
LT Vol	161	0	78
Through Vol	0	38	25
RT Vol	63	116	0
Lane Flow Rate	264	181	121
Geometry Grp	1	1	1
Degree of Util (X)	0.34	0.217	0.167
Departure Headway (Hd)	4.649	4.315	4.968
Convergence, Y/N	Yes	Yes	Yes
Cap	772	832	721
Service Time	2.686	2.347	3.004
HCM Lane V/C Ratio	0.342	0.218	0.168
HCM Control Delay	10.1	8.5	9
HCM Lane LOS	B	A	A
HCM 95th-tile Q	1.5	0.8	0.6



4: Shiloh Road & Little Shiloh Road  
 2026 Traffic Volumes without Development - AM Peak

04/22/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (vph)	38	116	78	25	161	63
Future Volume (vph)	38	116	78	25	161	63
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	3%			-1%	-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.899				0.962	
Flt Protected				0.963	0.965	
Satd. Flow (prot)	1379	0	0	1501	1513	0
Flt Permitted				0.963	0.965	
Satd. Flow (perm)	1379	0	0	1501	1513	0
Link Speed (mph)	25			25	30	
Link Distance (ft)	1782			1077	2010	
Travel Time (s)	48.6			29.4	45.7	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	4%	4%	4%	6%	5%	0%
Adj. Flow (vph)	45	136	92	29	189	74
Shared Lane Traffic (%)						
Lane Group Flow (vph)	181	0	0	121	263	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.25	1.25	1.22	1.22	1.16	1.16
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	39.1%
	ICU Level of Service A
Analysis Period (min)	15

4: Shiloh Road & Little Shiloh Road  
 2026 Traffic Volumes with Development - AM Peak

04/22/2021

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Vol, veh/h	39	117	78	29	163	63
Future Vol, veh/h	39	117	78	29	163	63
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	4	4	4	6	5	0
Mvmt Flow	46	138	92	34	192	74
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	8.6	9.1	10.2
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	72%	0%	73%
Vol Thru, %	0%	25%	27%
Vol Right, %	28%	75%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	226	156	107
LT Vol	163	0	78
Through Vol	0	39	29
RT Vol	63	117	0
Lane Flow Rate	266	184	126
Geometry Grp	1	1	1
Degree of Util (X)	0.345	0.221	0.174
Departure Headway (Hd)	4.669	4.329	4.971
Convergence, Y/N	Yes	Yes	Yes
Cap	768	828	720
Service Time	2.708	2.366	3.013
HCM Lane V/C Ratio	0.346	0.222	0.175
HCM Control Delay	10.2	8.6	9.1
HCM Lane LOS	B	A	A
HCM 95th-tile Q	1.5	0.8	0.6

4: Shiloh Road & Little Shiloh Road  
 2026 Traffic Volumes with Development - AM Peak

04/22/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (vph)	39	117	78	29	163	63
Future Volume (vph)	39	117	78	29	163	63
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	3%			-1%	-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.899				0.962	
Flt Protected				0.965	0.965	
Satd. Flow (prot)	1379	0	0	1503	1513	0
Flt Permitted				0.965	0.965	
Satd. Flow (perm)	1379	0	0	1503	1513	0
Link Speed (mph)	25			25	30	
Link Distance (ft)	1782			1077	2010	
Travel Time (s)	48.6			29.4	45.7	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	4%	4%	4%	6%	5%	0%
Adj. Flow (vph)	46	138	92	34	192	74
Shared Lane Traffic (%)						
Lane Group Flow (vph)	184	0	0	126	266	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.25	1.25	1.22	1.22	1.16	1.16
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	39.5%
Analysis Period (min)	15
	ICU Level of Service A

4: Shiloh Road & Little Shiloh Road  
 2031 Traffic Volumes without Development - AM Peak

04/28/2021

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖		↘
Traffic Vol, veh/h	39	119	80	25	165	65
Future Vol, veh/h	39	119	80	25	165	65
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	4	4	4	6	5	0
Mvmt Flow	46	140	94	29	194	76
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	8.6	9.1	10.2
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	72%	0%	76%
Vol Thru, %	0%	25%	24%
Vol Right, %	28%	75%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	230	158	105
LT Vol	165	0	80
Through Vol	0	39	25
RT Vol	65	119	0
Lane Flow Rate	271	186	124
Geometry Grp	1	1	1
Degree of Util (X)	0.351	0.224	0.171
Departure Headway (Hd)	4.666	4.337	4.993
Convergence, Y/N	Yes	Yes	Yes
Cap	768	825	716
Service Time	2.705	2.373	3.035
HCM Lane V/C Ratio	0.353	0.225	0.173
HCM Control Delay	10.2	8.6	9.1
HCM Lane LOS	B	A	A
HCM 95th-tile Q	1.6	0.9	0.6

4: Shiloh Road & Little Shiloh Road  
 2031 Traffic Volumes without Development - AM Peak

04/28/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (vph)	39	119	80	25	165	65
Future Volume (vph)	39	119	80	25	165	65
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	3%			-1%	-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.898				0.962	
Flt Protected				0.963	0.965	
Satd. Flow (prot)	1378	0	0	1501	1513	0
Flt Permitted				0.963	0.965	
Satd. Flow (perm)	1378	0	0	1501	1513	0
Link Speed (mph)	25			25	30	
Link Distance (ft)	1782			1077	2010	
Travel Time (s)	48.6			29.4	45.7	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	4%	4%	4%	6%	5%	0%
Adj. Flow (vph)	46	140	94	29	194	76
Shared Lane Traffic (%)						
Lane Group Flow (vph)	186	0	0	123	270	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.25	1.25	1.22	1.22	1.16	1.16
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

**Intersection Summary**

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 39.8% ICU Level of Service A  
 Analysis Period (min) 15

4: Shiloh Road & Little Shiloh Road  
 2031 Traffic Volumes with Development - AM Peak

04/28/2021

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↗↘	
Traffic Vol, veh/h	40	120	80	29	167	65
Future Vol, veh/h	40	120	80	29	167	65
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	4	4	4	6	5	0
Mvmt Flow	47	141	94	34	196	76
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	8.7	9.1	10.3
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	72%	0%	73%
Vol Thru, %	0%	25%	27%
Vol Right, %	28%	75%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	232	160	109
LT Vol	167	0	80
Through Vol	0	40	29
RT Vol	65	120	0
Lane Flow Rate	273	188	128
Geometry Grp	1	1	1
Degree of Util (X)	0.355	0.228	0.178
Departure Headway (Hd)	4.685	4.353	4.999
Convergence, Y/N	Yes	Yes	Yes
Cap	767	823	716
Service Time	2.726	2.39	3.041
HCM Lane V/C Ratio	0.356	0.228	0.179
HCM Control Delay	10.3	8.7	9.1
HCM Lane LOS	B	A	A
HCM 95th-tile Q	1.6	0.9	0.6

4: Shiloh Road & Little Shiloh Road  
 2031 Traffic Volumes with Development - AM Peak

04/28/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↗↖	
Traffic Volume (vph)	40	120	80	29	167	65
Future Volume (vph)	40	120	80	29	167	65
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	3%			-1%	-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.899				0.962	
Flt Protected				0.965	0.965	
Satd. Flow (prot)	1379	0	0	1503	1513	0
Flt Permitted				0.965	0.965	
Satd. Flow (perm)	1379	0	0	1503	1513	0
Link Speed (mph)	25			25	30	
Link Distance (ft)	1782			1077	2010	
Travel Time (s)	48.6			29.4	45.7	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	4%	4%	4%	6%	5%	0%
Adj. Flow (vph)	47	141	94	34	196	76
Shared Lane Traffic (%)						
Lane Group Flow (vph)	188	0	0	128	272	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.25	1.25	1.22	1.22	1.16	1.16
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	40.3%			ICU Level of Service A		
Analysis Period (min)	15					

4: Shiloh Road & Little Shiloh Road  
Existing Traffic Volumes - PM Peak

04/22/2021

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Vol, veh/h	31	196	70	44	146	60
Future Vol, veh/h	31	196	70	44	146	60
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	7	0	0	0	0	2
Mvmt Flow	34	218	78	49	162	67
Number of Lanes	1	0	0	1	1	0

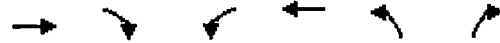
Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	9	8.9	9.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	71%	0%	61%
Vol Thru, %	0%	14%	39%
Vol Right, %	29%	86%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	206	227	114
LT Vol	146	0	70
Through Vol	0	31	44
RT Vol	60	196	0
Lane Flow Rate	229	252	127
Geometry Grp	1	1	1
Degree of Util (X)	0.299	0.296	0.171
Departure Headway (Hd)	4.701	4.22	4.857
Convergence, Y/N	Yes	Yes	Yes
Cap	762	850	737
Service Time	2.744	2.252	2.898
HCM Lane V/C Ratio	0.301	0.296	0.172
HCM Control Delay	9.8	9	8.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.3	1.2	0.6



4: Shiloh Road & Little Shiloh Road  
Existing Traffic Volumes - PM Peak

04/22/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (vph)	31	196	70	44	146	60
Future Volume (vph)	31	196	70	44	146	60
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	3%			-1%	-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.883				0.961	
Flt Protected				0.970	0.966	
Satd. Flow (prot)	1396	0	0	1579	1558	0
Flt Permitted				0.970	0.966	
Satd. Flow (perm)	1396	0	0	1579	1558	0
Link Speed (mph)	25			25	30	
Link Distance (ft)	1782			1077	2010	
Travel Time (s)	48.6			29.4	45.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	7%	0%	0%	0%	0%	2%
Adj. Flow (vph)	34	218	78	49	162	67
Shared Lane Traffic (%)						
Lane Group Flow (vph)	252	0	0	127	229	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.25	1.25	1.22	1.22	1.16	1.16
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 43.4% ICU Level of Service A  
 Analysis Period (min) 15

4: Shiloh Road & Little Shiloh Road  
 2026 Traffic Volumes without Development - PM Peak

04/22/2021

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

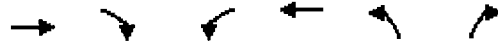
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	
Traffic Vol, veh/h	32	201	72	45	150	61
Future Vol, veh/h	32	201	72	45	150	61
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	7	0	0	0	0	2
Mvmt Flow	36	223	80	50	167	68
Number of Lanes	1	0	0	1	1	0

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	9.1	9	9.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	71%	0%	62%
Vol Thru, %	0%	14%	38%
Vol Right, %	29%	86%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	211	233	117
LT Vol	150	0	72
Through Vol	0	32	45
RT Vol	61	201	0
Lane Flow Rate	234	259	130
Geometry Grp	1	1	1
Degree of Util (X)	0.308	0.305	0.176
Departure Headway (Hd)	4.728	4.241	4.883
Convergence, Y/N	Yes	Yes	Yes
Cap	757	847	733
Service Time	2.771	2.275	2.926
HCM Lane V/C Ratio	0.309	0.306	0.177
HCM Control Delay	9.9	9.1	9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.3	1.3	0.6

4: Shiloh Road & Little Shiloh Road  
 2026 Traffic Volumes without Development - PM Peak

04/22/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (vph)	32	201	72	45	150	61
Future Volume (vph)	32	201	72	45	150	61
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	3%			-1%	-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.884				0.961	
Frt Protected				0.970	0.966	
Satd. Flow (prot)	1397	0	0	1579	1558	0
Frt Permitted				0.970	0.966	
Satd. Flow (perm)	1397	0	0	1579	1558	0
Link Speed (mph)	25			25	30	
Link Distance (ft)	1782			1077	2010	
Travel Time (s)	48.6			29.4	45.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	7%	0%	0%	0%	0%	2%
Adj. Flow (vph)	36	223	80	50	167	68
Shared Lane Traffic (%)						
Lane Group Flow (vph)	259	0	0	130	235	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.25	1.25	1.22	1.22	1.16	1.16
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	44.3%
	ICU Level of Service A
Analysis Period (min)	15

4: Shiloh Road & Little Shiloh Road  
 2026 Traffic Volumes with Development - PM Peak

04/22/2021

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

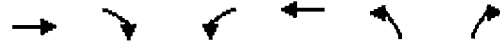
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	
Traffic Vol, veh/h	36	203	72	48	151	61
Future Vol, veh/h	36	203	72	48	151	61
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	7	0	0	0	0	2
Mvmt Flow	40	226	80	53	168	68
Number of Lanes	1	0	0	1	1	0

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	9.2	9	9.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	71%	0%	60%
Vol Thru, %	0%	15%	40%
Vol Right, %	29%	85%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	212	239	120
LT Vol	151	0	72
Through Vol	0	36	48
RT Vol	61	203	0
Lane Flow Rate	236	266	133
Geometry Grp	1	1	1
Degree of Util (X)	0.311	0.314	0.181
Departure Headway (Hd)	4.751	4.257	4.892
Convergence, Y/N	Yes	Yes	Yes
Cap	754	842	731
Service Time	2.798	2.294	2.938
HCM Lane V/C Ratio	0.313	0.316	0.182
HCM Control Delay	9.9	9.2	9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.3	1.3	0.7

4: Shiloh Road & Little Shiloh Road  
 2026 Traffic Volumes with Development - PM Peak

04/22/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (vph)	36	203	72	48	151	61
Future Volume (vph)	36	203	72	48	151	61
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	3%			-1%	-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.885			0.961		
Flt Protected				0.971	0.966	
Satd. Flow (prot)	1397	0	0	1581	1558	0
Flt Permitted				0.971	0.966	
Satd. Flow (perm)	1397	0	0	1581	1558	0
Link Speed (mph)	25			25	30	
Link Distance (ft)	1782			1077	2010	
Travel Time (s)	48.6			29.4	45.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	7%	0%	0%	0%	0%	2%
Adj. Flow (vph)	40	226	80	53	168	68
Shared Lane Traffic (%)						
Lane Group Flow (vph)	266	0	0	133	236	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.25	1.25	1.22	1.22	1.16	1.16
Turning Speed (mph)	9		15	15		9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	44.9%
	ICU Level of Service A
Analysis Period (min)	15

4: Shiloh Road & Little Shiloh Road  
 2031 Traffic Volumes without Development - PM Peak

04/28/2021

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

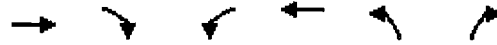
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	↙
Traffic Vol, veh/h	33	206	73	46	153	63
Future Vol, veh/h	33	206	73	46	153	63
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	7	0	0	0	0	2
Mvmt Flow	37	229	81	51	170	70
Number of Lanes	1	0	0	1	1	0

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	9.3	9	10
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	71%	0%	61%
Vol Thru, %	0%	14%	39%
Vol Right, %	29%	86%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	216	239	119
LT Vol	153	0	73
Through Vol	0	33	46
RT Vol	63	206	0
Lane Flow Rate	240	266	132
Geometry Grp	1	1	1
Degree of Util (X)	0.316	0.314	0.18
Departure Headway (Hd)	4.746	4.261	4.907
Convergence, Y/N	Yes	Yes	Yes
Cap	754	842	729
Service Time	2.793	2.296	2.951
HCM Lane V/C Ratio	0.318	0.316	0.181
HCM Control Delay	10	9.3	9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.4	1.3	0.7

4: Shiloh Road & Little Shiloh Road  
 2031 Traffic Volumes without Development - PM Peak

04/28/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↖			↗	↖↗	
Traffic Volume (vph)	33	206	73	46	153	63
Future Volume (vph)	33	206	73	46	153	63
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	3%			-1%		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.884			0.961		
Flt Protected				0.970	0.966	
Satd. Flow (prot)	1397	0	0	1579	1558	0
Flt Permitted				0.970	0.966	
Satd. Flow (perm)	1397	0	0	1579	1558	0
Link Speed (mph)	25			25	30	
Link Distance (ft)	1782			1077	2010	
Travel Time (s)	48.6			29.4	45.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	7%	0%	0%	0%	0%	2%
Adj. Flow (vph)	37	229	81	51	170	70
Shared Lane Traffic (%)						
Lane Group Flow (vph)	266	0	0	132	240	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.25	1.25	1.22	1.22	1.16	1.16
Turning Speed (mph)	9		15	15		
Sign Control	Stop			Stop	Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	45.1% ICU Level of Service A
Analysis Period (min)	15

4: Shiloh Road & Little Shiloh Road  
 2031 Traffic Volumes with Development - PM Peak

04/28/2021

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	↙
Traffic Vol, veh/h	37	208	73	49	154	63
Future Vol, veh/h	37	208	73	49	154	63
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	7	0	0	0	0	2
Mvmt Flow	41	231	81	54	171	70
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	9.4	9.1	10.1
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	71%	0%	60%
Vol Thru, %	0%	15%	40%
Vol Right, %	29%	85%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	217	245	122
LT Vol	154	0	73
Through Vol	0	37	49
RT Vol	63	208	0
Lane Flow Rate	241	272	136
Geometry Grp	1	1	1
Degree of Util (X)	0.319	0.323	0.185
Departure Headway (Hd)	4.77	4.278	4.916
Convergence, Y/N	Yes	Yes	Yes
Cap	750	838	728
Service Time	2.819	2.315	2.963
HCM Lane V/C Ratio	0.321	0.325	0.187
HCM Control Delay	10.1	9.4	9.1
HCM Lane LOS	B	A	A
HCM 95th-tile Q	1.4	1.4	0.7



4: Shiloh Road & Little Shiloh Road  
 2031 Traffic Volumes with Development - PM Peak

04/28/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↓	↓	
Traffic Volume (vph)	37	208	73	49	154	63
Future Volume (vph)	37	208	73	49	154	63
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	3%			-1%	-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>	0.885				0.961	
Fl <sub>t</sub> Protected				0.971	0.966	
Satd. Flow (prot)	1397	0	0	1581	1558	0
Fl <sub>t</sub> Permitted				0.971	0.966	
Satd. Flow (perm)	1397	0	0	1581	1558	0
Link Speed (mph)	25			25	30	
Link Distance (ft)	1782			1077	2010	
Travel Time (s)	48.6			29.4	45.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	7%	0%	0%	0%	0%	2%
Adj. Flow (vph)	41	231	81	54	171	70
Shared Lane Traffic (%)						
Lane Group Flow (vph)	272	0	0	135	241	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.25	1.25	1.22	1.22	1.16	1.16
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	45.7%
	ICU Level of Service A
Analysis Period (min)	15

5: Shiloh Hill Drive & Little Shiloh Road  
Existing Traffic Volumes - AM Peak

04/22/2021

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Vol, veh/h	94	4	1	78	9	1
Future Vol, veh/h	94	4	1	78	9	1
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	-	-	-2	4	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	4	0	0
Mvmt Flow	108	5	1	90	10	1

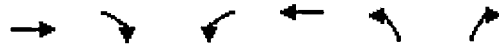
Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	113	0	203
Stage 1	-	-	-	-	111
Stage 2	-	-	-	-	92
Critical Hdwy	-	-	4.1	-	7.2
Critical Hdwy Stg 1	-	-	-	-	6.2
Critical Hdwy Stg 2	-	-	-	-	6.2
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1489	-	755
Stage 1	-	-	-	-	896
Stage 2	-	-	-	-	918
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1489	-	754
Mov Cap-2 Maneuver	-	-	-	-	754
Stage 1	-	-	-	-	896
Stage 2	-	-	-	-	917

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	769	-	-	1489	-
HCM Lane V/C Ratio	0.015	-	-	0.001	-
HCM Control Delay (s)	9.8	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

5: Shiloh Hill Drive & Little Shiloh Road  
Existing Traffic Volumes - AM Peak

04/22/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (vph)	94	4	1	78	9	1
Future Volume (vph)	94	4	1	78	9	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	-2%			-2%	4%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994				0.988	
Flt Protected				0.999	0.957	
Satd. Flow (prot)	1626	0	0	1572	1557	0
Flt Permitted				0.999	0.957	
Satd. Flow (perm)	1626	0	0	1572	1557	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1077			1334	597	
Travel Time (s)	29.4			36.4	16.3	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	0%	4%	0%	0%
Adj. Flow (vph)	108	5	1	90	10	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	113	0	0	91	11	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.21	1.21	1.21	1.21	1.20	1.20
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 15.5% ICU Level of Service A  
 Analysis Period (min) 15

5: Shiloh Hill Drive & Little Shiloh Road  
 2026 Traffic Volumes without Development - AM Peak

04/22/2021

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Vol, veh/h	96	4	1	80	9	1
Future Vol, veh/h	96	4	1	80	9	1
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	-	-	-2	4	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	4	0	0
Mvmt Flow	110	5	1	92	10	1

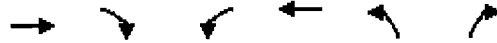
Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	115	0	207
Stage 1	-	-	-	-	113
Stage 2	-	-	-	-	94
Critical Hdwy	-	-	4.1	-	7.2
Critical Hdwy Stg 1	-	-	-	-	6.2
Critical Hdwy Stg 2	-	-	-	-	6.2
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1487	-	751
Stage 1	-	-	-	-	894
Stage 2	-	-	-	-	915
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1487	-	750
Mov Cap-2 Maneuver	-	-	-	-	750
Stage 1	-	-	-	-	894
Stage 2	-	-	-	-	914

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	765	-	-	1487	-
HCM Lane V/C Ratio	0.015	-	-	0.001	-
HCM Control Delay (s)	9.8	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

5: Shiloh Hill Drive & Little Shiloh Road  
 2026 Traffic Volumes without Development - AM Peak

04/22/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔		↔	
Traffic Volume (vph)	96	4	1	80	9	1
Future Volume (vph)	96	4	1	80	9	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	-2%		-2%		4%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994			0.988		
Flt Protected				0.999	0.957	
Satd. Flow (prot)	1626	0	0	1572	1557	0
Flt Permitted				0.999	0.957	
Satd. Flow (perm)	1626	0	0	1572	1557	0
Link Speed (mph)	25		25		25	
Link Distance (ft)	1077		1334		597	
Travel Time (s)	29.4		36.4		16.3	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	0%	4%	0%	0%
Adj. Flow (vph)	110	5	1	92	10	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	115	0	0	93	11	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0		0		10	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.21	1.21	1.21	1.21	1.20	1.20
Turning Speed (mph)	9		15		15	
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 15.6% ICU Level of Service A  
 Analysis Period (min) 15

5: Shiloh Hill Drive & Little Shiloh Road  
 2026 Traffic Volumes with Development - AM Peak

04/22/2021

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Vol, veh/h	96	5	2	80	13	5
Future Vol, veh/h	96	5	2	80	13	5
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	-	-	-2	4	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	4	0	0
Mvmt Flow	110	6	2	92	15	6

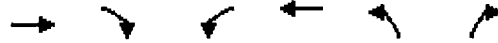
Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	116	0	209
Stage 1	-	-	-	-	113
Stage 2	-	-	-	-	96
Critical Hdwy	-	-	4.1	-	7.2
Critical Hdwy Stg 1	-	-	-	-	6.2
Critical Hdwy Stg 2	-	-	-	-	6.2
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1485	-	748
Stage 1	-	-	-	-	894
Stage 2	-	-	-	-	913
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1485	-	747
Mov Cap-2 Maneuver	-	-	-	-	747
Stage 1	-	-	-	-	894
Stage 2	-	-	-	-	912

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	791	-	-	1485	-
HCM Lane V/C Ratio	0.026	-	-	0.002	-
HCM Control Delay (s)	9.7	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

5: Shiloh Hill Drive & Little Shiloh Road  
 2026 Traffic Volumes with Development - AM Peak

04/22/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (vph)	96	5	2	80	13	5
Future Volume (vph)	96	5	2	80	13	5
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	-2%			-2%	4%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.993				0.961	
Flt Protected				0.999	0.966	
Satd. Flow (prot)	1625	0	0	1573	1528	0
Flt Permitted				0.999	0.966	
Satd. Flow (perm)	1625	0	0	1573	1528	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1077			1334	597	
Travel Time (s)	29.4			36.4	16.3	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	0%	4%	0%	0%
Adj. Flow (vph)	110	6	2	92	15	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	116	0	0	94	21	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.21	1.21	1.21	1.21	1.20	1.20
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 16.1% ICU Level of Service A  
 Analysis Period (min) 15

5: Shiloh Hill Drive & Little Shiloh Road  
 2031 Traffic Volumes without Development - AM Peak

04/28/2021

**Intersection**

Int Delay, s/veh 0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Vol, veh/h	99	4	1	82	9	1
Future Vol, veh/h	99	4	1	82	9	1
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	-	-	-2	4	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	4	0	0
Mvmt Flow	114	5	1	94	10	1

**Major/Minor**

	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	119	213
Stage 1	-	-	-	117
Stage 2	-	-	-	96
Critical Hdwy	-	-	4.1	7.2
Critical Hdwy Stg 1	-	-	-	6.2
Critical Hdwy Stg 2	-	-	-	6.2
Follow-up Hdwy	-	-	2.2	3.5
Pot Cap-1 Maneuver	-	-	1482	744
Stage 1	-	-	-	890
Stage 2	-	-	-	913
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1482	743
Mov Cap-2 Maneuver	-	-	-	743
Stage 1	-	-	-	890
Stage 2	-	-	-	912

**Approach**

	EB	WB	NB
HCM Control Delay, s	0	0.1	9.8
HCM LOS			A

**Minor Lane/Major Mvmt**

	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	758	-	-	1482	-
HCM Lane V/C Ratio	0.015	-	-	0.001	-
HCM Control Delay (s)	9.8	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-



5: Shiloh Hill Drive & Little Shiloh Road  
 2031 Traffic Volumes without Development - AM Peak

04/28/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (vph)	99	4	1	82	9	1
Future Volume (vph)	99	4	1	82	9	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	-2%			-2%	4%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994				0.988	
Flt Protected				0.999	0.957	
Satd. Flow (prot)	1626	0	0	1572	1557	0
Flt Permitted				0.999	0.957	
Satd. Flow (perm)	1626	0	0	1572	1557	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1077			1334	597	
Travel Time (s)	29.4			36.4	16.3	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	0%	4%	0%	0%
Adj. Flow (vph)	114	5	1	94	10	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	119	0	0	95	11	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.21	1.21	1.21	1.21	1.20	1.20
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	15.8%
	ICU Level of Service A
Analysis Period (min)	15

5: Shiloh Hill Drive & Little Shiloh Road  
 2031 Traffic Volumes with Development - AM Peak

04/28/2021

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Vol, veh/h	99	5	2	82	13	5
Future Vol, veh/h	99	5	2	82	13	5
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	-	-	-2	4	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	4	0	0
Mvmt Flow	114	6	2	94	15	6

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	120	0	215
Stage 1	-	-	-	-	117
Stage 2	-	-	-	-	98
Critical Hdwy	-	-	4.1	-	7.2
Critical Hdwy Stg 1	-	-	-	-	6.2
Critical Hdwy Stg 2	-	-	-	-	6.2
Follow-up Hdwy	-	-	2.2	-	3.5
Pol Cap-1 Maneuver	-	-	1480	-	741
Stage 1	-	-	-	-	890
Stage 2	-	-	-	-	911
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1480	-	740
Mov Cap-2 Maneuver	-	-	-	-	740
Stage 1	-	-	-	-	890
Stage 2	-	-	-	-	910

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	784	-	-	1480	-
HCM Lane V/C Ratio	0.026	-	-	0.002	-
HCM Control Delay (s)	9.7	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

5: Shiloh Hill Drive & Little Shiloh Road  
 2031 Traffic Volumes with Development - AM Peak

04/28/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Traffic Volume (vph)	99	5	2	82	13	5
Future Volume (vph)	99	5	2	82	13	5
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	-2%			-2%	4%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.993				0.961	
Flt Protected				0.999	0.966	
Satd. Flow (prot)	1625	0	0	1573	1528	0
Flt Permitted				0.999	0.966	
Satd. Flow (perm)	1625	0	0	1573	1528	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1077			1334	597	
Travel Time (s)	29.4			36.4	16.3	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	0%	4%	0%	0%
Adj. Flow (vph)	114	6	2	94	15	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	120	0	0	96	21	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.21	1.21	1.21	1.21	1.20	1.20
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

**Intersection Summary**

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 16.3% ICU Level of Service A  
 Analysis Period (min) 15

5: Shiloh Hill Drive & Little Shiloh Road  
Existing Traffic Volumes - PM Peak

04/22/2021

Intersection

Int Delay, s/veh 0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Vol, veh/h	79	9	3	104	9	3
Future Vol, veh/h	79	9	3	104	9	3
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	-	-	-2	4	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	3	0	0	0	0	0
Mvmt Flow	90	10	3	118	10	3

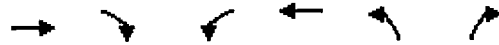
Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	100	0	219
Stage 1	-	-	-	-	95
Stage 2	-	-	-	-	124
Critical Hdwy	-	-	4.3	-	7.2
Critical Hdwy Stg 1	-	-	-	-	6.2
Critical Hdwy Stg 2	-	-	-	-	6.2
Follow-up Hdwy	-	-	3	-	3
Pot Cap-1 Maneuver	-	-	1110	-	847
Stage 1	-	-	-	-	1060
Stage 2	-	-	-	-	1020
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1110	-	844
Mov Cap-2 Maneuver	-	-	-	-	844
Stage 1	-	-	-	-	1060
Stage 2	-	-	-	-	1017

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	881	-	-	1110	-
HCM Lane V/C Ratio	0.015	-	-	0.003	-
HCM Control Delay (s)	9.2	-	-	8.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

5: Shiloh Hill Drive & Little Shiloh Road  
Existing Traffic Volumes - PM Peak

04/22/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↕			↕	↕	
Traffic Volume (vph)	79	9	3	104	9	3
Future Volume (vph)	79	9	3	104	9	3
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	-2%			-2%	4%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.986				0.969	
Flt Protected				0.999	0.963	
Satd. Flow (prot)	1571	0	0	1635	1536	0
Flt Permitted				0.999	0.963	
Satd. Flow (perm)	1571	0	0	1635	1536	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1077			1334	597	
Travel Time (s)	29.4			36.4	16.3	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	3%	0%	0%	0%	0%	0%
Adj. Flow (vph)	90	10	3	118	10	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	100	0	0	121	13	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.21	1.21	1.21	1.21	1.20	1.20
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	18.3%
Analysis Period (min)	15
	ICU Level of Service A

5: Shiloh Hill Drive & Little Shiloh Road  
 2026 Traffic Volumes without Development - PM Peak

04/22/2021

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	↙
Traffic Vol, veh/h	81	9	3	106	9	3
Future Vol, veh/h	81	9	3	106	9	3
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	-	-	-2	4	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	3	0	0	0	0	0
Mvmt Flow	92	10	3	120	10	3

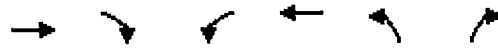
Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	102	0	223
Stage 1	-	-	-	-	97
Stage 2	-	-	-	-	126
Critical Hdwy	-	-	4.3	-	7.2
Critical Hdwy Stg 1	-	-	-	-	6.2
Critical Hdwy Stg 2	-	-	-	-	6.2
Follow-up Hdwy	-	-	3	-	3
Pot Cap-1 Maneuver	-	-	1108	-	842
Stage 1	-	-	-	-	1057
Stage 2	-	-	-	-	1018
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1108	-	839
Mov Cap-2 Maneuver	-	-	-	-	839
Stage 1	-	-	-	-	1057
Stage 2	-	-	-	-	1015

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	877	-	-	1108	-
HCM Lane V/C Ratio	0.016	-	-	0.003	-
HCM Control Delay (s)	9.2	-	-	8.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

5: Shiloh Hill Drive & Little Shiloh Road  
 2026 Traffic Volumes without Development - PM Peak

04/22/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (vph)	81	9	3	106	9	3
Future Volume (vph)	81	9	3	106	9	3
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	-2%			-2%	4%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.987				0.969	
Flt Protected				0.999	0.963	
Satd. Flow (prot)	1572	0	0	1635	1536	0
Flt Permitted				0.999	0.963	
Satd. Flow (perm)	1572	0	0	1635	1536	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1077			1334	597	
Travel Time (s)	29.4			36.4	16.3	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	3%	0%	0%	0%	0%	0%
Adj. Flow (vph)	92	10	3	120	10	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	102	0	0	123	13	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.21	1.21	1.21	1.21	1.20	1.20
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

**Intersection Summary**

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 18.4% ICU Level of Service A  
 Analysis Period (min) 15

5: Shiloh Hill Drive & Little Shiloh Road  
 2026 Traffic Volumes with Development - PM Peak

04/22/2021

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Vol, veh/h	81	13	7	106	12	6
Future Vol, veh/h	81	13	7	106	12	6
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	-	-	-2	4	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	3	0	0	0	0	0
Mvmt Flow	92	15	8	120	14	7

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	107	0	236
Stage 1	-	-	-	-	100
Stage 2	-	-	-	-	136
Critical Hdwy	-	-	4.3	-	7.2
Critical Hdwy Stg 1	-	-	-	-	6.2
Critical Hdwy Stg 2	-	-	-	-	6.2
Follow-up Hdwy	-	-	3	-	3
Pol Cap-1 Maneuver	-	-	1104	-	825
Stage 1	-	-	-	-	1053
Stage 2	-	-	-	-	1004
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1104	-	818
Mov Cap-2 Maneuver	-	-	-	-	818
Stage 1	-	-	-	-	1053
Stage 2	-	-	-	-	996

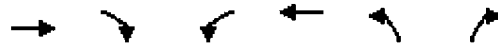
Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLh1	EBT	EBR	WBL	WBT
Capacity (veh/h)	873	-	-	1104	-
HCM Lane V/C Ratio	0.023	-	-	0.007	-
HCM Control Delay (s)	9.2	-	-	8.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-



5: Shiloh Hill Drive & Little Shiloh Road  
 2026 Traffic Volumes with Development - PM Peak

04/22/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (vph)	81	13	7	106	12	6
Future Volume (vph)	81	13	7	106	12	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	-2%			-2%	4%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.981				0.955	
Flt Protected				0.997	0.968	
Satd. Flow (prot)	1565	0	0	1631	1522	0
Flt Permitted				0.997	0.968	
Satd. Flow (perm)	1565	0	0	1631	1522	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1077			1334	597	
Travel Time (s)	29.4			36.4	16.3	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	3%	0%	0%	0%	0%	0%
Adj. Flow (vph)	92	15	8	120	14	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	107	0	0	128	21	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.21	1.21	1.21	1.21	1.20	1.20
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 22.0% ICU Level of Service A  
 Analysis Period (min) 15

5: Shiloh Hill Drive & Little Shiloh Road  
 2031 Traffic Volumes without Development - PM Peak

04/28/2021

Intersection

Int Delay, s/veh 0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↖			↗	↖	↗
Traffic Vol, veh/h	83	9	3	109	9	3
Future Vol, veh/h	83	9	3	109	9	3
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	-	-	-2	4	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	3	0	0	0	0	0
Mvmt Flow	94	10	3	124	10	3

Major/Minor

	Major1	Major2	Minor1		
Conflicting Flow All	0	0	104	0	229
Stage 1	-	-	-	-	99
Stage 2	-	-	-	-	130
Critical Hdwy	-	-	4.3	-	7.2
Critical Hdwy Stg 1	-	-	-	-	6.2
Critical Hdwy Stg 2	-	-	-	-	6.2
Follow-up Hdwy	-	-	3	-	3
Pot Cap-1 Maneuver	-	-	1106	-	834
Stage 1	-	-	-	-	1054
Stage 2	-	-	-	-	1012
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1106	-	831
Mov Cap-2 Maneuver	-	-	-	-	831
Stage 1	-	-	-	-	1054
Stage 2	-	-	-	-	1009

Approach

	EB	WB	NB
HCM Control Delay, s	0	0.2	9.2
HCM LOS			A

Minor Lane/Major Mvmt

	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	870	-	-	1106	-
HCM Lane V/C Ratio	0.016	-	-	0.003	-
HCM Control Delay (s)	9.2	-	-	8.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

5: Shiloh Hill Drive & Little Shiloh Road  
 2031 Traffic Volumes without Development - PM Peak

04/28/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↕			↕	↕	
Traffic Volume (vph)	83	9	3	109	9	3
Future Volume (vph)	83	9	3	109	9	3
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	-2%			-2%	4%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.987				0.969	
Flt Protected				0.999	0.963	
Satd. Flow (prot)	1572	0	0	1635	1536	0
Flt Permitted				0.999	0.963	
Satd. Flow (perm)	1572	0	0	1635	1536	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1077			1334	597	
Travel Time (s)	29.4			36.4	16.3	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	3%	0%	0%	0%	0%	0%
Adj. Flow (vph)	94	10	3	124	10	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	104	0	0	127	13	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.21	1.21	1.21	1.21	1.20	1.20
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	18.6%
Analysis Period (min)	15
	ICU Level of Service A

5: Shiloh Hill Drive & Little Shiloh Road  
 2031 Traffic Volumes with Development - PM Peak

04/28/2021

**Intersection**

Int Delay, s/veh 1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↖			↗	↘	↙
Traffic Vol, veh/h	83	13	7	109	12	6
Future Vol, veh/h	83	13	7	109	12	6
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	-	-	-2	4	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	3	0	0	0	0	0
Mvmt Flow	94	15	8	124	14	7

**Major/Minor**

	Major1	Major2	Minor1		
Conflicting Flow All	0	0	109	0	242 102
Stage 1	-	-	-	-	102 -
Stage 2	-	-	-	-	140 -
Critical Hdwy	-	-	4.3	-	7.2 6.6
Critical Hdwy Stg 1	-	-	-	-	6.2 -
Critical Hdwy Stg 2	-	-	-	-	6.2 -
Follow-up Hdwy	-	-	3	-	3 3.1
Pot Cap-1 Maneuver	-	-	1102	-	817 1006
Stage 1	-	-	-	-	1050 -
Stage 2	-	-	-	-	999 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1102	-	810 1006
Mov Cap-2 Maneuver	-	-	-	-	810 -
Stage 1	-	-	-	-	1050 -
Stage 2	-	-	-	-	991 -

**Approach**

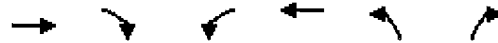
	EB	WB	NB
HCM Control Delay, s	0	0.5	9.3
HCM LOS			A

**Minor Lane/Major Mvmt**

	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	866	-	-	1102	-
HCM Lane V/C Ratio	0.024	-	-	0.007	-
HCM Control Delay (s)	9.3	-	-	8.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

5: Shiloh Hill Drive & Little Shiloh Road  
 2031 Traffic Volumes with Development - PM Peak

04/28/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↕			↕	↕	
Traffic Volume (vph)	83	13	7	109	12	6
Future Volume (vph)	83	13	7	109	12	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	-2%			-2%	4%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.981				0.955	
Flt Protected				0.997	0.968	
Satd. Flow (prot)	1565	0	0	1631	1522	0
Flt Permitted				0.997	0.968	
Satd. Flow (perm)	1565	0	0	1631	1522	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1077			1334	597	
Travel Time (s)	29.4			36.4	16.3	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	3%	0%	0%	0%	0%	0%
Adj. Flow (vph)	94	15	8	124	14	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	109	0	0	132	21	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.21	1.21	1.21	1.21	1.20	1.20
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 22.1% ICU Level of Service A  
 Analysis Period (min) 15

6: Westtown Road & Little Shiloh Road/Falcoln Lane  
Existing Traffic Volumes - AM Peak

04/22/2021

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Traffic Vol, veh/h	0	25	85	21	28	24	37	357	18	18	295	3
Future Vol, veh/h	0	25	85	21	28	24	37	357	18	18	295	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, %	-	-4	-	-	4	-	-	2	-	-	-1	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	6	0	7	0	0	0	4	0	25	3	50
Mvmt Flow	0	31	106	26	35	30	46	446	23	23	369	4

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	999	978	371	1036	969	458	373	0	0	469	0	0
Stage 1	417	417	-	550	550	-	-	-	-	-	-	-
Stage 2	582	561	-	486	419	-	-	-	-	-	-	-
Critical Hdwy	6.3	5.76	5.8	7.97	7.3	6.6	4.3	-	-	4.6	-	-
Critical Hdwy Stg 1	5.3	4.76	-	6.97	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.3	4.76	-	6.97	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.054	3.1	3.1	4	3.1	3	-	-	3.2	-	-
Pot Cap-1 Maneuver	308	306	746	177	206	607	894	-	-	756	-	-
Stage 1	769	641	-	503	459	-	-	-	-	-	-	-
Stage 2	643	571	-	555	541	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	230	274	746	128	184	607	894	-	-	756	-	-
Mov Cap-2 Maneuver	230	274	-	128	184	-	-	-	-	-	-	-
Stage 1	715	617	-	468	427	-	-	-	-	-	-	-
Stage 2	522	531	-	435	520	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14	35.9	0.8	0.6
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	894	-	-	536	205	756	-	-
HCM Lane V/C Ratio	0.052	-	-	0.257	0.445	0.03	-	-
HCM Control Delay (s)	9.2	0	-	14	35.9	9.9	0	-
HCM Lane LOS	A	A	-	B	E	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1	2.1	0.1	-	-

6: Westtown Road & Little Shiloh Road/Falcoln Lane  
Existing Traffic Volumes - AM Peak

04/22/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	0	25	85	21	28	24	37	357	18	18	295	3
Future Volume (vph)	0	25	85	21	28	24	37	357	18	18	295	3
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-4%			4%			2%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.896			0.955			0.994			0.999	
Flt Protected					0.986			0.996			0.997	
Satd. Flow (prot)	0	1515	0	0	1628	0	0	1591	0	0	1605	0
Flt Permitted					0.986			0.996			0.997	
Satd. Flow (perm)	0	1515	0	0	1628	0	0	1591	0	0	1605	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1334			1906			874			1028	
Travel Time (s)		36.4			52.0			17.0			20.0	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	6%	0%	7%	0%	0%	0%	4%	0%	25%	3%	50%
Adj. Flow (vph)	0	31	106	26	35	30	46	446	23	23	369	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	137	0	0	91	0	0	515	0	0	396	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.10	1.10	1.10	1.19	1.19	1.19	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	51.4%
Analysis Period (min)	15
	ICU Level of Service A

6: Westtown Road & Little Shiloh Road/Falcoln Lane  
 2026 Traffic Volumes without Development - AM Peak

04/22/2021

Intersection												
Int Delay, s/veh	5.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Traffic Vol, veh/h	0	26	87	22	29	25	38	366	18	18	302	3
Future Vol, veh/h	0	26	87	22	29	25	38	366	18	18	302	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, %	-	-4	-	-	4	-	-	2	-	-	-1	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	6	0	7	0	0	0	4	0	25	3	50
Mvmt Flow	0	33	109	28	36	31	48	458	23	23	378	4

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1025	1003	380	1063	994	470	382	0	0	481	0	0
Stage 1	426	426	-	566	566	-	-	-	-	-	-	-
Stage 2	599	577	-	497	428	-	-	-	-	-	-	-
Critical Hdwy	6.3	5.76	5.8	7.97	7.3	6.6	4.3	-	-	4.6	-	-
Critical Hdwy Stg 1	5.3	4.76	-	6.97	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.3	4.76	-	6.97	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.054	3.1	3.1	4	3.1	3	-	-	3.2	-	-
Pot Cap-1 Maneuver	297	298	738	168	198	597	888	-	-	748	-	-
Stage 1	761	637	-	490	450	-	-	-	-	-	-	-
Stage 2	631	563	-	545	535	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	218	265	738	119	176	597	888	-	-	748	-	-
Mov Cap-2 Maneuver	218	265	-	119	176	-	-	-	-	-	-	-
Stage 1	705	612	-	454	417	-	-	-	-	-	-	-
Stage 2	506	521	-	423	514	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.4	40.2	0.8	0.6
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	888	-	-	523	194	748	-	-
HCM Lane V/C Ratio	0.053	-	-	0.27	0.49	0.03	-	-
HCM Control Delay (s)	9.3	0	-	14.4	40.2	10	0	-
HCM Lane LOS	A	A	-	B	E	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1.1	2.4	0.1	-	-



6: Westtown Road & Little Shiloh Road/Falcoln Lane  
 2026 Traffic Volumes without Development - AM Peak

04/22/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	0	26	87	22	29	25	38	366	18	18	302	3
Future Volume (vph)	0	26	87	22	29	25	38	366	18	18	302	3
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-4%			4%			2%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.896			0.956			0.994			0.999	
Flt Protected					0.985			0.995			0.997	
Satd. Flow (prot)	0	1514	0	0	1628	0	0	1590	0	0	1606	0
Flt Permitted					0.985			0.995			0.997	
Satd. Flow (perm)	0	1514	0	0	1628	0	0	1590	0	0	1606	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1334			1906			874			1028	
Travel Time (s)		36.4			52.0			17.0			20.0	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	6%	0%	7%	0%	0%	0%	4%	0%	25%	3%	50%
Adj. Flow (vph)	0	33	109	28	36	31	48	458	23	23	378	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	142	0	0	95	0	0	529	0	0	405	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.10	1.10	1.10	1.19	1.19	1.19	1.16	1.16	1.16
Turning Speed (mph)	15		9	15			9	15		9	15	9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 52.6% ICU Level of Service A  
 Analysis Period (min) 15

6: Westtown Road & Little Shiloh Road/Falcoln Lane  
2026 Traffic Volumes with Development - AM Peak

04/22/2021

Intersection												
Int Delay, s/veh	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↔			↔		
Traffic Vol, veh/h	0	26	91	22	29	25	39	366	18	18	302	3
Future Vol, veh/h	0	26	91	22	29	25	39	366	18	18	302	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, %	-	-4	-	-	4	-	-	2	-	-	-1	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	6	0	7	0	0	0	4	0	25	3	50
Mvmt Flow	0	33	114	28	36	31	49	458	23	23	378	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1027	1005	380	1068	996	470	382	0	0	481	0	0
Stage 1	426	426	-	568	568	-	-	-	-	-	-	-
Stage 2	601	579	-	500	428	-	-	-	-	-	-	-
Critical Hdwy	6.3	5.76	5.8	7.97	7.3	6.6	4.3	-	-	4.6	-	-
Critical Hdwy Stg 1	5.3	4.76	-	6.97	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.3	4.76	-	6.97	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.054	3.1	3.1	4	3.1	3	-	-	3.2	-	-
Pot Cap-1 Maneuver	296	297	738	167	197	597	888	-	-	748	-	-
Stage 1	761	637	-	489	449	-	-	-	-	-	-	-
Stage 2	630	562	-	543	535	-	-	-	-	-	-	-
Platoon blocked, %	-											
Mov Cap-1 Maneuver	216	264	738	117	175	597	888	-	-	748	-	-
Mov Cap-2 Maneuver	216	264	-	117	175	-	-	-	-	-	-	-
Stage 1	703	612	-	452	415	-	-	-	-	-	-	-
Stage 2	503	519	-	418	514	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	14.4		40.8		0.9		0.6	
HCM LOS	B		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	888	-	-	528	192	748	-	-
HCM Lane V/C Ratio	0.055	-	-	0.277	0.495	0.03	-	-
HCM Control Delay (s)	9.3	0	-	14.4	40.8	10	0	-
HCM Lane LOS	A	A	-	B	E	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1.1	2.4	0.1	-	-

6: Westtown Road & Little Shiloh Road/Falcoln Lane  
 2026 Traffic Volumes with Development - AM Peak

04/22/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	0	26	91	22	29	25	39	366	18	18	302	3
Future Volume (vph)	0	26	91	22	29	25	39	366	18	18	302	3
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-4%			4%			2%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.895			0.956			0.994			0.999	
Frt Protected					0.985			0.995			0.997	
Satd. Flow (prot)	0	1513	0	0	1628	0	0	1590	0	0	1606	0
Frt Permitted					0.985			0.995			0.997	
Satd. Flow (perm)	0	1513	0	0	1628	0	0	1590	0	0	1606	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1334			1906			874			1028	
Travel Time (s)		36.4			52.0			17.0			20.0	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	6%	0%	7%	0%	0%	0%	4%	0%	25%	3%	50%
Adj. Flow (vph)	0	33	114	28	36	31	49	458	23	23	378	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	147	0	0	95	0	0	530	0	0	405	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.10	1.10	1.10	1.19	1.19	1.19	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 53.0% ICU Level of Service A  
 Analysis Period (min) 15

6: Westtown Road & Little Shiloh Road/Falcoln Lane  
 2031 Traffic Volumes without Development - AM Peak

04/28/2021

Intersection

Int Delay, s/veh 5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Traffic Vol, veh/h	0	26	89	22	29	25	39	374	19	19	309	3
Future Vol, veh/h	0	26	89	22	29	25	39	374	19	19	309	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, %	-	-4	-	-	4	-	-	2	-	-	-1	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	6	0	7	0	0	0	4	0	25	3	50
Mvmt Flow	0	33	111	28	36	31	49	468	24	24	386	4

















Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1048	1026	388	1086	1016	480	390	0	0	492	0	0
Stage 1	436	436	-	578	578	-	-	-	-	-	-	-
Stage 2	612	590	-	508	438	-	-	-	-	-	-	-
Critical Hdwy	6.3	5.76	5.8	7.97	7.3	6.6	4.3	-	-	4.6	-	-
Critical Hdwy Stg 1	5.3	4.76	-	6.97	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.3	4.76	-	6.97	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.054	3.1	3.1	4	3.1	3	-	-	3.2	-	-
Pot Cap-1 Maneuver	287	290	731	161	191	588	882	-	-	741	-	-
Stage 1	753	631	-	481	444	-	-	-	-	-	-	-
Stage 2	622	557	-	536	528	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	208	257	731	113	169	588	882	-	-	741	-	-
Mov Cap-2 Maneuver	208	257	-	113	169	-	-	-	-	-	-	-
Stage 1	695	605	-	444	410	-	-	-	-	-	-	-
Stage 2	496	514	-	412	506	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.6	43	0.8	0.6
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	882	-	-	516	186	741	-	-
HCM Lane V/C Ratio	0.055	-	-	0.279	0.511	0.032	-	-
HCM Control Delay (s)	9.3	0	-	14.6	43	10	0	-
HCM Lane LOS	A	A	-	B	E	B	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1.1	2.6	0.1	-	-

6: Westtown Road & Little Shiloh Road/Falcoln Lane  
 2031 Traffic Volumes without Development - AM Peak

04/28/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	26	89	22	29	25	39	374	19	19	309	3
Future Volume (vph)	0	26	89	22	29	25	39	374	19	19	309	3
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-4%			4%			2%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.896			0.956			0.994			0.999	
Flt Protected					0.985			0.995			0.997	
Satd. Flow (prot)	0	1515	0	0	1628	0	0	1590	0	0	1606	0
Flt Permitted					0.985			0.995			0.997	
Satd. Flow (perm)	0	1515	0	0	1628	0	0	1590	0	0	1606	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1334			1906			874			1028	
Travel Time (s)		36.4			52.0			17.0			20.0	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	6%	0%	7%	0%	0%	0%	4%	0%	25%	3%	50%
Adj. Flow (vph)	0	33	111	28	36	31	49	468	24	24	386	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	144	0	0	95	0	0	541	0	0	414	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.10	1.10	1.10	1.19	1.19	1.19	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 53.2%

ICU Level of Service A

Analysis Period (min) 15

6: Westtown Road & Little Shiloh Road/Falcoln Lane  
 2031 Traffic Volumes with Development - AM Peak

04/28/2021

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	0	26	93	22	29	25	40	374	19	19	309	3
Future Vol, veh/h	0	26	93	22	29	25	40	374	19	19	309	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, %	-	-4	-	-	4	-	-	2	-	-	-1	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	6	0	7	0	0	0	4	0	25	3	50
Mvmt Flow	0	33	116	28	36	31	50	468	24	24	386	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1050	1028	388	1091	1018	480	390	0	0	492	0	0
Stage 1	436	436	-	580	580	-	-	-	-	-	-	-
Stage 2	614	592	-	511	438	-	-	-	-	-	-	-
Critical Hdwy	6.3	5.76	5.8	7.97	7.3	6.6	4.3	-	-	4.6	-	-
Critical Hdwy Stg 1	5.3	4.76	-	6.97	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.3	4.76	-	6.97	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.054	3.1	3.1	4	3.1	3	-	-	3.2	-	-
Pot Cap-1 Maneuver	287	289	731	160	191	588	882	-	-	741	-	-
Stage 1	753	631	-	480	442	-	-	-	-	-	-	-
Stage 2	621	556	-	534	528	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	208	255	731	111	169	588	882	-	-	741	-	-
Mov Cap-2 Maneuver	208	255	-	111	169	-	-	-	-	-	-	-
Stage 1	694	605	-	443	408	-	-	-	-	-	-	-
Stage 2	494	513	-	408	506	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	14.7		43.8		0.9		0.6	
HCM LOS	B		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	882	-	-	519	184	741	-	-
HCM Lane V/C Ratio	0.057	-	-	0.287	0.516	0.032	-	-
HCM Control Delay (s)	9.3	0	-	14.7	43.8	10	0	-
HCM Lane LOS	A	A	-	B	E	B	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1.2	2.6	0.1	-	-

6: Westtown Road & Little Shiloh Road/Falcoln Lane  
 2031 Traffic Volumes with Development - AM Peak

04/28/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	0	26	93	22	29	25	40	374	19	19	309	3
Future Volume (vph)	0	26	93	22	29	25	40	374	19	19	309	3
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-4%			4%			2%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.895			0.956			0.994			0.999	
Frt Protected					0.985			0.995			0.997	
Satd. Flow (prot)	0	1514	0	0	1628	0	0	1590	0	0	1606	0
Frt Permitted					0.985			0.995			0.997	
Satd. Flow (perm)	0	1514	0	0	1628	0	0	1590	0	0	1606	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1334			1906			874			1028	
Travel Time (s)		36.4			52.0			17.0			20.0	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	6%	0%	7%	0%	0%	0%	4%	0%	25%	3%	50%
Adj. Flow (vph)	0	33	116	28	36	31	50	468	24	24	386	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	149	0	0	95	0	0	542	0	0	414	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.10	1.10	1.10	1.19	1.19	1.19	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	53.6%
	ICU Level of Service A
Analysis Period (min)	15

6: Westtown Road & Little Shiloh Road/Falcoln Lane  
Existing Traffic Volumes - PM Peak

04/22/2021

Intersection												
Int Delay, s/veh	5.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	7	27	44	23	46	23	61	304	42	20	325	5
Future Vol, veh/h	7	27	44	23	46	23	61	304	42	20	325	5
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, %	-	-4	-	-	4	-	-	2	-	-	-1	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	4	5	0	0	0	0	2	0	6	1	0
Mvmt Flow	8	30	49	26	52	26	69	342	47	22	365	6

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	955	939	368	956	919	366	371	0	0	389	0	0
Stage 1	412	412	-	504	504	-	-	-	-	-	-	-
Stage 2	543	527	-	452	415	-	-	-	-	-	-	-
Critical Hdwy	6.3	5.74	5.9	7.9	7.3	6.6	4.3	-	-	4.4	-	-
Critical Hdwy Stg 1	5.3	4.74	-	6.9	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.3	4.74	-	6.9	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.036	3.1	3	4	3.1	3	-	-	3.1	-	-
Pot Cap-1 Maneuver	327	323	741	214	223	692	896	-	-	850	-	-
Stage 1	773	647	-	559	487	-	-	-	-	-	-	-
Stage 2	671	590	-	606	543	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	227	281	741	165	194	692	896	-	-	850	-	-
Mov Cap-2 Maneuver	227	281	-	165	194	-	-	-	-	-	-	-
Stage 1	696	626	-	504	439	-	-	-	-	-	-	-
Stage 2	513	532	-	520	525	-	-	-	-	-	-	-

















Approach	EB		WB		NB		SB	
HCM Control Delay, s	15.9		33.9		1.4		0.5	
HCM LOS	C		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	896	-	-	419	225	850	-	-
HCM Lane V/C Ratio	0.076	-	-	0.209	0.459	0.026	-	-
HCM Control Delay (s)	9.3	0	-	15.9	33.9	9.3	0	-
HCM Lane LOS	A	A	-	C	D	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.8	2.2	0.1	-	-



6: Westtown Road & Little Shiloh Road/Falcoln Lane  
Existing Traffic Volumes - PM Peak

04/22/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	27	44	23	46	23	61	304	42	20	325	5
Future Volume (vph)	7	27	44	23	46	23	61	304	42	20	325	5
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-4%			4%			2%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.924			0.966			0.986			0.998	
Flt Protected		0.995			0.988			0.993			0.997	
Satd. Flow (prot)	0	1512	0	0	1684	0	0	1604	0	0	1659	0
Flt Permitted		0.995			0.988			0.993			0.997	
Satd. Flow (perm)	0	1512	0	0	1684	0	0	1604	0	0	1659	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1334			1906			874			1028	
Travel Time (s)		36.4			52.0			17.0			20.0	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	4%	5%	0%	0%	0%	0%	2%	0%	6%	1%	0%
Adj. Flow (vph)	8	30	49	26	52	26	69	342	47	22	365	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	87	0	0	104	0	0	458	0	0	393	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.10	1.10	1.10	1.19	1.19	1.19	1.16	1.16	1.16
Turning Speed (mph)	15		9	15			9	15		9	15	9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	59.6%
Analysis Period (min)	15
	ICU Level of Service B

6: Westtown Road & Little Shiloh Road/Falcoln Lane  
 2026 Traffic Volumes without Development - PM Peak

04/22/2021

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	7	28	45	24	47	24	62	311	43	20	333	5
Future Vol, veh/h	7	28	45	24	47	24	62	311	43	20	333	5
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, %	-	-4	-	-	4	-	-	2	-	-	-1	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	4	5	0	0	0	0	2	0	6	1	0
Mvmt Flow	8	31	51	27	53	27	70	349	48	22	374	6

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	974	958	377	975	937	373	380	0	0	397	0	0
Stage 1	421	421	-	513	513	-	-	-	-	-	-	-
Stage 2	553	537	-	462	424	-	-	-	-	-	-	-
Critical Hdwy	6.3	5.74	5.9	7.9	7.3	6.6	4.3	-	-	4.4	-	-
Critical Hdwy Stg 1	5.3	4.74	-	6.9	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.3	4.74	-	6.9	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.036	3.1	3	4	3.1	3	-	-	3.1	-	-
Pot Cap-1 Maneuver	319	316	733	206	217	685	889	-	-	844	-	-
Stage 1	766	643	-	552	481	-	-	-	-	-	-	-
Stage 2	663	585	-	596	537	-	-	-	-	-	-	-
Platoon blocked, %	-											
Mov Cap-1 Maneuver	217	274	733	158	188	685	889	-	-	844	-	-
Mov Cap-2 Maneuver	217	274	-	158	188	-	-	-	-	-	-	-
Stage 1	688	622	-	496	432	-	-	-	-	-	-	-
Stage 2	502	525	-	509	519	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.3	36.7	1.4	0.5
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	889	-	-	408	217	844	-	-
HCM Lane V/C Ratio	0.078	-	-	0.22	0.492	0.027	-	-
HCM Control Delay (s)	9.4	0	-	16.3	36.7	9.4	0	-
HCM Lane LOS	A	A	-	C	E	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.8	2.5	0.1	-	-

6: Westtown Road & Little Shiloh Road/Falcoln Lane  
 2026 Traffic Volumes without Development - PM Peak

04/22/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Volume (vph)	7	28	45	24	47	24	62	311	43	20	333	5
Future Volume (vph)	7	28	45	24	47	24	62	311	43	20	333	5
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-4%			4%			2%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.923			0.966			0.986			0.998	
Flt Protected		0.996			0.988			0.993			0.997	
Satd. Flow (prot)	0	1512	0	0	1684	0	0	1604	0	0	1659	0
Flt Permitted		0.996			0.988			0.993			0.997	
Satd. Flow (perm)	0	1512	0	0	1684	0	0	1604	0	0	1659	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1334			1906			874			1028	
Travel Time (s)		36.4			52.0			17.0			20.0	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	4%	5%	0%	0%	0%	0%	2%	0%	6%	1%	0%
Adj. Flow (vph)	8	31	51	27	53	27	70	349	48	22	374	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	107	0	0	467	0	0	402	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.10	1.10	1.10	1.19	1.19	1.19	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 61.3%

ICU Level of Service B

Analysis Period (min) 15

6: Westtown Road & Little Shiloh Road/Falcoln Lane  
 2026 Traffic Volumes with Development - PM Peak

04/22/2021

Intersection												
Int Delay, s/veh	6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↔			↔		
Traffic Vol, veh/h	7	28	48	24	47	24	66	311	43	20	333	5
Future Vol, veh/h	7	28	48	24	47	24	66	311	43	20	333	5
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, %	-	-4	-	-	4	-	-	2	-	-	-1	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	4	5	0	0	0	0	2	0	6	1	0
Mvmt Flow	8	31	54	27	53	27	74	349	48	22	374	6

















Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	982	966	377	985	945	373	380	0	0	397	0	0
Stage 1	421	421	-	521	521	-	-	-	-	-	-	-
Stage 2	561	545	-	464	424	-	-	-	-	-	-	-
Critical Hdwy	6.3	5.74	5.9	7.9	7.3	6.6	4.3	-	-	4.4	-	-
Critical Hdwy Stg 1	5.3	4.74	-	6.9	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.3	4.74	-	6.9	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.036	3.1	3	4	3.1	3	-	-	3.1	-	-
Pot Cap-1 Maneuver	315	313	733	203	214	685	889	-	-	844	-	-
Stage 1	766	643	-	545	476	-	-	-	-	-	-	-
Stage 2	658	582	-	595	537	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	212	270	733	153	185	685	889	-	-	844	-	-
Mov Cap-2 Maneuver	212	270	-	153	185	-	-	-	-	-	-	-
Stage 1	683	622	-	486	425	-	-	-	-	-	-	-
Stage 2	494	519	-	506	519	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.3	37.8	1.5	0.5
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	889	-	-	410	213	844	-	-
HCM Lane V/C Ratio	0.083	-	-	0.227	0.501	0.027	-	-
HCM Control Delay (s)	9.4	0	-	16.3	37.8	9.4	0	-
HCM Lane LOS	A	A	-	C	E	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.9	2.5	0.1	-	-

6: Westtown Road & Little Shiloh Road/Falcoln Lane  
 2026 Traffic Volumes with Development - PM Peak

04/22/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	28	48	24	47	24	66	311	43	20	333	5
Future Volume (vph)	7	28	48	24	47	24	66	311	43	20	333	5
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-4%			4%			2%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.922			0.966			0.986			0.998	
Flt Protected		0.996			0.988			0.992			0.997	
Satd. Flow (prot)	0	1510	0	0	1684	0	0	1603	0	0	1659	0
Flt Permitted		0.996			0.988			0.992			0.997	
Satd. Flow (perm)	0	1510	0	0	1684	0	0	1603	0	0	1659	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1334			1906			874			1028	
Travel Time (s)		36.4			52.0			17.0			20.0	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	4%	5%	0%	0%	0%	0%	2%	0%	6%	1%	0%
Adj. Flow (vph)	8	31	54	27	53	27	74	349	48	22	374	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	107	0	0	471	0	0	402	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.10	1.10	1.10	1.19	1.19	1.19	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	63.1%
ICU Level of Service	B
Analysis Period (min)	15

6: Westtown Road & Little Shiloh Road/Falcoln Lane  
 2031 Traffic Volumes without Development - PM Peak

04/28/2021

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	7	28	46	24	48	24	64	319	44	21	341	5
Future Vol, veh/h	7	28	46	24	48	24	64	319	44	21	341	5
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, %	-	-4	-	-	4	-	-	2	-	-	-1	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	4	5	0	0	0	0	2	0	6	1	0
Mvmt Flow	8	31	52	27	54	27	72	358	49	24	383	6

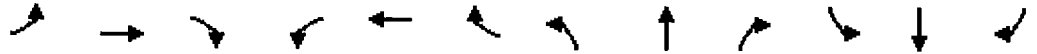
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1001	985	386	1003	964	383	389	0	0	407	0	0
Stage 1	434	434	-	527	527	-	-	-	-	-	-	-
Stage 2	567	551	-	476	437	-	-	-	-	-	-	-
Critical Hdwy	6.3	5.74	5.9	7.9	7.3	6.6	4.3	-	-	4.4	-	-
Critical Hdwy Stg 1	5.3	4.74	-	6.9	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.3	4.74	-	6.9	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.036	3.1	3	4	3.1	3	-	-	3.1	-	-
Pot Cap-1 Maneuver	307	306	725	196	208	676	883	-	-	837	-	-
Stage 1	755	636	-	540	473	-	-	-	-	-	-	-
Stage 2	653	579	-	584	529	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	203	263	725	148	179	676	883	-	-	837	-	-
Mov Cap-2 Maneuver	203	263	-	148	179	-	-	-	-	-	-	-
Stage 1	675	612	-	483	423	-	-	-	-	-	-	-
Stage 2	489	518	-	495	509	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.8	40.2	1.4	0.5
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	883	-	-	396	206	837	-	-
HCM Lane V/C Ratio	0.081	-	-	0.23	0.524	0.028	-	-
HCM Control Delay (s)	9.4	0	-	16.8	40.2	9.4	0	-
HCM Lane LOS	A	A	-	C	E	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.9	2.7	0.1	-	-

6: Westtown Road & Little Shiloh Road/Falcoln Lane  
 2031 Traffic Volumes without Development - PM Peak

04/28/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	7	28	46	24	48	24	64	319	44	21	341	5
Future Volume (vph)	7	28	46	24	48	24	64	319	44	21	341	5
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-4%			4%			2%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.923			0.966			0.986			0.998	
Flt Protected		0.996			0.988			0.993			0.997	
Satd. Flow (prot)	0	1512	0	0	1684	0	0	1604	0	0	1659	0
Flt Permitted		0.996			0.988			0.993			0.997	
Satd. Flow (perm)	0	1512	0	0	1684	0	0	1604	0	0	1659	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1334			1906			874			1028	
Travel Time (s)		36.4			52.0			17.0			20.0	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	4%	5%	0%	0%	0%	0%	2%	0%	6%	1%	0%
Adj. Flow (vph)	8	31	52	27	54	27	72	358	49	24	383	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	91	0	0	108	0	0	479	0	0	413	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.10	1.10	1.10	1.19	1.19	1.19	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	62.3%						ICU Level of Service B					
Analysis Period (min)	15											

6: Westtown Road & Little Shiloh Road/Falcoln Lane  
 2031 Traffic Volumes with Development - PM Peak

04/28/2021

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	7	28	49	24	48	24	68	319	44	21	341	5
Future Vol, veh/h	7	28	49	24	48	24	68	319	44	21	341	5
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, %	-	-4	-	-	4	-	-	2	-	-	-1	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	4	5	0	0	0	0	2	0	6	1	0
Mvmt Flow	8	31	55	27	54	27	76	358	49	24	383	6

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1009	993	386	1012	972	383	389	0	0	407	0	0
Stage 1	434	434	-	535	535	-	-	-	-	-	-	-
Stage 2	575	559	-	477	437	-	-	-	-	-	-	-
Critical Hdwy	6.3	5.74	5.9	7.9	7.3	6.6	4.3	-	-	4.4	-	-
Critical Hdwy Stg 1	5.3	4.74	-	6.9	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.3	4.74	-	6.9	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.036	3.1	3	4	3.1	3	-	-	3.1	-	-
Pot Cap-1 Maneuver	304	304	725	193	205	676	883	-	-	837	-	-
Stage 1	755	636	-	533	468	-	-	-	-	-	-	-
Stage 2	648	575	-	583	529	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	199	260	725	144	175	676	883	-	-	837	-	-
Mov Cap-2 Maneuver	199	260	-	144	175	-	-	-	-	-	-	-
Stage 1	670	612	-	473	416	-	-	-	-	-	-	-
Stage 2	481	511	-	492	509	-	-	-	-	-	-	-

















Approach	EB		WB		NB		SB			
HCM Control Delay, s	16.8		41.9		1.5		0.5			
HCM LOS	C		E							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	883	-	-	399	201	837	-	-
HCM Lane V/C Ratio	0.087	-	-	0.237	0.537	0.028	-	-
HCM Control Delay (s)	9.5	0	-	16.8	41.9	9.4	0	-
HCM Lane LOS	A	A	-	C	E	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.9	2.8	0.1	-	-



6: Westtown Road & Little Shiloh Road/Falcoln Lane  
 2031 Traffic Volumes with Development - PM Peak

04/28/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	28	49	24	48	24	68	319	44	21	341	5
Future Volume (vph)	7	28	49	24	48	24	68	319	44	21	341	5
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-4%			4%			2%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.921			0.966			0.986			0.998	
Flt Protected		0.996			0.988			0.992			0.997	
Satd. Flow (prot)	0	1508	0	0	1684	0	0	1603	0	0	1659	0
Flt Permitted		0.996			0.988			0.992			0.997	
Satd. Flow (perm)	0	1508	0	0	1684	0	0	1603	0	0	1659	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1334			1906			874			1028	
Travel Time (s)		36.4			52.0			17.0			20.0	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	4%	5%	0%	0%	0%	0%	2%	0%	6%	1%	0%
Adj. Flow (vph)	8	31	55	27	54	27	76	358	49	24	383	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	94	0	0	108	0	0	483	0	0	413	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.10	1.10	1.10	1.19	1.19	1.19	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	64.1%						ICU Level of Service C					
Analysis Period (min)	15											

## TURN LANE ANALYSIS WORKSHEETS

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## Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION	
Municipality: <input type="text" value="Westtown Township"/>	Analysis Date: <input type="text" value="4/27/2021"/>
County: <input type="text" value="Chester County"/>	Conducted By: <input type="text" value="LJS"/>
PennDOT Engineering District: <input type="text" value="6"/>	Checked By: <input type="text" value="JAS"/>
	Agency/Company Name: <input type="text" value="TRG, Inc."/>
Intersection & Approach Description: <input type="text" value="Shiloh Road (T-626) / Hunt Drive - Proposed Access NORTHBOUND"/>	
Analysis Period: <input type="text" value="2031 Build"/>	Number of Approach Lanes: <input type="text" value="1"/>
Design Hour: <input type="text" value="AM Peak Hour"/>	Undivided or Divided Highway: <input type="text" value="Undivided"/>
Intersection Control: <input type="text" value="Unsignalized"/>	Type of Analysis: <input type="text" value="Left Turn Lane"/>
Posted Speed Limit (MPH): <input type="text" value="30"/>	
Type of Terrain: <input type="text" value="Rolling"/>	
Left or Right-Turn Lane Analysis?: <input type="text" value="Left Turn Lane"/>	

### VOLUME CALCULATIONS

Left Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	3	50.0%	6
	Through	-	213	8.0%	239
	Right	Yes	10	2.0%	11
Opposing	Left	Yes	1	2.0%	2
	Through	-	275	5.0%	296
	Right	Yes	0	0.0%	0

Advancing Volume:	<input type="text" value="256"/>
Opposing Volume:	<input type="text" value="298"/>
Left Turn Volume:	<input type="text" value="6"/>
% Left Turns in Advancing Volume: <input type="text" value="2.34%"/>	

Right Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	3	50.0%	N/A
	Through	-	213	8.0%	N/A
	Right	-	10	2.0%	N/A

Advancing Volume:	<input type="text" value="N/A"/>
Right Turn Volume:	<input type="text" value="N/A"/>

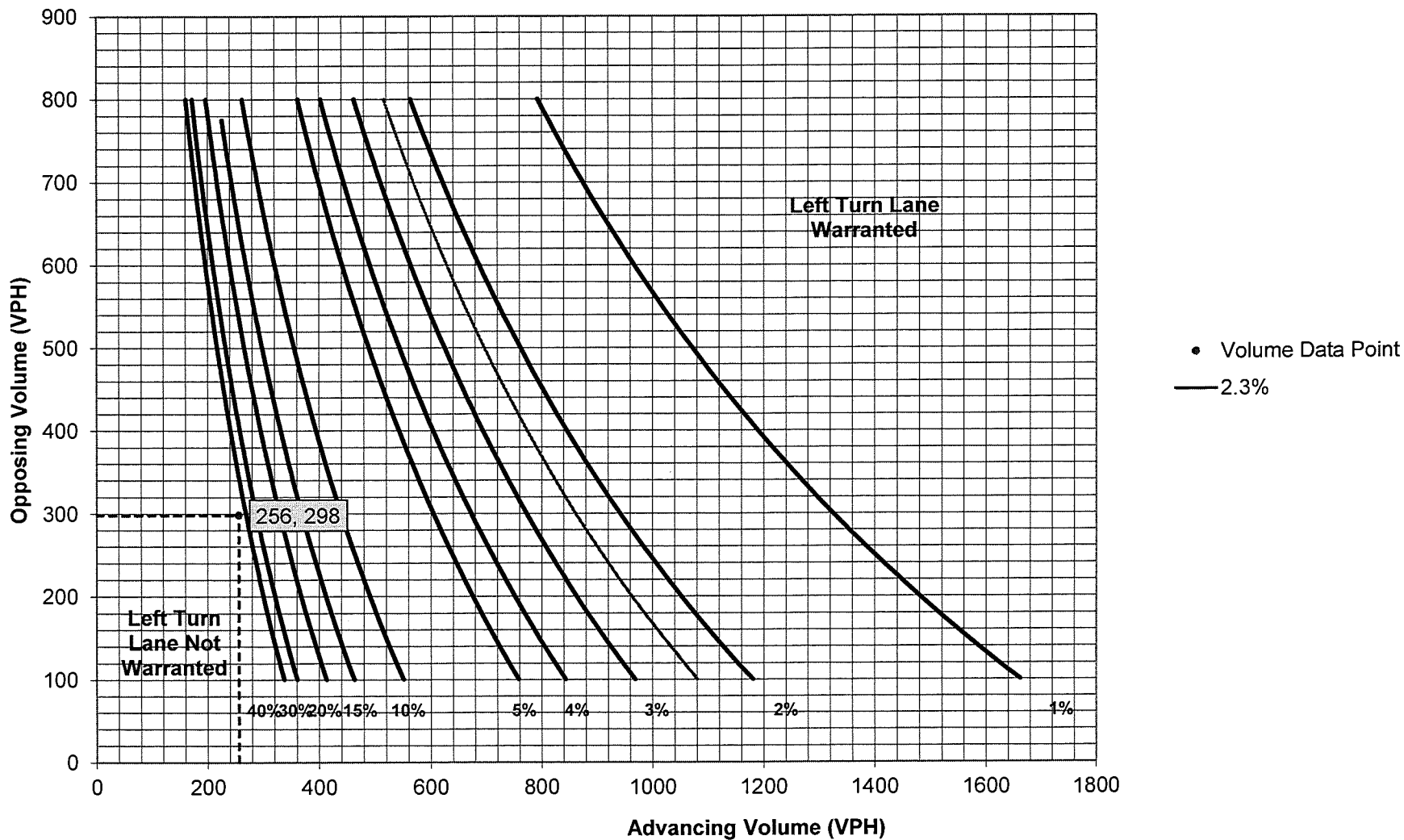
### TURN LANE WARRANT FINDINGS

<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">Left Turn Lane Warrant Findings</th> </tr> </thead> <tbody> <tr> <td>Applicable Warrant Figure:</td> <td style="text-align: center;"><input type="text" value="Figure 1"/></td> </tr> <tr> <td>Warrant Met?:</td> <td style="text-align: center;"><input type="text" value="No"/></td> </tr> </tbody> </table>	Left Turn Lane Warrant Findings		Applicable Warrant Figure:	<input type="text" value="Figure 1"/>	Warrant Met?:	<input type="text" value="No"/>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">Right Turn Lane Warrant Findings</th> </tr> </thead> <tbody> <tr> <td>Applicable Warrant Figure:</td> <td style="text-align: center;"><input type="text" value="N/A"/></td> </tr> <tr> <td>Warrant Met?:</td> <td style="text-align: center;"><input type="text" value="N/A"/></td> </tr> </tbody> </table>	Right Turn Lane Warrant Findings		Applicable Warrant Figure:	<input type="text" value="N/A"/>	Warrant Met?:	<input type="text" value="N/A"/>
Left Turn Lane Warrant Findings													
Applicable Warrant Figure:	<input type="text" value="Figure 1"/>												
Warrant Met?:	<input type="text" value="No"/>												
Right Turn Lane Warrant Findings													
Applicable Warrant Figure:	<input type="text" value="N/A"/>												
Warrant Met?:	<input type="text" value="N/A"/>												

### TURN LANE LENGTH CALCULATIONS

Intersection Control: <input type="text" value="Unsignalized"/> Design Hour Volume of Turning Lane: <input type="text" value="6"/> Cycles Per Hour (Assumed): <input type="text" value="60"/> Cycles Per Hour (If Known): <input type="text"/>	Average # of Vehicles/Cycle: <input type="text" value="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" style="text-align: center;">Turn Demand Volume</th> </tr> <tr> <td></td> <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: <input type="text" value="N/A"/> Feet Condition B: <input type="text" value="N/A"/> Feet Condition C: <input type="text" value="N/A"/> Feet Required Left Turn Lane Storage Length: <input type="text" value="N/A"/> Feet																																									
Additional Findings: <input type="text" value="N/A"/>																																									
Additional Comments / Justifications: <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div>																																									

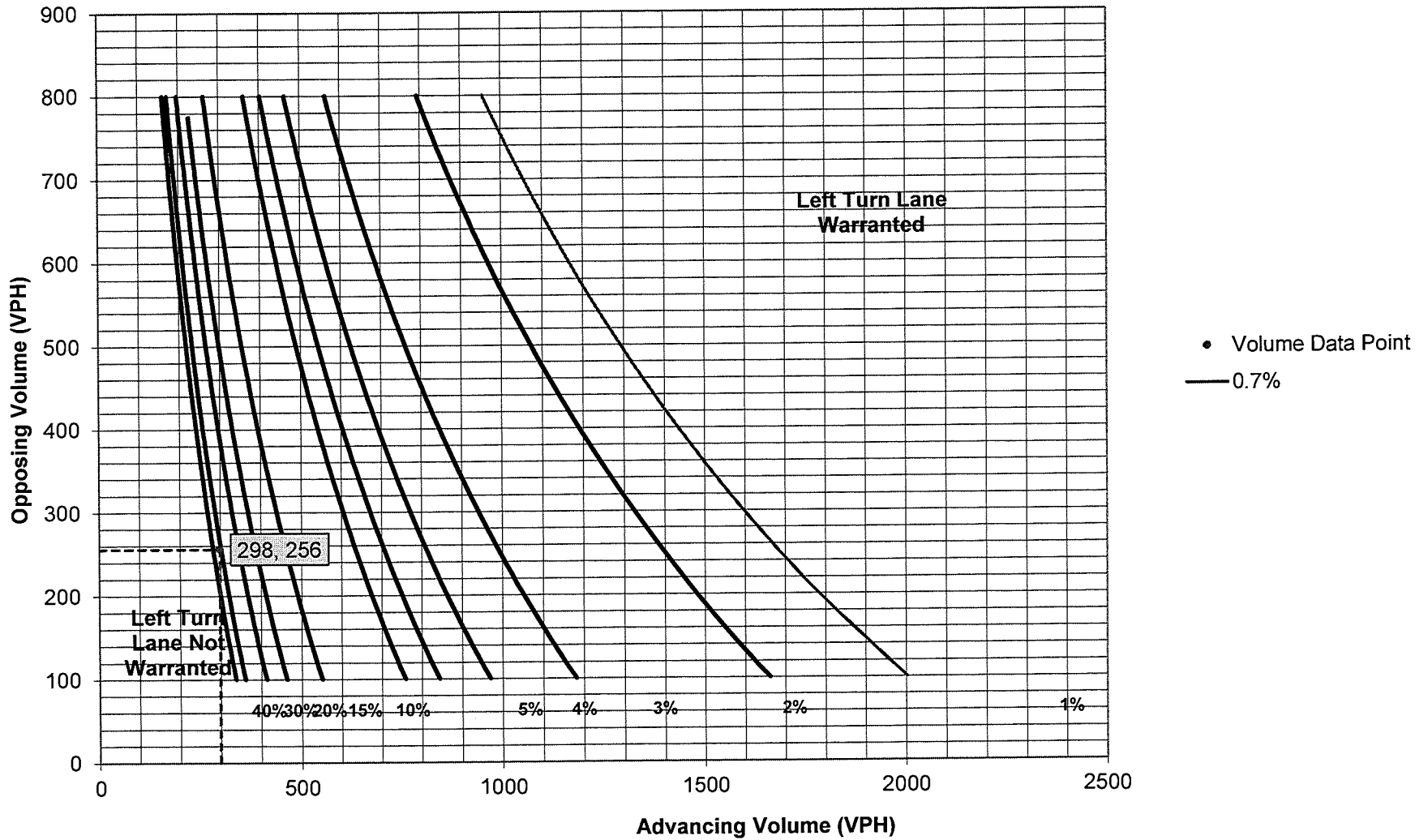
**Figure 1. Warrant for left turn lanes on two-lane roadways**  
 (speeds to 35 mph, unsignalized and signalized intersections)  
 (L = % Left Turns in Advancing Volume)



## Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION						
Municipality:	Westtown Township	Analysis Date:	4/27/2021			
County:	Chester County	Conducted By:	LJS			
PennDOT Engineering District:	6	Checked By:	JAS			
		Agency/Company Name:	TRG, Inc.			
Intersection & Approach Description: Shiloh Road (T-626) / Hunt Drive - Proposed Access SOUTHBOUND						
Analysis Period:	2031 Build	Number of Approach Lanes:	1			
Design Hour:	AM Peak Hour	Undivided or Divided Highway:	Undivided			
Intersection Control:	Unsignalized	Type of Analysis:	Left Turn Lane			
Posted Speed Limit (MPH):	30	Left or Right-Turn Lane Analysis?:	Left Turn Lane			
Type of Terrain:	Rolling					
VOLUME CALCULATIONS						
Left Turn Lane Volume Calculations						
	Movement	Include?	Volume	% Trucks	PCEV	
Advancing	Left	Yes	1	2.0%	2	
	Through	-	275	5.0%	296	
	Right	Yes	0	0.0%	0	
Opposing	Left	Yes	3	50.0%	6	
	Through	-	213	8.0%	239	
	Right	Yes	10	2.0%	11	
					Advancing Volume:	298
					Opposing Volume:	256
					Left Turn Volume:	2
					% Left Turns in Advancing Volume:	0.67%
Right Turn Lane Volume Calculations						
	Movement	Include?	Volume	% Trucks	PCEV	
Advancing	Left	Yes	1	2.0%	N/A	
	Through	-	275	5.0%	N/A	
	Right	-	0	0.0%	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: <b>Figure 1</b>			Applicable Warrant Figure: <b>N/A</b>			
Warrant Met?: <b>No</b>			Warrant Met?: <b>N/A</b>			
TURN LANE LENGTH CALCULATIONS						
Intersection Control:	Unsignalized					
Design Hour Volume of Turning Lane:	2					
Cycles Per Hour (Assumed):	60					
Cycles Per Hour (If Known):						
					Average # of Vehicles/Cycle:	N/A
PennDOT Publication 46, Exhibit 11-6						
	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:					<b>N/A</b>	Feet
Condition B:					<b>N/A</b>	Feet
Condition C:					<b>N/A</b>	Feet
Required Left Turn Lane Storage Length:					<b>N/A</b>	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)



## Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION			
Municipality:	Westtown Township	Analysis Date:	4/27/2021
County:	Chester County	Conducted By:	LJS
PennDOT Engineering District:	6	Checked By:	JAS
Intersection & Approach Description:		Agency/Company Name:	
Shiloh Road (T-626) / Hunt Drive - Proposed Access NORTHBOUND		TRG, Inc.	
Analysis Period:	2031 Build	Number of Approach Lanes:	1
Design Hour:	PM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized	Type of Analysis	
Posted Speed Limit (MPH):	30		
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	
Left Turn Lane			

### VOLUME CALCULATIONS

Left Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	10	0.0%	10
	Through	-	296	0.0%	296
	Right	Yes	34	2.0%	36
Opposing	Left	Yes	2	2.0%	3
	Through	-	328	0.0%	328
	Right	Yes	6	0.0%	6

Advancing Volume:	342
Opposing Volume:	337
Left Turn Volume:	10
% Left Turns in Advancing Volume: 2.92%	

Right Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	10	2.0%	N/A
	Through	-	296	0.0%	N/A
	Right	-	34	0.0%	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: <b>Figure 1</b>	Applicable Warrant Figure: <b>N/A</b>
Warrant Met?: <b>No</b>	Warrant Met?: <b>N/A</b>

### TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized	Average # of Vehicles/Cycle:	N/A
Design Hour Volume of Turning Lane:	10		
Cycles Per Hour (Assumed):	60		
Cycles Per Hour (If Known):			

PennDOT Publication 46, Exhibit 11-6

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

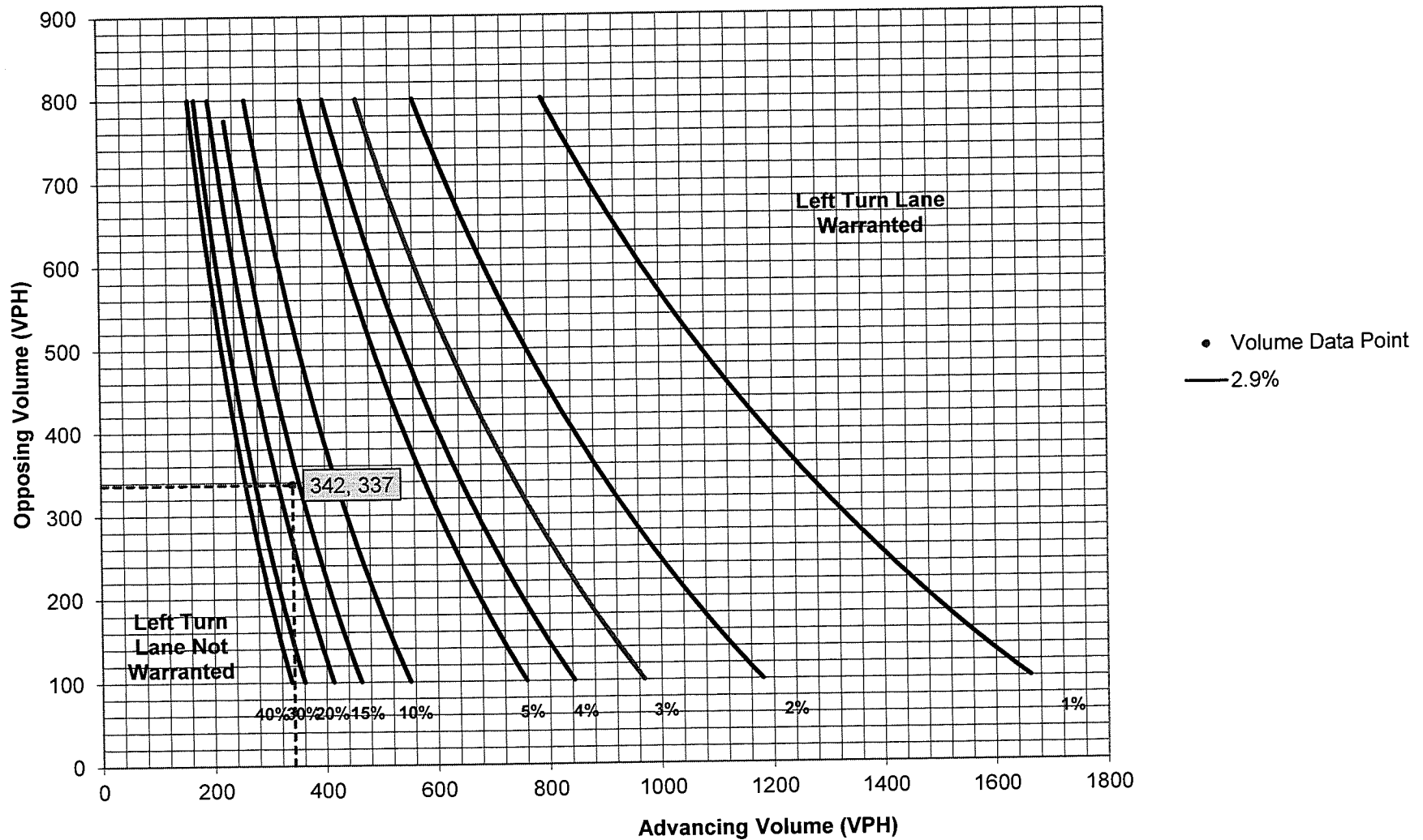
Left Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	N/A	Feet
Required Left Turn Lane Storage Length:	N/A	Feet

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)

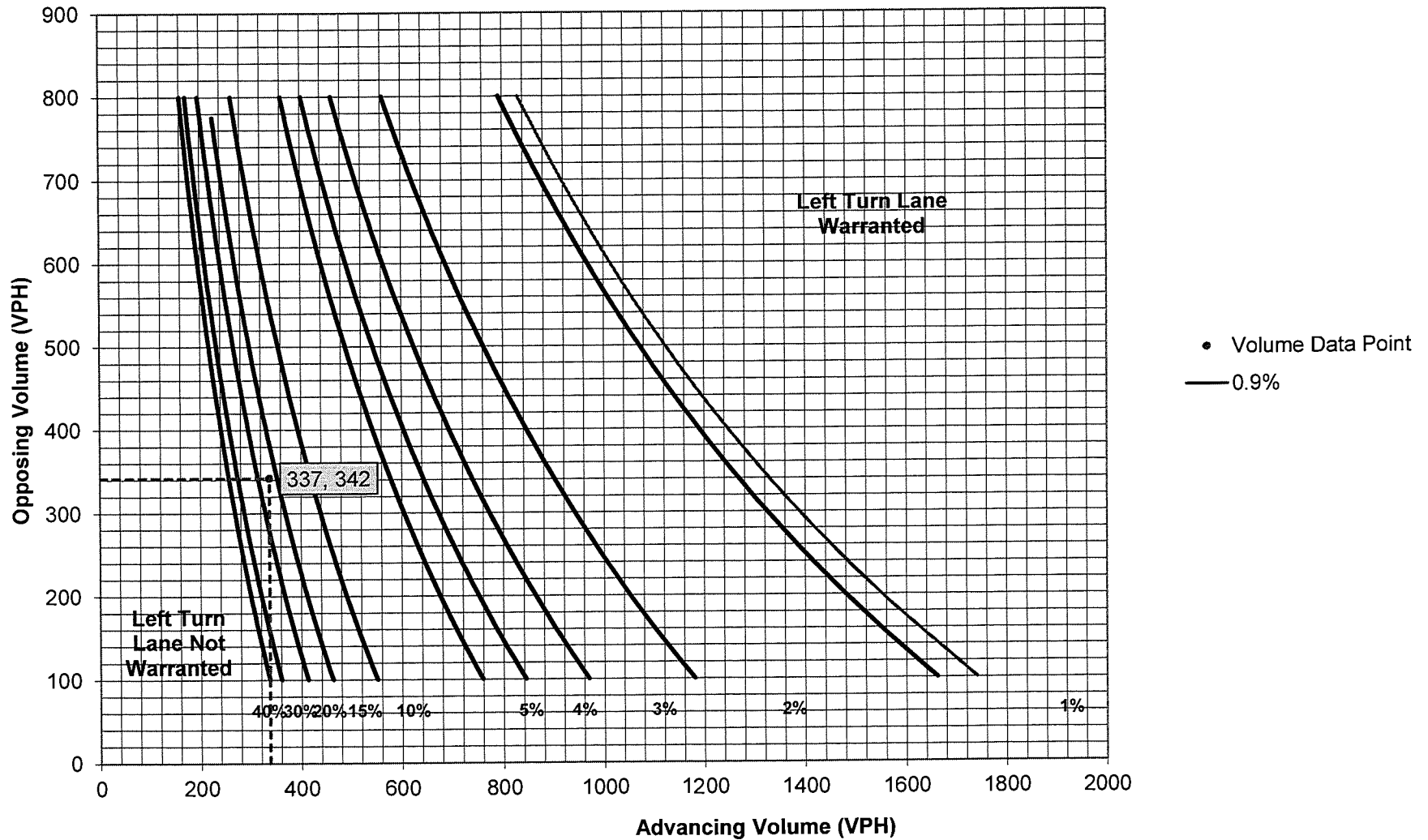




## Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION						
Municipality:	Westtown Township	Analysis Date:	4/27/2021			
County:	Chester County	Conducted By:	LJS			
PennDOT Engineering District:	6	Checked By:	JAS			
		Agency/Company Name:	TRG, Inc.			
Intersection & Approach Description: Shiloh Road (T-626) / Hunt Drive - Proposed Access SOUTHBOUND						
Analysis Period:	2026 Build	Number of Approach Lanes:	1			
Design Hour:	PM Peak Hour	Undivided or Divided Highway:	Undivided			
Intersection Control:	Unsignalized			Type of Analysis		
Posted Speed Limit (MPH):	30			Left Turn Lane		
Type of Terrain:	Rolling					
VOLUME CALCULATIONS						
Left Turn Lane Volume Calculations						
Movement	Left	Include?	Volume	% Trucks	PCEV	
	Through	-	328	0.0%	328	
	Right	Yes	6	0.0%	6	
Advancing	Left	Yes	10	0.0%	10	
	Through	-	296	0.0%	296	
	Right	Yes	34	2.0%	36	
Opposing	Left	Yes	2	2.0%	3	
	Through	-	328	0.0%	N/A	
	Right	-	6	0.0%	N/A	
					Advancing Volume:	337
					Opposing Volume:	342
					Left Turn Volume:	3
					% Left Turns in Advancing Volume:	0.89%
Right Turn Lane Volume Calculations						
Movement	Left	Include?	Volume	% Trucks	PCEV	
	Through	-	328	0.0%	N/A	
	Right	-	6	0.0%	N/A	
Advancing	Left	Yes	2	2.0%	N/A	
	Through	-	328	0.0%	N/A	
	Right	-	6	0.0%	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:			Applicable Warrant Figure:			
Figure 1			N/A			
Warrant Met?:			Warrant Met?:			
No			N/A			
TURN LANE LENGTH CALCULATIONS						
Intersection Control:		Unsignalized				
Design Hour Volume of Turning Lane:		3				
Cycles Per Hour (Assumed):		60				
Cycles Per Hour (If Known):						
		Average # of Vehicles/Cycle: N/A				
PennDOT Publication 46, Exhibit 11-6						
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
		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)



# Turn Lane Warrant and Length Analysis Workbook

## STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Westtown Township	Analysis Date:	4/27/2021
County:	Chester County	Conducted By:	LJ5
PennDOT Engineering District:	6	Checked By:	JAS
		Agency/Company Name:	TRG, Inc.
Intersection & Approach Description: Shiloh Road (T-626) / Hunt Drive - Proposed Access NORTHBOUND			
Analysis Period:	2031 Build	Number of Approach Lanes:	1
Design Hour:	AM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized	Type of Analysis:	Right Turn Lane
Posted Speed Limit (MPH):	30	Left or Right-Turn Lane Analysis?:	Right Turn Lane
Type of Terrain:	Rolling		

## VOLUME CALCULATIONS

Left Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	3	50.0%	N/A
	Through	-	213	8.0%	N/A
	Right	Yes	10	2.0%	N/A
Opposing	Left	Yes	1	2.0%	N/A
	Through	-	275	5.0%	N/A
	Right	Yes	0	0.0%	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	3	50.0%	6
	Through	-	213	8.0%	239
	Right	-	10	2.0%	11

Advancing Volume:	256
Right Turn Volume:	11

## TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: <span style="border: 1px solid black; padding: 2px;">N/A</span>	Applicable Warrant Figure: <span style="border: 1px solid black; padding: 2px;">Figure 9</span>
Warrant Met?: <span style="border: 1px solid black; padding: 2px;">N/A</span>	Warrant Met?: <span style="border: 1px solid black; padding: 2px;">No</span>

## TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized	
Design Hour Volume of Turning Lane:	11	
Cycles Per Hour (Assumed):	60	
Cycles Per Hour (If Known):		Average # of Vehicles/Cycle: <span style="border: 1px solid black; text-align: center;">N/A</span>

Type of Traffic Control	PennDOT Publication 46, Exhibit 11-6					
	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

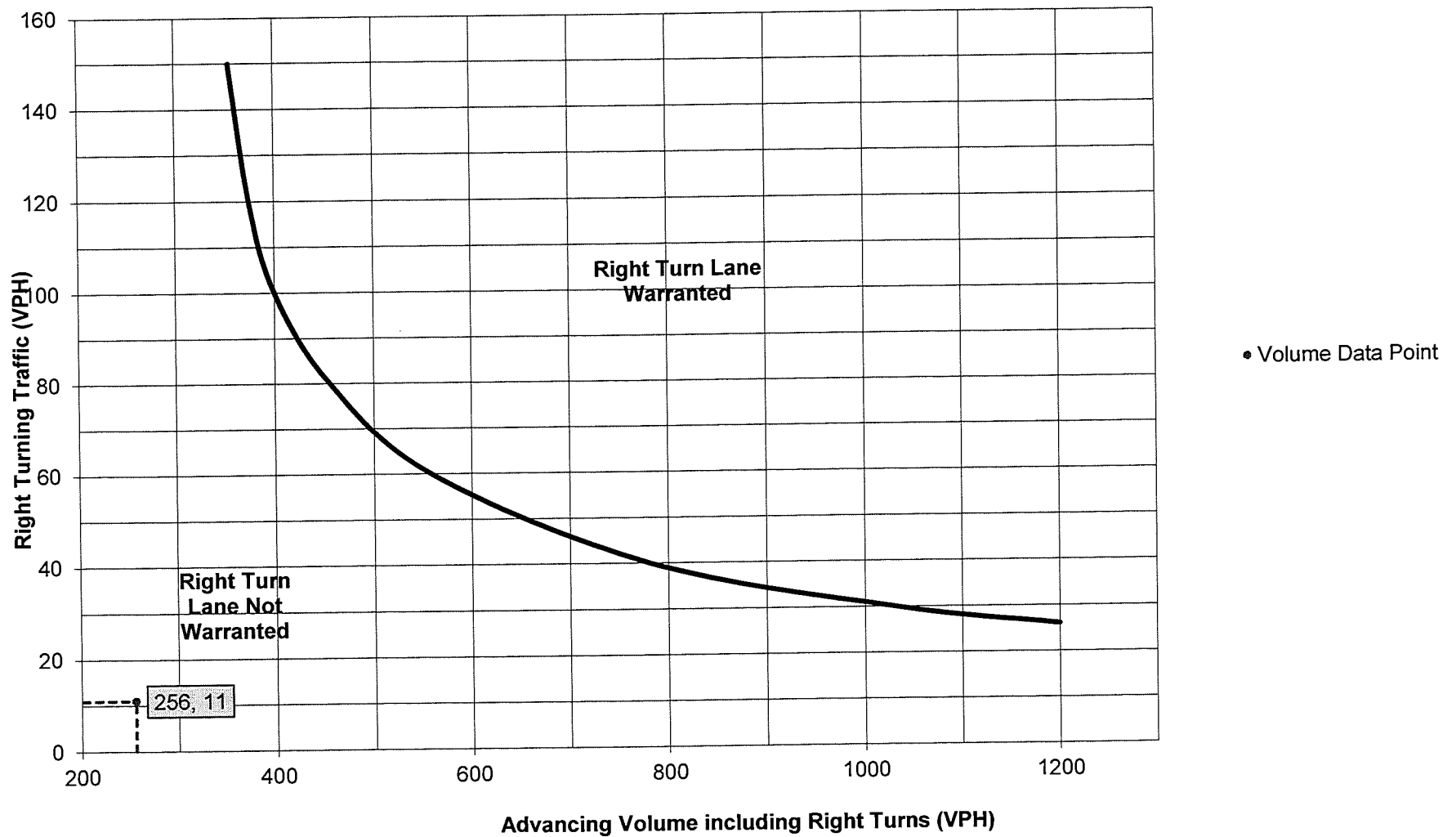
  

Right Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	N/A	Feet
Required Right Turn Lane Storage Length:	N/A	Feet

Additional Findings: N/A

Additional Comments / Justifications:

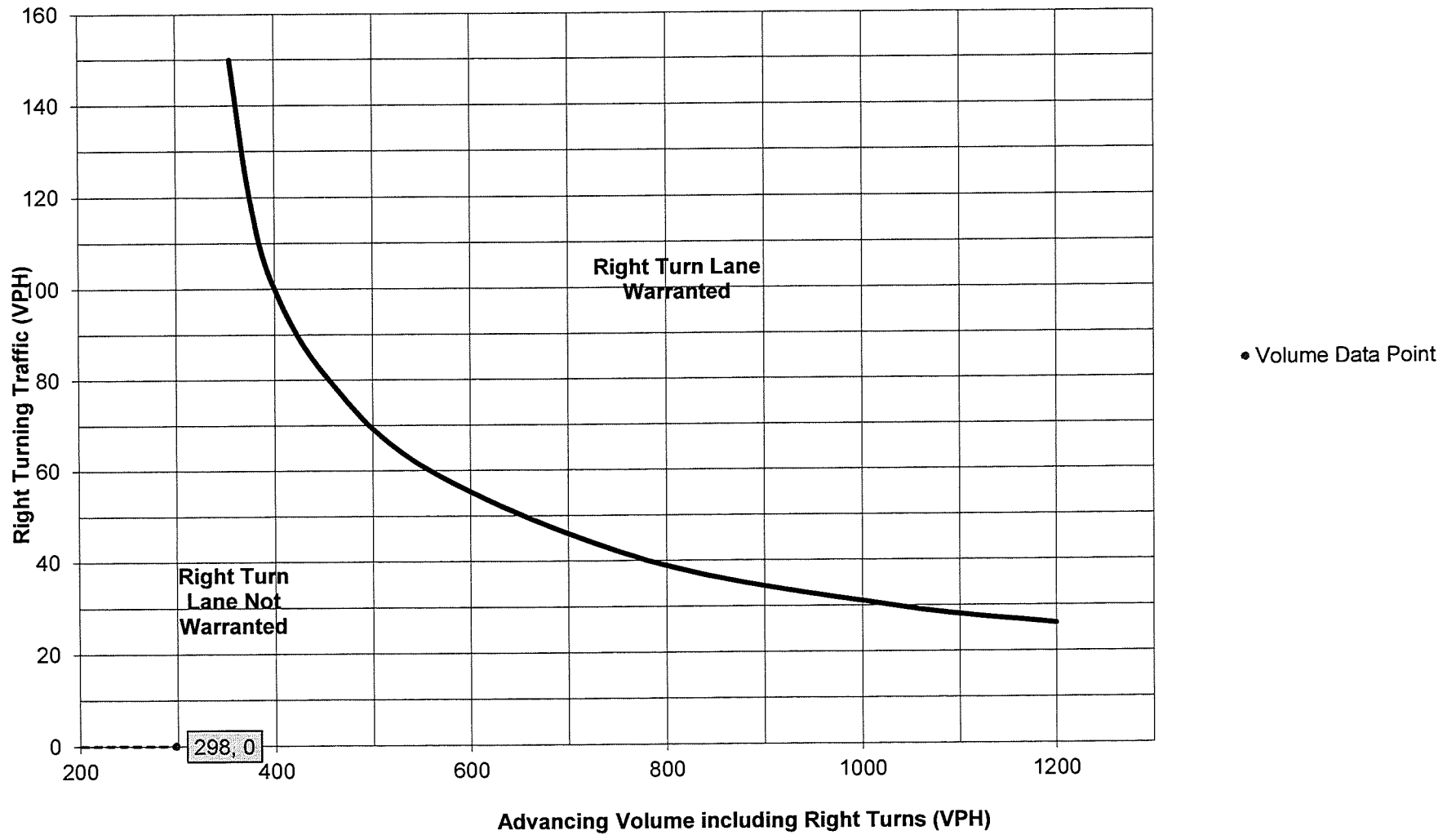
**Figure 9. Warrant for right turn lanes on two-lane roadways  
(40 mph or lower speeds, unsignalized and signalized intersections)**



## Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION							
Municipality:	Westtown Township	Analysis Date:	4/27/2021				
County:	Chester County	Conducted By:	LJS				
PennDOT Engineering District:	6	Checked By:	JAS				
		Agency/Company Name:	TRG, Inc.				
Intersection & Approach Description: Shiloh Road (T-626) / Hunt Drive - Proposed Access SOUTHBOUND							
Analysis Period:	2031 Build	Number of Approach Lanes:	1				
Design Hour:	AM Peak Hour	Undivided or Divided Highway:	Undivided				
Intersection Control:	Unsignalized			Type of Analysis			
Posted Speed Limit (MPH):	30			Right Turn Lane			
Type of Terrain:	Rolling			Left or Right-Turn Lane Analysis?:			
VOLUME CALCULATIONS							
Left Turn Lane Volume Calculations							
Advancing	Left	Yes	1	2.0%	N/A	Advancing Volume:	N/A
	Through	-	275	5.0%	N/A	Opposing Volume:	N/A
	Right	Yes	0	0.0%	N/A	Left Turn Volume:	N/A
Opposing	Left	Yes	3	50.0%	N/A		
	Through	-	213	8.0%	N/A		
	Right	Yes	10	2.0%	N/A	% Left Turns in Advancing Volume:	N/A
Right Turn Lane Volume Calculations							
Advancing	Left	Yes	1	2.0%	2	Advancing Volume:	298
	Through	-	275	5.0%	296	Right Turn Volume:	0
	Right	-	0	0.0%	0		
TURN LANE WARRANT FINDINGS							
Left Turn Lane Warrant Findings			Right Turn Lane Warrant Findings				
Applicable Warrant Figure:			Applicable Warrant Figure:				
N/A			Figure 9				
Warrant Met?:			Warrant Met?:				
N/A			No				
TURN LANE LENGTH CALCULATIONS							
Intersection Control:	Unsignalized						
Design Hour Volume of Turning Lane:	0						
Cycles Per Hour (Assumed):	60						
Cycles Per Hour (If Known):							
		Average # of Vehicles/Cycle:					
		N/A					
PennDOT Publication 46, Exhibit 11-6							
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: <input type="text" value="Westtown Township"/> County: <input type="text" value="Chester County"/> PennDOT Engineering District: <input type="text" value="6"/>	Analysis Date: <input type="text" value="4/27/2021"/> Conducted By: <input type="text" value="LJS"/> Checked By: <input type="text" value="JAS"/> Agency/Company Name: <input type="text" value="TRG, Inc."/>
Intersection & Approach Description: <input type="text" value="Shiloh Road (T-626) / Hunt Drive - Proposed Access NORTHBOUND"/>	
Analysis Period: <input type="text" value="2031 Build"/> Design Hour: <input type="text" value="PM Peak Hour"/> Intersection Control: <input type="text" value="Unsignalized"/> Posted Speed Limit (MPH): <input type="text" value="30"/> Type of Terrain: <input type="text" value="Rolling"/>	Number of Approach Lanes: <input type="text" value="1"/> Undivided or Divided Highway: <input type="text" value="Undivided"/> Type of Analysis: <input type="text" value="Right Turn Lane"/> Left or Right-Turn Lane Analysis?: <input type="text" value="Right Turn Lane"/>

## VOLUME CALCULATIONS

Left Turn Lane Volume Calculations						
Movement	Include?	Volume	% Trucks	PCEV		
Advancing	Left	Yes	10	0.0%	N/A	Advancing Volume: <input type="text" value="N/A"/>
	Through	-	296	0.0%	N/A	Opposing Volume: <input type="text" value="N/A"/>
	Right	Yes	34	2.0%	N/A	Left Turn Volume: <input type="text" value="N/A"/>
Opposing	Left	Yes	2	2.0%	N/A	% Left Turns in Advancing Volume: <input type="text" value="N/A"/>
	Through	-	328	0.0%	N/A	
	Right	Yes	6	0.0%	N/A	
Right Turn Lane Volume Calculations						
Movement	Include?	Volume	% Trucks	PCEV		
Advancing	Left	Yes	10	2.0%	11	Advancing Volume: <input type="text" value="341"/>
	Through	-	296	0.0%	296	Right Turn Volume: <input type="text" value="34"/>
	Right	-	34	0.0%	34	

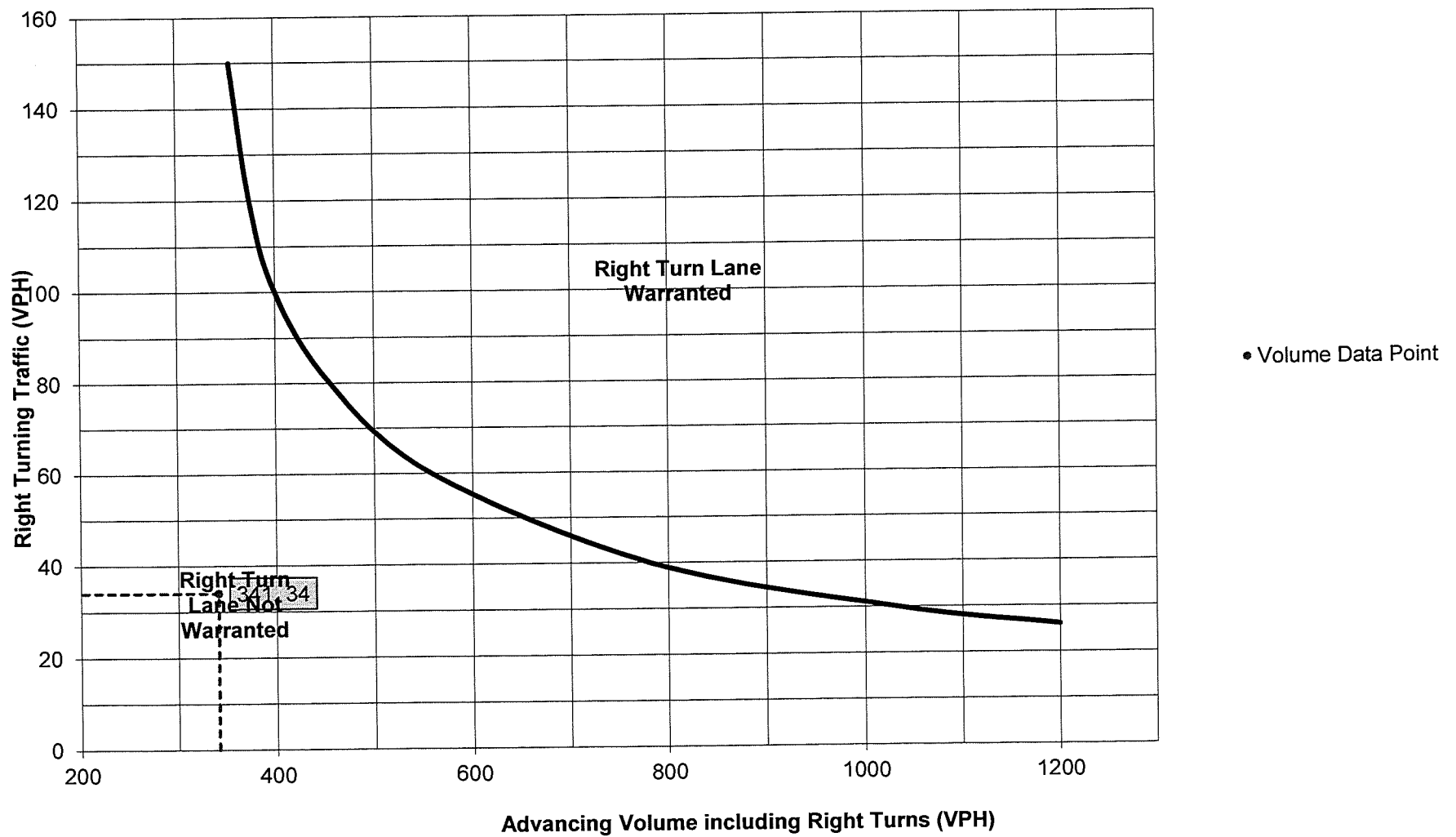
## TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: <input type="text" value="N/A"/> Warrant Met?: <input type="text" value="N/A"/>	Applicable Warrant Figure: <input type="text" value="Figure 9"/> Warrant Met?: <input type="text" value="No"/>

## TURN LANE LENGTH CALCULATIONS

Intersection Control: <input type="text" value="Unsignalized"/> Design Hour Volume of Turning Lane: <input type="text" value="34"/> Cycles Per Hour (Assumed): <input type="text" value="60"/> Cycles Per Hour (If Known): <input type="text"/>	Average # of Vehicles/Cycle: <input type="text" value="N/A"/>																																								
PennDOT Publication 46, Exhibit 11-6																																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th rowspan="3" style="width: 15%;">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" style="text-align: center;">Turn Demand Volume</th> </tr> <tr> <td></td> <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
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: <input type="text" value="N/A"/> Feet Condition B: <input type="text" value="N/A"/> Feet Condition C: <input type="text" value="N/A"/> Feet Required Right Turn Lane Storage Length: <input type="text" value="N/A"/> Feet																																									
Additional Findings: <input type="text" value="N/A"/>																																									
Additional Comments / Justifications: <div style="border: 1px solid black; height: 40px; width: 100%;"></div>																																									

**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

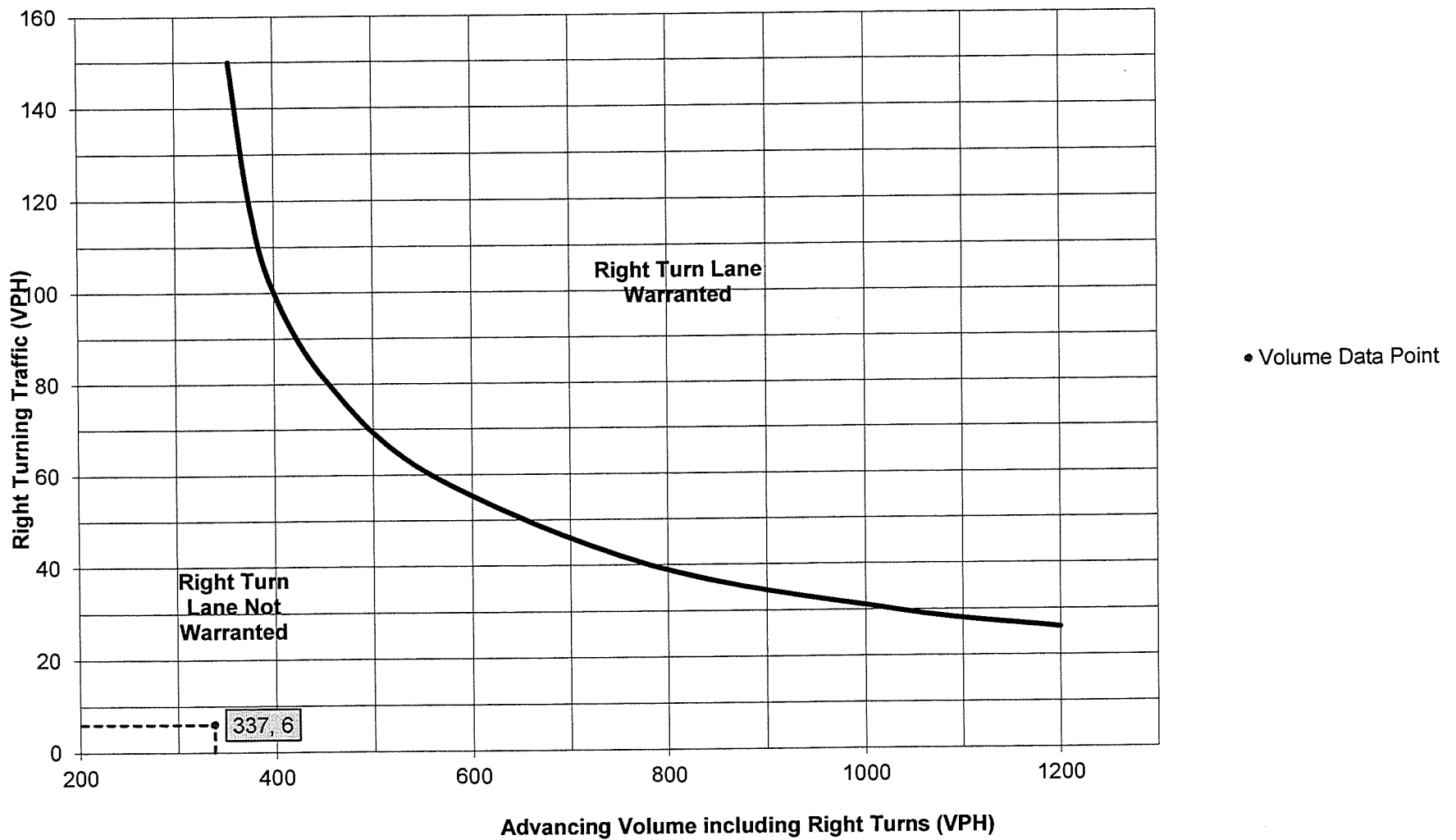
STUDY LOCATION AND ANALYSIS INFORMATION	
Municipality: <input type="text" value="Westtown Township"/>	Analysis Date: <input type="text" value="4/27/2021"/>
County: <input type="text" value="Chester County"/>	Conducted By: <input type="text" value="LJS"/>
PennDOT Engineering District: <input type="text" value="6"/>	Checked By: <input type="text" value="JAS"/>
	Agency/Company Name: <input type="text" value="TRG, Inc."/>
Intersection & Approach Description: <input type="text" value="Shiloh Road (T-626) / Hunt Drive - Proposed Access SOUTHBOUND"/>	
Analysis Period: <input type="text" value="2026 Build"/>	Number of Approach Lanes: <input type="text" value="1"/>
Design Hour: <input type="text" value="PM Peak Hour"/>	Undivided or Divided Highway: <input type="text" value="Undivided"/>
Intersection Control: <input type="text" value="Unsignalized"/>	Type of Analysis: <input type="text" value="Right Turn Lane"/>
Posted Speed Limit (MPH): <input type="text" value="30"/>	
Type of Terrain: <input type="text" value="Rolling"/>	Left or Right-Turn Lane Analysis?: <input type="text" value="Right Turn Lane"/>

VOLUME CALCULATIONS																																							
<b>Left Turn Lane Volume Calculations</b>																																							
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TURN LANE WARRANT FINDINGS	
<b>Left Turn Lane Warrant Findings</b>	<b>Right Turn Lane Warrant Findings</b>
Applicable Warrant Figure: <input type="text" value="N/A"/>	Applicable Warrant Figure: <input type="text" value="Figure 9"/>
Warrant Met?: <input type="text" value="N/A"/>	Warrant Met?: <input type="text" value="No"/>

TURN LANE LENGTH CALCULATIONS																																									
Intersection Control: <input type="text" value="Unsignalized"/> Design Hour Volume of Turning Lane: <input type="text" value="6"/> Cycles Per Hour (Assumed): <input type="text" value="60"/> Cycles Per Hour (If Known): <input type="text"/>	Average # of Vehicles/Cycle: <input type="text" value="N/A"/>																																								
PennDOT Publication 46, Exhibit 11-6																																									
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**Figure 9. Warrant for right turn lanes on two-lane roadways  
(40 mph or lower speeds, unsignalized and signalized intersections)**



## CORRESPONDENCE

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## Jon Seitz

---

**From:** Jon Seitz  
**Sent:** Sunday, March 28, 2021 11:54 AM  
**To:** Albert Federico  
**Cc:** Dave Gibbons; Maggie Dobbs  
**Subject:** RE: Shiloh Road Property - TIS - Request for Preliminary Review  
**Attachments:** COVID Traffic Count Adjustments.pdf; Proposed Trip Distribution Stokes Estate Residentail.pdf

AI – We have performed traffic counts at the six intersections you recommended. Before we conduct the traffic analysis, we will need to perform a COVID-19 traffic volume adjustment analysis and utilize a trip distribution for the residential site. I am attaching a COVID-19 Data Collection Calculations and Methodology Narrative along with back-up. I am also submitting a proposed trip distribution for the Stokes Estate based upon the attached Cordon Line spreadsheet table.

**Can you please review and provide comments and/or approval before we initiate the traffic analysis.** Thanks!

**Jon A. Seitz, PE, PTOE**  
**Principal**  
**Transportation Resource Group, Inc.**  
2 E. Market St., Suite 2  
York, PA 17401  
PA Office: (717) 846-4660

---

**From:** Albert Federico <albert@federico-consulting.com>  
**Sent:** Friday, March 5, 2021 4:52 PM  
**To:** Jon Seitz <jseitz@consulttrg.com>  
**Cc:** Dave Gibbons <dgibbons@dlhowell.com>; Denny Howell <dhowell@dlhowell.com>; Maggie Dobbs <mdobbs@westtown.org>  
**Subject:** RE: Shiloh Road Property - TIS

Jon,

The two intersections you noted (below), definitely. Those are basically the site accesses.

- Shiloh Road/Hunt Road-Proposed Access Road
- Little Shiloh Road/Shiloh Hill Drive

Can you provide a bit more context on why the study wouldn't address the following intersections?

- Oakbourne/Shiloh
- Shiloh/Little Shiloh
- Little Shiloh/Westtown
- Shiloh/926

Have a hard time seeing this going through the hearing process without the PC and/or Board asking about these locations.

The forecast horizons (buildout 2026 and buildout +5) and morning and evening periods below are acceptable. Note that per 149-804A(3)(g) counts are to be completed Thursday and Friday, so administratively a waiver would be required during land development.

Also, please be sure that the materials submitted for the Conditional Use clearly address the traffic related standard from the Zoning Code: *"The burden of proof shall be upon the applicant to prove to the satisfaction of the Board of*

*Supervisors, by credible evidence, that the use will not result in or substantially add to a significant traffic hazard or significant traffic congestion. The peak traffic generated by the development shall be accommodated in a safe and efficient manner. Such analysis shall consider any improvements to streets that the applicant is committed to complete or fund.”* You will likely need to coordinate with WEGO regarding non-reportable collisions.

Regarding other studies, attached is the TIS on-file for Rustin Walk.

Citrix Attachments Expires June 3, 2021

Exhibit A-20 Traffic report (with appendix).pdf	23.6 MB
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[Download Attachments](#)

Albert Federico uses Citrix Files to share documents securely.

Be well and enjoy the weekend,

Albert Federico, P.E., PTOE  
**Albert Federico Consulting, LLC.**  
610.608.4336  
[albert@federico-consulting.com](mailto:albert@federico-consulting.com)

---

**From:** Jon Seitz <[jseitz@consulttrg.com](mailto:jseitz@consulttrg.com)>  
**Sent:** Wednesday, March 3, 2021 10:42 AM  
**To:** Albert Federico <[albert@federico-consulting.com](mailto:albert@federico-consulting.com)>  
**Cc:** Dave Gibbons <[dgibbons@dlhowell.com](mailto:dgibbons@dlhowell.com)>; Denny Howell <[dhowell@dlhowell.com](mailto:dhowell@dlhowell.com)>  
**Subject:** Shiloh Road Property - TIS

Al :

We were asked to prepare a Township TIS for the proposed 68 single family residential development along Shiloh Road in Westtown Township for an upcoming Conditional Use Hearing. Can you please review the attached plan and inform me what study intersections would be required. Since it is a relatively small development (but does meet the Section 149-804.A. threshold) I would recommend the intersections of: Shiloh Road/Hunt Road-Proposed Access Road and Little Shiloh Road/Shiloh Hill Drive.

Also, can you provide me copies of traffic studies that would route traffic directly into our study intersections so that we can add them as traffic above and beyond the typical growth rate?

Assuming buildout of the development by 2026, would you study years would you like analyzed? 2026? 2031?

We are assuming typical AM (7-9) and PM (2-6) counts on a Tuesday, Wednesday or Thursday when school is in session.

Thanks for your input!

**Jon A. Seitz, PE, PTOE**  
**Principal**

**Transportation Resource Group, Inc.**

2 E. Market St., Suite 2  
York, PA 17401  
PA Office: (717) 846-4660

---

**From:** Dave Gibbons <[dgibbons@dlhowell.com](mailto:dgibbons@dlhowell.com)>

**Sent:** Wednesday, March 3, 2021 9:15 AM

**To:** Jon Seitz <[jseitz@consulttrg.com](mailto:jseitz@consulttrg.com)>

**Cc:** Denny Howell <[dhowell@dlhowell.com](mailto:dhowell@dlhowell.com)>; Chris Schwab <[cschwab@consulttrg.com](mailto:cschwab@consulttrg.com)>; Bill Briegel <[BillB@keystonecustomhome.com](mailto:BillB@keystonecustomhome.com)>

**Subject:** RE: Shiloh Road Property

Jon, nice talking with you this morning. As we discussed, attached is a pdf of the site plan.

Please let Denny or I know if you have any other questions.

**Dave Gibbons, P.E.**

D.L. Howell & Associates, Inc.

PH: (610) 918-9002

