Traffic Impact Study Report XEBEC Tucker Station

Louisville, Jefferson Co., KY

Prepared For:

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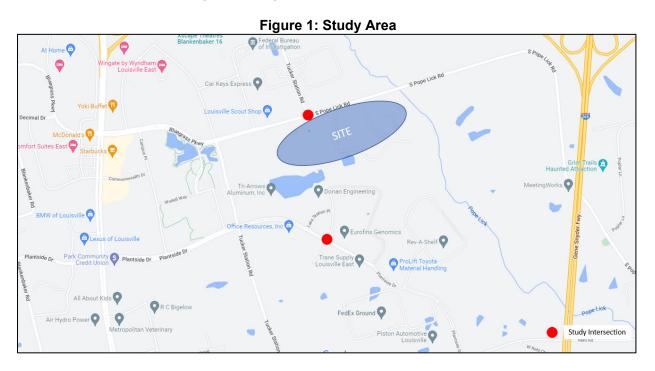
Appendix A: Development Plan Appendix B: Traffic Data Appendix C: Trip Generation Data Appendix D: KYTC Traffic Forecasting Report Appendix E: Capacity Analysis Output Appendix F: Auxilliary Turn Lane Warrants

INTRODUCTION

The purpose of this document is to summarize the scope and terms for a Traffic Impact Study of a proposed industrial development in Jefferson County, KY. The development is to be located on the south side of S. Pope Lick Road and Tucker Station Road and is to consist of 5 warehousing buildings totaling 1,010,800 s.f of gross floor area. Five access points along Tucker Station Road and S. Pope Lick Road is proposed with a connection to the south to Plantside Drive via Schutte Station Place. This study will evaluate the proposed access points, as well as the intersections listed below. **Figure 1** shows the proposed site and study intersections. **Appendix A** contains a site plan of the proposed development.

- Schutte Station at Plantside Drive
- Tucker Station at S. Pope Lick Road

The scope of this study is based on a review of existing travel patterns in the area and discussions with Louisville Metro Planning and Design Services.



EXISTING CONDITIONS

S. Pope Lick Road is a two-lane roadway with a posted speed of 35 mph. The intersections of S. Pope Lick Road at Tucker Station Road is a T' intersection with all-way stop control. No Auxiliary turn lanes are present at the intersection.

AM and PM turning movement counts were collected on Thursday May 19, 2022 between 7-9 a.m. and 4-6 p.m. at the study intersections. Full turn movement count data is provided in **Appendix B**. AM and PM peak hour traffic volumes are summarized in **Figures 2 and 3**.

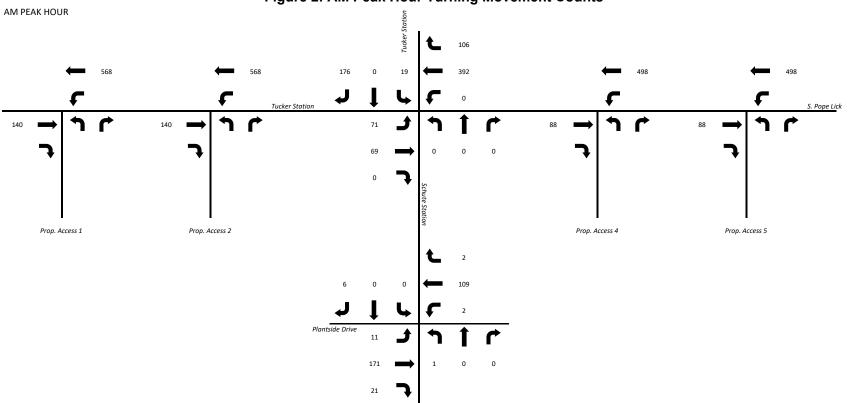


Figure 2: AM Peak Hour Turning Movement Counts

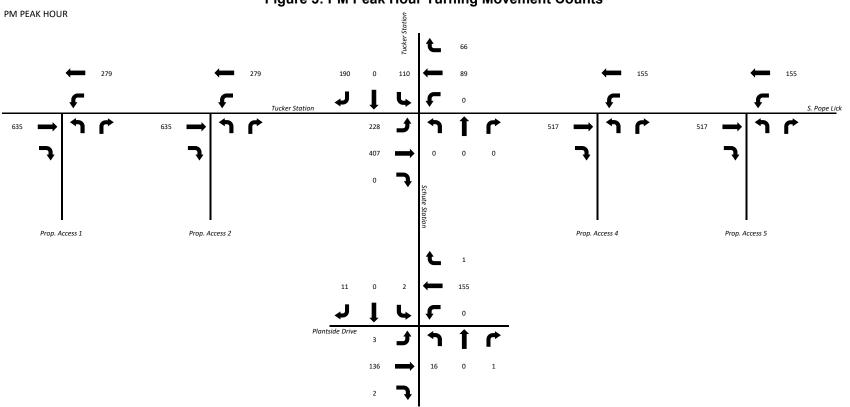


Figure 3: PM Peak Hour Turning Movement Counts

TRAFFIC FORECASTING

Historic traffic counts were not available for S. Pope Lick Road or Tucker Station Road; however, counts were available for Bluegrass Parkway at station 056L91, which is immediately west of the study area. Based on this data, historic traffic patterns indicate a growth rate of 0.43 percent per year. An average growth rate of 0.5% was used for projecting traffic volumes to the year of opening, 2023 and the design year of 2033. **Appendix D** contains the historic traffic data and output from the KYTC Traffic forecasting spreadsheet. AM and PM peak hour volumes for 2023 No Build traffic volumes are summarized in **Figures 4, 5, 6 and 7**.

TRIP GENERATION

Trip Generation was conducted in accordance with the ITE Trip Generation Web Based App, 11th edition. Trip Generation utilized **ITE Land Use Code 130 Industrial Park**. This land use provides a higher trip generation than strictly warehousing or distribution land uses in the event some manufacturing or other industrial use was housed in the development. Based on this land use and the 1M s.f. gross floor area, the development is expected to generate 414 and 405 trips per hour during the AM and PM peak hours of the development. **Table 1** summarizes the trip generation for each proposed tract and **Appendix C** contains output from the ITE Trip Generation Manual.

	ITE Code				AM Peak	-		Saturday	
	ITE Code	Ind. Var.	Units	Total	Entering	Exiting	Total	Entering	Exiting
Total				414	359	55	405	85	320
Tract 1	130	196.5	units	81	70	11	79	17	62
Tract 2	130	210	units	86	75	11	84	18	66
Tract 3	130	146.9	units	60	52	8	59	12	47
Tract 4	130	146.9	units	60	52	8	59	12	47
Tract 5	130	310.5	units	127	110	17	124	26	98

Table 1: Trip Generation

TRIP DISTRIBUTION METHODOLOGY

Generated trips were distributed onto the roadway network based on recorded travel patterns on Commerce Parkway and the proposed configuration of the development roadway layout. Total roadway volumes at the approaches to the study area were determined and trips distributed consistently with these total volumes. **Figure 8** shows the area wide trip distributions. The final entering and exiting trip distribution is shown in **Figures 9 and 10**. **Figures 11, 12, 13 and 14** show the final build traffic volumes for AM and PM peak hour turning movement for 2023 and 2033.

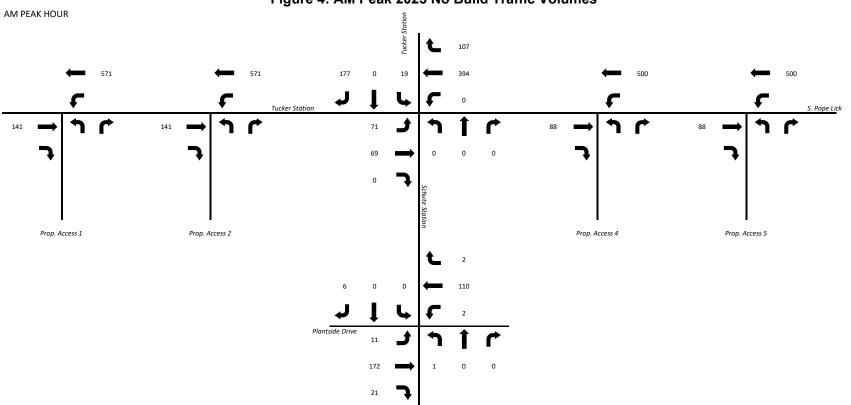


Figure 4: AM Peak 2023 No Build Traffic Volumes

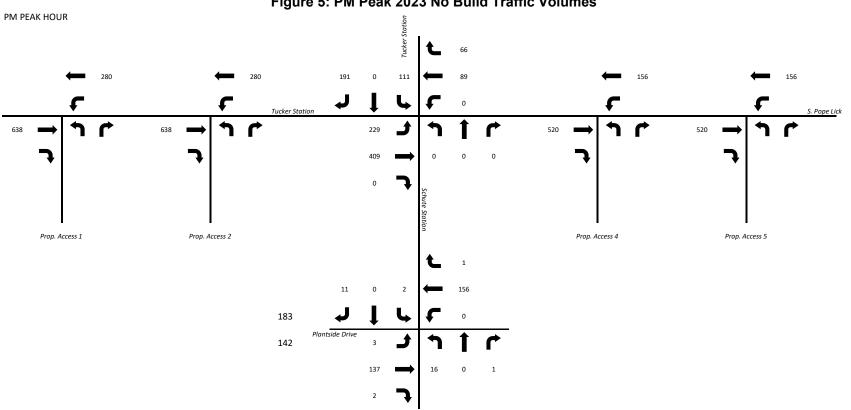


Figure 5: PM Peak 2023 No Build Traffic Volumes

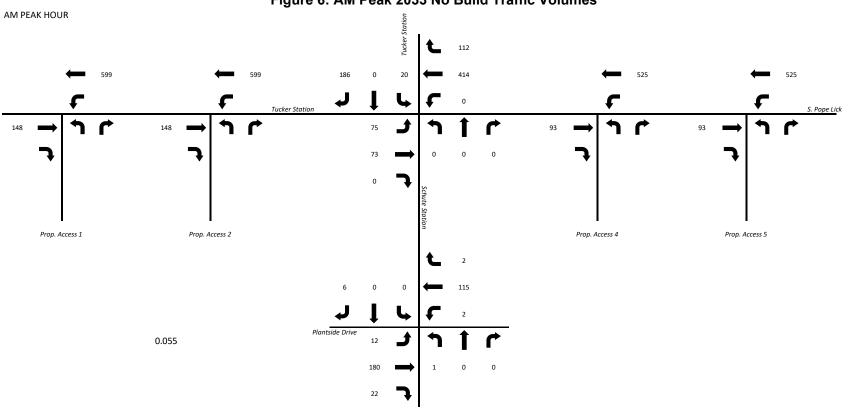


Figure 6: AM Peak 2033 No Build Traffic Volumes

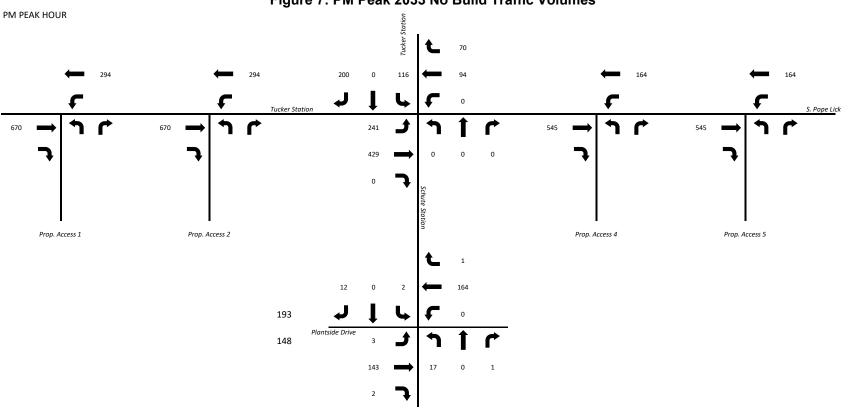
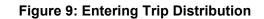
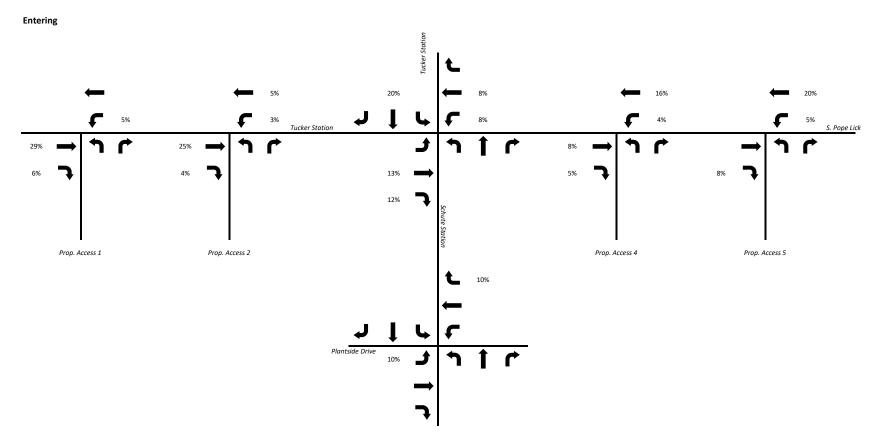


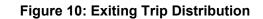
Figure 7: PM Peak 2033 No Build Traffic Volumes

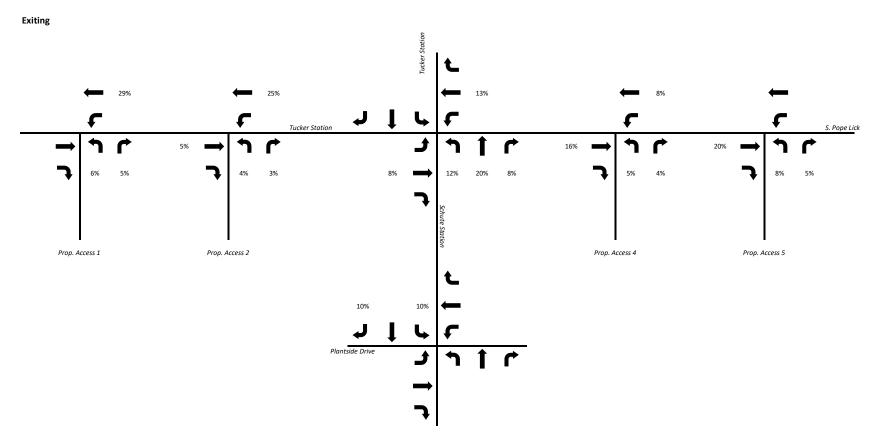


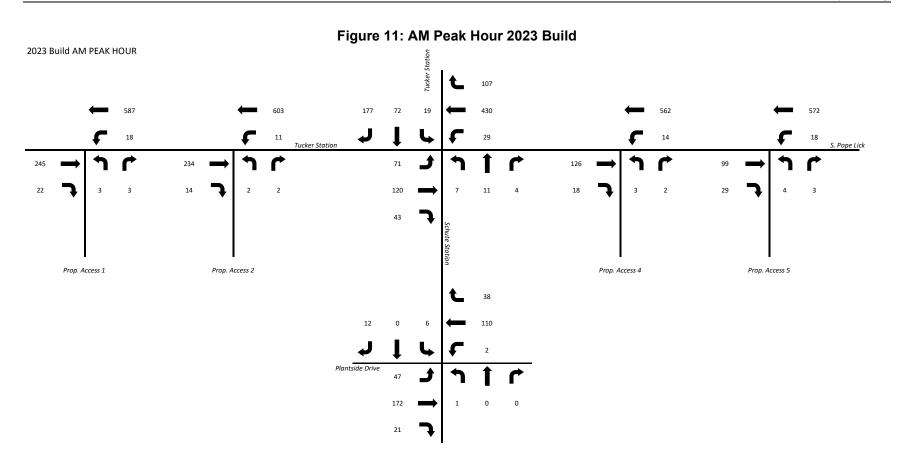
Figure 8: Area-wide Origin-Destination Trip Distribution

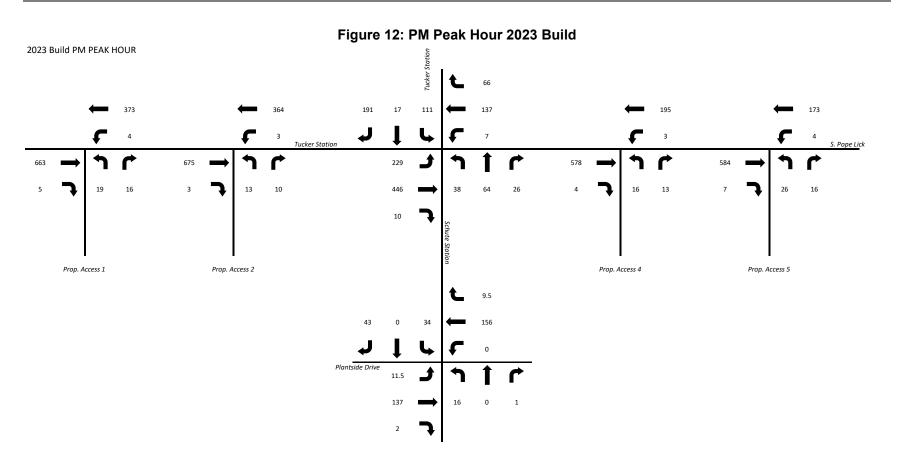


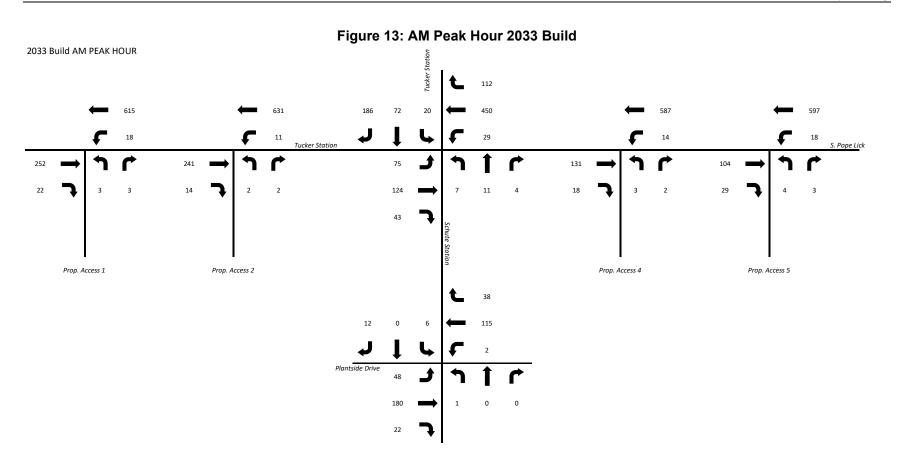


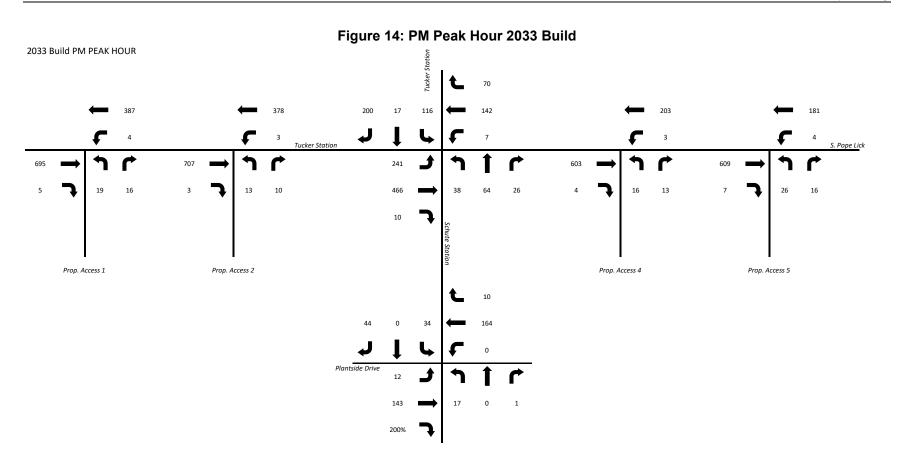












CAPACITY ANALYSIS

Capacity analysis for the no build and build scenarios was completed for the study intersections during the AM and PM peak hours using HCM methodologies as applied Synchro Capacity Software version 10. **Table 2** summarizes the LOS, and delay for the No Build and Build scenarios. Full capacity analysis output is provided in **Appendix E**.

As can be seen from the capacity analysis, all access points and the intersection of Schute Station Road and PLantside Drive are shown to operate at acceptable levels of service during all scenarios evaluated. Eastbound Tucker Station Road at S. Pope Lick Road is anticipated to operate at or near capacity under the 2023 demand, as well as all no build and build scenario during the PM peak period. The additional traffic through the intersection will push this intersection over capacity, with the eastbound approach operating at LOS F under the Build Condition. Providing dedicated left turn lanes for all approaches at this intersection, improves the LOS to 'D' with minimal delay of 24.6 seconds during the 2033 Build scenario. The eastbound approach is shown to operate at LOS E with 38.6 seconds of delay which is improved over the no build PM peak period.

TURN LANE WARRANT ANALYSIS

Auxiliary turn lane warrant analysis was conducted for all proposed access points in accordance with KYTC Auxiliary Turn Lane policy, as applied by the Warrant Calcs Interactive excel spreadsheet provided on the KYTC Division of Design website. Based on this analysis, neither a left nor right turn lane is warranted at any access point, during the 2033 AM and PM peak periods. Output from the warrant analysis is provided in **Appendix F**.

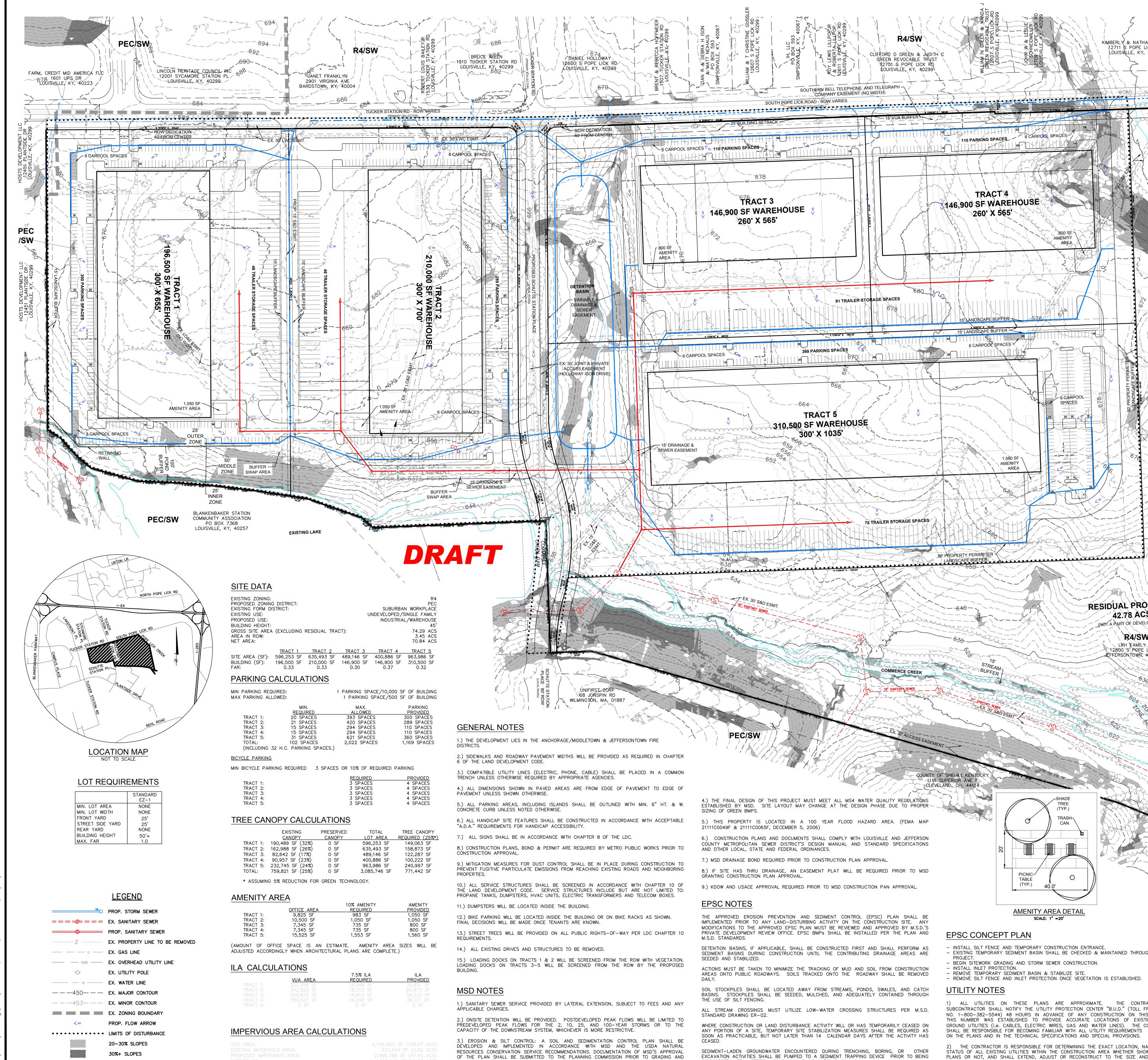
RECOMMENDATIONS

Dedicated left-turn lanes are recommended to improve operations at the intersection of Tucker Station Road and S. Pope Lick Road.

	Table 2: C								
AM PEAK HOUR			o Build	2023			lo Build		Build
	I	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
	Intersection	В	14.5	D	25.9	С	16.0	D	31.9
S. Pope Lick Road at	eastbound (Tucker Station)	A	9.8	В	12.9	В	10.1	В	13.6
Tucker Station Road	westbound (S. Pope Lick)	С	17.4	E	37.4	С	19.8	E	48.0
	northbound (Shute Station)	А	0.0	В	10.4	А	0.0	В	10.6
	southbound (Tuckjer Station)	В	10.2	В	14.2	В	10.6	С	15.1
	• • • •	,							
	Intersection	-	-	-	-	-	-	-	-
	eastbound LT (Plantside)	А	7.5	А	7.6	А	7.5	А	7.7
Schute Station at	westbound LT (Plantside)	A	7.7	A	7.7	A	7.7	A	7.6
Plantside Drive	northbound	В	10.8	B	11.9	В	10.9	В	11.7
	southbound	A	8.7	A	9.7	A	8.7	A	9.8
	SouthBound	~	0.7	~	5.7	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	0.7	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	5.0
	Intersection	- I	_	-	-	-	- I	-	- I
S. Pope Lick Rd at Access	westbound (left turn)			A	0.4	_	_	A	0.4
Point 1	northbound (Access 1)	-	-	B	13.9	-	-	B	14.3
	northbound (Access 1)	-	-	D	15.9	-	-	D	14.5
	Intersection					-	-		
S. Pope Lick Rd at Access	Intersection	-	-	-	-	-	-	-	-
Point 2	westbound (left turn)	-		A	0.3			A	0.3
	northbound (Access 1)	-	-	В	13.6	-	-	В	14.0
	lustava asti a r								
S. Pope Lick Rd at Access	Intersection	-	-	-	-	-	-	-	-
Point 4	westbound (left turn)	-	-	A	0.3	-	-	A	0.3
	northbound (Access 1)	-	-	В	12.7	-	-	В	13.0
S. Pope Lick Rd at Access	Intersection	-	-	-	-	-	-	-	-
Point 5	westbound (left turn)	-	-	A	0.4	-	-	A	0.4
	northbound (Access 1)	-	-	В	12.6	-	-	В	12.8
		2022 N	- Dutial	2022	Dutild	2022.0	a postal	2022	Durilal
PM PEAK HOUR			o Build	2023			lo Build		Build
PM PEAK HOUR	Interaction	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
PM PEAK HOUR	Intersection	LOS E	Delay 44.0	LOS F	Delay 91.3	LOS F	Delay 55.6	LOS F	Delay 109.8
PM PEAK HOUR S. Pope Lick Road at	eastbound (Tucker Station)	LOS E F	Delay 44.0 65.6	LOS F F	Delay 91.3 162.7	LOS F F	Delay 55.6 85.1	LOS F F	Delay 109.8 196.8
	eastbound (Tucker Station) westbound (S. Pope Lick)	LOS E F B	Delay 44.0 65.6 10.8	LOS F F B	Delay 91.3 162.7 14.6	LOS F F B	Delay 55.6 85.1 11.0	LOS F F C	Delay 109.8 196.8 15.1
S. Pope Lick Road at	eastbound (Tucker Station) westbound (S. Pope Lick) northbound (Shute Station)	LOS E F B A	Delay 44.0 65.6 10.8 0.0	LOS F B B	Delay 91.3 162.7 14.6 13.3	LOS F F B A	Delay 55.6 85.1 11.0 0.0	LOS F F C B	Delay 109.8 196.8 15.1 13.5
S. Pope Lick Road at	eastbound (Tucker Station) westbound (S. Pope Lick)	LOS E F B	Delay 44.0 65.6 10.8	LOS F F B	Delay 91.3 162.7 14.6	LOS F F B	Delay 55.6 85.1 11.0	LOS F F C	Delay 109.8 196.8 15.1
S. Pope Lick Road at	eastbound (Tucker Station) westbound (S. Pope Lick) northbound (Shute Station) southbound (Tuckjer Station)	LOS E F B A	Delay 44.0 65.6 10.8 0.0 15.3	LOS F F B B C	Delay 91.3 162.7 14.6 13.3	LOS F F A C	Delay 55.6 85.1 11.0 0.0 16.0	LOS F F C B	Delay 109.8 196.8 15.1 13.5
S. Pope Lick Road at	eastbound (Tucker Station) westbound (S. Pope Lick) northbound (Shute Station) southbound (Tuckjer Station)	LOS E F B A C	Delay 44.0 65.6 10.8 0.0 15.3	LOS F F B B C	Delay 91.3 162.7 14.6 13.3 20.0	LOS F F A C	Delay 55.6 85.1 11.0 0.0 16.0	LOS F C B C	Delay 109.8 196.8 15.1 13.5 21.4
S. Pope Lick Road at	eastbound (Tucker Station) westbound (S. Pope Lick) northbound (Shute Station) southbound (Tuckjer Station) Intersection eastbound LT (Plantside)	LOS E F B A C	Delay 44.0 65.6 10.8 0.0 15.3 - 7.6	LOS F F B C C	Delay 91.3 162.7 14.6 13.3 20.0 - 7.6	LOS F F B A C	Delay 55.6 85.1 11.0 0.0 16.0	LOS F C B C	Delay 109.8 196.8 15.1 13.5 21.4 - 7.6
S. Pope Lick Road at Tucker Station Road	eastbound (Tucker Station) westbound (S. Pope Lick) northbound (Shute Station) southbound (Tuckjer Station) Intersection eastbound LT (Plantside) westbound LT (Plantside)	LOS E F A C C	Delay 44.0 65.6 10.8 0.0 15.3 - 7.6 0.0	LOS F F B C C	Delay 91.3 162.7 14.6 13.3 20.0 - 7.6 0.0	LOS F F A C	Delay 55.6 85.1 11.0 0.0 16.0 - 7.6 0.0	LOS F C B C C	Delay 109.8 196.8 15.1 13.5 21.4 - 7.6 0.0
S. Pope Lick Road at Tucker Station Road	eastbound (Tucker Station) westbound (S. Pope Lick) northbound (Shute Station) southbound (Tuckjer Station) Intersection eastbound LT (Plantside)	LOS E F B A C	Delay 44.0 65.6 10.8 0.0 15.3 - 7.6	LOS F F B C C	Delay 91.3 162.7 14.6 13.3 20.0 - 7.6	LOS F F B A C	Delay 55.6 85.1 11.0 0.0 16.0	LOS F C B C	Delay 109.8 196.8 15.1 13.5 21.4 - 7.6
S. Pope Lick Road at Tucker Station Road	eastbound (Tucker Station) westbound (S. Pope Lick) northbound (Shute Station) southbound (Tuckjer Station) Intersection eastbound LT (Plantside) westbound LT (Plantside)	LOS E F A C C	Delay 44.0 65.6 10.8 0.0 15.3 - 7.6 0.0	LOS F F B C C	Delay 91.3 162.7 14.6 13.3 20.0 - 7.6 0.0	LOS F F A C	Delay 55.6 85.1 11.0 0.0 16.0 - 7.6 0.0	LOS F C B C C	Delay 109.8 196.8 15.1 13.5 21.4 - 7.6 0.0
S. Pope Lick Road at Tucker Station Road	eastbound (Tucker Station) westbound (S. Pope Lick) northbound (Shute Station) southbound (Tuckjer Station) Intersection eastbound LT (Plantside) westbound LT (Plantside) northbound southbound	LOS E F A C C	Delay 44.0 65.6 10.8 0.0 15.3 - 7.6 0.0 10.4	LOS F F B C C - A A A B	Delay 91.3 162.7 14.6 13.3 20.0 - 7.6 0.0 11.2	LOS F F A C	Delay 55.6 85.1 11.0 0.0 16.0 - 7.6 0.0 10.5	LOS F F C B C C - A A A B B	Delay 109.8 196.8 15.1 13.5 21.4 - 7.6 0.0 11.3
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S. Pope Lick Road at Tucker Station Road Schute Station at Plantside Drive	eastbound (Tucker Station) westbound (S. Pope Lick) northbound (Shute Station) southbound (Tuckjer Station) Intersection eastbound LT (Plantside) westbound LT (Plantside) northbound southbound	LOS E F B A C - A A B A - -	Delay 44.0 65.6 10.8 0.0 15.3 - 7.6 0.0 10.4 9.0	LOS F F B C C - A A B B B C	Delay 91.3 162.7 14.6 13.3 20.0 - 7.6 0.0 11.2 10.1	LOS F F B A C - A A B A - -	Delay 55.6 85.1 11.0 0.0 16.0 - 7.6 0.0 10.5 9.1	LOS F F C B C C - A A B B - -	Delay 109.8 196.8 15.1 13.5 21.4 - 7.6 0.0 11.3 10.2
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S. Pope Lick Road at Tucker Station Road Schute Station at Plantside Drive S. Pope Lick Rd at Access Point 1 S. Pope Lick Rd at Access	eastbound (Tucker Station) westbound (S. Pope Lick) northbound (Shute Station) southbound (Tuckjer Station) Intersection eastbound LT (Plantside) westbound LT (Plantside) northbound southbound Intersection westbound (left turn) northbound (Access 1)	LOS E F B A C - - A B A B A - - - - -	Delay 44.0 65.6 10.8 0.0 15.3 - 7.6 0.0 10.4 9.0 - - -	LOS F F B C - A A B B - A C	Delay 91.3 162.7 14.6 13.3 20.0 - 7.6 0.0 11.2 10.1 - 0.1 19.7	LOS F F B A C - - A A B A - - - - - - -	Delay 55.6 85.1 11.0 0.0 16.0 - 7.6 0.0 10.5 9.1 - - -	LOS F F C B C - A A B B - A C	Delay 109.8 196.8 15.1 13.5 21.4 - 7.6 0.0 11.3 10.2 - 0.1 20.8
S. Pope Lick Road at Tucker Station Road Schute Station at Plantside Drive S. Pope Lick Rd at Access Point 1	eastbound (Tucker Station) westbound (S. Pope Lick) northbound (Shute Station) southbound (Tuckjer Station) Intersection eastbound LT (Plantside) westbound LT (Plantside) northbound southbound Intersection westbound (left turn) northbound (Access 1) Intersection	LOS E F B A C - - A B A B A - - - - - - - - - - - - -	Delay 44.0 65.6 10.8 0.0 15.3 7.6 0.0 10.4 9.0 - - - -	LOS F F B B C - A A B B - A C - - A - C - - - - - - - - - - - - -	Delay 91.3 162.7 14.6 13.3 20.0 - 7.6 0.0 11.2 10.1 19.7 -	LOS F F B A C - - A A B A - - - - - - - - - - - - -	Delay 55.6 85.1 11.0 0.0 16.0 - 7.6 0.0 10.5 9.1 - - - - - - - -	LOS F F C B C C A A B B C C C C C C C C C C C C C	Delay 109.8 196.8 15.1 13.5 21.4 - 7.6 0.0 11.3 10.2 - 0.1 20.8
S. Pope Lick Road at Tucker Station Road Schute Station at Plantside Drive S. Pope Lick Rd at Access Point 1 S. Pope Lick Rd at Access	eastbound (Tucker Station) westbound (S. Pope Lick) northbound (Shute Station) southbound (Tuckjer Station) Intersection eastbound LT (Plantside) westbound LT (Plantside) northbound southbound Intersection westbound (left turn) northbound (Access 1) Intersection westbound (left turn)	LOS E F B A C - - A B A B A - - - - - - - - - - - - -	Delay 44.0 65.6 10.8 0.0 15.3 - 7.6 0.0 10.4 9.0 - - - - -	LOS F F B C - A A B B - A C - A C	Delay 91.3 162.7 14.6 13.3 20.0 - 7.6 0.0 11.2 10.1 - 0.1 19.7 - 0.1	LOS F F B A C - - A A B A - - - - - - - - - - - -	Delay 55.6 85.1 11.0 0.0 16.0 - 7.6 0.0 10.5 9.1 - - - - - - - -	LOS F F C B C C A A B B - A C - A A C	Delay 109.8 196.8 15.1 13.5 21.4 - 7.6 0.0 11.3 10.2 - 0.1 20.8
S. Pope Lick Road at Tucker Station Road Schute Station at Plantside Drive S. Pope Lick Rd at Access Point 1 S. Pope Lick Rd at Access Point 2	eastbound (Tucker Station) westbound (S. Pope Lick) northbound (Shute Station) southbound (Tuckjer Station) Intersection eastbound LT (Plantside) westbound LT (Plantside) northbound southbound Intersection westbound (left turn) northbound (Access 1) Intersection westbound (left turn)	LOS E F B A C - - A B A B A - - - - - - - - - - - - -	Delay 44.0 65.6 10.8 0.0 15.3 - 7.6 0.0 10.4 9.0 - - - - -	LOS F F B C - A A B B - A C - A C	Delay 91.3 162.7 14.6 13.3 20.0 - 7.6 0.0 11.2 10.1 - 0.1 19.7 - 0.1	LOS F F B A C - - A A B A - - - - - - - - - - - -	Delay 55.6 85.1 11.0 0.0 16.0 - 7.6 0.0 10.5 9.1 - - - - - - - -	LOS F F C B C C A A B B - A C - A A C	Delay 109.8 196.8 15.1 13.5 21.4 - 7.6 0.0 11.3 10.2 - 0.1 20.8
S. Pope Lick Road at Tucker Station Road Schute Station at Plantside Drive S. Pope Lick Rd at Access Point 1 S. Pope Lick Rd at Access Point 2 S. Pope Lick Rd at Access	eastbound (Tucker Station) westbound (S. Pope Lick) northbound (Shute Station) southbound (Tuckjer Station) Intersection eastbound LT (Plantside) westbound LT (Plantside) northbound southbound Intersection westbound (left turn) northbound (Access 1) Intersection westbound (left turn) northbound (Access 1)	LOS E F B A C - - A B A B A - - - - - - - - - -	Delay 44.0 65.6 10.8 0.0 15.3 - 7.6 0.0 10.4 9.0 - - - - - - - -	LOS F F B B C - A A B B - A C - A C - A C	Delay 91.3 162.7 14.6 13.3 20.0 - 7.6 0.0 11.2 10.1 19.7 - 0.1 19.7	LOS F F B A C - - A A B A - - - - - - - - - -	Delay 55.6 85.1 11.0 0.0 16.0 7.6 0.0 10.5 9.1 - - - - - -	LOS F F C B C - A A B B - A C - A C - A C - A C - - A C - - - A - - - - - - - - - - - - -	Delay 109.8 196.8 15.1 13.5 21.4 - 7.6 0.0 11.3 10.2 - 0.1 20.8
S. Pope Lick Road at Tucker Station Road Schute Station at Plantside Drive S. Pope Lick Rd at Access Point 1 S. Pope Lick Rd at Access Point 2	eastbound (Tucker Station) westbound (S. Pope Lick) northbound (Shute Station) southbound (Tuckjer Station) Intersection eastbound LT (Plantside) westbound LT (Plantside) northbound southbound Intersection westbound (left turn) northbound (Access 1) Intersection westbound (left turn) northbound (Access 1) Intersection	LOS E F B A C - - A B A B A - - - - - - - - - -	Delay 44.0 65.6 10.8 0.0 15.3 - 7.6 0.0 10.4 9.0	LOS F F B C - A A B B - A C - A C - - A C - - - - - - - - - - - - -	Delay 91.3 162.7 14.6 13.3 20.0 - 7.6 0.0 11.2 10.1 19.7 - 0.1 19.7 - 0.1 19.1	LOS F F B A C - - A A B A - - - - - - - - - -	Delay 55.6 85.1 11.0 0.0 16.0 7.6 0.0 10.5 9.1 - - - - - -	LOS F F C B C C A A B B - A C - A C - A C - - A - - - - - - - - - - - - -	Delay 109.8 196.8 15.1 13.5 21.4 - 7.6 0.0 11.3 10.2 - 0.1 20.8 - 0.1 20.1 - 0.1 20.1
S. Pope Lick Road at Tucker Station Road Schute Station at Plantside Drive S. Pope Lick Rd at Access Point 1 S. Pope Lick Rd at Access Point 2 S. Pope Lick Rd at Access	eastbound (Tucker Station) westbound (S. Pope Lick) northbound (Shute Station) southbound (Tuckjer Station) Intersection eastbound LT (Plantside) westbound LT (Plantside) northbound southbound southbound Intersection westbound (left turn) northbound (Access 1) Intersection westbound (left turn) northbound (Access 1) Intersection westbound (left turn) northbound (Access 1)	LOS E F B A C C - A A B A B A - - - - - - - - - - - - -	Delay 44.0 65.6 10.8 0.0 15.3 - 7.6 0.0 10.4 9.0 - - - - - - - - - - - - - - - -	LOS F F B C - A A B B - A C - A C - A C	Delay 91.3 162.7 14.6 13.3 20.0 - 7.6 0.0 11.2 10.1 19.7 - 0.1 19.7 - 0.1 19.1 - 0.2	LOS F F B A C - - A A B A - - - - - - - - - - - -	Delay 55.6 85.1 11.0 0.0 16.0 - 7.6 0.0 10.5 9.1 - - - - - - - - - - - -	LOS F F C B C C A A B B C - A C - A C - A C - A A C - A A - A - A - A - A - A - A - A - A - A - A - - - - - - - - - - - - -	Delay 109.8 196.8 15.1 13.5 21.4 - 7.6 0.0 11.3 10.2 - 0.1 20.8 - 0.1 20.1 - 0.1 20.1
S. Pope Lick Road at Tucker Station Road Schute Station at Plantside Drive S. Pope Lick Rd at Access Point 1 S. Pope Lick Rd at Access Point 2 S. Pope Lick Rd at Access Point 4	eastbound (Tucker Station) westbound (S. Pope Lick) northbound (Shute Station) southbound (Tuckjer Station) Intersection eastbound LT (Plantside) westbound LT (Plantside) northbound southbound Intersection westbound (left turn) northbound (Access 1) Intersection westbound (left turn) northbound (Access 1) Intersection westbound (left turn) northbound (Access 1)	LOS E F B A C C - A A B A B A - - - - - - - - - - - - -	Delay 44.0 65.6 10.8 0.0 15.3 - 7.6 0.0 10.4 9.0 - - - - - - - - - - - - - - - -	LOS F F B C - A A B B - A C - A C - A C	Delay 91.3 162.7 14.6 13.3 20.0 - 7.6 0.0 11.2 10.1 19.7 - 0.1 19.7 - 0.1 19.1 - 0.2	LOS F F B A C - - A A B A - - - - - - - - - - - -	Delay 55.6 85.1 11.0 0.0 16.0 - 7.6 0.0 10.5 9.1 - - - - - - - - - - - -	LOS F F C B C C A A B B C - A C - A C - A C - A A C - A A - A - A - A - A - A - A - A - A - A - A - - - - - - - - - - - - -	Delay 109.8 196.8 15.1 13.5 21.4 - 7.6 0.0 11.3 10.2 - 0.1 20.8 - 0.1 20.1 - 0.1 20.1
S. Pope Lick Road at Tucker Station Road Schute Station at Plantside Drive S. Pope Lick Rd at Access Point 1 S. Pope Lick Rd at Access Point 2 S. Pope Lick Rd at Access Point 4 S. Pope Lick Rd at Access	eastbound (Tucker Station) westbound (S. Pope Lick) northbound (Shute Station) southbound (Tuckjer Station) Intersection eastbound LT (Plantside) westbound LT (Plantside) northbound southbound southbound Intersection westbound (left turn) northbound (Access 1) Intersection westbound (left turn) northbound (Access 1) Intersection westbound (left turn) northbound (Access 1) Intersection westbound (left turn) northbound (Access 1)	LOS E F B A C - - A A B A - - - - - - - - - - - - -	Delay 44.0 65.6 10.8 0.0 15.3 - 7.6 0.0 10.4 9.0	LOS F F B C - A A B B - A C - A C - A C - A C - - A C - - - - - - - - - - - - -	Delay 91.3 162.7 14.6 13.3 20.0 - 7.6 0.0 11.2 10.1 19.7 - 0.1 19.7 - 0.1 19.1 - 0.2 15.2 -	LOS F F B A C - - A A B A - - - - - - - - - - - - -	Delay 55.6 85.1 11.0 0.0 16.0 7.6 0.0 10.5 9.1 - - - - - - - - - - - - - - - - -	LOS F F C B C C A A B B B C - A C - A C - A C - A C - - A - - - - - - - - - - - - -	Delay 109.8 196.8 15.1 13.5 21.4 - 7.6 0.0 11.3 10.2 - 0.1 20.8 - 0.1 20.1 - 0.2 15.7
S. Pope Lick Road at Tucker Station Road Schute Station at Plantside Drive S. Pope Lick Rd at Access Point 1 S. Pope Lick Rd at Access Point 2 S. Pope Lick Rd at Access Point 4	eastbound (Tucker Station) westbound (S. Pope Lick) northbound (Shute Station) southbound (Tuckjer Station) Intersection eastbound LT (Plantside) westbound LT (Plantside) northbound southbound Intersection westbound (left turn) northbound (Access 1) Intersection westbound (left turn) northbound (Access 1) Intersection westbound (left turn) northbound (Access 1)	LOS E F B A C - - A A B A - - - - - - - - - - - - -	Delay 44.0 65.6 10.8 0.0 15.3 - 7.6 0.0 10.4 9.0 - - - - - - - - - - - - - - - - - - -	LOS F F B B C - A A B B - A C - A C - A C - A C - - A C - - A - - A - - - - - - - - - - - - -	Delay 91.3 162.7 14.6 13.3 20.0 - 7.6 0.0 11.2 10.1 19.7 - 0.1 19.7 - 0.1 19.1 - 0.2 15.2	LOS F F B A C - - A A B A - - - - - - - - - - - - -	Delay 55.6 85.1 11.0 0.0 16.0 7.6 0.0 10.5 9.1 - - - - - - - - - - - - - - - - -	LOS F F C B C - A A B B - A C - A C - A C - A C - - A C - - A - A - - A - - - - - - - - - - - - -	Delay 109.8 196.8 15.1 13.5 21.4 - 7.6 0.0 11.3 10.2 - 0.1 20.1 - 0.1 20.1 - 0.2 15.7

Table 2: Capacity Analysis Summary

APPENDIX A: DEVELOPMENT PLAN



Received by Planning and Design Services 09/07/2022

CONSTRUCTION ACTIVITIES.

4.) THE FINAL DESIGN OF THIS PROJECT MUST MEET ALL MS4 WATER QUALITY REGULATIONS ESTABLISHED BY MSD. SITE LAYOUT MAY CHANGE AT THE DESIGN PHASE DUE TO PROPER

6.) CONSTRUCTION PLANS AND DOCUMENTS SHALL COMPLY WITH LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT'S DESIGN MANUAL AND STANDARD SPECIFICATIONS 7.) MSD DRAINAGE BOND REQUIRED PRIOR TO CONSTRUCTION PLAN APPROVAL. 8.) IF SITE HAS THRU DRAINAGE, AN EASEMENT PLAT WILL BE REQUIRED PRIOR TO MSD

9.) KDOW AND USACE APPROVAL REQUIRED PRIOR TO MSD CONSTRUCTION PAN APPROVAL.

THE APPROVED EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) PLAN SHALL BE IMPLEMENTED PRIOR TO ANY LAND-DISTURBING ACTIVITY ON THE CONSTRUCTION SITE. ANY MODIFICATIONS TO THE APPROVED EPSC PLAN MUST BE REVIEWED AND APPROVED BY M.S.D.'S PRIVATE DEVELOPMENT REVIEW OFFICE. EPSC BMPs SHALL BE INSTALLED PER THE PLAN AND

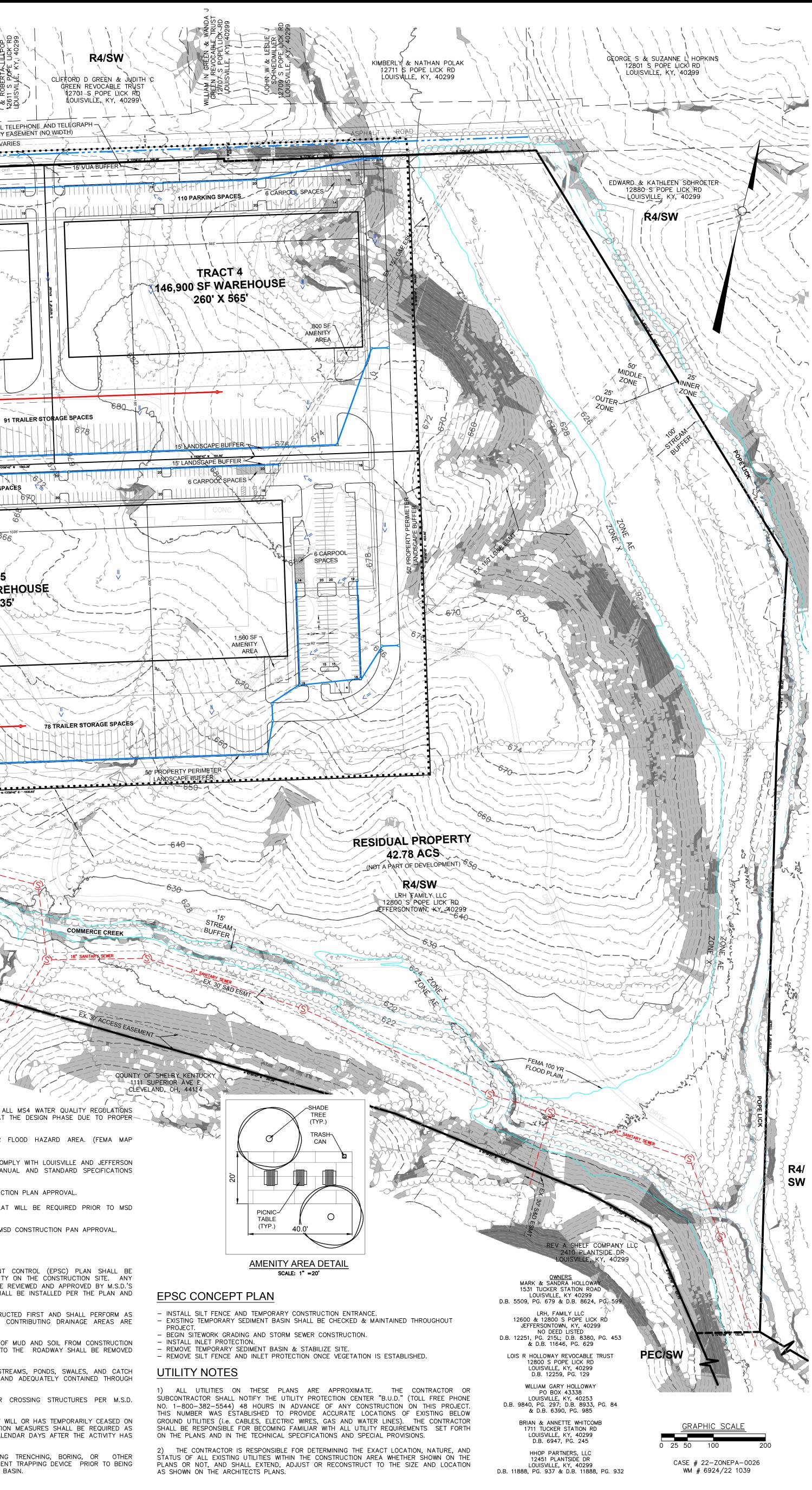
SEDIMENT BASINS DURING CONSTRUCTION UNTIL THE CONTRIBUTING DRAINAGE AREAS ARE ACTIONS MUST BE TAKEN TO MINIMIZE THE TRACKING OF MUD AND SOIL FROM CONSTRUCTION

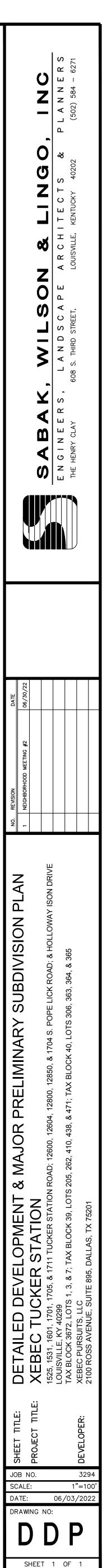
SOIL STOCKPILES SHALL BE LOCATED AWAY FROM STREAMS, PONDS, SWALES, AND CATCH BASINS. STOCKPILES SHALL BE SEEDED, MULCHED, AND ADEQUATELY CONTAINED THROUGH

ALL STREAM CROSSINGS MUST UTILIZE LOW-WATER CROSSING STRUCTURES PER M.S.D.

ANY PORTION OF A SITE, TEMPORARY SITE STABILIZATION MEASURES SHALL BE REQUIRED AS SOON AS PRACTICABLE, BUT NOT LATER THAN 14 CALENDAR DAYS AFTER THE ACTIVITY HAS

EXCAVATION ACTIVITIES SHALL BE PUMPED TO A SEDIMENT TRAPPING DEVICE PRIOR TO BEING DISCHARGED INTO A STREAM, POND, SWALE, OR CATCH BASIN.





²²⁻ZONE-0098

APPENDIX B: TRAFFIC DATA

Cummins Consulting Services, LLC swcummins@ccsdata.com 859-361-2589

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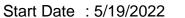
Partly Sunny Schools in Session File Name : Plantside_Drive_at_Schutte_Station_Place_05-19-2022 Site Code : Site 2 - Thursday Start Date : 5/19/2022 Page No : 1

								Groups	s Print	ed- Cars	s - Bus	es - Tr	ucks								
	S	Schutt	e Statio	on Pla	ce		Pla	ntside [Drive		Ş	Schutte	e Statio	n Plac	e		Pla	ntside	Drive		
		F	rom No	orth			F	rom Ea	st				om So	uth			F	rom W	est		
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00 AM	0	0	1	0	1	0	23	0	0	23	0	0	0	0	0	5	29	0	0	34	58
07:15 AM	0	0	0	0	0	1	14	0	0	15	1	0	0	0	1	3	28	7	0	38	54
07:30 AM	0	0	4	0	4	0	25	0	0	25	0	0	0	0	0	3	44	4	0	51	80
07:45 AM	0	0	1	0	1	1	27	0	0	28	0	0	0	0	0	0	43	6	0	49	78
Total	0	0	6	0	6	2	89	0	0	91	1	0	0	0	1	11	144	17	0	172	270
		_		_				_	_					_				_	_		
08:00 AM	0	0	1	0	1	1	25	2	0	28	0	0	0	0	0	5	38	9	0	52	81
08:15 AM	0	0	0	0	0	0	32	0	0	32	1	0	0	0	1	3	46	2	0	51	84
08:30 AM	0	0	1	0	1	0	17	0	0	17	0	0	0	0	0	1	43	0	0	44	62
08:45 AM	0	0	0	0	0	0	29		0	30	0	0	0	0	0	3	37	1	0	41	71
Total	0	0	2	0	2	1	103	3	0	107	1	0	0	0	1	12	164	12	0	188	298
04:00 PM	0	0	0	0	0	0	45	1	0	46	4	0	1	0	5	0	35	1	0	36	87
04:15 PM	2	0	3	0	5	0	35	0	0	35	1	0	0	0	1	1	42	0	0	43	84
04:30 PM	0	0	3	0	3	0	46	0	0	46	5	0	0	0	5	2	31	1	0	34	88
04:45 PM	0	0	5	0	5	0	29	0	0	29	6	0	0	0	6	0	28	0	0	28	68
Total	2	0	11	0	13	0	155	1	0	156	16	0	1	0	17	3	136	2	0	141	327
05:00 PM	0	0	1	0	1	0	53	0	0	53	1	0	1	0	2	0	31	0	0	31	87
05:15 PM	0	0	1	0	1	0	21	0	0	21	1	0	0	0	1	1	39	0	0	40	63
05:30 PM	0	0	3	0	3	0	39	0	0	39	3	0	0	0	3	0	50	0	0	50	95
05:45 PM	0	0	3	0	3	0	30	0	0	30	1	0	0	0	1	1	45	0	0	46	80
Total	0	0	8	0	8	0	143	0	0	143	6	0	1	0	7	2	165	0	0	167	325
Grand Total	2	0	27	0	29	3	490	4	0	497	24	0	2	0	26	28	609	31	0	668	1220
Apprch %	6.9	0	93.1	0		0.6	98.6	0.8	0		92.3	0	7.7	0		4.2	91.2	4.6	0		
Total %	0.2	0	2.2	0	2.4	0.2	40.2	0.3	0	40.7	2	0	0.2	0	2.1	2.3	49.9	2.5	0	54.8	
Cars	2	0	22	0	24	3	426	2	0	431	22	0	2	0	24	22	491	30	0	543	1022
% Cars	100	0	81.5	0	82.8	100	86.9	50	0	86.7	91.7	0	100	0	92.3	78.6	80.6	96.8	0	81.3	83.8
Buses	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
% Buses	0	0	0	0	0	0	0.2	0	0	0.2	0	0	0	0	0	0	0.2	0	0	0.1	0.2
Trucks	0	0	5	0	5	0	63	2	0	65	2	0	0	0	_ 2	6	117	1	0	124	196
% Trucks	0	0	18.5	0	17.2	0	12.9	50	0	13.1	8.3	0	0	0	7.7	21.4	19.2	3.2	0	18.6	16.1

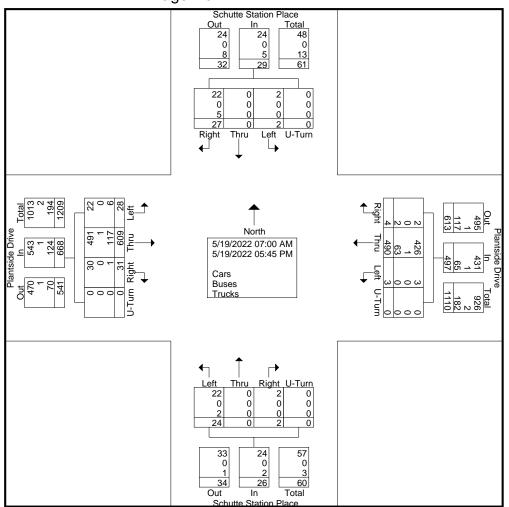
Cummins Consulting Services, LLC swcummins@ccsdata.com 859-361-2589

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File Name : Plantside_Drive_at_Schutte_Station_Place_05-19-2022 Site Code : Site 2 - Thursday



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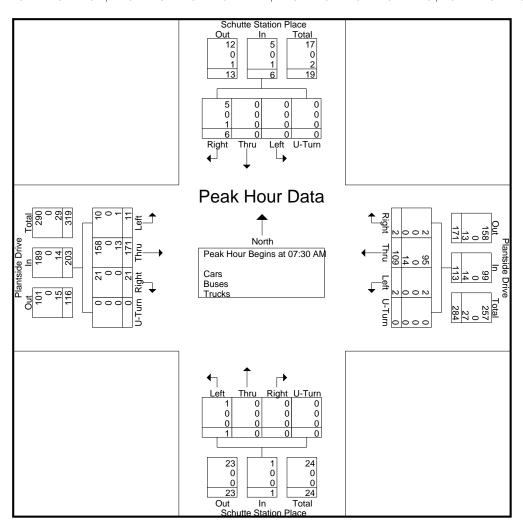
Cummins Consulting Services, LLC

swcummins@ccsdata.com 859-361-2589

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File Name : Plantside_Drive_at_Schutte_Station_Place_05-19-2022 Site Code : Site 2 - Thursday Start Date : 5/19/2022 Page No : 3

	S	Schutte Station Place Plantside Drive From North From East							5	Schutte	e Statio	on Plac	e		Pla	ntside l	Drive]		
		Fr	om No	orth			F	rom Ea	ast			Fr	om So	uth			F	rom W	est		
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Ar	nalysis	From ()7:00 A	M to 11	1:45 AN	I - Peal	k 1 of 1														
Peak Hour for	r Entire	Inters	ection	Begins	at 07:30	D AM															
07:30 AM	0	0	4	0	4	0	25	0	0	25	0	0	0	0	0	3	44	4	0	51	80
07:45 AM	0	0	1	0	1	1	27	0	0	28	0	0	0	0	0	0	43	6	0	49	78
08:00 AM	0	0	1	0	1	1	25	2	0	28	0	0	0	0	0	5	38	9	0	52	81
08:15 AM	0	0	0	0	0	0	32	0	0	32	1	0	0	0	1	3	46	2	0	51	84
Total Volume	0	0	6	0	6	2	109	2	0	113	1	0	0	0	1	11	171	21	0	203	323
% App. Total	0	0	100	0		1.8	96.5	1.8	0		100	0	0	0		5.4	84.2	10.3	0		
PHF	.000	.000	.375	.000	.375	.500	.852	.250	.000	.883	.250	.000	.000	.000	.250	.550	.929	.583	.000	.976	.961
Cars	0	0	5	0	5	2	95	2	0	99	1	0	0	0	1	10	158	21	0	189	294
% Cars	0	0	83.3	0	83.3	100	87.2	100	0	87.6	100	0	0	0	100	90.9	92.4	100	0	93.1	91.0
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
Trucks	0	0	1	0	1	0	14	0	0	14	0	0	0	0	0	1	13	0	0	14	29
% Trucks	0	0	16.7	0	16.7	0	12.8	0	0	12.4	0	0	0	0	0	9.1	7.6	0	0	6.9	9.0



Cummins Consulting Services, LLC

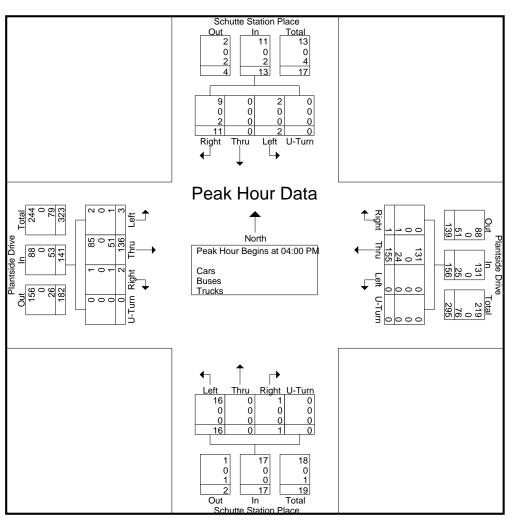
swcummins@ccsdata.com 859-361-2589

"2022 ... Data Collection simplified"

File Name : Plantside_Drive_at_Schutte_Station_Place_05-19-2022 Site Code : Site 2 - Thursday Start Date : 5/19/2022

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	ę		e Statio		e		Plantside Drive From East				ŝ		e Statio		e			ntside			
		<u> </u>	om No	orth			F	rom Ea	ast			<u> </u>	om So	uth			F	rom W	est		
Start Time	Left	Thr u	Rig ht	U-Tum	App. Total	Left	Thr u	Right	U-Turn	App. Total	Left	Thr u	Right	U-Turn	App. Total	Left	Thr u	Right	U-Turn	App. Total	Int. Total
Peak Hour Ar	nalysis	From 1	12:00 F	PM to 0	5:45 PM	l - Peal	< 1 of 1	l													
Peak Hour for	r Entire	Inters	ection	Begins	at 04:00) PM															
04:00 PM	0	0	0	0	0	0	45	1	0	46	4	0	1	0	5	0	35	1	0	36	87
04:15 PM	2	0	3	0	5	0	35	0	0	35	1	0	0	0	1	1	42	0	0	43	84
04:30 PM	0	0	3	0	3	0	46	0	0	46	5	0	0	0	5	2	31	1	0	34	88
04:45 PM	0	0	5	0	5	0	29	0	0	29	6	0	0	0	6	0	28	0	0	28	68
Total Volume	2	0	11	0	13	0	155	1	0	156	16	0	1	0	17	3	136	2	0	141	327
% App. Total	15.4	0	84.6	0		0	99.4	0.6	0		94.1	0	5.9	0		2.1	96.5	1.4	0		
PHF	.250	.000	.550	.000	.650	.000	.842	.250	.000	.848	.667	.000	.250	.000	.708	.375	.810	.500	.000	.820	.929
Cars	2	0	9	0	11	0	131	0	0	131	16	0	1	0	17	2	85	1	0	88	247
% Cars	100	0	81.8	0	84.6	0	84.5	0	0	84.0	100	0	100	0	100	66.7	62.5	50.0	0	62.4	75.5
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
Trucks	0	0	2	0	2	0	24	1	0	25	0	0	0	0	0	1	51	1	0	53	80
% Trucks	0	0	18.2	0	15.4	0	15.5	100	0	16.0	0	0	0	0	0	33.3	37.5	50.0	0	37.6	24.5



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"2022 ... Data Collection simplified"

Partly Sunny Schools in Session File Name : Tucker_Station_Road_at_Pope_Lick_Road_05-19-2022 Site Code : Site 3 - Thursday Start Date : 5/19/2022 Page No : 1

				G	roups Print	ted- Cars	- Buses -	Trucks					
	٦		ation Roa	ad			ick Road. n East				ick Road West		
Start Time	Left	Right		App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
07:00 AM	6	17	0	23	38	20	0	58	15	8	0	23	104
07:15 AM	6	40	0	46	86	19	0	105	13	13	0	26	177
07:30 AM	7	38	0	45	84	24	0	108	22	17	0	39	192
07:45 AM	3	53	0	56	122	31	0	153	20	21	0	41	250
Total	22	148	0	170	330	94	0	424	70	59	0	129	723
08:00 AM	3	45	0	48	100	32	0	132	16	18	0	34	214
08:15 AM	3	38	0	41	68	18	0	86	15	16	0	31	158
08:30 AM	7	31	0	38	48	18	0	66	23	15	0	38	142
08:45 AM	6	20	0	26	46	11	0	57	14	5	0	19	102
Total	19	134	0	153	262	79	0	341	68	54	0	122	616
04:00 PM	22	42	0	64	20	14	0	34	45	86	0	131	229
04:15 PM	30	36	0	66	16	12	0	28	43	67	0	109	203
04:30 PM	22	36	0	58	10	9	0	26	37	111	1	149	233
04:45 PM	30	47	0	77	14	19	0	33	54	104	0	158	268
Total	104	161	0	265	67	54	0	121	178	368	1	547	933
05:00 PM	31	47	0	78	20	16	0	36	64	121	0	185	299
05:15 PM	20	45	0	65	21	21	0	42	62	93	0	155	262
05:30 PM	29	51	0	80	34	10	0	44	48	89	1	138	262
05:45 PM	21	42	0	63	18	11	0	29	38	65	0	103	195
Total	101	185	0	286	93	58	0	151	212	368	1	581	1018
Grand Total	246	628	0	874	752	285	0	1037	528	849	2	1379	3290
Apprch %	28.1	71.9	0		72.5	27.5	0		38.3	61.6	0.1		
Total %	7.5	19.1	0	26.6	22.9	8.7	0	31.5	16	25.8	0.1	41.9	
Cars	243	618	0	861	738	279	0	1017	518	839	2	1359	3237
% Cars	98.8	98.4	0	98.5	98.1	97.9	0	98.1	98.1	98.8	100	98.5	98.4
Buses	2	1	0	3	0	3	0	3	2	2	0	4	10
<u>% Buses</u> Trucks	0.8	<u>0.2</u> 9	0	0.3	<u> </u>	<u>1.1</u> 3	0	0.3	0.4	0.2	0	0.3 16	0.3
% Trucks	1 0.4	9 1.4	0	1.1	14	3 1.1	0	1.6	1.5	8 0.9	0	1.2	43 1.3
76 TTUCKS	0.4	1.4	0	1.1	1.9	1.1	0	1.0	C.I	0.9	0	1.2	1.3

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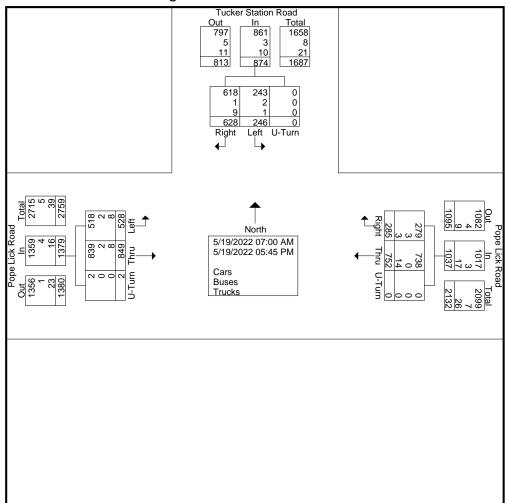
"2022 ... Data Collection simplified"

File Name : Tucker_Station_Road_at_Pope_Lick_Road_05-19-2022



Start Date : 5/19/2022

Page No : 2



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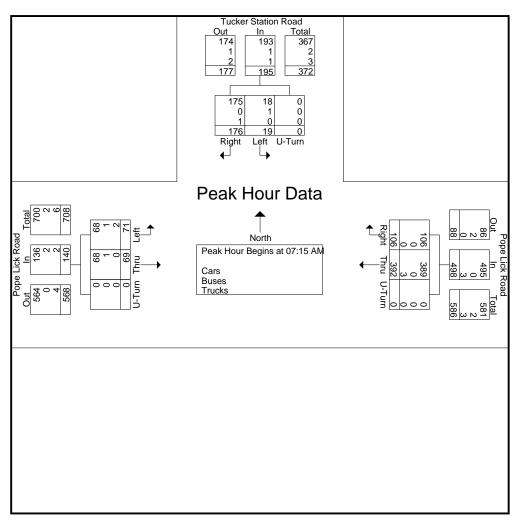
File Name : Tucker_Station_Road_at_Pope_Lick_Road_05-19-2022

Site Code : Site 3 - Thursday

Start Date : 5/19/2022

Page No : 3

	7	Fucker St	ation Roa	d		Pope L	ick Road			Pope L	ick Road		
		From	North				n East			From	n West		
Start Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis	From 07:0	0 AM to 1	11:45 AM	- Peak 1 of 1		-							
Peak Hour for Entire	e Intersectio	on Begins	s at 07:15	AM									
07:15 AM	6	40	0	46	86	19	0	105	13	13	0	26	177
07:30 AM	7	38	0	45	84	24	0	108	22	17	0	39	192
07:45 AM	3	53	0	56	122	31	0	153	20	21	0	41	250
08:00 AM	3	45	0	48	100	32	0	132	16	18	0	34	214
Total Volume	19	176	0	195	392	106	0	498	71	69	0	140	833
% App. Total	9.7	90.3	0		78.7	21.3	0		50.7	49.3	0		
PHF	.679	.830	.000	.871	.803	.828	.000	.814	.807	.821	.000	.854	.833
Cars	18	175	0	193	389	106	0	495	68	68	0	136	824
% Cars	94.7	99.4	0	99.0	99.2	100	0	99.4	95.8	98.6	0	97.1	98.9
Buses	1	0	0	1	0	0	0	0	1	1	0	2	3
% Buses	5.3	0	0	0.5	0	0	0	0	1.4	1.4	0	1.4	0.4
Trucks	0	1	0	1	3	0	0	3	2	0	0	2	6
% Trucks	0	0.6	0	0.5	0.8	0	0	0.6	2.8	0	0	1.4	0.7



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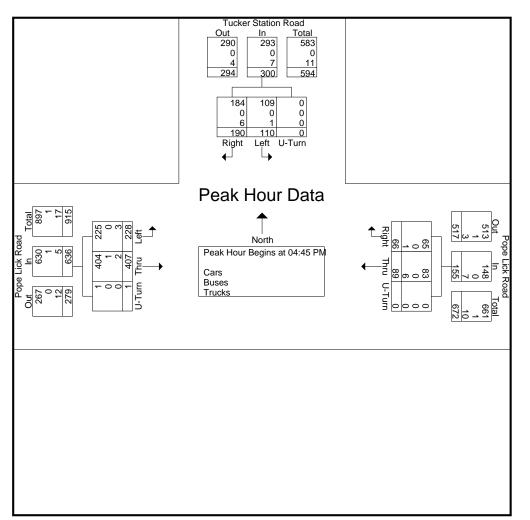
File Name : Tucker_Station_Road_at_Pope_Lick_Road_05-19-2022

Site Code : Site 3 - Thursday

Start Date : 5/19/2022

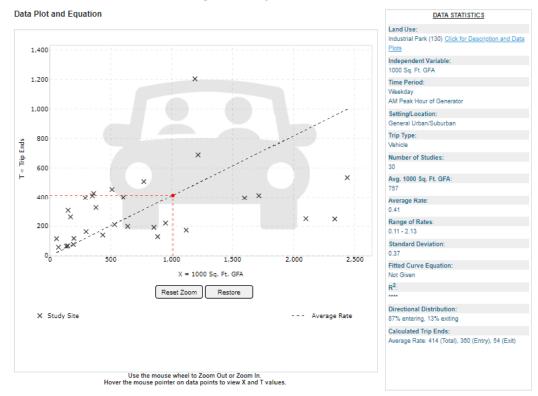
Page No : 4

	-	Tucker St		ıd			ick Road				ick Road		
		<u>⊢rom</u>	North			From	n East			<u>From</u>	Nest		
Start Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis	From 12:0	00 PM to 0)5:45 PM	- Peak 1 of 1									
Peak Hour for Entire	e Intersecti	on Begins	s at 04:45	PM .									
04:45 PM	30	47	0	77	14	19	0	33	54	104	0	158	268
05:00 PM	31	47	0	78	20	16	0	36	64	121	0	185	299
05:15 PM	20	45	0	65	21	21	0	42	62	93	0	155	262
05:30 PM	29	51	0	80	34	10	0	44	48	89	1	138	262
Total Volume	110	190	0	300	89	66	0	155	228	407	1	636	1091
% App. Total	36.7	63.3	0		57.4	42.6	0		35.8	64	0.2		
PHF	.887	.931	.000	.938	.654	.786	.000	.881	.891	.841	.250	.859	.912
Cars	109	184	0	293	83	65	0	148	225	404	1	630	1071
% Cars	99.1	96.8	0	97.7	93.3	98.5	0	95.5	98.7	99.3	100	99.1	98.2
Buses	0	0	0	0	0	0	0	0	0	1	0	1	1
% Buses	0	0	0	0	0	0	0	0	0	0.2	0	0.2	0.1
Trucks	1	6	0	7	6	1	0	7	3	2	0	5	19
% Trucks	0.9	3.2	0	2.3	6.7	1.5	0	4.5	1.3	0.5	0	0.8	1.7



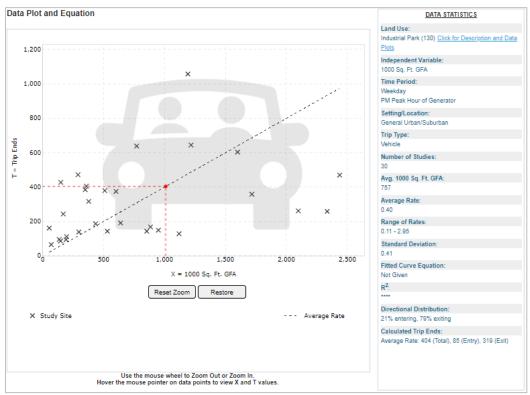
APPENDIX C: TRIP GENERATION DATA

21

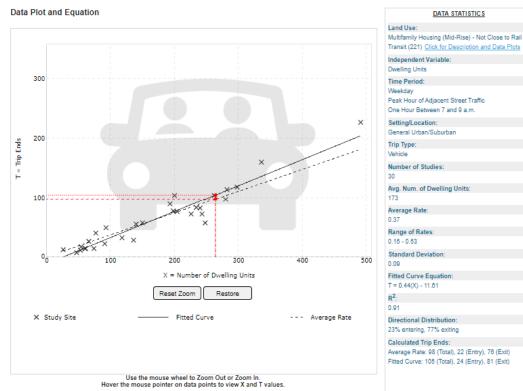


ITE Land Use Code 210 Single Family Residential (AM Peak)

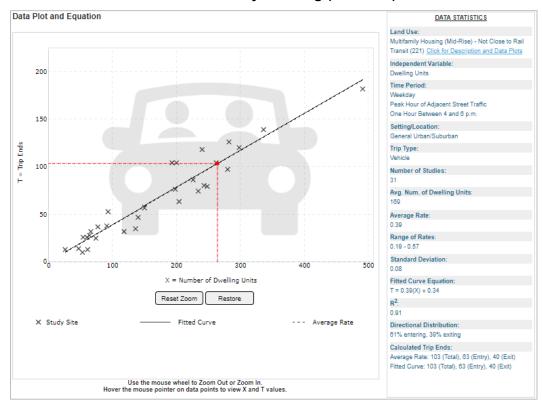








ITE Land Use Code 221 Multi Family Housing (PM Peak)



APPENDIX D: TRAFFIC FORECASTING REPORT (EXCERPT)

24

Count Year	2022	Number of Counts	4		
Opening Year	2023				
Design Year	2043	Growth Rate	0.43%		
Years Back	15				
	ffic Count on #1		affic Count ion #2		ffic Count on #3
STA ID	056L91	STA ID	XXXXXX	STA ID	XXXXXX
				Paste Count	
Year	AADT	Paste Cour Data Here	t	Data Here	
Year 2022	AADT				
CO CONTRACTO	AADT				
2022	AADT				
2022 2021	AADT				
2022 2021 2020	AADT 7155				
2022 2021 2020 2019					
2022 2021 2020 2019 2018 2017 2016	7155				
2022 2021 2020 2019 2018 2017	7155				
2022 2021 2020 2019 2018 2017 2016	7155				

Historical Traffic Volume Summary

Station Deta	ails:			Newest Co	unt:
Sta ID:	056L91	Begin MP:	2.4740	AADT:	7155
Sta Type:	Full Coverage	Begin Desc:	KY 913 (BLANKENBAKER PKWY)	Year:	2018
Map:	<u>Maplt</u>	End Mp:	2.9270	% Single:	
District:	5	End Desc:	TUCKER STATION ROAD	% Combo:	
County:	Jefferson	Impact Year:		K Factor:	13
Route:	056-CS-1002H -000	Year Added:	2012	D Factor:	66

Route Desc: BLUEGRASS PKWY

Definitions:

Sta. ID - Three digit county number + station number

MP - milepoint

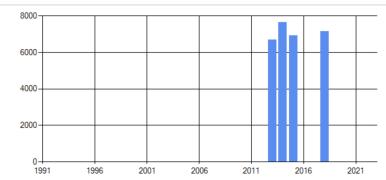
Import Year – year of significant change to traffic pattern within station segment AADT – Annual Average Daily Traffic – the annualized average 24-hour volume of vehicles on a segment of roadway

% Single - single unit truck volume as a percentage of the AADT

% Combo - combination truck volume as a percentage of the AADT

K Factor – peak hour volume as a percentage of the AADT D Factor – percentage of peak hour volume flowing in the peak direction

Year	AADT	Year	AADT	Year	AADT
2022		2012		2002	
2021		2011		2001	
2020		2010		2000	
2019		2009		1999	
2018	7155	2008		1998	
2017		2007		1997	
2016		2006		1996	
2015	6939	2005		1995	
2014	7634	2004		1994	
2013	6701	2003		1993	



APPENDIX E: CAPACITY ANALYSIS OUTPUT

26

HCM Unsignalized Intersection Capacity Analysis
3: Schute Station Rd & Tucker Station Rd & S. Pope Lick

	٠	→	7	4	+	*	1	t	1	4	Ļ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$			\$			\$	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	71	69	0	0	394	107	0	0	0	19	0	177
Future Volume (vph)	71	69	0	0	394	107	0	0	0	19	0	177
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
Hourly flow rate (vph)	77	75	0	0	428	116	0	0	0	21	0	192
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	152	544	0	213								
Volume Left (vph)	77	0	0	21								
Volume Right (vph)	0	116	0	192								
Hadj (s)	0.14	-0.09	0.00	-0.49								
Departure Headway (s)	5.3	4.6	6.0	5.1								
Degree Utilization, x	0.22	0.70	0.00	0.30								
Capacity (veh/h)	634	762	526	641								
Control Delay (s)	9.8	17.4	9.0	10.2								
Approach Delay (s)	9.8	17.4	0.0	10.2								
Approach LOS	А	С	Α	В								
Intersection Summary												
Delay			14.5									
Level of Service			В									
Intersection Capacity Utilizat	tion		56.8%	IC	U Level o	of Service			В			
Analysis Period (min)			15									

Movement EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL S Lane Configurations 齐 乔玲 齐 乔玲 录	₽ 0 6
Lane Configurations 🎽 🎋 🎁 👫	0 6
	0 6
Traffic Volume (veh/h) 11 172 21 2 110 2 1 0 0 0	
Future Volume (Veh/h) 11 172 21 2 110 2 1 0 0 0	0 6
Sign Control Free Free Stop Si	ор
Grade 0% 0% 0%	%
Peak Hour Factor 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92	92 0.92
Hourly flow rate (vph) 12 187 23 2 120 2 1 0 0 0	0 7
Pedestrians	
Lane Width (ft)	
Walking Speed (ft/s)	
Percent Blockage	
Right turn flare (veh)	
Median type None None	
Median storage veh)	
Upstream signal (ft)	
pX, platoon unblocked	
vC, conflicting volume 122 210 294 348 105 242 3	59 61
vC1, stage 1 conf vol	
vC2, stage 2 conf vol	
vCu, unblocked vol 122 210 294 348 105 242 3	59 61
tC, single (s) 4.1 4.1 7.5 6.5 6.9 7.5 (.5 6.9
tC, 2 stage (s)	
	.0 3.3
p0 queue free % 99 100 100 100 100 1	00 99
cM capacity (veh/h) 1463 1358 627 568 929 686 5	61 991
Direction, Lane # EB 1 EB 2 EB 3 WB 1 WB 2 WB 3 NB 1 SB 1	
Volume Total 12 125 85 2 80 42 1 7	
Volume Left 12 0 0 2 0 0 1 0	
Volume Right 0 0 23 0 0 2 0 7	
cSH 1463 1700 1700 1358 1700 1700 627 991	
Volume to Capacity 0.01 0.07 0.05 0.00 0.05 0.02 0.00 0.01	
Queue Length 95th (ft) 1 0 0 0 0 0 1	
Control Delay (s) 7.5 0.0 0.0 7.7 0.0 0.0 10.8 8.7	
Lane LOS A A B A	
Approach Delay (s) 0.4 0.1 10.8 8.7	
Approach LOS B A	
Intersection Summary	
Average Delay 0.5	
Intersection Capacity Utilization 17.3% ICU Level of Service A	
Analysis Period (min) 15	

XEBEC Tucker Station 09/06/2022 2023 No Build AM

	٦	→	7	4	+	*	1	Ť	1	1	ŧ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$			\$			\$	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	229	409	0	0	89	66	0	0	0	111	0	191
Future Volume (vph)	229	409	0	0	89	66	0	0	0	111	0	191
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
Hourly flow rate (vph)	249	445	0	0	97	72	0	0	0	121	0	208
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	694	169	0	329								
Volume Left (vph)	249	0	0	121								
Volume Right (vph)	0	72	0	208								
Hadj (s)	0.11	-0.22	0.00	-0.27								
Departure Headway (s)	5.3	5.7	6.9	5.8								
Degree Utilization, x	1.03	0.27	0.00	0.53								
Capacity (veh/h)	670	607	486	601								
Control Delay (s)	65.6	10.8	9.9	15.3								
Approach Delay (s)	65.6	10.8	0.0	15.3								
Approach LOS	F	В	А	С								
Intersection Summary												
Delay			44.0									
Level of Service			Е									
Intersection Capacity Utilizati	on		70.8%	IC	U Level o	of Service			С			
Analysis Period (min)			15									

Lane Configurations Image of the second		۶	+	*	4	+	*	1	1	1	4	ţ	~
Traffic Volume (veh/n) 3 137 2 0 156 1 16 0 1 2 0 111 Fruture Volume (Veh/n) 3 137 2 0 156 1 16 0 1 2 0 111 Sign Control Free Free Stop OW 0% 0% 0% 0% 0% 0% 0% 0% 092 0.92	Movement		EBT	EBR		WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (veh/n) 3 137 2 0 156 1 16 0 1 2 0 111 Future Volume (Veh/n) 3 137 2 0 156 1 16 0 1 2 0 111 Sign Control Free Stop 0%	Lane Configurations	٦	† 1>		٦	† ‡			4			4	
Sign Control Free Free Stop Stop Grade 0% 0% 0% 0% 0% 0% Grade 0.92 0.93 0.92 0.92 0.93 0.93 0.93 0.93 0.92 0.92 0.93 0.92 0.92 0.92 0.92 <td< td=""><td>Traffic Volume (veh/h)</td><td>3</td><td>137</td><td>2</td><td>0</td><td>156</td><td>1</td><td>16</td><td>0</td><td>1</td><td>2</td><td></td><td>11</td></td<>	Traffic Volume (veh/h)	3	137	2	0	156	1	16	0	1	2		11
Grade 0% 0% 0% 0% 0% Peak Hour Factor 0.92 <td< td=""><td>Future Volume (Veh/h)</td><td>3</td><td>137</td><td>2</td><td>0</td><td>156</td><td>1</td><td>16</td><td>0</td><td>1</td><td>2</td><td>0</td><td>11</td></td<>	Future Volume (Veh/h)	3	137	2	0	156	1	16	0	1	2	0	11
Peak Hour Factor 0.92	Sign Control		Free			Free			Stop			Stop	
Hourly flow rate (vph) 3 149 2 0 170 1 17 0 1 2 0 12 Pedestrians Lane Width (ft) Walking Speed (ft/s) Percent Blockage None None None None Median type None None Median type None None <td>Grade</td> <td></td> <td>0%</td> <td></td> <td></td> <td>0%</td> <td></td> <td></td> <td>0%</td> <td></td> <td></td> <td>0%</td> <td></td>	Grade		0%			0%			0%			0%	
Pedestrians Lane Width (ft) Uane Width (ft) Walking Speed (ft/s) Percent Blockage Right turn flare (veh) Median type None None Median type None None Voc, conflicting volume 171 151 253 327 76 252 328 86 vC2, stage 1 conf vol vC2, stage 1 c	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
Lane Width (ft) Walking Speed (ft/s) Percent Blockage Right turn flare (veh) Median storage veh) Upstream signal (ft) pX, platoon unblocked VC2, stage 2 conf vol VC2, vol, stage 2 conf vol V	Hourly flow rate (vph)	3	149	2	0	170	1	17	0	1	2	0	12
Walking Speed (ft/s) Percent Blockage Right turn flare (veh) None Median storage veh) None Upstream signal (ft) PX, platoon unblocked vC2, conflicting volume 171 151 253 327 76 252 328 86 vC1, stage 1 conf vol vV1, stage 1 conf vol vV2, stage 2 conf vol vV2, unblocked vol 171 4.1 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.6	Pedestrians												
Percent Blockage Right turn flare (veh) Median type None None Median storage veh) Upstream signal (ft) pX, platoon unblocked vC2, confiction yolume 171 151 253 327 76 252 328 86 vC2, confiction yolume 171 151 253 327 76 252 328 86 vC2, stage 1 conf vol vC2, stage 2 conf vol 75 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9	Lane Width (ft)												
Percent Blockage Right turn flare (veh) Median type None None Median storage veh) Upstream signal (ft) pX, platoon unblocked vC2, confiction yolume 171 151 253 327 76 252 328 86 vC2, confiction yolume 171 151 253 327 76 252 328 86 vC2, stage 1 conf vol vC2, stage 2 conf vol 75 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9	Walking Speed (ft/s)												
Median type None None Median storage veh) Upstream signal (ft) pX pX, platoon unblocked vC, conflicting volume 171 151 253 327 76 252 328 86 vC1, stage 1 conf vol vC2, stage 2 conf vol </td <td>Percent Blockage</td> <td></td>	Percent Blockage												
Median type None None Median storage veh) Upstream signal (ft) pX patcon molbocked vvc, conflicting volume 171 151 253 327 76 252 328 86 vC1, stage 1 conf vol vvc2, stage 2 conf vol vvc3 327 76 252 328 86 vC1, stage 1 conf vol vvc2, stage 2 conf vol vvc4 151 253 327 76 252 328 86 VC2, stage 2 conf vol vvc4 4.1 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.6 7.0 7.0 <t< td=""><td>Right turn flare (veh)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Right turn flare (veh)												
Median storage veh) Upstream signal (ft) pX, platoon unblocked vC, conflicting volume 171 151 253 327 76 252 328 86 vC1, stage 1 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vC1 75 6.5 6.9 7.5 6.5			None			None							
Upstream signal (ft) pX, platoon unblocked vC, conflicting volume 171 151 253 327 76 252 328 86 vC1, stage 1 conf vol vC2, stage 2 conf vol vC4 151 253 327 76 252 328 86 vC2, stage 2 conf vol vC4 151 253 327 76 252 328 86 tC, single (s) 4.1 4.1 7.5 6.5 6.9 7.5 6.5 6.9 tC, stage (s) 100 97 100													
pX, platoon unblocked vC, conflicting volume 171 151 253 327 76 252 328 86 vC1, stage 1 conf vol vc2, stage 2 conf vol vc1, unblocked vol 171 151 253 327 76 252 328 86 tC, single (s) 4.1 4.1 7.5 6.5 6.9 7.5 6.5 6.9 tf (s) 2.2 2.2 3.5 4.0 3.3 3.5 4.0 3.3 p0 queue free % 100 100 100 100 100 100 100 100 99 p1 queue free % 100 100 100 100 100 100 100 99 52 0 113 58 18 14 1404 1700 1700 1700 170 170 17 2 1404 1700 1700 1700 170 17 2 1404 1700 1700 1700 1700 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>													
vC, conflicting volume 171 151 253 327 76 252 328 86 vC1, stage 1 conf vol vC2, stage 2 conf vol vC1, stage 1 conf vol vC2, stage 2 conf vol vC1, stage 1 conf vol vC1, stage 1 conf vol vC1, stage 1 conf vol vC1, stage 2 conf vol vC1, stage 1 conf vol vC1, stage 2 conf vol													
vC1, stage 1 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vCu, unblocked vol 171 151 253 327 76 252 328 86 C, single (s) 4.1 4.1 7.5 6.5 6.9 7.5 6.5 6.9 tC, stage (s)		171			151			253	327	76	252	328	86
vC2, stage 2 conf vol vCu, unblocked vol 171 151 253 327 76 252 328 86 tC, single (s) 4.1 4.1 7.5 6.5 6.9 7.5 6.5 6.9 tC, single (s) 2.2 2.2 3.5 4.0 3.3 3.5 4.0 3.3 p0 queue free % 100 100 97 100 100 100 99 CM capacity (veh/h) 1404 1428 670 589 970 679 589 956 Direction, Lane # EB 1 EB 2 EB 3 WB 1 WB 2 WB 3 NB 1 SB 1 Volume 100 100 100 99 52 0 113 58 18 14 Volume 101 3 0 0 0 17 2 Volume 101 100													
vCu, unblocked vol 171 151 253 327 76 252 328 86 tC, single (s) 4.1 4.1 7.5 6.5 6.9 7.5 6.5 6.9 tC, 2 stage (s)													
tC, single (s) 4.1 7.5 6.5 6.9 7.5 6.5 6.9 tC, 2 stage (s) tF (s) 2.2 2.2 3.5 4.0 3.3 3.5 4.0 3.3 p0 queue free % 100 100 97 100 100 100 99 cd capacity (veh/h) 1404 1428 670 589 970 679 589 956 Direction, Lane # EB 1 EB 2 EB 3 WB 1 WB 2 WB 3 NB 1 SB 1 Volume Total 3 99 52 0 113 58 18 14 Volume Left 0 0 2 0 1 1 12 1		171			151			253	327	76	252	328	86
IC, 2 stage (s) tF (s) 2.2 2.2 3.5 4.0 3.3 3.5 4.0 3.3 p0 queue free % 100 100 97 100 100 100 99 cK capacity (veh/h) 1404 1428 670 589 970 679 589 956 Direction, Lane # EB 1 EB 2 EB 3 WB 1 WB 2 WB 3 NB 1 SB 1 SB 1 Volume Total 3 99 52 0 113 58 18 14 Volume Total 0 0 0 0 17 2 Volume Right 0 0 2 0 0 17 2 Volume Right 0 0 0 0 17 2 Volume Right 0 0 0 0 100 100 100 100 100 100 100 11 12 12 12 12 12 12 12 1404 1700 1700 1700 1700 1700 100 0.02 10 10 10 10<													
tF (s) 2.2 3.5 4.0 3.3 3.5 4.0 3.3 p0 queue free % 100 100 97 100 100 100 99 cM capacity (veh/h) 1404 1428 670 589 970 679 589 956 Direction, Lane # EB 1 EB 2 EB 3 WB 1 WB 2 WB 3 NB 1 SB 1 Volume Total 3 99 52 0 113 58 18 14 Volume Left 3 0 0 0 0 17 2 1 1 12 1													
p0 queue free % 100 100 100 100 100 100 100 100 100 100 99 cM capacity (veh/h) 1404 1428 670 589 970 679 589 956 Direction, Lane # EB 1 EB 2 EB 3 WB 1 WB 2 WB 3 NB 1 SB 1 Volume Total 3 99 52 0 113 58 18 14 Volume Left 3 0 0 0 0 17 2 Volume Right 0 0 2 0 113 58 18 14 Volume Left 3 0 0 0 0 1700 1700 170 2 Volume to Capacity 0.00 0.06 0.03 0.00 0.07 0.03 0.03 0.02 904 Volume to Capacity 0.00 0.00 0.00 0.00 0.00 0.02 1 1 12 Control Delay (s) 7.6 0.0 0.0 0.0 0.0 0		2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
CM capacity (veh/h) 1404 1428 670 589 970 679 589 956 Direction, Lane # EB 1 EB 2 EB 3 WB 1 WB 2 WB 3 NB 1 SB 1 Volume Total 3 99 52 0 113 58 18 14 Volume Left 3 0 0 0 0 17 2 Volume Right 0 0 2 0 0 1700 170 2 Volume to Capacity 0.00 0.06 0.03 0.00 0.07 0.03 0.03 0.02 Queue Length 95th (ft) 0 0 0 0 0 0 0 2 1 Control Delay (s) 7.6 0.0 0.0 0.0 0.0 10.4 9.0 Lane LOS A B A													
Direction, Lane # EB 1 EB 2 EB 3 WB 1 WB 2 WB 3 NB 1 SB 1 Volume Total 3 99 52 0 113 58 18 14 Volume Left 3 0 0 0 0 17 2 Volume Right 0 0 2 0 0 1 1 12 cSH 1404 1700 1700 1700 1700 682 904 Volume to Capacity 0.00 0.06 0.03 0.00 0.03 0.02 0 <td></td>													
Volume Left 3 0 0 0 0 17 2 Volume Right 0 0 2 0 0 1 1 12 cSH 1404 1700 1700 1700 682 904 Volume to Capacity 0.00 0.06 0.03 0.00 0.07 0.03 0.02 Queue Length 95th (ft) 0 0 0 0 0 2 1 Control Delay (s) 7.6 0.0 0.0 0.0 10.4 9.0 Lane LOS A B A Approach Delay (s) 0.1 0.0 10.4 9.0 Approach LOS B A A Intersection Summary 0.9 B A Intersection Capacity Utilization 15.1% ICU Level of Service A	Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Left 3 0 0 0 0 17 2 Volume Right 0 0 2 0 0 1 1 12 cSH 1404 1700 1700 1700 1700 682 904 Volume to Capacity 0.00 0.06 0.03 0.00 0.07 0.03 0.02 Queue Length 95th (ft) 0 0 0 0 0 2 1 Control Delay (s) 7.6 0.0 0.0 0.0 10.4 9.0 Lane LOS A B A Approach Delay (s) 0.1 0.0 10.4 9.0 Approach LOS B A A A Intersection Summary 0.9 B A Intersection Capacity Utilization 15.1% ICU Level of Service A	Volume Total	3	99	52	0	113	58	18	14				
Volume Right 0 0 2 0 0 1 1 12 cSH 1404 1700 1700 1700 1700 682 904 Volume to Capacity 0.00 0.06 0.03 0.00 0.07 0.03 0.03 0.02 Queue Length 95th (ft) 0 0 0 0 0 0 2 1 Control Delay (s) 7.6 0.0 0.0 0.0 0.0 10.4 9.0 Lane LOS A B A Approach Delay (s) 0.1 0.0 10.4 9.0 Approach LOS B A Intersection Summary 0.9 B A Average Delay 0.9 ICU Level of Service A													
cSH 1404 1700 1700 1700 1700 682 904 Volume to Capacity 0.00 0.06 0.03 0.00 0.07 0.03 0.02 Queue Length 95th (ft) 0 0 0 0 0 2 1 Control Delay (s) 7.6 0.0 0.0 0.0 10.4 9.0 Lane LOS A B A Approach Delay (s) 0.1 0.0 10.4 9.0 Approach LOS A B A Average Delay 0.9 0.9 10.4 9.0 Intersection Summary 0.9 0.9 10.4 9.0 Intersection Capacity Utilization 15.1% ICU Level of Service A													
Volume to Capacity 0.00 0.06 0.03 0.00 0.07 0.03 0.03 0.02 Queue Length 95th (ft) 0 0 0 0 0 2 1 Control Delay (s) 7.6 0.0 0.0 0.0 10.4 9.0 Lane LOS A B A Approach Delay (s) 0.1 0.0 10.4 9.0 Approach LOS A B A Intersection Summary 0.0 0.9 10.4 9.0 Intersection Capacity Utilization 15.1% ICU Level of Service A													
Queue Length 95th (ft) 0 0 0 0 0 0 2 1 Control Delay (s) 7.6 0.0 0.0 0.0 10.4 9.0 Lane LOS A B A Approach Delay (s) 0.1 0.0 10.4 9.0 Approach LOS B A Intersection Summary B Average Delay 0.9 Intersection Capacity Utilization 15.1% ICU Level of Service A													
Control Delay (s) 7.6 0.0 0.0 0.0 10.4 9.0 Lane LOS A B A Approach Delay (s) 0.1 0.0 10.4 9.0 Approach LOS B A Intersection Summary 0.9 1													
Lane LOS A B A Approach Delay (s) 0.1 0.0 10.4 9.0 Approach LOS B A Intersection Summary B A Average Delay 0.9 Intersection Capacity Utilization 15.1% ICU Level of Service A													
Approach Delay (s) 0.1 0.0 10.4 9.0 Approach LOS B A Intersection Summary Average Delay 0.9 Intersection Capacity Utilization 15.1% ICU Level of Service A			0.0	0.0	0.0	0.0	0.0						
Approach LOS B A Intersection Summary Average Delay 0.9 Intersection Capacity Utilization 15.1% ICU Level of Service A					0.0								
Average Delay 0.9 Intersection Capacity Utilization 15.1% ICU Level of Service A		0.1			0.0								
Intersection Capacity Utilization 15.1% ICU Level of Service A	Intersection Summary												
				0.9									
	Intersection Capacity Utilization	ation		15.1%	IC	U Level o	of Service			А			
	Analysis Period (min)			15									

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HCM Unsignalized Intersection Capacity Analysis
3: Schute Station Rd & Tucker Station Rd & S. Pope Lick

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$			4			4	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	75	73	0	0	414	112	0	0	0	20	0	186
Future Volume (vph)	75	73	0	0	414	112	0	0	0	20	0	186
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
Hourly flow rate (vph)	82	79	0	0	450	122	0	0	0	22	0	202
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	161	572	0	224								
Volume Left (vph)	82	0	0	22								
Volume Right (vph)	0	122	0	202								
Hadj (s)	0.14	-0.09	0.00	-0.49								
Departure Headway (s)	5.4	4.7	6.1	5.2								
Degree Utilization, x	0.24	0.74	0.00	0.32								
Capacity (veh/h)	623	754	519	628								
Control Delay (s)	10.1	19.8	9.1	10.6								
Approach Delay (s)	10.1	19.8	0.0	10.6								
Approach LOS	В	С	Α	В								
Intersection Summary												
Delay			16.0									
Level of Service			С									
Intersection Capacity Utilizat	ion		59.2%	IC	U Level o	of Service			В			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦	≜ î≽		٦	↑ ⊅			4			4.	
Traffic Volume (veh/h)	12	180	22	2	115	2	1	0	0	0	0	6
Future Volume (Veh/h)	12	180	22	2	115	2	1	0	0	0	0	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	13	196	24	2	125	2	1	0	0	0	0	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	127			220			308	365	110	254	376	64
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	127			220			308	365	110	254	376	64
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	100	100	99
cM capacity (veh/h)	1457			1346			613	556	922	673	548	988
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	13	131	89	2	83	44	1	7				
Volume Left	13	0	0	2	0	0	1	0				
Volume Right	0	0	24	0	0	2	0	7				
cSH	1457	1700	1700	1346	1700	1700	613	988				
Volume to Capacity	0.01	0.08	0.05	0.00	0.05	0.03	0.00	0.01				
Queue Length 95th (ft)	1	0	0	0	0	0	0	1				
Control Delay (s)	7.5	0.0	0.0	7.7	0.0	0.0	10.9	8.7				
Lane LOS	A			A			В	A				
Approach Delay (s)	0.4			0.1			10.9	8.7				
Approach LOS				•			В	A				
Intersection Summary												
Average Delay			0.5									
Intersection Capacity Utiliza	tion		17.3%	IC	CU Level o	of Service			А			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$			4			\$	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	241	429	0	0	94	70	0	0	0	116	0	200
Future Volume (vph)	241	429	0	0	94	70	0	0	0	116	0	200
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
Hourly flow rate (vph)	262	466	0	0	102	76	0	0	0	126	0	217
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	728	178	0	343								
Volume Left (vph)	262	0	0	126								
Volume Right (vph)	0	76	0	217								
Hadj (s)	0.11	-0.22	0.00	-0.27								
Departure Headway (s)	5.4	5.8	7.0	5.8								
Degree Utilization, x	1.09	0.28	0.00	0.56								
Capacity (veh/h)	655	600	479	600								
Control Delay (s)	85.1	11.0	10.0	16.0								
Approach Delay (s)	85.1	11.0	0.0	16.0								
Approach LOS	F	В	А	С								
Intersection Summary												
Delay			55.6									
Level of Service			F									
Intersection Capacity Utilizati	ion		73.9%	IC	U Level o	of Service			D			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦	↑ ₽		٦	†]>			4			4	
Traffic Volume (veh/h)	3	142	2	0	164	1	17	0	1	2	0	12
Future Volume (Veh/h)	3	142	2	0	164	1	17	0	1	2	0	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	3	154	2	0	178	1	18	0	1	2	0	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	179			156			263	340	78	262	340	90
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	179			156			263	340	78	262	340	90
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			97	100	100	100	100	99
cM capacity (veh/h)	1394			1422			658	579	967	667	579	951
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	3	103	53	0	119	60	19	15				
Volume Left	3	0	0	0	0	0	18	2				
Volume Right	0	0	2	0	0	1	10	13				
cSH	1394	1700	1700	1700	1700	1700	670	900				
	0.00	0.06	0.03	0.00	0.07	0.04		0.02				
Volume to Capacity							0.03 2	0.02				
Queue Length 95th (ft)	0	0	0	0	0	0						
Control Delay (s)	7.6	0.0	0.0	0.0	0.0	0.0	10.5	9.1				
Lane LOS	A			0.0			B	A				
Approach Delay (s)	0.1			0.0			10.5	9.1				_
Approach LOS							В	А				
Intersection Summary												
Average Delay			1.0									
Intersection Capacity Utilization	n		15.8%	IC	CU Level o	of Service			А			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$			4			4	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	71	120	43	29	430	107	7	11	4	19	72	177
Future Volume (vph)	71	120	43	29	430	107	7	11	4	19	72	177
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
Hourly flow rate (vph)	77	130	47	32	467	116	8	12	4	21	78	192
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	254	615	24	291								
Volume Left (vph)	77	32	8	21								
Volume Right (vph)	47	116	4	192								
Hadj (s)	-0.02	-0.07	0.00	-0.35								
Departure Headway (s)	5.9	5.3	7.0	5.9								
Degree Utilization, x	0.41	0.90	0.05	0.48								
Capacity (veh/h)	585	674	446	577								
Control Delay (s)	12.9	37.4	10.4	14.2								
Approach Delay (s)	12.9	37.4	10.4	14.2								
Approach LOS	В	E	В	В								
Intersection Summary												
Delay			25.9									
Level of Service			D									
Intersection Capacity Utilizat	tion		61.4%	IC	U Level o	of Service			В			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦	↑ Ъ		٦	† ‡			4			4	
Traffic Volume (veh/h)	47	172	21	2	110	28	1	0	0	6	0	12
Future Volume (Veh/h)	47	172	21	2	110	28	1	0	0	6	0	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	51	187	23	2	120	30	1	0	0	7	0	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	150			210			378	454	105	334	451	75
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	150			210			378	454	105	334	451	75
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			100			100	100	100	99	100	99
cM capacity (veh/h)	1429			1358			532	482	929	578	484	971
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	51	125	85	2	80	70	1	20				
Volume Left	51	0	0	2	0	0	1	7				
Volume Right	0	0	23	0	0	30	0	13				
cSH	1429	1700	1700	1358	1700	1700	532	785				
Volume to Capacity	0.04	0.07	0.05	0.00	0.05	0.04	0.00	0.03				
Queue Length 95th (ft)	3	0	0	0	0	0	0	2				
Control Delay (s)	7.6	0.0	0.0	7.7	0.0	0.0	11.8	9.7				
Lane LOS	А			А			В	А				
Approach Delay (s)	1.5			0.1			11.8	9.7				
Approach LOS							В	А				
Intersection Summary												
Average Delay			1.4									
Intersection Capacity Utilization	on		22.1%	IC	CU Level o	of Service			А			
Analysis Period (min)			15									

XEBEC Tucker Station 09/06/2022 2023 No Build AM

	-	7	1	-	1	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	ţ,			र्भ	Y		
Traffic Volume (veh/h)	245	22	18	587	3	3	
Future Volume (Veh/h)	245	22	18	587	3	3	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	266	24	20	638	3	3	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (ft)				500			
pX, platoon unblocked							
vC, conflicting volume			290		956	278	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			290		956	278	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			98		99	100	
cM capacity (veh/h)			1272		282	761	
Direction, Lane #	EB 1	WB 1	NB 1				
Volume Total	290	658	6				
Volume Left	0	20	3				
Volume Right	24	0	3				
cSH	1700	1272	411				
Volume to Capacity	0.17	0.02	0.01				
Queue Length 95th (ft)	0	1	1				
Control Delay (s)	0.0	0.4	13.9				
Lane LOS		А	В				
Approach Delay (s)	0.0	0.4	13.9				
Approach LOS			В				
Intersection Summary							
Average Delay			0.4				
Intersection Capacity Utiliz	zation		55.4%	IC	U Level c	of Service	
Analysis Period (min)			15				
			10				

	-	7	1	-	1	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	¢î			د	M		
Traffic Volume (veh/h)	234	14	11	603	2	2	
Future Volume (Veh/h)	234	14	11	603	2	2	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	254	15	12	655	2	2	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (ft)				721			
pX, platoon unblocked							
vC, conflicting volume			269		940	262	
vC1, stage 1 conf vol					0.0		
vC2, stage 2 conf vol							
vCu, unblocked vol			269		940	262	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			99		99	100	
cM capacity (veh/h)			1295		290	777	
Direction, Lane #	EB 1	WB 1	NB 1				
Volume Total	269	667	4				
Volume Left	209	12	2				
Volume Right	15	0	2				
cSH	1700	1295	422				
Volume to Capacity	0.16	0.01	0.01				
Queue Length 95th (ft)	0.10	1	1				
Control Delay (s)	0.0	0.3	13.6				
Lane LOS	0.0	0.5 A	10.0 B				
Approach Delay (s)	0.0	0.3	13.6				
Approach LOS	0.0	0.5	13.0 B				
			D				
Intersection Summary							
Average Delay			0.2			(A	
Intersection Capacity Utiliza	ation		50.5%	IC	U Level c	of Service	
Analysis Period (min)			15				

	-	7	*	-	1	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	ţ.			۹.	Y		
Traffic Volume (veh/h)	126	18	14	562	3	2	
Future Volume (Veh/h)	126	18	14	562	3	2	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	137	20	15	611	3	2	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (ft)				570			
pX, platoon unblocked				•.•			
vC, conflicting volume			157		788	147	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			157		788	147	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)					••••	.	
tF (s)			2.2		3.5	3.3	
p0 queue free %			99		99	100	
cM capacity (veh/h)			1423		356	900	
Direction, Lane #	EB 1	WB 1	NB 1				
Volume Total	157	626	5				
Volume Left	0	15	3				
Volume Right	20	0	2				
cSH	1700	1423	470				
Volume to Capacity	0.09	0.01	0.01				
Queue Length 95th (ft)	0.09	0.01	0.01				
Control Delay (s)	0.0	0.3	12.7				
Lane LOS	0.0	0.5 A	12.7 B				
	0.0	0.3	ы 12.7				
Approach Delay (s) Approach LOS	0.0	0.3	12.7 B				
			D				
Intersection Summary							
Average Delay			0.3				
Intersection Capacity Utiliza	ation		50.8%	IC	U Level c	of Service	
Analysis Period (min)			15				

	-	7	1	-	1	1
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	ţ.			د	¥	
Traffic Volume (veh/h)	99	29	18	572	4	3
Future Volume (Veh/h)	99	29	18	572	4	3
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	108	32	20	622	4	3
Pedestrians					-	-
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)	110110			1 tonio		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			140		786	124
vC1, stage 1 conf vol			110		100	
vC2, stage 2 conf vol						
vCu, unblocked vol			140		786	124
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.1	J.L
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	100
cM capacity (veh/h)			1443		356	927
	EB 1	WB 1	NB 1		000	521
Direction, Lane #						
Volume Total	140	642	7			
Volume Left	0	20	4			
Volume Right	32	0	3			
cSH	1700	1443	484			
Volume to Capacity	0.08	0.01	0.01			
Queue Length 95th (ft)	0	1	1			
Control Delay (s)	0.0	0.4	12.6			
Lane LOS		А	В			
Approach Delay (s)	0.0	0.4	12.6			
Approach LOS			В			
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utiliz	zation		51.4%	IC	U Level o	of Service
Analysis Period (min)			15			
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HCM Unsignalized Intersection Capacity Analysis
3: Schute Station Rd & Tucker Station Rd & S. Pope Lick

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$			\$			\$	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	229	446	10	7	137	66	38	64	26	111	17	191
Future Volume (vph)	229	446	10	7	137	66	38	64	26	111	17	191
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
Hourly flow rate (vph)	249	485	11	8	149	72	41	70	28	121	18	208
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	745	229	139	347								
Volume Left (vph)	249	8	41	121								
Volume Right (vph)	11	72	28	208								
Hadj (s)	0.09	-0.15	-0.03	-0.26								
Departure Headway (s)	6.2	6.7	7.4	6.5								
Degree Utilization, x	1.29	0.43	0.28	0.63								
Capacity (veh/h)	564	499	443	533								
Control Delay (s)	162.7	14.6	13.3	20.0								
Approach Delay (s)	162.7	14.6	13.3	20.0								
Approach LOS	F	В	В	С								
Intersection Summary												
Delay			91.3									
Level of Service			F									
Intersection Capacity Utiliza	ation		83.8%	IC	U Level o	of Service			E			
Analysis Period (min)			15									

	٨	+	7	•	•	*	1	Ť	1	*	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦	≜ †₽		7	† ‡			4			4	
Traffic Volume (veh/h)	12	137	2	0	156	10	16	0	1	34	0	43
Future Volume (Veh/h)	12	137	2	0	156	10	16	0	1	34	0	43
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	13	149	2	0	170	11	17	0	1	37	0	47
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	181			151			308	357	76	277	352	90
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	181			151			308	357	76	277	352	90
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			97	100	100	94	100	95
cM capacity (veh/h)	1392			1428			586	562	970	648	566	949
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	13	99	52	0	113	68	18	84				
Volume Left	13	0	0	0	0	0	17	37				
Volume Right	0	0	2	0	0	11	1	47				
cSH	1392	1700	1700	1700	1700	1700	600	788				
Volume to Capacity	0.01	0.06	0.03	0.00	0.07	0.04	0.03	0.11				
Queue Length 95th (ft)	1	0	0	0	0	0	2	9				
Control Delay (s)	7.6	0.0	0.0	0.0	0.0	0.0	11.2	10.1				
Lane LOS	A						В	В				
Approach Delay (s)	0.6			0.0			11.2	10.1				
Approach LOS							В	В				
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utiliza	ation		20.8%	IC	U Level o	of Service			А			
Analysis Period (min)			15									

XEBEC Tucker Station 09/06/2022 2023 Build PM

Lane Configurations Image: Configuration of the second secon		→	7	1	-	1	1
Lane Configurations Image: Configuration of the second secon	Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (veh/h) 663 5 4 373 19 16 Future Volume (Veh/h) 663 5 4 373 19 16 Sign Control Free Free Stop 0% 0% 0% Grade 0% 0% 0% 0% 0% 0% 0% Peak Hour Factor 0.92 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Future Volume (Veh/h) 663 5 4 373 19 16 Sign Control Free Free Stop Grade 0% <td></td> <td></td> <td>5</td> <td>4</td> <td></td> <td></td> <td>16</td>			5	4			16
Sign Control Free Free Stop Grade 0% 0% 0% 0% Grade 0% 0.92 0.92 0.92 0.92 0.92 Hourly flow rate (vph) 721 5 4 405 21 17 Pedestrians Lane Width (ft) 17 Pedestrians 17 Pedestrians Lane Width (ft) Walking Speed (ft/s) Percent Blockage 17 17 Pedestrians None None None None None Median type None None None None None None 1136 724 VC1, stage 1 conf vol vC2, stage 2 conf vol vC2, stage 1 conf vol vC2, stage 2 conf vol vC1, stage 1 conf vol 91 96 VC1, stage 1 conf vol 726 1136 724 100 91 96 C, stage 2 conf vol VC1, stage 1 conf vol 877 222 3.5 3.3 10 94 96 21 100 91							
Grade 0% 0% 0% Peak Hour Factor 0.92		Free			Free	Stop	
Hourly flow rate (vph) 721 5 4 405 21 17 Pedestrians Lane Width (ft)	Grade				0%		
Hourly flow rate (vph) 721 5 4 405 21 17 Pedestrians Lane Width (ft)			0.92	0.92			0.92
Pedestrians Lane Width (ft) Walking Speed (ft/s) Percent Blockage Right turn flare (veh) Mone Median type None Median storage veh) Upstream signal (ft) 500 pX, platoon unblocked vC, conflicting volume 726 1136 724 vC1, stage 1 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vC4. 6.4 6.2 100 91 96 6.4 6.2 100 91 96 96 93 77 222 426	Hourly flow rate (vph)		5	4			17
Walking Speed (ft/s) Percent Blockage Right turn flare (veh) Median type None Median storage veh) Upstream signal (ft) 500 px, platoon unblocked vC, conflicting volume 726 1136 724 vC1, stage 1 conf vol vC2, stage 2 conf vol vC4, unblocked vol 726 1136 724 vC1, stage 1 conf vol vC2, stage 2 conf vol vC4, unblocked vol 726 1136 724 vC1, stage 1 conf vol vC2, stage 2 conf vol vC4, unblocked vol 726 1136 724 tC, single (s) 4.1 6.4 6.2 100 91 96 tC, stage (s) 100 91 96 96 96 2.2 3.5 3.3 p0 queue free % 100 91 96 96 96 91 96 96 92 426 92 426 92 426 92 426 92 426 93 90 94 94 94 94 94 94 94 94 94 94 <t< td=""><td>Pedestrians</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Pedestrians						
Walking Speed (ft/s) Percent Blockage Right turn flare (veh) Median type None Median storage veh) Upstream signal (ft) 500 pX, platoon unblocked vC, conflicting volume vC2, stage 1 conf vol 726 1136 724 vC1, stage 1 conf vol vC2, stage 2 conf vol vC4, unblocked vol 726 1136 724 vC2, stage 2 conf vol vC4, unblocked vol 726 1136 724 41 6.4 6.2 41 6.4 6.2 41 6.4 6.2 41 6.4 6.2 41 6.4 6.2 41 6.4 6.2 41 6.4 6.2 41 6.4 6.2 41 6.4 6.2 41 6.4 6.2 41 6.4 6.2 41 6.4 6.2 41 6.4 6.2 41 6.4 6.2 41 6.4 6.2 41 6.4 6.2 41 6.4 6.2 41 6.4 6.2 41 6.4 6.2 41 6.7 426 421 <	Lane Width (ft)						
Percent Blockage None None Right turn flare (veh) Median storage veh) Upstream signal (ft) 500 ycl, solation unblocked 726 1136 724 vCr, conflicting volume 726 1136 724 vCl, stage 1 conf vol vc2, stage 2 conf vol vc2, stage 2 conf vol vc2, stage 2 conf vol vC1, stage 1 conf vol 726 1136 724 tC, single (s) 4.1 6.4 6.2 tC, single (s) 2.2 3.5 3.3 p0 queue free % 100 91 96 cM capacity (veh/h) 877 222 426 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 726 409 38 Volume Left 0 4 21 Volume Right 5 0 17 cSH 1700 877 283 Volume to Capacity 0.43 0.00 0.13 Queue Length 95th (ft) 0 11 197	()						
Right turn flare (veh) None None Median type None None Median storage veh) 500 500 Upstream signal (ft) 500 500 pX, platoon unblocked vC, conflicting volume 726 1136 724 vC1, stage 1 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vC4 6.4 6.2 tC, single (s) 4.1 6.4 6.2 tC, 2 stage (s)							
Median type None None Median storage veh) 500 Upstream signal (ft) 500 pX, platoon unblocked 726 vC, conflicting volume 726 vC1, stage 1 conf vol 726 vC2, stage 2 conf vol 726 vC1, single (s) 4.1 6.4 6.2 tC, 2 stage (s) 72 tF (s) 2.2 0 queue free % 100 100 91 96 93 cM capacity (veh/h) 877 222 426 Direction, Lane # EB 1 WB 1 Volume Total 726 409 Volume Left 0 4 Volume Right 5 0 cSH 1700 877 Queue Length 95th (ft) 0 11 Control Delay (s) 0.0 0.1 Queue Length 95th (ft) 0 11 Control Delay (s) 0.0 0.1 Approach LOS <							
Median storage veh) 500 Upstream signal (ft) 500 pX, platoon unblocked 726 1136 724 vC1, stage 1 conf vol vC2, stage 2 conf vol vC4 726 1136 724 vC2, stage 2 conf vol 726 1136 724 724 725 1136 724 vC1, stage 1 conf vol 726 1136 724 724 725 1136 724 vC1, single (s) 4.1 6.4 6.2 726 1136 724 724 72 724 724 725 724 724 724 72 724 727		None			None		
Upstream signal (ft) 500 pX, platoon unblocked vC, conflicting volume 726 1136 724 vC1, stage 1 conf vol vC2, stage 2 conf vol vC4 6.4 6.2 vC2, stage 2 conf vol 726 1136 724 724 vC2, stage 2 conf vol vC4 1136 724 726 1136 724 vC2, stage 2 conf vol vC4 1136 724 726 1136 724 vC3, stage 2 conf vol vC4 1 6.4 6.2 726 1136 724 vC1, stage (s) 4.1 6.4 6.2 726 100 91 96 vC1, stage (s) 2.2 3.5 3.3 90 90 98 77 222 426 77 Direction, Lane # EB 1 WB 1 NB 1 726 409 38 77 728 728 728 726 726 728 728 728 726 726 727 728 728							
pX, platoon unblocked vC, conflicting volume 726 1136 724 vC1, stage 1 conf vol vc2, stage 2 conf vol vc2, stage 2 conf vol vc2, stage 2 conf vol vC2, unblocked vol 726 1136 724 tC, single (s) 4.1 6.4 6.2 tC, 2 stage (s) 5 3.3 p0 p0 queue free % 100 91 96 cM capacity (veh/h) 877 222 426 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 726 409 38 Volume Left 0 4 21 Volume Right 5 0 17 cSH 1700 877 283 Volume to Capacity 0.43 0.00 0.13 Queue Length 95th (ft) 0 11 19.7 Lane LOS A C Approach LOS C Intersection Summary 0.7 10.7 10.1 Average Delay 0.7 10.1 10.2					500		
vC, conflicting volume 726 1136 724 vC1, stage 1 conf vol vC2, stage 2 conf vol vCu, unblocked vol 726 1136 724 vC2, stage 2 conf vol 726 1136 724 724 726 1136 724 tC, single (s) 4.1 6.4 6.2 6.2 726 1136 724 tC, 2 stage (s) 726 1136 724 6.4 6.2 726 1136 724 tC, 2 stage (s) 726 100 91 96 96 cM capacity (veh/h) 877 222 426 226 227 426 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 726 409 38 38 Volume Total 726 409 38 38 38 38 36 Volume Edft 0 4 21 421 421 421 421 421 421 421 421 421 421 421 421 421 421 421 421 421 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
vC1, stage 1 conf vol vC2, stage 2 conf vol vCu, unblocked vol 726 1136 724 tC, single (s) 4.1 6.4 6.2 tC, 2 stage (s) 2.2 3.5 3.3 p0 queue free % 100 91 96 cM capacity (veh/h) 877 222 426 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 726 409 38 Volume Total 726 409 38 Volume Eqft 0 4 21 Volume Right 5 0 17 cSH 1700 877 283 Volume to Capacity 0.43 0.00 0.13 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.1 19.7 Lane LOS A C Approach LOS C Intersection Summary Average Delay 0.7 ICU Level of Service				726		1136	724
vC2, stage 2 conf vol 726 1136 724 vCu, unblocked vol 726 1136 724 tC, single (s) 4.1 6.4 6.2 tC, 2 stage (s) 2.2 3.5 3.3 p0 queue free % 100 91 96 cM capacity (veh/h) 877 222 426 Direction, Lane # EB 1 WB 1 NB 1 VOlume Total 726 409 38 Volume Total 726 409 38 Volume Left 0 4 21 Volume Right 5 0 17 cSH 1700 877 283 Volume to Capacity 0.43 0.00 0.13 Queue Length 95th (ft) 0 111 Control Delay (s) 0.0 0.1 19.7 Lane LOS A C Approach Delay (s) 0.0 0.1 19.7 Approach LOS C Intersection Summary Average Delay 0.7 0.7 ICU Level of Service 1CU Level of Service							
vCu, unblocked vol 726 1136 724 tC, single (s) 4.1 6.4 6.2 tC, 2 stage (s) 2.2 3.5 3.3 p0 queue free % 100 91 96 cM capacity (veh/h) 877 222 426 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 726 409 38 Volume Left 0 4 21 Volume Right 5 0 17 cSH 1700 877 283 Volume to Capacity 0.43 0.00 0.13 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.1 19.7 Lane LOS A C Approach Delay (s) 0.0 Approach LOS C Intersection Summary 0.7 Average Delay 0.7 ICU Level of Service							
tC, single (s) 4.1 6.4 6.2 tC, 2 stage (s) 2.2 3.5 3.3 p0 queue free % 100 91 96 cM capacity (veh/h) 877 222 426 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 726 409 38 Volume Total 726 409 38 Volume Left 0 4 21 Volume Right 5 0 17 cSH 1700 877 283 Volume to Capacity 0.43 0.00 0.13 Queue Length 95th (ft) 0 11 Control Delay (s) 0.0 0.1 19.7 Lane LOS A C Approach Delay (s) 0.0 0.1 19.7 Approach LOS C Intersection Summary Average Delay 0.7 Intersection Capacity Utilization 45.2% ICU Level of Service				726		1136	724
tC, 2 stage (s) tF (s) 2.2 3.5 3.3 p0 queue free % 100 91 96 cM capacity (veh/h) 877 222 426 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 726 409 38 Volume Left 0 4 21 Volume Right 5 0 17 cSH 1700 877 283 Volume to Capacity 0.43 0.00 0.13 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.1 19.7 Lane LOS A C Approach Delay (s) 0.0 0.1 19.7 Approach LOS C Intersection Summary Average Delay 0.7 Intersection Capacity Utilization 45.2% ICU Level of Service							
tF (s) 2.2 3.5 3.3 p0 queue free % 100 91 96 cM capacity (veh/h) 877 222 426 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 726 409 38 Volume Left 0 4 21 Volume Right 5 0 17 cSH 1700 877 283 Volume to Capacity 0.43 0.00 0.13 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.1 19.7 Lane LOS A C Approach Delay (s) 0.0 0.1 19.7 Approach LOS C C Intersection Summary 0.7 ICU Level of Service							
p0 queue free % 100 91 96 cM capacity (veh/h) 877 222 426 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 726 409 38 Volume Left 0 4 21 Volume Right 5 0 17 cSH 1700 877 283 Volume to Capacity 0.43 0.00 0.13 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.1 19.7 Lane LOS A C Approach Delay (s) 0.0 0.1 19.7 Approach LOS C C Intersection Summary 0.7 ICU Level of Service				2.2		3.5	3.3
kinetic 877 222 426 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 726 409 38 Volume Left 0 4 21 Volume Right 5 0 17 cSH 1700 877 283 Volume to Capacity 0.43 0.00 0.13 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.1 19.7 Lane LOS A C Approach Delay (s) 0.0 0.1 19.7 Approach LOS C Intersection Summary Nerage Delay 0.7 Intersection Capacity Utilization 45.2% ICU Level of Service							
Direction, Lane # EB 1 WB 1 NB 1 Volume Total 726 409 38 Volume Left 0 4 21 Volume Right 5 0 17 cSH 1700 877 283 Volume to Capacity 0.43 0.00 0.13 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.1 19.7 Lane LOS A C Approach Delay (s) 0.0 0.1 19.7 Approach LOS C Intersection Summary Average Delay 0.7 ICU Level of Service							
Volume Total 726 409 38 Volume Left 0 4 21 Volume Right 5 0 17 cSH 1700 877 283 Volume to Capacity 0.43 0.00 0.13 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.1 19.7 Lane LOS A C Approach Delay (s) 0.0 0.1 19.7 Approach LOS C Intersection Summary Average Delay 0.7 Intersection Capacity Utilization 45.2%	,		\//D 1				-
Volume Left 0 4 21 Volume Right 5 0 17 cSH 1700 877 283 Volume to Capacity 0.43 0.00 0.13 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.1 19.7 Lane LOS A C Approach Delay (s) 0.0 0.1 19.7 Approach LOS C Intersection Summary Average Delay 0.7 Intersection Capacity Utilization 45.2% ICU Level of Service							
Volume Right 5 0 17 cSH 1700 877 283 Volume to Capacity 0.43 0.00 0.13 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.1 19.7 Lane LOS A C Approach Delay (s) 0.0 0.1 19.7 Approach LOS C Intersection Summary Average Delay 0.7 ICU Level of Service							
CSH 1700 877 283 Volume to Capacity 0.43 0.00 0.13 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.1 19.7 Lane LOS A C Approach Delay (s) 0.0 0.1 19.7 Approach LOS C Intersection Summary Average Delay 0.7 Intersection Capacity Utilization 45.2%							
Volume to Capacity 0.43 0.00 0.13 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.1 19.7 Lane LOS A C Approach Delay (s) 0.0 0.1 19.7 Approach LOS C Intersection Summary Average Delay 0.7 ICU Level of Service							
Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.1 19.7 Lane LOS A C Approach Delay (s) 0.0 0.1 19.7 Approach LOS C C Intersection Summary 0.7 Intersection Capacity Utilization							
Control Delay (s) 0.0 0.1 19.7 Lane LOS A C Approach Delay (s) 0.0 0.1 19.7 Approach LOS C Intersection Summary Average Delay 0.7 ICU Level of Service							
Lane LOS A C Approach Delay (s) 0.0 0.1 19.7 Approach LOS C Intersection Summary Average Delay 0.7 Intersection Capacity Utilization	•						
Approach Delay (s) 0.0 0.1 19.7 Approach LOS C Intersection Summary 0.7 Intersection Capacity Utilization 45.2% ICU Level of Service	• • •	0.0		-			
Approach LOS C Intersection Summary Average Delay 0.7 Intersection Capacity Utilization 45.2% ICU Level of Service		0.0					
Intersection Summary Average Delay 0.7 Intersection Capacity Utilization 45.2% ICU Level of Service		0.0	0.1				
Average Delay 0.7 Intersection Capacity Utilization 45.2% ICU Level of Service	Approach LUS			U.			
Intersection Capacity Utilization 45.2% ICU Level of Service							
	Average Delay						
Analysis Daried (min)		ation		45.2%	IC	CU Level c	of Service
	Analysis Period (min)			15			

	-	7	4	-	1	1
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	ţ,			र्स	Y	
Traffic Volume (veh/h)	675	3	3	364	13	10
Future Volume (Veh/h)	675	3	3	364	13	10
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	734	3	3	396	14	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				721		
pX, platoon unblocked						
vC, conflicting volume			737		1138	736
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			737		1138	736
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		94	97
cM capacity (veh/h)			869		222	419
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	737	399	25			
Volume Left	0	3	14			
Volume Right	3	0	11			
cSH	1700	869	280			
Volume to Capacity	0.43	0.00	0.09			
Queue Length 95th (ft)	0	0	7			
Control Delay (s)	0.0	0.1	19.1			
Lane LOS		А	С			
Approach Delay (s)	0.0	0.1	19.1			
Approach LOS			С			
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utiliz	ation		45.7%	IC	U Level o	of Service
Analysis Period (min)			15			
/						

	-	7	4	-	1	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	12	-211		4	Y		
Traffic Volume (veh/h)	578	4	3	195	16	13	
Future Volume (Veh/h)	578	4	3	195	16	13	
Sign Control	Free	-	-	Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	628	4	3	212	17	14	
Pedestrians			•				
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)	Tterre			1 tonio			
Upstream signal (ft)				570			
pX, platoon unblocked				010			
vC, conflicting volume			632		848	630	
vC1, stage 1 conf vol			002		0-10	000	
vC2, stage 2 conf vol							
vCu, unblocked vol			632		848	630	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)			7.1		U.7	0.2	
tF (s)			2.2		3.5	3.3	
p0 queue free %			100		95	97	
cM capacity (veh/h)			951		331	482	
,	i				001	402	
Direction, Lane #	EB 1	WB 1	NB 1				
Volume Total	632	215	31				
Volume Left	0	3	17				
Volume Right	4	0	14				
cSH	1700	951	385				
Volume to Capacity	0.37	0.00	0.08				
Queue Length 95th (ft)	0	0	7				
Control Delay (s)	0.0	0.2	15.2				
Lane LOS		А	С				
Approach Delay (s)	0.0	0.2	15.2				
Approach LOS			С				
Intersection Summary							
Average Delay			0.6				
Intersection Capacity Utiliz	ation		40.7%	IC	U Level o	of Service	
Analysis Period (min)	-		15				
			10				

	-	7	4	-	1	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	1+			ا	Y		
Traffic Volume (veh/h)	584	7	4	173	26	16	
Future Volume (Veh/h)	584	7	4	173	26	16	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	635	8	4	188	28	17	
Pedestrians		-	-				
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume			643		835	639	
vC1, stage 1 conf vol			510		000	000	
vC2, stage 2 conf vol							
vCu, unblocked vol			643		835	639	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)					5.1	J.L	
tF (s)			2.2		3.5	3.3	
p0 queue free %			100		92	96	
cM capacity (veh/h)			942		336	476	
					000		
Direction, Lane #	EB 1	WB 1	NB 1				
Volume Total	643	192	45				
Volume Left	0	4	28				
Volume Right	8	0	17				
cSH	1700	942	378				
Volume to Capacity	0.38	0.00	0.12				
Queue Length 95th (ft)	0	0	10				
Control Delay (s)	0.0	0.2	15.8				
Lane LOS		А	С				
Approach Delay (s)	0.0	0.2	15.8				
Approach LOS			С				
Intersection Summary							
Average Delay			0.9				
Intersection Capacity Utiliz	zation		41.2%	IC	U Level o	of Service	
Analysis Period (min)			15				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$			\$			4	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	75	124	43	29	450	112	7	11	4	20	72	186
Future Volume (vph)	75	124	43	29	450	112	7	11	4	20	72	186
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
Hourly flow rate (vph)	82	135	47	32	489	122	8	12	4	22	78	202
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	264	643	24	302								
Volume Left (vph)	82	32	8	22								
Volume Right (vph)	47	122	4	202								
Hadj (s)	-0.01	-0.07	0.00	-0.35								
Departure Headway (s)	6.0	5.4	7.3	6.1								
Degree Utilization, x	0.44	0.96	0.05	0.51								
Capacity (veh/h)	581	656	439	576								
Control Delay (s)	13.6	48.0	10.6	15.1								
Approach Delay (s)	13.6	48.0	10.6	15.1								
Approach LOS	В	Е	В	С								
Intersection Summary												
Delay			31.9									
Level of Service			D									
Intersection Capacity Utiliza	tion		64.8%	IC	U Level o	of Service			С			
Analysis Period (min)			15									

Movement EBL EBT EBR WBL WBR NBL NBT NBR SBL SBT SBR Lane Configurations 1 1 1 1 1 1 0 0 6 0 12 Future Volume (Veh/h) 48 160 22 2 115 38 1 0 0 6 0 12 Sign Control Free Free Stop Stop 0% 0.92		۶	+	*	1	ł	•	1	1	1	*	ţ	~
Traffic Volume (veh/h) 48 160 22 2 115 38 1 0 0 6 0 12 Future Volume (Veh/h) 48 160 22 2 115 38 1 0 0 6 0 12 Sign Control Free Free Stop Stop Stop 0%	Movement	EBL	EBT	EBR		WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Future Volume (Veh/h) 48 160 22 2 115 38 1 0 0 6 0 12 Sign Control Free Free Stop Stop <td< td=""><td>Lane Configurations</td><td>ሻ</td><td>†1></td><td></td><td>7</td><td>†Ъ</td><td></td><td></td><td>4</td><td></td><td></td><td>4</td><td></td></td<>	Lane Configurations	ሻ	† 1>		7	† Ъ			4			4	
Sign Control Free Free Stop Stop Grade 0% 13 Percent Blockage Right um flare (veh) None None None None None None VC VC <td></td> <td>48</td> <td></td> <td>22</td> <td>2</td> <td></td> <td>38</td> <td>1</td> <td>0</td> <td>0</td> <td>6</td> <td>0</td> <td>12</td>		48		22	2		38	1	0	0	6	0	12
Grade 0% 0% 0% 0% 0% Peak Hour Factor 0.92 <td< td=""><td>Future Volume (Veh/h)</td><td>48</td><td>160</td><td>22</td><td>2</td><td>115</td><td>38</td><td>1</td><td>0</td><td>0</td><td>6</td><td>0</td><td>12</td></td<>	Future Volume (Veh/h)	48	160	22	2	115	38	1	0	0	6	0	12
Peak Hour Factor 0.92 <th0.92< th=""> 0.92 0.93</th0.92<>	Sign Control		Free			Free			Stop			Stop	
Hourly flow rate (vph) 52 174 24 2 125 41 1 0 0 7 0 13 Pedestrians Lane Width (ft) Values (ft) <td>Grade</td> <td></td> <td>0%</td> <td></td> <td></td> <td>0%</td> <td></td> <td></td> <td>0%</td> <td></td> <td></td> <td>0%</td> <td></td>	Grade		0%			0%			0%			0%	
Pedestrians	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
Lane Width (ft) Walking Speed (tiks) Percent Blockage Right Lum frare (veh) Median storage veh) Upstream signal (ft) PX, platoon unblocked vC2, stage 2 conf vol vC2, stage 2 co	Hourly flow rate (vph)	52	174	24	2	125	41	1	0	0	7	0	13
Walking Speed (ft/s) Percent Blockage Right turn flare (veh) Median storage veh) Upstream signal (ft) pX, platoon unblocked vC, conflicting volume 166 166 198 370 460 99 vC, conflicting volume 166 198 370 460 99 vC, conflicting volume 166 198 370 460 99 340 452 83 vC1, stage 1 conf vol vvC, stage 2 conf vol vvCu, unblocked vol 166 198 370 460 99 340 452 83 tC1, single (s) 4.1 4.1 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 6.5 6.9 7.5 7.2 483 960 99 24.0 3.3 3.5 4.0 3.3 3.9 960 99 24.0 3.3 3.5 4.0 3.3 960 99 chast 960 99 24.0 0.411	Pedestrians												
Percent Blockage Right turn flare (veh) None None None Median type None Vision None None Vision None Vision None None Vision None None Vision None None None Vision None None <td>Lane Width (ft)</td> <td></td>	Lane Width (ft)												
Right turn flare (veh) None None Median type None None Median storage veh) Upstream signal (ft) pX, platoon unblocked vC, conflicting volume 166 198 370 460 99 340 452 83 vC1, stage 1 conf vol vC2, stage 2 conf vol vC2, stage 1 7.5 6.5 6.9 7.5 6.5 6.9 vC2, stage (s) +1 4.1 7.5 6.5 6.9 7.5 6.5 6.9 tf (s) 2.2 2.2 3.5 4.0 3.3 3.5 4.0 3.3 p0 queue free % 96 100 100 100 99 100 99 cd capacity (veh/h) 1410 1372 538 477 937 572 483 960 Direction, Lane # EB 1 EB 2 EB 3 WB 1 WB 2 WB 3 NB 1 SB 1 Volume 1 VOlume 1 17 Volume 1 Volume 1 0 0 1 7 Volume 1 17 Volume 1 10 13	Walking Speed (ft/s)												
Median type None None Median storage veh) Upstream signal (ft) yk, platoon unblocked vC, conflicting volume 166 198 370 460 99 340 452 83 vC1, stage 1 conf vol 83 70 460 99 340 452 83 vC1, stage 2 conf vol 83 70 460 99 340 452 83 tC1, stage 1 conf vol 840 452 83 tC, stage 2 conf vol 83 90 99 100 99 99 100 99 100 99 100 99 100 99 100 99 100 99 100 99 100 90 100	Percent Blockage												
Median storage veh) Upstream signal (ft) pX, platoon unblocked vC, conflicting volume 166 198 370 460 99 340 452 83 vC2, stage 1 conf vol vC2, stage 2 conf vol vC1, stage 2 con	Right turn flare (veh)												
Upstream signal (ft) pX, platoon unblocked	Median type		None			None							
pX, platoon unblocked vC, conflicting volume 166 198 370 460 99 340 452 83 vC1, stage 1 conf vol vC2, stage 2 conf vol vC1, stage 2 c	Median storage veh)												
pX, platoon unblocked vC, conflicting volume 166 198 370 460 99 340 452 83 vC1, stage 1 conf vol vC2, stage 2 conf vol vC1, stage 2 c	Upstream signal (ft)												
vC1, stage 1 conf vol vC2, stage 2 conf vol vC4, unblocked vol 166 198 370 460 99 340 452 83 tC, single (s) 4.1 4.1 7.5 6.5 6.9 7.5 6.5 6.9 tC, 2 stage (s) tF (s) 2.2 2.2 3.5 4.0 3.3 3.5 4.0 3.3 90 queue free % 96 100 100 100 100 99 100 99 cM capacity (veh/h) 1410 1372 538 477 937 572 483 960 Direction, Lane # EB 1 EB 2 EB 3 WB 1 WB 2 WB 3 NB 1 SB 1 Volume Total 52 116 82 2 83 83 1 20 Volume Left 52 0 0 2 0 0 1 7 Volume Right 0 0 24 0 0 41 0 13 cSH 1410 1700 1700 1372 1700 1700 538 776 Volume to Capacity 0.04 0.07 0.05 0.00 0.05 0.05 0.00 0.03 Queue Length 95th (ft) 3 0 0 0 0 0 0 0 2 Control Delay (s) 7.7 0.0 0.0 7.6 0.0 0.0 11.7 9.8 Lane LOS A A A B A Approach LOS A A A B A Approach LOS A A A B A Approach LOS B A Approach LOS B A													
vC1, stage 1 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vCu, unblocked vol 166 198 370 460 99 340 452 83 tC, single (s) 4.1 4.1 7.5 6.5 6.9 7.5 6.5 6.9 tC, single (s) 4.1 4.1 7.5 6.5 6.9 7.5 6.5 6.9 tC, stage (s) t 100 100 100 100 99 100 99 p0 queue free % 96 100 100 100 100 99 100 99 cM capacity (veh/h) 1410 1372 538 477 937 572 483 960 Direction, Lane # EB 1 EB 2 EB 3 WB 1 WB 2 WB 3 NB 1 SB 1 Volume Total 52 116 82 2 83 83 1 20 Volume Left 52 0 0 2 0 0 1 76 Volume to Capacity 0.4 0.07 0.05 0.05 <	vC, conflicting volume	166			198			370	460	99	340	452	83
vC2, stage 2 conf vol vCu, unblocked vol 166 198 370 460 99 340 452 83 tC, single (s) 4.1 4.1 7.5 6.5 6.9 7.5 6.5 6.9 tC, single (s) 2.2 2.2 3.5 4.0 3.3 3.5 4.0 3.3 p0 queue free % 96 100 100 100 100 99 100 99 cM capacity (veh/h) 1410 1372 538 477 937 572 483 960 Direction, Lane # EB 1 EB 2 EB 3 WB 1 WB 2 WB 3 NB 1 SB 1 VOlume Total 52 116 82 2 83 83 1 20 Volume Left 52 0 0 2 0 0 1 7 Volume Right 0 0 2 0 0 2 2 83 76 Volume Capacity 0.40 0.7 0.5 0.00 0.03 2 Control Delay (s) 7.7 0.0 0.0													
vCu, unblocked vol 166 198 370 460 99 340 452 83 tC, single (s) 4.1 4.1 7.5 6.5 6.9 7.5 6.5 6.9 tC, 2 stage (s)													
tč, 2 stage (s) tF (s) 2.2 2.2 3.5 4.0 3.3 3.5 4.0 3.3 p0 queue free % 96 100 100 100 100 99 100 99 cM capacity (veh/h) 1410 1372 538 477 937 572 483 960 Direction, Lane # EB 1 EB 2 EB 3 WB 1 WB 2 WB 3 NB 1 SB 1 SB 1 Volume Total 52 116 82 2 83 83 1 20 Volume Left 52 0 0 2 0 0 1 7 Volume Left 0 0 24 0 0 41 0 13 1 <td></td> <td>166</td> <td></td> <td></td> <td>198</td> <td></td> <td></td> <td>370</td> <td>460</td> <td>99</td> <td>340</td> <td>452</td> <td>83</td>		166			198			370	460	99	340	452	83
tC, 2 stage (s) tF (s) 2.2 2.2 3.5 4.0 3.3 3.5 4.0 3.3 p0 queue free % 96 100 100 100 100 99 100 99 cM capacity (veh/h) 1410 1372 538 477 937 572 483 960 Direction, Lane # EB 1 EB 2 EB 3 WB 1 WB 2 WB 3 NB 1 SB 1 Volume Total 52 116 82 2 83 83 1 20 20 0 1 7 1 <	tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tF (s) 2.2 3.5 4.0 3.3 3.5 4.0 3.3 p0 queue free % 96 100 100 100 100 99 100 99 cM capacity (veh/h) 1410 1372 538 477 937 572 483 960 Direction, Lane # EB 1 EB 2 EB 3 WB 1 WB 2 WB 3 NB 1 SB 1 Volume Total 52 116 82 2 83 83 1 20 Volume Left 52 0 0 2 0 0 1 7 Volume Right 0 0 24 0 0 410 13 1 1 Volume Right 0 0 24 0 0 1700 133 1 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>													
p0 queue free % 96 100 100 100 100 99 100 99 cM capacity (veh/h) 1410 1372 538 477 937 572 483 960 Direction, Lane # EB 1 EB 2 EB 3 WB 1 WB 2 WB 3 NB 1 SB 1 Volume Total 52 116 82 2 83 83 1 20 Volume Left 52 0 0 2 0 0 17 Volume Right 0 0 24 0 0 41 0 13 CSH 1410 1700 1700 1372 1700 1700 538 776 Volume to Capacity 0.04 0.07 0.05 0.00 0.05 0.00 0.03 Queue Length 95th (ft) 3 0 0 0 0 0 2 Lane LOS A A B A <td></td> <td>2.2</td> <td></td> <td></td> <td>2.2</td> <td></td> <td></td> <td>3.5</td> <td>4.0</td> <td>3.3</td> <td>3.5</td> <td>4.0</td> <td>3.3</td>		2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
cM capacity (veh/h) 1410 1372 538 477 937 572 483 960 Direction, Lane # EB 1 EB 2 EB 3 WB 1 WB 2 WB 3 NB 1 SB 1 Volume Total 52 116 82 2 83 83 1 20 Volume Left 52 0 0 2 0 0 1 7 Volume Right 0 0 24 0 0 41 0 13 CSH 1410 1700 1372 1700 1700 538 776 Volume to Capacity 0.04 0.07 0.05 0.00 0.05 0.00 0.03 Queue Length 95th (ft) 3 0 0 0 0 0 2 2 Control Delay (s) 7.7 0.0 0.0 7.6 0.0 0.0 11.7 9.8 Lane LOS A A B A 3 4 4 4 4 4 4 4 4 4 4		96			100			100	100	100	99	100	99
Volume Total 52 116 82 2 83 83 1 20 Volume Left 52 0 0 2 0 0 1 7 Volume Right 0 0 24 0 0 41 0 13 cSH 1410 1700 1372 1700 1700 538 776 Volume to Capacity 0.04 0.07 0.05 0.00 0.05 0.00 0.03 Queue Length 95th (ft) 3 0 0 0 0 2 0 0 11.7 9.8 Lane LOS A A B A A A B A Approach Delay (s) 1.6 0.1 11.7 9.8 A Approach LOS B A A A A A A A A A A A A A A A A A A A	cM capacity (veh/h)	1410			1372			538	477	937	572	483	960
Volume Left 52 0 0 2 0 0 1 7 Volume Right 0 0 24 0 0 41 0 13 cSH 1410 1700 1700 1372 1700 1700 538 776 Volume to Capacity 0.04 0.07 0.05 0.00 0.05 0.00 0.03 Queue Length 95th (ft) 3 0 0 0 0 0 2 Control Delay (s) 7.7 0.0 0.0 7.6 0.0 0.0 11.7 9.8 Lane LOS A A B A Approach Delay (s) 1.6 0.1 11.7 9.8 Approach LOS B A A B A Intersection Summary 1.4 14 14 14 14 14 Intersection Capacity Utilization 21.8% ICU Level of Service A A	Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Right 0 0 24 0 0 41 0 13 cSH 1410 1700 1700 1372 1700 1700 538 776 Volume to Capacity 0.04 0.07 0.05 0.00 0.05 0.05 0.00 0.03 Queue Length 95th (ft) 3 0 0 0 0 0 2 Control Delay (s) 7.7 0.0 0.00 7.6 0.0 0.0 11.7 9.8 Lane LOS A A B A Approach Delay (s) 1.6 0.1 11.7 9.8 Approach LOS B A B A Intersection Summary 1.4 ICU Level of Service A	Volume Total	52	116	82	2	83	83	1	20				
cSH 1410 1700 1372 1700 1700 538 776 Volume to Capacity 0.04 0.07 0.05 0.00 0.05 0.00 0.03 Queue Length 95th (ft) 3 0 0 0 0 0 2 Control Delay (s) 7.7 0.0 0.0 7.6 0.0 0.0 11.7 9.8 Lane LOS A A B A Approach Delay (s) 1.6 0.1 11.7 9.8 Approach LOS A A B A Approach LOS 1.6 0.1 11.7 9.8 Intersection Summary 1.4 14.4 14.4 14.4 Intersection Capacity Utilization 21.8% ICU Level of Service A	Volume Left	52	0	0	2	0	0	1	7				
cSH 1410 1700 1372 1700 1700 538 776 Volume to Capacity 0.04 0.07 0.05 0.00 0.05 0.00 0.03 Queue Length 95th (ft) 3 0 0 0 0 0 2 Control Delay (s) 7.7 0.0 0.0 7.6 0.0 0.0 11.7 9.8 Lane LOS A A B A Approach Delay (s) 1.6 0.1 11.7 9.8 Approach LOS B A A B A Approach LOS 1.6 0.1 11.7 9.8 A Average Delay 1.4 A A A A Intersection Summary 1.4 ICU Level of Service A A	Volume Right	0	0	24	0	0	41	0	13				
Queue Length 95th (ft) 3 0 0 0 0 0 2 Control Delay (s) 7.7 0.0 0.0 7.6 0.0 0.0 11.7 9.8 Lane LOS A A B A Approach Delay (s) 1.6 0.1 11.7 9.8 Approach LOS B A A A Intersection Summary 1.4 ICU Level of Service A		1410	1700	1700	1372	1700	1700	538	776				
Queue Length 95th (ft) 3 0 0 0 0 0 0 2 Control Delay (s) 7.7 0.0 0.0 7.6 0.0 0.0 11.7 9.8 Lane LOS A A B A Approach Delay (s) 1.6 0.1 11.7 9.8 Approach LOS B A A Intersection Summary Average Delay 1.4 Intersection Capacity Utilization 21.8% ICU Level of Service A	Volume to Capacity	0.04	0.07	0.05	0.00	0.05	0.05	0.00	0.03				
Control Delay (s) 7.7 0.0 0.0 7.6 0.0 11.7 9.8 Lane LOS A A B A Approach Delay (s) 1.6 0.1 11.7 9.8 Approach LOS B A Intersection Summary 1.4 Intersection Capacity Utilization 21.8% ICU Level of Service A		3	0	0	0	0	0	0	2				
Lane LOSAABAApproach Delay (s)1.60.111.79.8Approach LOSBAIntersection SummaryAverage Delay1.4Intersection Capacity Utilization21.8%ICU Level of ServiceA				0.0									
Approach Delay (s) 1.6 0.1 11.7 9.8 Approach LOS B A Intersection Summary Average Delay 1.4 Intersection Capacity Utilization 21.8% ICU Level of Service A													
Approach LOS B A Intersection Summary Average Delay 1.4 Intersection Capacity Utilization 21.8% ICU Level of Service A													
Average Delay 1.4 Intersection Capacity Utilization 21.8% ICU Level of Service A													
Intersection Capacity Utilization 21.8% ICU Level of Service A	Intersection Summary												
Intersection Capacity Utilization 21.8% ICU Level of Service A	Average Delay			1.4									
		ation		21.8%	IC	CU Level	of Service			А			
				15									

XEBEC Tucker Station 09/06/2022 2033 Build AM

	-	7	1	-	1	1
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	ţ,			र्भ	Y	
Traffic Volume (veh/h)	252	22	18	615	3	3
Future Volume (Veh/h)	252	22	18	615	3	3
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	274	24	20	668	3	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				500		
pX, platoon unblocked						
vC, conflicting volume			298		994	286
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			298		994	286
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		99	100
cM capacity (veh/h)			1263		267	753
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	298	688	6			
Volume Left	0	20	3			
Volume Right	24	0	3			
cSH	1700	1263	395			
Volume to Capacity	0.18	0.02	0.02			
Queue Length 95th (ft)	0	1	1			
Control Delay (s)	0.0	0.4	14.3			
Lane LOS		А	В			
Approach Delay (s)	0.0	0.4	14.3			
Approach LOS			В			
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utiliz	ation		56.9%	IC	U Level c	of Service
Analysis Period (min)			15			
, ,						

	-	7	*	-	1	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	ţ,			د	¥		
Traffic Volume (veh/h)	241	14	11	631	2	2	
Future Volume (Veh/h)	241	14	11	631	2	2	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	262	15	12	686	2	2	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (ft)				721			
pX, platoon unblocked							
vC, conflicting volume			277		980	270	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			277		980	270	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			99		99	100	
cM capacity (veh/h)			1286		275	769	
Direction, Lane #	EB 1	WB 1	NB 1				
Volume Total	277	698	4				
Volume Left	0	12	2				
Volume Right	15	0	2				
cSH	1700	1286	405				
Volume to Capacity	0.16	0.01	0.01				
Queue Length 95th (ft)	0	1	1				
Control Delay (s)	0.0	0.3	14.0				
Lane LOS		А	В				
Approach Delay (s)	0.0	0.3	14.0				
Approach LOS			В				
Intersection Summary							
Average Delay			0.2				
Intersection Capacity Utiliz	ation		52.0%	IC	U Level c	of Service	
Analysis Period (min)			15				

	-	7	4	-	1	1
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1			۹.	Y	
Traffic Volume (veh/h)	131	18	14	587	3	2
Future Volume (Veh/h)	131	18	14	587	3	2
Sign Control	Free			Free	Stop	_
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	142	20	15	638	3	2
Pedestrians	112	20	10	000	Ŭ	-
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)	NOTIC			NONC		
Upstream signal (ft)				570		
pX, platoon unblocked				010		
vC, conflicting volume			162		820	152
vC1, stage 1 conf vol			102		020	152
vC2, stage 2 conf vol						
vCu, unblocked vol			162		820	152
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)			7.1		0.4	0.2
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	100
cM capacity (veh/h)			1417		341	894
,					541	034
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	162	653	5			
Volume Left	0	15	3			
Volume Right	20	0	2			
cSH	1700	1417	453			
Volume to Capacity	0.10	0.01	0.01			
Queue Length 95th (ft)	0	1	1			
Control Delay (s)	0.0	0.3	13.0			
Lane LOS		А	В			
Approach Delay (s)	0.0	0.3	13.0			
Approach LOS			В			
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utiliz	zation		52.1%	IC	U Level o	of Service
Analysis Period (min)			15			

	-	7	*	-	1	1
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	f,			د	¥	
Traffic Volume (veh/h)	104	29	18	597	4	3
Future Volume (Veh/h)	104	29	18	597	4	3
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	113	32	20	649	4	3
Pedestrians				• • •		Ū
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)	rtente			110110		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			145		818	129
vC1, stage 1 conf vol			110		010	120
vC2, stage 2 conf vol						
vCu, unblocked vol			145		818	129
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					0.1	0.2
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	100
cM capacity (veh/h)			1437		341	921
Direction, Lane #	EB 1	WB 1	NB 1		•	021
Volume Total	145	669	7			
Volume Left	0	20	4			
	32	20	4			
Volume Right cSH	1700	1437	467			
	0.09	0.01	0.01			
Volume to Capacity		0.01	0.01			
Queue Length 95th (ft)	0					
Control Delay (s)	0.0	0.4	12.8			
Lane LOS	0.0	A	B			
Approach Delay (s)	0.0	0.4	12.8			
Approach LOS			В			
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilizat	tion		53.0%	IC	U Level c	of Service
Analysis Period (min)			15			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$			4			4	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	241	466	10	7	142	70	38	64	26	116	17	200
Future Volume (vph)	241	466	10	7	142	70	38	64	26	116	17	200
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
Hourly flow rate (vph)	262	507	11	8	154	76	41	70	28	126	18	217
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	780	238	139	361								
Volume Left (vph)	262	8	41	126								
Volume Right (vph)	11	76	28	217								
Hadj (s)	0.09	-0.15	-0.03	-0.26								
Departure Headway (s)	6.3	6.8	7.5	6.6								
Degree Utilization, x	1.37	0.45	0.29	0.66								
Capacity (veh/h)	571	496	436	530								
Control Delay (s)	196.8	15.1	13.5	21.4								
Approach Delay (s)	196.8	15.1	13.5	21.4								
Approach LOS	F	С	В	С								
Intersection Summary												
Delay			109.8									
Level of Service			F									
Intersection Capacity Utiliza	ition		86.9%	IC	U Level o	of Service			Е			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦	† 1>		7	↑ ⊅			4			4	
Traffic Volume (veh/h)	12	143	2	0	164	10	17	0	1	34	0	44
Future Volume (Veh/h)	12	143	2	0	164	10	17	0	1	34	0	44
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	13	155	2	0	178	11	18	0	1	37	0	48
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	189			157			319	371	78	288	366	94
vC1, stage 1 conf vol							0.0	••••				• •
vC2, stage 2 conf vol												
vCu, unblocked vol	189			157			319	371	78	288	366	94
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							1.0	0.0	0.0	7.0	0.0	0.0
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			97	100	100	94	100	95
cM capacity (veh/h)	1382			1420			575	552	966	637	555	944
,									300	007	555	544
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	13	103	54	0	119	70	19	85				
Volume Left	13	0	0	0	0	0	18	37				
Volume Right	0	0	2	0	0	11	1	48				
cSH	1382	1700	1700	1700	1700	1700	588	780				
Volume to Capacity	0.01	0.06	0.03	0.00	0.07	0.04	0.03	0.11				
Queue Length 95th (ft)	1	0	0	0	0	0	3	9				
Control Delay (s)	7.6	0.0	0.0	0.0	0.0	0.0	11.3	10.2				
Lane LOS	А						В	В				
Approach Delay (s)	0.6			0.0			11.3	10.2				
Approach LOS							В	В				
Intersection Summary												
Average Delay			2.5									
Intersection Capacity Utiliza	tion		20.8%	IC	U Level o	of Service			А			
Analysis Period (min)			15									

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	-	7	1	-	1	1
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	ţ,			र्भ	Y	
Traffic Volume (veh/h)	695	5	4	387	19	16
Future Volume (Veh/h)	695	5	4	387	19	16
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	755	5	4	421	21	17
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				500		
pX, platoon unblocked						
vC, conflicting volume			760		1186	758
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			760		1186	758
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		90	96
cM capacity (veh/h)			852		207	407
Direction, Lane #	EB 1	WB 1	NB 1		-	-
Volume Total	760	425	38			
Volume Left	0	423	21			
Volume Right	5	4	17			
cSH	1700	852	266			
Volume to Capacity	0.45	0.00	0.14			
			12			
Queue Length 95th (ft)	0	0				
Control Delay (s)	0.0	0.1	20.8			
Lane LOS	0.0	A	C			
Approach Delay (s)	0.0	0.1	20.8			
Approach LOS			С			
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utiliz	zation		46.9%	IC	U Level c	of Service
Analysis Period (min)			15			

	-	7	1	-	1	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	ţ,			د	Y		
Traffic Volume (veh/h)	707	3	3	378	13	10	
Future Volume (Veh/h)	707	3	3	378	13	10	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	768	3	3	411	14	11	
Pedestrians		-	-				
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (ft)				721			
pX, platoon unblocked							
vC, conflicting volume			771		1186	770	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			771		1186	770	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			100		93	97	
cM capacity (veh/h)			844		208	401	
Direction, Lane #	EB 1	WB 1	NB 1			-	
Volume Total	771	414	25				
Volume Left	0	3	14				
Volume Right	3	0	11				
cSH	1700	844	263				
Volume to Capacity	0.45	0.00	0.09				
Queue Length 95th (ft)	0.40	0.00	8				
Control Delay (s)	0.0	0.1	20.1				
Lane LOS	0.0	A	C				
Approach Delay (s)	0.0	0.1	20.1				
Approach LOS	0.0	0.1	C				
			U				
Intersection Summary			0.5				
Average Delay			0.5			(0	
Intersection Capacity Utiliz	ation		47.4%	IC	U Level c	of Service	
Analysis Period (min)			15				

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Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	ţ,			र्स	¥		
Traffic Volume (veh/h)	603	4	3	203	16	13	
Future Volume (Veh/h)	603	4	3	203	16	13	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	655	4	3	221	17	14	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (ft)				570			
pX, platoon unblocked							
vC, conflicting volume			659		884	657	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			659		884	657	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			100		95	97	
cM capacity (veh/h)			929		315	465	
Direction, Lane #	EB 1	WB 1	NB 1				
Volume Total	659	224	31				
Volume Left	0.09	3	17				
Volume Right	4	0	14				
cSH	1700	929	369				
Volume to Capacity	0.39	0.00	0.08				
Queue Length 95th (ft)	0.55	0.00	0.00				
Control Delay (s)	0.0	0.2	15.7				
Lane LOS	0.0	0.2 A	13.7 C				
Approach Delay (s)	0.0	0.2	15.7				
Approach LOS	0.0	0.2	15.7 C				
			U				
Intersection Summary							
Average Delay			0.6			(0 ·	
Intersection Capacity Utiliz	ation		42.0%	IC	U Level c	t Service	
Analysis Period (min)			15				

Lane Configurations Image: Configuration of the second secon		-	7	4	-	1	1
Lane Configurations Image: Configuration of the second secon	Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (veh/h) 609 7 4 181 26 16 Future Volume (Veh/h) 609 7 4 181 26 16 Sign Control Free Free Stop 16 17 Grade 0% 0% 0% 0% 0% Peak Hour Factor 0.92 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0							
Future Volume (Veh/h) 609 7 4 181 26 16 Sign Control Free Free Stop Grade 0% 1% 1% 1% 1% 1% 1% 1% 1% 0% 0% 0% 0% 0% 0% 0% 0% 0% <td></td> <td></td> <td>7</td> <td>4</td> <td></td> <td></td> <td>16</td>			7	4			16
Sign Control Free Free Stop Grade 0% 0% 0% 0% Grade 0% 0.92 0.91 0.66 0 VC1, stage 1 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vC2, stage 1 conf vol 92 320 459 0.02 16, 4 2.2 3.5							
Grade 0% 0% 0% Peak Hour Factor 0.92 0.91							
Peak Hour Factor 0.92 17 Pedestrians Lane Width (ft) Percent Blockage Filter State							
Hourly flow rate (vph) 662 8 4 197 28 17 Pedestrians Lane Width (ft)			0.92	0.92			0.92
Pedestrians Lane Width (ft) Walking Speed (ft/s) Percent Blockage Right turn flare (veh) Median type None Median storage veh) Upstream signal (ft) pX, platoon unblocked vC2, conflicting volume 670 871 666 vC1, stage 1 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vC4, unblocked vol 670 871 666 tC, single (s) 4.1 6.4 6.2 tC, stage 1 conf vol vc1 6.4 6.2 vC2, stage 2 conf vol vc2 3.5 3.3 p0 queue free % 100 91 96 cM capacity (veh/h) 920 320 459 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 670 201 45 Volume Right 8 0 17 cSH 1700 920 362 Volume to Capacity 0.39 0.00 0.12 Queue Length 95th (ft) 0 11							
Lane Width (ft) Walking Speed (ft/s) Percent Blockage Right turn flare (veh) Median type None None Median storage veh) Upstream signal (ft) pX, platoon unblocked vC, conflicting volume 670 871 666 VC1, stage 1 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vC4, unblocked vol 670 871 666 tC, single (s) 4.1 6.4 6.2 tC, 2 stage (s) tF (s) 2.2 3.5 3.3 p0 queue free % 100 91 96 cM capacity (veh/h) 920 320 459 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 670 201 45 Volume Left 0 4 28 Volume Left 0 4 28 Volume Right 8 0 17 cSH 1700 920 362 Volume to Capacity 0.39 0.00 0.12 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.2 16.4 Lane LOS A C Approach Delay (s) 0.0 0.2 16.4 Approach LOS C Intersection Summary Average Delay 0.9 Intersection Capacity Utilization 42.5% ICU Level of Service							
Walking Speed (ft/s) Percent Blockage Right turn flare (veh) Median type None Median storage veh) Upstream signal (ft) pX, platoon unblocked vC2, conflicting volume 670 vC2, stage 1 conf vol vC2, stage 2 conf vol vC4, unblocked vol 670 vC4, stage (s) tF (s) 2.2 tF (s) 2.2 gase (s) tF (s) 2.2 tG (apacity (veh/h) 920 gas20 459 Direction, Lane # EB 1 WB 1 Volume Total 670 201 Volume Right 8 0 sth 1700 920 362 Volume to Capacity 0.39 0.00 0.12 Queue Length 95th (ft) 0 11 Control Delay (s) 0.0 Queue Longt 95th (ft) 0 0 11 Control Delay (s) 0.0 0.2 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.2 <							
Percent Blockage None None Right turn flare (veh) Median storage veh) Upstream signal (ft) None Upstream signal (ft) pX, platoon unblocked 670 871 666 vC1, stage 1 conf vol vC2, stage 2 conf vol vC1 646 62 top top top top top 666 top	()						
Right turn flare (veh) None None Median storage veh) Upstream signal (ft) pX, platoon unblocked v0, conflicting volume 670 871 666 vC2, stage 1 conf vol vC2, stage 2 conf vol vC2, stage (s)							
Median type None None Median storage veh) Upstream signal (ft) pX, platoon unblocked vC, conflicting volume 670 871 666 vC1, stage 1 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vC1, single (s) 4.1 6.4 6.2 vC2, stage (s) 2.2 3.5 3.3 p0 p0 queue free % 100 91 96 cM capacity (veh/h) 920 320 459 9 320 459 Direction, Lane # EB 1 WB 1 NB 1 VOlume Total 670 201 45 Volume Total 670 201 45 45 45 Volume Left 0 4 28 45 45 Volume to Capacity 0.39 0.00 0.12 45 45 Volume to Capacity 0.39 0.00 0.12 45 46 46 46 46 46 46 46 46 46							
Median storage veh) Upstream signal (ft) pX, platoon unblocked vC, conflicting volume 670 871 666 vC1, stage 1 conf vol vC2, stage 2 conf vol vCu, unblocked vol 670 871 666 tC, single (s) 4.1 6.4 6.2 tC, 2 stage (s) t t t t tF (s) 2.2 3.5 3.3 and p0 op queue free % 100 91 96 ed ed and ed and	•	None			None		
Upstream signal (ft) pX, platoon unblocked vC, conflicting volume 670 871 666 vC1, stage 1 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol 670 871 666 tC, single (s) 4.1 6.4 6.2 tC, 2 stage (s) tr 5.3 3.3 p0 queue free % 100 91 96 cM capacity (veh/h) 920 320 459 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 670 201 45 Volume Left 0 4 28 Volume Kight 8 0 17 cSH 1700 920 362 Volume to Capacity 0.39 0.00 0.12 Queue Length 95th (ft) 0 11 1 Control Delay (s) 0.0 0.2 16.4 Lane LOS A C Approach LOS C Approach LOS C 1 1 1 Intersection Summary <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
pX, platoon unblocked vC, conflicting volume 670 871 666 vC1, stage 1 conf vol vC2, stage 2 conf vol 670 871 666 tC, single (s) 4.1 6.4 6.2 6.2 tC, 2 stage (s) 100 91 96 tC 2 stage (s) 100 91 96 cM capacity (veh/h) 920 320 459 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 670 201 45 Volume Left 0 4 28 Volume Right 8 0 17 cSH 1700 920 362 Volume to Capacity 0.39 0.00 0.12 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.2 16.4 Lane LOS A C Approach LOS C Intersection Summary Average Delay 0.9 ICU Level of Service							
VC, conflicting volume 670 871 666 vC1, stage 1 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vC2, unblocked vol 670 871 666 tC, single (s) 4.1 6.4 6.2 tC, 2 stage (s) tC tS 3.3 tG <							
vC1, stage 1 conf vol vC2, stage 2 conf vol vCu, unblocked vol 670 871 666 tC, single (s) 4.1 6.4 6.2 tC, 2 stage (s) 7.2 3.5 3.3 p0 queue free % 100 91 96 cM capacity (veh/h) 920 320 459 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 670 201 45 Volume Left 0 4 28 Volume Right 8 0 17 cSH 1700 920 362 Volume Left 0 0 11 Control Delay (s) 0.0 0.12 Queue Length 95th (ft) 0 0 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.2 16.4 Lane LOS A C C Intersection Summary Intersection Summary Average Delay 0.9 Intersection Capacity Utilization 42.5% ICU Level of Service				670		871	666
vC2, stage 2 conf vol 670 871 666 vCu, unblocked vol 670 871 666 tC, single (s) 4.1 6.4 6.2 tC, 2 stage (s) 2.2 3.5 3.3 p0 queue free % 100 91 96 cM capacity (veh/h) 920 320 459 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 670 201 45 Volume Total 670 201 45 Volume Left 0 4 28 Volume Right 8 0 17 cSH 1700 920 362 Volume to Capacity 0.39 0.00 0.12 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.2 16.4 Lane LOS A C Approach Delay (s) 0.0 0.2 16.4 Approach LOS C Intersection Summary Average Delay 0.9 ICU Level of Service				010		011	000
vCu, unblocked vol 670 871 666 tC, single (s) 4.1 6.4 6.2 tC, 2 stage (s) 2.2 3.5 3.3 p0 queue free % 100 91 96 cM capacity (veh/h) 920 320 459 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 670 201 45 Volume Left 0 4 28 Volume Right 8 0 17 cSH 1700 920 362 Volume to Capacity 0.39 0.00 0.12 Queue Length 95th (ft) 0 11 Control Delay (s) 0.0 Lane LOS A C Approach Delay (s) 0.0 0.2 16.4 Approach Delay (s) 0.0 0.2 16.4 Approach LOS C Intersection Summary 0.9 10.9 10.9 10.9 10.9 Intersection Capacity Utilization 42.5% ICU Level of Service 10.9							
tC, single (s) 4.1 6.4 6.2 tC, 2 stage (s) 2.2 3.5 3.3 p0 queue free % 100 91 96 cM capacity (veh/h) 920 320 459 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 670 201 45 Volume Total 670 201 45 Volume Left 0 4 28 Volume Right 8 0 17 cSH 1700 920 362 Volume to Capacity 0.39 0.00 0.12 Queue Length 95th (ft) 0 11 Control Delay (s) 0.0 0.2 16.4 Lane LOS A C Approach Delay (s) 0.0 0.2 16.4 Approach LOS C Intersection Summary Average Delay 0.9 Intersection Capacity Utilization 42.5% ICU Level of Service				670		871	666
tC, 2 stage (s) 2.2 3.5 3.3 p0 queue free % 100 91 96 cM capacity (veh/h) 920 320 459 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 670 201 45 Volume Total 670 201 45 Volume Right 8 0 17 cSH 1700 920 362 Volume to Capacity 0.39 0.00 0.12 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.2 16.4 Lane LOS A C Approach LOS C Intersection Summary Average Delay 0.9 ICU Level of Service							
tF (s) 2.2 3.5 3.3 p0 queue free % 100 91 96 cM capacity (veh/h) 920 320 459 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 670 201 45 Volume Left 0 4 28 Volume Right 8 0 17 cSH 1700 920 362 Volume to Capacity 0.39 0.00 0.12 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.2 16.4 Lane LOS A C Approach Delay (s) 0.0 0.2 16.4 Approach LOS C Intersection Summary Average Delay 0.9 Intersection Summary Average Delay 0.9 ICU Level of Service				1.1		0.1	0.2
p0 queue free % 100 91 96 cM capacity (veh/h) 920 320 459 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 670 201 45 Volume Left 0 4 28 Volume Right 8 0 17 cSH 1700 920 362 Volume to Capacity 0.39 0.00 0.12 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.2 16.4 Lane LOS A C Approach Delay (s) 0.0 0.2 16.4 Approach LOS C Intersection Summary Average Delay 0.9 ICU Level of Service				22		35	33
CM capacity (veh/h) 920 320 459 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 670 201 45 Volume Left 0 4 28 Volume Right 8 0 17 cSH 1700 920 362 Volume to Capacity 0.39 0.00 0.12 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.2 16.4 Lane LOS A C Approach Delay (s) 0.0 0.2 16.4 Approach LOS C Intersection Summary Average Delay 0.9 ICU Level of Service							
Direction, Lane # EB 1 WB 1 NB 1 Volume Total 670 201 45 Volume Left 0 4 28 Volume Right 8 0 17 cSH 1700 920 362 Volume to Capacity 0.39 0.00 0.12 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.2 16.4 Lane LOS A C Approach Delay (s) 0.0 0.2 16.4 Approach LOS C Intersection Summary Average Delay 0.9 ICU Level of Service							
Volume Total 670 201 45 Volume Left 0 4 28 Volume Right 8 0 17 cSH 1700 920 362 Volume to Capacity 0.39 0.00 0.12 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.2 16.4 Lane LOS A C Approach Delay (s) 0.0 0.2 16.4 Approach LOS C Intersection Summary Average Delay 0.9 ICU Level of Service						020	400
Volume Left 0 4 28 Volume Right 8 0 17 cSH 1700 920 362 Volume to Capacity 0.39 0.00 0.12 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.2 16.4 Lane LOS A C Approach Delay (s) 0.0 0.2 16.4 Approach LOS C Intersection Summary Average Delay 0.9 ICU Level of Service							
Volume Right 8 0 17 cSH 1700 920 362 Volume to Capacity 0.39 0.00 0.12 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.2 16.4 Lane LOS A C Approach Delay (s) 0.0 0.2 16.4 Approach LOS C Intersection Summary Average Delay 0.9 ICU Level of Service							
cSH 1700 920 362 Volume to Capacity 0.39 0.00 0.12 Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.2 16.4 Lane LOS A C Approach Delay (s) 0.0 0.2 16.4 Approach LOS C Intersection Summary Average Delay 0.9 ICU Level of Service							
Volume to Capacity0.390.000.12Queue Length 95th (ft)0011Control Delay (s)0.00.216.4Lane LOSACApproach Delay (s)0.00.216.4Approach LOSCIntersection SummaryAverage Delay0.9Intersection Capacity Utilization42.5%ICU Level of Service							
Queue Length 95th (ft) 0 0 11 Control Delay (s) 0.0 0.2 16.4 Lane LOS A C Approach Delay (s) 0.0 0.2 16.4 Approach LOS C C Intersection Summary 0.9 Intersection Capacity Utilization Intersection Capacity Utilization 42.5% ICU Level of Service							
Control Delay (s) 0.0 0.2 16.4 Lane LOS A C Approach Delay (s) 0.0 0.2 16.4 Approach LOS C Intersection Summary Average Delay 0.9 Intersection Capacity Utilization 42.5% ICU Level of Service							
Lane LOS A C Approach Delay (s) 0.0 0.2 16.4 Approach LOS C Intersection Summary Average Delay 0.9 Intersection Capacity Utilization 42.5% ICU Level of Service	• • • •						
Approach Delay (s) 0.0 0.2 16.4 Approach LOS C Intersection Summary 0.9 Average Delay 0.9 Intersection Capacity Utilization 42.5% ICU Level of Service		0.0					
Approach LOS C Intersection Summary Average Delay 0.9 Intersection Capacity Utilization 42.5% ICU Level of Service							
Intersection Summary Average Delay Intersection Capacity Utilization 42.5% ICU Level of Service		0.0	0.2				
Average Delay 0.9 Intersection Capacity Utilization 42.5% ICU Level of Service	Approach LOS			С			
Intersection Capacity Utilization 42.5% ICU Level of Service	Intersection Summary						
	Average Delay			0.9			
Analysis Period (min) 15	Intersection Capacity Utiliza	ation		42.5%	IC	U Level o	of Service
	Analysis Period (min)			15			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	f,		7	ţ,		7	f,		7	f,	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	241	466	10	7	142	70	38	64	26	116	17	200
Future Volume (vph)	241	466	10	7	142	70	38	64	26	116	17	200
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
Hourly flow rate (vph)	262	507	11	8	154	76	41	70	28	126	18	217
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	262	518	8	230	41	98	126	235				
Volume Left (vph)	262	0	8	0	41	0	126	0				
Volume Right (vph)	0	11	0	76	0	28	0	217				
Hadj (s)	0.53	0.02	0.53	-0.20	0.53	-0.17	0.53	-0.61				
Departure Headway (s)	7.1	6.6	7.8	7.1	8.4	7.7	7.9	6.8				
Degree Utilization, x	0.51	0.94	0.02	0.45	0.10	0.21	0.28	0.44				
Capacity (veh/h)	498	536	439	489	413	450	439	514				
Control Delay (s)	16.1	50.0	9.8	14.7	11.1	11.5	12.8	13.9				
Approach Delay (s)	38.6		14.5		11.4		13.5					
Approach LOS	E		В		В		В					
Intersection Summary												
Delay			26.4									
Level of Service			D									
Intersection Capacity Utilizat	ion		58.4%	IC	U Level o	of Service			В			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	† 1>		7	↑ ⊅			4			4	
Traffic Volume (veh/h)	12	143	2	0	164	10	17	0	1	34	0	44
Future Volume (Veh/h)	12	143	2	0	164	10	17	0	1	34	0	44
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	13	155	2	0	178	11	18	0	1	37	0	48
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	189			157			319	371	78	288	366	94
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	189			157			319	371	78	288	366	94
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							1.0	0.0	0.0	1.0	0.0	0.0
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			97	100	100	94	100	95
cM capacity (veh/h)	1382			1420			575	552	966	637	555	944
									000	001	000	UT1
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	13	103	54	0	119	70	19	85				
Volume Left	13	0	0	0	0	0	18	37				
Volume Right	0	0	2	0	0	11	1	48				
cSH	1382	1700	1700	1700	1700	1700	588	780				
Volume to Capacity	0.01	0.06	0.03	0.00	0.07	0.04	0.03	0.11				
Queue Length 95th (ft)	1	0	0	0	0	0	3	9				
Control Delay (s)	7.6	0.0	0.0	0.0	0.0	0.0	11.3	10.2				
Lane LOS	А						В	В				
Approach Delay (s)	0.6			0.0			11.3	10.2				
Approach LOS							В	В				
Intersection Summary												
Average Delay			2.5									
Intersection Capacity Utilization		20.8%	IC	U Level o	of Service			А				
Analysis Period (min)			15									

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	-	7	1	-	1	1
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	ţ,			र्स	Y	
Traffic Volume (veh/h)	695	5	4	387	19	16
Future Volume (Veh/h)	695	5	4	387	19	16
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	755	5	4	421	21	17
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				500		
pX, platoon unblocked						
vC, conflicting volume			760		1186	758
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			760		1186	758
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		90	96
cM capacity (veh/h)			852		207	407
Direction, Lane #	EB 1	WB 1	NB 1		-	-
Volume Total	760	425	38			
Volume Left	700 0	425	21			
	5	4	17			
Volume Right cSH	1700	852	266			
Volume to Capacity	0.45	0.00	0.14			
Queue Length 95th (ft)	0	0	12			
Control Delay (s)	0.0	0.1	20.8			
Lane LOS	0.0	A	C			
Approach Delay (s)	0.0	0.1	20.8			
Approach LOS			С			
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utili	zation		46.9%	IC	U Level c	of Service
Analysis Period (min)			15			
			10			

	-	7	4	-	1	1
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	ţ,			د	¥	
Traffic Volume (veh/h)	707	3	3	378	13	10
Future Volume (Veh/h)	707	3	3	378	13	10
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	768	3	3	411	14	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				721		
pX, platoon unblocked						
vC, conflicting volume			771		1186	770
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			771		1186	770
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		93	97
cM capacity (veh/h)			844		208	401
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	771	414	25			
Volume Left	0	3	14			
Volume Right	3	0	11			
cSH	1700	844	263			
Volume to Capacity	0.45	0.00	0.09			
Queue Length 95th (ft)	0	0	8			
Control Delay (s)	0.0	0.1	20.1			
Lane LOS		А	С			
Approach Delay (s)	0.0	0.1	20.1			
Approach LOS			С			
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utiliz	ation		47.4%	IC	U Level o	of Service
Analysis Period (min)			15			
, , ,						

Movement EBT EBR WBL WBT NBL NBR
Lane Configurations 🖡 🦨 🌱
Traffic Volume (veh/h) 603 4 3 203 16 13
Future Volume (Veh/h) 603 4 3 203 16 13
Sign Control Free Free Stop
Grade 0% 0% 0%
Peak Hour Factor 0.92 0.92 0.92 0.92 0.92 0.92
Hourly flow rate (vph) 655 4 3 221 17 14
Pedestrians
Lane Width (ft)
Walking Speed (ft/s)
Percent Blockage
Right turn flare (veh)
Median type None None
Median storage veh)
Upstream signal (ft) 570
pX, platoon unblocked
vC, conflicting volume 659 884 657
vC1, stage 1 conf vol
vC2, stage 2 conf vol
vCu, unblocked vol 659 884 657
tC, single (s) 4.1 6.4 6.2
tC, 2 stage (s)
tF (s) 2.2 3.5 3.3
p0 queue free % 100 95 97
cM capacity (veh/h) 929 315 465
Direction, Lane # EB 1 WB 1 NB 1
· · ·
Volume Right 4 0 14
cSH 1700 929 369
Volume to Capacity 0.39 0.00 0.08
Queue Length 95th (ft) 0 0 7
Control Delay (s) 0.0 0.2 15.7
Lane LOS A C
Approach Delay (s) 0.0 0.2 15.7
Approach LOS C
Intersection Summary
Average Delay 0.6
Intersection Capacity Utilization 42.0% ICU Level of Service
Analysis Period (min) 15

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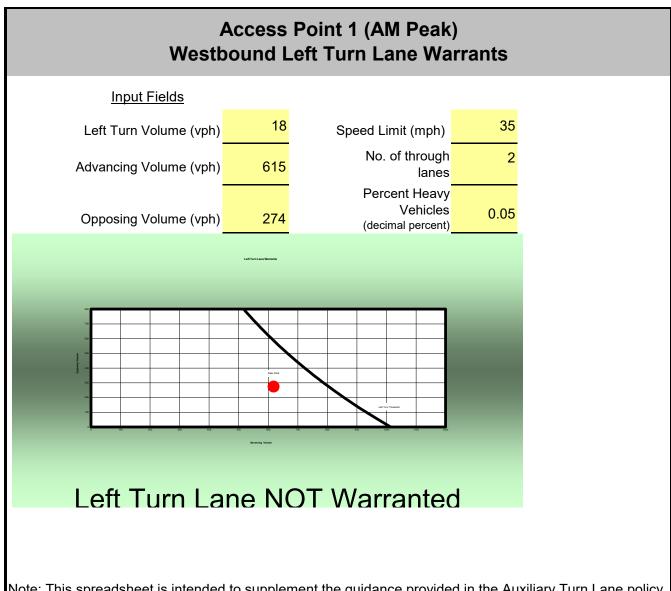
	-	7	4	-	1	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	ţ,			د	Y		
Traffic Volume (veh/h)	609	7	4	181	26	16	
Future Volume (Veh/h)	609	7	4	181	26	16	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	662	8	4	197	28	17	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume			670		871	666	
vC1, stage 1 conf vol			010		011	000	
vC2, stage 2 conf vol							
vCu, unblocked vol			670		871	666	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)			1.1		0.1	0.2	
tF (s)			2.2		3.5	3.3	
p0 queue free %			100		91	96	
cM capacity (veh/h)			920		320	459	
,					020	-00	
Direction, Lane #	EB 1	WB 1	NB 1				
Volume Total	670	201	45				
Volume Left	0	4	28				
Volume Right	8	0	17				
cSH	1700	920	362				
Volume to Capacity	0.39	0.00	0.12				
Queue Length 95th (ft)	0	0	11				
Control Delay (s)	0.0	0.2	16.4				
Lane LOS		А	С				
Approach Delay (s)	0.0	0.2	16.4				
Approach LOS			С				
Intersection Summary							
Average Delay			0.9				
Intersection Capacity Utiliz	ation		42.5%	IC	U Level o	of Service	
Analysis Period (min)			15				
, , , ,							

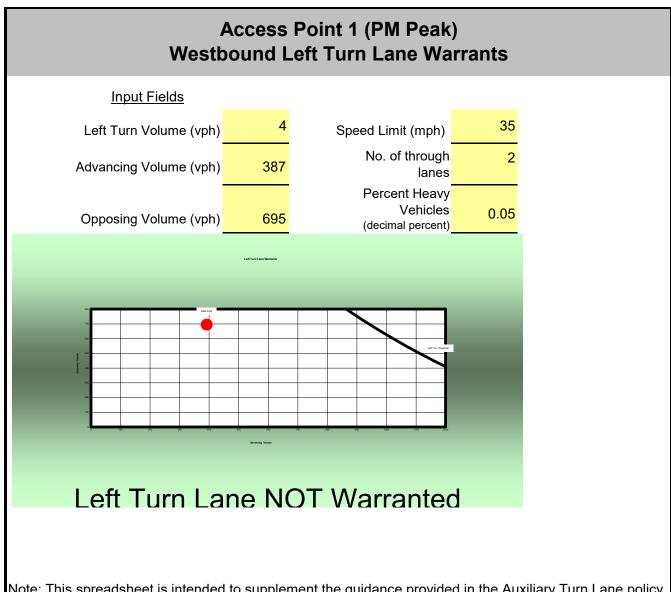
XEBEC Tucker Station 09/06/2022 2033 Build PM

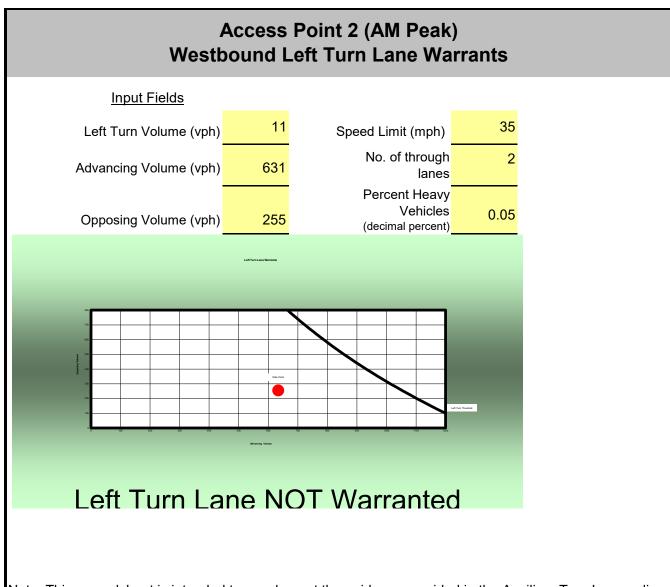
Synchro 10 Report Page 6

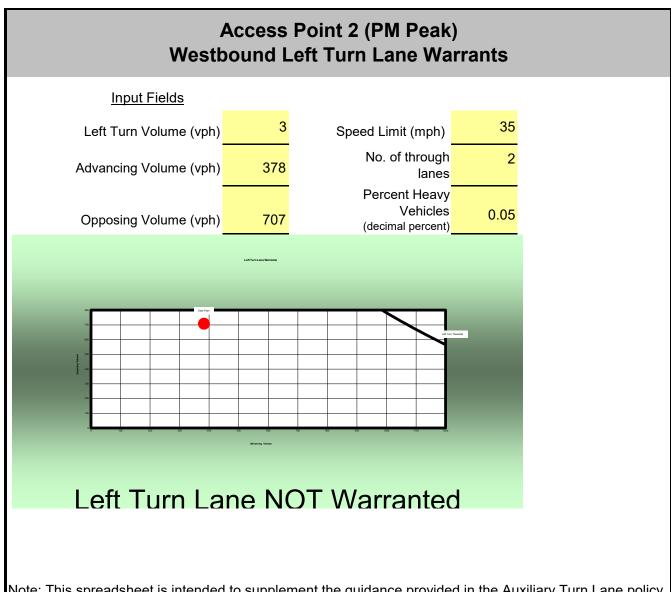
APPENDIX F: AUXILLIARY TURN LANE WARRANTS

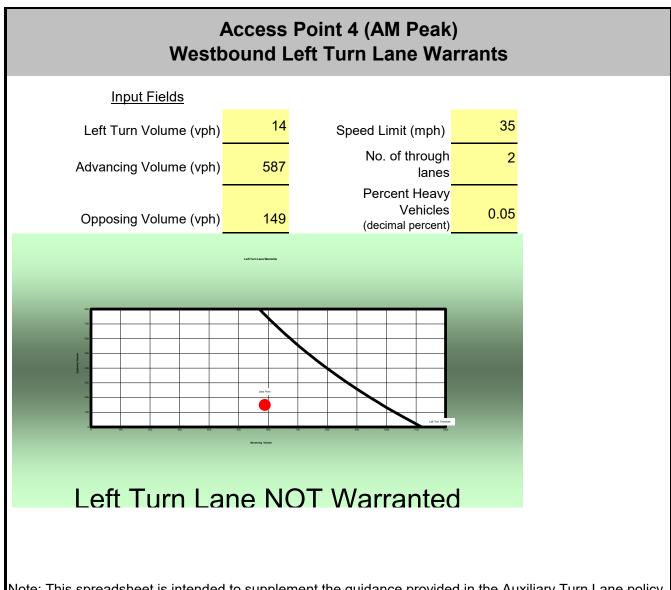
27

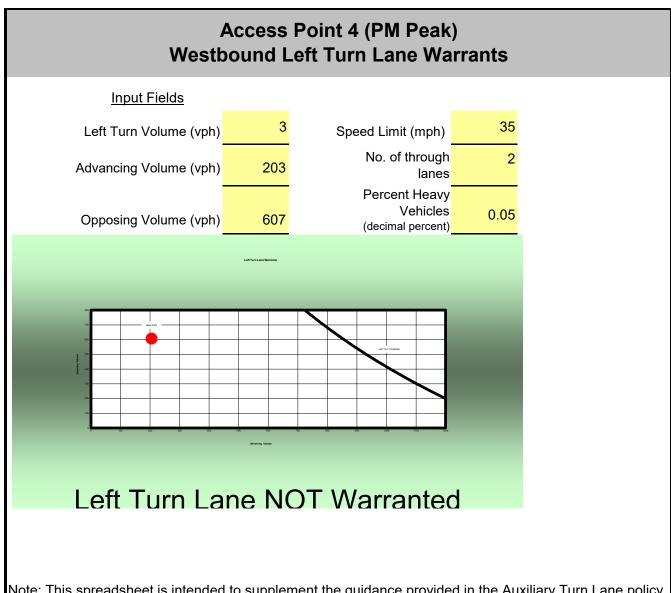


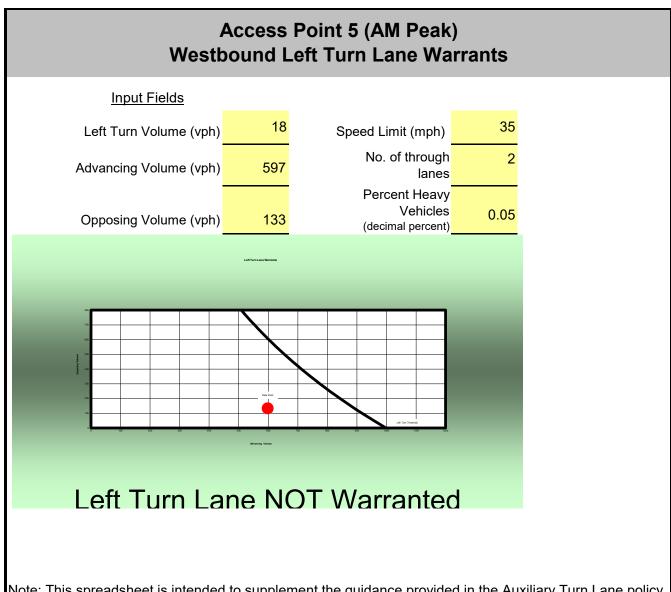


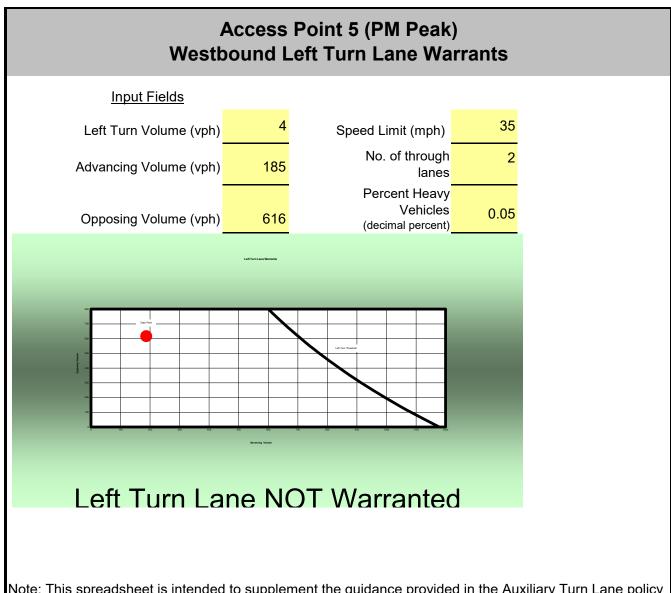


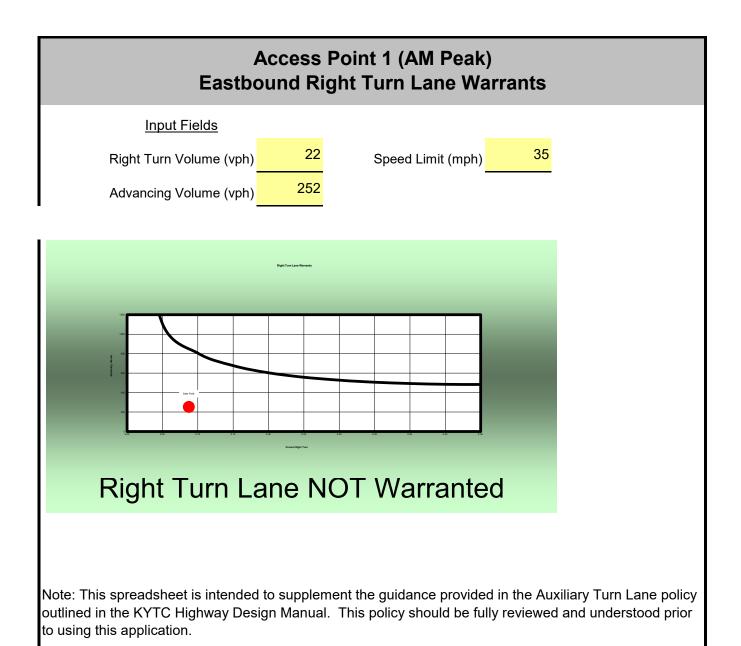


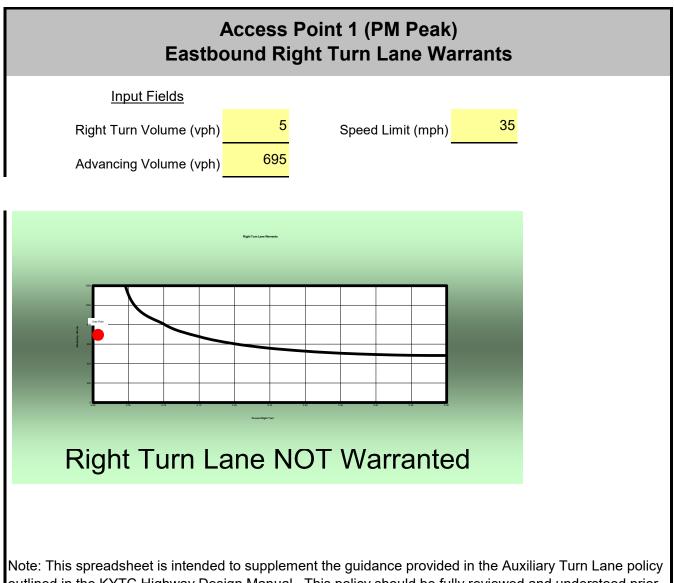


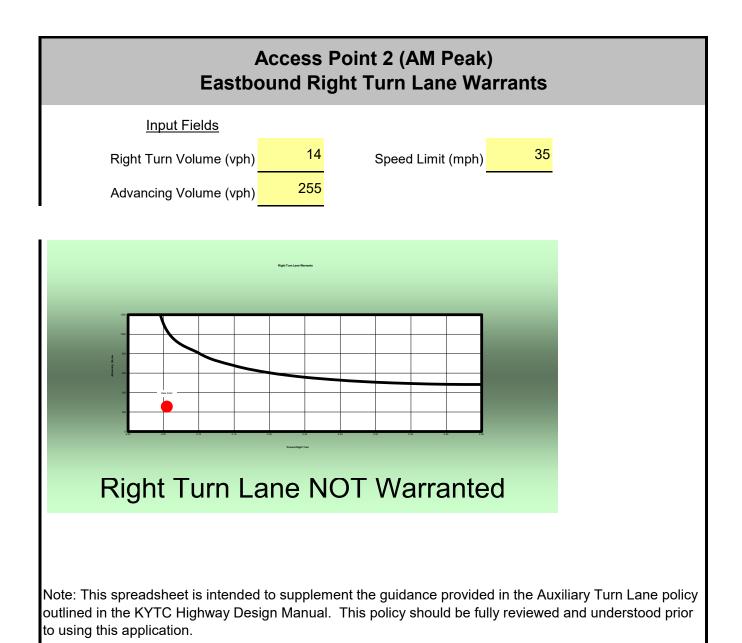


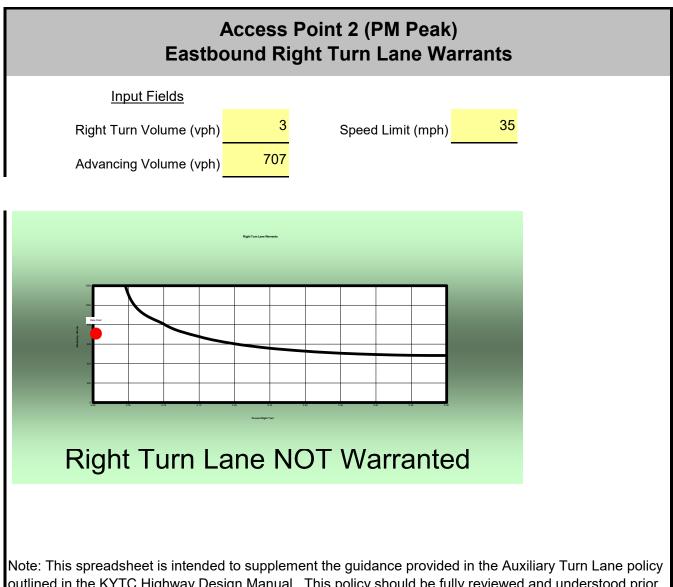




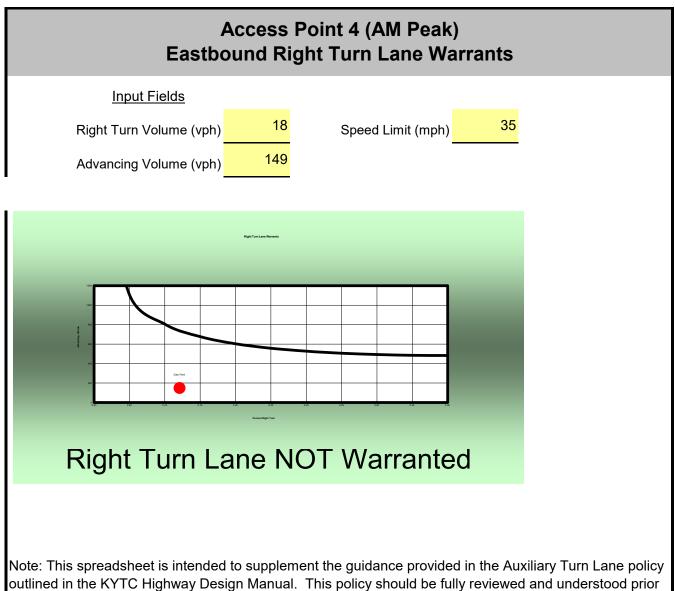








outlined in the KYTC Highway Design Manual. This policy should be fully reviewed and understood prior to using this application.



outlined in the KYTC Highway Design Manual. This to using this application.

