

2022 Skagit County Road Segment & Intersection Concurrency



INTRODUCTION

In conformance with Growth Management, RCW 36.70A, Skagit County Code 14.28.110 "Annual Concurrency Assessment" requires that the County Engineer annually produce this report to update the status of County Road concurrency. The following is produced to meet said requirement.

REQUIREMENTS

The concurrency assessment requires that "The County Engineer must evaluate the high traffic County road segments (any County road segment on which there are at least 8,000 average daily trips) and high traffic County road intersections (any County road intersection into which the total approach volume is at least 7,000 average daily trips) and the approach volume from all of the minor legs totals at least 1,000 average daily trips) using a Highway Capacity Manual type method (as selected by the County Engineer) to determine whether these road segments and intersections comply with the level of service standards adopted in the Comprehensive Plan." The Levels of Service (LOS) are described as follows in Skagit County's Comprehensive Plan.

Policy 8A-2.1 Level of Service Standards – The Level of Service (LOS) standard for County roads is C. LOS D is acceptable for all road segments that:

- a) Have Annualized Average Daily Traffic (AADT) greater than 7,000 vehicles; and
- b) Are NOT federally functionally classified as a Local Access Road; and
- c) Are designated as a County Freight and Goods Transportation Systems Route (FGTS).

The LOS standard for County Road intersections is LOS D.

LEVEL OF SERVICE DATA

Road Segments

The methodology used to acquire the LOS of County Road segments is outlined in Appendix C (Transportation Element Technical Appendix) of the Skagit County Comprehensive Plan.

"The Skagit County Public Works Traffic Engineering Unit has selected an LOS study volume unit threshold of 7,000 AADT. This threshold is an indicator that a road segment may be approaching the LOS C/D threshold and should be studied in depth."

Table 1 shows the current County roads that meet the criteria for further study and the current LOS as determined using the Transportation Research Board's Highway Capacity Manual and Highway Capacity Software developed for this use by the University of Florida. Also shown is the projected 5-year LOS. This projected LOS was determined using a 2 percent yearly growth factor for each road segment. Projects along these roadways that are scheduled to be completed within this 5-year period were not significant enough to include as separate items. As one can see from Table 1, all the criteria for LOS concurrency have been met.

While all road segments in Table 1 meet County LOS standards, the segments of Cook Road adjacent to the Sedro-Woolley city limits (milepost 4.6 - 5.62) show the potential to exceed the LOS D to LOS E threshold by year 2027. Skagit County Public Works will be paying close attention to these segments and traffic volumes in the coming years. Studies for these segments are included as Appendix E.

			202	22 Ska	git Cou	inty R	oads w	ith Ove	r 7,000	ADT		-		
Road #	Road Name	FFC	Truck Rt	Beg MP	End MP	Length	2022 ADT	2023 ADT	2024 ADT	2025 ADT	2026 ADT	2027 ADT	2022 LOS	2027 LOS
63000	COOK ROAD	07	T2	1.750	1.800	0.050	18864	19241	19626	20019	20419	20827	These two	segments
63000	COOK ROAD	07	T2	1.800	1.860	0.060	18864	19241	19626	20019	20419	20827	are in WS	
63000	COOK ROAD	07	T2	1.860	1.970	0.110	15464	15773	16089	16411	16739	17074		
63000	COOK ROAD	07	T2	1.970	3.080	1.110	15464	15773	16089	16411	16739	17074	D	D
63000	COOK ROAD	07	T2	3.080	3.360	0.280	15464	15773	16089	16411	16739	17074		
63000	COOK ROAD	07	T2	3.360	3.820	0.460	13885	14163	14446	14735	15030	15330		
63000	COOK ROAD	07	T2	3.820	4.100	0.280	13885	14163	14446	14735	15030	15330	D	D
63000	COOK ROAD	07	T2	4.100	4.320	0.220	13885	14163	14446	14735	15030	15330		U
63000	COOK ROAD	07	T2	4.320	4.600	0.280	13885	14163	14446	14735	15030	15330		
63000	COOK ROAD	07	T2	4.600	5.000	0.400	13769	14044	14325	14612	14904	15202		
63000	COOK ROAD	07	T2	5.000	5.260	0.260	13769	14044	14325	14612	14904	15202		
63000	COOK ROAD	07	T2	5.260	5.320	0.060	13769	14044	14325	14612	14904	15202	D	Е
63000	COOK ROAD	07	T2	5.320	5.390	0.070	13769	14044	14325	14612	14904	15202		-
63000	COOK ROAD	16	T2	5.390	5.510	0.120	13769	14044	14325	14612	14904	15202	_	
63000	COOK ROAD	16	T2	5.510	5.620	0.110	13769	14044	14325	14612	14904	15202		
71500	SOUTH LAVENTURE ROAD	14	Non	0.000	0.063	0.063	7864	8021	8182	8345	8512	8682	с	с
71500	SOUTH LAVENTURE ROAD	14	Non	0.063	0.274	0.211	7864	8021	8182	8345	8512	8682	C	C
71500	SOUTH LAVENTURE ROAD	14	Non	0.545	0.553	0.008	7877	8035	8195	8359	8526	8697]	
71500	SOUTH LAVENTURE ROAD	14	Non	0.553	0.701	0.148	7877	8035	8195	8359	8526	8697		
71500	SOUTH LAVENTURE ROAD	14	Non	0.701	0.715	0.014	7877	8035	8195	8359	8526	8697	С	D
71500	SOUTH LAVENTURE ROAD	14	Non	0.715	0.730	0.015	7877	8035	8195	8359	8526	8697		
71500	SOUTH LAVENTURE ROAD	14	Non	0.730	0.773	0.043	7877	8035	8195	8359	8526	8697		
80090	PIONEER HIGHWAY	07	T3	0.000	0.883	0.883	8456	8625	8798	8974	9153	9336		
80090	PIONEER HIGHWAY	07	T3	0.883	1.418	0.535	8456	8625	8798	8974	9153	9336	с	с
80090	PIONEER HIGHWAY	07	T3	1.418	1.748	0.330	8456	8625	8798	8974	9153	9336	Č	C
80090	PIONEER HIGHWAY	07	T3	1.748	3.065	1.317	8456	8625	8798	8974	9153	9336		
80090	PIONEER HIGHWAY	07	T3	3.065	3.089	0.024	10699	10913	11131	11354	11581	11813	D	D

Table 1 – Road Segments

Road Intersections

As with Road Segment LOS, Intersection LOS methodology is outlined in the Transportation Element Technical Appendix (TETA) Appendix C of the Comprehensive Plan. Intersection LOS, according to the Highway Capacity Manual, cannot be determined at stop-controlled intersections. The individual stop-controlled leg LOS can be determined, but the overall intersection LOS cannot be determined. However, the overall LOS can be determined at signalized intersections like the one on which Skagit County is collecting data and studying.

Table 2 shows the intersection on which Skagit County is collecting LOS data on a regular basis.

Intersection Name	Intersection Type	NB Approach LOS	SB Approach LOS	EB Approach LOS	WB Approach LOS	Overall LOS
2022						
Cook Road / Old Hwy 99 N	Signalized	С	С	В	С	С
2027						
Cook Road / Old Hwy 99 N	Signalized	С	С	С	С	С

 Table 2 – Intersections

The full PM Peak Hour Highway Capacity reports on the intersection of Cook Road and Old Hwy 99 N for the current year and 5-year estimate are included in this Assessment as Appendix A and Appendix B respectively. This 5-year projected LOS was determined using a 2 percent yearly growth factor for each approach volume. This is by far the busiest intersection under Skagit County jurisdiction. Though not used for concurrency, the AM Peak Hour Highway Capacity reports are also included as Appendices C and D.

The turn movement study used for this assessment was conducted in June of 2023. The most recent study previously conducted was in June of 2020. This previous study showed traffic volumes that were reduced due to the COVID-19 Pandemic. As traffic levels had decreased during the Pandemic, it was determined to use a more recent study.

Please note that this intersection was studied during the Peak PM hour for the Highway Capacity report as per industry standards and Concurrency requirements. Per Highway Capacity Manual / Software, the PM Peak Hour currently meets LOS Standards. This is somewhat due to traffic flows being regulated and limited by the I-5 Northbound Off Ramp restricting flows on the west approach and by train traffic on the east through lane, as there are two to three peak hour trains that travel through the at-grade rail crossing limiting eastbound through traffic.

Also note that during the Peak AM hour the LOS from the Westbound (WB) and Eastbound (EB) approaches differ due to the prevailing traffic patterns for work-bound and home-bound trips. Additionally, the AM Peak Hour is also regulated by train activity, that directly affect LOS during the morning commute.

Based on the traffic flows being regulated from both the west and east approaches the LOS of this intersection could have a lower LOS, when considering the circumstances on the approaches. However, our current traffic modeling tools cannot take train activity into account.

Skagit County has recently secured a \$5.6 million grant to improve the Cook Road / Interstate 5 interchange and the adjacent Cook Road / Old Hwy 99 N intersection. This project is in the Design phase will be undertaken with Washington State Department of Transportation cooperation in the next few years and should significantly improve mobility and LOS at this location.

SUMMARY

As of December 31, 2022, all Skagit County Road segments and signalized intersections meet the current LOS standards as adopted in the Comprehensive Plan of Skagit County. Therefore, all Skagit County Road segments and intersections are concurrent.

Skagit County Public Works has used the Highway Capacity Manual, Seventh Edition of 2022 and its associated software to determine all Level of Service calculations in this report.

Appendix A

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General Inform	nation								Intersec	tion Inf	ormatio	on	_	↓ ↓ ↓ ↓	ba l <u>a</u>
Agency		Skagit County Pub	ic Work	S					Duration	, h	1.000		_	* + 4	
Analyst		Given Kutz		Analys	sis Date	Jun 6	, 2023		Area Ty	be	Other		<u></u> →		4 5-
Jurisdiction				Time F	Period	15:45	- 16:45		PHF		1.00			w∱e	
Urban Street		Cook Road		Analys	sis Year	2022			Analysis	Period	1> 3:4	45			* ~
Intersection		Old Hwy 99 N		File Na	ame	Cook-	Old99.x	us						<u> ኀ</u> ቅ	
Project Descrip	otion	2023											ň	* 1 * *	î* (*
		* 		_						_					
Demand Infor					EB			W	1		NB			SB	
Approach Move				L	Т	R	L	Т	R	L	Т	R	L	Т	R
Demand (v), v	/eh/h			125	466	96	45	50	7 58	90	211	165	59	84	132
0: 11 (I	-	_			1	b II	_			1	_
Signal Informa									2	- 24	F			~	X
Cycle, s	68.3	Reference Phase	2		Γ				15	17 5	17			3	4
Offset, s	0	Reference Point	Begin	Green	2.9	1.7	27.4	3.4	0.7	16.2	2		<u> </u>		
Uncoordinated		Simult. Gap E/W	On	Yellow	-	0.0	4.0	4.0	0.0	4.0		↗	Y		- V
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	8
					_									_	
Timer Results				EBI	-	EBT	WB		WBT	NB	-	NBT	SBL	-	SBT
Assigned Phas	e			5		2	1		6	3	_	8	7	_	4
Case Number				1.1		4.0	1.1		4.0	1.1		4.0	2.0		3.0
Phase Duration				8.6		33.1	6.9		31.4	8.1		20.9	7.4		20.2
Change Period		,		4.0		4.0	4.0		4.0	4.0	_	4.0	4.0	_	4.0
Max Allow Hea				3.1		3.1	3.1		3.1	3.1	_	3.2	3.1	_	3.2
Queue Clearar				4.8		24.7	3.0		24.8	4.7		15.7	4.4		5.9
Green Extensio		(ge), s		0.1		2.4	0.0		2.4	0.1		1.0	0.1		1.1
Phase Call Pro				0.91		1.00	0.58		1.00	0.82		1.00	0.68		1.00
Max Out Proba	bility			0.00)	0.00	0.00)	0.00	0.00)	0.00	0.00)	0.00
Movement Gr	oup Res	ults			EB			WB			NB			SB	
Approach Move	-			L	Т	R	L	Т	R	L	Т	R	L	Т	R
Assigned Move				5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow), veh/h		125	562		45	565		90	354		59	84	99
		ow Rate (<i>s</i>), veh/h/	In	1725	1537		1753	1581		1725	1688		1668	1752	1427
Queue Service				2.8	22.7		1.0	22.8	-	2.7	13.7		2.4	2.6	3.9
		e Time (<i>g</i> c), s		2.8	22.7		1.0	22.8		2.7	13.7		2.4	2.6	3.9
Green Ratio (g				0.47	0.43		0.45	0.40	_	0.30	0.25		0.05	0.24	0.24
Capacity (c),	· · ·			278	656		236	636		466	418		83	416	339
Volume-to-Cap		itio (X)		0.450			0.191	0.888	3	0.193	<u> </u>		0.710	0.202	0.292
· ·		/In (50 th percentile)	25.4	187.8		9.1	196.4	_	25.8	137.6		27.4	27.5	31.3
	(· <i>)</i> ,	eh/In (50 th percent	,	1.0	7.2		0.4	7.6		1.0	5.3		1.0	1.0	1.2
	`	RQ) (50 th percen	,	0.13	0.19		0.05	0.20		0.13	0.14		0.14	0.03	0.31
Uniform Delay		,, ,	,	14.9	17.8		14.9	19.1		17.9	24.6		32.1	21.0	21.5
Incremental De	().			0.4	1.3		0.1	1.8		0.1	1.9		4.2	0.1	0.2
Initial Queue D				0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Control Delay (,		15.3	19.1		15.1	20.9		18.0	26.5		36.4	21.1	21.6
Level of Servic				B	В		B	C		B	C		D	C	C
Approach Dela	· /			18.4		B	20.4		С	24.7		С	25.0		C
Intersection De				10.			1.3						C 20.0		
						-							-		
Multimodal Re	sults				EB			WB			NB			SB	
Pedestrian LOS		/ LOS		2.12		В	2.30	-	В	2.11		В	2.11		В
Bicycle LOS So				1.62		B	1.49	_	A	1.22		A	0.89		A
,															

Appendix B

General Information						Inters	ecti	on Infr	ormatio	n		444	la la
Agency Skagit County Public Works						Durati			1.000			1 † L	
Analyst Given Kutz		sis Date	lup 6	2022		Area T			Other		1		<u>ار</u> لا
Jurisdiction	Time F			- 16:45		PHF	ype		1.00		- <u>→</u> *	w∔e	<u>≁</u>
Urban Street Cook Road		sis Year		- 10.45		Analys	via D	oriod	1> 3:4	15			÷
	File Na			Cook-O				enou	17 3.4	+0			
	File Na	ame	2027	00K-0	1099.X	us					_	শ শি বাকপ	1- 1
Project Description 2023													r' I
Demand Information		EB			WI	3			NB			SB	
Approach Movement	L	Т	R	L	Т	F	२	L	Т	R	L	Т	R
Demand(v), veh/h	138	515	106	50	56	0 6	64	99	233	182	65	93	146
Signal Information	1	1						5					
Signal Information		120	2			2		24	6		~	5	4
Cycle, s 85.0 Reference Phase 2		L .	R				۶ſŕ		M T	1	\$ 2	3	4
Offset, s 0 Reference Point Begin	Green		2.2	36.7	4.3			21.5	5		<u>⊼</u>		
Uncoordinated Yes Simult. Gap E/W On	Yellow		0.0	4.0	4.0	0.		4.0					_ ¶ v
Force Mode Fixed Simult. Gap N/S On	Red	0.0	0.0	0.0	0.0	0.	.0	0.0		5	6	7	8
Timer Results	EBI	_	EBT	WB	L	WBT	Т	NBL	_	NBT	SBL	_	SBT
Assigned Phase	5		2	1		6	T	3		8	7		4
Case Number	1.1		4.0	1.1		4.0		1.1		4.0	2.0		3.0
Phase Duration, s	9.7		42.9	7.5		40.7	Т	9.2		26.4	8.3		25.5
Change Period, (Y+ <i>R</i> c), s	4.0		4.0	4.0		4.0		4.0		4.0	4.0		4.0
Max Allow Headway (<i>MAH</i>), s	3.1		3.1	3.1		3.1	Т	3.1		3.2	3.1		3.2
Queue Clearance Time (g s), s	5.7	;	33.5	3.3		33.7		5.6		21.1	5.3		7.5
Green Extension Time (g_e), s	0.2		2.7	0.0		2.7		0.1		1.1	0.1		1.2
Phase Call Probability	0.96	3	1.00	0.70)	1.00		0.90)	1.00	0.79		1.00
Max Out Probability	0.00) (0.01	0.00)	0.01		0.00		0.00	0.00		0.00
Movement Group Results		EB			WB		Т		NB			SB	
Approach Movement	L	Т	R	L	Т	R		L	Т	R	L	Т	R
Assigned Movement	5	2	12	1	6	16	;	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	138	621		50	624		Т	99	393		65	93	113
Adjusted Saturation Flow Rate (s), veh/h/ln	1725	1537		1753	1581			1725	1687		1668	1752	1427
Queue Service Time (g s), s	3.7	31.5		1.3	31.7			3.6	19.1		3.3	3.6	5.5
Cycle Queue Clearance Time ($g c$), s	3.7	31.5		1.3	31.7			3.6	19.1		3.3	3.6	5.5
Green Ratio (g/C)	0.50	0.46		0.48	0.43			0.32	0.26		0.05	0.25	0.25
Capacity (<i>c</i>), veh/h	246	704		208	683			460	446		84	444	361
Volume-to-Capacity Ratio(X)	0.560	0.883		0.240	0.914	_		0.215	0.882		0.775	0.210	0.313
Back of Queue (Q), ft/ln (50 th percentile)	35.6	297.9		12.8	314.6			36.5	211.7		39.2	39.1	46.1
Back of Queue (Q), veh/ln (50 th percentile)	1.4	11.4		0.5	12.2			1.4	8.1		1.5	1.4	1.8
Queue Storage Ratio (<i>RQ</i>) (50 th percentile)	0.18	0.30		0.06	0.31			0.18	0.21		0.20	0.04	0.46
Uniform Delay (<i>d</i> 1), s/veh	18.8	21.1		18.4	22.8		_	21.4	30.2		40.2	25.2	25.9
Incremental Delay (<i>d</i> ₂), s/veh	0.7	5.9		0.2	7.7			0.1	5.8		5.8	0.1	0.2
Initial Queue Delay (<i>d</i> ₃), s/veh	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0	0.0
Control Delay (d), s/veh	19.5	27.0		18.6	30.6	-	_	21.5	36.0		46.0	25.3	26.1
Level of Service (LOS)	B	C		B	C			C	D		D	С	C
Approach Delay, s/veh / LOS	25.7		C	29.7		С	-	33.1		С	30.6		С
Intersection Delay, s/veh / LOS			29	9.2							С		
Multimodal Results		EB			WB				NB			SB	
Pedestrian LOS Score / LOS	2.12	-	В	2.31		В		2.11		В	2.12		В

Appendix C

General Inform	nation								Intersec	tion Inf	ormatio	on	×	* ** *	the la
Agency		Skagit County Public	Work	s					Duration	, h	1.000			ען ג <u>י</u>	
Analyst		Given Kutz		Analys	sis Date	Jun 6	, 2023		Area Typ	e	Other		4		۲
Jurisdiction				Time F	Period	07:00	- 08:00		PHF		1.00			W = E	
Urban Street		Cook Road		Analys	sis Yea	r 2022			Analysis	Period	1> 3:4	45			
Intersection		Old Hwy 99 N		File Na	ame	Cook-	Old99 A	AM.xus						ኻ፟፟	
Project Descrip	otion	2023												* 1 ***	* /*
Demand Infor					EB			WE	T.		NB			SB	
Approach Mov				L	Т	R	L	Т	R	L	Т	R	L	Т	R
Demand (v), v	veh/h			68	355	112	91	55	7 34	107	58	54	58	111	153
	- 41						<u>m</u> m	, m		h II					_
Signal Informa	1		0	-		48	1.2 8	돌	2	12 17 5	F L			5	X
Cycle, s	56.2	Reference Phase	2						i Si	17 5	17	1	\$ 2	3	4
Offset, s	0		Begin	Green		0.5	23.9	3.0	1.5	8.0			<u> </u>		
Uncoordinated		Simult. Gap E/W	On	Yellow		0.0	4.0	4.0	0.0	4.0					Ŵ
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	8
Timer Results				EBI		EBT	WB		WBT	NB		NBT	SBI		SBT
Assigned Phas				5	-	2	1		6	3		8	7	-	4
Case Number				1.1		4.0	1.1		4.0	1.1		4.0	2.0		3.0
Phase Duration	าร			7.3		27.9	7.8		28.4	8.5		13.5	7.0		12.0
Change Period		c) s		4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
Max Allow Hea				3.1		3.1	3.1		3.1	3.1		3.2	3.1		3.2
Queue Clearar	2 1	,		3.3		17.7	3.6		22.1	5.4	_	5.0	4.1		7.3
Green Extensio		, = ,		0.1		2.2	0.1		2.2	0.1		0.6	0.1		0.6
Phase Call Pro		(9,0)		0.66	3	1.00	0.76		1.00	0.8		1.00	0.60)	1.00
Max Out Proba				0.00)	0.00	0.00) –	0.00	0.00		0.00	0.00)	0.00
	_														
Movement Gr	-	sults		<u> </u>	EB		<u> </u>	WB		<u> </u>	NB		<u> </u>	SB	
Approach Mov				L	T	R	L	T	R	L	T	R		Т	R
Assigned Move		<u> </u>		5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow		,		68	467	<u> </u>	91	591	<u> </u>	107	90		58	111	120
		ow Rate (s), veh/h/ln		1626	1432	<u> </u>	1682	1530		1499	1479		1513	1589	1212
Queue Service		- /		1.3	15.7	<u> </u>	1.6	20.1		3.4	3.0		2.1	3.6	5.3
-		e Time (<i>g c</i>), s		1.3	15.7	<u> </u>	1.6	20.1		3.4	3.0		2.1	3.6	5.3
Green Ratio (g	- ,			0.49	0.43	<u> </u>	0.50	0.43		0.22	0.17		0.05	0.14	0.14
Capacity (c),				257	610		373	666		333	250		81	226	172
Volume-to-Cap		. ,		0.265	0.765	-	0.244	0.887	_	0.321	0.360	<u> </u>	0.715	0.492	0.698
	. ,	In (50 th percentile)		10	116.7		12.7	156.6	5	31.2	28.7		23.6	37.2	42.8
	()	eh/In (50 th percentile	,	0.4	4.2		0.5	5.8		1.1	1.0		0.8	1.3	1.5
-		RQ) (50 th percentil	e)	0.05	0.12		0.06	0.16		0.16	0.03		0.12	0.04	0.43
Uniform Delay	v <i>y</i> .			12.3	13.8		10.0	14.7		18.5	20.8		26.3	22.4	23.1
Incremental De				0.2	0.8		0.1	1.7		0.2	0.3		4.4	0.6	1.9
Initial Queue D		,		0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Control Delay (12.5	14.6		10.2	16.4		18.7 P	21.1		30.7	23.0	25.0
Level of Servic	. ,			B	B	P	B	B		B	C	<u> </u>	C 25 (С	C
Approach Dela				14.3		B	15.8		В	19.8	5	В	25.4		С
Intersection De	eiay, s/ve	en / LOS				17	7.3						В		
Multimodal Re	sulte				EB			WB			NB			SB	
Pedestrian LO		/1.05		2.11		В	2.29		В	2.1		В	2.11		В
Bicycle LOS S				1.37			1.6								
BICYCIE LOS SI	LOIE / LC	<i>J</i> 3		1.37		A	1.0		В	0.8		A	0.96	,	A

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Appendix D

	-					_	luterees	tion Inf				***	h L
General Information	v=						Intersec				- 1	JĮĻ	** ×
Agency	Skagit County Public Work	1					Duration		1.000		_		×
Analyst	Given Kutz	Analys					Area Typ	e	Other		×		
Jurisdiction		Time F			- 08:00		PHF		1.00		*	w∔e ®	ہ ے ک
Urban Street	Cook Road	<u> </u>		r 2027			Analysis	Period	1> 3:4	45	 *		7 7
Intersection	Old Hwy 99 N	File Na	ame	2027	Cook-O	ld99 A	M.xus					5 P	
Project Description	2023										5	*1 ****	<u>* (*</u>
Demand Information	n		EB			WE	3		NB			SB	
Approach Movement	t	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Demand (v), veh/h		75	392	124	100	61	5 38	118	64	60	64	123	169
												<u> </u>	<u> </u>
Signal Information			7	8			2	21			_	-	
Cycle, s 66.8	8 Reference Phase 2		F″ =	<u> </u>	T₩ ª		5	vzi sv	tz 🖌		4	`` '	kt
Offset, s 0	Reference Point Begin	Green	3.8	0.5	30.8	3.5	2.3	10.0		1		3	4
Uncoordinated Yes	Simult. Gap E/W On	Yellow		0.0	4.0	4.0	0.0	4.0			\rightarrow		512
Force Mode Fixe	d Simult. Gap N/S On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	8
Timer Results		EBI	-	EBT	WB	L	WBT	NB	-	NBT	SBI	-	SBT
Assigned Phase		5		2	1		6	3		8	7		4
Case Number		1.1		4.0	1.1		4.0	1.1		4.0	2.0		3.0
Phase Duration, s		7.8		34.8	8.2		35.3	9.8		16.3	7.5		14.0
Change Period, (Y+	<i>R</i> c), s	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
Max Allow Headway	(<i>MAH</i>), s	3.1		3.1	3.1		3.1	3.1		3.2	3.1		3.2
Queue Clearance Tir	me (<i>g</i> ₅), s	3.6		22.4	4.0		28.6	6.4		6.1	4.8		9.2
Green Extension Tim	ne (<i>g</i> _e), s	0.1		2.5	0.1		2.5	0.1		0.7	0.1		0.7
Phase Call Probabilit	ty	0.75	5	1.00	0.85	5	1.00	0.89)	1.00	0.70)	1.00
Max Out Probability		0.00)	0.00	0.00)	0.00	0.00)	0.00	0.00)	0.00
Movement Group R	esults		EB			WB			NB			SB	
Approach Movement	t	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Assigned Movement		5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate ((v), veh/h	75	516		100	653		118	102		64	123	136
Adjusted Saturation I	Flow Rate (<i>s</i>), veh/h/ln	1626	1432		1682	1530		1499	1475		1513	1589	1212
Queue Service Time	• •	1.6	20.4		2.0	26.6		4.4	4.1		2.8	4.8	7.2
Cycle Queue Clearar	nce Time (g c), s	1.6	20.4	1	2.0	26.6		4.4	4.1		2.8	4.8	7.2
Green Ratio (g/C)		0.52	0.46		0.53	0.47		0.24	0.18	1	0.05	0.15	0.15
Capacity (c), veh/h		230	661		348	717		322	272		79	237	181
Volume-to-Capacity F	Ratio(X)	0.326	0.780		0.288	0.911		0.367	0.376	1	0.805	0.518	0.751
	ft/In (50 th percentile)	13.2	158.2	_	16.7	223.6		42.1	39.8		33.2	50.9	60.6
(· · / ·	veh/ln (50 th percentile)	0.5	5.7	1	0.6	8.3		1.4	1.4		1.1	1.7	2.1
	(RQ) (50 th percentile)	0.07	0.16		0.08	0.22		0.21	0.04		0.17	0.05	0.61
Uniform Delay (<i>d</i> 1),	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	14.7	15.2		11.5	16.5	_	21.2	24.0		31.5	26.3	27.4
Incremental Delay (0.3	0.8		0.2	3.0		0.3	0.3		7.4	0.7	2.4
Initial Queue Delay (, .	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Control Delay (d), s		15.0	16.0	1	11.7	19.5		21.4	24.3		38.8	27.0	29.8
Level of Service (LOS		B	B		B	B		C	C		D	C	C
Approach Delay, s/ve	,	15.9		B	18.5		В	22.8		С	30.5		C
Intersection Delay, s/		10.0).2			22.0			C		0
				20							J		
Multimodal Results			EB			WB			NB			SB	
Pedestrian LOS Scor		2.11		В	2.29		В	2.11		В	2.12		В
Bicycle LOS Score /		1.46		A	1.73		B	0.85		A	1.02	_	A
,	-						_	0.00					

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Begin Appendix E

Project Information

Given Kutz		Date		06/14/2023
SCPW		Analysis Year		2022
County		Time Period Analy	vzed	2022
2022 Cook Road - - 3.36	- MP 1.86	Unit		United States Customary
	Segn	nent 1		
Passing Zone		Length, ft		7920
12		Shoulder Width, f	t	6
50		Access Point Dens	sity, pts/mi	16.0
y				
e, veh/h 856		Opposing Deman	d Flow Rate, veh/h	588
0.94		Total Trucks, %		5.00
1700		Demand/Capacity	r (D/C)	0.50
1		Free-Flow Speed,	mi/h	52.8
3.29683		Speed Power Coe	fficient	0.47121
-1.29670		PF Power Coefficie	ent	0.75949
th? No		Total Segment De	nsity, veh/mi/ln	11.7
0.0		% Improved Avg	Speed	0.0
		-		
Length, ft	Rad	ius, ft	Superelevation, %	Average Speed, mi/h
7920	-		-	49.9
			·	
49.9		Percent Followers	, %	68.4
1.80		Followers Density,	, followers/mi/ln	11.7
D				
	SCPW SCPW County 2022 Cook Road - 3.36 Passing Zone I2 50 y s, veh/h 856 0.94 1700 y s, veh/h 856 0.94 1700 12 So y s, veh/h 856 0.94 1700 12 So y Length, ft 10.0 y So S	SCPWCounty2022 Cook Road - MP 1.86 - 3.36SEgmSegmSegmPassing Zone1250ye, veh/h856 0.94170013.29683 -1.29670th?No 	SCPWAnalysis YearCountyTime Period Analy2022 Cook Road - MP 1.86 - 3.36UnitSegment 1Segment 1Passing ZoneLength, ft12Shoulder Width, f50Access Point Denseye, veh/h856Opposing Deman0.94Total Trucks, %1700Demand/Capacity1100Free-Flow Speed,3.29683Speed Power Coe-1.29670PF Power Coefficieth?NoTotal Segment De0.0% Improved Avg S17920-49.9Percent Followers1.80Followers Density	SCPW Analysis Year County Time Period Analyzed 2022 Cook Road - MP 1.86 Unit 2022 Cook Road - MP 1.86 Unit -3.36 Unit Segment 1 Passing Zone 12 Shoulder Width, ft 50 Access Point Density, pts/mi y y e, veh/h 856 Opposing Demand Flow Rate, veh/h 0.94 Total Trucks, % 1700 Demand/Capacity (D/C) 1 Free-Flow Speed, mi/h 3.29683 Speed Power Coefficient 1.29670 PF Power Coefficient 1.29670 PF Power Coefficient 1.29670 PF Power Coefficient 0.0 % Improved Avg Speed where the system of the s

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Project Information

Pro	ject Information				
Anal	yst	Given Kutz	Date		06/14/2023
Age	псу	SCPW	Analysis Year		2022
Juris	diction	County	Time Period Anal	yzed	2027
Proje	ect Description	2027 Cook Road - MP 1. - 3.36	.86 Unit		United States Customary
		Se	gment 1		
Veł	nicle Inputs				
Segr	nent Type	Passing Zone	Length, ft		7920
Lane	e Width, ft	12	Shoulder Width,	ft	6
Spee	ed Limit, mi/h	50	Access Point Den	sity, pts/mi	16.0
De	mand and Capacity				
Dire	ctional Demand Flow Rate, veh/h	946	Opposing Demar	nd Flow Rate, veh/h	650
Peak	Hour Factor	0.94	Total Trucks, %		5.00
Segr	nent Capacity, veh/h	1700	Demand/Capacit	y (D/C)	0.56
Int	ermediate Results				
Segr	nent Vertical Class	1	Free-Flow Speed,	, mi/h	52.8
Spee	ed Slope Coefficient	3.30968	Speed Power Coe	efficient	0.46456
PF S	lope Coefficient	-1.30295	PF Power Coeffic	ient	0.75709
In Pa	assing Lane Effective Length?	No	Total Segment De	ensity, veh/mi/ln	13.6
%lm	proved % Followers	0.0	% Improved Avg	Speed	0.0
Sul	osegment Data				
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	7920	-	-	49.8
Veł	nicle Results	· · ·			•
Aver	age Speed, mi/h	49.8	Percent Followers	5, %	71.3
Segr	nent Travel Time, minutes	1.81	Followers Density	/, followers/mi/ln	13.6
Vehi	cle LOS	D			
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Project Information

Pro	ject Information				
Anal	yst	Given Kutz	Date		06/14/2023
Ager	тсу	SCPW	Analysis Year		2022
Juris	diction	County	Time Period Anal	yzed	2022
Proje	ect Description	2022 Cook Road - MP 3. - 4.60	36 Unit		United States Customa
		Seg	gment 1		
Veh	nicle Inputs				
Segn	nent Type	Passing Zone	Length, ft		6547
Lane	Width, ft	12	Shoulder Width,	ft	6
Spee	ed Limit, mi/h	50	Access Point Den	sity, pts/mi	12.0
Der	mand and Capacity				
Direc	ctional Demand Flow Rate, veh/h	871	Opposing Demar	nd Flow Rate, veh/h	641
Peak	Hour Factor	0.94	Total Trucks, %		5.00
Segn	nent Capacity, veh/h	1700	Demand/Capacit	y (D/C)	0.51
Inte	ermediate Results				
Segn	nent Vertical Class	1	Free-Flow Speed	, mi/h	53.8
Spee	ed Slope Coefficient	3.35070	Speed Power Coe	efficient	0.46544
PF SI	lope Coefficient	-1.29792	PF Power Coeffic	ient	0.76686
In Pa	ssing Lane Effective Length?	No	Total Segment De	ensity, veh/mi/ln	11.8
%lm	proved % Followers	0.0	% Improved Avg	Speed	0.0
Sub	osegment Data				
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	6547 -	-	-	50.9
Veh	nicle Results	•			
Aver	age Speed, mi/h	50.9	Percent Followers	5, %	68.9
Segn	nent Travel Time, minutes	1.46	Followers Density	/, followers/mi/ln	11.8
	cle LOS	D			

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Project Information

Pro	ject Information				
Anal	vst	Given Kutz	Date		06/14/2023
Ager	су	SCPW	Analysis Year		2022
Juris	diction	County	Time Period Anal	yzed	2027
Proje	ect Description	2027 Cook Road - MP 3. - 4.60	.36 Unit		United States Customary
		Seg	gment 1		
Veh	icle Inputs				
Segn	nent Type	Passing Zone	Length, ft		6547
Lane	Width, ft	12	Shoulder Width,	ft	6
Spee	d Limit, mi/h	50	Access Point Den	sity, pts/mi	12.0
Der	nand and Capacity				
Dired	tional Demand Flow Rate, veh/h	962	Opposing Demar	nd Flow Rate, veh/h	709
Peak	Hour Factor	0.94	Total Trucks, %		5.00
Segn	nent Capacity, veh/h	1700	Demand/Capacity	y (D/C)	0.57
Inte	ermediate Results				
Segn	nent Vertical Class	1	Free-Flow Speed,	mi/h	53.8
Spee	d Slope Coefficient	3.36408	Speed Power Coe	efficient	0.45887
PF SI	ope Coefficient	-1.30389	PF Power Coeffici	ient	0.76438
In Pa	ssing Lane Effective Length?	No	Total Segment De	ensity, veh/mi/ln	13.6
%lm	proved % Followers	0.0	% Improved Avg	Speed	0.0
Sub	osegment Data				
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	6547	-	-	50.7
Veh	icle Results				
Aver	age Speed, mi/h	50.7	Percent Followers	5, %	71.8
Segn	nent Travel Time, minutes	1.47	Followers Density	/, followers/mi/ln	13.6
Vehi	cle LOS	D			
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Project Information

Pro	ject Information					
Anal	yst	Given Kutz	Date		06/14/2023	
Ager	псу	SCPW	Analysis Year		2022	
Juris	diction	County	Time Period Anal	yzed	2022	
Proje	ect Description	2022 Cook Road - MP 4. - 5.62	60 Unit		United States Customa	
		Seg	gment 1			
Veh	nicle Inputs					
Segn	nent Type	Passing Zone	Length, ft		5386	
Lane	Width, ft	12	Shoulder Width,	ft	6	
Spee	ed Limit, mi/h	50	Access Point Der	isity, pts/mi	12.0	
Der	mand and Capacity					
Dired	ctional Demand Flow Rate, veh/h	947	Opposing Demai	nd Flow Rate, veh/h	651	
Peak	Hour Factor	0.94	Total Trucks, %		5.00	
Segn	nent Capacity, veh/h	1700	Demand/Capacit	y (D/C)	0.56	
Inte	ermediate Results					
Segn	nent Vertical Class	1	Free-Flow Speed	, mi/h	53.8	
Spee	ed Slope Coefficient	3.34200	Speed Power Co	efficient	0.46445	
PF SI	ope Coefficient	-1.30378	PF Power Coeffic	ient	0.76958	
In Pa	ssing Lane Effective Length?	No	Total Segment D	ensity, veh/mi/ln	13.3	
%lm	proved % Followers	0.0	% Improved Avg	Speed	0.0	
Suk	osegment Data					
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h	
1	Tangent	5386	-	-	50.7	
Veh	nicle Results	· · ·		• •		
Aver	age Speed, mi/h	50.7	Percent Followers	s, %	71.4	
Segn	nent Travel Time, minutes	1.21	Followers Density	y, followers/mi/ln	13.3	
	cle LOS	D				

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Project Information

Pro	ject Information					
Anal	yst	Given Kutz	Date		06/14/2023	
Ager	псу	SCPW	Analysis Year		2022	
Juris	diction	County	Time Period Anal	yzed	2027	
Proje	ect Description	2027 Cook Road - MP 4. - 5.62	60 Unit		United States Customa	
		See	gment 1			
Veł	nicle Inputs					
Segr	nent Type	Passing Constrained	Length, ft		5386	
Lane	Width, ft	12	Shoulder Width,	ft	6	
Spee	ed Limit, mi/h	50	Access Point Den	sity, pts/mi	24.0	
Der	mand and Capacity					
Dire	ctional Demand Flow Rate, veh/h	1046	Opposing Demar	nd Flow Rate, veh/h	-	
Peak	Hour Factor	0.94	Total Trucks, %		5.00	
Segr	nent Capacity, veh/h	1700	Demand/Capacit	y (D/C)	0.62	
Inte	ermediate Results					
Segr	nent Vertical Class	1	Free-Flow Speed,	mi/h	50.8	
Spee	ed Slope Coefficient	3.31637	Speed Power Coe	efficient	0.41674	
PF SI	lope Coefficient	-1.36160	PF Power Coeffic	ient	0.73557	
In Pa	assing Lane Effective Length?	No	Total Segment De	ensity, veh/mi/ln	16.6	
%lm	proved % Followers	0.0	% Improved Avg	Speed	0.0	
Suk	osegment Data					
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h	
1	Tangent	5386	-	-	47.6	
Veł	nicle Results	· · · · · ·		-		
Aver	age Speed, mi/h	47.6	Percent Followers	5, %	75.5	
Segr	nent Travel Time, minutes	1.29	Followers Density	/, followers/mi/ln	16.6	
	cle LOS	E				

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Project Information

Pro	ject Information				
Anal	yst	Given Kutz	Date		06/16/2023
Ager	псу	SCPW	Analysis Year		2022
Juris	diction	County	Time Period Ana	llyzed	2022
Proje	ect Description	Pioneer Hwy County Lin to Fir Island Rd	e Unit	Unit	
		Se	gment 1		
Veł	nicle Inputs				
Segr	nent Type	Passing Zone	Length, ft		16183
Lane	Width, ft	12	Shoulder Width, ft 6		6
Spee	ed Limit, mi/h	50	Access Point De	nsity, pts/mi	4.0
Der	mand and Capacity				
Dire	ctional Demand Flow Rate, veh/h	556	Opposing Demand Flow Rate, veh/h 42 Total Trucks, % 0.0		421
Peak	Hour Factor	0.94	Total Trucks, %		
Segr	nent Capacity, veh/h	1700	Demand/Capaci	Demand/Capacity (D/C)	
Inte	ermediate Results				
Segr	nent Vertical Class	1	Free-Flow Speed, mi/h		56.0
Spee	ed Slope Coefficient	3.44928	Speed Power Co	oefficient	0.49343
PF SI	lope Coefficient	-1.27742	PF Power Coeffic	cient	0.75688
In Pa	ssing Lane Effective Length?	No	Total Segment D	Density, veh/mi/ln	5.8
%lm	proved % Followers	0.0	% Improved Avg	y Speed	0.0
Suk	osegment Data				
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	16183	-	-	53.7
Veł	nicle Results				
Aver	age Speed, mi/h	53.7	Percent Follower	rs, %	55.9
Segr	nent Travel Time, minutes	3.43	Followers Densit	ty, followers/mi/ln	5.8
	cle LOS	С			

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Project Information

Proj	ect Information				
Analy	st	Given Kutz	Date		06/16/2023
Agen	су	SCPW	Analysis Year		2022
Jurisd	liction	County	Time Period Ana	alyzed	2027
Proje	ct Description	Pioneer Hwy County Lin to Fir Island Rd	e Unit		United States Customary
		Se	gment 1		
Vehi	icle Inputs				
Segm	ent Type	Passing Zone	Length, ft		16183
Lane	Width, ft	12	Shoulder Width	Shoulder Width, ft 6	
Speed	d Limit, mi/h	50	Access Point De	nsity, pts/mi	4.0
Den	nand and Capacity				
Direct	tional Demand Flow Rate, veh/h	614	Opposing Dema	Opposing Demand Flow Rate, veh/h 4	
Peak	Hour Factor	0.94	Total Trucks, %		
Segm	ent Capacity, veh/h	1700	Demand/Capac	ity (D/C)	0.36
Inte	rmediate Results				
Segm	ent Vertical Class	1	Free-Flow Speed	d, mi/h	56.0
Speed	d Slope Coefficient	3.46003	Speed Power Co	pefficient	0.48692
PF Slo	ppe Coefficient	-1.28325	PF Power Coeffi	cient	0.75482
In Pas	sing Lane Effective Length?	No	Total Segment [Density, veh/mi/ln	6.8
%lmp	roved % Followers	0.0	% Improved Ave	g Speed	0.0
Sub	segment Data				
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	16183	-	-	53.5
Veh	icle Results				
Avera	ge Speed, mi/h	53.5	Percent Followe	ers, %	58.8
Segm	ent Travel Time, minutes	3.44	Followers Densi	ty, followers/mi/ln	6.8
Vehic	le LOS	С			

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Project Information

Pro	ject Information				
Anal	yst	Given Kutz	Date		06/16/2023
Age	псу	SCPW	Analysis Year		2022
Juris	diction	County	Time Period Ar	alyzed	2022
Proje	ect Description	Pioneer Hwy - Fir Island to I-5	Rd Unit		United States Customary
		Se	gment 1		
Veł	nicle Inputs				
Segr	nent Type	Passing Zone	Length, ft		739
Lane	e Width, ft	12	Shoulder Width, ft 6		6
Spee	ed Limit, mi/h	35	Access Point D	ensity, pts/mi	0.0
De	mand and Capacity				
Dire	ctional Demand Flow Rate, veh/h	620	Opposing Dem	Opposing Demand Flow Rate, veh/h 53 Total Trucks, % 0.0	
Peak	Hour Factor	0.94	Total Trucks, %	Total Trucks, % 0.0	
Segr	nent Capacity, veh/h	1700	Demand/Capad	city (D/C)	0.36
Inte	ermediate Results				
Segr	nent Vertical Class	1	Free-Flow Spee	Free-Flow Speed, mi/h 3	
Spee	ed Slope Coefficient	2.50890	Speed Power C	oefficient	0.47794
PF S	lope Coefficient	-1.40682	PF Power Coeff	icient	0.70099
In Pa	assing Lane Effective Length?	No	Total Segment	Density, veh/mi/ln	10.3
%lm	proved % Followers	0.0	% Improved Av	vg Speed	0.0
Sub	osegment Data				2.
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	739	-	-	38.1
Veł	nicle Results				
Aver	age Speed, mi/h	38.1	Percent Follow	ers, %	63.5
Segr	nent Travel Time, minutes	0.22	Followers Dens	ity, followers/mi/ln	10.3
Vehi	cle LOS	D			
opyri	ght © 2023 University of Florida. All Rights	Reserved. HCSTM Tw	o-Lane Version 7.8.5		Generated: 06/16/2023 14:18

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Project Information

Anal	yst	Given Kutz	Date		06/16/2023
Ager	ncy	SCPW	Analysis Year		2022
Juris	diction	County	Time Period Ana	yzed	2027
Proje	ect Description	Pioneer Hwy - Fir Island to I-5	Rd Unit	Unit	
		Seg	gment 1		
Veł	nicle Inputs				
Segr	nent Type	Passing Zone	Length, ft		739
Lane	e Width, ft	12	Shoulder Width,	ft	6
Spee	ed Limit, mi/h	35	Access Point Der	nsity, pts/mi	0.0
Dei	mand and Capacity				
Dire	ctional Demand Flow Rate, veh/h	685	Opposing Dema	nd Flow Rate, veh/h	587
Peak	Hour Factor	0.94	Total Trucks, %		
Segr	ment Capacity, veh/h	1700			0.40
Inte	ermediate Results				
Segr	nent Vertical Class	1	Free-Flow Speed, mi/h		39.9
Spee	ed Slope Coefficient	2.52103	Speed Power Co	efficient	0.47133
PF S	lope Coefficient	-1.41580	PF Power Coeffic	ient	0.69913
In Pa	assing Lane Effective Length?	No	Total Segment D	ensity, veh/mi/ln	12.0
%lm	proved % Followers	0.0	% Improved Avg	Speed	0.0
Sub	osegment Data				
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	739 -	-	-	37.9
Veł	nicle Results	•			
Aver	age Speed, mi/h	37.9	Percent Follower	s, %	66.3
Segr	ment Travel Time, minutes	0.22	Followers Densit	y, followers/mi/ln	12.0
Vala:	cle LOS	D			

TwoLane1.xuf

Project Information

Proj	ject Information					
Analy	vst	Given Kutz		Date		06/16/2023
Agen	су	SCPW		Analysis Year		2022
Jurisc	liction	County		Time Period Analy	vzed	2022
Proje	ct Description	South Laventure Rd S c Blackburn	of E	Unit		United States Customary
		Se	egm	ent 1		
Veh	icle Inputs					
Segr	nent Type	Passing Constrained		Length, ft 1		1204
Lane	Width, ft	12		Shoulder Width, ft 6		6
Speed	d Limit, mi/h	35		Access Point Dens	sity, pts/mi	0.0
Den	nand and Capacity					
Direc	tional Demand Flow Rate, veh/h	485		Opposing Demand Flow Rate, veh/h -		-
Peak	Hour Factor	0.94				0.00
Segr	nent Capacity, veh/h	1700		Demand/Capacity (D/C)		0.29
Inte	rmediate Results					
Segr	nent Vertical Class	1		Free-Flow Speed,	mi/h	39.9
Spee	d Slope Coefficient	2.67130		Speed Power Coefficient		0.41674
PF Slo	ope Coefficient	-1.50541		PF Power Coefficie	ent	0.67645
In Pa	ssing Lane Effective Length?	No		Total Segment De	nsity, veh/mi/ln	7.7
%lmp	proved % Followers	0.0		% Improved Avg	Speed	0.0
Sub	segment Data					•
#	Segment Type	Length, ft	Radi	us, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1204	-		-	38.1
Veh	icle Results				•	
Avera	age Speed, mi/h	38.1		Percent Followers	, %	60.3
Segr	nent Travel Time, minutes	0.36		Followers Density	, followers/mi/ln	7.7
Vehic	le LOS	С				

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Project Information

Project	Information					
Analyst		Given Kutz		Date		06/16/2023
Agency		SCPW		Analysis Year		2022
Jurisdictio	n	County		Time Period Analy	zed	2027
Project De	escription	South Laventure Rd S o Blackburn	of E	Unit		United States Customary
		Se	egm	nent 1		
Vehicle	Inputs					
Segment 1	Гуре	Passing Constrained		Length, ft		1204
Lane Widt	h, ft	12		Shoulder Width, ft 6		6
Speed Lim	iit, mi/h	35				0.0
Deman	d and Capacity					
Directiona	l Demand Flow Rate, veh/h	535		Opposing Deman	d Flow Rate, veh/h	-
Peak Hour	Factor	0.94				0.00
Segment (Capacity, veh/h	1700		Demand/Capacity (D/C)		0.31
Interm	ediate Results					
Segment \	Vertical Class	1				39.9
Speed Slo	pe Coefficient	2.67130		Speed Power Coefficient C		0.41674
PF Slope C	Coefficient	-1.50541		PF Power Coefficie	ent	0.67645
In Passing	Lane Effective Length?	No		Total Segment De	nsity, veh/mi/ln	8.8
%Improve	d % Followers	0.0		% Improved Avg S	Speed	0.0
Subseg	ment Data					
# Segi	ment Type	Length, ft	Radi	ius, ft	Superelevation, %	Average Speed, mi/h
1 Tang	gent	1204	-		-	38.0
Vehicle	Results				•	
Average S	peed, mi/h	38.0		Percent Followers	, %	62.7
Segment T	Travel Time, minutes	0.36		Followers Density,	followers/mi/ln	8.8
Vehicle LO	S	С				

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Project Information

Given Kutz SCPW County		Date Analysis Year		06/16/2023
County		Analysis Year		
				2022
Courth Louisentiume [Time Period Analyzed Unit nent 1 Length, ft Shoulder Width, ft Access Point Density, pts/mi Opposing Demand Flow Rate, veh/h		2022
Blodgett Rd	Rd E of	Unit		United States Customary
	Segi	ment 1		
Passing Constrain	ed	Length, ft		1447
12		Shoulder Width, f	t	6
35		Access Point Dens	sity, pts/mi	0.0
h 539		Opposing Demand Flow Rate, veh/h -		-
0.94		Total Trucks, %		0.00
1700		Demand/Capacity	/ (D/C)	0.32
1		Free-Flow Speed,	mi/h	39.9
d Slope Coefficient 2.67372 Speed Power Coefficient		0.41674		
-1.49696		PF Power Coefficient C		0.67858
No		Total Segment De	nsity, veh/mi/ln	8.9
0.0		% Improved Avg S	Speed	0.0
Length, ft	Ra	adius, ft	Superelevation, %	Average Speed, mi/h
1447	-		-	38.0
38.0		Percent Followers	, %	62.6
0.43		Followers Density, followers/mi/In		8.9
С				
	Blodgett Rd Bassing Constraine 12 35 12 35 1 10 35 1 10 1700 1 2.67372 -1.49696 No 0.0 Length, ft 1447 38.0 0.43 C	Segn Passing Constrained 12 35 h 539 0.94 1700 1 2.67372 -1.49696 No 0.0 Length, ft Ra 1447 - 38.0 0.43 C C	Biodgett Rd Segment 1 Sessing Constrained Length, ft 12 Shoulder Width, ft 35 Access Point Dense h 539 Opposing Deman 0.94 Total Trucks, % 1700 Demand/Capacity 11700 Demand/Capacity 1 Speed Power Coe 1.49696 PF Power Coefficie No Total Segment De 0.0 % Improved Avg S 1447 - 38.0 Percent Followers 38.0 Percent Followers 0.43 Followers Density	Blodgett Rd Segment 1 Passing Constrained Length, ft 12 Shoulder Width, ft 35 Access Point Density, pts/mi h 539 Opposing Demand Flow Rate, veh/h 0.94 Total Trucks, % 1700 Demand/Capacity (D/C) 1 Free-Flow Speed, mi/h 2.67372 Speed Power Coefficient 1.149696 PF Power Coefficient No Total Segment Density, veh/mi/ln 0.0 % Improved Avg Speed I Radius, ft Superelevation, % 1 Redius, ft Superelevation, % 38.0 Percent Followers, % 0.43 38.0 Percent Followers, %

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Project Information

Rd E of Segr	Date Analysis Year Time Period Analy Unit	zed	06/16/2023 2022 2027 United States Customary
	Time Period Analy	zed	2027
	-	zed	
	Unit		United States Customarv
Segr			
	ment 1		
ed	Length, ft		1447
	-		6
	Access Point Dens	ity, pts/mi	0.0
	Opposing Demand Flow Rate, veh/h -		-
	Total Trucks, %		0.00
	Demand/Capacity (D/C)		0.35
	Free-Flow Speed,	mi/h	39.9
ent 2.67372 Speed Power Coefficient 0		0.41674	
	PF Power Coefficient (0.67858
	Total Segment De	nsity, veh/mi/ln	10.3
	% Improved Avg S	Speed	0.0
Ra	adius, ft	Superelevation, %	Average Speed, mi/h
-		-	37.9
		·	
	Percent Followers,	%	65.2
	Followers Density,	Followers Density, followers/mi/ln 10.3	
	Ra 	Shoulder Width, fr Access Point Dens Opposing Deman Total Trucks, % Demand/Capacity Free-Flow Speed, Speed Power Coefficie Speed Power Coefficie PF Power Coefficie 70tal Segment De % Improved Avg S % Improved Avg S 70tal Segment De % Improved Avg S 8 8	Shoulder Width, ft Access Point Density, pts/mi Opposing Demand Flow Rate, veh/h Total Trucks, % Demand/Capacity (D/C) Free-Flow Speed, mi/h Speed Power Coefficient FFee-Flow Speed, mi/h Speed Power Coefficient PF Power Coefficient PF Power Coefficient PF Power Coefficient 7 total Segment Density, veh/mi/ln % Improved Avg Speed 7 rotal Segment Density, veh/mi/ln

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