# **Seller's Acknowledgement/Disclaimer**

The enclosed documents were prepared by various companies to have an assessment of the property for the seller. These documents were prepared from the year 2000 - 2006. To the best of seller's knowledge, the property has not been altered since that time other than the timber being harvested. The seller has provided these documents to help assist bidders in the due diligence process. However, it is the responsibility of the bidder and/or bidder's representative to verify all information and conduct their own due diligence prior to bidding on the property. The seller makes no warranty as to the accuracy or completeness of these documents.

# **Edwards Lake Road Tract**

Jefferson County, Alabama

# Traffic Impact Study & Traffic Signal Warrant Evaluation

Prepared for:

**Tynes Development Corporation** 

Birmingham, Alabama

Prepared by:

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Gonzalez-Strength & Associates Birmingham, Alabama

05TDC17-T

May 2005



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- Appendix C Side Street Approach Traffic Volume Generation
- Appendix D Traffic Signal Warrant Analysis Results
- Appendix E Turn Lane Warrant Analysis Results
- Appendix F Explanation of Levels of Service (LOS)
- Appendix G Capacity Analysis Results

### INTRODUCTION

### **Purpose of Report**

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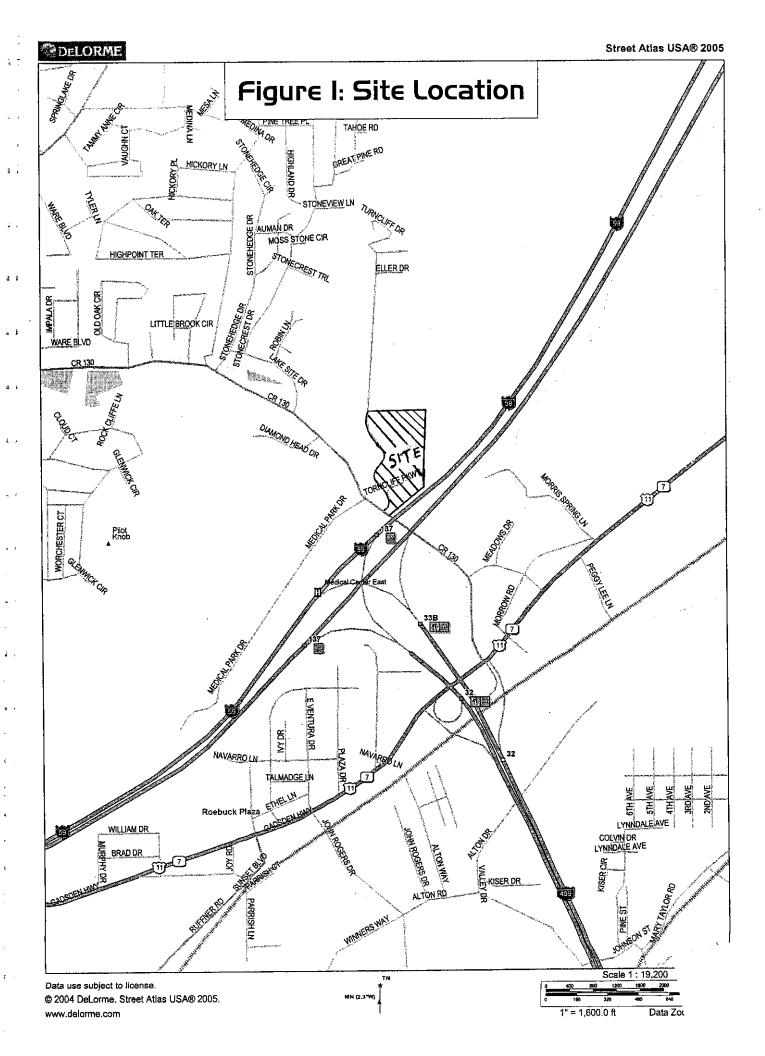
The purpose of this report is to determine the traffic impact the proposed development will have on the existing roadways, and to minimize or prevent any adverse impacts, with roadway operational and/or geometric improvements. This proposed residential development, the Edwards Lake Road Tract, would consist of 229 single-family lots and 32 townhouse lots. It is anticipated that this development will reach full build-out in 2008. See Figure 1 for the site location map.

### **Study Objectives**

This traffic study has been conducted to accomplish the following objectives:

- Collect peak hour turning movement counts at the Edwards Lake Road & Turncliff Parkway intersection;
- Collect 24-hour approach counts on Edwards Lake Road & Turncliff Parkway;
- Determine if adequate sight distance is provided;
- Estimate the traffic generated by the proposed development;
- Predict the directional distribution of site-generated traffic;
- Perform a traffic signal warrant analysis at the intersection of Edwards Lake Road & Turncliff Parkway;
- Perform a turn lane warrant analysis at the intersection of Edwards Lake Road & Turncliff Parkway;
- Perform a capacity analysis at the intersection of Edwards Lake Road & Turncliff Parkway;

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• Determine if any operational and/or geometric improvements are needed to accommodate this additional traffic.

The sources for the information used in this report include: the Institute of Transportation Engineers (ITE) Trip Generation Manual, the American Association of State Highway and Transportation Officials (AASHTO), Jeff Pate Design, Tynes Development Corporation, field reconnaissance, and other information collected by Gonzalez-Strength & Associates (GSA).

### **BACKGROUND INFORMATION**

### Site Description and Access

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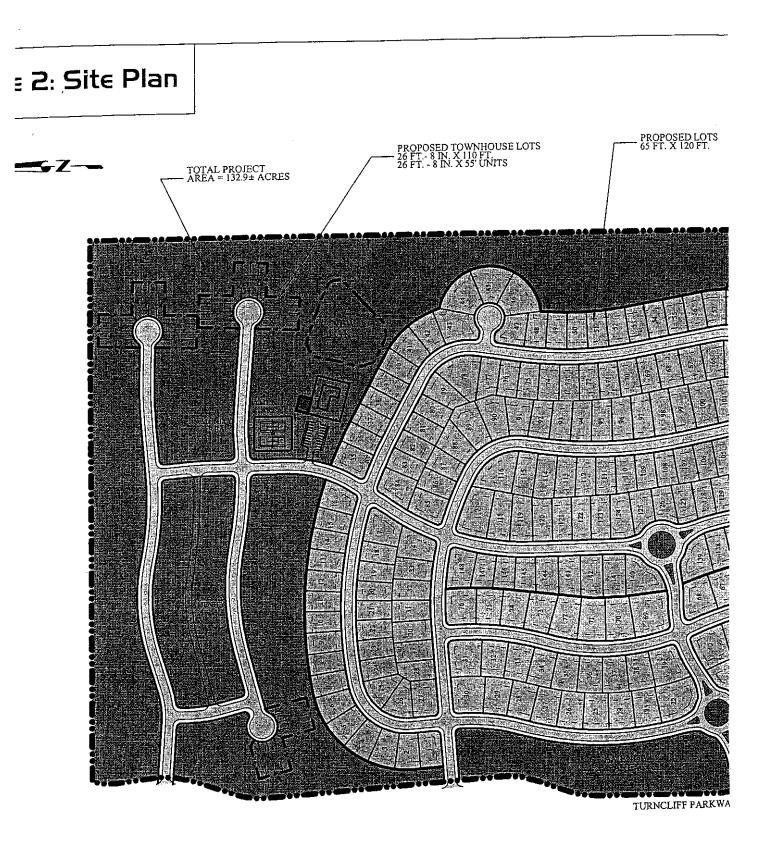
This proposed residential development will be located on the east side of Turncliff Parkway and on the west side of I-59. This development will consist of townhouses in the northern half of the site, and single-family homes in the southern half of the site.

It is proposed that this development will have three entrance drives onto Turncliff Parkway. The location of these drives is illustrated in the site plan, in **Figure 2**. For the purposes of this study, Turncliff Parkway will run north and south, while Edwards Lake Road will run east and west.

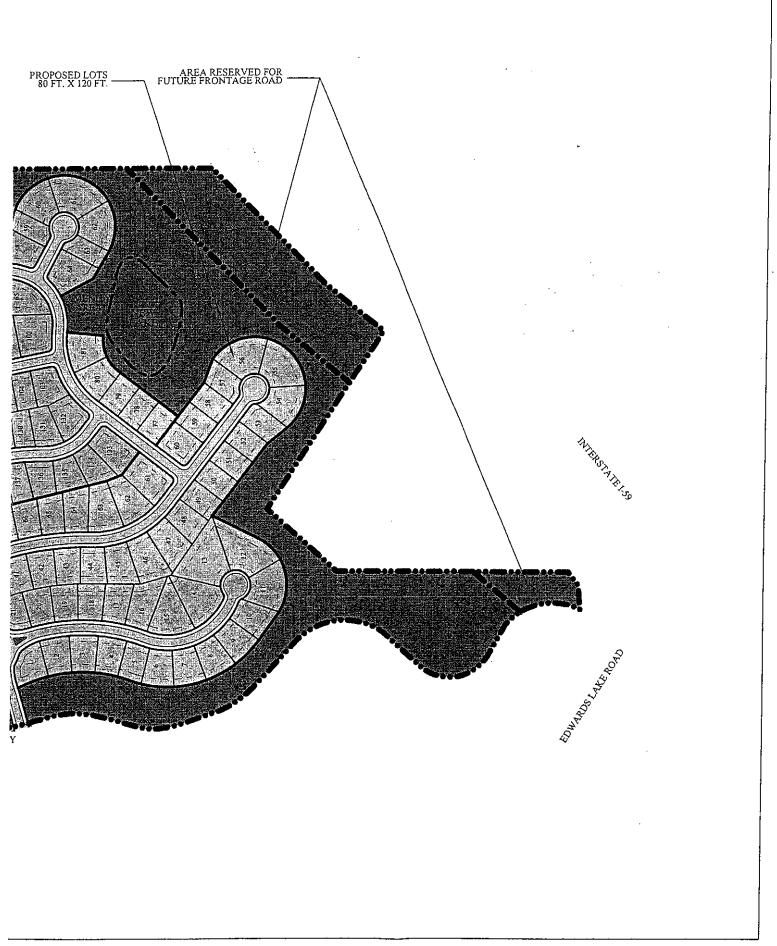
### **Description of Area Roadways**

*Edwards Lake Road* (CR 130) is a major two-lane artery that runs east and west from Gadsden Highway to Springville Road. In the vicinity of the Turncliff Parkway intersection, this roadway has a posted speed limit of 35 mph, and carries approximately 23,000 vehicles per day.

*Turncliff Parkway* is a two-lane north/south roadway that originates at Edwards Lake Road and terminates approximately one mile to the north into a residential community. This roadway carries approximately 280 vehicles per day, and has no posted speed limit.



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### **Existing Traffic Volumes**

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Turning movement counts (TMCs) were collected by GSA staff at the intersection of Edwards Lake Road and Turncliff Parkway. These counts were performed during the AM and PM peak traffic conditions on Tuesday, May 17, 2005. The results of these counts are illustrated graphically in Figure 3, and provided in full detail in Appendix A.

Twenty-four hour approach counts were collected by Traffic Logistics on Thursday and Friday, May 19<sup>th</sup> and 20<sup>th</sup>, respectively. These approach counts were also performed at the intersection of Edwards Lake Road & Turncliff Parkway. The results of these 24-hour counts are provided in **Appendix B**.

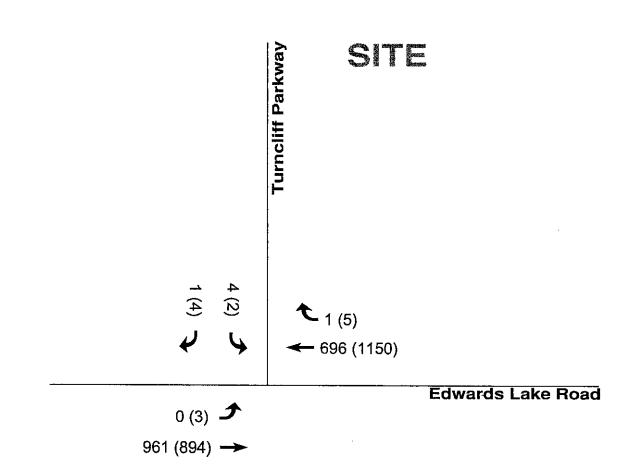
### **Sight Distance Analysis**

Intersection Sight Distance (ISD) is the sight distance required for a side street motorist to be able to see an approaching main street vehicle, traveling at the design or posted speed, and have time to determine whether or not an adequate gap exists for entry onto the main street such that the main street motorist does not have to excessively decelerate. The required ISD will be based on the *American Association of State Highway and Transportation Officials (AASHTO)* guidelines. The required ISD, based on a posted speed of 35 mph and a relatively flat grade, is 390'. From the field investigation, it is determined that the provided sight distance looking to the east along Edwards Lake Drive, from the Turncliff Parkway approach, is 880'. The provided sight distance looking to the west along Edwards Lake Road, from the Turncliff Parkway approach, is 450'. Therefore, adequate ISD is provided looking east and west along Edwards Lake Road from the Turncliff Parkway approach.



XX - Indicates AM Peak Hour Volumes (XX) - Indicates PM Peak Hour Volumes

No. 1 - Aller



### **PROJECTED TRAFFIC**

### Site Traffic (Generation)

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The *new traffic* expected to be generated upon full build-out of the proposed development (anticipated in 2008) was estimated according to information outlined in the *Trip Generation, Sixth Edition*, published by the Institute of Transportation Engineers. The trip generation estimates were based on the following land uses: Single-Family Homes and Residential Townhouses. The total estimated trips generated by the new development are composed of *new trips*, exclusively. *New trips* consist of traffic that would not otherwise have traveled to the adjacent roadways. See **Table 1** for actual trip generated estimates.

For the purposes of performing a traffic signal warrant analysis, a fourteen-hour side street approach traffic generation analysis has been provided. In this analysis, the 24-hour site-generated traffic has been broken down into hourly volumes and analyzed. All fourteen hours of the major side street approach traffic volumes are derived in **Appendix C-Tables 1-3**.

Land Use	Size	Traffic	Rate Equations	Traffic Generated					
Liand Ost	(Lots)	Condition	(X) = Size	Total	In	Out			
Single Family	229	AM Peak	T=0.7*(X)+9.43	170	43	127			
Residential	223	PM Peak	Ln (T)=0.90*Ln (X) +0.53	226	142	84			
Residential	32	AM Peak	Ln (T)=0.80*Ln (X) +0.26	21	4	17			
Townhomes	- <b>-</b>	PM Peak	Ln (T)=0.82*Ln (X) +0.32	24	16	8			

**Table 1: Peak Hour Trip Generation Estimates** 

### Site Traffic (Distribution)

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The *new trips* generated into and out of the proposed development have been distributed according to existing distributions, determined from recent traffic counts. See Figure 4 for a graphic representation of the projected distribution.

### **Total Future Traffic**

The *future pre-development* (or no-build) *traffic* consists of the existing traffic that was recently collected, with a growth factor applied. Since the proposed development has an anticipated build-out in three years (2008), a generally accepted 3% annual growth factor has been applied to the existing counts. This future pre-development traffic condition is presented in **Figure 5**.

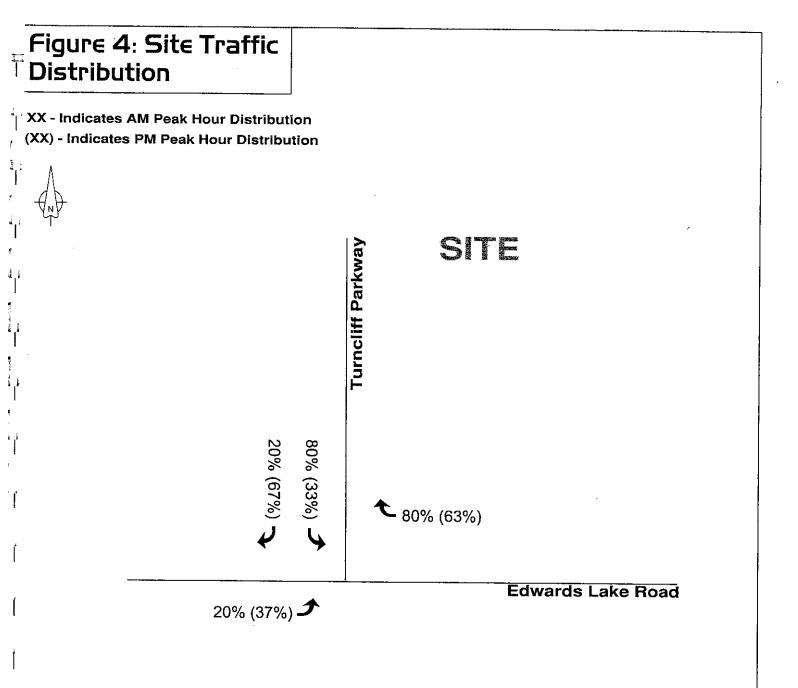
The *future post-development* (or total) *traffic* consists of the sum of the *future predevelopment traffic* plus the *site traffic*. The future post-development traffic condition is presented in Figure 6.

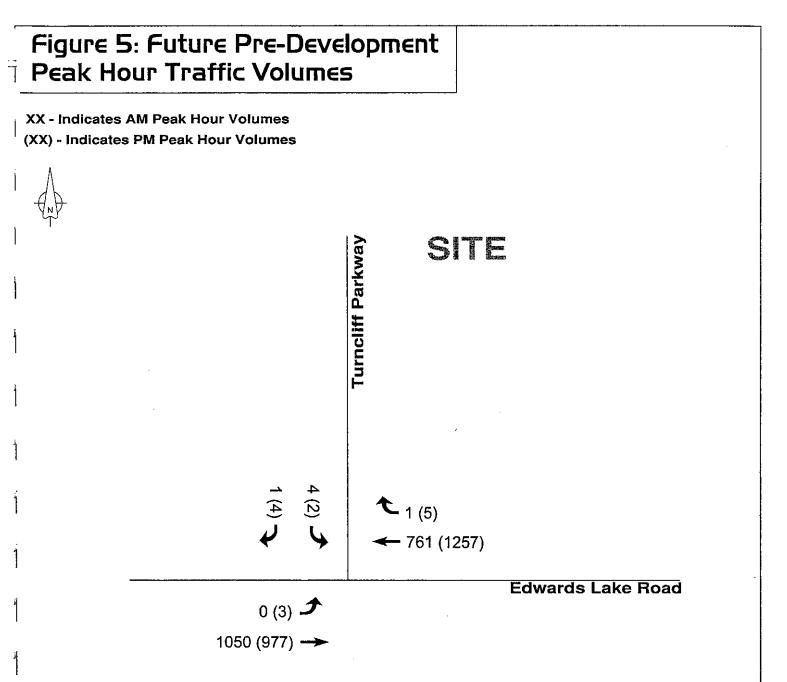
### TRAFFIC ANALYSIS

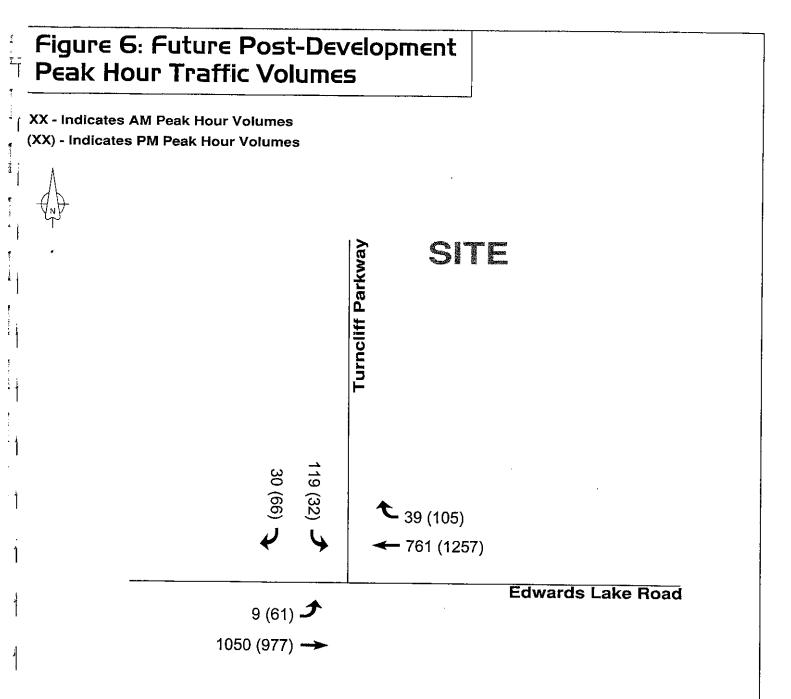
### **Traffic Signal Warrant Analysis**

A Traffic Signal Warrant Analysis was performed for the intersection of Edwards Lake Road & Turncliff Parkway. This signal warrant analysis was performed using *TEAPAC* software, and based on the guidelines presented in the *Manual of Uniform Traffic Control Devices (MUTCD)*, 2003 Edition.

The traffic volumes used in this signal warrant were based on *future post-development traffic* conditions, which are summarized in **Table 2**, and derived in the **Appendix C** tables. The results of this signal warrant analysis indicate that a traffic signal is warranted for this intersection. See **Table 3** for a summary of the results of the traffic signal warrant analysis, and see **Appendix D** for the detailed *TEAPAC* results.







(1)-Hour	(2)-Site-	Аррі	ain Street roaches Lake Road)	Major Side Street Approach (Turncliff Parkway)				
(1)-A0Ur	Generated Volumes	(3)-Pre- Develop. Volumes	(4)-Post- Develop. Volumes (2)+(3)	(5)-Pre- Develop. Volumes	(6)-Post- Develop. Volumes (2)+(5)			
6:00 AM	124	1176	1300	15	139			
7:00 AM	36	1770	1806	4	40			
8:00 AM	80	1374	1454	10	90			
9:00 AM	71	1198	1269	9	79			
10:00 AM	80	1328	1408	10	90			
11:00 AM	44	1404	1448	5	49			
12:00 PM	62	1532	1594	8	69			
1:00 PM	124	1613	1737	15	139			
2:00 PM	80	1707	1787	10	90			
3:00 PM	53	1763	1816	7	59			
4:00 PM	71	1951	2022	9	79			
5:00 PM	71	2230	2301	9	79			
6:00 PM	71	1648	1719	9	79			
7:00 PM	98	1252	1350	12	110			

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# Table 2: Traffic Volumes Used in Signal Warrant Analysis

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Warrant	Number of Hours Required to Meet Warrant	Number of Hours Met	Warrant Met ? Yes/No
1 A – (8-Hour Min. Vehicular Volume)	8	3	NO
1 B – (8-Hour Interrupt. of Continuous traffic)	8	12	YES
1 C – (8-Hour Combo of Warrants)	80% of Warrants	1A&1B	NO
2 – (Four-Hour Volume)	4	11	YES
3 A – (Peak Hour Delay)	N/A		
3 B – (Peak Hour Volume)	1	10	YES
4 – (Pedestrian Volume)	N/A	-	-
5 – (School Crossing)	N/A	-	-
6-(Coordinated System)	N/A	-	-
7 – (Crash Experience)	N/A	-	-
8 – (Roadway Network)	N/A	-	-

Table 3: Summary	of Traffic Signal Warrant Analysis
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### **Turn Lane Warrant Analysis**

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A turn lane warrant analysis was performed at this intersection, which is based on warranting guidelines from *the Intersection Channelization Design Guide-Record* 279, developed by the *Highway Research Board*. This design guide provides various charts for determining the need for left and right turn lanes. These turn lane warrant charts are based on volume, roadway geometry, and speed. The results of this turn lane analysis, based on *future post development volumes* (illustrated in Figure 6) indicate that an eastbound left turn lane <u>and</u> a westbound right turn lane are heavily warranted for this intersection. The actual turn lane warrant charts are presented in Appendix E.

### **Capacity Analysis**

A capacity analysis of the *future pre-development* and *post-development* traffic conditions has been performed for the intersection of Edwards Lake Road & Turncliff The pre-development analysis is performed under existing operational and Parkway. However, the post-development analysis is performed with the geometric conditions. addition of recommended operational and geometric improvements. This analysis, which is performed utilizing Synchro software, is based on the methods outlined in the 2000 Highway Capacity Manual. The capacity analysis results are usually described in terms of Levels of Service (LOS). The LOS ranges from "A" thru "F", with "A" representing the most desirable conditions and "F" representing the most undesirable conditions. As a general rule, a LOS of "D" or better is acceptable, while a LOS of "C" See Appendix F for an explanation of the Levels of Service or better is preferred. (LOS).

The results of the capacity analysis at the intersection of Edwards Lake Road & Turncliff Parkway indicate that all travel lanes on Edwards Lake Road achieved a LOS of "C" or better, while the travel lanes on Turncliff Parkway received a LOS of "D" or better for AM and PM peak post-development conditions. A summary of the results of this capacity analysis is illustrated in **Table 3**, while detailed *Synchro* results are presented in **Appendix G.** 

Edwards Lake Road Tract – Jefferson County, AL

(Edwards Lake Ro) (Turneliff Pkwy) (Edwards Lake Rd) Southbound Northbound Westbound Approach Eastbound Left Travel Lanes Rìght Right Inn Left Thru 詞 EOS ω Developmen ≻ >Pier Delay (sec/veh) 13.3 NIA 0.0 0.0 AM Peak LOS Development\* ω C ⋗ ≻ ≻ ⋗ Post-Delay (sec/veh) 14.3 34.3 NNA 6.0 1 4 7.0 3.7 Sor O ⋗ ≻ Development Delay (sec/veh) 22.4 A'N 0.0 0 2 PM Peak **60** Development. σ ω O ⋗ ⋗ ≻ Delay (sective) 11.1 46.4 32.5 NA -4 з. 2 7.0

# Table 4 – Capacity Analysis Results: Edwards Lake Road @ Turncliff Parkway

Gonzalez-Strength & Associates

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\* A traffic signal, an eastbound left turn lane, and a westbound right turn lane have been added for the post-development conditions.

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### **CONCLUSIONS & RECOMMENDATIONS**

An intersection sight distance (ISD) analysis was performed for the intersection of Edwards Lake Road & Turncliff Parkway. The required ISD, based on a posted speed of 35 mph and a relatively flat grade, is 390'. From the field investigation, it is determined that the provided ISD looking to the east is 880', while the ISD looking to the west is 450'. Therefore, adequate ISD is provided at this intersection.

A traffic signal warrant analysis was performed for the intersection of Edwards Lake Road & Turncliff Parkway. The traffic volumes used in this signal warrant were based on *future post-development traffic* conditions. The results of this signal warrant analysis indicate that a traffic signal is warranted for this intersection.

A turn lane warrant analysis was performed for the intersection of Edwards Lake Road & Turncliff Parkway, based on *future post-development traffic* conditions. The results of this turn lane analysis indicate that an eastbound left turn lane <u>and</u> a westbound right turn lane are heavily warranted for this intersection.

A **capacity analysis** of the *future pre-development* and *future post-development* traffic conditions has been performed for the intersection of Edwards Lake Road & Turncliff Parkway. The pre-development analysis is performed under existing operational geometric conditions. However, the post-development analysis is performed with the addition of recommended operational and geometric improvements. The results of the capacity analysis at the intersection of Edwards Lake Road & Turncliff Parkway indicate that all travel lanes on Edwards Lake Road achieved a LOS of "C" or better, while the travel lanes on Turncliff Parkway received a LOS of "D" or better for AM and PM peak post-development conditions. As previously stated, it is an accepted general rule that a LOS of "D" or better is acceptable, while a LOS of "C" or better is preferred. Therefore, with the recommended operational and geometric improvements in place at full build-out of this proposed development, an acceptable LOS is achieved.

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Based on the findings of this study, the following recommendations are made:

- Install a traffic signal at the intersection of Edwards Lake Road & Turncliff Parkway;
- Construct an eastbound left turn lane on Edwards Lake Road at the Turncliff intersection with a minimum storage capacity of 100';
- Construct a westbound right turn lane on Edwards Lake Road at the Turncliff intersection with a minimum storage capacity of 100';
- Apply the appropriate striping for a three-section on the Turncliff Parkway approach. This three-lane section should consist of one inbound lane and two outbound lanes.

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### **APPENDIX A**

**Turning Movement Counts (TMCs)** 

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### 130-Acre Tract - Edwards Lake Road Jefferson County

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File Name : AM\_PM Peak TMCs Site Code : 00000000 Start Date : 5/17/2005 Page No : 1

			f Parkwa	ay	Ē		Lake Di	rive	÷		Parkwa bound	ay	E		Lake Dr bound	ive	
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Ir Tot
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
04:30 PM	1	0	1	2	0	293	2	295	0	0	0	0	0	205	0	205	50
04:45 PM	0	0	0	0	0	286	0	286	0	0	0	0	1	203	0	204	4
Total	1	0	1	2	0	579	2	581	0	0	0	0	1	408	0	409	9
05:00 PM	0	0	2	2	0	275	2	. 277	0	0	0	0	2	253	0	255	5
05:15 PM	1	0	1	2	0	296	1	297	0	0	0	0	0	233	0	233	5
05:30 PM	0	0	0	0	0	277	1	278	0	0	0	0	0	224	0	224	5
05:45 PM	2	0	0	2	0	267	3	270	0	0	0	0	2	182	0	184	4
Total	3	0	3	6	0	1115	7	1122	0	0	0	0	4	892	0	896	20
* BREAK ***																	
07:00 AM	3	0	2	5	0	138	0	138	0	0	0	0	0	232	0	232	3
07:15 AM	1	0	0	1	0	142	0	142	0	0	0	0	0	266	0	266	4
07:30 AM	1	0	0	1	0	184	1	185	0	0	0	0	0	236	0	236	4
07:45 AM	0	0	1	1	0	214	0	214	0	0	0	0	0	225	0	225	4
Total	5	0	3	8	0	678	1	679	0	0	0	0	0	959	0	959	16
08:00 AM	2	0	0	2	0	156	0	156	0	0	õ	0	0	234	0	234	3
Grand Total	11	0	7	18	0	2528	10	2538	0	0	Ō	0	5	2493	0	2498	50
Apprch %	61.1	0.0	38.9	İ	0.0	99.6	0.4		0.0	0.0	0.0		0.2	99.8	0.0		
Total %	0.2	0.0	0.1	0.4	0.0	50.0	0.2	50.2	0.0	0.0	0.0	0.0	0.1	49.3	0.0	49.4	

	-	Turnclif	f Parkw	ay	Ec	lwards	Lake D	rive	-	Turnclif	f Parkwa	У	Ec	wards	Lake Dr	ive	
		Sout	hbound		Westbound				Northbound					East	tbound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Tota
eak Hour Fro	m 04:3	0 PM to	05:45	PM - Pea	k 1 of 1		L				Lb,				L	}	
Intersection	04:30	PM														1	
Volume	2	0	4	6	0	<b>1</b> 150	5	1155	0	0	0	0	3	894	0	897	2058
Percent	33.3	0.0	66.7		0.0	99.6	0.4		0.0	0.0	0.0		0.3	99.7	0.0		
05:00 Volume	- 0	0	2	2	0	275	2	277	o	0	0	0	2	253	0	255	534
Peak Factor High Int.	04:30	DM			05.45	<b></b>											0.96
-	04.50				05:15	РМ			4:15:0	0 PM			05:00	PM			
Volume	1	0	1	2	0	296	1	297	0	0	0	0	2	253	0	255	
Peak Factor				0.750				0.972								0.879	

						•											
Intersection	07:15 A	M											l				
Volume	4	0	1	5	0	696	1	697	0	0	0	0	0	961	0	961	1663
Percent	80.0	0.0	20.0		0.0	99.9	0.1		0.0	0.0	0.0		0.0	100. 0	0.0		
07:45 Volume	0	0	1	1	0	214	0	214	0	0	0	0	0	225	0	225	440
				_	07:45								07:15 /	٩M			0.945
Volume Peak Factor	2	0	0	2 0.625	0	214	0	214 0.814	0	0	0	0	0	266	0	266 0.903	

Peak Hour From 07:00 AM to 08:00 AM - Peak 1 of 1

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### **APPENDIX B**

# 24-Hour Approach Counts

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### Client: GSA Type Study: 24-Hour App. Location: Edwards Lake Drive

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TIME	1 East	Total
00:15	12	
00:30	10	12
00:45		10
01:00	8	8
	9	9
iour Total	39	39
01:15	11	
01:30	5	11
01:45	6	5
02:00	2	6 2
lour Total	24	24
02:15	3	3
02:30	3	3
02:45	4	3
03:00	10	4 10
iour Total	20	20
03:15	8	
03:30	7	8
03:45		7
04:00	11. 9	11 9
iour Total	35	
04:15	6	
04:30	6	6
04:45	15	15
05:00	27	27
· · · · · · · · · · · · · · · · · · ·	34	34
Hour Total	82	82
05:15	20	
05:30	32	32
05:45	55	55
06:00	65	65
	74	74
four Total	226	226
06:15	98	98
06:30	127	127
06:45	199	199
07:00	202	202
Hour Total	626	626
07:15	214	214
07:30	264	
07:45	245	264
08:00	226	245 226
four Total	949	949
08:15	180	
08:30		190
	157	157
08:45	177	137

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### Client: GSA Type Study: 24-Hour App. Location: Edwards Lake Drive

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TIME	1 East	Total
09:00	177	177
our Total	691	691
09:15	165	165
09:30	154	154
09:45	161	161
10:00	173	173
our Total	653	653
10:15	169	169
10:30	155	155
10:45	164	164
11:00	159	159
iour Total	647	647
11:15	171	171
11:30	190	190
11:45	184	184
12:00	183	183
Iour Total	728	728
12:15	180	180
12:30	187	187
12:45	156	156
13:00	165	165
Bour Total	688	688
13:15	169	169
13:30	186	186
13:45	181	181
14:00	211	211
Hour Total	747	747
14:15	177	177
14:30	206	206
14:45	199	199
15:00	186	186
Hour Total	768	768
15:15	211	211
15:30	189	189
15:45	165	165
16:00	188	188
Hour Total	753	753
16:15	198	100
16:30	182	198
16:45	189	182
17:00	177	189 177

Page: 3

File: ELD\_EB2.prn User: J. Anthony

### Client: GSA Type Study: 24-Hour App. Location: Edwards Lake Drive

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TIME	1 East	Total
17:15	218	218
17:30	174	174
17:45	180	180
18:00	201	201
Iour Total	773	773
18:15	166	166
18:30	164	164
18:45	164	164
19:00	148	148
Rour Total	642	642
19:15	153	153
19:30	132	132
19:45	126	126
20:00	117	117
Kour Total	528	528
20:15	84	84
20:30	95	95
-20:45	88	88
21:00	79	79
Hour Total	346	346
21:15	86	86
21:30	79	79
21:45	65	65
22:00	52	52
Hour Total	282	282
22:15	42	42
22:30	52	52
22:45	41	41
23:00	30	30
Hour Total	165	165
23:15	46	46
23:30	41	41
23:45	30	30
24:00	25	25
Hour Total	142	142
DAY TOTAL	11300	11300
PERCENTS	100.0%	11300
		#~~~
AM Times	07:15	
AM Peaks	949	
PM Times	14:30	
PM Peaks	802	

### TRAFFIC LOGISTICS VOLUME SUMMARY WED 05/18/2005

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Client: GSA

Type Study: 24-Hour Location: Edwards Lake Drive File: ELD\_WB.prn User: J. Anthony

TIME	1	Total
	WEST	
19:00	188	188
lour Total	188	188
19:15	182	182
19:30	156	156
19:45	151	151
20:00	129	129
Hour Total	618	618
20:15	111	111
20:30	127	127
20:45	118	118
21:00	102	102
Hour Total	458	458
21:15	103	103
21:30	119	119
21:45	91	91
22:00	88	88
Hour Total	401	401
22:15	72	72
22:30	99	99
22:45	62	62
23:00	42	42
Hour Total	275	275
23:15	25	25
23:30	35	35
23:45	36	36
24:00	37	37
Hour Total	133	133
DAY TOTAL	2073	2073
PERCENTS	100.0%	100%
AM Times		
AM Peaks		
PM Times	19:00	
PM Peaks	677	

Page: 1

TRAFFIC LOGISTICS VOLUME SUMMARY THU 05/19/2005

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Page: 2

File: ELD\_WB.prn User: J. Anthony

### Client: GSA Type Study: 24-Nour Location: Edwards, Lake Drive

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TIME	1 West	Total
00:15	19	19
00:30	21	21
00:45	11	11
01:00	13	13
lour Total	64	64
01:15	17	17
01:30	19	19
01:45	17	17
02:00	18	18
iour Total	71	71
02:15	12	12
02:30	5	5
02:45	6	6
03:00	14	14
Hour Total	37	37
03:15	14	14
03:30	11	11
03:45	11	11
04:00	6	6
Hour Total	42	42
04:15	13	13
04:30	12	12
04:45	19	19
05:00	10	10
Hour Total	54	54
05:15	16	16
05:30	25	25
05:45	47	47
06:00	56	56
Hour Total	144	144
06:15	45	45
06:30	141	141
06:45	130	130
07:00	134	134
Hour Total	450	450
07:15	126	126
07:30	166	166
07:45 08:00	196	196
	183	183
Nour Total	671	671
08:15	150	150
08:30		
08:45	153	153

### TRAFFIC LOGISTICS VOLUME SUMMARY THU 05/19/2005

Client: GSA Type Study: 24-Hour Location: Edwards Lake Drive

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TIME	1 WEST	Total
09:00	119	119
Nour Total	566	566
09:15	89	89
09:30	120	120
09:45	118	118
10:00	116	116
Nour Total	443	443
10:15	139	139
10:30	142	139
10:45	139	139
11:00	148	148
Sour Total	568	568
11:15	122	100
11:30	145	122 145
11:45	156	145
12:00	134	136
Hour Total	557	<b></b> 557
12:15	188	100
12:30	156	188
12:45	173	156
13:00	197	173 197
Hour Total	714	714
13:15	179	
13:30	175	179
13:45	185	175
14:00	190	185 190
Hour Total	729	729
14:15	216	216
14:30	203	203
14:45	179	179
15:00	194	194
Hour Total	792	792
15:15	196	196
15:30	191	191
15:45	219	219
16:00	254	254
Hour Total	860	860
16:15	253	253
16:30	258	255
16:45	254	254
17:00	274	274
Hour Total	1039	

Page: 3

### TRAFFIC LOGISTICS VOLUME SUMMARY THU 05/19/2005

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File: ELD\_WB.prn User: J. Anthony

### Client: GSA Type Study: 24-Hour Location: Edwards Lake Drive

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TIME	1	Total
	WEST	
17:15	391	
17:30	329	391
17:45	282	329
18:00	266	282 266
Hour Total	1268	1268
18:15	264	
18:30	227	264
18:45	187	227
		187
Hour Total	678	678
DAY TOTAL	9747	
PERCENTS	100.0%	9747
		100%
AM Times	07:30	
AM Peaks	695	
PM Times	17:00	
PM Peaks	1276	
	/0	
GRAND TOTAL PERCENTS	11820	11820
	100.0%	

Client: GSA Type Study: 24-Hour App. Location: Turncliff Pkwy

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File: TCP\_SB.prn User: J. Anthony

TIME	1	* =
	SOUTH	Total
00:15		
00:30	1	1
00:45	0	0
01:00	0	ő
	0	0
Hour Total	1	1
01:15	-	-
01:30	0	0
01:45	0	0
02:00	0	ő
	0	0
lour Total	0	
02:15	-	o
02:15	0	0
02:45	0	0
	0	Ô
03:00	0	0
iour Total	0	
03:15	-	0
	0	
03:30	õ	0
03:45	0	0
04:00	0 0	0
our Total		0
	0	0
04:15	0	
04:30	ő	0
04:45		0
05:00	0 0	ō
our Total		0
	0	0
05:15	0	
05:30	0	0
05:45	0	0
06:00	2	2
	1	2 1
our Total	3	
06:15		Э
06:30	1	-
06:45	0	1
07:00	1	0
	10	1
our Total		12
07:15		14
07:30	1	_
	ī	1
07:45	1	1
08:00		1
our Total		1.
00.4-	4	4
08:15	r	_
08:30	3	3
08:45	2	2
	1	£

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Client: GSA

Type Study: 24-Hour App. Location: Turncliff Pkwy Page: 2

File: TCP\_SB.prn User: J. Anthony

TIME	1	
****	South	Total
09:00	3	
Bour Total		3
	9	. 9
09:15	2	â
09:30	3	2
09:45	3	3
10:00	0	3 0
Hour Total	8	 8
10:15		·
10:30	3	3
10:45	3	3
11:00	1	1
	2	2
Nour Total	9	9
11:15	1	
11:30	0	1
11:45	2	0
12:00	2	2
Hour Total		2
	5	5
12:15	2	
12:30	2	2
12:45	1	2
13:00	2	1
Hour Total	7	
13:15		7
13:15	3	3
	8	3
13:45	1	8 1
14:00	2	1 2
Hour Total	14	
14:15		**
14:30	5	5
14:45	2	2
15:00	1	1
	1	1
Hour Total	9	9
15:15	•	
15:30	2	2
15:45	2	2
16:00	2	2
	V	0
lour Total	6	6
16:15	1	
16:30	1	1
16:45	6	1
17:00	0	6 0
lour Total	**********	U
AVAL TOTAL	8	

Client: GSA Type Study: 24-Hour App. Location: Turncliff Pkwy

File: TCP\_SB.prn User: J. Anthony

TIME	•	
****	l South	Total
17:15	1	
17:30	3 ·	1
17:45		3
18:00	0	0
	4	4
Hour Total	8	 B
18:15		-
18:30	1	1
18:45	4	4
19:00	1	1
	2	2
Hour Total	8	 8
19:15	<b>a</b>	-
19:30	2	2
19:45	1	ī
20:00	5	5
	3	3
Hour Total	11	
20:15	<u>.</u>	**
20:30	0	0
20:45	1	1
	0	0
21:00	1	0 1
Hour Total	2	2
21:15		<b>-</b>
21:30	1	I
	4	
21:45	1	4
22:00	4	1.
Rour Total	10	
	τv	10
22:15	0	
22:30	0	0
22:45	0	0
23:00	1	0
Rour Total		1
	1	1
23:15	0	
23:30		0
23:45	2	2
24:00	0 0	0
Hour Total		0
	2	2
DAY TOTAL		
PERCENTS	139	139
	100.0%	139
M Times	06.45	
M Peaks	06:45 15	
PM Times		
PM Peaks	13:30	
	16	

Page: 3

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### **APPENDIX C**

# Side Street Approach Traffic Volume Generation

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the second se	0 0 0%	0 SF 0 0%	0 SF 0 0%	0 SF 0 0%	32 Units Kesidential 0%	229 Units Single-Family 0%	(1) (1) (2) Lănd Use/, Size (2) (3) (3)	
	0	0%	0%	0%	0%	0%	p Rate (4)	
	0	0	0	0	122	1114	Total Trips (5)	
0	0	0	0	0	0	0	Internal Cap Trips (6)	
1236	0	0	0	0	122	1114	Total Adj Trips (7)	
0	0	ο	0	0	0	0	Pass:By Trips (8)	
1236	0	0	0	0	122	1114	New Trips (9)	

# Table 1: Projected 24-Hour Side Street Exiting Trips

-7 ٢

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Bartine and

	1900	1800 S	1700 +	1600	1500	- UILI-		1300 13	1200	1100	ALC: NOULS WE ALC: NO		100 m	800	100 20 20 20 20 20 20 20 20 20 20 20 20 2		EDN -		(10)	Hour	
10070	100%	100%	100%	100%	100%	100%	10070	100%	100%	100%	100%	100 /0	100%	100%	100%	100%	4000/		noimeursin	Left Jurn-	
0/ 15: 1	7 040/	5 760/	F 760/	5 76%	4,32%	6.47%	10.07%	40 070/	7 0/9/	3 60%	6.47%	0.10%	E 700/	6 4 7 %	2.88%	10.07%		(12)	Residential	Single-Family	
0%18.1	5./6%	5.70%	C 700/	F 760/	4 32%	6.47%	10.07%	0.04%	5.00/0	2 600	6.47%	5.76%	0.47 /0	G 170/	2.88%	10.07%		(13)	Townhouses	Residential	
0%	0%	0%	0%	00/	00/	0%	0%	0%	0%		0%	0%	0%	022	0%	0%					
0%	0%	0%	0%	0%	A0/	0%	0%	0%	0%		0%	0%	0%	0/0	0%	0%			0.0 mm		
0%	0%	0%	0%	0%		0%	0%	0%	0%	0.%	N0/	0%	0%	070	00/	0%			A STATE OF STATE		
0%	0%	0%	0%	0%	U70	201	0%	0%	0%	0%	00/	0%	0%	0%							

# Table 2: Land Use-Hourly Occurance Rate

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**Table 3: Hourly Site-Generated Left Turn Totals** 

124	0	124	Totals	
0	0	0	0	
0	0	0	0	
0	0	0	0	6:00
0	0	0	0	
12	0	12	Residential Townhouses	
112	0	112	Single-Family Residential	
Totalı Lefts	Pass-By Lefts	New Lefts	y Land Use a set	Hours
	A CONTRACTOR OF A CONTRACTOR O	Low states and a substance of		

			7:00			<u> </u>	Hounder
Totals	0	0	0	0	Residential Townhouses	Single-Family Residential	A state of the sta
36	0	0	0	0	4	32	NewLeris
0	0	0	0	0	0	0	Pass-By Lefts
36	0	0	0	0	4	32	Loial Leits

		7	8:00		 		A Monte and A M
Totais	0	0	0	0	Residential Townhouses	Single-Family Residential	Land Use
80	0	0	0	0	8	72	New Lefts
0	0	0	0	0	0	0	aPass-By Lefts
80	0	0	0	0	œ	72	Total Lefts of

			9:00	<u> </u>		 	Hours
Totals	0	0	0	0	Residential Townhouses	Single-Family Residential	tand Use
71	0	0	0	0	7	64	NewLetts
0	0	0	0	0	0	0	Pass By Lefts
71	0	0	0	0	7	64	Total

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Table 3: Hourly Site-Generated Left Turn Totals (cont.)

	]	1	10:00				Hours
Totals	0	0	0	0	Residential Townhouses	Single-Family Residential	LandUse 1
80	0	0	0	0	8	72	New Letts
0	0	0	0	0	0	0	Pass-By Lefts
80	0	0	0	0	8	72	Total 5 Lefts

62	0	62	Totals	
	0	0	0	
	0	0	0	
	0	0	0	12:00
	0	0	0	
	0	6	Residential Townhouses	
56	0	56	Single-Family Residential	
Total Lefts	Pass-By Lefts	NewLefts		Hour

			13:00				Hour and the second
Totals	0	0	0	0	Residential Townhouses	Single-Family Residential	the second se
124	0	0	0	0	12	112	New Lefts
0	0	0	0	0	0	0	ipassiBy Lens
124	0	0	0	0	12	112	Total Lefts

	 		11:00			<u></u>	Hour
Totals	0	0	0	0	Residential Townhouses	Single-Family Residential	tandu se an ta
44	0	0	0	0 -	4	40	New Lefts
0	0	0	0	0	0	0	Pass=By Lefts
44	0	0	0	0	4	40	Total Lefis

R. Marillan, april 10

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71	0	71	Totals	
0	0	0	0	
0	0	0	0	
0	0	0	0	16:00
0	0	0	0	
7	0.	7	Residential Townhouses	
64	0	64	Single-Family Residential	
Total Lefts	Pass-By Letts	New Lefts	Land Usep	Hours

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			17:00		Residentia	Single-Far	
Totals	0	0	0	0	Residential Townhouses	Single-Family Residential	Land Use
71	0	0	0	0	7	64	Now Lefts
0	0	0	0	0	0	0	Pass-By Illefts
71	0	0	. 0	0	7	64	Lefts

 		14:00				Hour
0	0	0	0	Residential Townhouses	Single-Family Residential	Land Use
0	0	0	0	8	72	NewLefts
0	0	0	0	. 0	0	Pass-By Lefts
0	0	0	0	8	72	Total Tuefts

Totals

80

0

80

53	0	53	Totals	
0	0	0	0	
0	0	0	0	
0	0	0	0	15:00
0	0	0	0	<u> </u>
5	0	5	Residential Townhouses	
48	0	48	Single-Family Residential	
	Pass-By	New Liefts	Land Use	Hom

# Table 3: Hourly Site-Generated Left Turn Totals (cont.)

	-		18:00				Hour
Totals	0	0	0	0	Residential Townhouses	Single-Family Residential	stand Use
71	0	0	0	0	7	64	New Lefts
0	0	0	0	0	0	0	Pass-By Lefts
71	0	0	0	0	7	64	Total Lefts

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able 3: Hourly
Site-Generated
-Generated Left Turn Totals
s (cont.)

ST. STATES

	-		19:00				Houng
Totals	0	0	0	0	Residential Townhouses	Single-Family Residential	* Land Use
86	0	0	0	0	10	88	New Lefts
0	0	0	0	0	0	0	Pass-By Lefts
98	0	0	0	0	10	88	Tiotal Liefts

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### **APPENDIX D**

# **Traffic Signal Warrant Analysis Results**

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Edwards Lake Drive Tract Edwards Lake Drive & Turncliff Parkway Future Post-Development (Total Traffic)

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# WARRANTS/TEAPAC[Ver 2.01.16] - MUTCD Warrant Analysis

Conditions Used for Warrant Analysis 2000 MUTCD Intersection # 1 Edwards Lake Drive & Turncliff Major Street Direction EastWest Number of Lanes in North-South direction 1 Number of Lanes in East-West direction 1 Approach speed on major street is greater than 40 mph Isolated community has population less than 10,000 No Yes Signal will not seriously disrupt progressive traffic flow Yes Trials of other remedies have failed to improve conditions Yes Number of accidents correctable by a signal 0 Peak hour stop sign delay for worst minor approach (veh-hours) 0 Number of accidents correctable by a multi-way stop 0 Peak hour average delay for all minor approaches (sec/veh) 0 

WARRANTS/TEAPAC[Ver 2.01.16] - Warrant Analysis for Traffic Signal

Warrant 1A Analysis - 8-Hour Minimum Vehicular Volume

Start Time 600 1300 1900 800 1000 1400 900 1600 Req. Minor Volume 139 139 110 90 90 90 79 79 105 Major Volume 1176 1613 1252 1373 1328 1704 1198 1950 350 Warrant Met? Yes Yes Yes No No No No No 8 Number of 1-hour periods meeting the warrant 3 Signal will not seriously disrupt progressive traffic flow Yes >> WARRANT 1A IS NOT MET <<

Warrant 1B Analysis - 8-Hour Interruption of Continuous Traffic Start Time 600 1300 1900 800 1000 1400 900 1600 Req. Minor Volume 139 139 110 90 90 90 79 79 53 Major Volume 1176 1613 1252 1373 1328 1704 1198 1950 Warrant Met? Yes Yes Yes Yes Yes Yes Yes Yes 525 Yes Yes Yes Yes Yes Yes Yes 8 Number of 1-hour periods meeting the warrant 12 Signal will not seriously disrupt progressive traffic flow Yes >> WARRANT 1B IS MET <<

Edwards Lake Drive Tract Edwards Lake Drive & Turncliff Parkway Future Post-Development (Total Traffic)

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WARRANTS/TEAPAC[Ver 2.01.16] - Warrant Analysis for Traffic Signal

Warrant 1A Analysis (80%) - 8-Hour Minimum Vehicular Volume Start Time 600 1300 1900 800 1000 1400 900 1600 Reg. ==== 139 110 90 90 90 79 Minor Volume 139 79 84 Major Volume 1176 1613 1252 1373 1328 1704 1198 1950 280 Warrant Met? Yes Yes Yes Yes Yes No No 8 Number of 1-hour periods meeting the warrant (56% allowed) 6 Warrant 1B Analysis (80%) - 8-Hour Interruption of Continuous Traf

Start Time 600 1300 1900 800 1000 1400 900 1600 Reg. ==== Minor Volume 139 139 110 90 90 90 79 79 42 Major Volume 1176 1613 1252 1373 1328 1704 1198 1950 420 Warrant Met? Yes Yes Yes Yes Yes Yes Yes Yes 8 Number of 1-hour periods meeting the warrant (56% allowed) 13 

Warrant 2 Analysis - 4-Hour Vehicular Volume Start Time 600 1300 1900 800 1000 1400 900 1600 Req. === 90 90 Minor Volume 139 139 110 90 79 79 60 Minor Regrmt 60 60 60 60 60 60 60 <--Warrant Met? Yes Yes Yes Yes Yes Yes Yes Yes 4 Number of 1-hour periods meeting the warrant 11 Yes Signal will not seriously disrupt progressive traffic flow >> WARRANT 2 IS MET << 06/02/05 13:41:41

Edwards Lake Drive Tract Edwards Lake Drive & Turncliff Parkway Future Post-Development (Total Traffic)

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# WARRANTS/TEAPAC[Ver 2.01.16] - Warrant Analysis for Traffic Signal

Warrant 3A Analysis - Peak Hour Delay

Start Time	600	1300	1900		======							
			1900	800	1000	1400	900	1600	Req			
				2222	<b>===</b>	====	====		====			
Minor Volume	139	139	110	90	90	90	79	79	10			
Major Volume	1315	1752	1362	1463	1418	1794	1277	2029				
Warrant Met?	Yes	Yes	Yes	No	No				65			
			100	NO	NO	No	No	No				
Number of 1-hour periods meeting the warrant												
				g une	warran	. L.						
signal will n	ot ser	iouslv	disru	pt pro	arpadi	vo tra	ffic f	low				
signal will n	ot ser	iouslv	disru	pt pro	arpadi	vo tra	ffic f	low	Ye			
Signal will n Delay for wor	ot ser st min	iously or app	disru roach	pt pro (must	gressi be at	ve tra least	ffic f 4 veh-	low hours)				
Signal will n Delay for wor	ot ser st min	iously or app	disru roach	pt pro (must	gressi be at	ve tra least	ffic f 4 veh-: ======	low hours)	Y ===			

Warrant 3B Analysis - Peak Hour Volume Start Time 600 1300 1900 800 1000 1400 900 1600 Reg. Minor Volume 139 139 110 90 90 Minor Regrmt 75 75 75 75 75 90 79

75 75 75 < - -Warrant Met? Yes Yes Yes Yes Yes Yes Yes Yes 1 Number of 1-hour periods meeting the warrant 10 Signal will not seriously disrupt progressive traffic flow Yes >> WARRANT 3B IS MET <<

Warrant 7 Analysis - Crash Experience 80% of Warrant 1A or 1B is met Yes Signal will not seriously disrupt progressive traffic flow Yes Trials of other remedies have failed to reduce accidents Yes Number of correctable accidents (must be 5 or more per year) 0 >> WARRANT 7 IS NOT MET <<

Summary of MUTCD Traffic Signal Warrant Analysis Warrant 1A 8-Hour Minimum Vehicular Volume NOT MET Warrant 1B 8-Hour Interruption of Continuous Traffic MET Warrant 1C 8-Hour Combination of Warrants NOT MET Warrant 2 4-Hour Vehicular Volume MET Warrant 3A Peak Hour Delay NOT MET Warrant 3B Peak Hour Volume MET Warrant 7 Crash Experience NOT MET 

>> Traffic Signal Warrant is MET <<

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06/02/05 13:41:41

### **APPENDIX E**

# Turn Lane Warrant Analysis Results

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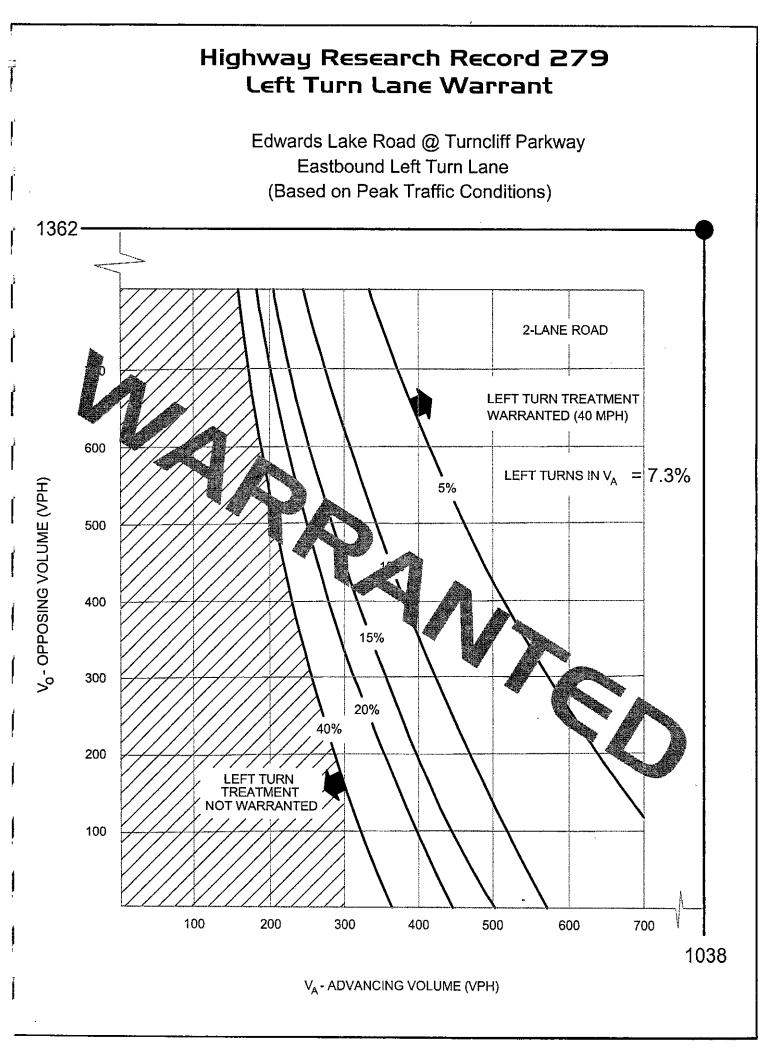
-

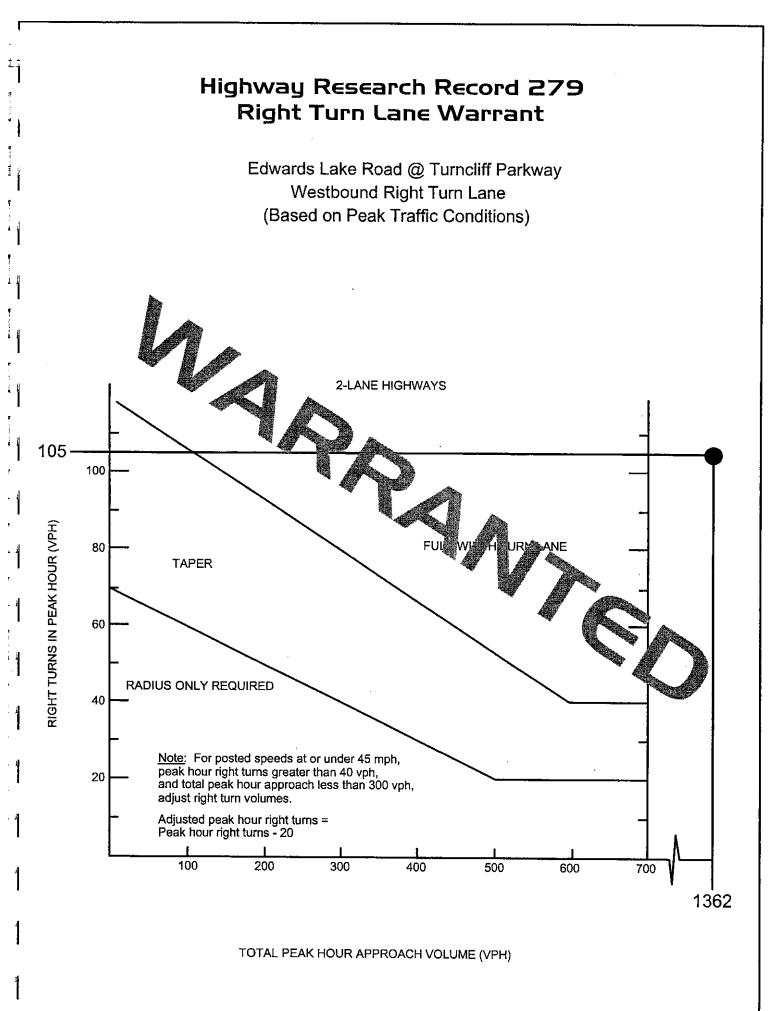
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### **APPENDIX F**

# **Explanation of Levels of Service (LOS)**

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From the 2000 Highway Capacity Manual, Table 6-4, the Levels of Service are determined by control delay (in seconds per vehicle). The exhibit below illustrates how the amount of delay being experienced coincides with each Level of Service (LOS).

### **Unsignalized Intersections**

### Level of Service

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### Control Delay (sec/veh)

A	0 - 10
В	> 10 – 15
C	> 15 – 25
D	>25-35
E	> 35 – 50
F	> 50

### **Signalized Intersections**

### Level of Service

Control Delay (sec/veh)

A	0 - 10
B	> 10 – 20
C	> 20 – 35
D	> 35 – 55
E	> 55 - 80
F	> 80

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### **APPENDIX G**

Capacity Analysis (Synchro Results)

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## Traffic Impact Study 1: Edwards Lake Road & Turncliff Pkwy.

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	EBIE	EBİ	ewbis	WBR	SBL	SER	
Lane Configurations		<del>4</del>	4		ሻ	7	
ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0			0	0	50	************************************
Storage Lanes	0	a dan k		. it 🕺 🛈	1.	ess 1 -	
Turning Speed (mph)	15			9	15	9	n an an an an an an an an an an an an an
Lane Util: Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	nan och hannan och antis med style som av sta	nanasucowani osofi ngagyuriya	UNCONFERENCES ENDS AN ACCOUNTS	CONTRACTOR CONTRACTOR OF THE		0.850	nanna an an an an an an an an an an an a
Fit Protected				le 🦕 de la	0,950	N 412	
Satd. Flow (prot)	0	1863	1863	0	1770	1583	
Fit Permitted	ų				0.950		
Satd. Flow (perm)	0	1863	1863	0	1770	1583	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Link Speed (mph)	and there is the second second	35	35	a na serie de la constante en la constante en la constante en la constante en la constante en la constante en l	25	1.2000.00000000000000000000000000000000	ann - Mharlanain ann ann ann ann ann ann ann ann an
Link Distance (ft)		922	870		768		
Travel Time (s)	annen einen bertich Alexandra	18.0	16.9	al mensekoralari serebakan pi te alda	20.9	ann an an an an an an an an an an an an	
Volumė (vph)	6	1050	761	1	4	Sel 1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	1141	827	1	4	d-1001	
Lane Group Flow (vph)	0	1141	828	0	4	1	·
Sign Control		Free	Free		Stop		
intersection/Stimmary at			200 OL-200 Distant Intelligence				
	11-contraction			201 L S			
	ther						·注意保持的关键,但注意是非常是有关的。
Control Type: Unsignaliz		70 4 02	an an an an an an an an an an an an an a				ter and a second second second second second second second second second second second second second second se
Intersection Capacity Uti	uzation	70.1%		<u>ن الم</u>	U Lev€	el of Sen	

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Movement 2	- EBL	ter.	WBT	MBR:	SPE	SBR					
Lane Configurations		र्स	4		ኻ	7					18 Y 8 Y 8 Y 8 Y
Sign Control		Free	Free		Stop						
Grade		0%	0%	an nan a shine yezh ezh ezh ezh z	0%		ales Salits Sality (Second Col		*********		FICTION OF CONTRACT
Volume (veh/h)	And the second of the second s	1050		* 1	4 -	22 <b>441</b> (28)				910 - 11 - 14 - 14 - 14 - 14 - 14 - 14 -	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	10 76 TOUTION TOPOLOg 10 1				
Hourly flow rate (veh/h)	i 0	1141	827	- 1	- 4	1					\$ 2.25
Pedestrians						ing and a second second second second second second second second second second second second second second se	Contract Print Press, and	and and index in a set we want to	al an an an an an an an an an an an an an		
Lane Width (ft)						ar eine		$\frac{1}{2}$			
Walking Speed (ft/s)	ana ar ar ann an an an an an an an an an an an an		NATURAL AND ADDRESS OF THE OWNER						, or when operating below that is a	**************************************	
Percent Blockage	1997) 1997 - State State State State State State State State State State State State State State State State State St						1.1				
Right turn flare (veh)					Marine and an average	2					
Median type					None						
Median storage veh)		NKALMITINA LANG	oliti Teorotomia			NUMBER OF STREET		Mono remblé executive de concerte		Mir Jahren Marillen, Jahrenne vor sen	
vC. conflicting volume.	828		al divisit		1969	828	nd e es	1 2 10			
vC1, stage 1 conf vol	NI MARKA					This was a second				adaptine unternational access	
tC, single (s)	4.1			- Karde Ave							
tC, 2 stage (s)	4.I				6.4	6.2					h Tanan ann an
tF (s)	2.2				3.5	3.3				and the second	i de este
p0 queue free %					ა.ე 94	3.3 - 100 - J			Service Streams		in the second second
cM capacity (veh/h)	803	And Statistics of Statistics	2017 (Sec. 1997)		94 69	371	his Rei I	Brits College	in the second	Carlos Carlos	weine g
					00	0/1					
Direction. Lane # 1	EB I	WB 1	NSB 14	6 . <del>.</del>				-1. Carl			
Volume Total	1141	828	5		nei chemilita familia avai dita su	and allows any model in the first strategies a sur-					
Volume Left	Q.	0	4								
Volume Right	0	1	1				1	Second Second Second		deventiliterele notes an abile son to to	
cSH Volume to Capacity	803 0.00	1700 0.49	440			i er j		in sariant			
Queue Length (ft)	0.00	0.49	0.01	COLUMN THE OWNER		- 117	en skip och here de fille konsta	Plinisterentation	territik ander starstarte	States and the state of the states of the	Derrom an det viel an do ania
Control Delay (s)	0.0	0.0	13.3			eners de la Suit		(	Ge en de la		*
Lane LOS	0.0	0.0	13.3 B		141						
Approach Delay (s)	0.0	0.0	13.3								n k G
Approach LOS			- B						a a chuir an le Car		n an an an an an an an an an an an an an
						85 3 60					
Intersection Summary											
UNACAAA ITAIAM STREET		1	- 0.0					0	1.000	1	a Carle
Average Delay			A HARREN HARRING TO A HARRING	CONCERNMENT OF A CONCERNMENT	AND TOWNS TO THE OWNER	This ter to be such	Contraction Sec.		1. M. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	1	
Intersection Capacity U	tilization		70.1%	IC	U Leve	of Servic	e:		С		

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Lane Configurations		્ય	4		٢	7	
ldeal Flow (vphpl) 🖉 🚈	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	And a second strain provide a state of the	ander van de de de de de de de de de de de de de	0	0	50	
Storage Lanes 🔹 👘	- O			<b>0</b> -	1	- 1	
Turning Speed (mph)	15			9	15	. 9	
Lane Util. Factor	1.00	-1.00-	1.00	1.00	1.00	.1.00	
Frt					anaan oo dhalan ahaanaa ahaanaa a	0.850	
Filt Protected	1994 ( ).		en se	565	0.950		
Satd. Flow (prot)	0	1863	1863	0	1770	1583	
Fit Permitted	8 - CL		- 1. <b>1</b>		0.950		
Satd. Flow (perm)	0	1863	1863	0	1770	1583	n - and an and a second state with a second source state of a state of a second source state of a second source
Headway Factor	1.00	1.00	1.00	1.00	1:00	1.00	<b>计算法的第三人称单数 计算机的 化</b> 可加加非合金
Link Speed (mph)	na 14 Manual I	35	35		25		war na na na na na na na na na na na na na
Link Distance (ft)	1.1	922	870		768		
Travel Time (s)		18.0	16.9		20.9		
Volume (vph)	and later to come for	977	1257	5	. 2	4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	- Control of the second s Second second sec second second sec
Adj: Flow (vph)	3	A WA AT ANY LEVEL OF ANY AL	1366	5	2	4	这些小学生的,是我们的问题,我们们也是是不是不是。 第二章
Lane Group Flow (vph)	0	1065	1371	0	2	4	
Sign Control and a control		Free	Free		Stop		
Intersection Summary	- 7 M M		10X	98 (S. 1986)	e an in the second second second second second second second second second second second second second second s		
The second second second second second second second second second second second second second second second s	ther			53 (J. 195)		er to se de	
Control Type: Unsignaliz							
Intersection Capacity Ut		82.2%		e la		l of Serv	
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Movement	EBL	EEU	WBI	WER	Sal	<b>KERMA</b>				
Lane Configurations		र्भ	4		٦	*				
Sign Control			Free		Stop					
Srade	(Advancioportation and all Advances	0%	0%		0%					COLUMN COLUMN HAPPIC
	3				2	4	100000000			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	et average at the second second second second second second second second second second second second second s	and for a state of the state of		and the second second second second second second second second second second second second second second secon
Hourly flow rate (veh/h) Pedestrians	ં	,1062	1366	5.	2	4				
ane Width (ft)									erija de terreterie	u Maritteritoria;
Walking Speed (ft/s)				-						
Percent Blockage								and the second states		
Right turn flare (veh)						2				
Vedian type			(all personal)		None				si na na	
Median storage veh)	Alexandra and a second and a	M1227]-87488-7							and the second states of the	an aire tha
vC, conflicting volume	1372	An an an an an an an an an an an an an an			2438	1369				Sec.
vC1, stage 1 conf vol	TO DESCRIPTION OF THE PROPERTY	KALANYO NYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY	and an an an an an an an an an an an an an							
vC2, stage 2 conf.vol			are se sere Alter pieter							
C, single (s)	4.1				6.4	6.2			and the second second second second second second second second second second second second second second second	
C, 2 stage (s) - Carlos 2										
F (s)	2.2	27-762537-764-68006-44		to intrazionada tetra adaba	3.5	3.3	STALLOUGHT CONSTRUCT ON A	AN ANY MUSIC STREET		
0 queue free %	. 99			1.1	. 94	.98			an an an an an an an an an an an an an a	2014 - 1974 1974 - 1974
cM capacity (veh/h)	500				35	179				
Direction, Lane#			SB 1							
Volume Total	1065	1372	7	erenti fizzînda karene meraneke fa	nen sahan da sahikaran adalari	Alternative Specific constitutions and an array second	madauterin Additional Anna III ( daamatadaada	(**********		
Volume Left		<u> </u>	Sizeculari sun alla	<b>.</b>						
Volume Right SH	0	5	4 •• 214		12. A.C. 248 (199			STOC STOC STOC	an di anti any sana ang ang ang ang ang ang ang ang ang	terne): okłaszkus oszuj
Volume to Capacity	0.01	0.81	− ∠14÷ 0.03							5 (S. )
Queue Length (ft)		0.01	0.03							w.
Control Delay (s)	0.2	0.0	22.4	AR CONSTR		a the state of the			19-10-1 <i>2/2</i>	
Lane LOS	Ă Â î		C C							
Approach Delay (s)	0.2	0.0	22.4							
Approach LOS			С*	(t.)		S		10.2 Mar 1		
Diepseeling Strikter										
Average Delay						A Kother The				
Intersection Capacity U	lilization		0.2 32.2%			l of Service				
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Lane Group	EBL	E B			<b>New Series</b>	10 9-7-7	
Lane Configurations	*	. 4					
Ideal Flow (vphpl)	1900	1900	1900	1900			
Total Lost Time (s)	4.0	AND AND AND AND AND AND AND AND AND AND	ALL CONTRACTOR	A		and the second second second second second second second second second second second second second second second	
Leading Detector (ft)					•••	4.0	
Trailing Detector (ft)	0	مر. 0	Country of the second second				
Turning Speed (mph				0 9		0	Mile street which a service state a service ser
Lane Util. Factor	1.00	1.00	1 00		Carder Martines	9	化化学学 化化学化学学 化化学学 化化学学 化化学学
Ent.		1.00	1.00			1.00	
Flt Protected	0.950			. 0.850	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.850	
Satd Flow (prot)	Maximum and an and an and an and an and an and an and an and an and an and an and an and an and an and an and a	4000	-	يتر بو حر ال	0.950	Contractory of States of Street Street	
Flt Permitted	0.224	003	000	1983	-1770		
Satd, Flow (perm)	a la marca de la	1863	d Dea		0.950		
Right Turn on Red	411	1003	1003	STOLD STOLD STOLD STOLD STOLD STOLD	1770	where the second state is a second state of the	
Satd. Flow (RTOR)		0.025010104460	1.55 Million and	Yes		Yes	
Headway Factor	1.00	1.00	4.00	42		33	
Link Speed (mph)	1.00	35	1.00	1.00	1.00	1.00	
Link Distance (ft)		Performance in the second	35		25		
Travel Time (s)		922	870		768		
Volume (vph)		Contraction in the state of the	16.9		20.9		A · · · · · · · · · · · · · · · · · · ·
Peak Hour Factor	9 0.92	1050	761	39	119	30	
Adj. Flow (vph)	·····································	0.92	0.92	Balan der Game auf fitte	MALE PROPERTY AND ADDRESS OF	- 0.92	
Lane Group Flow (vpl	10 b) 10	1141	827	42	129	33	
Turn Type	CONTRACTOR DESCRIPTION OF A DESCRIPTION OF	1141	827	COL ST LINE ALL ST.	129	- 33	
Protected Phases	pm+pt			Perm	0.100.000.000.000.000.000	Perm	
Permitted Phases	- 5 2	- <u>-</u>	6	Column Si	- <u>-</u> 8	2 and a set	
· · · · · · · · · · · · · · · · · · ·							
		- A		6		8	
Detector Phases	5	2	6	. 6	8	8	
Detector Phases	5 4.0	2 12.0	6 12.0	6 12.0	8 4.0	8 4.0	
Detector Phases Minimum Initial (s) Minimum Split (s)	4.0 4.0	20.0	20.0	6 12.0 20.0	20.0	8 4.0 - 20.0	
Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s)	5 4.0 8.0 12.0	20.0 95.0	20.0 83.0	6 12.0 20.0 83.0	20.0 20.0	8 4.0 20.0 20.0	
Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (%)	5 4.0 8.0 12.0 10%	20.0 95.0 83%	20.0 83.0 72%	6 12.0 20.0 83.0 72%	20,0 20.0 17%	8 4.0 20.0 20.0 17%	
Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s)	5 4.0 8.0 12.0 10% 8.0	20.0 95.0 83% 89.0	20.0 83.0 72% 77.0	6 12.0 20:0 83.0 72% 77.0	20:0 20:0 17% 15:0		
Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s)	5 4.0 8.0 12.0 10% 8.0 35	20.0 95.0 83% 89.0 4.0	20.0 83.0 72% 77.0 4.0	6 12.0 20.0 83.0 72% 77.0 4.0	20.0 20.0 17% 15.0 3.5	8 4.0 - 20.0 20.0 17% 15.0 - 3.5	
Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s)	5 4.0 8.0 12.0 10% 8.0 3.5 0.5	20.0 95.0 83% 89.0 4.0 2.0	20.0 83.0 72% 77.0 4.0 2.0	6 12.0 20.0 83.0 72% 77.0 4.0 2.0	20:0 20:0 17% 15:0		
Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag	5 4.0 8.0 12.0 10% 8.0 35	20.0 95.0 83% 89.0 4.0 2.0	20.0 83.0 72% 77.0 4.0	6 12.0 20.0 83.0 72% 77.0 4.0	20.0 20.0 17% 15.0 3.5	8 4.0 - 20.0 20.0 17% 15.0 - 3.5	
Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize?	5 4.0 8.0 12.0 10% 8.0 35 0.5 4 Lead	20.0 95.0 83% 89.0 4.0 2.0	20:0 83.0 72% 77.0 4.0 2.0 Lag	6 12.0 20.0 83.0 72% 77.0 4.0 2.0 Lag	20.0 20.0 17% 15.0 3.5 1.5	8 4.0 20.0 20.0 17% 15.0 3.5 1.5	
Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s)	5 4.0 8.0 12.0 10% 8.0 3.5 0.5 1.cead	20 0 95.0 83% 89.0 4.0 2.0 3.0	20.0 83.0 72% 77.0 4.0 2.0 Lag	6 12.0 20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0	20:0 20:0 17% 15:0 3:5 1.5 3:0	8 4.0 20.0 20.0 17% 15.0 3.5 1.5 3.0	
Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode	5 4.0 8.0 12.0 10% 8.0 3.5 0.5 Lead 3.0 None	20 0 95.0 83% 89.0 4 0 2.0 3 0 Min	20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min	6 12.0 20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min	20:0 20:0 17% 15:0 3:5 1.5 3:0 None	8 4.0 20.0 20.0 17% 15.0 3.5 1.5 3.0 None	
Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Act Effct Green (s)	5 4.0 8.0 12.0 10% 8.0 3.5 0.5 Lead 3.0 None 73.5	20.0 95.0 83% 89.0 4.0 2.0 3.0 Min 65.9	20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 64.4	6 12.0 20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 64.4	20.0 20.0 17.% 15.0 3.5 1.5 3.0 None 12.1	8 4.0 20.0 17% 15.0 3.5 1.5 3.0 None 12.1	
Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Act Effcl Green (s) Actuated g/C Ratio	5 4.0 8.0 12.0 10% 8.0 3.5 0.5 Lead 3.0 None 73.5 0.72	20.0 95.0 83% 89.0 4.0 2.0 3.0 Min 65.9 0.76	20:0 83:0 72% 77:0 4:0 2:0 Lag 3:0 Min 64:4 0.74	6 12.0 20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 64.4 0.74	20.0 20.0 17.% 15.0 3.5 1.5 3.0 None 12.1 0.14	8 4.0 20.0 20.0 17% 15.0 3.5 1.5 3.0 None 12.1 0.14	
Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Act Effct Green (s) Actuated g/C Ratio V/c Ratio	5 4.0 8.0 12.0 10% 8.0 3.5 0.5 Lead 3.0 None 73.5 0.72 0.03	20.0 95.0 83% 89.0 4.0 2.0 4.0 2.0 4.0 2.0 4.0 5.9 0.76 0.80	20:0 83:0 72% 77:0 4:0 2:0 Lag 3:0 Min 64:4 0.74 0:60	6 12.0 20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 64.4 0.74 0.04	20.0 20.0 17% 15.0 3.5 1.5 3.0 None 12.1 0.14 0.52	8 4.0 20.0 20.0 17% 15.0 3.5 1.5 3.0 None 12.1 0.14 0.13	
Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Act Effct Green (s) Actuated g/C Ratio V/c Ratio Uniform Delay, d1	5 4.0 8.0 12.0 10% 8.0 35 0.5 4 Lead 3.0 None 73.5 0.72 0.03 2.3	20.0 95.0 83% 89.0 4.0 2.0 3.0 Min 65.9 0.76 0.80 5.8	20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 64.4 0.74 0.60 6.2	6 12.0 20.0 83.0 72% 77.0 4.0 2.0 Lag 3:0 Min 64.4 0.74 0.04 0.0	20.0 20.0 17% 15.0 3.5 1.5 3.0 None 12.1 0.14 0.52 36.0	8 4.0 20.0 20.0 17% 15.0 3.5 1.5 3.0 None 12.1 0.14 0.13 0.0	
Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Act Effcl Green (s) Actuated g/C Ratio V/c Ratio Uniform Delay, d1 Delay	5 4.0 8.0 12.0 10% 8.0 3.5 0.5 Lead 3.0 None 73.5 0.72 0.03 2.3 3.7	20.0 95.0 83% 89.0 4.0 2.0 3.0 Min 65.9 0.76 0.80 5.8 7.0	20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 64.4 0.74 0.60 6.2 6.0	6 12.0 20.0 83.0 72% 77.0 4.0 2.0 1.ag 3.0 Min 64.4 0.74 0.04 0.0 1.4	20.0 20.0 17% 15.0 3.5 1.5 3.0 None 12.1 0.14 0.52 36.0 34.3	8 4.0 20.0 20.0 17% 15.0 3.5 1.5 3.0 None 12.1 0.14 0.13 0.0 44.3	
Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Act Effcl Green (s) Actuated g/C Ratio V/c Ratio Uniform Delay, d1 Delay LOS	5 4.0 8.0 12.0 10% 8.0 3.5 0.5 Lead 3.0 None 73.5 0.72 0.03 2.3 3.7 A	20 0 95.0 83% 89.0 4 0 2.0 3.0 Min 65.9 0.76 0.80 5.8 7.0 A	20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 64.4 0.74 0.60 6.2 6.0 A	6 12.0 20.0 83.0 72% 77.0 4.0 2.0 Lag 3:0 Min 64.4 0.74 0.04 0.0	20.0 20.0 17.% 15.0 3.5 1.5 3.0 None 12.1 0.14 0.52 36.0 34.3 C	8 4.0 20.0 20.0 17% 15.0 3.5 1.5 3.0 None 12.1 0.14 0.13 0.0 44.3 B	
Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Act Effct Green (s) Actuated g/C Ratio V/c Ratio Uniform Delay, d1 Delay LOS Approach Delay	5 4.0 8.0 12.0 10% 8.0 3.5 0.5 Lead 3.0 None 73.5 0.72 0.03 2.3 3.7	20.0 95.0 83% 89.0 40 2.0 3.0 Min 65 9 0.76 0.80 5.8 7.0 A 7.0	20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 64.4 0.74 0.60 6.2 6.0 A 5.8	6 12.0 20.0 83.0 72% 77.0 4.0 2.0 1.ag 3.0 Min 64.4 0.74 0.04 0.0 1.4	20.0 20.0 17.% 15.0 3.5 1.5 3.0 None 12.1 0.14 0.52 36.0 34.3 C 30.3	8 4.0 20.0 20.0 17% 15.0 3.5 1.5 3.0 None 12.1 0.14 0.13 0.0 44.3	
Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Act Effct Green (s) Actuated g/C Ratio V/c Ratio Uniform Delay, d1 Delay LOS Approach Delay Approach Delay	5 4.0 8.0 12.0 10% 8.0 3.5 0.5 Lead 3.0 None 73.5 0.72 0.03 2.3 3.7 A	20.0 95.0 83% 89.0 40 2.0 3.0 Min 65.9 0.76 0.80 5.8 7.0 A 7.0 A	20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 64.4 0.74 0.60 6.2 6.0 A 5.8 A	6 12.0 20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 64.4 0.74 0.04 0.0 1.4 A	20:0 20:0 17:% 15:0 3:5 1:5 3:0 None 12:1 0.14 0.52 36:0 34:3 C 30:3 C	8 4.0 20.0 20.0 17% 15.0 3.5 1.5 3.0 None 12.1 0.14 0.13 0.0 44.3 B	
Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead/Lag Lead/Lag Lead/Lag Detector Split (%) All-Red Time (s) All-Red Time (s) Lead/Lag Lead/Lag Lead/Lag Detector Split (%) Actuated g/C Ratio V/c Ratio Uniform Delay, d1 Delay LOS Approach Delay Approach LOS 90th %Ile Green (s)	5 4.0 8.0 12.0 10% 8.0 35 0.5 4 Lead 3.0 None 735 0.72 0.03 2.3 3.7 A	20.0 95.0 83% 89.0 4.0 2.0 3.0 Min 65.9 0.76 0.80 5.8 7.0 A 7.0 A 7.0 A 89.0	20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 64.4 0.74 0.60 6.2 6.0 6.2 6.0 A 5.8 A 79.1	6 12.0 20.0 83.0 72% 77.0 4.0 2.0 Lag 3:0 Min 64.4 0.74 0.04 0.0 1.4 A 79.1	20.0 20.0 17% 15.0 3.5 1.5 3.0 None 12.1 0.14 0.52 36.0 34.3 C 30.3 C 30.3 C 15.0	8 4.0 20.0 17% 15.0 3.5 1.5 3.0 None 12.1 0.14 0.13 0.0 44.3 B 15.0	
Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Act Effct Green (s) Actuated g/C Ratio V/c Ratio Uniform Delay, d1 Delay LOS Approach Delay Approach Delay Approach LOS 90th %ile Green (s) 90th %ile Term Code	5 4.0 8.0 12.0 10% 8.0 35 0.5 Lead 3.0 None 73.5 0.72 0.03 2.3 3.7 A 5.9 Gap	20.0 95.0 83% 89.0 4.0 2.0 	20:0 83:0 72% 77:0 4:0 2.0 Lag 3:0 Min 64:4 0:60 6:2 6:0 6:2 6:0 6:2 6:0 A 5:8 A 79:1 Hold	6 12.0 20.0 83.0 72% 77.0 4.0 2.0 Lag 3:0 Min 64.4 0.74 0.04 0.0 1.4 A 79.1 Hold	20.0 20.0 17% 15.0 3.5 1.5 3.0 None 12.1 0.14 0.52 36.0 34.3 C 30.3 C 30.3 C 15.0 Max	8 4.0 20.0 20.0 17% 15.0 3.5 1.5 3.0 None 12.1 0.14 0.13 0.0 14.3 B 15.0 Max	
Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Act Effct Green (s) Actuated g/C Ratio V/c Ratio Uniform Delay, d1 Delay LOS Approach Delay Approach LOS 90th %ile Green (s)	5 4.0 8.0 12.0 10% 8.0 35 0.5 4 Lead 3.0 None 735 0.72 0.03 2.3 3.7 A	20.0 95.0 83% 89.0 4.0 2.0 3.0 Min 65.9 0.76 0.80 5.8 7.0 A 7.0 A 7.0 A 89.0	20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 64.4 0.74 0.60 6.2 6.0 6.2 6.0 A 5.8 A 79.1	6 12.0 20.0 83.0 72% 77.0 4.0 2.0 Lag 3:0 Min 64.4 0.74 0.04 0.0 1.4 A 79.1	20.0 20.0 17% 15.0 3.5 1.5 3.0 None 12.1 0.14 0.52 36.0 34.3 C 30.3 C 30.3 C 15.0 Max	8 4.0 20.0 17% 15.0 3.5 1.5 3.0 None 12.1 0.14 0.13 0.0 44.3 B 15.0	

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### Traffic Impact Study 1: Edwards Lake Road & Turncliff Pkwy.

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sane Group and Address and		20 <b>2</b> 398	WEN	VARR	e se le	SBR	
50th %ile Green (s)	0.0	46.4	46.4	46.4	10.2	10.2	
50th %ile Term Code	Skip	Gap	Hold	Hold	Gap	Gap	
30th %ile Green (s)		41.2		San Andrews and a second second second	8.2	1 8.2	
30th %ile Term Code	Skip	Dwell	Dwell	Dwell	Gap	Gap	
10th %ile Green (s)				78.7	7.1	~ 7.1	以此的基础是不完成的 建全性 网络常常 化对应量化和
10th %ile Term Code	Skip	Dwell	Dwell	Dwell	Gap	Gap	
Stops (vph)		-598	325	5	402	9	
Fuel Used(gal)	0	13	8	0	2	0	
CO Emmisions (g/hr)	6	908	570	. 21	140	- 22-	
NOx Emmisions (g/hr)	1	177	111	4	27	4	
VOC Emmisions (g/hr)	1	. 210	A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A	5	32	5	
Dilemma Vehicles (#)	0	63	46	0	0	Ö	
Queue Length 50th (ft)		and the second second second second second second second second second second second second second second second	Carlo a freedor	. 0	49		
Queue Length 95th (ft)	4	548	403	7	155	29	and the second second second second second second second second second second second second second second second
Internal Link Dist (ft)		- ,842-	790		688		
50th Up Block Time (%)			and the second second			MGR (1) or Stimment's superioris to super-	
95th Up Block Time (%) Turn Bay Length (ft)	12.02						
50th Bay Block Time %		ations and the second				Maniamalian area see, soo sii	
95th Bay Block Time %					-		
Queuing Penalty (ven)			NO TRADIT NO. OF COMPANY		for and the second		
			A 14 A	330 a 10		Note Safe 12	
Intersection Summary							
Area Type: Ot	her 👘						
Cycle Length: 115		**************************************	arttoin käätye Sija				
Actuated Cycle Length: 8	6.5 🛸				- <b>54</b>		
Natural Cycle: 75			-for an experimental second second second second second second second second second second second second second	nar marka siyaka karana 19 Ba	1888277719869 <del>992712</del> 712793(1171429)3	an in the second second second second second second second second second second second second second second se	
Control Type: Actuated-U	ncoorc	linated					
Maximum v/c Ratio: 0.80			an a chuir a comhainn an				
Intersection Signal Delay				🔄 🔡 İn	tersectio	n LOS	A
Intersection Capacity Utili				IC	U Level	of Serv	vice C
90th %ile Actuated Cycle	115	a de transferantes est				Sector Bay	
70th %ile Actuated Cycle		and the state of the state of the state of the state of the state of the state of the state of the state of the	History and the second	117200000000000000000000000000000000000			
50th %ile Actuated Cycle	67.6	14. J. S.o.	i this datas		9779 (d. 19	1. * £.*	
30th %ile Actuated Cycle	: 60.4						

10th %lie Actuated Cycle: 96.8

1: Edwards Lake Road & Turncliff Pkwy. Splits and Phases:



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ane Group In the	<b>EBE</b>	51	<b>WET</b>	WBR	85	( <b>4</b> ] 0) #27	
Lane Configurations	ሻ	<b>^</b>	*	7	ች	7	
Ideal Flow (vphpl)	. 1900	1900	1900	1900			
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Leading Detector (ft)-	50	50	50	50			
Trailing Detector (ft)	0	0	0	0	0	0	
Turning Speed (mph)	15	1983.		9	15	<u> </u>	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	27-11-12-12-12-12-12-12-12-12-12-12-12-12-
Fits of a second			- Second	0.850		0.850	
Flt Protected	0.950	anner (1997) - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997	uning supplying and	and a state of the second second second second second second second second second second second second second s	0.950		
Satd_Flow (prot)	1770	1863	1863	1583	1770	1583	
Flt Permitted	0.048	A T CONTRACTOR OF THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER OF T		A REAL PROPERTY OF A REAL PROPER	0.950	nananan kari songan karalan di dalam	
Satd Flow (perm)	89	1863	1863	1583	1770	1583	
Right Turn on Red				Yes		Yes	
Satd: Flow (RTOR)				92		72	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Link Speed (mph)		35	35		- 25		
Link Distance (ft)	SERVICE STATUTE AND ADDRESS OF ADDRESS OF	922	870		768		
Travel Time (s)		- 18.0	16.9		20.9	198 F 2 - 19	
Volume (vph)	61	977	1257	105	32	66	
Reak Hour Factor	0.92	0.92	0,92	0.92	0.92	0.92	
Adj. Flow (vph)	66	1062	1366	114	35	72	nennennennen zum wennennen zur eine einen konnen von werden der eine beste der der Aufsten der Aufsten ander eine Aufsten ander eine Aufsten ander eine Aufsten ander eine Aufsten ander eine Aufsten ander eine Aufsten ander eine Aufsten ander eine Aufsten A
Lane Group Flow (vph	an and the second second states and because the	1062	1366	114	. 35	7.72	
Turn Type Protected Phases	pm+pt	at we are an a set of the		Perm	Constitution and provide a second	Perm	
Permitted Phases	5	- 2:	6	- K.	8		
Detector Phases	2		CART THE REAL PROPERTY OF	6	Consideration of the second second	8	
Minimum Initial (s)	Mar 20 Martin - Solare Art and a second	400	6	6	8	8	的是你当然你听说你们的事实。""你们不是你的事实。" 第二章
Minimum Solit (3)	4.0	12.0	12.0	12.0	4.0	4.0	
Minimum Split (s)	. 8.0	20.0	.20.0	. 20.0	20.0	20.0	
Minimum Split (s) Total Split (s)	8.0 12.0	20.0 95.0	20.0 83.0	20.0 83.0	20.0 20.0	20:0 20.0	
Minimum Split (s) Total Split (s) Total Split (%)	8.0 12.0 10%	20.0 95.0 83%	20.0 83.0 72%	20.0 83.0 72%	20.0 20.0 17%	20:0 20.0 17%	
Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s)	8.0 12.0 10% 8.0	20.0 95.0 83% 89.0	20.0 83.0 72% 77.0	20.0 83.0 72% 77.0	20.0 20.0 17% 15.0	20:0 20.0 17% 5 15.0	
Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s)	8.0 12.0 10% 8.0 3.5	20.0 95.0 83% 89.0 4.0	20.0 83.0 72% 77.0 4.0	20:0 83.0 72% 77.0 4.0	20.0 20.0 17% 15.0 3.5	20.0 20.0 17% 15.0 3.5	
Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s)	8.0 12.0 10% 8.0 315 0.5	20.0 95.0 83% 89.0	20.0 83.0 72% 77.0 4.0 2.0	20.0 83.0 72% 77.0 4.0 2.0	20.0 20.0 17% 15.0	20:0 20.0 17% 5 15.0	
Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag	8.0 12.0 10% 8.0 3.5	20.0 95.0 83% 89.0 4.0	20.0 83.0 72% 77.0 4.0	20.0 83.0 72% 77.0 4.0 2.0	20.0 20.0 17% 15.0 3.5	20.0 20.0 17% 15.0 3.5	
Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize?	8.0 12.0 10% 8.0 3.5 0.5 Lead	20.0 95.0 83% 89.0 4.0 2.0	20.0 83.0 72% 77.0 4.0 2.0 Lag	20.0 83.0 72% 77.0 4.0 2.0 Lag	20.0 20.0 17% 15.0 3.5	20.0 20.0 17% 15.0 3.5	
Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s)	8.0 12.0 10% 8.0 3.5 0.5 Lead	20.0 95.0 83% 89.0 4.0 2.0 3.0	20.0 83.0 72% 77.0 4.0 2.0 Lag	20.0 83.0 72% 77.0 4.0 2.0 Lag	20.0 20.0 17% 15.0 3.5 1.5 3.0	20.0 20.0 17% 15.0 35 1.5 3.0	
Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode	8.0 12.0 10% 8.0 3.5 0.5 Lead 3.0 None	20.0 95.0 83% 89.0 4.0 2.0 3.0 Min	20.0 83.0 72% 77.0 4.0 2.0 Lag S.0 Min	20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min	20.0 20.0 17% 15.0 3.5 1.5 3.0 None	20.0 20.0 17% 15.0 35 1.5 3.0 None	
Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Act Effect Green (s)	8.0 12.0 10% 8.0 3.5 0.5 Lead 3.0 None 97.5	20.0 95.0 83% 89.0 4.0 2.0 3.0 Min 96.4	20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 86.7	20.0 83.0 72% 77.0 4.0 2.0 Lag Min 86.7	20.0 20.0 17% 15.0 3.5 1.5 3.0 None 8.8	20 0 20.0 17% 15.0 315 1.5 3.0 None 8.8	
Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode	8.0 12.0 10% 8.0 3.5 0.5 Lead 3.0 None 97.5 0.85	20.0 95.0 83% 89.0 4.0 2.0 3.0 Min 96.4 0.87	20.0 83.0 72% 77.0 4.0 2.0 1.ag 5.0 Min 86.7 0.79	20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 86.7 0.79	20.0 20.0 17% 15.0 3.5 1.5 3.0 None 8.8 0.08	20 0 20.0 17% 15.0 335 1.5 3.0 None 8.8 0.08	
Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Act Effct Green (s) Actuated g/C Ratio V/c Ratio	8.0 12.0 10% 8.0 3.5 0.5 Lead 3.0 None 97.5 0.85 0.35	20.0 95.0 83% 89.0 4.0 2.0 3.0 Min 96.4 0.87 0.65	20.0 83.0 72% 77.0 4.0 2.0 Lag 5.0 Min 86.7 0.79 0.93	20 0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 86.7 0.79 0.09	20.0 20.0 17% 15.0 3.5 1.5 3.0 None 8.8 0.08 0.25	20 0 20.0 17% 15.0 35 1.5 30 None 8.8 0.08 0.38	
Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Act Effct Green (s) Actuated g/C Ratio	8.0 12.0 10% 8.0 315 0.5 Lead 3.0 None 97.5 0.85 0.35 1.1	20.0 95.0 83% 89.0 4.0 2.0 3.0 3.0 Min 96.4 0.87 0.65 2.6	20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 86.7 0.79 0.93 11.4	20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 86.7 0.79 0.09 0.6	20.0 20.0 17% 15.0 3.5 1.5 3.0 None 8.8 0.08 0.25 49.6	20 0 20.0 17% 15.0 35 1.5 30 None 8.8 0.08 0.08 0.08	
Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Act Effct Green (s) Actuated g/C Ratio V/c Ratio Uniform Delay, d1	8.0 12.0 10% 8.0 3.5 0.5 Lead 3.0 None 97.5 0.85 0.35 1.1 7.0	20.0 95.0 83% 89.0 4.0 2.0 3.0 Min 96.4 0.87 0.65 2.6 3.2	20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 86.7 0.79 0.93 11.4 32.5	20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 86.7 0.79 0.09 0.6 1.4	20.0 20.0 17% 15.0 3.5 1.5 3.0 None 8.8 0.08 0.25 49.6 46.4	20 0 20.0 17% 15.0 3 5 1.5 3 0 None 8 8 0.08 0.38 0.0 11.1	
Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Act Effect Green (s) Actuated g/C Ratio V/c Ratio Uniform Delay, d1 Delay	8.0 12.0 10% 8.0 315 0.5 Lead 3.0 None 97.5 0.85 0.35 1.1	20.0 95.0 83% 89.0 4.0 2.0 3.0 Min 96.4 0.87 0.65 2.6 3.2 A	20.0 83.0 72% 77.0 4.0 2.0 Lag S.0 Min 86.7 0.79 0.93 11.4 32.5 C	20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 86.7 0.79 0.09 0.6	20.0 20.0 17% 15.0 3.5 1.5 3.0 None 8.8 0.08 0.25 49.6 46.4 D	20.0 20.0 17% 15.0 355 1.5 3.0 None 8.8 0.08 0.08 0.38 0.0	
Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lead/Lag Lead-Lag Optimize? Vehicle Extension (s) Recall Mode Act Effet Green (s) Actuated g/C Ratio V/c Ratio Uniform Delay, d1 Delay LOS	8.0 12.0 10% 8.0 3.5 0.5 Lead 3.0 None 97.5 0.85 0.35 1.1 7.0 A	20.0 95.0 83% 89.0 4 0 2.0 3.0 Min 96.4 0.87 0.65 2.6 3.2 A 3.4	20.0 83.0 72% 77.0 4.0 2.0 1.ag 3.0 Min 86.7 0.79 0.93 11.4 32.5 C 30.1	20.0 83.0 72% 77.0 4.0 2.0 Lag 3.0 Min 86.7 0.79 0.09 0.6 1.4	20.0 20.0 17% 15.0 3.5 1.5 3.0 None 8.8 0.08 0.25 49.6 46.4 D 22.7	20 0 20.0 17% 15.0 3 5 1.5 3 0 None 8 8 0.08 0.38 0.0 11.1	
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Traffic Impact Study 1: Edwards Lake Road & Turncliff Pkwy.

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Lane Groups is appress			AWBT	NE WAR		NOT N					
50th %ile Green (s)	8.0	89.0	77.0	~ 77.0-	7.5	7.5		Sand and a	A CONTRACT		
50th %ile Term Code	Max	Hold	Max	Max	Gap	Gap					
30th %ile Green (s)	7.2	88.2	77.0		6.4	6.4				6 <b>2 2 5</b> 6 5 6 7	
30th %ile Term Code	Gap	Hold	Max	Max	Gap	Gap			1999 (M. 1998)		
10th %ile Green (s)	0.0	114.0	114.0			0.0	(Lasters)				
10th %ile Term Code		Dwell	Dwell	Dwell	Skip	Skip			areal of the set		
Stops (vph)	× 15		1041	12	30	15			1.3 (36)		
Fuel Used(gal)	1	9	24	1	1	1					
CO Emmisions (g/hr)	42	1.000	1681	54	44	45				- 1. S. 1997	
NOx Emmisions (g/hr)	8	127	327	11	9	9		***********	neoscological de la factoria de la factoria de la factoria de la factoria de la factoria de la factoria de la f		
VOC Emmisions (g/hr)	10	A	389		10`r	10		en til orall			
Dilemma Vehicles (#)	0	38	45	0	0	0		ana ana ana ana ana ang ang ang ang ang			
Queue Length 50th (ft)	200 Aug - 10 - 20 - 20 - 20 - 20 - 20 - 20 - 20	And it was a state	802	3	23 -	0.					
Queue Length 95th (ft) Internal Link Dist (ft)	37		#1290	15	56	44					and a street the street street.
50th Up Block Time (%)		842.	790		688						
95th Up Block Time (%)			6%		Toron diama and agencic torona and					A NAME AND A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION	- Participation Contraction Pro-
Turn Bay Length (ft)		1997 (S. 1997)		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1							
50th Bay Block Time %	n an an an an				·	Natural Contractory of the Second	With a state of the second second			and a second second second second second second second second second second second second second second second	2016-00-000-00-00-00-00-00-00-00-00-00-00-0
95th Bay Block Time %					2 (1) 2						
Queuing Penalty (veh)					listas teineres		a transmission	Nontration of the locase methods are a re-			
			NAPA JA					10 A.			
intersection Summary of											A CONTRACTOR
Area Type: O	her 🚽					State of the state	6 - Sec.				
Cycle Length: 115	(19)Y 24 January 1997 1997			an an ann a staidhean stàin ligher, sa a suit					1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -		in statistic
Actuated Cycle Length: 1	10.4						P. 10			CARLES	
Natural Cycle: 120	CONSIDER X& KING C MARKAN	i Milli alari kalog mutukanan su				anna merikanganak sina yangan 194	Andrew Constant Strengt of Strengt of Strengt of Strengt of Strengt of Strengt of Strengt of Strengt of Strengt				
Control Type: Actuated-U	ncoord	inated	ê Arba	$\sim 100$	1						
Maximum v/c Ratio: 0.93	100000014	SSENDARD MALLING	tana infiliani dall'Informazione	n dila managemente ave			And a construction of the second		and a state of the		
ntersection Signal Delay	218.7			, Int	ersectic	n LOS: I	3 . J . J	i eneret			
Intersection Capacity Util 90th %ile Actuated Cycle	ization a	38.9%		IC	U Level	of Servio	ce D	The second second second second second second second second second second second second second second second s			
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50th %ile Actuated Cycle 80th %ile Actuated Cycle	107.5	بالم معرفة		NA READE	16 C					164 T = 14	A Contractor
10th %ile Actuated Cycle	105.6										
95th percentile volume		de com		1. 1. T	2 A						A CONTRACTOR
<ul> <li>95th percentile volum</li> <li>Queue shown is maxir</li> </ul>	e excee num an	us capa	acity, qu	ieue ma	y be lon	ger.					
	uuntall		ycies		1.4	2					
Splits and Phases: 1: E	dwards	Lake F	Soad & "	Turncliff	Phane						
<u>Å</u>					r kwy.			·		т	
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